

# HOUSE BILL 1007

C5, M5

1r1460  
CF SB 810

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By: **Delegate Charkoudian**

Introduced and read first time: February 5, 2021

Assigned to: Economic Matters

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Committee Report: Favorable with amendments

House action: Adopted

Read second time: March 9, 2021

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## CHAPTER \_\_\_\_\_

1 AN ACT concerning

2 **Renewable Energy Portfolio Standard and Geothermal Heating and Cooling**  
3 **Systems**

4 FOR the purpose of altering the renewable energy portfolio standard in certain years to  
5 require a certain percentage of energy from Tier 1 renewable sources each year to be  
6 derived from certain geothermal heating and cooling systems; requiring a certain  
7 percentage of energy required to be derived from certain geothermal heating and  
8 cooling systems to be from systems installed on certain property; clarifying that  
9 energy from certain geothermal heating and cooling systems is eligible for inclusion  
10 in meeting the renewable energy portfolio standard; altering the methods by which  
11 the Public Service Commission shall determine certain energy savings; specifying  
12 that certain geothermal heating and cooling systems are eligible for inclusion in  
13 meeting the renewable energy portfolio standard if the company installing the  
14 system meets certain requirements; ~~requiring the Public Service Commission to~~  
15 ~~adopt certain regulations~~; providing for regulation and enforcement of certain  
16 requirements by the Department of Labor; clarifying who is eligible to receive certain  
17 renewable energy credits under certain circumstances; requiring certain electricity  
18 suppliers to pay certain compliance fees into the Maryland Strategic Energy  
19 Investment Fund under certain circumstances; requiring certain money in the Fund  
20 to be used only in a certain manner; ~~requiring the Commission to report to the~~  
21 ~~General Assembly on or before certain dates on the status of the implementation of~~  
22 ~~geothermal heating and cooling systems in the State~~; requiring the Maryland Energy  
23 Administration to conduct a certain study on geothermal heating and cooling  
24 systems; providing for the content of the study; authorizing the Administration to  
25 contract with a third party to conduct the study; requiring the Administration to

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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.



1 submit the results of the study to the Geothermal Energy Workgroup on or before a  
 2 certain date; establishing the Workgroup; providing for the composition, chair, and  
 3 staffing of the Workgroup; prohibiting a member of the Workgroup from receiving  
 4 certain compensation, but authorizing the reimbursement of certain expenses;  
 5 requiring the Workgroup to study and make recommendations regarding certain  
 6 matters; requiring the Administration, in consultation with the Workgroup, to  
 7 develop recommendations for a certain incentive structure; requiring the Director of  
 8 the Administration, or the Director's designee, to report certain results, findings, and  
 9 recommendations to the General Assembly on or before a certain date; providing that  
 10 existing obligations or contract rights may not be impaired by this Act; defining  
 11 certain terms; and generally relating to the renewable energy portfolio standard and  
 12 geothermal heating and cooling systems.

13 BY repealing and reenacting, without amendments,

14 Article – Public Utilities

15 Section 7–701(a) through (c) and (s)

16 Annotated Code of Maryland

17 (2020 Replacement Volume and 2020 Supplement)

18 BY repealing and reenacting, with amendments,

19 Article – Public Utilities

20 Section 7–701(d), 7–703(b), 7–704(h), ~~7–705(b)~~, and ~~7–712~~ and 7–705(b)

21 Annotated Code of Maryland

22 (2020 Replacement Volume and 2020 Supplement)

23 BY adding to

24 Article – Public Utilities

25 Section 7–701(e–1) and (i–1), 7–703(f), and 7–705(b–1)

26 Annotated Code of Maryland

27 (2020 Replacement Volume and 2020 Supplement)

28 BY repealing and reenacting, without amendments,

29 Article – State Government

30 Section 9–20B–05(a) and (b)

31 Annotated Code of Maryland

32 (2014 Replacement Volume and 2020 Supplement)

33 BY adding to

34 Article – State Government

35 Section 9–20B–05(i–1)

36 Annotated Code of Maryland

37 (2014 Replacement Volume and 2020 Supplement)

38 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND,

39 That the Laws of Maryland read as follows:

40 **Article – Public Utilities**

1 7-701.

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

3 (b) “Administration” means the Maryland Energy Administration.

4 (c) “Fund” means the Maryland Strategic Energy Investment Fund established  
5 under § 9-20B-05 of the State Government Article.

6 (d) “Geothermal heating and cooling system” means a system that:

7 (1) exchanges thermal energy from groundwater or a shallow ground  
8 source to generate thermal energy through a geothermal heat pump or a system of  
9 geothermal heat pumps interconnected with any geothermal extraction facility that is:

10 (i) a closed loop or a series of closed loop systems in which fluid is  
11 permanently confined within a pipe or tubing and does not come in contact with the outside  
12 environment; or

13 (ii) an open loop system in which ground or surface water is  
14 circulated in an environmentally safe manner directly into the facility and returned to the  
15 same aquifer or surface water source;

16 (2) meets or exceeds the current federal Energy Star product specification  
17 standards;

18 (3) [replaces or displaces inefficient space or water heating systems whose  
19 primary fuel is electricity or a nonnatural gas fuel source;

20 (4) replaces or displaces inefficient space cooling systems that do not meet  
21 federal Energy Star product specification standards;

22 (5)] is manufactured, installed, and operated in accordance with applicable  
23 government and industry standards; and

24 [(6)] (4) does not feed electricity back to the grid.

25 **(E-1) “LEGACY GEOTHERMAL SYSTEM” MEANS A GEOTHERMAL HEATING AND**  
26 **COOLING SYSTEM THAT WAS PLACED IN SERVICE ON OR BEFORE DECEMBER 31,**  
27 **2021.**

28 **(I-1) “POST-2021 GEOTHERMAL SYSTEM” MEANS A GEOTHERMAL HEATING**  
29 **AND COOLING SYSTEM THAT IS PLACED IN SERVICE ON OR AFTER ~~JANUARY~~ JULY 1,**  
30 **2022.**

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

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

5 (2) wind;

6 (3) qualifying biomass;

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

9 (5) geothermal, including energy generated through geothermal exchange  
10 from or thermal energy avoided by, groundwater or a shallow ground source;

11 (6) ocean, including energy from waves, tides, currents, and thermal  
12 differences;

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

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

17 (9) poultry litter-to-energy;

18 (10) waste-to-energy;

19 (11) refuse-derived fuel; and

20 (12) thermal energy from a thermal biomass system.

21 7-703.

22 (b) Except as provided in [subsection (e)] **SUBSECTIONS (E) AND (F)** of this  
23 section, the renewable energy portfolio standard shall be as follows:

24 (1) in 2006, 1% from Tier 1 renewable sources and 2.5% from Tier 2  
25 renewable sources;

26 (2) in 2007, 1% from Tier 1 renewable sources and 2.5% from Tier 2  
27 renewable sources;

28 (3) in 2008, 2.005% from Tier 1 renewable sources, including at least  
29 0.005% derived from solar energy, and 2.5% from Tier 2 renewable sources;

1 (4) in 2009, 2.01% from Tier 1 renewable sources, including at least 0.01%  
2 derived from solar energy, and 2.5% from Tier 2 renewable sources;

3 (5) in 2010, 3.025% from Tier 1 renewable sources, including at least  
4 0.025% derived from solar energy, and 2.5% from Tier 2 renewable sources;

5 (6) in 2011, 5.0% from Tier 1 renewable sources, including at least 0.05%  
6 derived from solar energy, and 2.5% from Tier 2 renewable sources;

7 (7) in 2012, 6.5% from Tier 1 renewable sources, including at least 0.1%  
8 derived from solar energy, and 2.5% from Tier 2 renewable sources;

9 (8) in 2013, 8.2% from Tier 1 renewable sources, including at least 0.25%  
10 derived from solar energy, and 2.5% from Tier 2 renewable sources;

11 (9) in 2014, 10.3% from Tier 1 renewable sources, including at least 0.35%  
12 derived from solar energy, and 2.5% from Tier 2 renewable sources;

13 (10) in 2015, 10.5% from Tier 1 renewable sources, including at least 0.5%  
14 derived from solar energy, and 2.5% from Tier 2 renewable sources;

15 (11) in 2016, 12.7% from Tier 1 renewable sources, including at least 0.7%  
16 derived from solar energy, and 2.5% from Tier 2 renewable sources;

17 (12) in 2017:

18 (i) 13.1% from Tier 1 renewable sources, including:

19 1. at least 1.15% derived from solar energy; and

20 2. an amount set by the Commission under § 7-704.2(a) of  
21 this subtitle, not to exceed 2.5%, derived from offshore wind energy; and

22 (ii) 2.5% from Tier 2 renewable sources;

23 (13) in 2018:

24 (i) 15.8% from Tier 1 renewable sources, including:

25 1. at least 1.5% derived from solar energy; and

26 2. an amount set by the Commission under § 7-704.2(a) of  
27 this subtitle, not to exceed 2.5%, derived from offshore wind energy; and

28 (ii) 2.5% from Tier 2 renewable sources;

29 (14) in 2019:

- 1 (i) 20.7% from Tier 1 renewable sources, including:  
 2 1. at least 5.5% derived from solar energy; and  
 3 2. an amount set by the Commission under § 7–704.2(a) of  
 4 this subtitle, not to exceed 2.5%, derived from offshore wind energy; and

5 (ii) 2.5% from Tier 2 renewable sources;

6 (15) in 2020:

7 (i) 28% from Tier 1 renewable sources, including:

8 1. at least 6% derived from solar energy; and

9 2. an amount set by the Commission under § 7–704.2(a) of  
 10 this subtitle, not to exceed 2.5%, derived from offshore wind energy; and

11 (ii) 2.5% from Tier 2 renewable sources;

12 (16) in 2021, 30.8% from Tier 1 renewable sources, including:

13 (i) at least 7.5% derived from solar energy; and

14 (ii) an amount set by the Commission under § 7–704.2(a) of this  
 15 subtitle derived from offshore wind energy;

16 (17) in 2022, 33.1% from Tier 1 renewable sources, including:

17 (i) at least 8.5% derived from solar energy; [and]

18 (ii) an amount set by the Commission under § 7–704.2(a) of this  
 19 subtitle derived from offshore wind energy; AND

20 (III) AT LEAST ~~0.15%~~ 0.05% DERIVED FROM POST–2021  
 21 GEOTHERMAL SYSTEMS;

22 (18) in 2023, 35.4% from Tier 1 renewable sources, including:

23 (i) at least 9.5% derived from solar energy; [and]

24 (ii) an amount set by the Commission under § 7–704.2(a) of this  
 25 subtitle derived from offshore wind energy; AND

1 (III) AT LEAST ~~0.25%~~ 0.15% DERIVED FROM POST-2021  
2 GEOTHERMAL SYSTEMS;

3 (19) in 2024, 37.7% from Tier 1 renewable sources, including:

4 (i) at least 10.5% derived from solar energy; [and]

5 (ii) an amount set by the Commission under § 7-704.2(a) of this  
6 subtitle derived from offshore wind energy; AND

7 (III) AT LEAST ~~0.50%~~ 0.25% DERIVED FROM POST-2021  
8 GEOTHERMAL SYSTEMS;

9 (20) in 2025, 40% from Tier 1 renewable sources, including:

10 (i) at least 11.5% derived from solar energy; [and]

11 (ii) an amount set by the Commission under § 7-704.2(a) of this  
12 subtitle, not to exceed 10%, derived from offshore wind energy; AND

13 (III) AT LEAST ~~0.75%~~ 0.5% DERIVED FROM POST-2021  
14 GEOTHERMAL SYSTEMS;

15 (21) in 2026, 42.5% from Tier 1 renewable sources, including:

16 (i) at least 12.5% derived from solar energy; [and]

17 (ii) an amount set by the Commission under § 7-704.2(a) of this  
18 subtitle derived from offshore wind energy, including at least 400 megawatts of Round 2  
19 offshore wind projects; AND

20 (III) AT LEAST ~~1%~~ 0.75% DERIVED FROM POST-2021  
21 GEOTHERMAL SYSTEMS;

22 (22) in 2027, 45.5% from Tier 1 renewable sources, including:

23 (i) at least 13.5% derived from solar energy; [and]

24 (ii) an amount set by the Commission under § 7-704.2(a) of this  
25 subtitle derived from offshore wind energy, including at least 400 megawatts of Round 2  
26 offshore wind projects; AND

27 (III) AT LEAST 1% DERIVED FROM POST-2021 GEOTHERMAL  
28 SYSTEMS;

1 (23) in 2028, 47.5% from Tier 1 renewable sources, including:

2 (i) at least 14.5% derived from solar energy; [and]

3 (ii) an amount set by the Commission under § 7-704.2(a) of this  
4 subtitle derived from offshore wind energy, including at least 800 megawatts of Round 2  
5 offshore wind projects; AND

6 (III) AT LEAST 1% DERIVED FROM POST-2021 GEOTHERMAL  
7 SYSTEMS;

8 (24) in 2029, 49.5% from Tier 1 renewable sources, including:

9 (i) at least 14.5% derived from solar energy; [and]

10 (ii) an amount set by the Commission under § 7-704.2(a) of this  
11 subtitle derived from offshore wind energy, including at least 800 megawatts of Round 2  
12 offshore wind projects; and

13 (III) AT LEAST 1% DERIVED FROM POST-2021 GEOTHERMAL  
14 SYSTEMS; AND

15 (25) in 2030 and later, 50% from Tier 1 renewable sources, including:

16 (i) at least 14.5% derived from solar energy; [and]

17 (ii) an amount set by the Commission under § 7-704.2(a) of this  
18 subtitle derived from offshore wind energy, including at least 1,200 megawatts of Round 2  
19 offshore wind projects; AND

20 (III) AT LEAST 1% DERIVED FROM POST-2021 GEOTHERMAL  
21 SYSTEMS.

22 (F) (1) (I) IN THIS SUBSECTION THE FOLLOWING WORDS HAVE THE  
23 MEANINGS INDICATED.

24 (II) "AREA MEDIAN INCOME" HAS THE MEANING STATED IN  
25 § 4-1801 OF THE HOUSING AND COMMUNITY DEVELOPMENT ARTICLE.

26 (III) "LOW OR MODERATE INCOME HOUSING" MEANS HOUSING  
27 THAT IS AFFORDABLE FOR A HOUSEHOLD WITH AN AGGREGATE ANNUAL INCOME  
28 THAT IS BELOW 120% OF THE AREA MEDIAN INCOME.

29 (2) AT LEAST 25% OF THE REQUIRED PERCENTAGE OF THE  
30 RENEWABLE ENERGY PORTFOLIO FOR EACH YEAR AS SET FORTH IN SUBSECTION (B)



1 OF THIS SECTION DERIVED FROM POST-2021 GEOTHERMAL SYSTEMS SHALL BE  
2 DERIVED FROM SYSTEMS THAT WERE INSTALLED:

3 (I) AT SINGLE OR MULTIFAMILY HOUSING UNITS THAT  
4 QUALIFIED AS LOW OR MODERATE INCOME HOUSING ON THE DATE THE SYSTEM WAS  
5 INSTALLED ON THE PROPERTY; OR

6 (II) AT INSTITUTIONS THAT PRIMARILY SERVE LOW AND  
7 MODERATE INCOME INDIVIDUALS AND FAMILIES, INCLUDING:

8 1. SCHOOLS WITH A MAJORITY OF STUDENTS WHO ARE  
9 ELIGIBLE FOR FREE AND REDUCED PRICE MEALS;

10 2. HOSPITALS WITH A MAJORITY OF PATIENTS ELIGIBLE  
11 FOR FINANCIAL ASSISTANCE OR WHO ARE ENROLLED IN MEDICAID; AND

12 3. OTHER INSTITUTIONS THAT SERVE INDIVIDUALS AND  
13 FAMILIES WHERE THE MAJORITY OF THOSE SERVED ARE ELIGIBLE BASED ON  
14 INCOME FOR FEDERAL OR STATE SAFETY NET PROGRAMS.

15 7-704.

16 (h) (1) [Energy] EXCEPT AS PROVIDED IN PARAGRAPH (6) OF THIS  
17 SUBSECTION, ENERGY from a geothermal heating and cooling system, INCLUDING  
18 ENERGY FROM A LEGACY GEOTHERMAL SYSTEM AND ENERGY FROM A POST-2021  
19 GEOTHERMAL SYSTEM, is eligible for inclusion in meeting the renewable energy portfolio  
20 standard.

21 (2) A person shall receive a renewable energy credit equal to the amount of  
22 energy, converted from BTUs to kilowatt-hours, that is generated by a geothermal heating  
23 and cooling system for space heating and cooling or water heating if the person:

24 (i) owns and operates the system;

25 (ii) leases and operates the system; or

26 (iii) contracts with a third party who owns and operates the ~~system~~  
27 PORTION OF THE SYSTEM THAT CONSISTS OF:

28 1. A CLOSED LOOP OR A SERIES OF CLOSED LOOP  
29 SYSTEMS IN WHICH FLUID IS PERMANENTLY CONFINED WITHIN A PIPE OR TUBING  
30 AND DOES NOT COME IN CONTACT WITH THE OUTSIDE ENVIRONMENT; OR

31 2. AN OPEN LOOP SYSTEM IN WHICH GROUND OR  
32 SURFACE WATER IS CIRCULATED IN AN ENVIRONMENTALLY SAFE MANNER

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

3 (3) To determine the energy savings of a geothermal heating and cooling  
 4 system for a residence, the Commission shall:

5 (i) identify available ~~Internet-based~~ energy consumption  
 6 calculators developed by the geothermal heating and cooling industry;

7 (ii) collect the following data provided in the renewable energy credit  
 8 application that:

9 1. describes the name of the applicant and the address at  
 10 which the geothermal heating and cooling system is installed; and

11 2. provides the annual BTU energy savings attributable to  
 12 home heating, cooling, and water heating; and

13 (iii) in determining the annual amount of renewable energy credits  
 14 awarded for the geothermal heating and cooling system, convert the annual BTUs into  
 15 annual megawatt hours.

16 (4) To determine the energy savings of a nonresidential geothermal  
 17 heating and cooling system, the Commission shall:

18 (i) use the geothermal heating and cooling engineering technical  
 19 system designs provided with the renewable energy credit application; and

20 (ii) in determining the annual amount of renewable energy credits  
 21 awarded for the geothermal heating and cooling system, convert the annual BTUs into  
 22 annual megawatt hours.

23 (5) A geothermal heating and cooling system shall be installed in  
 24 accordance with applicable State well construction and local building code standards.

25 **(6) (I) A POST-2021 GEOTHERMAL SYSTEM WITH A 360,000 BTU**  
 26 **CAPACITY IS ELIGIBLE FOR INCLUSION IN MEETING THE RENEWABLE ENERGY**  
 27 **PORTFOLIO STANDARD ONLY IF, ~~AT THE TIME OF INSTALLATION,~~ THE COMPANY**  
 28 **INSTALLING THE SYSTEM ~~IS CERTIFIED BY THE COMMISSION AS PROVIDING~~**  
 29 **PROVIDES FOR ITS EMPLOYEES:**

30 1. FAMILY-SUSTAINING WAGES;

31 2. EMPLOYER-PROVIDED HEALTH CARE WITH  
 32 AFFORDABLE DEDUCTIBLES AND CO-PAYS;

1                   **3. CAREER ADVANCEMENT TRAINING, AS PROVIDED IN**  
 2 **SUBPARAGRAPH (II) OF THIS PARAGRAPH;**

3                   **4. FAIR SCHEDULING;**

4                   **5. EMPLOYER-PAID WORKERS' COMPENSATION AND**  
 5 **UNEMPLOYMENT INSURANCE;**

6                   **6. A RETIREMENT PLAN;**

7                   **7. PAID TIME OFF; AND**

8                   **8. THE RIGHT TO BARGAIN COLLECTIVELY FOR WAGES**  
 9 **AND BENEFITS.**

10                   **(II) AS PART OF THE CAREER ADVANCEMENT TRAINING THE**  
 11 **INSTALLATION COMPANY PROVIDES, THE COMPANY SHALL ENSURE THAT A**  
 12 **MINIMUM OF 10% OF THE EMPLOYEES WORKING ON THE INSTALLATION ARE**  
 13 **ENROLLED IN AN APPRENTICESHIP PROGRAM APPROVED BY AND REGISTERED WITH**  
 14 **THE STATE OR THE FEDERAL GOVERNMENT.**

15                   **(III) ~~THE COMMISSION SHALL ADOPT REGULATIONS PROVIDING~~**  
 16 **~~FOR THE CERTIFICATION OF INSTALLATION COMPANIES IN ACCORDANCE WITH THIS~~**  
 17 **~~PARAGRAPH~~ COMPLIANCE WITH THIS PARAGRAPH SHALL BE REGULATED AND**  
 18 **ENFORCED BY THE DEPARTMENT OF LABOR.**

19 7-705.

20           (b) (1) This subsection does not apply to a shortfall from the required Tier 1  
 21 renewable sources that is to be derived from:

22                   **(I) offshore wind energy; OR**

23                   **(II) POST-2021 GEOTHERMAL SYSTEMS.**

24           (2) If an electricity supplier fails to comply with the renewable energy  
 25 portfolio standard for the applicable year, the electricity supplier shall pay into the  
 26 Maryland Strategic Energy Investment Fund established under § 9-20B-05 of the State  
 27 Government Article:

28                   (i) except as provided in item (ii) of this paragraph, a compliance fee  
 29 of:



- 1 L. 3.5 cents in 2025;
- 2 M. 3 cents in 2026;
- 3 N. 2.5 cents in 2027 and 2028;
- 4 O. 2.25 cents in 2029; and
- 5 P. 2.235 cents in 2030 and later; and
- 6 3. 1.5 cents for each kilowatt–hour of shortfall from required
- 7 Tier 2 renewable sources; or

8 (ii) for industrial process load:

- 9 1. for each kilowatt–hour of shortfall from required Tier 1
- 10 renewable sources, a compliance fee of:
  - 11 A. 0.8 cents in 2006, 2007, and 2008;
  - 12 B. 0.5 cents in 2009 and 2010;
  - 13 C. 0.4 cents in 2011 and 2012;
  - 14 D. 0.3 cents in 2013 and 2014;
  - 15 E. 0.25 cents in 2015 and 2016; and
  - 16 F. except as provided in paragraph (3) of this subsection, 0.2
  - 17 cents in 2017 and later; and
- 18 2. nothing for any shortfall from required Tier 2 renewable
- 19 sources.

20 (3) For industrial process load, the compliance fee for each kilowatt–hour

21 of shortfall from required Tier 1 renewable sources is:

- 22 (i) 0.1 cents in any year during which suppliers are required to
- 23 purchase ORECs under § 7–704.2 of this subtitle; and
- 24 (ii) nothing for the year following any year during which, after final
- 25 calculations, the net rate impact per megawatt–hour from Round 1 offshore wind projects
- 26 exceeded \$1.65 in 2012 dollars.

27 **(B–1) IF AN ELECTRICITY SUPPLIER FAILS TO COMPLY WITH THE RENEWABLE**

28 **ENERGY PORTFOLIO STANDARD THAT IS REQUIRED TO BE DERIVED FROM**

29 **POST–2021 GEOTHERMAL SYSTEMS FOR THE APPLICABLE YEAR, THE ELECTRICITY**

1 SUPPLIER SHALL PAY INTO THE MARYLAND STRATEGIC ENERGY INVESTMENT  
 2 FUND ESTABLISHED UNDER § 9-20B-05 OF THE STATE GOVERNMENT ARTICLE A  
 3 COMPLIANCE FEE OF:

4 (1) 10 CENTS IN 2022 ~~AND 2023~~ THROUGH 2024;

5 (2) 9 CENTS IN ~~2024~~ 2025;

6 (3) 8 CENTS IN ~~2025~~ 2026; AND

7 (4) 6.5 CENTS IN ~~2026~~ 2027 AND LATER.

8 ~~7-712.~~

9 (A) ~~Subject to § 2-1257 of the State Government Article, on or before December 1~~  
 10 ~~of each year the Commission shall report to the General Assembly on the status of~~  
 11 ~~implementation of this subtitle, including the availability of Tier 1 renewable sources,~~  
 12 ~~projects supported by the Fund, and other pertinent information.~~

13 (B) ~~SUBJECT TO § 2-1257 OF THE STATE GOVERNMENT ARTICLE, ON OR~~  
 14 ~~BEFORE DECEMBER 1, 2021, AND ON OR BEFORE DECEMBER 1, 2022, THE~~  
 15 ~~COMMISSION SHALL REPORT TO THE GENERAL ASSEMBLY ON THE STATUS OF THE~~  
 16 ~~IMPLEMENTATION OF GEOTHERMAL HEATING AND COOLING SYSTEMS IN THE~~  
 17 ~~STATE, INCLUDING:~~

18 (1) ~~THE NUMBER OF GEOTHERMAL HEATING AND COOLING SYSTEMS~~  
 19 ~~CURRENTLY IN OPERATION;~~

20 (2) ~~AN ANALYSIS OF THE COST AND FEASIBILITY OF INCREASING~~  
 21 ~~STATE INCENTIVES TO PROMOTE THE USE OF GEOTHERMAL HEATING AND COOLING~~  
 22 ~~SYSTEMS; AND~~

23 (3) ~~AN ASSESSMENT OF BEST PRACTICES DESIGNED TO CREATE~~  
 24 ~~INCENTIVES FOR THE USE OF GEOTHERMAL HEATING AND COOLING SYSTEMS.~~

## 25 Article – State Government

26 9-20B-05.

27 (a) There is a Maryland Strategic Energy Investment Fund.

28 (b) The purpose of the Fund is to implement the Strategic Energy Investment  
 29 Program.

1 (I-1) (1) (I) IN THIS SUBSECTION THE FOLLOWING WORDS HAVE THE  
2 MEANINGS INDICATED.

3 (II) "AREA MEDIAN INCOME" HAS THE MEANING STATED IN §  
4 4-1801 OF THE HOUSING AND COMMUNITY DEVELOPMENT ARTICLE.

5 (III) "LOW AND MODERATE INCOME" MEANS HAVING AN ANNUAL  
6 HOUSEHOLD INCOME THAT IS AT OR BELOW 120% OF THE AREA MEDIAN INCOME.

7 (2) COMPLIANCE FEES PAID UNDER § 7-705(B-1) OF THE PUBLIC  
8 UTILITIES ARTICLE SHALL BE ACCOUNTED FOR SEPARATELY WITHIN THE FUND  
9 AND MAY BE USED ONLY TO MAKE LOANS AND GRANTS TO ~~SUPPORT THE CREATION~~  
10 ~~OF NEW GEOTHERMAL HEATING AND COOLING SYSTEMS IN THE STATE THAT ARE~~  
11 ~~OWNED BY OR DIRECTLY BENEFIT LOW AND MODERATE INCOME RESIDENTS OF~~  
12 PROMOTE INCREASED OPPORTUNITIES FOR THE GROWTH AND DEVELOPMENT OF  
13 SMALL, MINORITY, WOMEN-OWNED, AND VETERAN-OWNED BUSINESSES IN THE  
14 STATE THAT INSTALL GEOTHERMAL SYSTEMS IN THE STATE.

15 SECTION 2. AND BE IT FURTHER ENACTED, That:

16 (a) (1) The Maryland Energy Administration shall conduct a comprehensive  
17 technical study on:

18 (i) the status of geothermal heating and cooling systems in the  
19 State; and

20 (ii) the potential impact of expanding and incentivizing the use of  
21 geothermal heating and cooling systems in the State.

22 (2) The study shall include:

23 (i) the number of geothermal heating and cooling units currently  
24 operating in the State;

25 (ii) the cost and feasibility of increasing the use of geothermal  
26 heating and cooling systems in the State;

27 (iii) national and international best practices designed to incentivize  
28 the use of geothermal heating and cooling systems;

29 (iv) the potential for geothermal heating and cooling systems to  
30 reduce peak electricity demand;

31 (v) the potential reduction to all Maryland ratepayers in electricity  
32 costs associated with the increased use of geothermal heating and cooling systems,  
33 including savings from reduced peak electricity demand;

1 (vi) the economic benefits of increasing the use of geothermal heating  
2 and cooling systems to the State;

3 (vii) the potential to aggregate geothermal renewable energy credits;

4 (viii) the potential greenhouse gas reductions resulting from the use of  
5 geothermal heating and cooling systems;

6 (ix) the impact of geothermal heating and cooling systems on indoor  
7 air quality and localized pollution;

8 (x) the life-cycle costs of public school buildings over a 50-year  
9 period, including a comparison of the costs and energy efficiency associated with using  
10 geothermal heating and cooling systems compared to traditional energy systems;

11 (xi) the potential for family-sustaining job creation resulting from  
12 the expansion of geothermal heating and cooling systems in the State;

13 (xii) the potential to build neighborhood-scale district geothermal  
14 systems or convert existing utility infrastructure so that it can provide geothermal heating  
15 and cooling to an entire community; and

16 (xiii) any other factors related to expanding the use of geothermal  
17 heating and cooling systems that the Maryland Energy Administration considers  
18 necessary.

19 (3) The Maryland Energy Administration may contract with a third party  
20 to conduct the study required under paragraph (1) of this subsection.

21 (4) The Maryland Energy Administration shall submit the results of the  
22 study to the Geothermal Energy Workgroup on or before October 1, 2021.

23 (b) (1) There is a Geothermal Energy Workgroup.

24 (2) The Workgroup consists of the following members:

25 (i) at least one member of the Senate of Maryland, appointed by the  
26 President of the Senate;

27 (ii) at least one member of the House of Delegates, appointed by the  
28 Speaker of the House;

29 (iii) the Director of the Maryland Energy Administration, or the  
30 Director's designee;



- 1 (iv) the following members, selected by the Maryland Energy  
2 Administration:
- 3 1. at least one representative of an environmental advocacy  
4 organization;
- 5 2. at least one representative of an environmental justice  
6 organization;
- 7 3. at least one representative of the geothermal industry;  
8 and
- 9 4. ~~at least two representatives of labor organizations that  
10 work or may work in the geothermal industry; and~~
- 11 ~~5.~~ at least one representative of a Maryland electric  
12 company; ~~and~~
- 13 (v) two representatives selected by the Baltimore–D.C. Metro  
14 Building and Construction Trades Council;
- 15 (vi) one representative selected by the Maryland State and District  
16 of Columbia AFL–CIO; and
- 17 (vii) any other individuals considered necessary by the Maryland  
18 Energy Administration.
- 19 (3) The Director of the Maryland Energy Administration, or the Director’s  
20 designee, shall chair the Workgroup.
- 21 (4) The Maryland Energy Administration shall provide staff for the  
22 Workgroup.
- 23 (5) A member of the Workgroup:
- 24 (i) may not receive compensation as a member of the Workgroup;  
25 but
- 26 (ii) is entitled to reimbursement for expenses under the Standard  
27 State Travel Regulations, as provided in the State budget.
- 28 (6) The Workgroup shall:
- 29 (i) study the status and impact of increasing the use of geothermal  
30 heating and cooling systems in the State;

1 (ii) examine methods for growing the geothermal industry in the  
2 State, with a focus on increasing the use of geothermal heating and cooling systems in  
3 environmental justice communities;

4 (iii) examine methods for ensuring that any jobs created in the  
5 geothermal industry offer benefits and family-sustaining wages; ~~and~~

6 (iv) examine methods for the Department of Labor to require that  
7 geothermal installers adhere to the labor and apprenticeship requirements for large-scale  
8 geothermal projects required under § 7-704(h)(6) of the Public Utilities Article, as enacted  
9 by Section 1 of this Act;

10 (v) examine methods to promote increased opportunities for the  
11 growth and development of small, minority, women-owned, and veteran-owned businesses  
12 in the State that will install geothermal systems in the State and will promote career  
13 training opportunities in the geothermal industry for local residents, minorities, women,  
14 and veterans, including developing a baseline survey of the current levels of participation  
15 of these businesses and workers in the State; and

16 (vi) develop recommendations for legislation that will encourage and  
17 incentivize the use of geothermal heating and cooling systems in the State.

18 (c) (1) The Maryland Energy Administration, in consultation with the  
19 Workgroup, shall develop recommendations for an incentive structure that will increase  
20 the deployment of geothermal heating and cooling systems in Maryland.

21 (2) The incentives may include:

22 (i) grants;

23 (ii) loans;

24 (iii) EmPOWER Maryland rebates;

25 (iv) a carve-out in the State's renewable energy portfolio standard  
26 for geothermal renewable energy credits; and

27 (v) tax credits.

28 (d) On or before December 1, 2021, the Director of the Maryland Energy  
29 Administration, or the Director's designee, shall report to the General Assembly, in  
30 accordance with § 2-1257 of the State Government Article, on:

31 (1) the results of the study under subsection (a) of this section;

32 (2) the Workgroup's findings and recommendations under subsection (b)(6)  
33 of this section; and

1 (3) the incentive recommendations developed under subsection (c) of this  
2 section.

3 SECTION 3. AND BE IT FURTHER ENACTED, That a presently existing obligation  
4 or contract right may not be impaired in any way by this Act.

5 ~~SECTION 3.~~ 4. AND BE IT FURTHER ENACTED, That this Act shall take effect  
6 October 1, 2021.

Approved:

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Governor.

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Speaker of the House of Delegates.

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President of the Senate.