

HOUSE BILL 1007

C5, M5

(11r1460)

ENROLLED BILL
— *Economic Matters/Finance* —

Introduced by **Delegate Charkoudian**

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 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

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 requirements by the Department of Labor; clarifying who is eligible to receive certain
 2 renewable energy credits under certain circumstances; requiring certain electricity
 3 suppliers to pay certain compliance fees into the Maryland Strategic Energy
 4 Investment Fund under certain circumstances; requiring certain money in the Fund
 5 to be used only in a certain manner; ~~requiring the Commission to report to the~~
 6 ~~General Assembly on or before certain dates on the status of the implementation of~~
 7 ~~geothermal heating and cooling systems in the State;~~ requiring the Maryland Energy
 8 Administration to conduct a certain study on geothermal heating and cooling
 9 systems; providing for the content of the study; authorizing the Administration to
 10 contract with a third party to conduct the study; requiring the Administration to
 11 submit the results of the study to the Geothermal Energy Workgroup on or before a
 12 certain date; establishing the Workgroup; providing for the composition, chair, and
 13 staffing of the Workgroup; prohibiting a member of the Workgroup from receiving
 14 certain compensation, but authorizing the reimbursement of certain expenses;
 15 requiring the Workgroup to study and make recommendations regarding certain
 16 matters; requiring the Administration, in consultation with the Workgroup, to
 17 develop recommendations for a certain incentive structure; requiring the Director of
 18 the Administration, or the Director's designee, to report certain results, findings, and
 19 recommendations to the General Assembly on or before a certain date; providing that
 20 existing obligations or contract rights may not be impaired by this Act; defining
 21 certain terms; and generally relating to the renewable energy portfolio standard and
 22 geothermal heating and cooling systems.

23 BY repealing and reenacting, without amendments,

24 Article – Public Utilities

25 Section 7-701(a) through (c) and (s)

26 Annotated Code of Maryland

27 (2020 Replacement Volume and 2020 Supplement)

28 BY repealing and reenacting, with amendments,

29 Article – Public Utilities

30 Section 7-701(d), 7-703(b), 7-704(h), ~~7-705(b)~~, and ~~7-712~~ and 7-705(b)

31 Annotated Code of Maryland

32 (2020 Replacement Volume and 2020 Supplement)

33 BY adding to

34 Article – Public Utilities

35 Section 7-701(e-1) and (i-1), 7-703(f), and 7-705(b-1)

36 Annotated Code of Maryland

37 (2020 Replacement Volume and 2020 Supplement)

38 BY repealing and reenacting, without amendments,

39 Article – State Government

40 Section 9-20B-05(a) and (b)

41 Annotated Code of Maryland

42 (2014 Replacement Volume and 2020 Supplement)

1 BY adding to
2 Article – State Government
3 Section 9–20B–05(i–1)
4 Annotated Code of Maryland
5 (2014 Replacement Volume and 2020 Supplement)

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

8 **Article – Public Utilities**

9 7–701.

- 10 (a) In this subtitle the following words have the meanings indicated.
- 11 (b) “Administration” means the Maryland Energy Administration.
- 12 (c) “Fund” means the Maryland Strategic Energy Investment Fund established
13 under § 9–20B–05 of the State Government Article.
- 14 (d) “Geothermal heating and cooling system” means a system that:
- 15 (1) exchanges thermal energy from groundwater or a shallow ground
16 source to generate thermal energy through a geothermal heat pump or a system of
17 geothermal heat pumps interconnected with any geothermal extraction facility that is:
- 18 (i) a closed loop or a series of closed loop systems in which fluid is
19 permanently confined within a pipe or tubing and does not come in contact with the outside
20 environment; or
- 21 (ii) an open loop system in which ground or surface water is
22 circulated in an environmentally safe manner directly into the facility and returned to the
23 same aquifer or surface water source;
- 24 (2) meets or exceeds the current federal Energy Star product specification
25 standards;
- 26 (3) [replaces or displaces inefficient space or water heating systems whose
27 primary fuel is electricity or a nonnatural gas fuel source;
- 28 (4) replaces or displaces inefficient space cooling systems that do not meet
29 federal Energy Star product specification standards;
- 30 (5)] is manufactured, installed, and operated in accordance with applicable
31 government and industry standards; and

1 ~~[(6)]~~ (4) does not feed electricity back to the grid.

2 **(E-1) “LEGACY GEOTHERMAL SYSTEM” MEANS A GEOTHERMAL HEATING AND**
3 **COOLING SYSTEM THAT WAS PLACED IN SERVICE ON OR BEFORE DECEMBER 31,**
4 **~~2021~~ 2022.**

5 **(I-1) “~~POST-2021~~ POST-2022 GEOTHERMAL SYSTEM” MEANS A**
6 **GEOTHERMAL HEATING AND COOLING SYSTEM THAT IS PLACED IN SERVICE ON OR**
7 **AFTER ~~JANUARY JULY~~ JANUARY 1, 2022 2023.**

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

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

12 (2) wind;

13 (3) qualifying biomass;

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

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

18 (6) ocean, including energy from waves, tides, currents, and thermal
19 differences;

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

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

24 (9) poultry litter-to-energy;

25 (10) waste-to-energy;

26 (11) refuse-derived fuel; and

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

28 7-703.

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

3 (1) in 2006, 1% from Tier 1 renewable sources and 2.5% from Tier 2
4 renewable sources;

5 (2) in 2007, 1% from Tier 1 renewable sources and 2.5% from Tier 2
6 renewable sources;

7 (3) in 2008, 2.005% from Tier 1 renewable sources, including at least
8 0.005% derived from solar energy, and 2.5% from Tier 2 renewable sources;

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

11 (5) in 2010, 3.025% from Tier 1 renewable sources, including at least
12 0.025% derived from solar energy, and 2.5% from Tier 2 renewable sources;

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

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

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

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

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

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

25 (12) in 2017:

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

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

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

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

1 (13) in 2018:

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

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

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

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

7 (14) in 2019:

8 (i) 20.7% from Tier 1 renewable sources, including:

9 1. at least 5.5% derived from solar energy; and

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

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

13 (15) in 2020:

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

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

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

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

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

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

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

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

24 (i) at least 8.5% derived from solar energy; ~~and~~

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

1 ~~(III) AT LEAST 0.15% 0.05% DERIVED FROM POST-2021~~
2 ~~GEOTHERMAL SYSTEMS;~~

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

4 (i) at least 9.5% 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 0.25% 0.15% 0.05% DERIVED FROM POST-2021~~
8 ~~POST-2022 GEOTHERMAL SYSTEMS;~~

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

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

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

13 ~~(III) AT LEAST 0.50% 0.25% 0.15% DERIVED FROM POST-2021~~
14 ~~POST-2022 GEOTHERMAL SYSTEMS;~~

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

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

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

19 ~~(III) AT LEAST 0.75% 0.5% 0.25% DERIVED FROM POST-2021~~
20 ~~POST-2022 GEOTHERMAL SYSTEMS;~~

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

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

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

26 ~~(III) AT LEAST 1% 0.75% 0.5% DERIVED FROM POST-2021~~
27 ~~POST-2022 GEOTHERMAL SYSTEMS;~~

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

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

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

5 (III) AT LEAST ~~1%~~ 0.75% DERIVED FROM ~~POST-2021~~ POST-2022
6 GEOTHERMAL SYSTEMS;

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

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

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

12 (III) AT LEAST 1% DERIVED FROM ~~POST-2021~~ POST-2022
13 GEOTHERMAL SYSTEMS;

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

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

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

19 (III) AT LEAST 1% DERIVED FROM ~~POST-2021~~ POST-2022
20 GEOTHERMAL SYSTEMS; AND

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

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

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

26 (III) AT LEAST 1% DERIVED FROM ~~POST-2021~~ POST-2022
27 GEOTHERMAL SYSTEMS.

28 (F) (1) (I) IN THIS SUBSECTION THE FOLLOWING WORDS HAVE THE
29 MEANINGS INDICATED.

1 (II) "AREA MEDIAN INCOME" HAS THE MEANING STATED IN
2 § 4-1801 OF THE HOUSING AND COMMUNITY DEVELOPMENT ARTICLE.

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

6 (2) AT LEAST 25% OF THE REQUIRED PERCENTAGE OF THE
7 RENEWABLE ENERGY PORTFOLIO FOR EACH YEAR AS SET FORTH IN SUBSECTION (B)
8 OF THIS SECTION DERIVED FROM ~~POST-2021~~ POST-2022 GEOTHERMAL SYSTEMS
9 SHALL BE DERIVED FROM SYSTEMS THAT WERE INSTALLED:

10 (I) AT SINGLE OR MULTIFAMILY HOUSING UNITS THAT
11 QUALIFIED AS LOW OR MODERATE INCOME HOUSING ON THE DATE THE SYSTEM WAS
12 INSTALLED ON THE PROPERTY; OR

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

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

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

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

22 7-704.

23 (h) (1) [Energy] EXCEPT AS PROVIDED IN PARAGRAPH (6) OF THIS
24 SUBSECTION, ENERGY FROM a geothermal heating and cooling system, INCLUDING
25 ENERGY FROM A LEGACY GEOTHERMAL SYSTEM AND ENERGY FROM A ~~POST-2021~~
26 POST-2022 GEOTHERMAL SYSTEM, is eligible for inclusion in meeting the renewable
27 energy portfolio standard.

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

31 (i) owns and operates the system;

32 (ii) leases and operates the system; or

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

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

6 **2. AN OPEN LOOP SYSTEM IN WHICH GROUND OR**
7 **SURFACE WATER IS CIRCULATED IN AN ENVIRONMENTALLY SAFE MANNER**
8 **DIRECTLY INTO THE FACILITY AND RETURNED TO THE SAME AQUIFER OR SURFACE**
9 **WATER SOURCE.**

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

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

14 (ii) collect the following data provided in the renewable energy credit
15 application that:

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

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

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

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

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

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

1 **(6) (I) A ~~POST-2021~~ POST-2022 GEOTHERMAL SYSTEM WITH A**
 2 **360,000 BTU CAPACITY IS ELIGIBLE FOR INCLUSION IN MEETING THE RENEWABLE**
 3 **ENERGY PORTFOLIO STANDARD ONLY IF, ~~AT THE TIME OF INSTALLATION,~~ THE**
 4 **COMPANY INSTALLING THE SYSTEM IS ~~CERTIFIED BY THE COMMISSION AS~~**
 5 **PROVIDING PROVIDES FOR ITS EMPLOYEES:**

6 **1. FAMILY-SUSTAINING WAGES;**

7 **2. EMPLOYER-PROVIDED HEALTH CARE WITH**
 8 **AFFORDABLE DEDUCTIBLES AND CO-PAYS;**

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

11 **4. FAIR SCHEDULING;**

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

14 **6. A RETIREMENT PLAN;**

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

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

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

23 **(III) ~~THE COMMISSION SHALL ADOPT REGULATIONS PROVIDING~~**
 24 **~~FOR THE CERTIFICATION OF INSTALLATION COMPANIES IN ACCORDANCE WITH THIS~~**
 25 **~~PARAGRAPH~~ COMPLIANCE WITH THIS PARAGRAPH SHALL BE REGULATED AND**
 26 **ENFORCED BY THE DEPARTMENT OF LABOR.**

27 7-705.

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

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

- 1 G. 10 cents in 2020;
- 2 H. 8 cents in 2021;
- 3 I. 6 cents in 2022;
- 4 J. 4.5 cents in 2023;
- 5 K. 4 cents in 2024;
- 6 L. 3.5 cents in 2025;
- 7 M. 3 cents in 2026;
- 8 N. 2.5 cents in 2027 and 2028;
- 9 O. 2.25 cents in 2029; and
- 10 P. 2.235 cents in 2030 and later; and
- 11 3. 1.5 cents for each kilowatt–hour of shortfall from required
12 Tier 2 renewable sources; or
- 13 (ii) for industrial process load:
- 14 1. for each kilowatt–hour of shortfall from required Tier 1
15 renewable sources, a compliance fee of:
- 16 A. 0.8 cents in 2006, 2007, and 2008;
- 17 B. 0.5 cents in 2009 and 2010;
- 18 C. 0.4 cents in 2011 and 2012;
- 19 D. 0.3 cents in 2013 and 2014;
- 20 E. 0.25 cents in 2015 and 2016; and
- 21 F. except as provided in paragraph (3) of this subsection, 0.2
22 cents in 2017 and later; and
- 23 2. nothing for any shortfall from required Tier 2 renewable
24 sources.
- 25 (3) For industrial process load, the compliance fee for each kilowatt–hour
26 of shortfall from required Tier 1 renewable sources is:

1 (i) 0.1 cents in any year during which suppliers are required to
2 purchase ORECs under § 7-704.2 of this subtitle; and

3 (ii) nothing for the year following any year during which, after final
4 calculations, the net rate impact per megawatt-hour from Round 1 offshore wind projects
5 exceeded \$1.65 in 2012 dollars.

6 **(B-1) IF AN ELECTRICITY SUPPLIER FAILS TO COMPLY WITH THE RENEWABLE**
7 **ENERGY PORTFOLIO STANDARD THAT IS REQUIRED TO BE DERIVED FROM**
8 **~~POST-2021~~ POST-2022 GEOTHERMAL SYSTEMS FOR THE APPLICABLE YEAR, THE**
9 **ELECTRICITY SUPPLIER SHALL PAY INTO THE MARYLAND STRATEGIC ENERGY**
10 **INVESTMENT FUND ESTABLISHED UNDER § 9-20B-05 OF THE STATE GOVERNMENT**
11 **ARTICLE A COMPLIANCE FEE OF:**

12 **(1) 10 CENTS IN ~~2022~~ 2023 AND ~~2023~~ THROUGH 2024 2025;**

13 **(2) 9 CENTS IN ~~2024~~ 2025 2026;**

14 **(3) 8 CENTS IN ~~2025~~ 2026 2027; AND**

15 **(4) 6.5 CENTS IN ~~2026~~ 2027 2028 AND LATER.**

16 ~~7-712.~~

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

21 ~~(B) SUBJECT TO § 2-1257 OF THE STATE GOVERNMENT ARTICLE, ON OR~~
22 ~~BEFORE DECEMBER 1, 2021, AND ON OR BEFORE DECEMBER 1, 2022, THE~~
23 ~~COMMISSION SHALL REPORT TO THE GENERAL ASSEMBLY ON THE STATUS OF THE~~
24 ~~IMPLEMENTATION OF GEOTHERMAL HEATING AND COOLING SYSTEMS IN THE~~
25 ~~STATE, INCLUDING:~~

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

28 ~~(2) AN ANALYSIS OF THE COST AND FEASIBILITY OF INCREASING~~
29 ~~STATE INCENTIVES TO PROMOTE THE USE OF GEOTHERMAL HEATING AND COOLING~~
30 ~~SYSTEMS; AND~~

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

Article – State Government

9–20B–05.

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

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

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

(II) “AREA MEDIAN INCOME” HAS THE MEANING STATED IN § 4–1801 OF THE HOUSING AND COMMUNITY DEVELOPMENT ARTICLE.

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

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

SECTION 2. AND BE IT FURTHER ENACTED, That:

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

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

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

(2) The study shall include:

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

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

- 1 (iii) national and international best practices designed to incentivize
2 the use of geothermal heating and cooling systems;
- 3 (iv) the potential for geothermal heating and cooling systems to
4 reduce peak electricity demand;
- 5 (v) the potential reduction to all Maryland ratepayers in electricity
6 costs associated with the increased use of geothermal heating and cooling systems,
7 including savings from reduced peak electricity demand;
- 8 (vi) the economic benefits of increasing the use of geothermal heating
9 and cooling systems to the State;
- 10 (vii) the potential to aggregate geothermal renewable energy credits;
- 11 (viii) the potential greenhouse gas reductions resulting from the use of
12 geothermal heating and cooling systems;
- 13 (ix) the impact of geothermal heating and cooling systems on indoor
14 air quality and localized pollution;
- 15 (x) the life-cycle costs of public school buildings over a 50-year
16 period, including a comparison of the costs and energy efficiency associated with using
17 geothermal heating and cooling systems compared to traditional energy systems;
- 18 (xi) the potential for family-sustaining job creation resulting from
19 the expansion of geothermal heating and cooling systems in the State;
- 20 (xii) the potential to build neighborhood-scale district geothermal
21 systems or convert existing utility infrastructure so that it can provide geothermal heating
22 and cooling to an entire community; and
- 23 (xiii) any other factors related to expanding the use of geothermal
24 heating and cooling systems that the Maryland Energy Administration considers
25 necessary.
- 26 (3) The Maryland Energy Administration may contract with a third party
27 to conduct the study required under paragraph (1) of this subsection.
- 28 (4) The Maryland Energy Administration shall submit the results of the
29 study to the Geothermal Energy Workgroup on or before October 1, 2021.
- 30 (b) (1) There is a Geothermal Energy Workgroup.
- 31 (2) The Workgroup consists of the following members:

- 1 (i) at least one member of the Senate of Maryland, appointed by the
2 President of the Senate;
- 3 (ii) at least one member of the House of Delegates, appointed by the
4 Speaker of the House;
- 5 (iii) the Director of the Maryland Energy Administration, or the
6 Director's designee;
- 7 (iv) the following members, selected by the Maryland Energy
8 Administration:
- 9 1. at least one representative of an environmental advocacy
10 organization;
 - 11 2. at least one representative of an environmental justice
12 organization;
 - 13 3. at least one representative of the geothermal industry;
 - 14 and
 - 15 4. ~~at least two representatives of labor organizations that~~
16 ~~work or may work in the geothermal industry; and~~
 - 17 5. at least one representative of a Maryland electric
18 company; ~~and~~
- 19 (v) two representatives selected by the Baltimore-D.C. Metro
20 Building and Construction Trades Council;
- 21 (vi) one representative selected by the Maryland State and District
22 of Columbia AFL-CIO; and
- 23 (vii) any other individuals considered necessary by the Maryland
24 Energy Administration.
- 25 (3) The Director of the Maryland Energy Administration, or the Director's
26 designee, shall chair the Workgroup.
- 27 (4) The Maryland Energy Administration shall provide staff for the
28 Workgroup.
- 29 (5) A member of the Workgroup:
- 30 (i) may not receive compensation as a member of the Workgroup;
 - 31 but

1 (ii) is entitled to reimbursement for expenses under the Standard
2 State Travel Regulations, as provided in the State budget.

3 (6) The Workgroup shall:

4 (i) study the status and impact of increasing the use of geothermal
5 heating and cooling systems in the State;

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

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

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

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

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

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

26 (2) The incentives may include:

27 (i) grants;

28 (ii) loans;

29 (iii) EmPOWER Maryland rebates;

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

32 (v) tax credits.

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

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

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

7 (3) the incentive recommendations developed under subsection (c) of this
8 section.

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

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

Approved:

Governor.

Speaker of the House of Delegates.

President of the Senate.