

# HOUSE BILL 561

M5

1lr1371

---

By: **Delegate D.E. Davis**

Introduced and read first time: January 20, 2021

Assigned to: Economic Matters

---

Committee Report: Favorable with amendments

House action: Adopted

Read second time: March 8, 2021

---

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

1 AN ACT concerning

2 **Renewable Energy Portfolio Standard – Wastewater, ~~Thermal, and Other~~**  
3 **Renewable Sources Heating or Cooling System**

4 FOR the purpose of expanding the types of energy sources that qualify as Tier 1 renewable  
5 sources under the renewable energy portfolio standard; ~~altering the types and uses~~  
6 ~~of methane made from certain sources that qualify as Tier 1 renewable sources;~~  
7 adding certain wastewater used in certain manners to the definition of a “Tier 1  
8 renewable source”; authorizing energy from a wastewater heating or cooling system  
9 to be eligible for inclusion in meeting the renewable energy portfolio standard under  
10 certain conditions; requiring the Public Service Commission to determine the energy  
11 savings of a wastewater heating or cooling system in a certain manner; requiring the  
12 Commission to adopt certain regulations; making technical corrections; providing for  
13 the application of this Act; and generally relating to wastewater, ~~thermal energy,~~  
14 and the renewable energy portfolio standard.

15 BY repealing and reenacting, without amendments,  
16 Article – Public Utilities  
17 Section 7–701(a) and (d) and 7–704(f)  
18 Annotated Code of Maryland  
19 (2020 Replacement Volume and 2020 Supplement)

20 BY repealing and reenacting, with amendments,  
21 Article – Public Utilities  
22 Section 7–701(s) and 7–704(a) and (h)  
23 Annotated Code of Maryland

---

**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.



(2020 Replacement Volume and 2020 Supplement)

BY adding to

Article – Public Utilities

Section 7–704(j)

Annotated Code of Maryland

(2020 Replacement Volume and 2020 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.

(d) “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.

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

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

3 (2) wind;

4 (3) qualifying biomass;

5 (4) methane from the anaerobic decomposition of organic materials in a  
6 landfill or wastewater treatment plant ~~USED TO GENERATE ELECTRICITY, THERMAL~~  
7 ~~ENERGY, OR MECHANICAL ENERGY;~~

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

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

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

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

16 (9) poultry litter-to-energy;

17 (10) waste-to-energy;

18 (11) refuse-derived fuel; [and]

19 (12) thermal energy from a thermal biomass system; AND

20 **(13) RAW OR TREATED WASTEWATER USED AS A HEAT SOURCE OR SINK**  
21 **FOR A HEATING OR COOLING SYSTEM.**

22 7-704.

23 (a) (1) Energy from a Tier 1 renewable source:

24 (i) is eligible for inclusion in meeting the renewable energy portfolio  
25 standard regardless of when the generating system or facility was placed in service; and

26 (ii) may be applied to the percentage requirements of the standard  
27 for either Tier 1 renewable sources or Tier 2 renewable sources.

(2) (i) Energy from a Tier 1 renewable source under § [7-701(r)(1)] **7-701(S)(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.

(ii) **ENERGY FROM A TIER 1 RENEWABLE SOURCE UNDER § 7-701(S)(13) OF THIS SUBTITLE IS ELIGIBLE FOR INCLUSION IN MEETING THE RENEWABLE ENERGY PORTFOLIO STANDARD ONLY IF THE SOURCE:**

**1. IS CONNECTED WITH THE ELECTRIC DISTRIBUTION GRID SERVING MARYLAND; OR**

**2. PROCESSES WASTEWATER FROM MARYLAND RESIDENTS.**

**(III)** If the owner of a solar generating system in this State chooses to sell solar renewable energy credits from that system, the owner must first offer the credits for sale to an electricity supplier or electric company that shall apply them toward compliance with the renewable energy portfolio standard under § 7-703 of this subtitle.

(3) Energy from a Tier 1 renewable source under § [7-701(r)(8)] **7-701(S)(8)** of this subtitle is eligible for inclusion in meeting the renewable energy portfolio standard if it is generated at a dam that existed as of January 1, 2004, even if a system or facility that is capable of generating electricity did not exist on that date.

(4) Energy from a Tier 2 renewable source under § [7-701(s)] **7-701(T)** of this subtitle is eligible for inclusion in meeting the renewable energy portfolio standard through 2020 if it is generated at a system or facility that existed and was operational as of January 1, 2004, even if the facility or system was not capable of generating electricity on that date.

(f) (1) In order to create a renewable energy credit, a Tier 1 renewable source or Tier 2 renewable source must substantially comply with all applicable environmental and administrative requirements, including air quality, water quality, solid waste, and right-to-know provisions, permit conditions, and administrative orders.

(2) (i) This paragraph applies to Tier 1 renewable sources that incinerate solid waste.

(ii) At least 80% of the solid waste incinerated at a Tier 1 renewable source facility shall be collected from:

1. for areas in Maryland, jurisdictions that achieve the recycling rates required under § 9-505 of the Environment Article; and

1                   2.     for other states, jurisdictions for which the electricity  
2 supplier demonstrates recycling substantially comparable to that required under § 9–505  
3 of the Environment Article, in accordance with regulations of the Commission.

4                   (iii)   An electricity supplier may report credits received under this  
5 paragraph based on compliance by the facility with the percentage requirement of  
6 subparagraph (ii) of this paragraph during the year immediately preceding the year in  
7 which the electricity supplier receives the credit to apply to the standard.

8           (h)   (1)   Energy from a geothermal heating and cooling system is eligible for  
9 inclusion in meeting the renewable energy portfolio standard.

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

13                   (i)     owns and operates the system;

14                   (ii)    leases and operates the system; or

15                   (iii)   contracts with a third party who owns and operates the system.

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

18                   (i)     identify available Internet–based energy consumption  
19 calculators developed by the geothermal heating and cooling industry;

20                   (ii)    collect the following data provided in the renewable energy credit  
21 application that:

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

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

26                   (iii)   in determining the annual amount of renewable energy credits  
27 awarded for the geothermal heating and cooling system, convert the annual BTUs into  
28 annual [megawatt hours] **MEGAWATT–HOURS**.

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

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

1 (ii) in determining the annual amount of renewable energy credits  
2 awarded for the geothermal heating and cooling system, convert the annual BTUs into  
3 annual [megawatt hours] MEGAWATT-HOURS.

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

6 **(J) (1) ENERGY FROM A WASTEWATER HEATING OR COOLING SYSTEM IS**  
7 **ELIGIBLE FOR INCLUSION IN MEETING THE RENEWABLE ENERGY PORTFOLIO**  
8 **STANDARD.**

9 **(2) A PERSON SHALL RECEIVE A RENEWABLE ENERGY CREDIT EQUAL**  
10 **TO THE AMOUNT OF ENERGY, CONVERTED FROM BTUS TO KILOWATT-HOURS, THAT**  
11 **IS GENERATED BY A WASTEWATER HEATING OR COOLING SYSTEM FOR SPACE**  
12 **HEATING OR COOLING, INDUSTRIAL HEATING OR COOLING, OR ANOTHER USEFUL**  
13 **THERMAL PURPOSE, IF THE PERSON:**

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

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

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

18 **(3) TO DETERMINE THE ENERGY SAVINGS OF A WASTEWATER**  
19 **HEATING OR COOLING SYSTEM, THE COMMISSION SHALL:**

20 **(I) USE THE WASTEWATER HEATING OR COOLING**  
21 **ENGINEERING TECHNICAL SYSTEM DESIGNS PROVIDED WITH THE RENEWABLE**  
22 **ENERGY CREDIT APPLICATION; AND**

23 **(II) IN DETERMINING THE ANNUAL AMOUNT OF RENEWABLE**  
24 **ENERGY CREDITS AWARDED FOR THE WASTEWATER HEATING OR COOLING SYSTEM,**  
25 **CONVERT THE ANNUAL BTUS INTO ANNUAL MEGAWATT-HOURS.**

26 **(4) THE COMMISSION SHALL ADOPT REGULATIONS FOR THE**  
27 **METERING, VERIFICATION, AND REPORTING OF THE OUTPUT OF WASTEWATER**  
28 **HEATING OR COOLING SYSTEMS.**

29 SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect July  
30 1, 2021, and shall apply to all renewable energy portfolio standard compliance years  
31 starting with 2021.