

# SENATE BILL 734

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By: **Senators Feldman, Benson, Ferguson, Forehand, Jones–Rodwell, Kittleman, Madaleno, Montgomery, Pinsky, Ramirez, Raskin, Young, and Zirkin**

Introduced and read first time: January 31, 2014

Assigned to: Finance

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## A BILL ENTITLED

1 AN ACT concerning

2 **Renewable Energy Portfolio Standard – Qualifying Biomass**

3 FOR the purpose of limiting the eligibility of qualifying biomass as a Tier 1 renewable  
4 source for the purposes of the renewable energy portfolio standard to qualifying  
5 biomass used at a generation unit that started commercial operation on or after  
6 a certain date and that achieves a certain total system efficiency; providing  
7 that, before a certain date, certain qualifying biomass used at a certain  
8 generation unit that started commercial operation on or before a certain date  
9 and achieved a certain certification on or before a certain date is eligible as a  
10 Tier 1 renewable source; providing that qualifying biomass used at a certain  
11 generation unit that started commercial operation on or before a certain date or  
12 that achieves not more than a certain percentage of total system efficiency is  
13 eligible as a Tier 2 renewable source; providing that, on or after a certain date,  
14 certain qualifying biomass used at a certain generation station that started  
15 commercial operation on or before a certain date and achieved a certain  
16 certification on or before a certain date is eligible as a Tier 2 renewable source;  
17 requiring the Governor, beginning in a certain fiscal year and each fiscal year  
18 thereafter and under certain circumstances, to appropriate funds in the State  
19 budget from the Strategic Energy Investment Fund or other funding sources to  
20 the Maryland Energy Administration in a certain amount based on a certain  
21 calculation; requiring the Administration to issue a certain grant to a certain  
22 facility under certain circumstances; providing for the application of this Act;  
23 defining certain terms; altering certain terms; and generally relating to the  
24 renewable portfolio standard for qualifying biomass.

25 BY repealing and reenacting, with amendments,  
26 Article – Public Utilities  
27 Section 7–701 and 7–704(a)  
28 Annotated Code of Maryland

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EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.

[Brackets] indicate matter deleted from existing law.



1 (2010 Replacement Volume and 2013 Supplement)

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

4 **Article – Public Utilities**

5 7–701.

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

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

8 **(B–1) “FUEL INPUT” MEANS THE HIGHER HEATING VALUE OF THE INPUT**  
9 **FUEL TYPE, MEASURED IN BTU/LB. BASED ON THE STANDARDIZED HEATING**  
10 **VALUE OF THE FUEL TYPE, MULTIPLIED BY THE ANNUAL FUEL USED IN**  
11 **AS–DELIVERED TONS, MULTIPLIED BY 2,000.**

12 (c) “Fund” means the Maryland Strategic Energy Investment Fund  
13 established 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  
19 is permanently confined within a pipe or tubing and does not come in contact with the  
20 outside 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  
23 the same aquifer or surface water source;

24 (2) meets or exceeds the current federal Energy Star product  
25 specification standards;

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

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

30 (5) is manufactured, installed, and operated in accordance with  
31 applicable government and industry standards; and

1 (6) does not feed electricity back to the grid.

2 (e) “Industrial process load” means the consumption of electricity by a  
3 manufacturing process at an establishment classified in the manufacturing sector  
4 under the North American Industry Classification System, Codes 31 through 33.

5 (f) “Offshore wind energy” means energy generated by a qualified offshore  
6 wind project.

7 (g) “Old growth timber” means timber from a forest:

8 (1) at least 5 acres in size with a preponderance of old trees, of which  
9 the oldest exceed at least half the projected maximum attainable age for the species;  
10 and

11 (2) that exhibits several of the following characteristics:

12 (i) shade-tolerant species are present in all age and size  
13 classes;

14 (ii) randomly distributed canopy gaps are present;

15 (iii) a high degree of structural diversity characterized by  
16 multiple growth layers reflecting a broad spectrum of ages is present;

17 (iv) an accumulation of dead wood of varying sizes and stages of  
18 decomposition accompanied by decadence in live dominant trees is present; and

19 (v) pit and mound topography can be observed.

20 (h) “Offshore wind renewable energy credit” or “OREC” means a renewable  
21 energy credit equal to the generation attributes of 1 megawatt-hour of electricity that  
22 is derived from offshore wind energy.

23 (i) “PJM region” means the control area administered by the PJM  
24 Interconnection, as the area may change from time to time.

25 (j) “Poultry litter” means the fecal and urinary excretions of poultry,  
26 including wood shavings, sawdust, straw, rice hulls, and other bedding material for  
27 the disposition of manure.

28 (k) “Qualified offshore wind project” means a wind turbine electricity  
29 generation facility, including the associated transmission-related interconnection  
30 facilities and equipment, that:

31 (1) is located on the outer continental shelf of the Atlantic Ocean in an  
32 area that:

1 (i) the United States Department of the Interior designates for  
2 leasing after coordination and consultation with the State in accordance with § 388(a)  
3 of the Energy Policy Act of 2005; and

4 (ii) is between 10 and 30 miles off the coast of the State;

5 (2) interconnects to the PJM Interconnection grid at a point located on  
6 the Delmarva Peninsula; and

7 (3) the Commission approves under § 7-704.1 of this subtitle.

8 (l) (1) “Qualifying biomass” means a nonhazardous, organic material that  
9 is available on a renewable or recurring basis, and is:

10 (i) waste material that is segregated from inorganic waste  
11 material and is derived from sources including:

12 1. except for old growth timber, any of the following  
13 forest-related resources:

14 A. mill residue, except sawdust and wood shavings;

15 B. precommercial soft wood thinning;

16 C. slash;

17 D. brush; or

18 E. yard waste;

19 2. a pallet, crate, or dunnage; **OR**

20 3. agricultural and silvicultural sources, including tree  
21 crops, vineyard materials, grain, legumes, sugar, and other crop by-products or  
22 residues; [or

23 4. gas produced from the anaerobic decomposition of  
24 animal waste or poultry waste; or]

25 (ii) a plant that is cultivated exclusively for purposes of being  
26 used at a Tier 1 renewable source or a Tier 2 renewable source to produce electricity;  
27 **OR**

1                                   **(III) GAS PRODUCED FROM THE ANAEROBIC**  
2 **DECOMPOSITION OF ANIMAL WASTE, POULTRY WASTE, OR BIOMASS LISTED IN**  
3 **ITEM (I) OR (II) OF THIS PARAGRAPH.**

4                   (2)   “Qualifying biomass” includes biomass listed in paragraph (1) of  
5 this subsection that is used for co-firing, subject to § 7-704(d) of this subtitle.

6                   (3)   “Qualifying biomass” does not include:

7                           (i)   unsegregated solid waste or postconsumer wastepaper; or

8                           (ii)   an invasive exotic plant species.

9                   (m)   “Thermal biomass system” means a system that:

10                           (1)   uses:

11                                   (i)   primarily animal manure, including poultry litter, and  
12 associated bedding to generate thermal energy; and

13                                   (ii)   food waste or qualifying biomass for the remainder of the  
14 feedstock;

15                           (2)   is used in the State; and

16                           (3)   complies with all applicable State and federal statutes and  
17 regulations, as determined by the appropriate regulatory authority.

18                   (n)   “Renewable energy credit” or “credit” means a credit equal to the  
19 generation attributes of 1 megawatt-hour of electricity that is derived from a Tier 1  
20 renewable source or a Tier 2 renewable source that is located:

21                           (1)   in the PJM region;

22                           (2)   outside the area described in item (1) of this subsection but in a  
23 control area that is adjacent to the PJM region, if the electricity is delivered into the  
24 PJM region; or

25                           (3)   on the outer continental shelf of the Atlantic Ocean in an area that:

26                                   (i)   the United States Department of the Interior designates for  
27 leasing after coordination and consultation with the State in accordance with § 388(a)  
28 of the Energy Policy Act of 2005; and

29                                   (ii)   is between 10 and 30 miles off the coast of the State.

1 (o) “Renewable energy portfolio standard” or “standard” means the  
2 percentage of electricity sales at retail in the State that is to be derived from Tier 1  
3 renewable sources and Tier 2 renewable sources in accordance with § 7-703(b) of this  
4 subtitle.

5 (p) “Renewable on-site generator” means a person who generates electricity  
6 on site from a Tier 1 renewable source or a Tier 2 renewable source for the person’s  
7 own use.

8 (q) (1) “Solar water heating system” means a system that:

9 (i) consists of glazed liquid-type flat-plate or tubular solar  
10 collectors or concentrating solar thermal collectors as defined and certified to the  
11 OG-100 standard of the Solar Ratings and Certification Corporation;

12 (ii) generates energy using solar radiation for the purpose of  
13 heating water; and

14 (iii) does not feed electricity back to the electric grid.

15 (2) “Solar water heating system” does not include a system that  
16 generates energy using solar radiation for the sole purpose of heating a hot tub or  
17 swimming pool.

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

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

22 (2) wind;

23 (3) qualifying biomass **LISTED IN SUBSECTION (L)(1)(I) AND (II) OF**  
24 **THIS SECTION USED AT A GENERATION UNIT THAT:**

25 **(I) STARTED COMMERCIAL OPERATION ON OR AFTER**  
26 **JANUARY 1, 2005; AND**

27 **(II) ACHIEVES A TOTAL SYSTEM EFFICIENCY OF 65% OR**  
28 **MORE;**

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

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

1 (6) ocean, including energy from waves, tides, currents, and thermal  
2 differences;

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

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

8 (9) poultry litter-to-energy;

9 (10) waste-to-energy;

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

11 (12) thermal energy from a thermal biomass system;

12 **(13) QUALIFYING BIOMASS LISTED IN SUBSECTION (L)(1)(III) OF**  
13 **THIS SECTION; AND**

14 **(14) BEFORE JANUARY 1, 2018, QUALIFYING BIOMASS LISTED IN**  
15 **SUBSECTION (L)(1)(I) AND (II) OF THIS SECTION USED AT A GENERATION UNIT**  
16 **THAT:**

17 **(I) STARTED COMMERCIAL OPERATION ON OR BEFORE**  
18 **DECEMBER 31, 2004; AND**

19 **(II) ACHIEVED CERTIFICATION WITH THE COMMISSION ON**  
20 **OR BEFORE DECEMBER 31, 2005.**

21 (s) "Tier 2 renewable source" means **ONE OR MORE OF THE FOLLOWING**  
22 **TYPES OF ENERGY SOURCES:**

23 **(1) hydroelectric power other than pump storage generation;**

24 **(2) QUALIFYING BIOMASS LISTED IN SUBSECTION (L)(1)(I) AND**  
25 **(II) OF THIS SECTION USED AT A GENERATION UNIT THAT:**

26 **(I) STARTED COMMERCIAL OPERATION ON OR BEFORE**  
27 **DECEMBER 31, 2004; OR**

28 **(II) ACHIEVES A TOTAL SYSTEM EFFICIENCY OF NOT MORE**  
29 **THAN 65%; AND**

1           **(3) ON OR AFTER JANUARY 1, 2018, QUALIFYING BIOMASS LISTED**  
2 **IN SUBSECTION (L)(1)(I) AND (II) OF THIS SECTION USED AT A GENERATION**  
3 **UNIT THAT:**

4                   **(I) STARTED COMMERCIAL OPERATION ON OR BEFORE**  
5 **DECEMBER 31, 2004; AND**

6                   **(II) ACHIEVED CERTIFICATION WITH THE COMMISSION ON**  
7 **OR BEFORE DECEMBER 31, 2005.**

8           **(T) “TOTAL SYSTEM EFFICIENCY” MEANS THE SUM OF THE NET USEFUL**  
9 **ELECTRIC ENERGY OUTPUT MEASURED IN BTUS AND THE NET USEFUL**  
10 **THERMAL ENERGY OUTPUT MEASURED IN BTUS DIVIDED BY THE TOTAL FUEL**  
11 **INPUT.**

12           **(U) (1) “USEFUL THERMAL ENERGY OUTPUT” MEANS ENERGY:**

13                   **(I) IN THE FORM OF DIRECT HEAT, STEAM, HOT WATER, OR**  
14 **OTHER THERMAL FORM THAT IS USED IN PRODUCTION AND BENEFICIAL**  
15 **MEASURES FOR HEATING, COOLING, HUMIDITY CONTROL, PROCESS USE, OR**  
16 **OTHER VALID THERMAL END USE ENERGY REQUIREMENTS; AND**

17                   **(II) FOR WHICH FUEL OR ELECTRICITY WOULD OTHERWISE**  
18 **BE CONSUMED.**

19           **(2) “USEFUL THERMAL ENERGY OUTPUT” DOES NOT INCLUDE**  
20 **THERMAL ENERGY USED FOR THE PURPOSE OF DRYING OR REFINING BIOMASS**  
21 **FUEL.**

22 7–704.

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

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

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

29           (2) (i) Energy from a Tier 1 renewable source under § 7–701(r)(1),  
30 (5), (9), (10), or (11) of this subtitle is eligible for inclusion in meeting the renewable  
31 energy portfolio standard only if the source is connected with the electric distribution  
32 grid serving Maryland.

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

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

10 (4) Energy from a Tier 2 renewable source under [§ 7-701(s)] §  
11 **7-701(S)(1)** of this subtitle is eligible for inclusion in meeting the renewable energy  
12 portfolio standard through 2018 if it is generated at a system or facility that existed  
13 and was operational as of January 1, 2004, even if the facility or system was not  
14 capable of generating electricity on that date.

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

16 (a) This Act shall be construed to apply only prospectively and may not be  
17 applied or interpreted to have any effect on or application to the following:

18 (1) contracts entered into for the purchase of renewable energy credits  
19 before January 1, 2014;

20 (2) renewable energy credits included in PJM's Generator Attributes  
21 Tracking system that:

22 (i) were generated before the effective date of this Act by a  
23 facility that qualified as a Tier 1 energy source before the effective date of this Act; or

24 (ii) are generated by a facility that qualified as a Tier 1 energy  
25 source before the effective date of this Act, but were purchased by an electricity  
26 supplier before the effective date of this Act; and

27 (3) renewable energy credits purchased before March 1, 2014, as part  
28 of a Request for Proposals notice issued before the effective date of this Act.

29 (b) This Act shall apply to all contracts entered into, renewed, extended, or  
30 substantially amended for the purchase of renewable energy credits after the effective  
31 date of this Act.

32 SECTION 3. AND BE IT FURTHER ENACTED, That:

33 (a) Beginning in the first fiscal year in which final data is available for  
34 calendar year 2018 renewable energy portfolio standard compliance and each fiscal

1 year thereafter, the Governor shall appropriate funds in the State budget from the  
2 Strategic Energy Investment Fund or other funding sources, as determined by the  
3 Governor, to the Maryland Energy Administration in an amount calculated by:

4 (1) multiplying:

5 (i) the average annual quantity of the sum of Tier 1 and Tier 2  
6 renewable energy credits produced from January 1, 2013, to December 31, 2018, by a  
7 facility located in Western Maryland that began commercial operation on or before  
8 December 31, 2004, and achieved certification with the Public Service Commission on  
9 or before December 31, 2005; by

10 (ii) the average selling price of nonsolar Tier 1 renewable energy  
11 credits retired for Maryland renewable energy portfolio compliance in the most recent  
12 calendar year in which final data is available; and

13 (2) subtracting any revenues received in that same calendar year from  
14 the sale of Tier 1 or Tier 2 renewable energy credits produced by a facility referenced  
15 under item (1)(i) of this subsection, as verified by the Public Service Commission.

16 (b) An owner of a facility referenced under subsection (a)(1)(i) of this section  
17 shall make all reasonable efforts to maximize the revenue received for the sale of Tier  
18 1 and Tier 2 renewable energy credits produced by the facility in any markets in which  
19 the renewable energy credits are eligible for sale.

20 (c) The appropriation under this section shall be made only in a fiscal year in  
21 which a facility referenced under subsection (a)(1)(i) of this section, the manufacture of  
22 final paper products by a facility referenced under the most recent calendar year in  
23 which final data for Maryland renewable energy portfolio standard compliance is  
24 available, is at least 25% of the tonnage produced in calendar year 2012.

25 (d) The Administration shall issue a grant to an owner of a facility  
26 referenced under subsection (a)(1)(i) of this section for the amount of any  
27 appropriation made under subsection (a) of this section.

28 SECTION 4. AND BE IT FURTHER ENACTED, That this Act shall take effect  
29 October 1, 2014.