C5

3lr1885 CF SB 797

By: **Delegates Stein, Rudolph, Cane, and Beitzel** Introduced and read first time: February 8, 2013 Assigned to: Economic Matters

A BILL ENTITLED

1 AN ACT concerning

Renewable Energy Portfolio Standard – Wood– and Plant–Derived Biomass Systems

- 4 FOR the purpose of providing that energy from a certain wood- and plant-derived $\mathbf{5}$ biomass system is eligible for inclusion in meeting the renewable energy 6 portfolio standard; providing that a person that owns a wood- and 7 plant-derived biomass system shall receive a certain renewable energy credit 8 calculated in a certain manner; requiring the Public Service Commission to 9 adopt certain regulations for the metering, verification, and reporting of energy output from wood- and plant-derived biomass systems; providing that energy 10 produced by a wood- and plant-derived biomass system shall be eligible for 11 12inclusion in meeting the renewable energy portfolio standard for certain 13 compliance years; defining certain terms; altering certain definitions; providing for the effective date of this Act; and generally relating to the renewable energy 1415portfolio standard and wood- and plant-derived biomass systems.
- 16 BY repealing and reenacting, with amendments,
- 17 Article Public Utilities
- 18 Section 7–701
- 19 Annotated Code of Maryland
- 20 (2010 Replacement Volume and 2012 Supplement)
- 21 BY adding to
- 22 Article Public Utilities
- 23 Section 7–704(j)
- 24 Annotated Code of Maryland
- 25 (2010 Replacement Volume and 2012 Supplement)
- 26 Preamble

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.

[Brackets] indicate matter deleted from existing law.



$egin{array}{c} 1 \\ 2 \\ 3 \end{array}$	WHEREAS, The General Assembly recognizes the importance of supporting Maryland's efforts to produce energy, to the extent practicable, from in-State resources in order to help meet the State's clean, renewable energy goals; and		
4 5	WHEREAS, The General Assembly is committed to the promotion of the creation of green energy jobs in Maryland; and		
6 7 8 9	WHEREAS, The General Assembly also encourages the Department of General Services to consider the use of renewable energy, including the use of biomass systems using wood- and plant-derived biomass sources, when developing procurement guidelines; now, therefore,		
10 11	SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND, That the Laws of Maryland read as follows:		
12	Article – Public Utilities		
13	7–701.		
14	(a) In this subtitle the following words have the meanings indicated.		
15	(b) "Administration" means the Maryland Energy Administration.		
$\frac{16}{17}$	(c) "Fund" means the Maryland Strategic Energy Investment Fund established under § 9–20B–05 of the State Government Article.		
18	(c-1) "Geothermal heating and cooling system" means a system that:		
19 20 21	(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:		
$22 \\ 23 \\ 24$	(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		
$25 \\ 26 \\ 27$	(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;		
28 29	(2) meets or exceeds the current federal Energy Star product specification standards;		
$\begin{array}{c} 30\\ 31 \end{array}$	(3) replaces or displaces inefficient space or water heating systems whose primary fuel is electricity or a nonnatural gas fuel source;		

 $\mathbf{2}$

1 replaces or displaces inefficient space cooling systems that do not (4) $\mathbf{2}$ meet federal Energy Star product specification standards: 3 (5)is manufactured, installed, and operated in accordance with applicable government and industry standards; and 4 $\mathbf{5}$ (6)does not feed electricity back to the grid. 6 "Industrial process load" means the consumption of electricity by a (d) 7manufacturing process at an establishment classified in the manufacturing sector 8 under the North American Industry Classification System, Codes 31 through 33. 9 "Old growth timber" means timber from a forest: (e) 10 (1)at least 5 acres in size with a preponderance of old trees, of which 11 the oldest exceed at least half the projected maximum attainable age for the species; 12and 13(2)that exhibits several of the following characteristics: 14(i) shade-tolerant species are present in all age and size 15classes; 16 (ii) randomly distributed canopy gaps are present: 17a high degree of structural diversity characterized by (iii) multiple growth layers reflecting a broad spectrum of ages is present; 18 19(iv) an accumulation of dead wood of varying sizes and stages of 20decomposition accompanied by decadence in live dominant trees is present; and 21pit and mound topography can be observed. (v) 22"PJM region" means the control area administered by the PJM (f) 23Interconnection, Inc., as the area may change from time to time. "Poultry litter" means the fecal and urinary excretions of poultry, 24(g) including wood shavings, sawdust, straw, rice hulls, and other bedding material for 2526the disposition of manure. 27"Qualifying biomass" means a nonhazardous, organic material that (h) (1)is available on a renewable or recurring basis, and is: 2829(i) waste material that is segregated from inorganic waste 30 material and is derived from sources including:

	4		HOUSE BILL 1084
$\frac{1}{2}$	forest-related resou	1. rces:	except for old growth timber, any of the following
3		А.	mill residue, except sawdust and wood shavings;
4		В.	precommercial soft wood thinning;
5		C.	slash;
6		D.	brush; or
7		E.	yard waste;
8		2.	a pallet, crate, or dunnage;
9 10 11	crops, vineyard ma residues; or	3. terials, g	agricultural and silvicultural sources, including tree rain, legumes, sugar, and other crop by–products or
$\begin{array}{c} 12\\ 13 \end{array}$	animal waste or pou	4. ltry waste	gas produced from the anaerobic decomposition of e; or
$\begin{array}{c} 14 \\ 15 \end{array}$		· · -	ant that is cultivated exclusively for purposes of being arce or a Tier 2 renewable source to produce electricity.
$\begin{array}{c} 16 \\ 17 \end{array}$	()	• •	g biomass" includes biomass listed in paragraph (1) of r co-firing, subject to § 7-704(d) of this subtitle.
18	(3) '	Qualifyin	g biomass" does not include:
19	(i) uns	egregated solid waste or postconsumer wastepaper; or
20	(ii) an i	nvasive exotic plant species.
21	(h–1) "Therm	al biomas	ss system" means a system that:
22	(1) ı	ises:	
$\frac{23}{24}$		-	narily animal manure, including poultry litter, and e thermal energy; and
$\frac{25}{26}$	(feedstock;	ii) food	waste or qualifying biomass for the remainder of the
27	(2) i	s used in	the State; and

1 (3) complies with all applicable State and federal statutes and 2 regulations, as determined by the appropriate regulatory authority.

3 (i) "Renewable energy credit" or "credit" means a credit equal to the 4 generation attributes of 1 megawatt-hour of electricity OR RENEWABLE THERMAL 5 ENERGY EQUIVALENT that is derived from a Tier 1 renewable source or a Tier 2 6 renewable source that is located:

7

(1) in the PJM region; or

8 (2) outside the area described in item (1) of this subsection but in a 9 control area that is adjacent to the PJM region, if the electricity is delivered into the 10 PJM region.

11 (j) "Renewable energy portfolio standard" or "standard" means the 12 percentage of electricity sales at retail in the State that is to be derived from Tier 1 13 renewable sources and Tier 2 renewable sources in accordance with § 7–703(b) of this 14 subtitle.

(k) "Renewable on-site generator" means a person who generates electricity
on site from a Tier 1 renewable source or a Tier 2 renewable source for the person's
own use.

18 (k-1) "RENEWABLE THERMAL ENERGY EQUIVALENT" MEANS THE 19 ELECTRICAL EQUIVALENT IN MEGAWATT-HOURS OF RENEWABLE THERMAL 20 ENERGY CALCULATED BY DIVIDING THE HEAT CONTENT, MEASURED IN **BTUS**, 21 OF THE RENEWABLE THERMAL ENERGY AT THE POINT OF TRANSFER TO A 22 HEAT-DEPENDENT PROCESS BY THE STANDARD CONVERSION FACTOR OF **3.412** 23 MILLION **BTUS** PER MEGAWATT-HOUR.

- 24 (K-2) (1) "Solar water heating system" means a system that:
- (i) is comprised of glazed liquid-type flat-plate or tubular solar
 collectors as defined and certified to the OG-100 standard of the Solar Ratings and
 Certification Corporation;

(ii) generates energy using solar radiation for the purpose ofheating water; and

30

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

31 (2) "Solar water heating system" does not include a system that 32 generates energy using solar radiation for the sole purpose of heating a hot tub or 33 swimming pool.

$\frac{1}{2}$	(l) "Tier energy sources:	1 renewable source" means one or more of the following types of	
$\frac{3}{4}$	(1) solar water heatin	solar energy, including energy from photovoltaic technologies and g systems;	
5	(2)	wind;	
6	(3)	qualifying biomass;	
7 8	(4) a landfill or waster	methane from the anaerobic decomposition of organic materials in water treatment plant;	
9 10	(5) exchange from or t	geothermal, including energy generated through geothermal chermal energy avoided by, groundwater or a shallow ground source;	
$\begin{array}{c} 11 \\ 12 \end{array}$	(6) differences;	ocean, including energy from waves, tides, currents, and thermal	
$\begin{array}{c} 13\\14 \end{array}$	(7) under item (3) or (a fuel cell that produces electricity from a Tier 1 renewable source 4) of this subsection;	
$15 \\ 16 \\ 17$	(8) a small hydroelectric power plant of less than 30 megawatts in capacity that is licensed or exempt from licensing by the Federal Energy Regulatory Commission;		
18	(9)	poultry litter-to-energy;	
19	(10)	waste-to-energy;	
20	(11)	refuse-derived fuel; [and]	
21	(12)	thermal energy from a thermal biomass system; AND	
$\begin{array}{c} 22\\ 23 \end{array}$	(13) SYSTEM.	ENERGY FROM A WOOD- AND PLANT-DERIVED BIOMASS	
$\begin{array}{c} 24 \\ 25 \end{array}$	(m) "Tier storage generation	2 renewable source" means hydroelectric power other than pump	
26 27	(N) (1) SYSTEM THAT:	"WOOD- AND PLANT-DERIVED BIOMASS SYSTEM" MEANS A	
28		(I) EXCEPT AS DROVIDED IN DARACRADH (9) OF THIS	

6

28(I) EXCEPT AS PROVIDED IN PARAGRAPH(2) OF THIS29SUBSECTION, USES QUALIFYING BIOMASS; AND

1	(II) PH	ROVIDES ENERGY USED FOR:		
2	1.	SPACE OR WATER HEATING OR COOLING;		
3	2.	COMBINED HEAT AND POWER;		
4	3.	HUMIDITY CONTROL; OR		
$5 \\ 6$	4. ELECTRICITY OTHERWISE	THERMAL END USE FOR WHICH FUEL OR WOULD BE CONSUMED.		
7 8 9	(2) "WOOD- AND PLANT-DERIVED BIOMASS SYSTEM" DOES NOT INCLUDE A SYSTEM THAT USES GAS PRODUCED FROM THE ANAEROBIC DECOMPOSITION OF ANIMAL WASTE OR POULTRY WASTE.			
10	7-704.			
11 12 13	SYSTEM COMMISSIONED	FROM A WOOD- AND PLANT-DERIVED BIOMASS ON OR AFTER JULY 1, 2013 IS ELIGIBLE FOR HE RENEWABLE ENERGY PORTFOLIO STANDARD.		
$14 \\ 15 \\ 16 \\ 17$	BIOMASS SYSTEM SHALL	SON THAT OWNS A WOOD- AND PLANT-DERIVED RECEIVE A RENEWABLE ENERGY CREDIT FOR THE NERGY EQUIVALENT PRODUCED BY THE WOOD- AND SYSTEM.		
18 19 20		OMMISSION SHALL ADOPT REGULATIONS FOR THE N, AND REPORTING OF THE ENERGY OUTPUT OF ED BIOMASS SYSTEMS.		
$21 \\ 22 \\ 23$	wood- and plant-derived bid	E IT FURTHER ENACTED, That energy produced by a omass system shall be eligible for inclusion in meeting the tandard for compliance years starting with 2014.		
$\begin{array}{c} 24 \\ 25 \end{array}$	SECTION 3. AND BE January 1, 2014.	IT FURTHER ENACTED, That this Act shall take effect		