0lr0164 CF HB 363

By: The President (By Request - Administration) and Senators Bailey, Carozza, Eckardt, Hershey, Salling, Serafini, Simonaire, and West

Introduced and read first time: January 20, 2020

Assigned to: Finance

A BILL ENTITLED

1	AN	ACT	concerning
_	T TT 4	1101	COLLCCITILITY

2 Clean and Renewable Energy Standard (CARES)

4 FOR the purpose of altering the "renewable energy portfolio standard" to be the "clean and renewable energy standard"; altering the eligibility of certain sources of energy for 5 6 the creation of credits under the clean and renewable energy standard; removing 7 certain sources from the definition of a Tier 1 renewable source; altering provisions 8 relating to the intent of the General Assembly; altering and extending the minimum 9 required percentage of energy that must be derived from clean and renewable energy 10 sources in certain years; requiring that a minimum percentage of energy must be 11 derived from clean energy resources; requiring the Public Service Commission to 12 reduce a clean and renewable energy standard for certain nuclear generation sources 13 under certain circumstances; authorizing the Commission to take certain actions under certain circumstances; defining certain terms and altering certain definitions; 14 15 repealing certain definitions; making conforming changes; providing for a delayed 16 effective date; providing for the application of this Act; and generally relating to the 17 clean and renewable energy standard.

18 BY repealing

20

25

19 Article – Public Utilities

Section 7-701(0) and (s)

21 Annotated Code of Maryland

22 (2010 Replacement Volume and 2019 Supplement)

23 BY renumbering

24 Article – Public Utilities

Section 7–701(c) through (n) and (p) through (r), respectively

to be Section 7–701(g) through (w), respectively

27 Annotated Code of Maryland

28 (2010 Replacement Volume and 2019 Supplement)

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.

[Brackets] indicate matter deleted from existing law.



1 BY repealing and reenacting, without amendments, 2 Article – Public Utilities 3 Section 7-701(a) and (b) 4 Annotated Code of Maryland 5 (2010 Replacement Volume and 2019 Supplement) 6 BY adding to 7 Article – Public Utilities 8 Section 7–701(c) through (f) Annotated Code of Maryland 9 10 (2010 Replacement Volume and 2019 Supplement) 11 BY repealing and reenacting, with amendments, 12 Article – Public Utilities 13 Section 7–701(p), (r), and (w) 14 Annotated Code of Maryland 15 (2010 Replacement Volume and 2019 Supplement) 16 (As enacted by Section 2 of this Act) 17 BY repealing and reenacting, with amendments, 18 Article – Public Utilities 19 Section 7–702, 7–703(a), (b), (d), and (e), 7–704(a), (b), (e), and (f), 7–704.1(d)(1)(xiii), 20 7-704.2(a) and (c), 7-705(a), (b)(2), (c), and (e), 7-706(a) and (b), 7-708, 7-709, 217–710, and 7–712 22 Annotated Code of Maryland 23 (2010 Replacement Volume and 2019 Supplement) 24BY adding to 25Article – Public Utilities 26Section 7-703(f)27 Annotated Code of Maryland 28 (2010 Replacement Volume and 2019 Supplement) 29 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND. 30 That Section(s) 7-701(o) and (s) of Article – Public Utilities of the Annotated Code of 31 Maryland be repealed. 32 SECTION 2. AND BE IT FURTHER ENACTED, That Section(s) 7–701(c) through 33 (n) and (p) through (r), respectively, of Article – Public Utilities of the Annotated Code of 34 Maryland be renumbered to be Section(s) 7–701(g) through (w), respectively. 35 SECTION 3. AND BE IT FURTHER ENACTED, That the laws of Maryland read as 36 follows:

- 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) "CLEAN AND RENEWABLE ENERGY STANDARD" OR "STANDARD" MEANS
- 5 THE PERCENTAGE OF ELECTRICITY SALES AT RETAIL IN THE STATE THAT IS TO BE
- 6 DERIVED FROM TIER 1 RENEWABLE SOURCES AND CLEAN ENERGY RESOURCES IN
- 7 ACCORDANCE WITH § 7–703(B) OF THIS SUBTITLE.
- 8 (D) "CLEAN ENERGY RESOURCE" MEANS THE FOLLOWING ASSETS
- 9 CONNECTED WITH THE ELECTRIC DISTRIBUTION GRID SERVING THE STATE:
- 10 (1) A COMBINED HEAT AND POWER SYSTEM THAT COMMENCES
- 11 OPERATION AFTER DECEMBER 31, 2020;
- 12 (2) A NATURAL GAS OR QUALIFYING BIOMASS GENERATING STATION
- 13 WITH A CONCOMITANT CARBON CAPTURE SYSTEM, TO THE EXTENT THE CAPTURED
- 14 CARBON DIOXIDE OFFSETS THE CARBON OUTPUT OF THE GENERATING STATION
- 15 AND IS:
- 16 (I) PERMANENTLY SEQUESTERED IN GEOLOGICAL RESERVES;
- 17 **OR**
- 18 (II) UTILIZED IN A MANNER THAT RESULTS IN INDEFINITE
- 19 SEQUESTRATION, AS ESTABLISHED BY REGULATIONS ADOPTED BY THE
- 20 COMMISSION:
- 21 (3) A NUCLEAR GENERATION ASSET, INCLUDING A SMALL MODULAR
- 22 REACTOR, THAT COMMENCES OPERATION AFTER DECEMBER 31, 2020; OR
- 23 (4) OTHER EMERGING NET-ZERO CARBON TECHNOLOGIES, AS
- 24 ESTABLISHED BY REGULATIONS ADOPTED BY THE COMMISSION.
- 25 (E) "CLEAN ENERGY RESOURCE CREDIT" MEANS:
- 26 (1) EXCEPT FOR A COMBINED HEAT AND POWER SYSTEM, A CREDIT
- 27 EQUAL TO THE GENERATION ATTRIBUTES OF 1 MEGAWATT-HOUR OF ELECTRICITY
- 28 THAT IS DERIVED FROM A CLEAN ENERGY RESOURCE; OR
- 29 (2) FOR A COMBINED HEAT AND POWER SYSTEM THAT COMMENCES
- 30 OPERATION AFTER DECEMBER 31, 2020, A CREDIT EQUAL TO THE FOLLOWING IF
- 31 THE SYSTEM OPERATES AT AN EFFICIENCY LEVEL OF:

to produce electricity.

1 2	(I) AT LEAST 90%, ONE CREDIT PER MEGAWATT-HOUR OF ELECTRICITY GENERATION;
3 4	(II) AT LEAST 75% BUT LESS THAN 90%, THREE-FOURTHS OF ONE CREDIT PER MEGAWATT-HOUR OF ELECTRICITY GENERATION;
5 6	(III) AT LEAST 60% BUT LESS THAN 75% , ONE–HALF CREDIT PER MEGAWATT–HOUR OF ELECTRICITY GENERATION; AND
7	(IV) LESS THAN 60%, NOTHING.
8 9	(F) "CREDIT" MEANS A CLEAN ENERGY RESOURCE CREDIT OR A RENEWABLE ENERGY CREDIT UNDER THIS SUBTITLE.
10 11	(p) (1) "Qualifying biomass" means a nonhazardous, organic material that is available on a renewable or recurring basis, and is:
12 13	(i) waste material that is segregated from inorganic waste material and is derived from sources including:
14 15	1. except for old growth timber, any of the following forest—related resources:
16	A. mill residue, except sawdust and wood shavings;
17	B. precommercial soft wood thinning;
18	C. slash;
19	D. brush; or
20	E. yard waste;
21	2. a pallet, crate, or dunnage;
22 23 24	3. agricultural and silvicultural sources, including tree crops, vineyard materials, grain, legumes, sugar, and other crop by–products or residues; or
25 26	4. gas produced from the anaerobic decomposition of animal waste or poultry waste; or
27 28	(ii) a plant that is cultivated exclusively for purposes of being used at a Tier 1 renewable source or a [Tier 2 renewable source] CLEAN ENERGY RESOURCE

"Qualifying biomass" includes biomass listed in paragraph (1) of this 1 2 subsection that is used for co-firing, subject to § 7-704(d) of this subtitle. 3 "Qualifying biomass" does not include: (3)unsegregated solid waste or postconsumer wastepaper; [or] 4 (i) 5 (ii) BLACK LIQUOR; OR 6 (III) an invasive exotic plant species. 7 "Renewable energy credit" [or "credit"] means a credit equal to the generation 8 attributes of 1 megawatt-hour of electricity that is derived from a Tier 1 renewable source 9 [or a Tier 2 renewable source] that is located: 10 in the PJM region; (1) 11 outside the area described in item (1) of this subsection but in a control 12 area that is adjacent to the PJM region, if the electricity is delivered into the PJM region; 13 on the outer continental shelf of the Atlantic Ocean in an area that: 14 (3)15 the United States Department of the Interior designates for 16 leasing after coordination and consultation with the State in accordance with § 388(a) of 17 the Energy Policy Act of 2005; and is between 10 and 80 miles off the coast of the State. 18 (ii) 19 "Tier 1 renewable source" means one or more of the following types of energy (w) 20 sources: 21 (1) solar energy, including energy from photovoltaic technologies and solar 22 water heating systems; 23 (2) wind; 24(3) qualifying biomass; 25 (4) methane from the anaerobic decomposition of organic materials in a 26 landfill or wastewater treatment plant; 27 geothermal, including energy generated through geothermal exchange (5)28 from or thermal energy avoided by, groundwater or a shallow ground source;

ocean, including energy from waves, tides, currents, and thermal

29

(6)

- 1 differences;
- 2 (7) a fuel cell that produces electricity from a Tier 1 renewable source 3 under item (3) or (4) of this subsection;
- 4 (8) [a small] hydroelectric power [plant of less than 30 megawatts in 5 capacity that is licensed or exempt from licensing by the Federal Energy Regulatory 6 Commission];
- 7 (9) poultry litter-to-energy; AND
- 8 (10) [waste-to-energy;
- 9 (11) refuse–derived fuel; and
- 10 (12) thermal energy from a thermal biomass system.
- $11 \quad 7-702.$

- 12 (a) It is the intent of the General Assembly to:
- 13 (1) recognize the economic, environmental, fuel diversity, and security benefits of **CLEAN ENERGY RESOURCES AND** renewable energy resources;
- 15 (2) reduce greenhouse gas emissions and [eliminate carbon–fueled 16 generation from the State's] ACHIEVE A NET–ZERO CARBON electric grid by using these 17 resources;
- 18 (3) establish a market for electricity from these resources in Maryland; and
- 19 (4) lower the cost to consumers of electricity [produced from these 20 resources].
- 21 (b) The General Assembly finds that:
- 22 (1) the benefits of electricity from **CLEAN ENERGY RESOURCES AND**23 renewable energy resources, including long—term decreased emissions, a healthier
 24 environment, increased energy security, and decreased reliance on and vulnerability from
 25 imported energy sources, accrue to the public at large;
- 26 (2) electricity suppliers and consumers share an obligation to develop [a minimum level of these] TO THE FULLEST EXTENT POSSIBLE CLEAN ENERGY 28 RESOURCES AND RENEWABLE ENERGY resources in the electricity supply portfolio of the State; and
 - (3) the State needs to increase its reliance on CLEAN, renewable, AND

1 **EMERGING** energy in order to:

- 2 (i) MORE QUICKLY AND EFFECTIVELY reduce greenhouse gas emissions and meet the State's greenhouse gas emissions reduction goals under § 2–1205 of the Environment Article: [and]
- 5 (II) PROVIDE THE GREATEST VALUE POSSIBLE TO STATE 6 RESIDENTS AT THE LOWEST POSSIBLE COST;
- 7 (III) PROMOTE PRIVATE INVESTMENT WITHIN THE STATE, 8 INCREASE COMPETITION, AND MINIMIZE NEGATIVE ECONOMIC IMPACTS; AND
- 9 [(ii)] (IV) provide opportunities for small, minority, women—owned, 10 and veteran—owned businesses to participate in and develop a highly skilled workforce for 11 clean energy industries in the State.
- 12 7–703.

- 13 (a) (1) (i) The Commission shall implement a **CLEAN AND** renewable energy [portfolio] standard that, except as provided under paragraphs (2) and (3) of this subsection, applies to all retail electricity sales in the State by electricity suppliers.
- 16 (ii) If the standard becomes applicable to electricity sold to a 17 customer after the start of a calendar year, the standard does not apply to electricity sold 18 to the customer during that portion of the year before the standard became applicable.
- 19 (2) A CLEAN AND renewable energy [portfolio] standard may not apply to electricity sales at retail by any electricity supplier:
- 21 (i) in excess of 300,000,000 kilowatt–hours of industrial process load 22 to a single customer in a year;
- 23 (ii) to residential customers in a region of the State in which 24 electricity prices for residential customers are subject to a freeze or cap contained in a 25 settlement agreement entered into under § 7–505 of this title until the freeze or cap has 26 expired; or
- 27 (iii) to a customer served by an electric cooperative under an electricity supplier purchase agreement that existed on October 1, 2004, until the expiration of the agreement, as the agreement may be renewed or amended.
- 30 (3) The portion of a **CLEAN AND** renewable energy [portfolio] standard 31 that represents offshore wind energy may not apply to electricity sales at retail by any 32 electricity supplier in excess of:
 - (i) 75,000,000 kilowatt-hours of industrial process load to a single

- 1 customer in a year; and
- 2 (ii) 3,000 kilowatt-hours of electricity in a month to a customer who
- 3 is an owner of agricultural land and files an Internal Revenue Service form 1040, schedule
- 4 F.
- 5 (b) Except as provided in [subsection (e)] SUBSECTIONS (E) AND (F) of this 6 section, the CLEAN AND renewable energy [portfolio] standard shall be as follows:
- 7 (1) in 2006, 1% from Tier 1 renewable sources and 2.5% from Tier 2 8 renewable sources;
- 9 (2) in 2007, 1% from Tier 1 renewable sources and 2.5% from Tier 2 10 renewable sources;
- 11 (3) in 2008, 2.005% from Tier 1 renewable sources, including at least 12 0.005% derived from solar energy, and 2.5% from Tier 2 renewable sources;
- 13 (4) in 2009, 2.01% from Tier 1 renewable sources, including at least 0.01% derived from solar energy, and 2.5% from Tier 2 renewable sources;
- 15 (5) in 2010, 3.025% from Tier 1 renewable sources, including at least 16 0.025% derived from solar energy, and 2.5% from Tier 2 renewable sources;
- 17 (6) in 2011, 5.0% from Tier 1 renewable sources, including at least 0.05% derived from solar energy, and 2.5% from Tier 2 renewable sources;
- 19 (7) in 2012, 6.5% from Tier 1 renewable sources, including at least 0.1% 20 derived from solar energy, and 2.5% from Tier 2 renewable sources;
- 21 (8) in 2013, 8.2% from Tier 1 renewable sources, including at least 0.25% derived from solar energy, and 2.5% from Tier 2 renewable sources;
- 23 (9) in 2014, 10.3% from Tier 1 renewable sources, including at least 0.35% derived from solar energy, and 2.5% from Tier 2 renewable sources;
- 25 (10) in 2015, 10.5% from Tier 1 renewable sources, including at least 0.5% derived from solar energy, and 2.5% from Tier 2 renewable sources;
- 27 (11) in 2016, 12.7% from Tier 1 renewable sources, including at least 0.7% derived from solar energy, and 2.5% from Tier 2 renewable sources;
- 29 (12) in 2017:
- 30 (i) 13.1% from Tier 1 renewable sources, including:
- 31 1. at least 1.15% derived from solar energy; and

$1\\2$	this subtitle, not to	excee	2. an amount set by the Commission under \S 7–704.2(a) of d 2.5%, derived from offshore wind energy; and
3		(ii)	2.5% from Tier 2 renewable sources;
4	(13)	in 20	18:
5		(i)	15.8% from Tier 1 renewable sources, including:
6			1. at least 1.5% derived from solar energy; and
7 8	this subtitle, not to	excee	2. an amount set by the Commission under \S 7–704.2(a) of d 2.5%, derived from offshore wind energy; and
9		(ii)	2.5% from Tier 2 renewable sources;
10	(14)	in 20	19:
11		(i)	20.7% from Tier 1 renewable sources, including:
12			1. at least 5.5% derived from solar energy; and
13 14	this subtitle, not to	excee	2. an amount set by the Commission under \S 7–704.2(a) of d 2.5%, derived from offshore wind energy; and
15		(ii)	2.5% from Tier 2 renewable sources;
16	(15)	in 202	20:
17		(i)	28% from Tier 1 renewable sources, including:
18			1. at least 6% derived from solar energy; and
19 20	this subtitle, not to	excee	2. an amount set by the Commission under \S 7–704.2(a) of d 2.5%, derived from offshore wind energy; and
21		(ii)	2.5% from Tier 2 renewable sources;
22 23	(16) ENERGY RESOUR		21, [30.8%] 55.8 % from [Tier 1 renewable sources] CLEAN ND RENEWABLE ENERGY SOURCES , including:
24		(i)	at least 7.5% derived from solar energy; [and]
25 26	subtitle derived from	(ii)	an amount set by the Commission under § 7–704.2(a) of this here wind energy: AND

1		(III)	AT LEAST 2.5% DERIVED FROM CLEAN ENERGY RESOURCES;
2 3	, ,		22, [33.1%] 58.1 % from [Tier 1 renewable sources] CLEAN ND RENEWABLE ENERGY SOURCES , including:
4		(i)	at least 8.5% derived from solar energy; [and]
5 6	subtitle derived fro	(ii) om offs	an amount set by the Commission under § 7–704.2(a) of this hore wind energy; AND
7		(III)	AT LEAST 3.3% DERIVED FROM CLEAN ENERGY RESOURCES;
8 9	` '		23, [35.4%] 60.4 % from [Tier 1 renewable sources] CLEAN ND RENEWABLE ENERGY SOURCES, including:
10		(i)	at least 9.5% derived from solar energy; [and]
11 12	subtitle derived from	(ii) om offs	an amount set by the Commission under § 7–704.2(a) of this hore wind energy; AND
13		(III)	AT LEAST 4.2% DERIVED FROM CLEAN ENERGY RESOURCES;
14 15	` '		224, [37.7%] 62.7% from [Tier 1 renewable sources] CLEAN ND RENEWABLE ENERGY SOURCES, including:
16		(i)	at least 10.5% derived from solar energy; [and]
17 18	subtitle derived fro	(ii) om offs	an amount set by the Commission under § 7–704.2(a) of this hore wind energy; AND
19		(III)	AT LEAST 5.0% DERIVED FROM CLEAN ENERGY RESOURCES;
20 21	(20) RESOURCES AND		25, [40%] 65 % from [Tier 1 renewable sources] CLEAN ENERGY WABLE ENERGY SOURCES , including:
22		(i)	at least 11.5% derived from solar energy; [and]
23 24	subtitle, not to exc	(ii) eed 10	an amount set by the Commission under § 7–704.2(a) of this %, derived from offshore wind energy; AND
25		(III)	AT LEAST 5.8% DERIVED FROM CLEAN ENERGY RESOURCES;
26 27	(21) ENERGY RESOUR		226, [42.5%] 67.5 % from [Tier 1 renewable sources] CLEAN ND RENEWABLE ENERGY SOURCES, including:

1	(i) at least 12.5% derived from solar energy; [and]
2 3 4	(ii) an amount set by the Commission under § 7–704.2(a) of this subtitle derived from offshore wind energy, including at least 400 megawatts of Round 2 offshore wind projects; AND
5	(III) AT LEAST 6.7% DERIVED FROM CLEAN ENERGY RESOURCES;
6 7	(22) in 2027, [45.5%] 70.5 % from [Tier 1 renewable sources] CLEAN ENERGY RESOURCES AND RENEWABLE ENERGY SOURCES, including:
8	(i) at least 13.5% derived from solar energy; [and]
9 10 11	(ii) an amount set by the Commission under § 7–704.2(a) of this subtitle derived from offshore wind energy, including at least 400 megawatts of Round 2 offshore wind projects; AND
12	(III) AT LEAST 7.5% DERIVED FROM CLEAN ENERGY RESOURCES;
13 14	(23) in 2028, [47.5%] 72.5 % from [Tier 1 renewable sources] CLEAN ENERGY RESOURCES AND RENEWABLE ENERGY SOURCES , including:
15	(i) at least 14.5% derived from solar energy; [and]
16 17 18	(ii) an amount set by the Commission under § 7–704.2(a) of this subtitle derived from offshore wind energy, including at least 800 megawatts of Round 2 offshore wind projects; AND
19	(III) AT LEAST 8.3% DERIVED FROM CLEAN ENERGY RESOURCES;
20 21	(24) in 2029, [49.5%] 74.5 % from [Tier 1 renewable sources] CLEAN ENERGY RESOURCES AND RENEWABLE ENERGY SOURCES, including:
22	(i) at least 14.5% derived from solar energy; [and]
23 24 25	(ii) an amount set by the Commission under § 7–704.2(a) of this subtitle derived from offshore wind energy, including at least 800 megawatts of Round 2 offshore wind projects; and
26	(III) AT LEAST 9.2% DERIVED FROM CLEAN ENERGY RESOURCES;
27 28	(25) IN 2030, 75% FROM CLEAN ENERGY RESOURCES AND RENEWABLE ENERGY SOURCES, INCLUDING:

AT LEAST 14.5% DERIVED FROM SOLAR ENERGY;

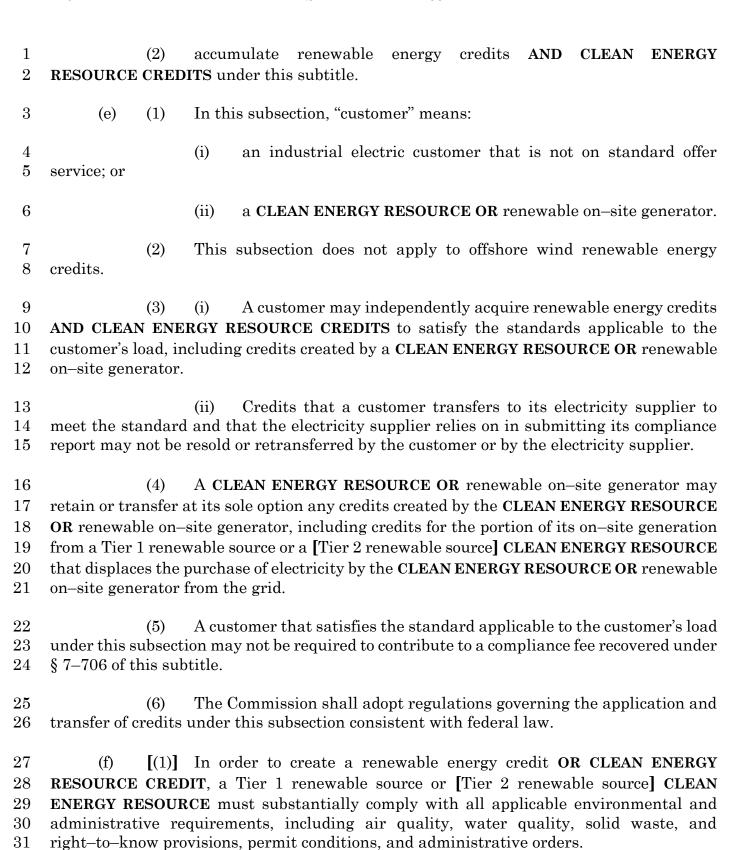
(I**)**

1	(II) AN AMOUNT SET BY THE COMMISSION UNDER § 7–704.2(A)
2	OF THIS SUBTITLE DERIVED FROM OFFSHORE WIND ENERGY, INCLUDING AT LEAST
3	1,200 MEGAWATTS OF ROUND 2 OFFSHORE WIND PROJECTS; AND
4	(III) AT LEAST 10% DERIVED FROM CLEAN ENERGY RESOURCES;
5	(26) IN 2031, 77.5% FROM CLEAN ENERGY RESOURCES AND
6	RENEWABLE ENERGY SOURCES, INCLUDING:
7	(I) AT LEAST 14.5% DERIVED FROM SOLAR ENERGY;
8	(II) AN AMOUNT SET BY THE COMMISSION UNDER § 7–704.2(A)
9	OF THIS SUBTITLE DERIVED FROM OFFSHORE WIND ENERGY, INCLUDING AT LEAST
10	1,200 MEGAWATTS OF ROUND 2 OFFSHORE WIND PROJECTS; AND
11	(III) AT LEAST 12% DERIVED FROM CLEAN ENERGY RESOURCES;
12	(27) IN 2032, 80% FROM CLEAN ENERGY RESOURCES AND RENEWABLE
13	ENERGY SOURCES, INCLUDING:
14	(I) AT LEAST 14.5% DERIVED FROM SOLAR ENERGY;
15	(II) AN AMOUNT SET BY THE COMMISSION UNDER § 7–704.2(A)
16	OF THIS SUBTITLE DERIVED FROM OFFSHORE WIND ENERGY, INCLUDING AT LEAST
17	1,200 MEGAWATTS OF ROUND 2 OFFSHORE WIND PROJECTS; AND
18	(III) AT LEAST 14% DERIVED FROM CLEAN ENERGY RESOURCES;
19	(28) IN 2033, 82.5% FROM CLEAN ENERGY RESOURCES AND
20	RENEWABLE ENERGY SOURCES, INCLUDING:
21	(I) AT LEAST 14.5% DERIVED FROM SOLAR ENERGY;
22	(II) AN AMOUNT SET BY THE COMMISSION UNDER § 7–704.2(A)
23	OF THIS SUBTITLE DERIVED FROM OFFSHORE WIND ENERGY, INCLUDING AT LEAST
$\frac{1}{24}$	1,200 MEGAWATTS OF ROUND 2 OFFSHORE WIND PROJECTS; AND
٥.	(III) AM LEACH 160/ DEDUCED EDOM OF DAM EMERGY DECOMPOSE.
25	(III) AT LEAST 16% DERIVED FROM CLEAN ENERGY RESOURCES;
26	(29) IN 2034, 85% FROM CLEAN ENERGY RESOURCES AND RENEWABLE
27	ENERGY SOURCES, INCLUDING:

1	(I) AT LEAST 14.5% DERIVED FROM SOLAR ENERGY;
2 3 4	(II) AN AMOUNT SET BY THE COMMISSION UNDER § 7–704.2(A) OF THIS SUBTITLE DERIVED FROM OFFSHORE WIND ENERGY, INCLUDING AT LEAST 1,200 MEGAWATTS OF ROUND 2 OFFSHORE WIND PROJECTS; AND
5	(III) AT LEAST 18% DERIVED FROM CLEAN ENERGY RESOURCES;
6 7	(30) IN 2035, 87.5% FROM CLEAN ENERGY RESOURCES AND RENEWABLE ENERGY SOURCES, INCLUDING:
8	(I) AT LEAST 14.5% DERIVED FROM SOLAR ENERGY;
9 10 11	(II) AN AMOUNT SET BY THE COMMISSION UNDER § 7–704.2(A) OF THIS SUBTITLE DERIVED FROM OFFSHORE WIND ENERGY, INCLUDING AT LEAST 1,200 MEGAWATTS OF ROUND 2 OFFSHORE WIND PROJECTS; AND
12	(III) AT LEAST 20% DERIVED FROM CLEAN ENERGY RESOURCES;
13 14	(31) IN 2036, 90% FROM CLEAN ENERGY RESOURCES AND RENEWABLE ENERGY SOURCES, INCLUDING:
15	(I) AT LEAST 14.5% DERIVED FROM SOLAR ENERGY;
16 17 18	(II) AN AMOUNT SET BY THE COMMISSION UNDER § 7–704.2(A) OF THIS SUBTITLE DERIVED FROM OFFSHORE WIND ENERGY, INCLUDING AT LEAST 1,200 MEGAWATTS OF ROUND 2 OFFSHORE WIND PROJECTS; AND
19	(III) AT LEAST 22% DERIVED FROM CLEAN ENERGY RESOURCES;
20 21	(32) IN 2037, 92.5% FROM CLEAN ENERGY RESOURCES AND RENEWABLE ENERGY SOURCES, INCLUDING:
22	(I) AT LEAST 14.5% DERIVED FROM SOLAR ENERGY;
23 24 25	(II) AN AMOUNT SET BY THE COMMISSION UNDER § 7–704.2(A) OF THIS SUBTITLE DERIVED FROM OFFSHORE WIND ENERGY, INCLUDING AT LEAST 1,200 MEGAWATTS OF ROUND 2 OFFSHORE WIND PROJECTS; AND
26	(III) AT LEAST 24% DERIVED FROM CLEAN ENERGY RESOURCES;
27 28	(33) IN 2038, 95% FROM CLEAN ENERGY RESOURCES AND RENEWABLE ENERGY SOURCES, INCLUDING:

1	(I) AT LEAST 14.5% DERIVED FROM SOLAR ENERGY;
2 3 4	(II) AN AMOUNT SET BY THE COMMISSION UNDER § 7–704.2(A) OF THIS SUBTITLE DERIVED FROM OFFSHORE WIND ENERGY, INCLUDING AT LEAST 1,200 MEGAWATTS OF ROUND 2 OFFSHORE WIND PROJECTS; AND
5	(III) AT LEAST 26% DERIVED FROM CLEAN ENERGY RESOURCES;
6 7	(34) IN 2039, 97.5% FROM CLEAN ENERGY RESOURCES AND RENEWABLE ENERGY SOURCES, INCLUDING:
8	(I) AT LEAST 14.5% DERIVED FROM SOLAR ENERGY;
9 10 11	(II) AN AMOUNT SET BY THE COMMISSION UNDER § 7–704.2(A) OF THIS SUBTITLE DERIVED FROM OFFSHORE WIND ENERGY, INCLUDING AT LEAST 1,200 MEGAWATTS OF ROUND 2 OFFSHORE WIND PROJECTS; AND
12 13	(III) AT LEAST 28% DERIVED FROM CLEAN ENERGY RESOURCES; AND
14 15	[(25)] (35) in [2030] 2040 and later, [50%] 100% from [Tier 1 renewable sources] CLEAN ENERGY RESOURCES AND RENEWABLE ENERGY SOURCES, including:
16	(i) at least 14.5% derived from solar energy; [and]
17 18 19	(ii) an amount set by the Commission under \S 7–704.2(a) of this subtitle derived from offshore wind energy, including at least 1,200 megawatts of Round 2 offshore wind projects; AND
20	(III) AT LEAST 30% DERIVED FROM CLEAN ENERGY RESOURCES.
21 22 23 24	(d) Subject to subsections (a) and (c) of this section and in accordance with § 7–704.2 of this subtitle, an electricity supplier shall meet the CLEAN AND renewable energy [portfolio] standard by accumulating the equivalent amount of [renewable energy] credits that equal the percentages required under this section.
25 26 27	(e) The required percentage of A MUNICIPAL ELECTRIC COMPANY OR an electric cooperative's CLEAN AND renewable energy [portfolio] standard derived from solar energy shall be 2.5% in 2020 and later.
28 29 30 31	(F) IN RECOGNITION OF THE BASELOAD, GREENHOUSE GAS-FREE, AND CARBON-FREE PRODUCTION OF ELECTRICITY PROVIDED BY NUCLEAR GENERATION ASSETS CONNECTED TO THE DISTRIBUTION SYSTEM IN THE STATE THAT COMMENCED OPERATION BEFORE JANUARY 1, 2021, THE COMMISSION SHALL

- 1 REDUCE THE REQUIREMENTS OF SUBSECTION (B) OF THIS SECTION EACH YEAR BY
- 2 A PERCENTAGE EQUAL TO THE AVERAGE GENERATION OUTPUT OF THOSE
- 3 GENERATION ASSETS IN THE PREVIOUS 3 CALENDAR YEARS DIVIDED BY THE
- 4 AVERAGE ELECTRICITY RETAIL SALES IN THOSE SAME CALENDAR YEARS.
- $5 \quad 7-704.$
- 6 (a) (1) Energy from a Tier 1 renewable source:
- 7 (i) is eligible for inclusion in meeting the CLEAN AND renewable
- 8 energy [portfolio] standard regardless of when the generating system or facility was placed
- 9 in service; [and]
- 10 (ii) may be applied to the percentage requirements of the standard
- 11 for [either] Tier 1 renewable sources [or Tier 2 renewable sources]; AND
- 12 (III) MAY BE APPLIED TO THE PERCENTAGE REQUIREMENTS OF
- 13 THE STANDARD FOR CLEAN ENERGY RESOURCES IF GENERATED BY AN ASSET
- 14 CONNECTED WITH THE ELECTRIC DISTRIBUTION GRID SERVING MARYLAND.
- 15 (2) (i) Energy from a Tier 1 renewable source under $[\S 7-701(r)(1), (5),$
- 16 (9), (10), or (11)] § 7-701(W)(1), (5), OR (9) of this subtitle is eligible for inclusion in
- 17 meeting the CLEAN AND renewable energy [portfolio] standard only if the source is
- 18 connected with the electric distribution grid serving Maryland.
- 19 (ii) If the owner of a solar generating system in this State chooses to
- 20 sell solar renewable energy credits from that system, the owner must first offer the credits
- 21 for sale to an electricity supplier or electric company that shall apply them toward
- 22 compliance with the CLEAN AND renewable energy [portfolio] standard under § 7–703 of
- 23 this subtitle.
- [(3) Energy from a Tier 1 renewable source under § 7–701(r)(8) of this
- 25 subtitle is eligible for inclusion in meeting the renewable energy portfolio standard if it is
- 26 generated at a dam that existed as of January 1, 2004, even if a system or facility that is
- 27 capable of generating electricity did not exist on that date.
- 28 (4) Energy from a Tier 2 renewable source under § 7–701(s) of this subtitle
- 29 is eligible for inclusion in meeting the renewable energy portfolio standard through 2020 if
- 30 it is generated at a system or facility that existed and was operational as of January 1,
- 31 2004, even if the facility or system was not capable of generating electricity on that date.
- 32 (b) On or after January 1, 2004, an electricity supplier may:
- 33 (1) receive renewable energy credits AND CLEAN ENERGY RESOURCE
- 34 **CREDITS**; and



[(2) (i) This paragraph applies to Tier 1 renewable sources that 33 incinerate solid waste.

- 1 (ii) At least 80% of the solid waste incinerated at a Tier 1 renewable 2 source facility shall be collected from: 3 1. for areas in Maryland, jurisdictions that achieve the 4 recycling rates required under § 9–505 of the Environment Article; and 5 for other states, jurisdictions for which the electricity 6 supplier demonstrates recycling substantially comparable to that required under § 9–505 7 of the Environment Article, in accordance with regulations of the Commission. 8 An electricity supplier may report credits received under this 9 paragraph based on compliance by the facility with the percentage requirement of 10 subparagraph (ii) of this paragraph during the year immediately preceding the year in which the electricity supplier receives the credit to apply to the standard. 11 12 7 - 704.1.13 (d) (1)The Commission shall use the following criteria to evaluate and 14 compare proposed offshore wind projects submitted during an application period: 15 (xiii) estimated ability to assist in meeting the **CLEAN AND** renewable 16 energy [portfolio] standard under § 7–703 of this subtitle; and 17 7 - 704.2.18 (1) The Commission shall determine the offshore wind energy component 19 of the CLEAN AND renewable energy [portfolio] standard under § 7–703(b)(12) through 20 [(25)] (35) of this subtitle based on the projected annual creation of ORECs by qualified 21offshore wind projects. 22 (2)The Commission shall establish the CLEAN AND renewable energy 23[portfolio] standard obligation for ORECs on a forward-looking basis that includes a 24surplus to accommodate reasonable forecasting error in estimating overall electricity sales 25in the State. 26 Any positive adjustment to the CLEAN AND renewable energy 27 [portfolio] standard shall be on a forward-looking basis and sufficiently in advance to allow 28OREC purchasers to reflect OREC costs in retail prices offered to consumers. 29 **(4)** The Commission shall adopt regulations that establish: 30 the offshore wind purchase obligation sufficiently in advance to (i)
- 32 (ii) a mechanism to adjust the CLEAN AND renewable energy 33 [portfolio] standard obligation in a given year to accommodate a shortfall of ORECs in one

allow OREC purchasers to reflect OREC costs in retail prices offered to consumers; and

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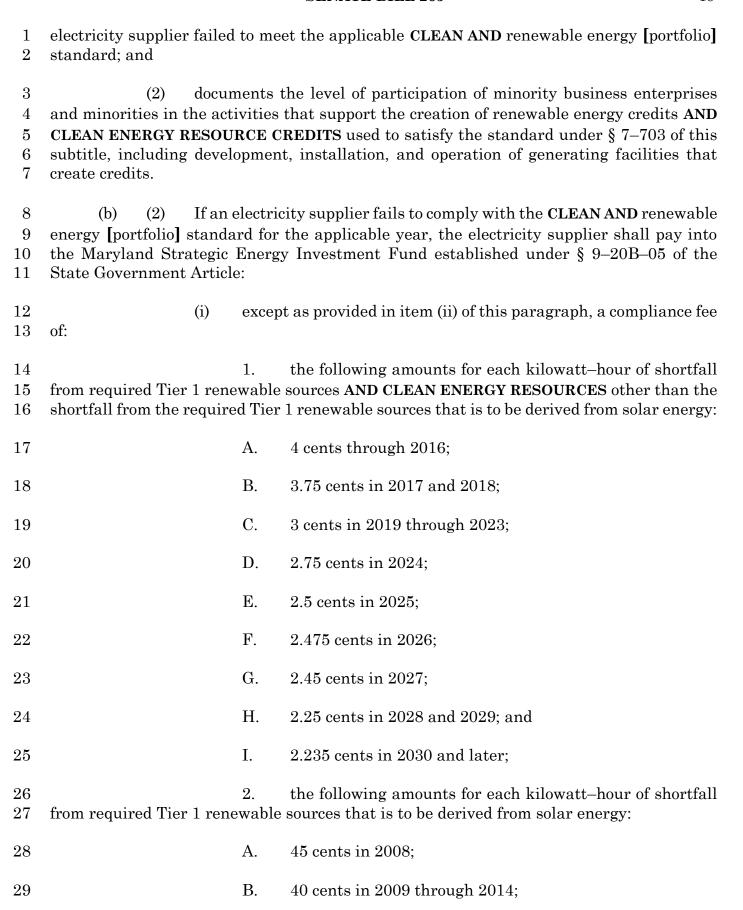
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or more earlier years that is the result of the variation between the quantity of ORECs calculated from the CLEAN AND renewable energy [portfolio] standard obligation and the quantity of ORECs approved in the Commission order for the same years.

- (c) (1) Each electricity supplier shall purchase from the escrow account established under this section the number of ORECs required to satisfy the offshore wind energy component of the CLEAN AND renewable energy [portfolio] standard under § 7–703(b)(12) through [(25)] (35) of this subtitle.
- 8 (2) (i) Subject to any escrow account reserve requirement the 9 Commission establishes, if there are insufficient ORECs available to satisfy the suppliers' 10 OREC obligation, the overpayment shall be distributed to electric companies to be refunded 11 or credited to each ratepayer based on the ratepayer's consumption of electricity supply 12 that is subject to the CLEAN AND renewable energy [portfolio] standard.
- 13 (ii) Subject to any escrow account reserve requirement the 14 Commission establishes, the calculation of an electricity supplier's OREC purchase 15 obligation shall be based on final electricity sales data as reported by the PJM 16 Interconnection as measured at the customer meter.
- 17 (3) For each OREC for which a qualified offshore wind project receives payment, a qualified offshore wind project shall:
- 19 (i) sell all energy, capacity, and ancillary services associated with 20 the creation of ORECs into the markets operated by PJM Interconnection; and
- 21 (ii) distribute the proceeds received from the sales to PJM 22 Interconnection markets, under item (i) of this paragraph to electric companies to be 23 refunded or credited to each ratepayer based on the ratepayer's consumption of electricity 24 supply that is subject to the CLEAN AND renewable energy [portfolio] standard.
- 25 (4) Notwithstanding § 7–709 of this subtitle, the Commission shall adopt regulations regarding the transfer and expiration of ORECs created by a qualified offshore wind project in excess of the OREC pricing schedule.
- 28 7–705.

- 29 (a) Each electricity supplier shall submit a report to the Commission each year in 30 a form and by a date specified by the Commission that:
- 31 (1) (i) demonstrates that the electricity supplier has complied with the 32 applicable CLEAN AND renewable energy [portfolio] standard under § 7–703 of this subtitle 33 and includes the submission of the required amount of renewable energy credits AND 34 CLEAN ENERGY RESOURCE CREDITS; or
 - (ii) demonstrates the amount of electricity sales by which the



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1		C.	35 cents in 2015 and 2016;
2		D.	19.5 cents in 2017;
3		E.	17.5 cents in 2018;
4		F.	10 cents in 2019;
5		G.	10 cents in 2020;
6		Н.	8 cents in 2021;
7		I.	6 cents in 2022;
8		J.	4.5 cents in 2023;
9		K.	4 cents in 2024;
10		L.	3.5 cents in 2025;
11		M.	3 cents in 2026;
12		N.	2.5 cents in 2027 and 2028;
13		О.	2.25 cents in 2029; and
14		P.	2.235 cents in 2030 and later; and
15 16	Tier 2 renewable sources	3. s; or	1.5 cents for each kilowatt–hour of shortfall from required
17	(ii)	for in	dustrial process load:
18 19	renewable sources, a con	1. nplianc	for each kilowatt–hour of shortfall from required Tier 1 e fee of:
20		A.	0.8 cents in 2006, 2007, and 2008;
21		B.	0.5 cents in 2009 and 2010;
22		C.	0.4 cents in 2011 and 2012;
23		D.	0.3 cents in 2013 and 2014;
24		E.	0.25 cents in 2015 and 2016; and

- 1 except as provided in paragraph (3) of this subsection, 0.2 2 cents in 2017 and later; and 3 2. nothing for any shortfall from required Tier 2 renewable 4 sources. 5 The Commission may allow an electricity supplier to submit the report 6 required under § 7–505(b)(4) of this title to demonstrate compliance with the CLEAN AND 7 renewable energy [portfolio] standard. 8 Notwithstanding the requirements of § 7–703(b) of this subtitle, if the (e) 9 actual or projected dollar-for-dollar cost incurred or to be incurred by an electricity 10 supplier solely for the purchase of Tier 1 renewable energy credits derived from solar energy in any 1 year is greater than or equal to, or is anticipated to be greater than or equal to, 11 12 6.0% of the electricity supplier's total annual electricity sales revenues in Maryland, the 13 electricity supplier may request that the Commission: 14 delay by 1 year each of the scheduled percentages for solar 15 energy under § 7–703(b) of this subtitle that would apply to the electricity supplier; and
- 19 In making its determination under paragraph (1) of this subsection, the 20 Commission shall consider the actual or projected dollar-for-dollar compliance costs of 21other electricity suppliers.

solar energy for that year to continue to apply to the electricity supplier for the following

allow the CLEAN AND renewable energy [portfolio] standard for

(ii)

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year.

- 22If an electricity supplier makes a request under paragraph (1) of this 23 subsection based on projected costs, the electricity supplier shall provide verifiable evidence of the projections to the Commission at the time of the request. 24
- 25 If the Commission allows a delay under paragraph (1) of this (4) 26 subsection:
- 27 the CLEAN AND renewable energy [portfolio] standard for solar (i) 28 energy applicable to the electricity supplier under the delay continues for each subsequent 29 consecutive year that the actual or projected dollar-for-dollar costs incurred, or to be 30 incurred, by the electricity supplier solely for the purchase of solar renewable energy credits is greater than or equal to, or is anticipated to be greater than or equal to, 6.0% of the 32electricity supplier's total annual retail electricity sales revenues in Maryland; and
 - the CLEAN AND renewable energy [portfolio] standard for solar energy applicable to the electricity supplier under the delay is increased to the next scheduled percentage increase under § 7–703(b) of this subtitle for each year in which the actual or projected dollar-for-dollar costs incurred, or to be incurred, by the electricity supplier solely for the purchase of solar renewable energy credits is less than, or is

- anticipated to be less than, 6.0% of the electricity supplier's total annual retail electricity sales revenues in Maryland.
- $3 \quad 7-706.$
- 4 (a) (1) Except as provided in paragraph (2) of this subsection, in accordance with the obligation to provide standard offer service through the bid process created under § 7–510 of this title, the Commission shall allow an electricity supplier to recover actual dollar–for–dollar costs incurred, including a compliance fee under § 7–705 of this subtitle, in complying with a State–mandated CLEAN AND renewable energy [portfolio] standard.
- 9 (2) In accordance with the Phase II settlement agreement approved by the Commission in Order No. 78710 in Case No. 8908 on September 30, 2003, for any full-service agreement executed before the CLEAN AND renewable energy standard under this subtitle applies to an electric company, the electric company and its wholesale electricity suppliers may pass through their commercially reasonable additional costs, if any, associated with complying with the standard, through the end of the year of standard offer service in which the requirement took effect.
- 16 (b) An electricity supplier may recover a compliance fee if:
- 17 (1) the payment of a compliance fee is the least–cost measure to customers 18 as compared to the purchase of Tier 1 renewable sources **OR CLEAN ENERGY RESOURCES** 19 to comply with a **CLEAN AND** renewable energy [portfolio] standard:
- 20 (2) there are insufficient Tier 1 renewable sources **OR CLEAN ENERGY**21 **RESOURCES** available for the electricity supplier to comply with a **CLEAN AND** renewable
 22 energy [portfolio] standard; or
- 23 (3) a wholesale electricity supplier defaults or otherwise fails to deliver 24 renewable energy credits **OR CLEAN ENERGY RESOURCE CREDITS** under a supply 25 contract approved by the Commission.
- 26 7–708.
- 27 (a) (1) The Commission shall establish and maintain a market—based 28 renewable electricity trading system to facilitate the creation and transfer of renewable 29 energy credits AND CLEAN ENERGY RESOURCE CREDITS.
- 30 (2) To the extent practicable, the trading system shall be consistent with 31 and operate in conjunction with the trading system developed by PJM Interconnection, Inc., 32 if available.
- 33 (3) The Commission may contract with a for-profit or a nonprofit entity to assist in the administration of the electricity trading system required under paragraph (1) of this subsection.

1 (b) (1) The system shall include a registry of pertinent information regarding 2 all: 3 available renewable energy credits AND CLEAN ENERGY (i) 4 RESOURCE CREDITS; and 5 renewable energy credit AND CLEAN ENERGY RESOURCE (ii) 6 **CREDIT** transactions among electricity suppliers in the State, including: 7 1. the creation and application of renewable energy credits AND CLEAN ENERGY RESOURCE CREDITS; 8 9 2. the number of renewable energy credits AND CLEAN ENERGY RESOURCE CREDITS sold or transferred; and 10 11 3. the price paid for the sale or transfer of renewable energy 12 credits AND CLEAN ENERGY RESOURCE CREDITS. 13 (2)(i) The registry shall provide current information to electricity 14 suppliers and the public on the status of renewable energy credits AND CLEAN ENERGY 15 **RESOURCE CREDITS** created, sold, or transferred in the State. 16 Registry information shall be available by computer network (ii) 17 access through the Internet. 7-709. 18 19 An electricity supplier may use accumulated renewable energy credits OR CLEAN ENERGY RESOURCE CREDITS to meet the CLEAN AND renewable energy 2021 [portfolio] standard, including credits created by a CLEAN ENERGY RESOURCE OR 22renewable on-site generator. 23 A renewable energy OR CLEAN ENERGY RESOURCE credit may be sold or 24otherwise transferred. 25 (c) (1)If an electricity supplier purchases solar renewable energy 26 credits directly from a renewable on-site generator with a capacity that exceeds 10 27 kilowatts to meet the solar component of the STANDARD FOR Tier 1 renewable [energy portfolio standard SOURCES, the duration of the contract term for the solar renewable 2829 energy credits may not be less than 15 years.

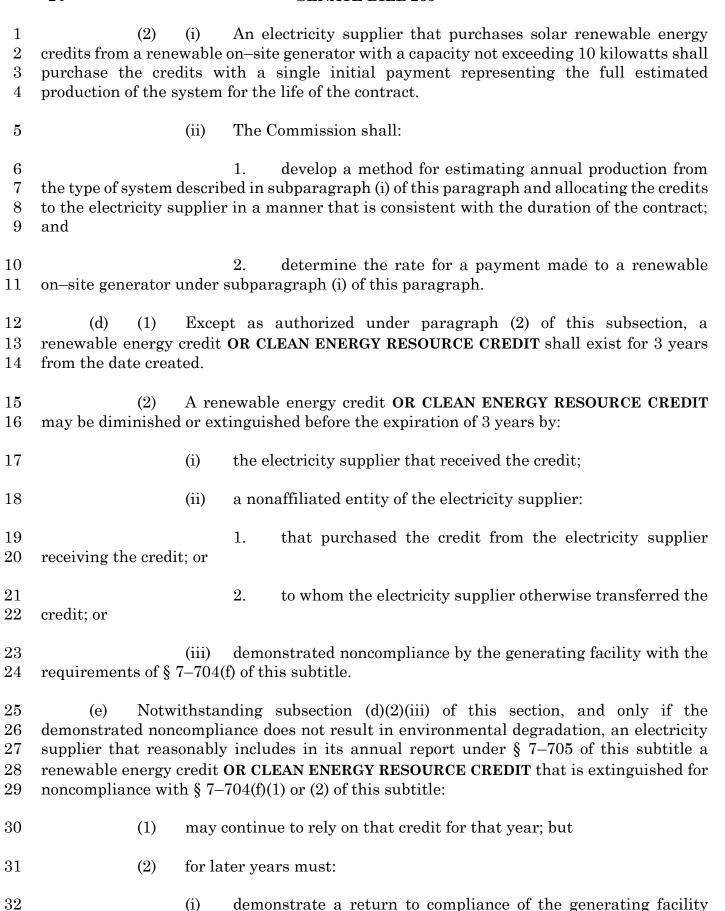
The minimum required term under subparagraph (i) of this

paragraph does not affect the ability of the parties to negotiate a price for a solar renewable

energy credit that varies over time in any manner.

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under § 7–704(f) of this subtitle; or

- 1 (ii) replace the credit with a renewable energy credit **OR CLEAN** 2 **ENERGY RESOURCE CREDIT** from another source.
- 3 (f) The Commission by regulation shall establish requirements for documentation and verification of renewable energy credits by licensed electricity suppliers and other generators that create and receive credits for compliance with the standards for Tier 1 renewable sources and [Tier 2 renewable sources] CLEAN ENERGY RESOURCES.
- 7 7–710.
- The Commission may impose an administrative fee on a renewable energy credit **OR**CLEAN ENERGY RESOURCE CREDIT transaction, but the amount of the fee may not exceed the Commission's actual direct cost of processing the transaction.
- 11 7–712.
- Subject to § 2–1257 of the State Government Article, on or before December 1 of each year the Commission shall report to the General Assembly on the status of implementation of this subtitle, including the availability of Tier 1 renewable sources AND CLEAN ENERGY RESOURCES, projects supported by the Fund, and other pertinent information.
- SECTION 4. AND BE IT FURTHER ENACTED, That this Act shall take effect January 1, 2021, and shall apply to all clean and renewable energy standard compliance years beginning with the 2021 compliance year.