



SPONSOR: Sen. McDowell & Rep. Osienski
Sens. Hansen, Townsend; Reps. Baumbach, Bennett,
Bolden

DELAWARE STATE SENATE
150th GENERAL ASSEMBLY

SENATE SUBSTITUTE NO. 1
FOR
SENATE BILL NO. 181

AN ACT TO AMEND TITLE 26 OF THE DELAWARE CODE RELATING TO RENEWABLE ENERGY PORTFOLIO
STANDARDS.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF DELAWARE:

Section 1. Amend § 352, Title 26 of the Delaware Code by making deletions as shown by strike through and
insertions as shown by underline as follows:

§ 352. Definitions.

As used in this subchapter:

(1) "Alternative compliance payment" means a payment of a certain dollar amount per megawatt hour, which
a retail electricity supplier or municipal electric company may submit in lieu of supplying the minimum percentage
from Eligible Energy Resources required under Schedule I in § 354 of this title.

(6) "Eligible energy resources" include the following energy sources located within or imported into the PJM
region:

a. Solar photovoltaic or solar thermal energy technologies that employ solar radiation to produce
electricity or to displace electricity ~~use~~; use.

b. Electricity derived from wind ~~energy~~; energy.

c. Electricity derived from ocean energy including wave or tidal action, currents, or thermal ~~differences~~;
differences.

d. Geothermal energy technologies that generate electricity with a steam turbine, driven by hot water or
steam extracted from geothermal reservoirs in the earth's ~~crust~~; crust.

e. Electricity generated by a fuel cell powered by renewable ~~fuels~~; fuels.

f. Electricity generated by the combustion of gas from the anaerobic digestion of organic ~~material~~;
material.

g. Electricity generated by a hydroelectric facility that has a maximum design capacity of 30 megawatts or less from all generating units combined that meet appropriate environmental standards as determined by ~~DNREC~~; DNREC.

h. Electricity generated from the combustion of biomass that has been cultivated and harvested in a sustainable manner as determined by DNREC, and is not combusted to produce energy in a waste to energy facility or in an incinerator, as that term is defined in ~~Title 7~~; Title 7.

i. Electricity generated by the combustion of methane gas captured from a landfill gas recovery system; provided however, that:

1. Increased production of landfill gas from production facilities in operation prior to January 1, 2004, demonstrates a net reduction in total air emissions compared to flaring and ~~leakage~~; leakage.

2. Increased utilization of landfill gas at electric generating facilities in operation prior to January 1, 2004; 2004.

A. Is used to offset the consumption of coal, oil, or natural gas at those ~~facilities~~; facilities.

B. Does not result in a reduction in the percentage of landfill gas in the facility's average annual fuel mix when calculated using fuel mix measurements for 12 out of any continuous 15-month period during which the electricity is ~~generated~~; and generated.

C. Causes no net increase in air emissions from the ~~facility~~; and facility.

3. Facilities installed on or after January 1, 2004, meet or exceed 2004 federal and state air emission standards, or the federal and state air emission standards in place on the day the facilities are first put into operation, whichever is higher.

j. Solar water heater.

1. Energy from a solar water heating system is eligible for inclusion in meeting the renewable energy portfolio standard.

2. A person that owns and operates a solar water heating system shall receive a renewable energy credit equal to the amount of energy, converted from BTUs to kilowatt-hours, that is generated by the system that is used by the person for water heating.

3. The total amount of energy generated and consumed for a nonresidential or commercial solar water heating system must be measured by an on-site meter that meets the required performance standards of the International Organization of Legal Metrology. The person who owns and operates the solar water heating system shall pay for the meter.

4. The total amount of energy generated and consumed by a residential solar water heating system must be measured by one of the following:

A. A meter that meets the required standards of the International Organization of Legal Metrology, paid for by the person who owns and operates the solar water heating system.

B. The Solar Ratings and Certification Corporation's OG-300 thermal performance rating for the system or an equivalent certification that the Commission approves in consultation with the Director of the Division of Climate, Coastal, and Energy, Department of Natural Resources and Environmental Control, and certified to the OG-300 standard of the Solar Ratings and Certification Corporation or an equivalent certification body that the Commission approves in consultation with the Director.

5. A residential solar water heating system must be installed in accordance with applicable State and local plumbing codes.

6. A solar water heating system may not produce more than 10 solar renewable energy credits in any 1 year.

(24) ~~“Solar Alternative Compliance Payment”~~ alternative compliance payment” means a payment of a certain dollar amount per megawatt-hour, which a retail electricity supplier or municipal electric supplier may submit in lieu of supplying the minimum percentage from ~~solar photovoltaics~~ solar technology required under Schedule I in § 354 of this title.

(25) “Solar technology” means solar photovoltaic or solar thermal energy technologies that employ solar radiation to produce electricity or to displace electricity.

(25) (26) “Solar Renewable Energy Credit” (“SREC”) means a tradable instrument that is equal to 1 megawatt-hour of retail electricity sales sales, or 3412100 British thermal units of solar heat energy, in the State that is derived from solar photovoltaic solar technology energy resources and that is used to track and verify compliance with the provisions of this subchapter.

(26) (27) “Total retail sales” means retail sales of electricity within the State of Delaware exclusive of sales to any industrial customer with a peak demand in excess of 1,500 kilowatts.

Section 2. Amend § 354, Title 26 of the Delaware Code by making deletions as shown by strike through and insertions as shown by underline as follows:

§ 354. Renewable energy portfolio standards, eligible energy ~~resources~~ resources, and industrial exemption.

(a) The total retail sales of each Retail Electricity Product delivered to Delaware end-use customers by a retail electricity supplier or municipal electric company during any given compliance year ~~shall~~ must include a minimum percentage of electrical energy sales with eligible energy resources and ~~solar photovoltaics~~ solar technology as follows:

SCHEDULE I

Compliance Year (beginning	Minimum Cumulative Percentage	Minimum Cumulative Percentage
June 1st <u>June 1</u>)	from Eligible Energy Resources	from Solar Photovoltaics * <u>Solar Technology*</u>
2010	5.00%	0.018%
2011	7.00%	0.20%
2012	8.50%	0.40%
2013	10.00%	0.60%
2014	11.50%	0.80%
2015	13.00%	1.00%
2016	14.50%	1.25%
2017	16.00%	1.50%
2018	17.50%	1.75%
2019	19.00%	2.00%
2020	20.00%	2.25%
2021	21.00%	2.50%
2022	22.00%	2.75%
2023	23.00%	3.00%
2024	24.00%	3.25%
2025	25.00%	3.50%
<u>2026</u>	<u>25.50%</u>	<u>4.00%</u>
<u>2027</u>	<u>26.00%</u>	<u>4.50%</u>
<u>2028</u>	<u>26.50%</u>	<u>5.00%</u>
<u>2029</u>	<u>27.00%</u>	<u>5.50%</u>
<u>2030</u>	<u>28.00%</u>	<u>5.75%</u>
<u>2031</u>	<u>30.00%</u>	<u>6.00%</u>
<u>2032</u>	<u>32.00%</u>	<u>6.25%</u>

108	<u>2033</u>	<u>34.00%</u>	<u>6.50%</u>
109	<u>2034</u>	<u>37.00%</u>	<u>6.75%</u>
110	<u>2035</u>	<u>40.00%</u>	<u>7.00%</u>
111	* Minimum Percentage from Eligible Energy Resources		
112	Includes the Minimum Percentage from Solar—Photovoltaics: <u>Solar</u>		
113	<u>Technology.</u>		

114 Any portion of a retail electricity supplier's renewable energy supply portfolio for 2007, 2008 and 2009 compliance years
115 that is acquired under wholesale renewable energy supply entered into pursuant to the 2005 or 2006 Delaware Standard
116 Offer Service (SOS) auctions shall be subject to the provisions of this subchapter, as set forth in Schedule I (Revised)
117 below that were in effect on the date of the 2005 or 2006 SOS auction:

118 SCHEDULE I (Revised)

119	Compliance Year (beginning	Minimum Cumulative Percentage	Minimum Cumulative
120	June 1 st)	Percentage from Eligible	Percentage from Solar
121		Energy Resources	Photovoltaics*
122	2007-	—	1.00%
123	2008-	0.011%	1.50%
124	2009	0.014%	2.00%
125	2010-	0.018%	5.00%
126	2011-	0.048%	7.00%
127	2012-	0.099%	8.50%
128	2013	0.201%	10.00%
129	2014-	0.354%	11.50%
130	2015-	0.559%	13.00%
131	2016-	0.803%	14.50%
132	2017-	1.112%	16.00%
133	2018-	1.547%	18.00%
134	2019-	2.005%	20.00%

135 * Minimum Percentage from Eligible Energy Resources

136 Includes the Minimum Percentage from Solar Photovoltaics.

(b) Cumulative minimum percentage requirements of eligible energy resources and ~~solar photovoltaics~~ solar technology ~~must~~ be established by Commission rules for compliance year ~~2026~~ 2036 and each subsequent year. ~~In no case shall the~~ The minimum percentages established by Commission rules may not be lower than those required for compliance year ~~2025~~ 2035 in Schedule I, subsection (a) of this section. Each of the rules setting such minimum percentage ~~shall~~ must be adopted at least 2 years ~~prior to~~ before the minimum percentage being required.

(c) ~~Beginning in compliance year 2010, and in each compliance year thereafter, the Commission may review the status of Schedule I and report to the legislature on the status of the pace of the scheduled percentage increases toward the goal of 25% from eligible energy resources. If the Commission concludes at this time that the schedule either needs to be accelerated or decelerated, it may also make recommendations to the General Assembly for legislative changes to the RPS.~~
[Repealed.]

(d) ~~Beginning in compliance year 2014, and in each compliance year thereafter, the Commission may, in the event of circumstances specified in this subsection and after conducting hearings, accelerate or slow the scheduled percentage increases towards meeting the goal of 25%. The Commission may only slow the increases if the Commission finds that at least 30% of RPS compliance has been met through the alternative compliance payment for 3 consecutive years, despite adequate planning by the commission-regulated electric companies and, where applicable, the retail electricity suppliers with existing contractual electric supply obligations. The Commission may only accelerate the scheduled percentage increases after finding that the average price for renewable energy credits eligible for RPS compliance has, for 2 consecutive years, been below a predetermined market-based price threshold to be established by the Commission. The Commission shall establish the predetermined market-based price threshold in consultation with the Delaware Energy Office. Rules that would alter the percentage targets shall be promulgated at least 2 years before the percentage change takes effect. In no event shall the Commission reduce the percentage target below any level reached to that point.~~
[Repealed.]

(e) ~~Beginning with compliance year 2012, commission-regulated~~ Commission-regulated electric companies shall be ~~are~~ responsible for procuring RECs, SRECs SRECs, and any other attributes needed to comply with subsection (a) of this section with respect to all energy delivered to such companies' end use customers.

(f) For each ~~commission-regulated~~ Commission-regulated electric company, retail electricity supplier with existing contractual electric supply ~~obligation~~ obligation, or municipal electric company, no more than 1% of each year's total retail sales may be met from eligible energy resources that are not new renewable generation resources. In compliance year 2026, and for each compliance year thereafter, all eligible energy resources used to meet cumulative minimum percentage requirements set by the Commission rules ~~shall~~ must be new renewable generation resources.

(g) A retail electricity supplier or municipal electric company ~~shall~~ may not use energy used to satisfy another state's renewable energy portfolio requirements for compliance with Schedule I of subsection (a) of this section.

(h) An applicant's compliance with Schedule I of subsection (a) of this section ~~shall~~ must be based on historical data, collected in a manner consistent with industry standard and, with respect to retail electricity suppliers, Commission regulations. A retail electricity supplier or municipal electric company shall meet the renewable energy portfolio standards by accumulating the equivalent amount of renewable energy credits and solar renewable energy credits that equal the percentage required under this section.

(i) The ~~State Energy Coordinator~~ Director of the Division of Climate, Coastal, and Energy, Department of Natural Resources and Environmental Control ("Division"), in consultation with the Commission, may freeze the minimum cumulative ~~solar photovoltaics~~ solar technology requirement for regulated utilities if the ~~Delaware Energy Office~~ Division determines that the total cost of complying with this requirement during a compliance year exceeds 1% of the total retail cost of electricity for retail electricity suppliers during the same compliance year. In the event of a freeze, the minimum cumulative percentage from ~~solar photovoltaics~~ solar technology ~~shall remain~~ remains at the percentage for the year in which the freeze is instituted. The freeze ~~shall~~ must be lifted upon a finding by the ~~Coordinator~~, Director, in consultation with the Commission, that the total cost of compliance can reasonably be expected to be under the 1% threshold. The total cost of compliance ~~shall include~~ includes the costs associated with any ratepayer funded state solar rebate program, SREC purchases, and solar alternative compliance payments.

(j) The ~~State Energy Coordinator~~ Director, in consultation with the Commission, may freeze the minimum cumulative eligible energy resources requirement for regulated utilities if the ~~Delaware Energy Office~~ Division determines that the total cost of complying with this requirement during a compliance year exceeds 3% of the total retail cost of electricity for retail electricity suppliers during the same compliance year. In the event of a freeze, the minimum cumulative percentage from eligible energy resources ~~shall remain~~ remains at the percentage for the year in which the freeze is instituted. The freeze ~~shall~~ must be lifted upon a finding by the ~~Coordinator~~, Director, in consultation with the Commission, that the total cost of compliance can reasonably be expected to be under the 3% threshold. The total cost of compliance ~~shall include~~ includes the costs associated with any ratepayer funded state renewable energy rebate program, REC purchases, and alternative compliance payments.

Section 3. Amend § 356, Title 26 of the Delaware Code by making deletions as shown by strike through and insertions as shown by underline as follows:

§ 356. Multiple credits for specific energy ~~sources~~: sources, certified brownfield usage.

(a) A retail electricity supplier or municipal electric company ~~shall~~ must receive 300% credit toward meeting the minimum percentage from Eligible Energy Resources of Schedule I of the renewable energy portfolio standards established ~~pursuant to~~ under this subchapter for energy derived from the following sources installed on or before December 31, 2014:

(1) Customer-sited ~~solar photovoltaic~~ solar technology physically located in ~~Delaware; or Delaware.~~

(2) A fuel cell powered by renewable fuels.

(b) A retail electricity supplier or municipal electric company ~~shall~~ must receive 150% credit toward meeting the renewable energy portfolio standards established ~~pursuant to~~ under this subchapter for wind energy installations sited in Delaware on or before December 31, 2012.

(c) A Commission-regulated electric company ~~shall~~ must receive 350% credit toward meeting the renewable energy portfolio standards established ~~pursuant to~~ under this subchapter for energy derived from off-shore wind energy installations sited off the Delaware coast on or before May 31, 2017.

(1) To be entitled to 350% credit, contracts for energy and renewable energy credits from such off-shore wind energy installations must be executed by Commission-regulated electric companies ~~prior to~~ before commencement of construction of such installations.

(2) Commission-regulated electric companies ~~shall be~~ are entitled to ~~such~~ multiple credits for the life of contracts for renewable energy credits from off-shore wind installations executed ~~pursuant to~~ under this subsection.

(d) A retail electricity supplier ~~shall~~ must receive an additional 10% credit toward meeting the renewable energy portfolio standards established ~~pursuant to~~ under this subchapter for solar or wind energy installations sited in Delaware provided that a minimum of 50% of the cost of renewable energy equipment, inclusive of mounting components, are manufactured in Delaware.

(e) A retail electricity supplier ~~shall~~ must receive an additional 10% credit toward meeting the renewable energy portfolio standards established ~~pursuant to~~ under this subchapter for solar or wind energy installations sited in Delaware provided that the facility is constructed ~~and/or~~ or installed with a minimum of 75% in-state workforce.

(g) A retail electricity supplier or municipal electric company must receive 150% credit toward meeting the renewable energy portfolio standards established under this subchapter for eligible energy resources located on a certified brownfield, as defined under § 9123 of Title 7, and installed on or before December 31, 2023.

Section 4. Amend § 358, Title 26 of the Delaware Code by making deletions as shown by strike through and insertions as shown by underline as follows:

§ 358. Issuance of renewable energy credits; reporting requirement; alternative compliance payment.

(d) In lieu of standard means of compliance with this ~~statute, subchapter~~, any retail electricity supplier may pay into the Fund an alternative compliance payment of \$25 for each megawatt-hour deficiency between the credits available and used by a retail electricity supplier in a given compliance year and the credits necessary for such retail electricity supplier to meet the year's renewable energy portfolio standard. A municipal electric company may pay the alternative compliance payment into a fund established by its municipal members. In subsequent years, the alternative compliance payments for any retail electricity supplier or municipal electricity company ~~shall increase~~ increases as follows:

(1) If a retail electricity supplier has paid an alternative compliance payment of \$25 for each megawatt-hour in any previous year, then the alternative compliance payment ~~shall~~ must be \$50 for each megawatt-hour.

(2) If a retail electricity supplier has paid an alternative compliance payment of \$50 for each megawatt-hour in any previous year, then the alternative compliance payment ~~shall~~ must be \$80 for each megawatt-hour.

(3) ~~Alternative compliance payments shall not be more than \$80 for each megawatt-hour. [Repealed.]~~

(4) ~~The State Energy Coordinator shall have the authority to~~ The Director of the Division of Climate, Coastal, and Energy, Department of Natural Resources and Environmental Control ("Division"), may review the alternative compliance payment on an as needed or annual basis to determine reasonableness compared to market REC prices. Following an analysis conducted by the ~~Delaware Energy Office, Division~~, the ~~State Energy Coordinator~~ Director ~~shall also have the authority to~~ may adjust the alternative compliance payment by 10% in order to achieve reasonableness.

(e) In lieu of standard means of compliance with this ~~statute, subchapter~~, any retail electricity supplier may pay into the Fund a solar alternative compliance payment of \$400 for each megawatt-hour deficiency between the credits available and used by a retail electricity supplier in a given compliance year and the credits necessary for such retail electricity supplier to meet the year's renewable energy portfolio standard. A municipal electric company may pay the solar alternative compliance payment into a fund established by its municipal members. In subsequent years, the solar alternative compliance payments for any retail electricity supplier or municipal electricity company ~~shall increase~~ increases as follows:

(1) If a retail electricity supplier has paid a solar alternative compliance payment of \$400 for each megawatt-hour in any previous year, then the solar alternative compliance payment ~~shall~~ must be \$450 for each megawatt-hour.

(2) If a retail electricity supplier has paid a solar alternative compliance payment of \$450 for each megawatt-hour in any previous year, then the solar alternative compliance payment ~~shall~~ must be \$500 for each megawatt-hour.

(3) ~~The State Energy Coordinator shall have the authority to~~ The Director ~~may~~ review the solar alternative compliance payment on an as needed or annual basis to determine reasonableness compared to market-based SREC prices. Following an analysis conducted by the ~~Delaware Energy Office, Division~~, the ~~State Energy Coordinator~~ Director ~~shall also have the authority to~~ may adjust the solar alternative compliance payment by 20% in order to

255 achieve reasonableness, but not higher than 20% of the competitive market cost of an SREC, determined by the
256 quarterly weighted average cost of meeting the requirement through purchase of an SREC as analyzed by ~~the Delaware~~
257 ~~Energy Office. Division.~~

258 Section 5. Amend § 362, Title 26 of the Delaware Code by making deletions as shown by strike through and
259 insertions as shown by underline as follows:

260 § 362. Rules and regulations.

261 (a) The Commission shall adopt rules and regulations necessary to implement the provisions of this subchapter as
262 it applies to retail electricity suppliers. The Commission shall make its regulations as consistent as possible with those of
263 other states in the region with similar requirements in order to minimize the compliance burdens imposed by this ~~statute~~
264 subchapter and in order to avoid duplication of effort.

265 (b) For regulated utilities, the Commission shall ~~further~~ adopt rules and regulations to specify the procedures for
266 freezing the minimum cumulative solar photovoltaic requirement as authorized solar technology requirement under § 354(i)
267 and (j) of this title, and for adjusting the alternative compliance payment and solar alternative compliance payment as
268 ~~authorized~~ under § 358(d)(4) and (e)(3) of this title.

269 Section 6. Amend § 363, Title 26 of the Delaware Code by making deletions as shown by strike through and
270 insertions as shown by underline as follows:

271 § 363. Special provisions for municipal electric companies and rural electric cooperatives.

272 (g) The total cost of complying with the ~~solar photovoltaic~~ solar technology program shall not exceed 1% of the
273 total cost of the purchased power of the affected utility for any calendar year.

274 Section 7. Amend § 1014, Title 26 of the Delaware Code by making deletions as shown by strike through and
275 insertions as shown by underline as follows:

276 § 1014. Public purpose programs and consumer education.

277 (a) In separating the rates or prices for DP&L's services under § 1005(a) of this title, the Commission shall
278 reassign to the separate transmission and distribution rates of each rate class from the total base rates \$0.000356 per
279 kilowatt-hour to be deposited each month by DP&L into an environmental incentive fund effective on October 1, 1999.
280 ~~Such fund shall be~~ The environmental incentive fund is to be known as the "Green Energy Fund" and all moneys deposited
281 into the Green Energy Fund ~~shall~~ must be transferred in their entirety on the July 1 of each year to ~~the State Energy Office~~
282 the Division to fund environmental incentive programs for conservation and energy efficiency in ~~the~~ this State. The ~~State~~
283 ~~Energy Office Division~~ shall submit to the General Assembly by May 30 of each year a written accounting of moneys
284 received from the fund during the previous year and how those moneys were used or disbursed during that year.

(b) The Commission shall further reassign to the separate transmission and distribution rates of each rate class from the total base rates \$0.000095 per kilowatt-hour to be deposited each month by DP&L into a low-income program fund effective on October 1, 1999. ~~Such fund shall be administered by the~~ The Department of Health and Social Services, Division of State Service Centers shall administer the low-income program fund and shall ~~be used~~ use the fund to fund low-income fuel assistance and weatherization programs within DP&L's service territory.

~~(c) The Commission shall establish a working group by June 1, 1999, comprised of representatives of the Commission, electric utilities, electric suppliers, the Division of the Public Advocate, environmental community, consumers, a member of the House of Representatives appointed by the Speaker of the House, a member of the House of Representatives appointed by the Minority Leader of the House, a member of the Senate appointed by the President Pro Tempore of the Senate, a member of the Senate appointed by the Minority Leader of the Senate and other interested parties to design and implement a consumer education program, including "Green Power" options, to prepare the citizens of Delaware for retail competition. The Commission shall direct the payment of up to a total of \$250,000 from DP&L and DEC (apportioned on the 1998 kw Delaware retail sales of each entity) for the purpose of providing customer education materials to citizens of Delaware in connection with retail competition. [Repealed.]~~

SYNOPSIS

This Substitute Act modifies the Renewable Energy Portfolio Standards Act to do all of the following:

- (1) Adds a solar water heater to the list of eligible energy resources.
- (2) Defines "solar technology" to include both solar photovoltaic and solar thermal energy technologies.
- (3) Continues increasing the required minimum percentage of electrical energy sales to Delaware end-use customers from renewable energy sources through 2035.
- (4) Places the Director of the Department of Natural Resources and Environmental Control's Division of Climate, Coastal, and Energy, and the Division itself, in charge of certain administrative aspects of the renewable energy portfolio standards program, replacing the State Energy Coordinator and the Delaware Energy Office.
- (5) Grants retail electricity suppliers and municipal electric companies a credit for installing eligible energy resources on a certified brownfield.
- (6) Makes technical corrections to conform existing law to the standards of the Delaware Legislative Drafting Manual.

This Substitute Act differs from the Act by:

- (1) Lowering the minimum cumulative percentage for solar technology by .25% beginning in 2030.
- (2) Removing provisions that permitted a freeze of the minimum cumulative percentage from eligible energy resources and of the minimum cumulative percentage from solar technology under certain circumstances.

Author: Senator McDowell