THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 80

Session of 2009

INTRODUCED BY VITALI, ROSS, GEORGE, DePASQUALE, HARPER, FREEMAN, M. O'BRIEN, GOODMAN, CREIGHTON, MOUL, O'NEILL, MANDERINO, BELFANTI, MELIO, SANTONI, HARHART, READSHAW, GIBBONS, ADOLPH, MENSCH, HORNAMAN, CARROLL, MYERS, JOSEPHS, LENTZ, DeWEESE, CONKLIN, PETRI, GINGRICH, CURRY, DRUCKER, MICOZZIE, GERBER, SABATINA, KULA, MAHONEY, BARBIN AND SEIP, MARCH 12, 2009

AS REPORTED FROM COMMITTEE ON ENVIRONMENTAL RESOURCES AND ENERGY, HOUSE OF REPRESENTATIVES, AS AMENDED, JUNE 16, 2009

AN ACT

- Amending the act of November 30, 2004 (P.L.1672, No.213), entitled, "An act providing for the sale of electric energy 2 generated from renewable and environmentally beneficial 3 sources, for the acquisition of electric energy generated from renewable and environmentally beneficial sources by electric distribution and supply companies and for the powers 7 and duties of the Pennsylvania Public Utility Commission," further providing for definitions and for alternative energy 8 portfolio standards; and providing for carbon dioxidesequestration network SEQUESTRATION FACILITY PERMITTING AND 10 FOR TITLE TO CARBON DIOXIDE, IMMUNITY AND TRANSFER OF 11 LIABILITY; ESTABLISHING THE CARBON DIOXIDE INDEMNIFICATION 12 13 FUND; PROVIDING FOR COMMONWEALTH-OWNED CARBON DIOXIDE SEQUESTRATION FACILITY AND TRANSPORTATION PIPELINE; ESTABLISHING THE CARBON SEQUESTRATION FUND; AND PROVIDING FOR 15 APPLICATION OF THE PUBLIC UTILITY CODE TO TRANSPORTERS OF 16 17 CARBON DIOXIDE. 18 The General Assembly of the Commonwealth of Pennsylvania
- 19 hereby enacts as follows:
- 20 Section 1. The definition of "alternative energy sources"
- 21 and "Tier II alternative energy source" in section 2 of the act
- 22 of November 30, 2004 (P.L.1672, No.213), known as the
- 23 Alternative Energy Portfolio Standards Act, are amended by



1	adding paragraphs and the section is amended by adding
2	definitions to read:
3	Section 2. Definitions.
4	The following words and phrases when used in this act shall
5	have the meanings given to them in this section unless the
6	context clearly indicates otherwise:
7	* * *
8	"Alternative energy sources." The term shall include the
9	following existing and new sources for the production of
10	electricity:
11	* * *
12	(14) Advanced coal combustion with limited carbon
13	emissions, which means the production of electric power from
14	a generation facility that:
15	(i) Is fueled by coal, WASTE COAL or gas derived
16	from an advanced coal gasification plant.
17	(ii) Captures THAT:
18	(I) BEGINS COMMERCIAL OPERATION AFTER JANUARY 1,
19	2009, AND CAPTURES, either in the advanced coal
20	gasification plant or in the electrical generation
21	facility, and permanently sequesters DELIVERS TO A CARBON_
22	DIOXIDE SEQUESTRATION FACILITY IN THIS COMMONWEALTH FOR
23	PERMANENT SEQUESTRATION at least the following amount of
24	all carbon dioxide produced:
25	(A) 40% from June 1, 2015 to May 31, 2019.
26	(B) 60% from June 1, 2019 to May 31, 2024.
27	(C) 90% from June 1, 2024 and thereafter.
28	(D) The requirement under clause (C) shall be
29	waived if commercially proven and project-financeable
30	technology is not available AS DETERMINED BY THE

1	DEPARTMENT.
2	(iii) (II) Has been designed to accommodate the
3	required additional processing equipment to produce power
4	with a maximum of 1,000 pounds of carbon dioxide
5	emissions per megawatt hour- OR BEGINS COMMERCIAL
6	OPERATION BEFORE JANUARY 1, 2009, AND CAPTURES AND
7	DELIVERS TO A CARBON DIOXIDE SEQUESTRATION FACILITY IN
8	THIS COMMONWEALTH FOR PERMANENT SEQUESTRATION NO LESS
9	THAN THE FOLLOWING AMOUNT OF CARBON DIOXIDE PRODUCED:
10	(A) 40% FROM JUNE 1, 2015 TO MAY 31, 2019.
11	(B) 60% FROM JUNE 1, 2019 TO MAY 31, 2024.
12	(C) 90% FROM JUNE 1, 2024 AND THEREAFTER.
13	* * *
14	"CARBON DIOXIDE." ANTHROPOGENICALLY GENERATED CARBON DIOXIDE
15	OF SUFFICIENT PURITY AND QUALITY AS TO NOT COMPROMISE THE
16	ABILITY OF THE CARBON DIOXIDE TRANSPORTATION PIPELINE OR
17	SEQUESTRATION FACILITY TO SAFELY AND EFFECTIVELY TRANSPORT AND
18	SEQUESTER THE CARBON DIOXIDE.
19	"CARBON DIOXIDE SEQUESTRATION FACILITY." GEOLOGICAL
20	SUBSURFACE FORMATIONS WITHIN THIS COMMONWEALTH WITH SUITABLE CAP
21	ROCK, SEALING FAULTS AND ANTICLINE FOR THE PERMANENT STORAGE OF
22	CARBON DIOXIDE FROM ADVANCED COAL COMBUSTION WITH LIMITED CARBON
23	EMISSIONS FACILITIES OR OTHER SOURCES WITHIN THIS COMMONWEALTH
24	ALONG WITH THE FACILITIES NECESSARY TO TRANSPORT THE CARBON
25	DIOXIDE FROM THE SURFACE TO THE SUBSURFACE FORMATIONS AND
26	MONITOR THE PERMANENT STORAGE OF THE CARBON DIOXIDE IN
27	SUBSURFACE FORMATIONS. THE TERM SHALL NOT INCLUDE USE OF THE
28	CARBON DIOXIDE FOR ENHANCED RESOURCE RECOVERY OR THE CARBON
29	DIOXIDE TRANSPORTATION PIPELINES USED TO TRANSPORT THE CARBON
30	DIOXIDE TO THE SEQUESTRATION FACILITY.

- 1 <u>"Carbon dioxide sequestration network." Geological</u>
- 2 <u>subsurface formations within this Commonwealth with suitable cap</u>
- 3 rock, sealing faults and anticline used by the Department of
- 4 Conservation and Natural Resources for the permanent storage of
- 5 carbon dioxide from advanced coal combustion with limited carbon
- 6 emissions plants or other sources within this Commonwealth along
- 7 with the facilities necessary to transport the carbon dioxide
- 8 from the surface to the subsurface formations and monitor the
- 9 permanent storage of the carbon dioxide in subsurface
- 10 formations. The term shall not include use of the carbon dioxide
- 11 for enhanced resource recovery.
- 12 "CARBON DIOXIDE TRANSPORTATION PIPELINE." A PIPELINE WITHIN
- 13 THIS COMMONWEALTH USED TO TRANSPORT CARBON DIOXIDE FROM A
- 14 FACILITY WITHIN THIS COMMONWEALTH TO A CARBON DIOXIDE
- 15 SEQUESTRATION FACILITY.
- 16 * * *
- 17 "DCNR." The Department of Conservation and Natural Resources
- 18 of the Commonwealth.
- 19 * * *
- "Enhanced resource recovery." The use of carbon dioxide
- 21 injection or other techniques for increasing the amount of oil,
- 22 natural gas or coal bed methane extracted from geologic
- 23 formations.
- 24 * * *
- 25 "PERSON." AN INDIVIDUAL, CORPORATION, PARTNERSHIP,
- 26 ASSOCIATION OR OTHER ENTITY RECOGNIZED BY LAW AS THE SUBJECT OF
- 27 RIGHTS, DUTIES OR OBLIGATIONS. THE TERM INCLUDES THE UNITED
- 28 STATES, A FEDERAL AGENCY, THE COMMONWEALTH, AN AGENCY OR
- 29 INSTRUMENTALITY OF THE COMMONWEALTH AND A POLITICAL SUBDIVISION.
- 30 * * *

- 1 "Tier II alternative energy source." Energy derived from:
- 2 * * *
- 3 (8) Advanced coal combustion with limited carbon
- 4 <u>emissions.</u>
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- 6 Section 2. Section 3(a), (b), (c), (f) and (g) of the act,
- 7 amended July 17, 2007 (P.L.114, No.35), are amended and the
- 8 section is amended by adding subsections to read:
- 9 Section 3. Alternative energy portfolio standards.
- 10 (a) General compliance and cost recovery.--
- 11 (1) From the effective date of this act through and
 12 including the 15th year after enactment of this act and each
 13 year thereafter, the electric energy sold by an electric
 14 distribution company or electric generation supplier to
 15 retail electric customers in this Commonwealth shall be
 16 comprised of electricity generated from alternative energy
 17 sources and in the percentage amounts as described under

subsections [(b) and (c)] (b), (c) and (c.1).

- (2) Electric distribution companies and electric generation suppliers shall satisfy both requirements set forth in subsections [(b) and (c)] (b), (c) and (c.1), provided, however, that an electric distribution company or an electric generation supplier shall be excused from its obligations under this section to the extent that the commission determines that force majeure exists.
 - (3) All costs for:
- (i) the purchase of electricity generated from
 alternative energy sources, including the costs of the
 regional transmission organization, in excess of the
 regional transmission organization real-time locational

marginal pricing, or its successor, at the delivery point
of the alternative energy source for the electrical
production of the alternative energy sources; and

- payments for alternative energy credits, in both cases that are voluntarily acquired by an electric distribution company during the cost recovery period on behalf of its customers shall be deferred as a regulatory asset by the electric distribution company and fully recovered, with a return on the unamortized balance, pursuant to an automatic energy adjustment clause under 66 Pa.C.S. § 1307 (relating to sliding scale of rates; adjustments) as a cost of generation supply under 66 Pa.C.S. § 2807 (relating to duties of electric distribution companies) in the first year after the expiration of its cost-recovery period. After the costrecovery period, any direct or indirect costs for the purchase by electric distribution of resources to comply with this section, including, but not limited to, the purchase of electricity generated from alternative energy sources, payments for alternative energy credits, cost of credits banked, payments to any third party administrators for performance under this act and costs levied by a regional transmission organization to ensure that alternative energy sources are reliable, shall be recovered on a full and current basis pursuant to an automatic energy adjustment clause under 66 Pa.C.S. § 1307 as a cost of generation supply under 66 Pa.C.S. § 2807.
- (b) Tier I and solar photovoltaic shares.--
- 30 (1) Two years after the effective date of this act, at

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1 least 1.5% of the electric energy sold by an electric 2 distribution company or electric generation supplier to retail electric customers in this Commonwealth shall be 3 generated from Tier I alternative energy sources. Except as 4 5 provided in this section, the minimum percentage of electric 6 energy required to be sold to retail electric customers from 7 alternative energy sources shall increase to 2% three years 8 after the effective date of this act. The minimum percentage 9 of electric energy required to be sold to retail electric 10 customers from alternative energy sources shall increase by at least 0.5% each year so that at least 8% of the electric 11 12 energy sold by an electric distribution company or electric 13 generation supplier to retail electric customers in that 14 certificated territory in the 15th year after the effective 15 date of this subsection is sold from Tier I alternative 16 energy resources.

(1.1) After the 15th year of the effective date of this subsection, the minimum percentage of electric energy required to be sold to retail electric customers from Tier I alternative energy sources is:

(i) 10% for June 1, 2021, through May 31, 2022.

(ii) 12% for June 1, 2022, through May 31, 2023.

(iii) 14% for June 1, 2023, through May 31, 2024.

(iv) 16% for June 1, 2024, through May 31, 2025.

(v) 18% for June 1, 2025, through May 31, 2026.

(vi) 20% for June 1, 2026, and thereafter.

(2) The total percentage of the electric energy sold by an electric distribution company or electric generation supplier to retail electric customers in this Commonwealth that must be sold from solar photovoltaic technologies is:

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- 1 (i) 0.0013% for June 1, 2006, through May 31, 2007.
- 2 (ii) 0.0030% for June 1, 2007, through May 31, 2008.
- 3 (iii) 0.0063% for June 1, 2008, through May 31,
- 4 2009.
- 5 (iv) 0.0120% for June 1, 2009, through May 31, 2010.
- 6 (v) 0.0203% for June 1, 2010, through May 31, 2011.
- 7 (vi) 0.0325% for June 1, 2011, through May 31, 2012.
- 8 (vii) 0.0510% for June 1, 2012, through May 31,
- 9 2013.
- 10 (viii) 0.0840% for June 1, 2013, through May 31,
- 11 2014.
- 12 (ix) 0.1440% for June 1, 2014, through May 31, 2015.
- 13 (x) 0.2500% for June 1, 2015, through May 31, 2016.
- 14 (xi) 0.2933% for June 1, 2016, through May 31, 2017.
- 15 (xii) 0.3400% for June 1, 2017, through May 31,
- 16 2018.
- 17 (xiii) 0.3900% for June 1, 2018, through May 31,
- 18 2019.
- 19 (xiv) 0.4433% for June 1, 2019, through May 31,
- 20 2020.
- 21 (xv) 0.5000% for June 1, 2020, [and thereafter.]
- 22 <u>through May 31, 2021.</u>
- 23 (xvi) 0.9000% for June 1, 2021, through May 31,
- 24 2022.
- 25 (xvii) 1.3000% for June 1, 2022, through May 31,
- 26 2023.
- 27 (xviii) 1.7000% for June 1, 2023, through May 31,
- 28 2024.
- 29 (xix) 2.1000% for June 1, 2024, through May 31,
- 30 2025.

1	(xx) 2.5000% for June 1, 2025, through May 31, 2026.
2	(xxi) 3.000% for June 1, 2026, and thereafter.
3	(3) Upon commencement of the beginning of the 6th
4	reporting year, and every five years thereafter, the
5	commission shall undertake a review of the compliance by
6	electric distribution companies and electric generation
7	suppliers with the requirements of this act. The review shall
8	also include the status of alternative energy technologies
9	within this Commonwealth and the capacity to add additional
10	alternative energy resources. The commission shall use the
11	results of this review to recommend to the General Assembly
12	additional compliance goals beyond year [15] 21 . The
13	commission shall work with the department in evaluating the
14	future alternative energy resource potential.
15	(4) As of May 31, 2021, and thereafter, 50% of electric
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16	energy from solar photovoltaic technologies supplied to
16	energy from solar photovoltaic technologies supplied to
16 17	energy from solar photovoltaic technologies supplied to retail customers shall be generated from solar photovoltaic
16 17 18	energy from solar photovoltaic technologies supplied to retail customers shall be generated from solar photovoltaic systems located within this Commonwealth in meeting the
16 17 18	energy from solar photovoltaic technologies supplied to retail customers shall be generated from solar photovoltaic systems located within this Commonwealth in meeting the requirements of paragraph (2).
16 17 18 19 20	energy from solar photovoltaic technologies supplied to retail customers shall be generated from solar photovoltaic systems located within this Commonwealth in meeting the requirements of paragraph (2). (4) ELECTRIC ENERGY FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES
16 17 18 19 20 21	energy from solar photovoltaic technologies supplied to retail customers shall be generated from solar photovoltaic systems located within this Commonwealth in meeting the requirements of paragraph (2). (4) ELECTRIC ENERGY FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES SUPPLIED TO RETAIL CUSTOMERS SHALL BE GENERATED FROM SOLAR
16 17 18 19 20 21	energy from solar photovoltaic technologies supplied to retail customers shall be generated from solar photovoltaic systems located within this Commonwealth in meeting the requirements of paragraph (2). (4) ELECTRIC ENERGY FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES SUPPLIED TO RETAIL CUSTOMERS SHALL BE GENERATED FROM SOLAR PHOTOVOLTAIC SYSTEMS LOCATED WITHIN THIS COMMONWEALTH IN
16 17 18 19 20 21 22 23	energy from solar photovoltaic technologies supplied to retail customers shall be generated from solar photovoltaic systems located within this Commonwealth in meeting the requirements of paragraph (2). (4) ELECTRIC ENERGY FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES SUPPLIED TO RETAIL CUSTOMERS SHALL BE GENERATED FROM SOLAR PHOTOVOLTAIC SYSTEMS LOCATED WITHIN THIS COMMONWEALTH IN MEETING THE REQUIREMENTS OF PARAGRAPH (2).
16 17 18 19 20 21 22 23 24	energy from solar photovoltaic technologies supplied to retail customers shall be generated from solar photovoltaic systems located within this Commonwealth in meeting the requirements of paragraph (2). (4) ELECTRIC ENERGY FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES SUPPLIED TO RETAIL CUSTOMERS SHALL BE GENERATED FROM SOLAR PHOTOVOLTAIC SYSTEMS LOCATED WITHIN THIS COMMONWEALTH IN MEETING THE REQUIREMENTS OF PARAGRAPH (2). (5) NOTWITHSTANDING THE OTHER PROVISIONS OF THIS ACT,
16 17 18 19 20 21 22 23 24 25	energy from solar photovoltaic technologies supplied to retail customers shall be generated from solar photovoltaic systems located within this Commonwealth in meeting the requirements of paragraph (2). (4) ELECTRIC ENERGY FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES SUPPLIED TO RETAIL CUSTOMERS SHALL BE GENERATED FROM SOLAR PHOTOVOLTAIC SYSTEMS LOCATED WITHIN THIS COMMONWEALTH IN MEETING THE REQUIREMENTS OF PARAGRAPH (2). (5) NOTWITHSTANDING THE OTHER PROVISIONS OF THIS ACT, CREDITS GENERATED FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES
16 17 18 19 20 21 22 23 24 25 26	energy from solar photovoltaic technologies supplied to retail customers shall be generated from solar photovoltaic systems located within this Commonwealth in meeting the requirements of paragraph (2). (4) ELECTRIC ENERGY FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES SUPPLIED TO RETAIL CUSTOMERS SHALL BE GENERATED FROM SOLAR PHOTOVOLTAIC SYSTEMS LOCATED WITHIN THIS COMMONWEALTH IN MEETING THE REQUIREMENTS OF PARAGRAPH (2). (5) NOTWITHSTANDING THE OTHER PROVISIONS OF THIS ACT, CREDITS GENERATED FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES OUTSIDE THIS COMMONWEALTH MAY BE USED TO DEMONSTRATE
16 17 18 19 20 21 22 23 24 25 26 27	energy from solar photovoltaic technologies supplied to retail customers shall be generated from solar photovoltaic systems located within this Commonwealth in meeting the requirements of paragraph (2). (4) ELECTRIC ENERGY FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES SUPPLIED TO RETAIL CUSTOMERS SHALL BE GENERATED FROM SOLAR PHOTOVOLTAIC SYSTEMS LOCATED WITHIN THIS COMMONWEALTH IN MEETING THE REQUIREMENTS OF PARAGRAPH (2). (5) NOTWITHSTANDING THE OTHER PROVISIONS OF THIS ACT, CREDITS GENERATED FROM SOLAR PHOTOVOLTAIC TECHNOLOGIES OUTSIDE THIS COMMONWEALTH MAY BE USED TO DEMONSTRATE COMPLIANCE UNDER THIS ACT PROVIDED THE CREDIT WAS ACQUIRED

1 percentage that must be from these technologies is for: 2 (1)Years 1 through 4 - 4.2%. 3 (2) Years 5 through 9 - 6.2%. Years 10 through 14 - [8.2%] 11.2%. 4 (3) 5 Years 15 and thereafter - [10.0%] 13.0%. (4)(c.1) Retail sales from advanced coal combustion. -- The total 6 7 electric energy sold by an electric distribution company or electric generation supplier to retail electric customers in 8 9 this Commonwealth that shall be sold from advanced coal 10 combustion with limited carbon emissions is all of the electric energy available from advanced coal combustion with limited 11 12 carbon emissions up to a maximum of 3.0% of the total electric 13 energy sold by an electric distribution company or electric 14 generation supplier to retail electric customers in this Commonwealth for the reporting period which begins June 1, 2015, 15 16 and for each reporting period thereafter pursuant to subsection 17 (c). If at any time on or after June 1, 2015, the network CARBON 18 DIOXIDE SEQUESTRATION FACILITY provided for under section 8.1 12, or other network SEQUESTRATION FACILITY permitted to 19 20 permanently sequester carbon dioxide IN THIS COMMONWEALTH, is not available to receive OPERATING AND CAPABLE OF RECEIVING 21 22 carbon dioxide for sequestration through no fault of an advanced 23 coal combustion with limited carbon emissions facility, a 24 facility need not sequester carbon dioxide in order to generate 25 alternative energy credits provided: 26 (1) the THE facility is capable of capturing to the 27 department's satisfaction the amount of carbon dioxide required by paragraph (14) (ii) of the definition of 28 29 "alternative energy sources" in section 2.

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(2) THE TOTAL VALUE OF THE ALTERNATIVE ENERGY CREDITS

- SOLD BY THE ADVANCED COAL COMBUSTION WITH LIMITED CARBON
- 2 <u>EMISSIONS FACILITY DURING TIMES WHEN THE CARBON DIOXIDE</u>
- 3 EMISSIONS FROM THE FACILITY ARE NOT SEQUESTERED SHALL NOT
- 4 EXCEED THE COSTS THAT THE FACILITY INCURRED IN INSTALLING
- 5 CARBON CAPTURE EQUIPMENT AND IN INSTALLING ADDITIONAL
- 6 EQUIPMENT NECESSARY TO PROCESS COAL FOR CARBON CAPTURE
- 7 PURPOSES, AS DETERMINED BY THE DEPARTMENT. COSTS INCURRED IN
- 8 INSTALLING CARBON CAPTURE EQUIPMENT SHALL NOT INCLUDE FEDERAL
- 9 OR STATE FINANCIAL ASSISTANCE RECEIVED BY THE FACILITY.
- 10 (c.2) Force majeure. -- On or after December 31, 2015, if the
- 11 commission determines that construction of an advanced coal
- 12 <u>combustion with limited carbon emissions facility has not been</u>
- 13 commenced, this determination shall constitute force majeure,
- 14 and electric distribution companies and electric generation
- 15 <u>suppliers shall be excused from all or part of their obligation</u>
- 16 under subsection (c.1), as determined by the commission.
- 17 (c.3) Long-term contracts. -- Upon review and approval of the
- 18 commission, an electric distribution company may enter into a
- 19 long-term contract of up to 25 years to purchase the energy,
- 20 capacity or alternative energy credits of an advanced coal
- 21 combustion with limited carbon emissions facility. The contract
- 22 shall provide for cost THE recovery of costs associated with
- 23 carbon capture, including, but not limited to, any fees charged
- 24 by the Department of Conservation and Natural Resources pursuant
- 25 to section 8.1(b) with regard to the carbon dioxide
- 26 sequestration network OWNER OR OPERATOR OF THE CARBON DIOXIDE
- 27 <u>SEQUESTRATION FACILITY OR A CARBON DIOXIDE TRANSPORTATION</u>
- 28 PIPELINE. The commission shall determine that WHETHER the
- 29 <u>contract is reasonable, taking into consideration the following:</u>
- 30 (1) The price of the energy purchased under the long-

1 <u>term contract.</u>

- 2 (2) The price of capacity purchased under the long-term
 3 contract.
 - (3) The price of alternative energy credits, provided that the cost of an alternative energy credit purchased from advanced coal combustion with limited carbon emissions shall not exceed \$45 per megawatt hour (MWh).
 - (4) Prior to the effective date of the contract, the value of any carbon emission credits or other credits that the seller obtains from the advanced coal combustion with limited carbon emissions facility.
 - of any additional Federal or State carbon credits, allowances or other financial benefits shall be reflected in the price of the resource in a manner which recognizes savings to customers and does not reduce the economic return to the seller, provided that the seller demonstrates that it has made a commercially reasonable effort to distribute any economic incentives it has realized to electric distribution companies. A contract approved by the commission under this subsection shall be deemed to meet the requirements of 66 Pa.C.S. § 2807(e) (relating to duties of electric distribution companies).
- 24 * * *
- 25 (f) Alternative compliance payment.--
 - (1) At the end of each program year, the program administrator shall provide a report to the commission and to each covered electric distribution company showing their status level of alternative energy acquisition.
- 30 (2) The commission shall conduct a review of each

- determination made under subsections [(b) and (c)] (b), (c)

 and (c.1). If, after notice and hearing, the commission

 determines that an electric distribution company or electric

 generation supplier has failed to comply with subsections

 [(b) and (c)] (b), (c) and (c.1), the commission shall impose

 an alternative compliance payment on that company or
 - (3) The alternative compliance payment, with the exception of the solar photovoltaic share compliance requirement set forth in subsection (b)(2), shall be \$45 times the number of additional alternative energy credits needed in order to comply with subsection (b) or (c).
 - (4) [The alternative compliance payment for the solar photovoltaic share shall be 200% of the average market value of solar renewable energy credits sold during the reporting period within the service region of the regional transmission organization, including, where applicable, the levelized upfront rebates received by sellers of solar renewable energy credits in other jurisdictions in the PJM Interconnection, L.L.C. transmission organization (PJM) or its successor.] The alternative compliance payment for the solar photovoltaic alternative share shall be established by the commission in an amount and for a period of years necessary to promote the market for solar photovoltaic alternative energy credits. The alternative compliance payment for the solar photovoltaic share may vary over the time period established by the commission but shall be at least 200% of the average market value for solar photovoltaic alternative energy credits sold within the service region of the PJM Interconnection, L.L.C. transmission organization in the year prior to the

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supplier.

- 1 <u>establishment of the alternative compliance payment schedule.</u>
- 2 The commission shall review the solar photovoltaic
- 3 <u>alternative compliance payment schedule at least once per</u>
- 4 <u>year and shall establish an alternative compliance payment</u>
- 5 <u>schedule for additional years as needed to promote the market</u>
- for solar photovoltaic alternative energy credits.
 - (5) The commission shall establish a process to provide for, at least annually, a review of the alternative energy market within this Commonwealth and the service territories of the regional transmission organizations that manage the transmission system in any part of this Commonwealth. The commission will use the results of this study to identify any needed changes to the cost associated with the alternative compliance payment program. If the commission finds that the costs associated with the alternative compliance payment program must be changed, the commission shall present these findings to the General Assembly for legislative enactment.
 - (g) Transfer to sustainable development funds. --
- 19 Notwithstanding the provisions of 66 Pa.C.S. §§ 511 20 (relating to disposition, appropriation and disbursement of assessments and fees) and 3315 (relating to disposition of 21 22 fines and penalties), alternative compliance payments imposed 23 pursuant to this act shall be paid into Pennsylvania's 24 Sustainable Energy Funds created under the commission's 25 restructuring orders under 66 Pa.C.S. Ch. 28 (relating to 26 restructuring of electric utility industry). Alternative 27 compliance payments shall be paid into a special fund of the 28 Pennsylvania Sustainable Energy Board, established by the 29 commission under Docket M-00031715, and made available to the 30 Regional Sustainable Energy Funds under procedures and

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- 1 guidelines approved by the Pennsylvania Energy Board.
- 2 (2) The alternative compliance payments shall be
- 3 utilized solely for projects that will increase the amount of
- 4 electric energy generated from alternative energy resources
- for purposes of compliance with subsections [(b) and (c)]
- 6 (b), (c) and (c.1).
- 7 * * *
- 8 Section 3. The act is amended by adding a section SECTIONS
- 9 to read:
- 10 Section 8.1. Carbon dioxide sequestration network.
- 11 <u>(a) Establishment of network. -- DCNR shall develop and</u>
- 12 <u>operate a carbon dioxide sequestration network utilizing</u>
- 13 <u>appropriate geologic formations and facilities on State forest</u>
- 14 <u>land or as otherwise acquired by DCNR for the purposes set forth</u>
- 15 <u>in this subsection. DCNR may acquire</u>, on behalf of the
- 16 Commonwealth, geologic formations and facilities required for
- 17 the carbon dioxide sequestration network by purchase, gift,
- 18 lease or condemnation. The carbon dioxide sequestration network
- 19 shall only be utilized to store carbon dioxide generated within
- 20 this Commonwealth.
- 21 (b) Fees. DCNR shall collect reasonable fees from entities
- 22 that transport to or through, deposit in or otherwise utilize
- 23 the carbon dioxide sequestration network. DCNR shall enter into
- 24 agreements with the entities establishing the terms and
- 25 conditions for use of the carbon dioxide sequestration network
- 26 and the payment of appropriate fees prior to the transport of
- 27 <u>any carbon dioxide into the carbon dioxide sequestration</u>
- 28 <u>network. Fees shall be established to recover the total cost,</u>
- 29 less any nonreimbursable Federal funding, of developing and
- 30 operating the carbon dioxide sequestration network. Recoverable

1	costs shall include, but are not limited to, the cost to acquire
2	or obtain the right to use geologic formations or facilities
3	required for the carbon dioxide sequestration network,
4	construction costs, insurance costs and other costs to operate
5	and maintain the network.
6	(c) Establishment of fund. There is established in the
7	State Treasury a Carbon Sequestration Fund. The Carbon
8	Sequestration Fund shall be a nonlapsing fund and the money
9	deposited into this fund is specifically appropriated to DCNR to
10	carry out the purposes of this section at the discretion of the
11	Secretary of Conservation and Natural Resources.
12	(d) Permitting requirements. The department shall develop
13	regulations necessary to permit the siting and operation of the
14	carbon dioxide sequestration facility authorized by this
15	section. The regulations shall include, but not be limited to,
16	the following:
17	(1) Risk assessment.
18	(2) Geologic site characterization including, but not
19	limited to, modeling and verification of fluid movement.
20	(3) Corrective action.
21	(4) Well construction, operation and mechanical
22	integrity testing.
23	(5) Monitoring and site closure.
24	No carbon dioxide may be accepted for sequestration until all
25	applicable permits have been approved.
26	(e) Operation.
27	(1) DCNR may enter into contracts for the development
28	and operation of the carbon dioxide sequestration network.
29	DCNR or its contractor shall evaluate the requirements for
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2	characterization, modeling and verification of fluid
3	movement, well construction, mechanical integrity testing,
4	monitoring, corrective action and site closure. No carbon
5	dioxide may be accepted for sequestration until all
6	applicable permits have been approved.
7	(2) Prior to commencement of operation of the carbon
8	dioxide sequestration network and periodically thereafter,
9	DCNR or its contractor shall assess the risks associated with
10	the operation. DCNR and the Department of General Services
11	shall determine the appropriate method to insure the
12	operation of the carbon dioxide sequestration network and
13	shall insure the operation as deemed appropriate.
14	(f) Title to carbon dioxide and immunity.
15	(1) All right, title and interest in and to carbon
16	dioxide delivered to the property line of the
17	Commonwealth-owned lands or other lands upon which the
18	Commonwealth's carbon dioxide sequestration network is
19	located by the advanced coal combustion with limited carbon
20	emission facilities that, individually or collectively, first
21	meet the maximum requirements of section 3(c.1) as determined
22	by the department, shall be transferred to the Commonwealth
23	and the Commonwealth shall accept and receive all the right,
24	title and interest in and to such carbon dioxide, including,
25	but not limited to, any liabilities associated with the
26	carbon dioxide, current or future environmental benefits,
27	marketing claims, associated voluntary or compliance based
28	emissions allocations or offsets, but not alternative energy
29	credits provided by section 3(e).
30	(2) Upon and after transfer and conveyance of carbon

Τ	dioxide as provided under paragraph (i), the owner of an
2	advanced coal combustion plant with limited carbon emissions
3	shall be immune from liabilities regarding the storage of
4	carbon dioxide within and the release, escape or migration of
5	carbon dioxide from the Commonwealth's carbon dioxide
6	sequestration network and subsurface storage site.
7	SECTION 8.1. SEQUESTRATION FACILITY PERMITTING.
8	(A) PROHIBITION NO PERSON MAY OPERATE A CARBON DIOXIDE
9	SEQUESTRATION FACILITY WITHOUT A PERMIT FROM THE DEPARTMENT.
10	(B) FACILITY SITES THE ENVIRONMENTAL QUALITY BOARD SHALL,
11	BY REGULATION, ESTABLISH THE CONDITIONS UNDER WHICH A CARBON
12	DIOXIDE SEQUESTRATION FACILITY MAY BE LOCATED, DEVELOPED AND
13	OPERATED. THE REGULATIONS PROMULGATED BY THE BOARD SHALL PROVIDE
14	FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY AND ENVIRONMENT AND
15	SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
16	(1) GEOLOGIC SITE CHARACTERIZATION.
17	(2) SEQUESTRATION FACILITY PERFORMANCE STANDARDS.
18	(3) WELL LOCATION RESTRICTIONS AND WELL CONSTRUCTION
19	STANDARDS, INCLUDING OPERATION AND MECHANICAL INTEGRITY
20	TESTING.
21	(4) RISK ASSESSMENT, CORRECTIVE ACTION AND EMERGENCY
22	RESPONSE REQUIREMENTS.
23	(5) MONITORING, RECORDKEEPING AND REPORTING
24	REQUIREMENTS.
25	(6) FACILITY CLOSURE, POSTCLOSURE AND FINAL CLOSURE
26	CERTIFICATION REQUIREMENTS.
27	(7) FINANCIAL ASSURANCE REQUIREMENTS, INCLUDING BONDING
28	OR INSURANCE, IN AMOUNTS SUFFICIENT TO ENSURE THE CARBON
29	SEQUESTRATION FACILITY WILL BE CONSTRUCTED, OPERATED, CLOSED
30	AND MONITORED DURING THE POSTCLOSURE PERIOD IN ACCORDANCE

- 1 WITH REGULATIONS PROMULGATED UNDER THIS SECTION.
- 2 (8) FEES IN AN AMOUNT SUFFICIENT TO RECOVER THE
- 3 DEPARTMENT'S COST OF ADMINISTERING THIS SECTION.
- 4 (9) FEES FOR EVERY TON OF CARBON DIOXIDE ACCEPTED BY A
- 5 CARBON DIOXIDE SEQUESTRATION FACILITY IN AN AMOUNT SUFFICIENT
- 6 TO MONITOR AND MAINTAIN THE FACILITY AFTER FINAL CLOSURE OF
- 7 THE FACILITY AND TAKE REMEDIAL ACTIONS IF NECESSARY AFTER
- 8 FINAL CLOSURE OF THE FACILITY. THE FEES SHALL BE PAID BY THE
- 9 OPERATOR OF A CARBON DIOXIDE SEQUESTRATION FACILITY TO THE
- 10 <u>DEPARTMENT ON A QUARTERLY BASIS.</u>
- 11 (10) PUBLIC NOTICE REQUIREMENTS, INCLUDING NOTIFICATION
- 12 OF A RELEASE.
- 13 (11) CRITERIA USED TO DETERMINE THAT CARBON DIOXIDE HAS
- BEEN PERMANENTLY SEQUESTERED.
- 15 (12) OTHER REQUIREMENTS NECESSARY TO EVALUATE THE
- 16 PROPOSED CARBON DIOXIDE SEQUESTRATION FACILITY AND TO ENSURE
- 17 SAFE AND ENVIRONMENTALLY PROTECTIVE OPERATION OF THE
- 18 FACILITY.
- 19 (C) POWERS, DUTIES AND ENFORCEMENT AUTHORITY OF
- 20 DEPARTMENT. -- THE DEPARTMENT SHALL HAVE THE SAME POWERS, DUTIES
- 21 AND ENFORCEMENT AUTHORITY PROVIDED BY THE ACT OF JULY 7, 1980
- 22 (P.L.380, NO.97), KNOWN AS THE SOLID WASTE MANAGEMENT ACT, TO
- 23 CARRY OUT THE PURPOSES OF THIS SECTION. OPERATORS OF A CARBON
- 24 DIOXIDE SEQUESTRATION FACILITY SHALL HAVE THE SAME RIGHTS AND BE
- 25 SUBJECT TO THE SAME PENALTIES AS PROVIDED BY THE SOLID WASTE
- 26 MANAGEMENT ACT; HOWEVER, AN ADMINISTRATIVE PENALTY ASSESSED BY
- 27 THE DEPARTMENT FOR A VIOLATION OF THIS SECTION SHALL NOT EXCEED
- 28 \$50,000 PER DAY PER VIOLATION.
- 29 <u>SECTION 8.2. TITLE TO CARBON DIOXIDE</u>, IMMUNITY AND TRANSFER OF
- 30 LIABILITY.

- 1 (A) TITLE TO CARBON DIOXIDE. -- THE RIGHT, TITLE AND INTEREST
- 2 IN AND TO CARBON DIOXIDE DELIVERED TO A CARBON DIOXIDE
- 3 SEOUESTRATION FACILITY BY THE ADVANCED COAL COMBUSTION WITH
- 4 LIMITED CARBON EMISSION FACILITIES THAT, INDIVIDUALLY OR
- 5 COLLECTIVELY, FIRST MEET THE MAXIMUM REQUIREMENTS OF SECTION
- 6 <u>3(C.1), AS DETERMINED BY THE DEPARTMENT, SHALL BE TRANSFERRED TO</u>
- 7 THE CARBON DIOXIDE SEQUESTRATION FACILITY AND THE FACILITY SHALL
- 8 ACCEPT AND RECEIVE THE RIGHT, TITLE AND INTEREST IN AND TO SUCH
- 9 CARBON DIOXIDE, INCLUDING, BUT NOT LIMITED TO, LIABILITIES
- 10 ASSOCIATED WITH THE CARBON DIOXIDE, CURRENT OR FUTURE
- 11 ENVIRONMENTAL BENEFITS, MARKETING CLAIMS, ASSOCIATED VOLUNTARY
- 12 OR COMPLIANCE-BASED EMISSIONS ALLOCATIONS OR OFFSETS, BUT NOT
- 13 ALTERNATIVE ENERGY CREDITS PROVIDED BY SECTION 3(E).
- 14 (B) IMMUNITY.--UPON AND AFTER TRANSFER AND CONVEYANCE OF
- 15 CARBON DIOXIDE AS PROVIDED UNDER SUBSECTION (A), THE OWNER OF AN
- 16 ADVANCED COAL COMBUSTION PLANT WITH LIMITED CARBON EMISSIONS
- 17 SHALL BE IMMUNE FROM LIABILITIES REGARDING THE STORAGE OF CARBON
- 18 DIOXIDE WITHIN AND THE RELEASE, ESCAPE OR MIGRATION OF CARBON
- 19 <u>DIOXIDE FROM THE CARBON DIOXIDE SEQUESTRATION FACILITY.</u>
- 20 (C) TRANSFER OF LIABILITY.--UPON FINAL CLOSURE OF A CARBON
- 21 DIOXIDE SEQUESTRATION FACILITY, AS DETERMINED BY THE DEPARTMENT,
- 22 THE RIGHT, TITLE OR INTEREST IN THE CARBON DIOXIDE AND LIABILITY
- 23 FOR ANY RELEASE FROM THE FACILITY SHALL BE TRANSFERRED TO AND
- 24 ACCEPTED BY THE COMMONWEALTH PROVIDED THE OPERATOR OF THE CARBON
- 25 DIOXIDE SEQUESTRATION FACILITY HAS PAID THE APPROPRIATE FEES
- 26 UNDER SECTION 8.1.
- 27 SECTION 8.3. CARBON DIOXIDE INDEMNIFICATION FUND.
- 28 (A) ESTABLISHMENT.--THERE IS HEREBY ESTABLISHED IN THE STATE
- 29 TREASURY A NONLAPSING FUND TO BE KNOWN AS THE CARBON DIOXIDE
- 30 INDEMNIFICATION FUND. MONEY COLLECTED BY THE DEPARTMENT UNDER

- 1 SECTION 8.1(B)(9) SHALL BE DEPOSITED IN THE FUND AND SHALL ONLY
- 2 BE EXPENDED BY THE DEPARTMENT TO MONITOR AND MAINTAIN CARBON
- 3 DIOXIDE SEQUESTRATION FACILITIES AFTER FINAL CLOSURE AND TO TAKE
- 4 REMEDIAL ACTIONS, IF NECESSARY, AFTER FINAL CLOSURE.
- 5 (B) MONEY COLLECTED UNDER SECTION 8.1.--FINES, CIVIL
- 6 PENALTIES AND PERMIT FEES COLLECTED BY THE DEPARTMENT UNDER
- 7 SECTION 9 ARE HEREBY APPROPRIATED TO THE DEPARTMENT TO CARRY OUT
- 8 THE PURPOSES OF SECTION 8.1.
- 9 <u>SECTION 8.4. COMMONWEALTH-OWNED CARBON DIOXIDE SEQUESTRATION</u>
- 10 FACILITY AND TRANSPORTATION PIPELINE.
- 11 (A) DEVELOPMENT AND OPERATION. -- DCNR MAY DEVELOP AND OPERATE
- 12 A CARBON DIOXIDE SEQUESTRATION FACILITY AND CARBON DIOXIDE
- 13 TRANSPORTATION PIPELINE NECESSARY TO DELIVER CARBON DIOXIDE TO
- 14 THE FACILITY, WHICH MAY BE LOCATED ON STATE FOREST LAND OR ON
- 15 OTHER LAND ACQUIRED BY DCNR, ON BEHALF OF THE COMMONWEALTH, FOR
- 16 SUCH PURPOSE BY PURCHASE, GIFT, LEASE OR CONDEMNATION. A CARBON
- 17 DIOXIDE SEQUESTRATION FACILITY OR CARBON DIOXIDE TRANSPORTATION
- 18 PIPELINE DEVELOPED AND OPERATED BY DCNR SHALL ONLY BE UTILIZED
- 19 TO STORE CARBON DIOXIDE GENERATED WITHIN THIS COMMONWEALTH.
- 20 (B) FEES.--DCNR SHALL COLLECT REASONABLE FEES FROM ENTITIES
- 21 THAT DEPOSIT IN OR OTHERWISE UTILIZE A CARBON DIOXIDE
- 22 SEQUESTRATION FACILITY OR A CARBON DIOXIDE TRANSPORTATION
- 23 PIPELINE OWNED BY THE COMMONWEALTH. DCNR SHALL ENTER INTO AN
- 24 AGREEMENT WITH ENTITIES SEEKING TO USE THE COMMONWEALTH FACILITY
- 25 OR PIPELINE ESTABLISHING THE TERMS AND CONDITIONS FOR SUCH USE
- 26 AND THE PAYMENT OF APPROPRIATE FEES PRIOR TO THE DEPOSIT OF ANY
- 27 CARBON DIOXIDE INTO THE CARBON DIOXIDE TRANSPORTATION PIPELINE
- 28 OR SEQUESTRATION FACILITY. FEES SHALL BE ESTABLISHED TO RECOVER
- 29 THE TOTAL COST, LESS NONREIMBURSABLE FEDERAL FUNDING, OF
- 30 DEVELOPING AND OPERATING THE CARBON DIOXIDE SEQUESTRATION

- 1 FACILITY OR TRANSPORTATION PIPELINE. RECOVERABLE COSTS SHALL
- 2 INCLUDE, BUT ARE NOT LIMITED TO, THE COST TO ACQUIRE OR OBTAIN
- 3 THE RIGHT TO USE GEOLOGIC FORMATIONS OR FACILITIES REQUIRED FOR
- 4 THE CARBON DIOXIDE SEQUESTRATION FACILITY OR RIGHTS-OF-WAY FOR
- 5 THE CARBON DIOXIDE TRANSPORTATION PIPELINE, CONSTRUCTION COSTS,
- 6 INSURANCE COSTS AND OTHER COSTS TO OPERATE AND MAINTAIN THE
- 7 SEQUESTRATION FACILITY OR TRANSPORTATION PIPELINE.
- 8 (C) ESTABLISHMENT OF FUND.--PRIOR TO THE RECEIPT OF FEES BY
- 9 DCNR FOR THE DELIVERY OF CARBON DIOXIDE THROUGH A CARBON DIOXIDE
- 10 TRANSPORTATION PIPELINE OR DEPOSIT OF CARBON DIOXIDE INTO A
- 11 CARBON DIOXIDE SEQUESTRATION FACILITY, THE STATE TREASURY SHALL
- 12 ESTABLISH A NONLAPSING FUND TO BE KNOWN AS THE CARBON
- 13 <u>SEQUESTRATION FUND. MONEY DEPOSITED INTO THIS FUND IS</u>
- 14 SPECIFICALLY APPROPRIATED TO DCNR TO CARRY OUT ACTIVITIES
- 15 RELATED TO ANY COMMONWEALTH-OWNED CARBON DIOXIDE TRANSPORTATION
- 16 PIPELINE OR CARBON DIOXIDE SEQUESTRATION FACILITY PERFORMED BY
- 17 DCNR AT THE DISCRETION OF THE SECRETARY OF CONSERVATION AND
- 18 <u>NATURAL RESOURCES.</u>
- 19 (D) CONTRACTING AND INSURING. -- DCNR MAY ENTER INTO CONTRACTS
- 20 FOR THE DEVELOPMENT AND OPERATION OF THE CARBON DIOXIDE
- 21 SEQUESTRATION FACILITY OR TRANSPORTATION PIPELINE. DCNR AND THE
- 22 DEPARTMENT OF GENERAL SERVICES SHALL DETERMINE THE APPROPRIATE
- 23 METHOD TO INSURE THE OPERATION OF THE CARBON DIOXIDE
- 24 SEQUESTRATION FACILITY OR TRANSPORTATION PIPELINE AND SHALL
- 25 INSURE THE OPERATION AS DEEMED APPROPRIATE. IN NO EVENT,
- 26 HOWEVER, SHALL THE COMMONWEALTH INDEMNIFY THE DEVELOPER OR
- 27 OPERATOR OF THE CARBON DIOXIDE SEQUESTRATION FACILITY OR
- 28 TRANSPORTATION PIPELINE FROM LIABILITY WHERE THE ACTIONS OF THE
- 29 DEVELOPER OR OPERATOR CONSTITUTE GROSS NEGLIGENCE OR INTENTIONAL
- 30 MISCONDUCT.

- 1 <u>SECTION 8.5. APPLICATION OF THE PUBLIC UTILITY CODE TO</u>
- 2 TRANSPORTERS OF CARBON DIOXIDE.
- 3 ENTITIES TRANSPORTING OR CONVEYING CARBON DIOXIDE BY PIPELINE
- 4 OR CONDUIT FOR COMPENSATION UNDER THIS ACT SHALL BE CONSIDERED A
- 5 PUBLIC UTILITY UNDER 66 PA.C.S. § 102 (RELATING TO DEFINITIONS)
- 6 AND SUBJECT TO THE PROVISIONS OF 66 PA.C.S. (RELATING TO PUBLIC
- 7 UTILITIES).
- 8 SECTION 4. THE PROVISIONS OF THIS ACT ARE SEVERABLE. IF ANY
- 9 PROVISION OF THIS ACT OR ITS APPLICATION TO ANY PERSON OR
- 10 CIRCUMSTANCE IS HELD INVALID, THE INVALIDITY SHALL NOT AFFECT
- 11 OTHER PROVISIONS OR APPLICATIONS OF THIS ACT WHICH CAN BE GIVEN
- 12 EFFECT WITHOUT THE INVALID PROVISION OR APPLICATION.
- 13 Section 4 5. This act shall take effect immediately.