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, HORNAMAN, CARROLL, MYERS, JOSEPHS, LENTZ, DeWEESE, CONKLIN, PETRI, GINGRICH, CURRY, DRUCKER, MICOZZIE, GERBER, SABATINA, MAHONEY, BARBIN, SEIP, WALKO AND CALTAGIRONE, MARCH 12, 2009

AS RE-REPORTED FROM COMMITTEE ON ENVIRONMENTAL RESOURCES AND ENERGY, HOUSE OF REPRESENTATIVES, AS AMENDED, JULY 8, 2009

AN ACT

- Amending the act of November 30, 2004 (P.L.1672, No.213), 2 entitled, "An act providing for the sale of electric energy generated from renewable and environmentally beneficial 3 sources, for the acquisition of electric energy generated 4 from renewable and environmentally beneficial sources by electric distribution and supply companies and for the powers 6 and duties of the Pennsylvania Public Utility Commission," 7 further providing for definitions and for alternative energy portfolio standards; and providing for sequestration facility 9 permitting and for title to carbon dioxide, immunity and 10 transfer of liability; establishing the Carbon Dioxide 11 Indemnification Fund; providing for carbon dioxide 12 sequestration facility and transportation pipeline on 13 Commonwealth State forest lands; and providing for 14 application of the Public Utility Code to transporters of 15 carbon dioxide. 16 17 The General Assembly of the Commonwealth of Pennsylvania 18 hereby enacts as follows: 19 Section 1. The definition of "alternative energy sources"
- 20 and "Tier II alternative energy source" in section 2 of the act
- 21 of November 30, 2004 (P.L.1672, No.213), known as the
- 22 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
- emissions, which means the production of electric power from
- 14 <u>a generation facility that is fueled by coal, waste coal or</u>
- 15 gas derived from an advanced coal gasification plant or a
- plant that is retrofitted to capture carbon that:
- 17 (i) Begins commercial operation after January 1,
- 18 2009, and captures, either in the advanced coal
- 19 gasification plant or in the electrical generation
- facility, and delivers to a carbon dioxide sequestration
- facility in this Commonwealth for permanent sequestration
- 22 at least the following amount of all carbon dioxide
- 23 produced:
- 24 (A) 40% from June 1, 2015, to May 31, 2019.
- 25 (B) 60% from June 1, 2019, to May 31, 2024.
- 26 (C) 90% from June 1, 2024, and thereafter.
- 27 <u>(D) The requirement under clause (C) shall be</u>
- 28 waived if commercially proven and project-financeable
- 29 technology is not available as determined by the
- department.

1	(ii) Has been designed to accommodate the required
2	additional processing equipment to produce power with a
3	maximum of 1,000 pounds of carbon dioxide emissions per
4	megawatt hour or begins commercial operation before
5	January 1, 2009, and captures and delivers to a carbon
6	dioxide sequestration facility in this Commonwealth for
7	permanent sequestration no less than the following amount
8	of carbon dioxide produced:
9	(A) 40% from June 1, 2015, to May 31, 2019.
10	(B) 60% from June 1, 2019, to May 31, 2024.
11	(C) 90% from June 1, 2024, and thereafter. The
12	requirement under this clause shall be waived if
13	commercially proven and project-financeable
14	technology is not available, as determined by the
15	<pre>department.</pre>
16	(15) Incremental nuclear energy, which means additional
17	energy generated by an existing nuclear unit as a result of
18	an extended power uprate that has been completed after the
19	effective date of this paragraph and increases a plant's
20	nameplate capacity by more than 7% or by 100 megawatts and
21	has a capital cost of more than \$150,000,000 and has been
22	permitted by the United States Nuclear Regulatory Commission.
23	* * *
24	"Carbon dioxide." Anthropogenically generated carbon dioxide
25	of sufficient purity and quality as to not compromise the
26	ability of the carbon dioxide transportation pipeline or
27	sequestration facility to safely and effectively transport and
28	sequester the carbon dioxide.
29	"Carbon dioxide sequestration facility." Geological
30	subsurface formations within this Commonwealth with suitable cap

- 1 rock, sealing faults and anticline for the permanent storage of
- 2 carbon dioxide from advanced coal combustion with limited carbon
- 3 emissions facilities or other sources within this Commonwealth
- 4 along with the facilities necessary to transport the carbon
- 5 dioxide from the surface to the subsurface formations and
- 6 monitor the permanent storage of the carbon dioxide in
- 7 subsurface formations. The term shall not include use of the
- 8 <u>carbon dioxide for enhanced resource recovery or the carbon</u>
- 9 dioxide transportation pipelines used to transport the carbon
- 10 dioxide to the sequestration facility.
- "Carbon dioxide transportation pipeline." A pipeline within
- 12 this Commonwealth used to transport carbon dioxide from a
- 13 <u>facility within this Commonwealth to a carbon dioxide</u>
- 14 <u>sequestration facility</u>.
- 15 * * *
- 16 "DCNR." The Department of Conservation and Natural Resources
- 17 of the Commonwealth.
- 18 * * *
- 19 "Enhanced resource recovery." The use of carbon dioxide
- 20 injection or other techniques for increasing the amount of oil,
- 21 <u>natural gas or coal bed methane extracted from geologic</u>
- 22 formations.
- 23 * * *
- 24 <u>"Person." An individual, corporation, partnership,</u>
- 25 association or other entity recognized by law as the subject of
- 26 rights, duties or obligations. The term includes the United
- 27 States, a Federal agency, the Commonwealth, an agency or
- 28 instrumentality of the Commonwealth and a political subdivision.
- 29 * * *
- 30 "Solar thermal energy." Technology utilizing solar energy

```
for water heating or for generating electricity.
 1
 2
 3
       "Tier II alternative energy source." Energy derived from:
 4
 5
           (8) Advanced coal combustion with limited carbon
 6
       emissions.
 7
       "Tier III alternative energy source." Energy derived
           (1) Solar photovoltaic and solar thermal energy.
 8
           (2) Wind power.
 9
           (3) Low-impact hydropower
10
11
           (4) Geothermal energy.
12
           (5) Biologically derived methane gas.
           (6) Fuel cells.
13
14
           (7) Biomass energy.
15
           (8) Coal mine methane.
16
           (9) Advanced coal combustion with
17
       emissions.
18
           (10) Incremental nuclear energy,
19
       (15) of the definition of "alternative energy sources."
20
       * * *
21
       Section 2. Section 3(a), (b), (c), (e)(6), (7) and (12), (f)
    and (g) of the act, amended July 17, 2007 (P.L.114, No.35), are
22
23
    amended and the section is amended by adding subsections to
24
   read:
25
    Section 3. Alternative energy portfolio standards.
26
       (a) General compliance and cost recovery. --
27
                From the effective date of this act through and
28
       including the 15th year after enactment of this act and each
29
       year thereafter, the electric energy sold by an electric
       distribution company or electric generation supplier to
30
```

- retail electric customers in this Commonwealth shall be comprised of electricity generated from alternative energy sources and in the percentage amounts as described under subsections [(b) and (c)] (b), (c), (c.1) and (i).
- (2) Electric distribution companies and electric generation suppliers shall satisfy both requirements set forth in subsections [(b) and (c)] (b), (c), (c.1) and (i), 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
- (ii) 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

1 expiration of its cost-recovery period. After the cost-2 recovery period, any direct or indirect costs for the 3 purchase by electric distribution of resources to comply with this section, including, but not limited to, the 4 purchase of electricity generated from alternative energy 5 6 sources, payments for alternative energy credits, cost of 7 credits banked, payments to any third party 8 administrators for performance under this act and costs 9 levied by a regional transmission organization to ensure 10 that alternative energy sources are reliable, shall be recovered on a full and current basis pursuant to an 11 12 automatic energy adjustment clause under 66 Pa.C.S. § 13 1307 as a cost of generation supply under 66 Pa.C.S. § 14 2807.

- (b) Tier I and solar [photovoltaic] shares.--
- 16 [Two years after the effective date of this act, at 17 least 1.5% of the electric energy sold by an electric 18 distribution company or electric generation supplier to 19 retail electric customers in this Commonwealth shall be 20 generated from Tier I alternative energy sources. Except as 21 provided in this section, the minimum percentage of electric 22 energy required to be sold to retail electric customers from 23 alternative energy sources shall increase to 2% three years 24 after the effective date of this act. The minimum percentage 25 of electric energy required to be sold to retail electric 26 customers from alternative energy sources shall increase by 27 at least 0.5% each year so that at least 8% of the electric 28 energy sold by an electric distribution company or electric 29 generation supplier to retail electric customers in that 30 certificated territory in the 15th year after the effective

1	date of this subsection is sold from Tier I alternative
2	energy resources.] The minimum percentage of electric energy
3	required to be sold to retail electric customers from Tier I
4	alternative energy sources is:
5	(i) 1.5013% for June 1, 2006, through May 31, 2007.
6	(ii) 1.503% for June 1, 2007, through May 31, 2008.
7	(iii) 2.0063% for June 1, 2008, through May 31,
8	<u>2009.</u>
9	(iv) 2.512% for June 1, 2009, through May 31, 2010.
10	(v) 3.0203% for June 1, 2010, through May 31, 2011.
11	(vi) 3.5504% for June 1, 2011, through May 31, 2012.
12	(vii) 4.0752% for June 1, 2012, through May 31,
13	<u>2013.</u>
14	(viii) 4.6218% for June 1, 2013, through May 31,
15	<u>2014.</u>
16	(ix) 5.7016% for June 1, 2014, through May 31, 2015.
17	(x) 6.80% for June 1, 2015, through May 31, 2016.
18	(xi) 7.91% for June 1, 2016, through May 31, 2017.
19	(xii) 9.00% for June 1, 2017, through May 31, 2018.
20	(xiii) 10.12% for June 1, 2018, through May 31,
21	<u>2019.</u>
22	(xiv) 11.25% for June 1, 2019, through May 31, 2020.
23	(xv) 12.47% for June 1, 2020, through May 31, 2021.
24	(xvi) 13.85% for June 1, 2021, through May 31, 2022.
25	(xvii) 15.40% for June 1, 2022, through May 31,
26	<u>2023.</u>
27	(xviii) 16.95% for June 1, 2023, through May 31,
28	<u>2024.</u>
28 29	2024. (xix) 18.00% for June 1, 2024, and thereafter.

- of 66 Pa.C.S. § 2814 (relating to additional alternative
- 2 energy sources) by annually increasing the percentage share
- 3 <u>of Tier I alternative energy sources required to be sold by</u>
- 4 <u>an electric distribution company or electric generation</u>
- 5 <u>supplier under paragraph (1) to reflect any new alternative</u>
- 6 <u>energy source provided for by 66 Pa.C.S. § 2814. Any annual</u>
- 7 increase will be applied to the next compliance year
- 8 <u>requirement.</u>
- 9 (2) The total percentage of the electric energy sold by
- 10 an electric distribution company or electric generation
- 11 supplier to retail electric customers in this Commonwealth
- that must be sold from solar photovoltaic <u>and solar thermal</u>
- 13 <u>energy</u> technologies is:
- 14 (i) 0.0013% for June 1, 2006, through May 31, 2007.
- 15 (ii) 0.0030% for June 1, 2007, through May 31, 2008.
- 16 (iii) 0.0063% for June 1, 2008, through May 31,
- 17 2009.
- 18 (iv) 0.0120% for June 1, 2009, through May 31, 2010.
- 19 (v) 0.0203% for June 1, 2010, through May 31, 2011.
- 20 [(vi) 0.0325% for June 1, 2011, through May 31,
- 21 2012.
- 22 (vii) 0.0510% for June 1, 2012, through May 31,
- 23 2013.
- 24 (viii) 0.0840% for June 1, 2013, through May 31,
- 25 2014.
- 26 (ix) 0.1440% for June 1, 2014, through May 31, 2015.
- 27 (x) 0.2500% for June 1, 2015, through May 31, 2016.
- 28 (xi) 0.2933% for June 1, 2016, through May 31, 2017.
- 29 (xii) 0.3400% for June 1, 2017, through May 31,
- 30 2018.

1	(xiii) 0.3900% for June 1, 2018, through May 31,
2	2019.
3	(xiv) 0.4433% for June 1, 2019, through May 31,
4	2020.
5	(xv) 0.5000% for June 1, 2020, and thereafter.]
6	(vi) 0.0504% for June 1, 2011, through May 31, 2012.
7	(vii) 0.0752% for June 1, 2012, through May 31,
8	<u>2013.</u>
9	(viii) 0.1218% for June 1, 2013, through May 31,
10	<u>2014.</u>
11	(ix) 0.2016% for June 1, 2014, through May 31, 2015.
12	(x) 0.3% for June 1, 2015, through May 31, 2016.
13	(xi) 0.41% for June 1, 2016, through May 31, 2017.
14	(xii) 0.5% for June 1, 2017, through May 31, 2018.
15	(xiii) 0.62% for June 1, 2018, through May 31, 2019.
16	(xiv) 0.75% for June 1, 2019, through May 31, 2020.
17	(xv) 0.97% for June 1, 2020, through May 31, 2021.
18	(xvi) 1.35% for June 1, 2021, through May 31, 2022.
19	(xvii) 1.9% for June 1, 2022, through May 31, 2023.
20	(xviii) 2.45% for June 1, 2023, through May 31,
21	<u>2024.</u>
22	(xix) 3% for June 1, 2024, and thereafter.
23	(3) Upon commencement of the beginning of the 6th
24	reporting year, and every five years thereafter, the
25	commission shall undertake a review of the compliance by
26	electric distribution companies and electric generation
27	suppliers with the requirements of this act. The review shall
28	also include the status of alternative energy technologies
29	within this Commonwealth and the capacity to add additional
30	alternative energy resources. The commission shall use the

- 1 results of this review to recommend to the General Assembly
- 2 additional compliance goals beyond year [15] <u>21</u>. The
- 3 commission shall work with the department in evaluating the
- 4 future alternative energy resource potential.
- 5 (4) Electric energy from solar photovoltaic and solar
- 6 <u>thermal energy technologies supplied to retail customers</u>
- 5 shall be generated from solar photovoltaic and solar thermal
- 8 <u>energy systems located within this Commonwealth in meeting</u>
- 9 <u>the requirements of paragraph (2).</u>
- 10 (5) Notwithstanding the other provisions of this act,
- 11 <u>credits generated from solar photovoltaic and solar thermal</u>
- 12 <u>energy technologies outside this Commonwealth may be used to</u>
- demonstrate compliance under this act provided the credit was
- 14 acquired prior to the effective date of this subsection.
- 15 (c) Tier II share. -- Of the electrical energy required to be
- 16 sold from alternative energy sources identified in Tier II, the
- 17 percentage that must be from these technologies is for:
- 18 (1) Years 1 through 4 4.2%.
- 19 (2) Years 5 through 9 6.2%.
- 20 (3) Years 10 through 14 [8.2%] 11.2%.
- 21 (4) Years 15 and thereafter [10.0%] 13.0%.
- 22 (c.1) Retail sales from advanced coal combustion. -- The total
- 23 electric energy sold by an electric distribution company or
- 24 electric generation supplier to retail electric customers in
- 25 this Commonwealth that shall be sold from advanced coal
- 26 combustion with limited carbon emissions is all of the electric
- 27 energy available from advanced coal combustion with limited
- 28 carbon emissions up to a maximum of 3.0% of the total electric
- 29 <u>energy sold by an electric distribution company or electric</u>
- 30 generation supplier to retail electric customers in this

- 1 Commonwealth for the reporting period which begins June 1, 2015,
- 2 and for each reporting period thereafter pursuant to subsection
- 3 (c). If at any time on or after June 1, 2015, a carbon dioxide
- 4 <u>sequestration facility permitted to permanently sequester carbon</u>
- 5 dioxide in this Commonwealth, is not operating and capable of
- 6 receiving carbon dioxide for sequestration through no fault of
- 7 <u>an advanced coal combustion with limited carbon emissions</u>
- 8 <u>facility</u>, a facility need not sequester carbon dioxide in order
- 9 to generate alternative energy credits provided:
- 10 (1) The facility is capable of capturing to the
- 11 <u>department's satisfaction the amount of carbon dioxide</u>
- 12 <u>required by paragraph (14) of the definition of "alternative</u>
- energy sources" in section 2.
- 14 (2) The total value of the alternative energy credits
- sold by the advanced coal combustion with limited carbon
- 16 emissions facility during times when the carbon dioxide
- 17 emissions from the facility are not sequestered shall not
- 18 exceed the costs that the facility incurred in installing
- 19 carbon capture equipment, equipment necessary to process coal
- for carbon capture purposes, equipment necessary to transport
- 21 the carbon dioxide to the carbon dioxide sequestration
- facility and costs incurred in connection with the operation
- 23 of the facility that are due to the capture and
- transportation of carbon dioxide, as determined by the
- 25 department. Costs incurred by an advanced coal combustion
- 26 with limited carbon emissions facility shall not include
- 27 Federal or State financial assistance received by the
- 28 facility.
- 29 (c.2) Force majeure. -- On or after December 31, 2015, if the
- 30 commission determines that an advanced coal combustion with

- 1 <u>limited carbon emissions facility is not operating and capable</u>
- 2 of capturing the amount of carbon dioxide required by paragraph
- 3 (14) of the definition of "alternative energy sources" in
- 4 <u>section 2 during a reporting period, this determination shall</u>
- 5 constitute force majeure, and electric distribution companies
- 6 and electric generation suppliers shall be excused from all or
- 7 part of their obligation under subsection (c.1) during that
- 8 reporting period, provided the requirements in the definition of
- 9 <u>"force majeure" in section 2 have been met, as determined by the</u>
- 10 commission. Should force majeure be declared pursuant to this
- 11 <u>subsection</u>, then <u>subsection</u> (c.1)(2), <u>limiting</u> the total <u>value</u>
- 12 of credit sold in the event that carbon dioxide is not being
- 13 <u>sequestered</u>, shall remain in full force and effect to the extent
- 14 that any such credits remain available under this act.
- 15 (c.3) Long-term contracts. -- Upon review and approval of the
- 16 <u>commission</u>, an electric distribution company may enter into a
- 17 long-term contract of up to 25 years to purchase the energy,
- 18 capacity or alternative energy credits of an advanced coal
- 19 combustion with limited carbon emissions facility. The contract
- 20 shall provide for the recovery of costs associated with carbon
- 21 capture, including, but not limited to, any fees charged by the
- 22 owner or operator of the carbon dioxide sequestration facility
- 23 or a carbon dioxide transportation pipeline. The commission
- 24 shall determine whether the contract is reasonable, taking into
- 25 consideration the following:
- 26 (1) The price of the energy purchased under the long-
- 27 <u>term contract. The contract shall provide that if the carbon</u>
- dioxide sequestration facility is not operating and capable
- 29 of receiving carbon dioxide for sequestration for a period of
- 30 no less than 90 days, the price of energy under the contract

- 1 shall be reduced to account for the advanced coal combustion
- 2 with limited carbon emissions facility's reduced operating
- 3 costs.

10

11

12

- 4 (2) The price of capacity purchased under the long-term
 5 contract.
- 6 (3) The price of alternative energy credits, provided
 7 that the cost of an alternative energy credit purchased from
 8 advanced coal combustion with limited carbon emissions shall
 9 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.
- 14 (5) After the effective date of the contract, the value 15 of any additional Federal or State carbon credits, allowances or other financial benefits shall be reflected in the price 16 17 of the resource in a manner which recognizes savings to customers and does not reduce the economic return to the 18 19 seller, provided that the seller demonstrates that it has 20 made a commercially reasonable effort to distribute any economic incentives it has realized to electric distribution 21 22 companies. A contract approved by the commission under this 23 subsection shall be deemed to meet the requirements of 66 24 Pa.C.S. § 2807(e) (relating to duties of electric 25 distribution companies).
- 26 * * *
- 27 (e) Alternative energy credits.--
- 28 * * *
- 29 (6) An electric distribution company and electric
 30 generation supplier may bank or place in reserve alternative

1 energy credits produced in one reporting year for compliance in [either or both] <u>any or all</u> of the [two] <u>four</u> subsequent 3 reporting years, subject to the limitations set forth in this subsection and provided that the electric distribution company and electric generation supplier are in compliance 6 for all previous reporting years. In addition, the electric 7 distribution company and electric generation supplier shall demonstrate to the satisfaction of the commission that such credits:

- were in excess of the alternative energy credits needed for compliance in the year in which they were generated and that such excess credits have not previously been used for compliance under this act;
- (ii) were produced by the generation of electrical energy by alternative energy sources and sold to retail customers during the year in which they were generated; and
- (iii) have not otherwise been nor will be sold, retired, claimed or represented as part of satisfying compliance with alternative or renewable energy portfolio standards in other states.
- (7) An electric distribution company or an electric generation supplier with sales that are exempted under subsection (d) may bank credits for retail sales of electricity generated from Tier I and Tier II sources made prior to the end of the cost-recovery period and after the effective date of this act. Bankable credits shall be limited to credits associated with electricity sold from Tier I and Tier II sources during a reporting year which exceeds the volume of sales from such sources by an electric distribution

2

4

5

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

1 company or electric generation supplier during the 12-month

period immediately preceding the effective date of this act. 2

All credits banked under this subsection shall be available 3

for compliance with subsections (b) and (c) for no more than 4

[two] <u>four</u> reporting years following the conclusion of the

cost-recovery period. 6

5

7

8

9

10

11

12

13

14

15

16

20

21

22

23

24

25

26

27

28

29

- (12) (i) Unless a contractual provision explicitly assigns alternative energy credits in a different manner, the owner of the alternative energy system or a customergenerator owns any and all alternative energy credits associated with or created by the production of electric energy by such facility or customer, and the owner or customer shall be entitled to sell, transfer or take any other action to which a legal owner of property is entitled to take with respect to the credits.
- 17 (ii) This paragraph shall apply to all alternative 18 energy credits created pursuant to this act.
- 19 (f) Alternative compliance payment. --
 - 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.
 - (2) The commission shall conduct a review of each determination made under subsections [(b) and (c)] (b), (c), (c.1) and (i). 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), (c.1) and (i), the commission shall impose an alternative compliance payment on that company or

1 supplier.

2

3

4

5

6

- (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).
- 7 [The alternative compliance payment for the solar 8 photovoltaic share shall be 200% of the average market value 9 of solar renewable energy credits sold during the reporting 10 period within the service region of the regional transmission organization, including, where applicable, the levelized up-11 12 front rebates received by sellers of solar renewable energy 13 credits in other jurisdictions in the PJM Interconnection, 14 L.L.C. transmission organization (PJM) or its successor.] The_ 15 alternative compliance payment for the solar alternative share shall be established by the commission in an amount and 16 17 for a period of years necessary to promote the market for solar alternative energy credits. The alternative compliance 18 19 payment for the solar share may vary over the time period 20 established by the commission but shall be at least 200% of 21 the average market value for solar alternative energy credits 22 sold within the service region of the PJM Interconnection, L.L.C. transmission organization in the year prior to the 23 24 establishment of the alternative compliance payment schedule. 25 The commission shall review the solar alternative compliance 26 payment schedule at least once per year and shall establish 27 an alternative compliance payment schedule for additional years as needed to promote the market for solar alternative 28 29 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.

- Transfer to sustainable development funds. --
- Notwithstanding the provisions of 66 Pa.C.S. §§ 511 (relating to disposition, appropriation and disbursement of assessments and fees) and 3315 (relating to disposition of fines and penalties), alternative compliance payments imposed pursuant to this act shall be paid into Pennsylvania's Sustainable Energy Funds created under the commission's restructuring orders under 66 Pa.C.S. Ch. 28 (relating to restructuring of electric utility industry). Alternative compliance payments shall be paid into a special fund of the Pennsylvania Sustainable Energy Board, established by the commission under Docket M-00031715, and made available to the Regional Sustainable Energy Funds under procedures and quidelines approved by the Pennsylvania Energy Board.
 - The alternative compliance payments shall be utilized solely for projects that will increase the amount of electric energy generated from alternative energy resources for purposes of compliance with subsections [(b) and (c)] (b), (c), (c.1) and (i).
- 29
- * * * 30

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

1	(i) Tier III share. The requirements of this subsection are
2	separate and additional to the requirements of subsections (b),
3	(c) and (c.1).
4	(1) The percentage of the electric energy required to be
5	sold by an electric distribution company or electric
6	generation supplier to retail electric customers in this
7	Commonwealth that shall be sold from alternative energy
8	sources identified in Tier III is:
9	(i) 3% for June 1, 2015, through May 31, 2016.
10	(ii) 3.5% for June 1, 2016, through May 31, 2017.
11	(iii) 4% for June 1, 2017, through May 31, 2018.
12	(iv) 4.5% for June 1, 2018, through May 31, 2019.
13	(v) 5% for June 1, 2019, through May 31, 2020.
14	(vi) 5.5% for June 1, 2020, through May 31, 2021.
15	(vii) 6% for June 1, 2021, through May 31, 2022.
16	(viii) 6.5% for June 1, 2022, through May 31, 2023.
17	(ix) 7% for June 1, 2023, through May 31, 2024.
18	(x) 7% for June 1, 2024, and thereafter.
19	(2) Incremental nuclear energy shall supply not more
20	than 50% of the electric energy required by tier III in any
21	<pre>compliance year.</pre>
22	(3) Electric distribution companies and electric
23	generation suppliers shall be excused from their obligations
24	under this subsection to the extent that the commission
25	determines that force majeure exists, provided the
26	requirements in the definition of "force majeure" in section
27	2 have been met.
28	Section 3. The act is amended by adding sections to read:
29	Section 8.1. Sequestration facility permitting.
30	(a) Prohibition No person may operate a carbon dioxide

- 1 sequestration facility without a permit from the department.
- 2 (b) Facility sites. -- The Environmental Quality Board shall,
- 3 by regulation, establish the conditions under which a carbon
- 4 <u>dioxide sequestration facility may be located, developed and</u>
- 5 operated. The regulations promulgated by the board shall provide
- 6 for the protection of public health, safety and environment and
- 7 <u>shall include</u>, but not be limited to, the following:
- 8 <u>(1) Geologic site characterization.</u>
- 9 (2) Sequestration facility performance standards.
- 10 (3) Well location restrictions and well construction
- 11 <u>standards, including operation and mechanical integrity</u>
- 12 <u>testing.</u>
- 13 (4) Risk assessment, corrective action and emergency
- response requirements.
- 15 <u>(5) Monitoring, recordkeeping and reporting</u>
- 16 requirements.
- 17 <u>(6) Facility closure, postclosure and final closure</u>
- 18 <u>certification requirements.</u>
- 19 (7) Financial assurance requirements, including bonding
- or insurance, in amounts sufficient to ensure the carbon
- 21 sequestration facility will be constructed, operated, closed
- 22 and monitored during the postclosure period in accordance
- 23 <u>with regulations promulgated under this section.</u>
- 24 (8) Fees in an amount sufficient to recover the
- 25 department's cost of administering this section.
- 26 (9) Fees for every ton of carbon dioxide accepted by a
- 27 <u>carbon dioxide sequestration facility in an amount sufficient</u>
- to monitor and maintain the facility after final closure of
- 29 the facility and take remedial actions if necessary after
- final closure of the facility. The fees shall be paid by the

- 1 <u>operator of a carbon dioxide sequestration facility to the</u>
- 2 <u>department on a quarterly basis.</u>
- 3 (10) Public notice requirements, including notification
- 4 of a release.
- 5 (11) Criteria used to determine that carbon dioxide has
- 6 <u>been permanently sequestered.</u>
- 7 (12) Other requirements necessary to evaluate the
- 8 proposed carbon dioxide sequestration facility and to ensure
- 9 <u>safe and environmentally protective operation of the</u>
- 10 <u>facility</u>.
- 11 (c) Powers, duties and enforcement authority of
- 12 <u>department.--The department shall have the same powers, duties</u>
- 13 and enforcement authority provided by the act of July 7, 1980
- 14 (P.L.380, No.97), known as the Solid Waste Management Act, to
- 15 carry out the purposes of this section. Operators of a carbon
- 16 dioxide sequestration facility shall have the same rights and be
- 17 subject to the same penalties as provided by the Solid Waste
- 18 Management Act; however, an administrative penalty assessed by
- 19 the department for a violation of this section shall not exceed
- 20 \$50,000 per day per violation.
- 21 Section 8.2. Title to carbon dioxide, immunity and transfer of
- 22 liability.
- 23 (a) Title to carbon dioxide. -- The right, title and interest
- 24 in and to carbon dioxide delivered to a carbon dioxide
- 25 <u>sequestration facility by the advanced coal combustion with</u>
- 26 limited carbon emission facilities that, individually or
- 27 <u>collectively</u>, first meet the maximum requirements of section
- 28 3(c.1), as determined by the department, shall be transferred to
- 29 the carbon dioxide sequestration facility and the facility shall
- 30 accept and receive the right, title and interest in and to such

- 1 carbon dioxide, including, but not limited to, liabilities
- 2 <u>associated with the carbon dioxide</u>, current or future
- 3 environmental benefits, marketing claims, associated voluntary
- 4 <u>or compliance-based emissions allocations or offsets, but not</u>
- 5 <u>alternative energy credits provided by section 3(e).</u>
- 6 (b) Immunity. -- Upon and after transfer and conveyance of
- 7 carbon dioxide as provided under subsection (a), the owner of an
- 8 <u>advanced coal combustion plant with limited carbon emissions</u>
- 9 shall be immune from liabilities regarding the storage of carbon
- 10 dioxide within and the release, escape or migration of carbon
- 11 dioxide from the carbon dioxide sequestration facility.
- 12 <u>(c) Transfer of liability.--Upon final closure of a carbon</u>
- 13 dioxide sequestration facility, as determined by the department,
- 14 the right, title or interest in the carbon dioxide and liability
- 15 for any release from the facility shall be transferred to and
- 16 <u>accepted by the Commonwealth provided the operator of the carbon</u>
- 17 dioxide sequestration facility has paid the appropriate fees
- 18 under section 8.1.
- 19 Section 8.3. Carbon Dioxide Indemnification Fund.
- 20 (a) Establishment. -- There is hereby established in the State
- 21 Treasury a nonlapsing fund to be known as the Carbon Dioxide
- 22 Indemnification Fund. Money collected by the department under
- 23 <u>section 8.1(b)(9) shall be deposited in the fund and shall only</u>
- 24 be expended by the department to monitor and maintain carbon
- 25 <u>dioxide sequestration facilities after final closure and to take</u>
- 26 remedial actions, if necessary, after final closure.
- 27 (b) Money collected under section 8.1.--Fines, civil
- 28 penalties and permit fees collected by the department under
- 29 section 9 are hereby appropriated to the department to carry out
- 30 the purposes of section 8.1.

- 1 <u>Section 8.4. Carbon dioxide sequestration facility and</u>
- 2 <u>transportation pipeline on Commonwealth State forest</u>
- 3 lands.
- 4 DCNR may lease State forest land owned by the Commonwealth to
- 5 any person, on terms and conditions as DCNR may consider
- 6 appropriate, for the development and operation of a carbon
- 7 <u>dioxide sequestration facility and carbon dioxide transportation</u>
- 8 pipeline necessary to deliver carbon dioxide to the facility. A
- 9 <u>carbon dioxide sequestration facility or carbon dioxide</u>
- 10 transportation pipeline developed and operated on Commonwealth
- 11 State forest lands shall only be utilized to store carbon
- 12 dioxide generated within this Commonwealth. All rents and other
- 13 payments from any lease of Commonwealth State forest land under
- 14 this section shall be deposited into the Environmental
- 15 Stewardship Fund established in 27 Pa.C.S. § 6104 (relating to
- 16 fund).
- 17 Section 8.5. Application of the Public Utility Code to
- transporters of carbon dioxide.
- 19 Entities transporting or conveying carbon dioxide by pipeline
- 20 or conduit for compensation under this act shall be considered a
- 21 public utility under 66 Pa.C.S. § 102 (relating to definitions)
- 22 and subject to the provisions of 66 Pa.C.S. (relating to public
- 23 <u>utilities).</u>
- 24 Section 4. The provisions of this act are severable. If any
- 25 provision of this act or its application to any person or
- 26 circumstance is held invalid, the invalidity shall not affect
- 27 other provisions or applications of this act which can be given
- 28 effect without the invalid provision or application.
- 29 Section 5. Repeals are as follows:
- 30 (1) The General Assembly declares that the repeal under

- 1 paragraph (2) is necessary to effectuate the amendment of section 3(e)(12) of the act.
- 2
- 3 Section 3.1 of the act of July 17, 2007 (P.L.114,
- No.35), entitled "An act amending the act of November 30, 4
- 5 2004 (P.L.1672, No.213), entitled, 'An act providing for the
- 6 sale of electric energy generated from renewable and
- 7 environmentally beneficial sources, for the acquisition of
- 8 electric energy generated from renewable and environmentally
- 9 beneficial sources by electric distribution and supply
- 10 companies and for the powers and duties of the Pennsylvania
- Public Utility Commission,' further providing for the 11
- 12 definitions of 'alternative energy credit,' 'customer-
- 13 generator, ' 'force majeure, ' 'net metering, ' and 'Tier I
- 14 alternative energy source, ' for alternative energy portfolio
- 15 standards, for portfolio requirements in other states and for
- interconnection standards for customer-generator facilities," 16
- 17 is repealed.
- 18 Section 6. The amendment of section 3(e)(12) of the act
- 19 shall apply to all alternative energy credits created under the
- 20 act on or after the effective date of this section, regardless
- 21 of when any underlying contract for the purchase of electric
- 22 energy or other products from the generator that qualifies as an
- 23 alternative energy system was executed.
- 24 Section 7. This act shall take effect immediately.