
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, SHAPIRO, MOUL, O'NEILL,
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LENTZ, DeWEESE, CONKLIN, PETRI, GINGRICH, CURRY, DRUCKER AND
MURT, MARCH 12, 2009

REFERRED TO COMMITTEE ON ENVIRONMENTAL RESOURCES AND ENERGY,
MARCH 12, 2009

AN ACT

1 Amending the act of November 30, 2004 (P.L.1672, No.213),
2 entitled, "An act providing for the sale of electric energy
3 generated from renewable and environmentally beneficial
4 sources, for the acquisition of electric energy generated
5 from renewable and environmentally beneficial sources by
6 electric distribution and supply companies and for the powers
7 and duties of the Pennsylvania Public Utility Commission,"
8 further providing for definitions and for alternative energy
9 portfolio standards; and providing for carbon dioxide
10 sequestration network.

11 The General Assembly of the Commonwealth of Pennsylvania
12 hereby enacts as follows:

13 Section 1. The definition of "alternative energy sources"
14 and "Tier II alternative energy source" in section 2 of the act
15 of November 30, 2004 (P.L.1672, No.213), known as the
16 Alternative Energy Portfolio Standards Act, are amended by
17 adding paragraphs and the section is amended by adding
18 definitions to read:

19 Section 2. Definitions.

1 The following words and phrases when used in this act shall
2 have the meanings given to them in this section unless the
3 context clearly indicates otherwise:

4 * * *

5 "Alternative energy sources." The term shall include the
6 following existing and new sources for the production of
7 electricity:

8 * * *

9 (14) Advanced coal combustion with limited carbon
10 emissions, which means the production of electric power from
11 a generation facility that:

12 (i) Is fueled by coal or gas derived from an
13 advanced coal gasification plant.

14 (ii) Captures, either in the advanced coal
15 gasification plant or in the electrical generation
16 facility, and permanently sequesters at least the
17 following amount of all carbon dioxide produced:

18 (A) 40% from June 1, 2015 to May 31, 2019.

19 (B) 60% from June 1, 2019 to May 31, 2024.

20 (C) 90% from June 1, 2024 and thereafter.

21 (D) The requirement under clause (C) shall be
22 waived if commercially proven and project-financeable
23 technology is not available.

24 (iii) Has been designed to accommodate the required
25 additional processing equipment to produce power with a
26 maximum of 1,000 pounds of carbon dioxide emissions per
27 megawatt hour.

28 * * *

29 "Carbon dioxide sequestration network." Geological
30 subsurface formations within this Commonwealth with suitable cap

1 rock, sealing faults and anticline used by the Department of
2 Conservation and Natural Resources for the permanent storage of
3 carbon dioxide from advanced coal combustion with limited carbon
4 emissions plants or other sources within this Commonwealth along
5 with the facilities necessary to transport the carbon dioxide
6 from the surface to the subsurface formations and monitor the
7 permanent storage of the carbon dioxide in subsurface
8 formations. The term shall not include use of the carbon dioxide
9 for enhanced resource recovery.

10 * * *

11 "DCNR." The Department of Conservation and Natural Resources
12 of the Commonwealth.

13 * * *

14 "Enhanced resource recovery." The use of carbon dioxide
15 injection or other techniques for increasing the amount of oil,
16 natural gas or coal bed methane extracted from geologic
17 formations.

18 * * *

19 "Tier II alternative energy source." Energy derived from:

20 * * *

21 (8) Advanced coal combustion with limited carbon
22 emissions.

23 * * *

24 Section 2. Section 3(a), (b), (c), (f) and (g) of the act,
25 amended July 17, 2007 (P.L.114, No.35), are amended and the
26 section is amended by adding subsections to read:

27 Section 3. Alternative energy portfolio standards.

28 (a) General compliance and cost recovery.--

29 (1) From the effective date of this act through and
30 including the 15th year after enactment of this act and each

1 year thereafter, the electric energy sold by an electric
2 distribution company or electric generation supplier to
3 retail electric customers in this Commonwealth shall be
4 comprised of electricity generated from alternative energy
5 sources and in the percentage amounts as described under
6 subsections [(b) and (c)] (b), (c) and (c.1).

7 (2) Electric distribution companies and electric
8 generation suppliers shall satisfy both requirements set
9 forth in subsections [(b) and (c)] (b), (c) and (c.1),
10 provided, however, that an electric distribution company or
11 an electric generation supplier shall be excused from its
12 obligations under this section to the extent that the
13 commission determines that force majeure exists.

14 (3) All costs for:

15 (i) the purchase of electricity generated from
16 alternative energy sources, including the costs of the
17 regional transmission organization, in excess of the
18 regional transmission organization real-time locational
19 marginal pricing, or its successor, at the delivery point
20 of the alternative energy source for the electrical
21 production of the alternative energy sources; and

22 (ii) payments for alternative energy credits, in both
23 cases that are voluntarily acquired by an electric
24 distribution company during the cost recovery period on
25 behalf of its customers shall be deferred as a regulatory
26 asset by the electric distribution company and fully
27 recovered, with a return on the unamortized balance,
28 pursuant to an automatic energy adjustment clause under
29 66 Pa.C.S. § 1307 (relating to sliding scale of rates;
30 adjustments) as a cost of generation supply under 66

1 Pa.C.S. § 2807 (relating to duties of electric
2 distribution companies) in the first year after the
3 expiration of its cost-recovery period. After the cost-
4 recovery period, any direct or indirect costs for the
5 purchase by electric distribution of resources to comply
6 with this section, including, but not limited to, the
7 purchase of electricity generated from alternative energy
8 sources, payments for alternative energy credits, cost of
9 credits banked, payments to any third party
10 administrators for performance under this act and costs
11 levied by a regional transmission organization to ensure
12 that alternative energy sources are reliable, shall be
13 recovered on a full and current basis pursuant to an
14 automatic energy adjustment clause under 66 Pa.C.S. §
15 1307 as a cost of generation supply under 66 Pa.C.S. §
16 2807.

17 (b) Tier I and solar photovoltaic shares.--

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

1 generation supplier to retail electric customers in that
2 certificated territory in the 15th year after the effective
3 date of this subsection is sold from Tier I alternative
4 energy resources.

5 (1.1) After the 15th year of the effective date of this
6 subsection, the minimum percentage of electric energy
7 required to be sold to retail electric customers from Tier I
8 alternative energy sources is:

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

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

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

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

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

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

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

19 (i) 0.0013% for June 1, 2006, through May 31, 2007.

20 (ii) 0.0030% for June 1, 2007, through May 31, 2008.

21 (iii) 0.0063% for June 1, 2008, through May 31,

22 2009.

23 (iv) 0.0120% for June 1, 2009, through May 31, 2010.

24 (v) 0.0203% for June 1, 2010, through May 31, 2011.

25 (vi) 0.0325% for June 1, 2011, through May 31, 2012.

26 (vii) 0.0510% for June 1, 2012, through May 31,

27 2013.

28 (viii) 0.0840% for June 1, 2013, through May 31,

29 2014.

30 (ix) 0.1440% for June 1, 2014, through May 31, 2015.

- 1 (x) 0.2500% for June 1, 2015, through May 31, 2016.
2 (xi) 0.2933% for June 1, 2016, through May 31, 2017.
3 (xii) 0.3400% for June 1, 2017, through May 31,
4 2018.
5 (xiii) 0.3900% for June 1, 2018, through May 31,
6 2019.
7 (xiv) 0.4433% for June 1, 2019, through May 31,
8 2020.
9 (xv) 0.5000% for June 1, 2020, [and thereafter.]
10 through May 31, 2021.
11 (xvi) 0.9000% for June 1, 2021, through May 31,
12 2022.
13 (xvii) 1.3000% for June 1, 2022, through May 31,
14 2023.
15 (xviii) 1.7000% for June 1, 2023, through May 31,
16 2024.
17 (xix) 2.1000% for June 1, 2024, through May 31,
18 2025.
19 (xx) 2.5000% for June 1, 2025, through May 31, 2026.
20 (xxi) 3.000% for June 1, 2026, and thereafter.

21 (3) Upon commencement of the beginning of the 6th
22 reporting year, and every five years thereafter, the
23 commission shall undertake a review of the compliance by
24 electric distribution companies and electric generation
25 suppliers with the requirements of this act. The review shall
26 also include the status of alternative energy technologies
27 within this Commonwealth and the capacity to add additional
28 alternative energy resources. The commission shall use the
29 results of this review to recommend to the General Assembly
30 additional compliance goals beyond year [15] 21. The

1 commission shall work with the department in evaluating the
2 future alternative energy resource potential.

3 (4) As of May 31, 2021, and thereafter, 50% of electric
4 energy from solar photovoltaic technologies supplied to
5 retail customers shall be generated from solar photovoltaic
6 systems located within this Commonwealth in meeting the
7 requirements of paragraph (2).

8 (c) Tier II share.--Of the electrical energy required to be
9 sold from alternative energy sources identified in Tier II, the
10 percentage that must be from these technologies is for:

11 (1) Years 1 through 4 - 4.2%.

12 (2) Years 5 through 9 - 6.2%.

13 (3) Years 10 through 14 - [8.2%] 11.2%.

14 (4) Years 15 and thereafter - [10.0%] 13.0%.

15 (c.1) Retail sales from advanced coal combustion.--The total
16 electric energy sold by an electric distribution company or
17 electric generation supplier to retail electric customers in
18 this Commonwealth that shall be sold from advanced coal
19 combustion with limited carbon emissions is all of the electric
20 energy available from advanced coal combustion with limited
21 carbon emissions up to a maximum of 3.0% of the total electric
22 energy sold by an electric distribution company or electric
23 generation supplier to retail electric customers in this
24 Commonwealth for the reporting period which begins June 1, 2015,
25 and for each reporting period thereafter pursuant to subsection
26 (c). If at any time on or after June 1, 2015, the network
27 provided for under section 8.1, or other network permitted to
28 permanently sequester carbon dioxide, is not available to
29 receive carbon dioxide for sequestration through no fault of an
30 advanced coal combustion with limited carbon emissions facility,

1 a facility need not sequester carbon dioxide in order to
2 generate alternative energy credits provided the facility is
3 capable of capturing to the department's satisfaction the amount
4 of carbon dioxide required by paragraph (14)(ii) of the
5 definition of "alternative energy sources" in section 2.

6 (c.2) Force majeure.--On or after December 31, 2015, if the
7 commission determines that construction of an advanced coal
8 combustion with limited carbon emissions facility has not been
9 commenced, this determination shall constitute force majeure,
10 and electric distribution companies and electric generation
11 suppliers shall be excused from all or part of their obligation
12 under subsection (c.1), as determined by the commission.

13 (c.3) Long-term contracts.--Upon review and approval of the
14 commission, an electric distribution company may enter into a
15 long-term contract of up to 25 years to purchase the energy,
16 capacity or alternative energy credits of an advanced coal
17 combustion with limited carbon emissions facility. The contract
18 shall provide for cost recovery of costs associated with carbon
19 capture, including, but not limited to, any fees charged by the
20 Department of Conservation and Natural Resources pursuant to
21 section 8.1(b) with regard to the carbon dioxide sequestration
22 network. The commission shall determine that the contract is
23 reasonable, taking into consideration the following:

24 (1) The price of the energy purchased under the long-
25 term contract.

26 (2) The price of capacity purchased under the long-term
27 contract.

28 (3) The price of alternative energy credits, provided
29 that the cost of an alternative energy credit purchased from
30 advanced coal combustion with limited carbon emissions shall

1 not exceed \$45 per megawatt hour (MWh).

2 (4) Prior to the effective date of the contract, the
3 value of any carbon emission credits or other credits that
4 the seller obtains from the advanced coal combustion with
5 limited carbon emissions facility.

6 (5) After the effective date of the contract, the value
7 of any additional Federal or State carbon credits, allowances
8 or other financial benefits shall be reflected in the price
9 of the resource in a manner which recognizes savings to
10 customers and does not reduce the economic return to the
11 seller, provided that the seller demonstrates that it has
12 made a commercially reasonable effort to distribute any
13 economic incentives it has realized to electric distribution
14 companies. A contract approved by the commission under this
15 subsection shall be deemed to meet the requirements of 66
16 Pa.C.S. § 2807(e) (relating to duties of electric
17 distribution companies).

18 * * *

19 (f) Alternative compliance payment.--

20 (1) At the end of each program year, the program
21 administrator shall provide a report to the commission and to
22 each covered electric distribution company showing their
23 status level of alternative energy acquisition.

24 (2) The commission shall conduct a review of each
25 determination made under subsections [(b) and (c)] (b), (c)
26 and (c.1). If, after notice and hearing, the commission
27 determines that an electric distribution company or electric
28 generation supplier has failed to comply with subsections
29 [(b) and (c)] (b), (c) and (c.1), the commission shall impose
30 an alternative compliance payment on that company or

1 supplier.

2 (3) The alternative compliance payment, with the
3 exception of the solar photovoltaic share compliance
4 requirement set forth in subsection (b)(2), shall be \$45
5 times the number of additional alternative energy credits
6 needed in order to comply with subsection (b) or (c).

7 (4) [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
11 organization, including, where applicable, the levelized up-
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 photovoltaic
16 alternative share shall be established by the commission in
17 an amount and for a period of years necessary to promote the
18 market for solar photovoltaic alternative energy credits. The
19 alternative compliance payment for the solar photovoltaic
20 share may vary over the time period established by the
21 commission but shall be at least 200% of the average market
22 value for solar photovoltaic alternative energy credits sold
23 within the service region of the PJM Interconnection, L.L.C.
24 transmission organization in the year prior to the
25 establishment of the alternative compliance payment schedule.
26 The commission shall review the solar photovoltaic
27 alternative compliance payment schedule at least once per
28 year and shall establish an alternative compliance payment
29 schedule for additional years as needed to promote the market
30 for solar photovoltaic alternative energy credits.

1 (5) The commission shall establish a process to provide
2 for, at least annually, a review of the alternative energy
3 market within this Commonwealth and the service territories
4 of the regional transmission organizations that manage the
5 transmission system in any part of this Commonwealth. The
6 commission will use the results of this study to identify any
7 needed changes to the cost associated with the alternative
8 compliance payment program. If the commission finds that the
9 costs associated with the alternative compliance payment
10 program must be changed, the commission shall present these
11 findings to the General Assembly for legislative enactment.

12 (g) Transfer to sustainable development funds.--

13 (1) Notwithstanding the provisions of 66 Pa.C.S. §§ 511
14 (relating to disposition, appropriation and disbursement of
15 assessments and fees) and 3315 (relating to disposition of
16 fines and penalties), alternative compliance payments imposed
17 pursuant to this act shall be paid into Pennsylvania's
18 Sustainable Energy Funds created under the commission's
19 restructuring orders under 66 Pa.C.S. Ch. 28 (relating to
20 restructuring of electric utility industry). Alternative
21 compliance payments shall be paid into a special fund of the
22 Pennsylvania Sustainable Energy Board, established by the
23 commission under Docket M-00031715, and made available to the
24 Regional Sustainable Energy Funds under procedures and
25 guidelines approved by the Pennsylvania Energy Board.

26 (2) The alternative compliance payments shall be
27 utilized solely for projects that will increase the amount of
28 electric energy generated from alternative energy resources
29 for purposes of compliance with subsections [(b) and (c)]
30 (b), (c) and (c.1).

1 * * *

2 Section 3. The act is amended by adding a section to read:

3 Section 8.1. Carbon dioxide sequestration network.

4 (a) Establishment of network.--DCNR shall develop and
5 operate a carbon dioxide sequestration network utilizing
6 appropriate geologic formations and facilities on State forest
7 land or as otherwise acquired by DCNR for the purposes set forth
8 in this subsection. DCNR may acquire, on behalf of the
9 Commonwealth, geologic formations and facilities required for
10 the carbon dioxide sequestration network by purchase, gift,
11 lease or condemnation. The carbon dioxide sequestration network
12 shall only be utilized to store carbon dioxide generated within
13 this Commonwealth.

14 (b) Fees.--DCNR shall collect reasonable fees from entities
15 that transport to or through, deposit in or otherwise utilize
16 the carbon dioxide sequestration network. DCNR shall enter into
17 agreements with the entities establishing the terms and
18 conditions for use of the carbon dioxide sequestration network
19 and the payment of appropriate fees prior to the transport of
20 any carbon dioxide into the carbon dioxide sequestration
21 network. Fees shall be established to recover the total cost,
22 less any nonreimbursable Federal funding, of developing and
23 operating the carbon dioxide sequestration network. Recoverable
24 costs shall include, but are not limited to, the cost to acquire
25 or obtain the right to use geologic formations or facilities
26 required for the carbon dioxide sequestration network,
27 construction costs, insurance costs and other costs to operate
28 and maintain the network.

29 (c) Establishment of fund.--There is established in the
30 State Treasury a Carbon Sequestration Fund. The Carbon

1 Sequestration Fund shall be a nonlapsing fund and the money
2 deposited into this fund is specifically appropriated to DCNR to
3 carry out the purposes of this section at the discretion of the
4 Secretary of Conservation and Natural Resources.

5 (d) Permitting requirements.--The department shall develop
6 regulations necessary to permit the siting and operation of the
7 carbon dioxide sequestration facility authorized by this
8 section. The regulations shall include, but not be limited to,
9 the following:

10 (1) Risk assessment.

11 (2) Geologic site characterization including, but not
12 limited to, modeling and verification of fluid movement.

13 (3) Corrective action.

14 (4) Well construction, operation and mechanical
15 integrity testing.

16 (5) Monitoring and site closure.

17 No carbon dioxide may be accepted for sequestration until all
18 applicable permits have been approved.

19 (e) Operation.--

20 (1) DCNR may enter into contracts for the development
21 and operation of the carbon dioxide sequestration network.
22 DCNR or its contractor shall evaluate the requirements for
23 safe operation of the carbon dioxide sequestration network
24 including, but not limited to, geologic site
25 characterization, modeling and verification of fluid
26 movement, well construction, mechanical integrity testing,
27 monitoring, corrective action and site closure. No carbon
28 dioxide may be accepted for sequestration until all
29 applicable permits have been approved.

30 (2) Prior to commencement of operation of the carbon

1 dioxide sequestration network and periodically thereafter,
2 DCNR or its contractor shall assess the risks associated with
3 the operation. DCNR and the Department of General Services
4 shall determine the appropriate method to insure the
5 operation of the carbon dioxide sequestration network and
6 shall insure the operation as deemed appropriate.

7 (f) Title to carbon dioxide and immunity.--

8 (1) All right, title and interest in and to carbon
9 dioxide delivered to the property line of the
10 Commonwealth-owned lands or other lands upon which the
11 Commonwealth's carbon dioxide sequestration network is
12 located by the advanced coal combustion with limited carbon
13 emission facilities that, individually or collectively, first
14 meet the maximum requirements of section 3(c.1) as determined
15 by the department, shall be transferred to the Commonwealth
16 and the Commonwealth shall accept and receive all the right,
17 title and interest in and to such carbon dioxide, including,
18 but not limited to, any liabilities associated with the
19 carbon dioxide, current or future environmental benefits,
20 marketing claims, associated voluntary or compliance-based
21 emissions allocations or offsets, but not alternative energy
22 credits provided by section 3(e).

23 (2) Upon and after transfer and conveyance of carbon
24 dioxide as provided under paragraph (1), the owner of an
25 advanced coal combustion plant with limited carbon emissions
26 shall be immune from liabilities regarding the storage of
27 carbon dioxide within and the release, escape or migration of
28 carbon dioxide from the Commonwealth's carbon dioxide
29 sequestration network and subsurface storage site.

30 Section 4. This act shall take effect immediately.