
THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 2132 Session of
2018

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ROE, FITZGERALD, CEPHAS, YOUNGBLOOD, V. BROWN, MADDEN,
CARROLL, HILL-EVANS AND CRUZ, MARCH 9, 2018

REFERRED TO COMMITTEE ON ENVIRONMENTAL RESOURCES AND ENERGY,
MARCH 9, 2018

AN ACT

1 Amending Title 27 (Environmental Resources) of the Pennsylvania
2 Consolidated Statutes, providing for transition to renewable
3 energy; imposing duties on the Department of Environmental
4 Protection and other Commonwealth agencies relating to energy
5 consumption and renewable energy generation; establishing the
6 Clean Energy Transition Task Force, the Clean Energy Center
7 of Excellence, the Council for Clean Energy Workforce
8 Development and the Clean Energy Workforce Development Fund;
9 and providing for interim limits on energy produced from
10 nonrenewable sources.

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

13 Section 1. Title 27 of the Pennsylvania Consolidated
14 Statutes is amended by adding a chapter to read:

15 CHAPTER 51

16 TRANSITION TO RENEWABLE ENERGY

17 Sec.

18 5101. Declaration of policy.

19 5102. Definitions.

- 1 5103. Priorities.
- 2 5104. Clean Energy Transition Task Force.
- 3 5105. Executive agency duties.
- 4 5106. Publication and review.
- 5 5107. Clean Energy Center of Excellence.
- 6 5108. Council for Clean Energy Workforce Development.
- 7 5109. Study by department.
- 8 5110. Analysis of energy consumption.
- 9 5111. Interim limits on energy produced from nonrenewable
10 sources.
- 11 5112. State-owned facilities and land.
- 12 5113. Regulations.
- 13 § 5101. Declaration of policy.

14 The General Assembly finds and declares as follows:

15 (1) The purpose of this act is to steadily transition
16 this Commonwealth to 100% clean, renewable energy by 2050 in
17 order to:

18 (i) Avoid pollution of our air, water and land,
19 reduce greenhouse gas emissions and ultimately eliminate
20 our use of fossil fuels and other polluting and dangerous
21 forms of energy.

22 (ii) Increase energy security by reducing reliance
23 on imported sources of energy and maximizing renewable
24 energy production in this Commonwealth.

25 (iii) Increase economic development by stimulating
26 public and private investments in clean energy and energy
27 efficiency projects.

28 (iv) Create local jobs by harnessing this
29 Commonwealth's skilled workforce, business leadership and
30 academic institutions to advance new technologies,

1 improve the energy performance of homes and workplaces
2 and deploy renewable energy across this Commonwealth.

3 (v) Improve the quality of life and economic well-
4 being of all residents of this Commonwealth, with an
5 emphasis on communities and populations that have been
6 disproportionately affected by pollution and high costs
7 under our energy system.

8 (2) It is the goal of the Commonwealth to:

9 (i) Meet 100% of Pennsylvania's energy needs with
10 renewable energy by 2050, including the energy consumed
11 for electricity, heating and cooling, transportation,
12 agricultural uses, industrial uses and all other uses by
13 residents, institutions, businesses, State and municipal
14 agencies and other entities operating within this
15 Commonwealth.

16 (ii) Obtain 100% of the electricity consumed by
17 residents, institutions, businesses, State and municipal
18 agencies and other entities operating within this
19 Commonwealth from renewable energy sources by 2035.

20 § 5102. Definitions.

21 The following words and phrases when used in this chapter
22 shall have the meanings given to them in this section unless the
23 context clearly indicates otherwise:

24 "Building sector." The energy consumed to heat, cool and
25 provide hot water and electricity for buildings. The term does
26 not include energy used for heavy industrial activities.

27 "Center." The Clean Energy Center of Excellence established
28 under section 5107 (relating to Clean Energy Center of
29 Excellence).

30 "Commonwealth agency." As defined in 62 Pa.C.S. § 103

1 (relating to definitions).

2 "Council." The Council for Clean Energy Workforce
3 Development established under section 5108 (relating to Council
4 for Clean Energy Workforce Development).

5 "Department." The Department of Environmental Protection of
6 the Commonwealth.

7 "Emission." The emission of a greenhouse gas into the air.

8 "Executive agency." As defined in 62 Pa.C.S. § 103.

9 "Fund." The Clean Energy Workforce Development Fund
10 established in section 5112(c) (relating to State-owned
11 facilities and land).

12 "Greenhouse gas." A gas in the earth's atmosphere that
13 absorbs and reemits infrared radiation, including carbon
14 dioxide, nitrous oxide, methane, hydrofluorocarbons,
15 perfluorocarbons and sulfur hexafluoride.

16 "Nonrenewable energy." Energy produced from any source that
17 fails to meet one or more of the criteria for renewable energy.

18 "Renewable energy." As follows:

19 (1) Energy produced from sources that meet all of the
20 following criteria:

21 (i) Virtually pollution-free, producing little to no
22 global warming pollution or health-threatening pollution.

23 (ii) Inexhaustible, coming from natural sources that
24 are regenerative or practically unlimited.

25 (iii) Safe, having minimal impacts on the
26 environment, community safety and public health.

27 (iv) Efficient, a wise use of resources.

28 (2) The term includes energy produced with any
29 technology, the use of which conforms to the requirements
30 under paragraph (1), including the following:

- 1 (i) Solar photovoltaic.
- 2 (ii) Solar thermal electric.
- 3 (iii) Solar thermal heating.
- 4 (iv) Offshore wind energy.
- 5 (v) Onshore wind energy.
- 6 (vi) Geothermal energy.

7 "Secretary." The Secretary of Environmental Protection of
8 the Commonwealth.

9 "Sector." A major category of energy usage. The term
10 includes electricity generation, heating, transportation and
11 industry and may include other major categories as identified by
12 the department.

13 "Subsector." A subcategory within a sector of energy usage,
14 characterized by a common energy generation technology,
15 industry, application, end-use sector or type of consumer.

16 "Task force." The Clean Energy Transition Task Force
17 established in section 5104 (relating to Clean Energy Transition
18 Task Force).

19 "Transportation sector." The technologies and uses of energy
20 that are applied to move people and goods within, into and out
21 of this Commonwealth, including nonmotorized forms of
22 transportation, such as walking and bicycling.

23 "Zero net energy building." An energy efficient building
24 where, on a source energy basis, the actual annual delivered
25 energy is less than or equal to the onsite renewable exported
26 energy.

27 § 5103. Priorities.

28 In meeting the goals identified under section 5101(2)
29 (relating to declaration of policy), Commonwealth agencies shall
30 prioritize the following:

1 (1) Sources of renewable energy that are located in this
2 Commonwealth or elsewhere in the Mid-Atlantic region.

3 (2) Sources of renewable energy that represent
4 additional renewable generation capacity added to the grid.

5 (3) Models for local and community ownership of
6 renewable energy generation, particularly models that bring
7 direct financial benefits to low-income communities.

8 (4) Reducing energy consumption through efficiency
9 measures to the greatest extent practicable.

10 § 5104. Clean Energy Transition Task Force.

11 (a) Establishment.--The Clean Energy Transition Task Force
12 is established to integrate the goal of 100% renewable energy
13 throughout State government operations. The members of the task
14 force shall be appointed within 90 days of the effective date of
15 this section.

16 (b) Members.--The task force shall include the following
17 members:

18 (1) The secretary or the secretary's designee, who shall
19 serve as the chairperson of the task force.

20 (2) A representative from the following Commonwealth
21 agencies, to be appointed by the chief executive or
22 administrative officer of each agency:

23 (i) The Department of Conservation and Natural
24 Resources.

25 (ii) The Pennsylvania Public Utility Commission.

26 (iii) The Department of Education.

27 (iv) The Department of Human Services.

28 (v) The Department of Health.

29 (vi) The Department of Community and Economic
30 Development.

1 (vii) The Department of Labor and Industry.

2 (viii) The Department of Transportation.

3 (ix) The Department of Corrections.

4 (x) The Department of General Services.

5 (xi) The Department of State.

6 (xii) The Governor's Office of Administration.

7 (3) A representative designated by each of the
8 following:

9 (i) The Attorney General

10 (ii) The State Treasurer.

11 (iii) The Auditor General.

12 (4) Two members designated by the Secretary of Education
13 as follows:

14 (i) A member to represent the State System of Higher
15 Education.

16 (ii) A member to represent the community college
17 system.

18 (c) Duties.--The task force shall:

19 (1) Identify all existing State laws and regulations and
20 Commonwealth agency programs with an impact on energy
21 production and consumption and shall evaluate them based on
22 the following:

23 (i) Their potential to support this Commonwealth's
24 transition to 100% renewable energy.

25 (ii) Their ability to maximize the environmental and
26 economic benefits of the transition for residents of this
27 Commonwealth and businesses, particularly, but not
28 exclusively, for communities that have been impacted by
29 pollution from energy sources.

30 (2) Within one year of the effective date of this

1 section, determine a date not later than January 1, 2035, by
2 which the operations of State government will be powered with
3 100% renewable energy.

4 (d) Meetings.--The task force shall meet at least once each
5 quarter to review progress in modifying State law and
6 regulations and Commonwealth agency programs to accelerate the
7 transition to 100% renewable energy. The meetings shall be
8 subject to 65 Pa.C.S. Ch. 7 (relating to open meetings).

9 § 5105. Executive agency duties.

10 Each executive agency shall:

11 (1) Conduct a review of the laws, regulations and
12 programs under its jurisdiction and submit a report to the
13 task force describing how the laws, regulations and programs
14 can be modified to accelerate the transition to 100%
15 renewable energy.

16 (2) Consider how modifying its programs to accelerate
17 the transition to 100% renewable energy can help achieve the
18 agency's other objectives.

19 (3) Within 18 months of the effective date of this
20 section, present a plan to achieve the goal identified under
21 section 5104(c)(2) (relating to Clean Energy Transition Task
22 Force) for the facilities and activities in its jurisdiction.

23 Each executive agency shall report on its progress to the
24 task force and update its plan annually.

25 § 5106. Publication and review.

26 The secretary shall publish the findings of the task force
27 under sections 5104(c)(1) (relating to Clean Energy Transition
28 Task Force) and 5105 (relating to executive agency duties)
29 within six months of the formation of the task force. The
30 secretary and the task force shall review and update the

1 findings every three years from the date of initial publication.

2 § 5107. Clean Energy Center of Excellence.

3 (a) The Governor shall establish the Clean Energy Center of
4 Excellence at a member institution of the State System of Higher
5 Education to conduct and sponsor research on the following:

6 (1) Renewable energy and energy efficiency technologies.

7 (2) Effective practices for renewable energy adoption by
8 residents, institutions, businesses, State and municipal
9 agencies and other entities.

10 (3) Barriers preventing access to renewable energy,
11 particularly, but not exclusively, for low-income
12 communities.

13 (4) Community outreach models and other tools to
14 increase the adoption of renewable energy, particularly for
15 low-income communities.

16 (b) Advisory committee.--The center shall be advised by a
17 15-member committee composed of experts with the following areas
18 of expertise:

19 (1) renewable energy, energy efficiency and energy
20 storage technologies;

21 (2) architecture, building engineering and construction;

22 (3) transportation;

23 (4) affordable housing;

24 (5) environmental justice; and

25 (6) other relevant fields.

26 § 5108. Council for Clean Energy Workforce Development.

27 (a) Establishment.--The Council for Clean Energy Workforce
28 Development is established. The council shall be co-chaired by
29 the secretary and the Secretary of Labor and Industry. The
30 council shall include the following members:

1 (1) Three members designated by the Secretary of
2 Education as follows:

3 (i) A representative of the Department of Education.

4 (ii) A member to represent the State System of
5 Higher Education.

6 (iii) A member to represent the community college
7 system.

8 (2) Representatives from the following, to be appointed
9 by the co-chairs of the council:

10 (i) Organized labor.

11 (ii) Renewable energy businesses.

12 (iii) Occupational training organizations.

13 (iv) Economic development organizations.

14 (v) Community development organizations.

15 (b) Duties of council.--The council shall:

16 (1) Identify the employment potential of the energy
17 efficiency and renewable energy industry and the skills and
18 training needed for workers in those fields.

19 (2) Recommend policies that promote employment growth
20 and access to jobs to the Governor and the General Assembly.

21 (3) Prioritize maximizing employment opportunities for
22 fossil fuel workers displaced in the transition to renewable
23 energy.

24 (4) Establish a target for the number of new renewable
25 energy jobs to be created in this Commonwealth by 2030 not
26 later than January 1, 2019. The council shall create job
27 growth targets for each subsequent 10-year period beginning
28 in 2030. The job growth targets for each subsequent 10-year
29 period shall be finalized at least 12 months prior to the
30 start of the 10-year period.

1 (5) Establish a target for the number of new renewable
2 energy jobs to be created for members of the prioritized
3 category identified in paragraph (3) not later than January
4 1, 2019, and for each subsequent 10-year period beginning in
5 2030, which shall be no less than 10% of the total number of
6 jobs created or 7,500 jobs, whichever is greater. The job
7 growth targets for each subsequent 10-year period shall be
8 finalized at least 12 months prior to the start of the 10-
9 year period.

10 (6) At least annually, submit a report to the Governor
11 and the General Assembly recommending changes to existing
12 State policies and programs to meet the identified job growth
13 targets.

14 (7) Meet at least once each quarter to review progress
15 in expanding renewable energy employment. The meetings shall
16 be subject to 65 Pa.C.S. Ch. 7 (relating to open meetings).
17 § 5109. Study by department.

18 (a) Study required.--In consultation with the task force and
19 the center, the department shall conduct a study identifying the
20 following:

21 (1) Pathways towards 100% renewable energy for the
22 building sector.

23 (2) Policies necessary for all new buildings to be zero
24 net energy buildings by 2030 and for nonrenewable energy
25 consumption to be reduced for existing buildings by 50% by
26 2030.

27 (b) Considerations.--The study shall consider how to expand
28 access to renewable heating and electricity technologies,
29 increase access to energy efficiency programs and minimize
30 costs, particularly, but not exclusively, for low-income

1 communities.

2 (c) Presentation to task force.--The department shall
3 present the results of the study to the task force not later
4 than one year from the effective date of this section.

5 (d) Review.--The department shall review and update the
6 study every five years, considering technological developments,
7 demographic changes, the effectiveness of existing programs and
8 policies and other factors.

9 § 5110. Analysis of energy consumption.

10 (a) The department shall determine:

11 (1) The overall quantity of energy consumed Statewide in
12 the calendar year 2017 across all sectors and the percentage
13 of energy consumed that came from renewable energy sources,
14 using the best available data. The determination shall
15 include an analysis of the percentage of renewable energy
16 consumed in this Commonwealth that was produced:

17 (i) in this Commonwealth;

18 (ii) in adjacent states; and

19 (iii) in other states, territories or foreign
20 countries.

21 (2) For energy consumed in an individual sector or
22 subsector representing more than 2% of total Statewide energy
23 consumption:

24 (i) The amount of energy consumed in the individual
25 sector or subsector.

26 (ii) The types and sources of energy consumed in the
27 sector or subsector.

28 (iii) The percentage of energy consumed in the
29 sector or subsector that was produced from renewable
30 sources.

1 (b) Publication.--The department shall publish a similar
2 analysis of renewable and nonrenewable energy consumption on at
3 least a triennial basis and for the years 2020, 2030, 2040 and
4 2050. The analysis shall include the amount, percentage, types
5 and sources of renewable and nonrenewable energy consumed across
6 all sectors Statewide and in the individual sectors and
7 subsectors identified under subsection (a), as well as any
8 additional sectors or subsectors that have since come to
9 represent at least 2% of total Statewide energy consumption.
10 § 5111. Interim limits on energy produced from nonrenewable
11 sources.

12 (a) Interim limits on energy produced from nonrenewable
13 sources.--The department shall establish interim limits for the
14 overall percentage of this Commonwealth's energy produced from
15 nonrenewable sources as follows:

16 (1) In 2030, no more than 50% nonrenewable energy.

17 (2) In 2040, no more than 20% nonrenewable energy.

18 (b) Individual sectors and subsectors.--The department shall
19 establish interim limits on nonrenewable energy in the
20 individual sectors and subsectors identified under section 5110
21 (relating to analysis of energy consumption). The interim limits
22 shall maximize the ability of this Commonwealth to achieve 100%
23 renewable energy by 2050.

24 (c) Projection.--The department shall determine the
25 Statewide greenhouse gas emissions level in calendar year 1990
26 and reasonably project what the emissions level will be in
27 calendar year 2020 if no measures are imposed to lower emissions
28 other than those formally adopted and implemented as of July 1,
29 2017.

30 (d) Enforcement.--The interim limits on nonrenewable energy

1 consumption for 2030 and 2040 shall be considered binding caps
2 and shall be legally enforceable by any resident of this
3 Commonwealth.

4 § 5112. State-owned facilities and land.

5 (a) Expansion of solar and other renewable energy generation
6 capacity.--The department, together with the Governor's Office
7 of Administration and other Commonwealth agencies, shall:

8 (1) Identify opportunities to expand solar and other
9 renewable energy generation capacity on State-owned
10 facilities and land.

11 (2) Install an additional 100 megawatts of solar and
12 other clean energy generation capacity on State properties by
13 December 31, 2020.

14 (3) Establish a goal for the amount of additional
15 renewable energy generation capacity installed on State-owned
16 facilities and lands in each subsequent five-year period
17 beginning in 2020. The goal for each five-year period shall
18 be not less than 25 megawatts of renewable energy generation
19 capacity.

20 (4) Install enough renewable energy generation capacity
21 to meet the goals established for each five-year period.

22 (b) Office of the Budget.--On an annual basis, the Office of
23 the Budget shall track the upfront cost of renewable energy
24 projects installed under this section and the revenue and energy
25 cost savings accruing to Commonwealth agencies from those
26 projects through net metering credits, electricity sales, the
27 sale of renewable energy credits, other Federal or State
28 incentive programs and other sources of revenue or energy cost
29 savings.

30 (c) Revenue positive projects.--Annually, the Office of the

1 Budget shall determine which renewable energy projects have paid
2 back their initial costs with revenue and energy cost savings.
3 These projects shall be known as revenue positive projects. Once
4 this determination has been made, any future revenue or energy
5 cost savings from revenue positive projects shall be credited
6 into the Clean Energy Workforce Development Fund, which is
7 hereby established as a special fund in the State Treasury.

8 (d) Use of fund money.--The department and the Department of
9 Labor and Industry shall direct the use of money in the fund, in
10 consultation with the council. Money in the fund shall be used
11 to provide job training, education and job placement assistance
12 for residents of this Commonwealth to work in the clean energy
13 and energy efficiency industry. At least 50% of the money in the
14 fund shall be used on an annual basis for programs and
15 initiatives that primarily benefit fossil fuel workers displaced
16 in the transition to renewable energy.

17 (e) Report.--The department shall submit an annual report to
18 the Governor, the General Assembly and the council describing
19 progress towards meeting goals for renewable energy
20 installations on State properties, the costs and revenue
21 associated with each project, the amount of revenue generated
22 for the fund and expenditures from the fund.

23 (f) Report by Department of Transportation.--The Department
24 of Transportation shall conduct a study identifying pathways
25 towards 100% renewable energy for the transportation sector and
26 the policies necessary to power the transportation sector with
27 at least 50% renewable energy by 2030. The following apply:

28 (1) The study shall give preference to transportation
29 options that:

30 (i) increase access to mass transportation across

1 all income levels;

2 (ii) minimize costs, particularly for low-income
3 communities; and

4 (iii) maximize access to employment centers.

5 (2) Without limitations on the Department of
6 Transportation's evaluation of effective Statewide
7 transportation options, the study shall consider the
8 feasibility, cost effectiveness and environmental and
9 economic benefits of high-speed rail service between major
10 urban centers in this Commonwealth.

11 (3) The Department of Transportation shall publish the
12 findings from the study not later than one year from the
13 effective date of this section.

14 (4) The Department of Transportation shall review and
15 update this study every five years, considering technological
16 developments, demographic changes, the effectiveness of
17 existing programs and policies and other factors.

18 § 5113. Regulations.

19 (a) General rule.--The department and other Commonwealth
20 agencies controlling sectors or subsectors of energy consumption
21 shall promulgate regulations establishing declining annual
22 limits on the percentage of nonrenewable energy consumed by the
23 sectors and subsectors identified in section 5110 (relating to
24 analysis of energy consumption). The regulations shall reduce
25 the use of nonrenewable energy at a rate sufficient to meet the
26 interim 2030 and 2040 limits on nonrenewable energy consumption,
27 as well as the 2050 goal of 100% renewable energy. In adopting
28 the regulations, the department shall consider how to minimize
29 costs and maximize economic, social, public health and
30 environmental benefits for fossil fuel workers displaced in the

1 transition to renewable energy.

2 (b) Deadlines.--The department, along with other
3 Commonwealth agencies that control sectors or subsectors of
4 energy consumption, shall promulgate regulations under
5 subsection (a):

6 (1) not later than January 1, 2019, to meet the 2030
7 interim limits on nonrenewable energy consumption;

8 (2) not later than January 1, 2029, to meet the 2040
9 interim limits on nonrenewable energy consumption; and

10 (3) not later than January 1, 2039, to achieve 100%
11 renewable energy by 2050.

12 (c) Jointly promulgated regulations.--The department and
13 other Commonwealth agencies may jointly promulgate regulations
14 to satisfy limits on nonrenewable energy consumption.

15 (d) Intent.--The regulations promulgated under this section
16 are intended to result in real, permanent reductions in the use
17 of nonrenewable energy resulting from activities in this
18 Commonwealth.

19 Section 2. This act shall take effect in 60 days.