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THE GENERAL ASSEMBLY OF PENNSYLVANIA

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SENATE BILL

No. 1140 Session of  
2018

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INTRODUCED BY McILHINNEY, SCHWANK, HUGHES, RAFFERTY, HAYWOOD,  
KILLION, LEACH, DINNIMAN, YUDICHAK, WILLIAMS, FARNESE AND  
BLAKE, APRIL 23, 2018

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REFERRED TO ENVIRONMENTAL RESOURCES AND ENERGY, APRIL 23, 2018

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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.

20 5103. Priorities.

21 5104. Clean Energy Transition Task Force.

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

12 The General Assembly finds and declares as follows:

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

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

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

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

26 (iv) Create local jobs by harnessing this  
27 Commonwealth's skilled workforce, business leadership and  
28 academic institutions to advance new technologies,  
29 improve the energy performance of homes and workplaces  
30 and deploy renewable energy across this Commonwealth.

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

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

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

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

18 § 5102. Definitions.

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

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

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

28           "Commonwealth agency." As defined in 62 Pa.C.S. § 103  
29 (relating to definitions).

30           "Council." The Council for Clean Energy Workforce

1 Development established under section 5108 (relating to Council  
2 for Clean Energy Workforce Development).

3 "Department." The Department of Environmental Protection of  
4 the Commonwealth.

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

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

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

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

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

16 "Renewable energy." As follows:

17 (1) Energy produced from sources that meet all of the  
18 following criteria:

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

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

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

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

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

29 (i) Solar photovoltaic.

30 (ii) Solar thermal electric.

1           (iii) Solar thermal heating.

2           (iv) Offshore wind energy.

3           (v) Onshore wind energy.

4           (vi) Geothermal energy.

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

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

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

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

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

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

25       § 5103. Priorities.

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

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

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

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

6           (4) Reducing energy consumption through efficiency  
7 measures to the greatest extent practicable.

8 § 5104. Clean Energy Transition Task Force.

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

14           (b) Members.--The task force shall include the following  
15 members:

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

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

21           (i) The Department of Conservation and Natural  
22 Resources.

23           (ii) The Pennsylvania Public Utility Commission.

24           (iii) The Department of Education.

25           (iv) The Department of Human Services.

26           (v) The Department of Health.

27           (vi) The Department of Community and Economic  
28 Development.

29           (vii) The Department of Labor and Industry.

30           (viii) The Department of Transportation.

1           (ix) The Department of Corrections.

2           (x) The Department of General Services.

3           (xi) The Department of State.

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

5           (3) A representative designated by each of the  
6 following:

7           (i) The Attorney General

8           (ii) The State Treasurer.

9           (iii) The Auditor General.

10          (4) Two members designated by the Secretary of Education  
11 as follows:

12           (i) A member to represent the State System of Higher  
13 Education.

14           (ii) A member to represent the community college  
15 system.

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

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

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

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

28           (2) Within one year of the effective date of this  
29 section, determine a date not later than January 1, 2035, by  
30 which the operations of State government will be powered with

1 100% renewable energy.

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

7 § 5105. Executive agency duties.

8 Each executive agency shall:

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

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

17 (3) Within 18 months of the effective date of this  
18 section, present a plan to achieve the goal identified under  
19 section 5104(c)(2) (relating to Clean Energy Transition Task  
20 Force) for the facilities and activities in its jurisdiction.  
21 Each executive agency shall report on its progress to the  
22 task force and update its plan annually.

23 § 5106. Publication and review.

24 The secretary shall publish the findings of the task force  
25 under sections 5104(c)(1) (relating to Clean Energy Transition  
26 Task Force) and 5105 (relating to executive agency duties)  
27 within six months of the formation of the task force. The  
28 secretary and the task force shall review and update the  
29 findings every three years from the date of initial publication.

30 § 5107. Clean Energy Center of Excellence.

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

4 (1) Renewable energy and energy efficiency technologies.

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

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

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

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

17 (1) renewable energy, energy efficiency and energy  
18 storage technologies;

19 (2) architecture, building engineering and construction;

20 (3) transportation;

21 (4) affordable housing;

22 (5) environmental justice; and

23 (6) other relevant fields.

24 § 5108. Council for Clean Energy Workforce Development.

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

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

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

2           (ii) A member to represent the State System of  
3           Higher Education.

4           (iii) A member to represent the community college  
5           system.

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

8           (i) Organized labor.

9           (ii) Renewable energy businesses.

10          (iii) Occupational training organizations.

11          (iv) Economic development organizations.

12          (v) Community development organizations.

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

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

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

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

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

29           (5) Establish a target for the number of new renewable  
30           energy jobs to be created for members of the prioritized

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

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

12 (7) Meet at least once each quarter to review progress  
13 in expanding renewable energy employment. The meetings shall  
14 be subject to 65 Pa.C.S. Ch. 7 (relating to open meetings).

15 § 5109. Study by department.

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

19 (1) Pathways towards 100% renewable energy for the  
20 building sector.

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

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

30 (c) Presentation to task force.--The department shall

1 present the results of the study to the task force not later  
2 than one year from the effective date of this section.

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

7 § 5110. Analysis of energy consumption.

8 (a) The department shall determine:

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

15 (i) in this Commonwealth;

16 (ii) in adjacent states; and

17 (iii) in other states, territories or foreign  
18 countries.

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

22 (i) The amount of energy consumed in the individual  
23 sector or subsector.

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

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

29 (b) Publication.--The department shall publish a similar  
30 analysis of renewable and nonrenewable energy consumption on at

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

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

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

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

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

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

28 (d) Enforcement.--The interim limits on nonrenewable energy  
29 consumption for 2030 and 2040 shall be considered binding caps  
30 and shall be legally enforceable by any resident of this

1 Commonwealth.

2 § 5112. State-owned facilities and land.

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

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

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

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

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

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

28 (c) Revenue positive projects.--Annually, the Office of the  
29 Budget shall determine which renewable energy projects have paid  
30 back their initial costs with revenue and energy cost savings.

1 These projects shall be known as revenue positive projects. Once  
2 this determination has been made, any future revenue or energy  
3 cost savings from revenue positive projects shall be credited  
4 into the Clean Energy Workforce Development Fund, which is  
5 established as a special fund in the State Treasury.

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

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

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

26 (1) The study shall give preference to transportation  
27 options that:

28 (i) increase access to mass transportation across  
29 all income levels;

30 (ii) minimize costs, particularly for low-income

1 communities; and

2 (iii) maximize access to employment centers.

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

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

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

16 § 5113. Regulations.

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

30 (b) Deadlines.--The department, along with other

1 Commonwealth agencies that control sectors or subsectors of  
2 energy consumption, shall promulgate regulations under  
3 subsection (a):

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

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

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

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

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

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