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THE GENERAL ASSEMBLY OF PENNSYLVANIA

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SENATE BILL

No. 630 Session of  
2019

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INTRODUCED BY KILLION, BROWNE, BLAKE, COLLETT, COSTA, DINNIMAN,  
FARNESE, FONTANA, HAYWOOD, HUGHES, KEARNEY, LEACH, MUTH,  
SABATINA, SANTARSIERO, SCAVELLO, SCHWANK, STREET, A. WILLIAMS  
AND YUDICHAK, MAY 20, 2019

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REFERRED TO ENVIRONMENTAL RESOURCES AND ENERGY, MAY 20, 2019

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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 Just Transition  
7 Community Advisory Committee, the Clean Energy Center of  
8 Excellence, the Council for Clean Energy Workforce  
9 Development and the Clean Energy Workforce Development Fund;  
10 and providing for interim limits on energy produced from  
11 nonrenewable sources.

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

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

16 CHAPTER 51

17 TRANSITION TO RENEWABLE ENERGY

18 Sec.

19 5101. Declaration of policy.

20 5102. Definitions.

21 5103. Priorities.

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

13 The General Assembly finds and declares as follows:

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

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

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

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

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

1 and deploy renewable energy across this Commonwealth.

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

7 (vi) Support individuals who are facing the burdens  
8 of climate impact, such as those who are suffering from  
9 loss of agricultural land, increased health impacts and  
10 neighborhood displacement.

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

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

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

23 § 5102. Definitions.

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

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

30 "Center." The Clean Energy Center of Excellence established

1 under section 5107 (relating to Clean Energy Center of  
2 Excellence).

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

5 "Council." The Council for Clean Energy Workforce  
6 Development established under section 5108 (relating to Council  
7 for Clean Energy Workforce Development).

8 "Department." The Department of Environmental Protection of  
9 the Commonwealth.

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

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

12 "Fund." The Clean Energy Workforce Development Fund  
13 established in section 5112(c) (relating to State-owned  
14 facilities and land).

15 "Greenhouse gas." A gas in the Earth's atmosphere that  
16 absorbs and reemits infrared radiation, including carbon  
17 dioxide, nitrous oxide, methane, hydrofluorocarbons,  
18 perfluorocarbons and sulfur hexafluoride.

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

21 "Renewable energy." As follows:

22 (1) Energy produced from sources that meet all of the  
23 following criteria:

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

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

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

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

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

4           (i) Solar photovoltaic.

5           (ii) Solar thermal electric.

6           (iii) Solar thermal heating.

7           (iv) Offshore wind energy.

8           (v) Onshore wind energy.

9           (vi) Geothermal energy.

10       "Secretary." The Secretary of Environmental Protection of  
11 the Commonwealth.

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

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

19       "Task force." The Clean Energy Transition Task Force  
20 established in section 5104 (relating to Clean Energy Transition  
21 Task Force).

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

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

30 § 5103. Priorities.

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

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

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

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

11 (4) Reducing energy consumption through efficiency  
12 measures to the greatest extent practicable.

13 § 5104. Clean Energy Transition Task Force.

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

19 (b) Members.--The task force shall include the following  
20 members:

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

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

26 (i) The Department of Conservation and Natural  
27 Resources.

28 (ii) The Pennsylvania Public Utility Commission.

29 (iii) The Department of Education.

30 (iv) The Department of Human Services.

1           (v) The Department of Health.

2           (vi) The Department of Community and Economic  
3 Development.

4           (vii) The Department of Labor and Industry.

5           (viii) The Department of Transportation.

6           (ix) The Department of Corrections.

7           (x) The Department of General Services.

8           (xi) The Department of State.

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

10          (3) A representative designated by each of the  
11 following:

12           (i) The Attorney General.

13           (ii) The State Treasurer.

14           (iii) The Auditor General.

15          (4) Two members designated by the Secretary of Education  
16 as follows:

17           (i) A member to represent the State System of Higher  
18 Education.

19           (ii) A member to represent the community college  
20 system.

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

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

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

28           (ii) Their ability to maximize the environmental and  
29 economic benefits of the transition for residents of this  
30 Commonwealth and businesses, particularly, but not

1 exclusively, for communities that have been impacted by  
2 pollution from energy sources.

3 (2) Within one year of the effective date of this  
4 section, determine a date not later than January 1, 2035, by  
5 which the operations of State government will be powered with  
6 100% renewable energy.

7 (3) Conduct a study assessing the true costs of fossil  
8 fuels and renewable energy, including benefits to and burdens  
9 on:

10 (i) the grid;

11 (ii) individuals' health; and

12 (iii) energy affordability.

13 (4) Conduct a study assessing the feasibility of  
14 creating a special fund to be used for the purposes of  
15 providing guarantees for pension funds, funding workforce  
16 training and placement programs, catalyzing renewable energy  
17 industries and supporting worker-owned cooperatives for  
18 workers in the fossil fuel industry and communities adversely  
19 affected by pollution and energy burden. The study shall  
20 identify potential revenue streams and potential models for  
21 implementation.

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

27 (e) Advisory committee.--The Just Transition Community  
28 Advisory Committee is established within the department to work  
29 in partnership with the task force to ensure accountability and  
30 public participation in the planning and design of this



1 Commonwealth's energy transition. The members of the advisory  
2 committee shall be appointed by the secretary and shall include  
3 representatives of the following constituencies:

- 4 (1) Labor.
- 5 (2) Environmental justice.
- 6 (3) Consumer advocacy.
- 7 (4) Community development corporations.
- 8 (5) Agricultural communities.
- 9 (6) Transportation equity.
- 10 (7) Renewable energy industry.

11 § 5105. Executive agency duties.

12 Each executive agency shall:

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

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

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

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

27 § 5106. Publication and review.

28 The secretary shall publish the findings of the task force  
29 under sections 5104(c)(1) (relating to Clean Energy Transition  
30 Task Force) and 5105 (relating to executive agency duties)

1 within six months of the formation of the task force. The  
2 secretary and the task force shall review and update the  
3 findings every three years from the date of initial publication.  
4 § 5107. Clean Energy Center of Excellence.

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

8 (1) Renewable energy and energy efficiency technologies.

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

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

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

18 (b) Advisory committee.--The center shall be advised by a  
19 15-member committee composed of experts with the following areas  
20 of expertise:

21 (1) renewable energy, energy efficiency and energy  
22 storage technologies;

23 (2) architecture, building engineering and construction;

24 (3) transportation;

25 (4) affordable housing;

26 (5) environmental justice; and

27 (6) other relevant fields.

28 § 5108. Council for Clean Energy Workforce Development.

29 (a) Establishment.--The Council for Clean Energy Workforce  
30 Development is established. The council shall be co-chaired by

1 the secretary and the Secretary of Labor and Industry. The  
2 council shall include the following members:

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

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

6 (ii) A member to represent the State System of  
7 Higher Education.

8 (iii) A member to represent the community college  
9 system.

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

12 (i) Organized labor.

13 (ii) Renewable energy businesses.

14 (iii) Occupational training organizations.

15 (iv) Economic development organizations.

16 (v) Community development organizations.

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

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

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

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

26 (4) Establish a target for the number of new renewable  
27 energy jobs that provide wages at a rate equal to or greater  
28 than the prevailing wage rate in the area for the same or  
29 similar type work, to be created in this Commonwealth by 2030  
30 not later than January 1, 2020. The council shall create job

1 growth targets for each subsequent 10-year period beginning  
2 in 2030. The job growth targets for each subsequent 10-year  
3 period shall be finalized at least 12 months prior to the  
4 start of the 10-year period.

5 (5) Establish a target for the number of new renewable  
6 energy jobs to be created for members of the prioritized  
7 category identified in paragraph (3) not later than January  
8 1, 2020, and for each subsequent 10-year period beginning in  
9 2030, which shall be no less than 10% of the total number of  
10 jobs created or 7,500 jobs, whichever is greater. The job  
11 growth targets for each subsequent 10-year period shall be  
12 finalized at least 12 months prior to the start of the 10-  
13 year period.

14 (6) At least annually, submit a report to the Governor  
15 and the General Assembly recommending changes to existing  
16 State policies and programs to meet the identified job growth  
17 targets.

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

21 § 5109. Study by department.

22 (a) Study required.--In consultation with the task force and  
23 the center, the department shall conduct a study identifying the  
24 following:

25 (1) Pathways towards 100% renewable energy for the  
26 building sector.

27 (2) Policies necessary for all new buildings to be zero  
28 net energy buildings by 2030 and for nonrenewable energy  
29 consumption to be reduced for existing buildings by 50% by  
30 2030.

1 (b) Considerations.--The study shall consider the following:

2 (1) How to expand access to renewable heating and  
3 electricity technologies.

4 (2) Ways of increasing access to energy efficiency  
5 programs and minimizing costs, particularly, but not  
6 exclusively, for low-income communities.

7 (3) Energy burden and the impact on tenant housing,  
8 evictions and foreclosures.

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

12 (d) Review.--The department shall review and update the  
13 study every five years, considering technological developments,  
14 demographic changes, the effectiveness of existing programs and  
15 policies and other factors.

16 § 5110. Analysis of energy consumption.

17 (a) The department shall determine:

18 (1) The overall quantity of energy consumed Statewide in  
19 the calendar year 2018 across all sectors and the percentage  
20 of energy consumed that came from renewable energy sources,  
21 using the best available data. The determination shall  
22 include an analysis of the percentage of renewable energy  
23 consumed in this Commonwealth that was produced:

24 (i) in this Commonwealth;

25 (ii) in adjacent states; and

26 (iii) in other states, territories or foreign  
27 countries.

28 (2) For energy consumed in an individual sector or  
29 subsector representing more than 2% of total Statewide energy  
30 consumption:

1           (i) The amount of energy consumed in the individual  
2           sector or subsector.

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

5           (iii) The percentage of energy consumed in the  
6           sector or subsector that was produced from renewable  
7           sources.

8           (b) Publication.--The department shall publish a similar  
9           analysis of renewable and nonrenewable energy consumption on at  
10           least a triennial basis and for the years 2020, 2030, 2040 and  
11           2050. The analysis shall include the amount, percentage, types  
12           and sources of renewable and nonrenewable energy consumed across  
13           all sectors Statewide and in the individual sectors and  
14           subsectors identified under subsection (a), as well as any  
15           additional sectors or subsectors that have since come to  
16           represent at least 2% of total Statewide energy consumption.  
17           § 5111. Interim limits on energy produced from nonrenewable  
18           sources.

19           (a) Interim limits on energy produced from nonrenewable  
20           sources.--The department shall establish interim limits for the  
21           overall percentage of this Commonwealth's energy produced from  
22           nonrenewable sources as follows:

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

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

25           (b) Individual sectors and subsectors.--The department shall  
26           establish interim limits on nonrenewable energy in the  
27           individual sectors and subsectors identified under section 5110  
28           (relating to analysis of energy consumption). The interim limits  
29           shall maximize the ability of this Commonwealth to achieve 100%  
30           renewable energy by 2050.

1 (c) Projection.--The department shall determine the  
2 Statewide greenhouse gas emissions level in calendar year 1990  
3 and reasonably project what the emissions level will be in  
4 calendar year 2021 if no measures are imposed to lower emissions  
5 other than those formally adopted and implemented as of July 1,  
6 2018.

7 (d) Enforcement.--The interim limits on nonrenewable energy  
8 consumption for 2030 and 2040 shall be considered binding caps  
9 and shall be legally enforceable by any resident of this  
10 Commonwealth.

11 § 5112. State-owned facilities and land.

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

15 (1) Identify opportunities to expand solar and other  
16 renewable energy generation capacity on State-owned  
17 facilities and land.

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

21 (3) Establish a goal for the amount of additional  
22 renewable energy generation capacity installed on State-owned  
23 facilities and lands in each subsequent five-year period  
24 beginning in 2020. The goal for each five-year period shall  
25 be not less than 25 megawatts of renewable energy generation  
26 capacity.

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

29 (b) Office of the Budget.--On an annual basis, the Office of  
30 the Budget shall track the upfront cost of renewable energy

1 projects installed under this section and the revenue and energy  
2 cost savings accruing to Commonwealth agencies from those  
3 projects through net metering credits, electricity sales, the  
4 sale of renewable energy credits, other Federal or State  
5 incentive programs and other sources of revenue or energy cost  
6 savings.

7 (c) Revenue positive projects.--Annually, the Office of the  
8 Budget shall determine which renewable energy projects have paid  
9 back their initial costs with revenue and energy cost savings.  
10 These projects shall be known as revenue positive projects. Once  
11 this determination has been made, any future revenue or energy  
12 cost savings from revenue positive projects shall be credited  
13 into the Clean Energy Workforce Development Fund, which is  
14 hereby established as a special fund in the State Treasury.

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

24 (e) Report.--The department shall submit an annual report to  
25 the Governor, the General Assembly and the council describing  
26 progress towards meeting goals for renewable energy  
27 installations on State properties, the costs and revenue  
28 associated with each project, the amount of revenue generated  
29 for the fund and expenditures from the fund.

30 (f) Report by Department of Transportation.--The Department



1 of Transportation shall conduct a study identifying pathways  
2 towards 100% renewable energy for the transportation sector and  
3 the policies necessary to power the transportation sector with  
4 at least 50% renewable energy by 2030. The following apply:

5 (1) The study shall give preference to transportation  
6 options that:

7 (i) increase access to mass transportation across  
8 all income levels;

9 (ii) minimize costs, particularly for low-income  
10 communities; and

11 (iii) maximize access to employment centers.

12 (2) Without limitations on the Department of  
13 Transportation's evaluation of effective Statewide  
14 transportation options, the study shall consider the  
15 feasibility, cost effectiveness and environmental and  
16 economic benefits of high-speed rail service between major  
17 urban centers in this Commonwealth.

18 (3) The Department of Transportation shall publish the  
19 findings from the study not later than one year from the  
20 effective date of this section.

21 (4) The Department of Transportation shall review and  
22 update this study every five years, considering technological  
23 developments, demographic changes, the effectiveness of  
24 existing programs and policies and other factors.

25 § 5113. Regulations.

26 (a) General rule.--The department and other Commonwealth  
27 agencies controlling sectors or subsectors of energy consumption  
28 shall promulgate regulations establishing declining annual  
29 limits on the percentage of nonrenewable energy consumed by the  
30 sectors and subsectors identified in section 5110 (relating to

1 analysis of energy consumption). The regulations shall reduce  
2 the use of nonrenewable energy at a rate sufficient to meet the  
3 interim 2030 and 2040 limits on nonrenewable energy consumption,  
4 as well as the 2050 goal of 100% renewable energy. In adopting  
5 the regulations, the department shall consider how to minimize  
6 costs and maximize economic, social, public health and  
7 environmental benefits for fossil fuel workers displaced in the  
8 transition to renewable energy.

9 (b) Deadlines.--The department, along with other  
10 Commonwealth agencies that control sectors or subsectors of  
11 energy consumption, shall promulgate regulations under  
12 subsection (a):

13 (1) not later than January 1, 2021, to meet the 2030  
14 interim limits on nonrenewable energy consumption;

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

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

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

22 (d) Intent.--The regulations promulgated under this section  
23 are intended to result in real, permanent reductions in the use  
24 of nonrenewable energy resulting from activities in this  
25 Commonwealth.

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