
THE GENERAL ASSEMBLY OF PENNSYLVANIA

SENATE BILL

No. 872 Session of
2021

INTRODUCED BY CAPPELLETTI, MUTH, COLLETT, FONTANA, KEARNEY,
SCHWANK, SANTARSIERO, COSTA, COMMITTA, SAVAL AND HAYWOOD,
SEPTEMBER 22, 2021

REFERRED TO ENVIRONMENTAL RESOURCES AND ENERGY,
SEPTEMBER 22, 2021

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 Renewable Energy Transition Task Force, the Just Transition
7 Community Advisory Committee, the Renewable Energy Center of
8 Excellence, the Council for Renewable Energy Workforce
9 Development and the Renewable Energy Workforce Development
10 Fund; providing for interim limits on energy produced from
11 nonrenewable sources and for wage requirement for energy
12 producing systems.

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

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

17 CHAPTER 51

18 TRANSITION TO RENEWABLE ENERGY

19 Sec.

20 5101. Declaration of policy.

21 5102. Definitions.

22 5103. Priorities.

- 1 5104. Renewable Energy Transition Task Force.
2 5105. Executive agency duties.
3 5106. Publication and review.
4 5107. Renewable Energy Center of Excellence.
5 5108. Council for Renewable 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. Prevailing wage requirement for energy producing systems.
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 emissions and ultimately eliminate our use of
19 fossil fuels and other polluting and dangerous forms of
20 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, renewable energy
26 and energy 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 economic and social equity for all
3 residents of this Commonwealth, with an emphasis on
4 historically disadvantaged communities and populations
5 that have been disproportionately affected by pollution
6 and high energy costs under the current 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 Renewable Energy Center of Excellence

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

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

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

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

10 "Distressed community." Geographic area where at least 30%
11 of residents have incomes that are less than the national
12 poverty level and where the unemployment rate is at least 1.5
13 times the national unemployment rate.

14 "Emerging renewable technologies." Technologies that meet
15 the definition of renewable energy and have a preponderance of
16 peer reviewed, evidence based, scientific research validating
17 adherence to renewable energy requirements.

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

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

20 "Fund." The Renewable Energy Workforce Development Fund
21 established in section 5112(c) (relating to State-owned
22 facilities and land).

23 "Greenhouse gas." A gas in the Earth's atmosphere that
24 absorbs and reemits infrared radiation, including carbon
25 dioxide, nitrous oxide, methane, hydrofluorocarbons,
26 perfluorocarbons and sulfur hexafluoride.

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

29 "Public school." A school operated by a school district. The
30 term does not include an intermediate unit, charter school,

1 cyber charter school or an area career and technical school.

2 "Renewable energy." As follows:

3 (1) Energy produced from sources that meet all of the
4 following criteria:

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

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

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

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

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

15 (i) Solar photovoltaic.

16 (ii) Solar thermal electric.

17 (iii) Solar thermal heating.

18 (iv) Offshore wind energy.

19 (v) Onshore wind energy.

20 (vi) Geothermal energy.

21 (vii) Emerging renewable technologies.

22 "Secretary." The Secretary of Environmental Protection of
23 the Commonwealth.

24 "Sector." A major category of energy usage. The term
25 includes electricity generation, heating, transportation and
26 industry and may include other major categories as identified by
27 the department.

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

1 "Task force." The Renewable Energy Transition Task Force
2 established in section 5104 (relating to Renewable Energy
3 Transition Task Force).

4 "Transportation sector." The technologies and uses of energy
5 that are applied to move people and goods within, into and out
6 of this Commonwealth, including nonmotorized forms of
7 transportation, such as walking and bicycling.

8 "Zero net energy building." An energy efficient building
9 where, on a source energy basis, the actual annual delivered
10 energy is less than or equal to the onsite renewable exported
11 energy.

12 § 5103. Priorities.

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

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

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

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

23 (4) Reducing energy consumption through efficiency
24 measures to the greatest extent practicable.

25 § 5104. Renewable Energy Transition Task Force.

26 (a) Establishment.--The Renewable Energy Transition Task
27 Force is established to integrate the goal of 100% renewable
28 energy throughout State government operations. The members of
29 the task force shall be appointed within 90 days of the
30 effective date of this section.

1 (b) Members.--The task force shall include the following
2 members:

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

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

8 (i) The Department of Conservation and Natural
9 Resources.

10 (ii) The Pennsylvania Public Utility Commission.

11 (iii) The Department of Education.

12 (iv) The Department of Human Services.

13 (v) The Department of Health, Bureau of Health
14 Promotion and Risk Reduction.

15 (vi) The Department of Community and Economic
16 Development.

17 (vii) The Pennsylvania Workforce Development Board.

18 (viii) The Department of Transportation.

19 (ix) The Department of Corrections.

20 (x) The Department of General Services.

21 (xi) The Department of State.

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

23 (xiii) The State Conservation Committee.

24 (3) A representative designated by each of the
25 following:

26 (i) The Attorney General.

27 (ii) The State Treasurer.

28 (iii) The Auditor General.

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

1 (i) A member to represent the State System of Higher
2 Education.

3 (ii) A member to represent community colleges.

4 (iii) A member to represent public schools.

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

6 (1) Identify all existing State laws and regulations and
7 Commonwealth agency programs with an impact on energy
8 production and consumption and evaluate the programs based on
9 the following:

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

12 (ii) Their ability to maximize the environmental and
13 economic benefits of the transition for residents of this
14 Commonwealth and businesses, particularly, but not
15 exclusively, for communities that have been impacted by
16 pollution from energy sources.

17 (2) Within one year of the effective date of this
18 section, determine a date not later than January 1, 2035, by
19 which the operations of State government will be powered with
20 100% renewable energy.

21 (3) Conduct a study assessing the true costs of fossil
22 fuels and renewable energy, including benefits to and burdens
23 on:

24 (i) the grid;

25 (ii) individuals' health; and

26 (iii) energy affordability.

27 (4) Conduct a study assessing the feasibility of
28 creating a special fund to be used for the purposes of
29 providing guarantees for pension funds, funding workforce
30 training and placement programs, catalyzing renewable energy

1 industries and supporting worker-owned cooperatives for
2 workers in the fossil fuel industry and communities adversely
3 affected by pollution and energy burden. The study shall
4 identify potential revenue streams and potential models for
5 implementation.

6 (5) Identify emerging renewable technologies that may be
7 used in the transition to renewable energy.

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

13 (e) Advisory committee.--The Just Transition Community
14 Advisory Committee is established within the department to work
15 in partnership with the task force to ensure accountability and
16 public participation in the planning and design of this
17 Commonwealth's energy transition. The members of the advisory
18 committee shall be appointed by the secretary and shall include
19 representatives of the following constituencies:

20 (1) Labor.

21 (2) Environmental justice.

22 (3) Consumer advocacy.

23 (4) Community development corporations that serve
24 distressed communities.

25 (5) Community development financial institutions.

26 (6) Community development entities.

27 (7) Agricultural communities.

28 (8) Transportation equity.

29 (9) Renewable energy industry.

30 (10) Communities with a majority population of

1 historically disadvantaged minorities.

2 § 5105. Executive agency duties.

3 An executive agency shall:

4 (1) Conduct a review of the laws, regulations and
5 programs under the executive agency's jurisdiction and submit
6 a report to the task force describing how the laws,
7 regulations and programs can be modified to accelerate the
8 transition to 100% renewable energy.

9 (2) Consider how modifying the executive agency's
10 programs to accelerate the transition to 100% renewable
11 energy can help achieve the executive agency's other
12 objectives.

13 (3) Within six months of the effective date of this
14 section, present a plan to achieve the goal identified under
15 section 5104(c)(2) (relating to Renewable Energy Transition
16 Task Force) for the facilities and activities in the
17 executive agency's jurisdiction. The executive agency shall
18 report on its progress to the task force and update the plan
19 annually.

20 § 5106. Publication and review.

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

27 § 5107. Renewable Energy Center of Excellence.

28 (a) Establishment.--The Governor shall establish the
29 Renewable Energy Center of Excellence at a member institution of
30 the State System of Higher Education to conduct and sponsor

1 research on the following:

2 (1) Renewable energy and energy efficiency technologies.

3 (2) Effective practices for renewable energy adoption by
4 residents, institutions, businesses, executive agencies,
5 municipal agencies and other entities.

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

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

12 (b) Advisory committee.--The center shall be advised by a
13 15-member committee composed of experts with the following areas
14 of expertise:

15 (1) Renewable energy, energy efficiency and energy
16 storage technologies.

17 (2) Architecture, building engineering and construction.

18 (3) Transportation.

19 (4) Affordable housing.

20 (5) Economic development.

21 (6) Environmental justice.

22 (7) Other relevant fields.

23 § 5108. Council for Renewable Energy Workforce Development.

24 (a) Establishment.--The Council for Renewable Energy
25 Workforce Development is established. The council shall include
26 the following members:

27 (1) The secretary who shall serve as co-chair.

28 (2) The Secretary of Labor and Industry who shall serve
29 as co-chair.

30 (3) Three members designated by the Secretary of

1 Education as follows:

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

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

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

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

9 (i) Organized labor.

10 (ii) Renewable energy businesses.

11 (iii) Occupational training organizations.

12 (iv) Economic development organizations.

13 (v) Community development organizations that serve
14 distressed communities.

15 (vi) Military and veterans affairs organizations.

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

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

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

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

25 (4) Establish a target for the number of new renewable
26 energy jobs that provide wages at a rate equal to or greater
27 than the prevailing wage rate in the area for the same or
28 similar type work, to be created in this Commonwealth by 2030
29 not later than January 1, 2022. The council shall create job
30 growth targets for each subsequent 10-year period beginning

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

4 (5) Establish a target for the number of new renewable
5 energy jobs to be created for members of the prioritized
6 category identified in paragraph (3) not later than January
7 1, 2022, and for each subsequent 10-year period beginning in
8 2030, which shall be no less than 10% of the total number of
9 jobs created or 7,500 jobs, whichever is greater. The job
10 growth targets for each subsequent 10-year period shall be
11 finalized at least 12 months prior to the start of the 10-
12 year period.

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

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

20 § 5109. Study by department.

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

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

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

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

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

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

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

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

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

15 § 5110. Analysis of energy consumption.

16 (a) Department determination.--The department shall
17 determine:

18 (1) The overall quantity of energy consumed Statewide in
19 the calendar year 2022 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 2030, 2040 and 2050.
11 The analysis shall include the amount, percentage, types and
12 sources of renewable and nonrenewable energy consumed across all
13 sectors Statewide and in the individual sectors and subsectors
14 identified under subsection (a), as well as any additional
15 sectors or subsectors that have since come to represent at least
16 2% of total Statewide energy consumption.
17 § 5111. Interim limits on energy produced from nonrenewable
18 sources.

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

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

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

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

30 (c) Projection.--The department shall determine the

1 Statewide emissions level in calendar year 1990 and reasonably
2 project what the emissions level will be in calendar year 2021
3 if no measures are imposed to lower emissions other than those
4 formally adopted and implemented as of July 1, 2018.

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

9 § 5112. State-owned facilities and land.

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

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

16 (2) Install an additional 100 megawatts of solar and
17 other clean energy generation capacity on State properties by
18 December 31, 2022.

19 (3) Establish a goal for the amount of additional
20 renewable energy generation capacity installed on State-owned
21 facilities and lands in each subsequent five-year period
22 beginning in 2022. The goal for each five-year period shall
23 be not less than 25 megawatts of renewable energy generation
24 capacity.

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

27 (b) Office of the Budget.--On an annual basis, the Office of
28 the Budget shall track the initial cost of renewable energy
29 projects installed under this section including external costs
30 for utility companies to upgrade transformers for grid capacity

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

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

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

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

29 (f) Report by Department of Transportation.--

30 (1) The Department of Transportation shall conduct a

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

5 (2) 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 (3) 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 (4) 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 (5) 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. Prevailing wage requirement for energy producing
26 systems.

27 (a) Duty to pay.--Except as provided under subsection (b),
28 an employer or contractor contracted to construct, reconstruct,
29 demolish, alter or repair an energy producing system with a
30 capacity greater than 5 megawatts alternating current shall pay

1 the prevailing minimum wage rate for each craft or
2 classification as determined by the Department of Labor and
3 Industry under the act of August 15, 1961 (P.L.987, No.442),
4 known as the Pennsylvania Prevailing Wage Act.

5 (b) Exception.--Subsection (a) shall not apply if a contract
6 is performed under a pre-hire collective bargaining agreement, a
7 labor peace agreement, a project labor agreement or other
8 enforceable agreement between an owner or contractor and a
9 building and construction trade labor organization.

10 (c) Definitions.--As used in this section, the following
11 words and phrases shall have the meanings given to them in this
12 subsection unless the context clearly indicates otherwise:

13 "Energy producing system." A facility that produces
14 electricity for wholesale onto the grid.

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