

Pennsylvania Renewable Portfolio Standard Report Card: **F**

Pennsylvania's Renewable Portfolio Standard (RPS) sets renewable electricity goals and determines which energy sources qualify as renewable. These programs can be a vital part of a state's energy policy portfolio to drive the shift to renewable energy. But Pennsylvania's weak RPS program cannot foster the rapid transition to clean, renewable energy in time to stave off the worst effects of climate change. The state's RPS program is further compromised by Pennsylvania's continued aggressive promotion of natural gas and its reliance on fossil-fueled electricity generation from coal, nuclear power and other sources.

The Pennsylvania RPS program is undermined by its lack-luster target combined with a weak portfolio definition that counts many dirty power sources toward its renewable energy goals — including burning coal, wood, paper mill residue, municipal solid waste, and waste methane from landfills, sewage treatment plants and factory farms. It also includes renewable energy "credits" (RECs), which allow utilities to continue burning fossil fuels while buying credits for renewable power produced elsewhere, even outside of Pennsylvania.

Pennsylvania's RPS program is worse than that of most states (see Table 1), largely because of the dirty energy

sources in its portfolio and the state's anemic growth in wind, solar and geothermal energy. Pennsylvania can and must do better. Pennsylvania must strengthen its RPS program by expelling dirty energy sources, eliminating renewable energy credits and strengthening its target to achieve 100 percent clean, renewable energy within two decades.

Pennsylvania and the United States must rapidly shift to 100 percent clean, renewable power — produced from wind, solar and geothermal energy. The majority of U.S. electricity still comes from climate-destroying fossil fuels.¹ In 2016, 57 percent of Pennsylvania's utility-scale electricity was fueled by coal, natural gas and oil, and 39 percent was

TABLE 1. Grading Pennsylvania's Renewable Portfolio Standard

RPS provision	Ideal RPS	Pennsylvania RPS	Pennsylvania grade	Average state grade
Target and time frame	100%	18% by 2021	F	D (30% by 2026)
Dirty portfolio and RECs	No RECs, none of 6 dirty energy sources	Allows RECs and 5 dirty energy sources	F	D (allow 4 dirty sources/RECs)
Transition to renewable energy	Shift to 100% by 2038	Projected to achieve 9% by 2038	F	D (projected to achieve 31% by 2038)
Overall			F	D



fueled by nuclear energy; only 2 percent was generated from wind, solar or geothermal energy.²

Washington’s failure to act on climate change means that the states must take decisive action to transition to clean energy. Strengthening RPS programs is an important component of state climate policies and could dramatically increase the renewable power generation necessary to curb climate change.

Introduction to Renewable Portfolio Standards

State renewable portfolio standards establish a renewable power goal and target date and define which sources of energy count toward fulfilling the renewable electricity goals. All states allow solar and wind power, but they also allow a range of dirty energy sources such as municipal waste incineration or even coal. Almost all states allow utilities to purchase renewable energy credits (RECs), instead of generating renewable energy.³

Iowa adopted the first mandatory RPS in 1983, and in 2004 Pennsylvania adopted a mandatory RPS.⁴ By 2018, 29 states and the District of Columbia had mandatory RPS programs, covering utilities that delivered 56 percent of U.S. electricity sales.⁵

Strong RPS programs can be essential parts of state renewable energy policy, along with energy efficiency standards,

tax incentives and grants for installing renewable energy, and other programs. But renewable incentives can be undercut when states like Pennsylvania promote the expansion of natural gas and fossil fuel infrastructure.

Food & Water Watch evaluated Pennsylvania’s RPS program based on the strength of its target, the inclusion of RECs and dirty energy sources, and how well it was projected to shift its energy mix to wind, solar and geothermal power sources over the coming decades. (For more on the scorecard, see *Cleanwashing: How States Count Polluting Energy Sources as Renewable*⁶)

Pennsylvania’s indifferent RPS target goal and time frame are too weak to curb climate change

Strong RPS policies would set a target of 100 percent renewable electricity generation from only wind, solar and geothermal energy, which is imperative to avoiding the worst effects of climate change. The planet is poised to emit more carbon dioxide (CO₂) than what the Intergovernmental Panel on Climate Change conservatively estimated would give us only a two-out-of-three chance of avoiding a catastrophic 1.5 degrees Celsius rise in temperature.⁷ As the concentration of greenhouse gases in the atmosphere exceeds crucial thresholds, the effect on climate change could be sudden and potentially irreversible.⁸ Reducing these emissions by

about 20 percent every year would drive emissions to near zero within 20 years.⁹

Pennsylvania's phased-in RPS target requires public and private utilities to generate 18 percent of their power from renewable sources by 2021, including a very small 0.5 percent solar power requirement.¹⁰

Pennsylvania's RPS allows dirty energy sources and policies

Food & Water Watch identified six dirty "renewable" energy sources as well as whether states allowed RECs that must be expelled from RPS programs. Pennsylvania's RPS included RECs and almost all of the dirty energy sources: waste methane (from coal mines, sewage treatment plants, landfills and factory farms), waste incineration (of municipal waste and poultry litter), wood-burning power and paper mill residue (known as black liquor).¹¹ Pennsylvania must shed these dirty power sources and RECs to clean up its RPS program.

Waste methane (landfills, sewage treatment plants, factory farms and coal mines): Pennsylvania's RPS included burning waste methane from landfills, sewage treatment plants and animal waste, such as manure digesters (burning the methane released from factory farm manure).¹² A facility near Gettysburg annually converts 175 million pounds of poultry litter from 5 million egg-laying hens into methane.¹³ Pennsylvania also has at least 23 landfill gas-to-energy facilities.¹⁴ This methane is often referred to as biogas.¹⁵ Biogas is primarily methane and is essentially indistinguishable from fracked natural gas, with many of the same problems.¹⁶ Pennsylvania also counts coal mine methane as a source of "renewable" energy.¹⁷ Burning biogas or methane releases greenhouse gases as well as pollutants including nitrogen oxides (NO_x), ammonia and hydrogen sulfide.¹⁸

Waste incineration (trash): Pennsylvania's RPS program allowed power from municipal trash incineration.¹⁹ Incinerators emit nearly 14 times more mercury than coal per megawatt, and garbage incineration may produce more greenhouse gas emissions per megawatt than some fossil fuels.²⁰ Waste incineration plants in Pennsylvania burn about 6 billion pounds of trash annually.²¹ The Chester Covanta incinerator burns about 2.6 billion pounds each year.²² It is one of the country's biggest incinerators, burning trash from the entire East Coast, and it emits NO_x, sulfur dioxide (SO₂) and particulate matter in a predominantly lower-income and African-American area.²³

Wood-fired power plants: Pennsylvania's RPS allowed wood-burning power.²⁴ Processing, transporting and burn-

ing wood all produce greenhouse gas emissions, and burning wood can release more emissions than coal.²⁵

Paper mill residues (black liquor): Pennsylvania's RPS specifically allowed the burning of paper mill residues, also known as black liquor.²⁶ Black liquor is a toxic industrial waste from the paper milling process that can be burned for electricity.²⁷ Burning black liquor emits air pollutants including particulate matter and greenhouse gases.²⁸

So-called clean coal: Pennsylvania allowed waste coal in its RPS.²⁹ Although politicians and industry groups have promoted "clean coal," mining and burning coal damages the environment and releases air and climate pollutants (including SO₂, CO₂, NO_x and mercury), and waste ash from power plants threatens local communities.³⁰ There is no practical or economical way to burn coal and capture the greenhouse gas emissions.³¹ Pennsylvania waste coal facilities burn at least 13 billion pounds of coal waste annually.³²

Renewable energy credits: Allowing RECs under Pennsylvania's RPS permits utilities to burn polluting fuels while purchasing distant renewable energy credits, potentially diminishing the environmental and job creation benefits of renewable energy.³³ From 2016 to 2017, Pennsylvania utilities bought more than 20 million megawatt-hours worth of RECs; half were from other states, and the Pennsylvania sources included waste coal, black liquor, coal mine methane, landfill gas and garbage incinerators.³⁴

Pennsylvania's RPS is not strong enough to achieve 100 percent renewables within two decades

Most states would not meet their RPS goals through wind, solar and geothermal power alone, and almost no states are on track to deliver 100 percent clean, renewable power within 20 years. In 2016, less than 2 percent of Pennsylvania's electricity came from wind or solar.³⁵ Even by 2038, only 8 percent of power is projected come from genuine renewable energy, nowhere near enough to curb climate change.³⁶

Now is the time to strengthen Pennsylvania's RPS program

Robust mandatory RPS programs can be an important part of state policies to encourage the shift to renewable energy. Pennsylvania must raise its RPS target to 100 percent renewable energy, expel the many allowable dirty energy sources and eliminate renewable energy credits to ensure that the policies can promote a swift transition to genuine renewable energy.

Endnotes

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