



June 2019

Improving Our Climate

How Innovators, not Government Mandates, Make Meaningful Change

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For decades state government has imposed subsidy schemes, increased regulation and raised energy costs to reduce greenhouse gas emissions that purportedly contribute to global warming and threaten the environment. By and large, these efforts have failed to make a worthwhile impact. On the other hand, innovation in the energy industry and public pressure to make changes have reduced emissions and made air cleaner.

Current Climate Control Efforts

Pennsylvania has a long history of regulating air emissions. The [Air Quality Program](#) regulates more than 70,000 inspection points at 3,650 facilities.

Specific to the energy sector, the [Alternative Energy Portfolio Standards](#)—enacted in 2004—require that 18 percent of the electricity provided by Pennsylvania suppliers be drawn from sources other than coal, nuclear, and natural gas power plants by 2021. As of the reporting year 2017, more than [14 percent of electricity](#) sold to retail customers was generated by alternative sources.

By increasing the cost of electricity by more than two percent annually between 2016-40, the alternative energy program will cause Pennsylvania to lose between 7,000-11,000 jobs a year, according to a study by the [Rhode Island Center for Freedom and Prosperity](#).

In 2018, the administration of Gov. Tom Wolf launched a program to limit emissions of [methane](#) from oil and gas operations to reduce the emission of greenhouse gases, said to be the primary culprit of global warming.

In addition, the U.S. [Environmental Protection Agency](#) regulates power plants through the Acid Rain Program, the Clean Air Interstate Rule, the NOxBudget Trading Program, the Cross-State Air Pollution Rule and the Mercury and Air Toxics Standards.

Proposed Climate Control Efforts

On April 16, the Pennsylvania Environmental Quality Board took under consideration an “economy-wide greenhouse gas auction [cap-and-trade program](#)” that is based on the decade-old Regional Greenhouse Gas Initiative (RGGI) covering nine Northeast and Mid-Atlantic states: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island and Vermont (New Jersey dropped the plan in 2011).

On April 29, Gov. Tom Wolf released an update of the state Department of Environmental Protection's [Climate Action Plan](#), which calls for an 80 percent reduction of greenhouse gas by 2050. Wolf also announced that Pennsylvania would join the U.S. Climate Alliance, a coalition of 24 states committed to implementing policies that support the Paris Agreement—an international collaboration to reduce greenhouse gas emissions 28 percent by 2025. The U.S. withdrew from the agreement in 2017.

The proposals have several things in common:

- [Highly disputed](#) assertions that carbon dioxide is harmful and that increasing levels of carbon dioxide are leading to [dangerously high temperatures](#).
- A belief that climate can be controlled by managing human activity.
- Significant costs, such as job loss, limits on personal freedom and higher taxes for no economic benefit.

A Pennsylvania Cap and Trade Program

The cap and trade proposal is patterned after the nine-state RGGI that seeks to reduce carbon dioxide emissions from electric power plants by requiring such facilities to purchase the right to release the gas, thereby making the use of fossil fuels more expensive and less attractive.

Revenue received from the sale of emission allowances is supposed to be spent on programs to increase energy efficiency, assist low-income electricity customers, further decrease greenhouse gas emissions, promote renewable energy sources, and administer the initiative.

An analysis of the RGGI by [David Stevenson](#), director of the Center for Energy Competitiveness at the Delaware-based Caesar Rodney Institute and author of more than 100 analytical papers, found the following:

- There were no added emission reductions or associated health benefits in the RGGI states between 2007 and 2015.
- Spending RGGI revenue on energy efficiency, wind and solar power, and low-income fuel assistance had minimal impact. In fact, non-RGGI states added more renewable energy capacity in the same time frame.
- In RGGI states, electricity prices rose 64 percent more than in comparison states between 2007 and 2015.
- RGGI pricing of electricity contributed to a 12 percent drop in the production of goods and a 34 percent drop in the manufacturing of energy-intensive goods.

Pennsylvania's Updated Climate Action Plan

Gov. Wolf's plan to reduce carbon dioxide emissions does not estimate the impact on global temperatures or provide cost estimates. However, author and geologist Gregory Wrightstone, using a model developed by the National Center for Atmospheric Research, [estimates a reduction of 0.0023 degrees Fahrenheit by 2050](#)—an immeasurable and meaningless amount.

The costs associated with this meaningless reduction in temperature include mandates to reduce personal vehicle mileage, subsidies for electric vehicles, and additional handouts to renewable energy sources, including profitable nuclear plants.

Climate Control that Works

Improved renewable technology and the increased use of natural gas have driven down greenhouse gas emissions.

From 2011 to 2017, combined oil and natural gas [annual average production](#) grew from 322 million BOE (barrels of oil equivalent) to 1.5 billion BOE (an increase of more than four-fold) in the Appalachian Basin. At the same time, methane emissions fell from 5.3 to 4.7 million metric tons, resulting in an **emissions intensity reduction of 82 percent**.

Overall, greenhouse gases—counting carbon dioxide, methane and nitrogen oxides—[dropped by 12 percent between 2005 and 2017](#) as the production of oil and natural gas increased by 80 percent and 51 percent, respectively. Consumption of natural gas increased by 23 percent during the same period.

A major force behind these environmental improvements is the technological advancement in horizontal drilling and hydraulic fracturing, which made accessible enormous stores of oil and natural gas previously locked in shale deposits.

Policy Recommendations

Policymakers should recognize their inability to predict future technological breakthroughs. Some of the technologies that ignited the shale oil and gas boom have existed since the mid-20th century but were refined within the last 20 years.

Policymakers should:

- **Continue to seek ways to streamline regulation.** This includes improving the permit approval process to allow entrepreneurs and experts the freedom to innovate.
 - A [package of regulatory reforms](#) recently passed in the state house addresses some of these issues.
- **End corporate welfare.** These grants, loans, or subsidies determine economic winners and losers. Incentives like tax breaks for Shell's ethylene cracker plant or the Pipeline Investment Program create an unfair playing field.
- **Avoid additional alternative energy mandates.** These policies increase the cost for electricity consumers, particularly low-income consumers that spend a larger percentage of their income on utilities.
 - This includes [proposals to extend the Alternative Energy Portfolio Standards](#).
- **Continue to oppose a severance tax.** According to the Independent Fiscal Office, Pennsylvania consumers will bear at [least 20 percent](#) of a severance tax through higher utility costs.