

Pennsylvania's Nuclear Power Plants

CLEAN ENERGY WE CAN'T AFFORD TO LOSE

Pennsylvania's nuclear fleet is the state's largest source of electricity, a crucial economic engine and source of good-paying jobs. Nuclear energy also plays a critical role in protecting the health and well-being of families across the state.

Pennsylvania is slated to lose a quarter of its nuclear power by 2021, with the early closures of Beaver Valley and Three Mile Island (TMI), and additional plants in the state projected to follow, the state's air quality could soon decline and harm children and families—**INCLUDING THE 276,000 PENNSYLVANIA KIDS CURRENTLY STRUGGLING WITH ASTHMA.**¹

Less Nuclear Energy Means More Fossil Fuel Pollution

Nuclear energy plants provide the vast majority of carbon-free electricity in Pennsylvania. Closing Beaver Valley and TMI would result in increased generation from fossil fuel sources. Other clean energy sources like wind and solar are not yet capable of generating enough clean electricity to meet the level of demand nuclear serves.



Nuclear energy produces **93% of Pennsylvania's carbon-free electricity**, helping the Commonwealth avoid **\$2.6 billion in air pollution costs over the next decade.**



Nuclear energy has **saved 1.8 million lives** that would have been lost if nuclear energy plants were replaced by dirty alternatives.²



Nuclear energy offers **a bridge to a clean energy future** while other carbon-free sources become more advanced.

Carbon-Free Nuclear Energy Helps Keep Pennsylvania's Air Clean

Fossil fuel-powered plants will fill the gap left by the closure of nuclear energy plants, and increased emissions from these sources will hurt air quality across Pennsylvania and hinder progress towards EPA targets for air pollution reduction. Increased air pollution statewide could result in ozone alert days, asthma attacks, lung disease and lost days of work from poor air quality.

Closing Beaver Valley and TMI could **increase the CO2 emissions by 11.8 million metric tons per year**, 20% more than the total carbon pollution emitted by all Philadelphia's buildings in 2014.⁷

Nuclear energy keeps thousands of tons of pollutants like **NO_x, SO₂, PM_{2.5} and mercury out of the air and out of Pennsylvanian's lungs**, pollutants that irritate lung tissue, exacerbate asthma and are linked with chronic bronchitis.^{8,9}

The amount of carbon-free energy produced annually by Pennsylvania's nuclear energy resources is **equivalent to keeping more than 8 million cars off the road.**¹⁰

2.75 million residents of Philadelphia and Allegheny Counties **already suffer from an estimated 5,266 asthma attacks, 3,838 lost school days and 12,152 minor-restricted air days each year.**¹¹ The American Lung Association already rates both counties' air quality as "F" with a total of 46 orange air quality dates.¹²

CASE STUDIES

- When the Vermont Yankee nuclear energy plant closed in December of 2014, it removed 604 megawatts of zero-emission capacity from New England's electricity grid.³ **Carbon emissions increased 5%**, reversing five years of steady reductions in CO2 emissions.⁴
- In Wisconsin, **CO2 emissions jumped more than 15%** following the closing of the Kewaunee nuclear facility.⁵
- When the San Onofre Nuclear Generating Station in California closed in 2012, annual statewide emissions of **CO2 from electricity production increased by 24%.**⁶

If Pennsylvania's leaders do not act immediately to preserve these plants, Pennsylvania's communities, economy and environment will face imminent and irreversible harm. Thousands of jobs will disappear. Consumers will pay higher bills and breathe dirtier air. The Commonwealth's stable power supplies will be threatened. LAWMAKERS AND THE GOVERNOR MUST ACT.



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