



Myths and Facts About Nuclear Energy

Myth: Nuclear energy is harmful to the environment.

Fact: Nuclear energy produces zero air pollution and does not release any carbon emissions. It provides 90 percent of Ohio's carbon-free electricity and prevents harmful pollutants from entering the atmosphere. As the state's largest source of clean energy, nuclear power is critical to reducing carbon emissions and addressing climate change.

Myth: Nuclear power is dangerous.

Fact: Nuclear technology is one of the safest methods of producing electricity, particularly when considering the health effects of harmful pollutants by other energy sources. Ohio's nuclear plants avoid more than 11 million tons of carbon emissions each year, which is equivalent to taking 2.3 million cars off the road¹. The amount of radiation emitted is so small that it poses virtually no threat to the public or the environment; no deaths have been reported from the generation of electricity at nuclear plants in the United States. In fact, NASA and Columbia University found that nuclear power may have saved 1.8 million lives that otherwise would have been lost to pollution from emissions worldwide².

Myth: The plants only benefit their local communities, not the entire state.

Fact: The Davis-Besse and Perry nuclear facilities are economic anchors for the entire state of Ohio, contributing over \$500 million annually to the GDP and paying state and local taxes of over \$30 million³. If the plants shut down, the average residential customer will pay an additional \$2.50-\$5.00 per month and Ohio will need to import more of its energy from out of state to meet demand⁴.

Myth: Electric bills will increase if the plants remain open.

Fact: It will cost Ohioans even more to shut down the nuclear plants than it would to keep them open. A recent study estimates that the closure of the plants would increase the amount to a \$400 million annual increase in energy costs for the state⁵.

¹ [Impacts of Announced Nuclear Retirements in Ohio and Pennsylvania by The Brattle Group, 2018](#)

² [Nuclear Power Prevents More Deaths Than It Causes by Chemical & Engineering News, 2013](#)

³ [Impacts of Announced Nuclear Retirements in Ohio and Pennsylvania by The Brattle Group, 2018](#)

⁴ [Impacts of Announced Nuclear Retirements in Ohio and Pennsylvania by The Brattle Group, 2018](#)

⁵ [Impacts of Announced Nuclear Retirements in Ohio and Pennsylvania by The Brattle Group, 2018](#)

Myth: Nuclear energy is inefficient and unreliable.

Fact: Nuclear energy is one of the most efficient and reliable power sources available. Nuclear power plants provide 20 percent of the nation's electricity and outperform all other energy sources with an average capacity factor of 92.3 percent across the fleet⁶. In contrast, wind and solar technologies are irregular by nature and cannot generate a continuous electricity supply. Natural gas supply lines are vulnerable to disruptions while nuclear plants have an abundance of fuel and are only refueled every 1.5-2 years.

Myth: Nuclear plants are too expensive and difficult to maintain.

Fact: Not only is nuclear critical to reduce carbon emissions, it has a better return on investment than all other clean energy sources. Unlike natural gas and coal, nuclear plants require little maintenance since they are designed to operate for longer stretches before refueling (typically every 1.5 or 2 years)⁷. While the cost of other energy sources can fluctuate significantly, nuclear power prices are consistently low, offering price stability to our electrical grid and our economy.

Myth: Nuclear energy produces a lot of waste.

Fact: Nuclear energy produces very little waste. To put it in perspective, all of the used nuclear fuel produced in the U.S. over the last 60 years could fit on a piece of land as small as a football field⁸. Most spent nuclear fuel is safely stored in specially designed pools or "dry casks" at individual reactor sites.

Myth: The nuclear industry is heavily subsidized.

Fact: The nuclear industry has received one of the smallest amounts of federal subsidies relative to other forms of energy production. Despite causing significant irreversible damage to the environment, fossil fuels receive \$14.7 billion in federal subsidies and \$5.8 billion in state-level incentives, for a total of \$20.5 billion annually⁹. Solar and wind receive far more federal subsidies, even though only 1.7 percent of Ohio's electricity is generated from hydroelectric, solar and wind power combined¹⁰. On average, solar receives \$233.07 in subsidies per MWh, wind receives \$34.21 and nuclear receives just \$1.37.

⁶ [5 Fast Facts About Nuclear Energy by U.S. Department of Energy's Office of Nuclear Energy, 2018](#)

⁷ [Nuclear Power is the Most Reliable Energy Source and It's Not Even Close by U.S. Department of Energy, 2018](#)

⁸ [3 Reasons Why Nuclear is Clean and Sustainable by U.S. Department of Energy's Office of Nuclear Energy, 2018](#)

⁹ [Friendly policies keep US oil and coal afloat far more than we thought by Vox, 2018](#)

¹⁰ [Closing Ohio's Nuclear Power Plants Would Harm the Economy, Environment by The Register-Herald, 2019](#)