

Nuclear Energy in Ohio

July 2007

Ohio's Electricity Generation

Nuclear	10.9%
Coal	86.5%
Oil	0.2%
Gas	1.8%
Hydro	0.3%
Renewable and Other	0.3%

Source: EIA, 2006



Nuclear Power Plants in the State

	City	Capacity (MW)	2006 Generation (MWh)	2004-2006 3-year Average Capacity Factor (%)
Davis Besse	Oak Harbor	891	6,371,566	83.3
Perry 1	North Perry	1,235	10,475,373	87.3
Total		2,126	16,846,939	85.3

Source: Energy Information Administration

Clean Air Benefits

Economic Growth and Emission-Free Electricity

Ohio has experienced an average growth in Gross State Product of 1.6 percent per year over the past 5 years. To keep Ohio's economy growing, the state will need new sources of power. At the same time, parts of Ohio must deal with poor air quality. Emission-free sources, like nuclear power plants, supply safe, reliable and affordable power to meet the state's economic growth without polluting the air.

Status of the State's Air Quality

Counties in non-attainment for EPA's new 8-hour ozone standard surround Akron, Canton, Cincinnati, Cleveland, Columbus and Dayton. Ozone contributes to smog, which can lead to asthma attacks and respiratory impairment in young children and the elderly. Davis Besse and Perry nuclear power plants supply emission-free power to the northern part of the state and help improve the air quality.

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Nuclear Energy Prevents Emissions

Generating electricity with nuclear energy prevents the emission of pollutants like sulfur dioxide (SO₂) and nitrogen oxides (NO_x) and greenhouse gases like CO₂ associated with burning fossil fuels. Davis Besse and Perry avoided the emission of 105,000 tons of SO₂, 28,500 tons of NO_x and 15.9 million metric tons of CO₂ in the year 2006. (*Source: NEI/EPA*) Emissions of SO₂ lead to the formation of acid rain. NO_x is a key precursor of both ground level ozone and smog. Greenhouse gases, like CO₂, contribute to global warming.

For perspective, the 28,500 tons of NO_x avoided by the nuclear power plants in Ohio is the amount of NO_x released in a year by 1.5

million passenger cars. There are 6.4 million cars registered in the state of Ohio.

Potential Uprates at Nuclear Plants

With additional capital investment, more emission-free power can be generated at most existing nuclear power plants. This process of increasing power output capacity is called an "uprate." According to an analysis performed for the U.S. Department of Energy, uprates at Davis Besse and Perry could supply nine percent more electricity and avoid annual emissions of 5,400 tons of SO₂, 900 tons of NO_x and 1.3 million metric tons of CO₂.

This fact sheet is also available at www.nei.org, where it is updated periodically.