

Nuclear Energy in Massachusetts

July 2007

Sources of Massachusetts' Electricity

Nuclear	12.9%
Coal	25.1%
Oil	5.1%
Gas	51.5%
Hydro	1.2%
Other	4.3%



Source: EIA, 2006



Nuclear Power Plants in the State

			2006	2004-2006
	City	Capacity (MW)	Generation (MWh)	3-year Average Capacity Factor (%)
Pilgrim	Plymouth	685	5,829,658	95.7

Source: Energy Information Administration

Clean Air Benefits

Economic Growth and Emission-Free Electricity

Massachusetts has experienced average growth in Gross State Product of 1.7 percent per year over the past 5 years. To keep Massachusetts' economy growing, the state will need new sources of power. At the same time, parts of Massachusetts 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

All of Massachusetts is in attainment for EPA's new 8-hour ozone standard. Ozone contributes to smog, which can lead to asthma attacks and respiratory impairment in young children and the elderly. Pilgrim supplies emission-free power to the Boston area and helps improve the air quality.

SUITE 400
1776 I STREET, NW
WASHINGTON, DC
20006-3708
202.739.8000
www.nei.org

Nuclear Energy in Massachusetts

Page 2 of 2- July 2007

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. The Pilgrim plant avoided the emission of 8,000 tons of SO₂, 2,100 tons of NO_x and 3.4 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 2,100 tons of NO_x avoided by Pilgrim is the amount of NO_x released in a year by 110,000 passenger cars.

There are 3.4 million cars registered in the state of Massachusetts.

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, an uprate at Pilgrim could supply twelve percent more electricity and avoid annual emissions of 1,000 tons of SO₂, 300 tons of NO_x and 340,000 metric tons of CO₂.

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