FACT SHEET

Nuclear Energy in New York

July 2009

New York's Electricity Generation

Nuclear	31.0%
Coal	14.1%
Oil	2.5%
Gas	30.9%
Hydro	18.6%
Renewable and Other	3.0%

Source: U.S. Energy Information Administration (EIA), 2008

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Nuclear Power Plants in the State

	City	Capacity (MW)	2008 Generation (MWh)	2006-2008 3-year Average Capacity Factor (%)
Ginna	**Rochester**	498	4,742,826	105.4
Indian Point 2	**Buchanan**	1,020	8,212,041	93.4
Indian Point 3	**Buchanan**	1,025	9,175,676	96.2
James A. FitzPatrick	**Oswego**	852	6,690,905	90.9
Nine Mile Point 1	**Oswego**	621	5,346,699	94.7
Nine Mile Point 2	**Oswego**	1,140	9,041,024	91.0
Total		**5,156**	**43,209,171**	**95.2**

Source: EIA

Clean Air and Economic Benefits

Economic Growth and Emission-Free Electricity

New York has experienced an average growth in gross state product of 3.2 percent per year over the past five years. To keep New York's economy growing, the state will need new sources of power. At the same time, parts of New York 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 nonattainment for the U.S. Environmental Protection Agency's new eight-hour ozone standard make up the New York City area. Ozone contributes to smog, which can lead to asthma attacks and respiratory impairment in young children and the elderly. New York's nuclear power plants supply emission-free power to these areas and help improve the air quality.

Nuclear Energy in New York

Nuclear Energy Prevents Emissions
Generating electricity with nuclear energy prevents the emission of pollutants like sulfur dioxide (SO_2) and nitrogen oxides (NO_x) and greenhouse gases like CO_2 associated with burning fossil fuels. The nuclear power plants in New York avoided the emission of 49,300 tons of SO_2, 25,800 tons of NO_x and 28.9 million metric tons of CO_2 in the year 2008 *(Source: NEI/EPA).* Emissions of SO_2 lead to the formation of acid rain. NO_x is a key precursor of both ground-level ozone and smog. Greenhouse gases like CO_2 contribute to global warming.

For perspective, the 25,800 tons of NO_x prevented by nuclear power plants in New York is the amount of NO_x released in a year by 1.4 million passenger cars. There are 8.9 million cars registered in the state of New York.

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 New York's nuclear power plants could supply 4 percent more electricity and prevent annual emissions of 1,700 tons of SO_2, 800 tons of NO_x and 880,000 metric tons of CO_2.

New Nuclear Plants
The U.S. Energy Information Administration predicts that demand for energy will grow 21 percent by the year 2030. To meet this growing electricity demand in a manner that is cost effective and protects our air quality, energy companies are planning to build nuclear power plants to provide affordable electricity to consumers and prevent greenhouse gases. In New York, Constellation/UniStar has filed a license application with the U.S. Nuclear Regulatory Commission to build one reactor in Oswego County. Upon completion, the plant will provide enough electricity to serve 1.2 million homes annually.

Economic Growth & Job Creation
Nuclear energy is one of the few bright spots in the U.S. economy because it creates more high-paying jobs than other sources of electricity and helps stimulate the economy. On average, a nuclear power plant creates 1,400-1,800 high-paying jobs during construction, with peak employment estimated as high as 2,400 jobs during that period, and yields 400-700 jobs during the operation of the plant. Additionally, the average nuclear plant generates approximately $430 million a year in total output for the local community and nearly $40 million per year in total labor income.

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