

Nuclear Energy in Illinois

July 2007

Illinois's Electricity Generation

Nuclear	48.8%
Coal	47.5%
Oil	0.1%
Gas	2.9%
Hydro	0.1%
Renewable and Other	0.7%

Source: EIA, 2006



Nuclear Power Plants in the State

	City	Capacity (MW)	2006 Generation (MWh)	2004-2006 3-year Average Capacity Factor (%)
Braidwood 1	Braidwood	1,178	9,945,947	96.9
Braidwood 2	Braidwood	1,152	9,624,587	96.8
Byron 1	Byron	1,164	9,317,031	95.7
Byron 2	Byron	1,136	10,174,740	98.1
Clinton 1	Clinton	1,052	8,232,307	90.4
Dresden 2	Morris	867	7,270,120	86.7
Dresden 3	Morris	867	7,171,926	90.5
LaSalle 1	Seneca	1,118	9,092,070	95.1
LaSalle 2	Seneca	1,120	10,015,741	98.0
Quad Cities 1	Cordova	867	6,747,084	85.6
Quad Cities 2	Cordova	867	6,562,587	86.7
Total		11,388	94,154,140	92.8

Source: Energy Information Administration

Clean Air Benefits

Economic Growth and Emission-Free Electricity
 Illinois has experienced an average growth in Gross State Product of 1.5 percent per year over the past 5 years. To keep Illinois' economy growing, the state will need new sources of power. At the same time, parts of Illinois 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 comprise the Chicago and East St. Louis areas. Ozone contributes to smog, which can lead to asthma attacks and respiratory impairment in young children and the elderly. Illinois' nuclear power plants supply emission-free power to the Chicago area and help improve the air quality.



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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 nuclear power plants in Illinois avoided the emission of 318,700 tons of SO₂, 115,400 tons of NO_x and 95.6 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 115,400 of NO_x avoided by the nuclear power plants in Illinois is the amount of NO_x released in a year by 6.0

million passenger cars. There are only 5.7 million cars registered in the state of Illinois.

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 Illinois nuclear power plants could supply one percent more electricity and avoid annual emissions of 100 tons of SO₂, 20 tons of NO_x and 20,000 metric tons of CO₂.

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