

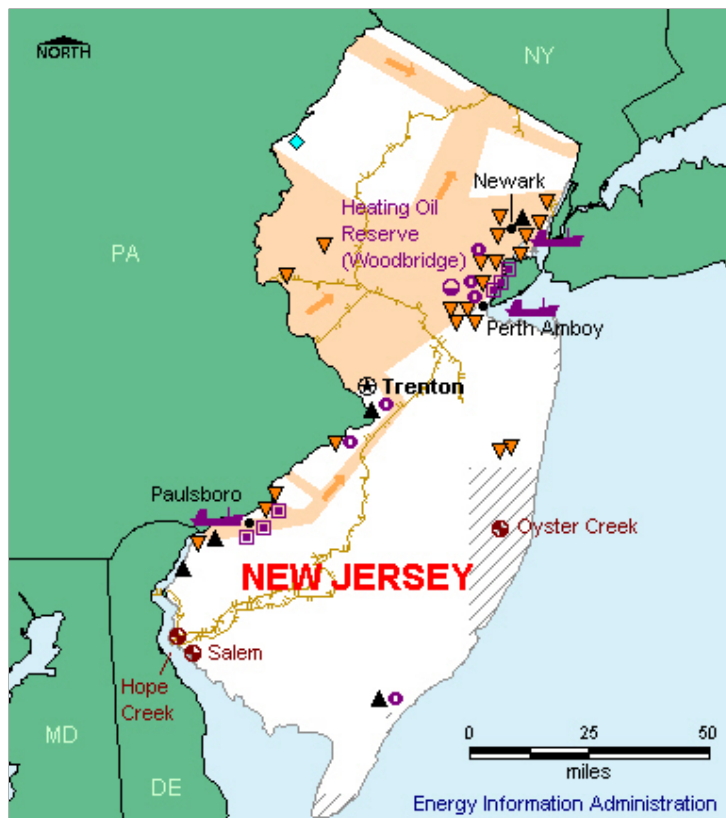
New Jersey

STATE ENERGY PROFILES

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Last Update: January 23, 2009

Next Update: January 29, 2009

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Energy Information Administration

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Major Electric Power Plants (>=100 MW)		Renewable Energy Potential
Nuclear	Solar	Solar - (>= 6.0 kWh/m ² /day)
Petroleum	Hydroelectric	Wind - (>= 4 Power Class)
Coal	Wind	Geo. - (>= 80 milliwatts/m ²)
Natural Gas	Wood	
Geothermal		

New Jersey Quick Facts

- The New York Harbor area between New York and New Jersey has over 40 million barrels of refined product storage capacity (much of which is in New Jersey), making it the largest petroleum product hub in the United States.
- The largest of the four U.S. Northeast Heating Oil Reserve sites is located in Woodbridge, New Jersey.
- New Jersey's Oyster Creek nuclear reactor, which first came online in 1969, is the oldest operating nuclear plant in United States.
- Today, nuclear power dominates New Jersey's electricity market, typically supplying more than one-half of State generation.
- The transportation sector leads energy consumption in New Jersey, where the average commute time is among the longest in the Nation.

Overview

Resources and Consumption

New Jersey has no fossil fuel reserves, but it does have high wind power potential located onshore and offshore along its Atlantic coast. Many New Jersey residents live in the greater metropolitan areas of New York City and Philadelphia and work out-of-State in those cities. Due in part to this dynamic, the average commute times for New Jersey workers are among the longest in the Nation, and the transportation sector leads State energy consumption. Residential and commercial energy demand is high. New Jersey's industrial energy consumption ranks near the National average, although the energy-intensive chemical manufacturing and petroleum refining industries are well represented in the State.

Petroleum

New Jersey is a major petroleum refining State and is one of the primary suppliers of petroleum products to the high-demand Northeast States. The State's six oil refineries, clustered along the Delaware River near Philadelphia and in the New York Harbor area, process crude oil mostly imported from overseas. New Jersey is connected to major petroleum product pipeline systems, including the Colonial Pipeline and Buckeye Pipeline systems. The Buckeye Pipeline system branches through much of the Midwest and Northeast, while the Colonial Pipeline system pumps supplies from the Gulf Coast through the South and across the Eastern Seaboard before terminating in the New York Harbor area. New Jersey also receives petroleum product imports by tanker and barge principally from Canada, the Caribbean, South America, and Europe.

Located in both New York and New Jersey, the New York Harbor area has a refined product storage capacity of over 40 million barrels, making it the largest and most important petroleum product hub in the Northeast. New York Harbor acts as a central distribution center for the region, and many of the petroleum products delivered to the Harbor are later redistributed to smaller ports where they supply local demand.

New Jersey is one of a handful of States that requires the statewide use of reformulated motor gasoline blended with ethanol, and the New York Harbor area is the primary Northeast distribution hub for ethanol supplies. A large ethanol storage facility in Sewaren receives ethanol rail shipments from the Midwest and marine imports from Brazil and the Caribbean, and it then redistributes these supplies to markets throughout the Northeast.

New Jersey, along with much of the Northeast, is vulnerable to distillate fuel oil shortages and price spikes during winter months due to high demand for home heating. Nearly one-fifth of New Jersey households use fuel oil as their primary energy source for home heating. In January and February 2000, distillate fuel oil prices rose sharply when extreme winter weather increased demand unexpectedly and hindered the arrival of new supply, as frozen rivers and high winds slowed the docking and unloading of barges and tankers. In July 2000, in order to reduce the risk of future shortages, the President directed the U.S. Department of Energy to establish the Northeast Heating Oil Reserve. The Reserve would give Northeast consumers adequate supplies for about 10 days, the time required for ships to carry heating oil from the Gulf of Mexico to New York Harbor. The Reserve's largest storage site, with an inventory of 1 million barrels, is located in Woodbridge, New Jersey, part of the New York Harbor area.

Natural Gas

New Jersey receives natural gas supplies through several natural gas pipeline systems that enter the State from Pennsylvania. Natural gas in New Jersey is used primarily by the residential sector for home heating, as roughly two-thirds of New Jersey households use natural gas as their primary energy source for home heating. To meet demand in the Philadelphia metropolitan area, a liquefied natural gas (LNG) facility has been proposed in Logan Township, New Jersey. If constructed, the proposed plant would have the capacity to import up to 1.2 billion cubic feet of LNG per day from overseas.

Coal, Electricity, and Renewables

Nuclear power dominates New Jersey's electricity market, typically supplying more than one-half of State generation. New Jersey has three nuclear power plants, including the Oyster Creek Nuclear Generating Station, which came online in 1969 and is the oldest operating nuclear plant in the country. Natural gas- and coal-fired power plants supply most of New Jersey's remaining electricity generation. New Jersey's coal-fired plants burn coal received by rail and barge primarily from West Virginia, Pennsylvania, and Virginia. Although it contributes only minimally to net generation, New Jersey is a major producer of electricity from landfill gas and municipal solid waste.

Data

Economy

Population and Employment	New Jersey	U.S. Rank	Period
Population	8.7 million	10	2008
Civilian Labor Force	4.5 million	10	2007
Per Capita Personal Income	\$49,194	3	2007

Industry	New Jersey	U.S. Rank	Period
Gross Domestic Product by State	\$465.5 billion	8	2007
Land in Farms	0.8 million acres	45	2002
Market Value of Agricultural Products Sold	\$0.7 billion	39	2002

Prices

Petroleum	New Jersey	U.S. Avg.	Period
Domestic Crude Oil First Purchase	—	\$73.22/barrel	Oct-08
No. 2 Heating Oil, Residential	\$3.207/gal	\$3.168/gal	Oct-08
Regular Motor Gasoline Sold Through Retail Outlets (Excluding Taxes)	\$2.554/gal	\$2.527/gal	Oct-08
State Tax Rate on Motor Gasoline (other taxes may apply)	\$0.105/gal	\$0.2159/gal	Aug-08
No. 2 Diesel Fuel Sold Through Retail Outlets (Excluding Taxes)	\$3.089/gal	\$3.021/gal	Oct-08
State Tax Rate on On-Highway Diesel (other taxes may apply)	\$0.135/gal	\$0.2214/gal	Aug-08
Natural Gas	New Jersey	U.S. Avg.	Period
Wellhead	—	\$6.40/thousand cu ft	2006
City Gate	\$10.89/thousand cu ft	\$7.88/thousand cu ft	Oct-08
Residential	\$16.46/thousand cu ft	\$15.23/thousand cu ft	Oct-08
Coal	New Jersey	U.S. Avg.	Period
Average Open Market Sales Price	—	\$26.20/short ton	2007
Delivered to Electric Power Sector	\$ 3.32/million Btu	\$ 2.17 /million Btu	Oct-08
Electricity	New Jersey	U.S. Avg.	Period
Residential	15.87 cents/kWh	11.86 cents/kWh	Oct-08
Commercial	14.49 cents/kWh	10.49 cents/kWh	Oct-08
Industrial	10.18 cents/kWh	7.24 cents/kWh	Oct-08

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Reserves & Supply

Reserves	New Jersey	Share of U.S.	Period
Crude Oil	—	—	2007
Dry Natural Gas	—	—	2007
Natural Gas Liquids	—	—	2007
Recoverable Coal at Producing Mines	—	—	2007
Rotary Rigs & Wells	New Jersey	Share of U.S.	Period
Rotary Rigs in Operation	0	0.0%	2008
Crude Oil Producing Wells	0	0.0%	2007
Natural Gas Producing Wells	—	—	2006
Production	New Jersey	Share of U.S.	Period
Total Energy	363 trillion Btu	0.5%	2005
Crude Oil	—	—	Aug-08
Natural Gas - Marketed	—	—	2006
Coal	—	—	2007
Capacity	New Jersey	Share of U.S.	Period
Crude Oil Refinery Capacity (as of Jan. 1)	655,000 barrels/calendar day	3.8%	2008

Electric Power Industry Net Summer Capability	18,352 MW	1.8%	2007
Net Electricity Generation	New Jersey	Share of U.S.	Period
Total Net Electricity Generation	4,482 thousand MWh	1.4%	Oct-08
Petroleum-Fired	10 thousand MWh	0.5%	Oct-08
Natural Gas-Fired	1,317 thousand MWh	1.8%	Oct-08
Coal-Fired	590 thousand MWh	0.4%	Oct-08
Nuclear	2,451 thousand MWh	3.9%	Oct-08
Hydroelectric	2 thousand MWh	0.0%	Oct-08
Other Renewables	78 thousand MWh	0.8%	Oct-08
Stocks	New Jersey	Share of U.S.	Period
Motor Gasoline (Excludes Pipelines)	1,198 thousand barrels	1.9%	Oct-08
Distillate Fuel Oil (Excludes Pipelines)	14,249 thousand barrels	15.2%	Oct-08
Natural Gas in Underground Storage	—	—	Oct-08
Petroleum Stocks at Electric Power Producers	1,333 thousand barrels	3.3 %	Oct-08
Coal Stocks at Electric Power Producers	539 thousand tons	0.3%	Oct-08
Production Facilities	New Jersey		
Major Coal Mines	None		
Petroleum Refineries	Chevron USA Inc (Perth Amboy) • Citgo Asphalt Refining Co (Paulsboro) • ConocoPhillips Co (Linden) • Hess Corporation (Port Reading) • Sunoco Inc (Westville) • Valero Refining Co New Jersey (Paulsboro) •		
Major Non-Nuclear Electricity Generating Plants	PSEG Linden Generating Station (PSEG Fossil LLC) • Bergen Generating Station (PSEG Fossil LLC) • PSEG Hudson Generating Station (PSEG Fossil LLC) • Linden Cogen Plant (Cogen Technologies Linden Vent) • PSEG Mercer Generating Station (PSEG Fossil LLC)		
Nuclear Power Plants	PSEG Salem Generating Station (PSEG Nuclear LLC) • PSEG Hope Creek Generating Station (PSEG Nuclear LLC) • Oyster Creek (AmerGen Energy Co LLC)		

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Distribution & Marketing

Distribution Centers	New Jersey		
Oil Seaports/Oil Import Sites	Newark • Paulsboro • Perth Amboy		
Natural Gas Market Centers	None		
Major Pipelines	New Jersey		
Crude Oil	None		
Petroleum Product	Buckeye • Colonial • Sun.		
Liquefied Petroleum Gases	None		
Interstate Natural Gas Pipelines	Algonquin Gas Transmission Co. • Columbia Gas Transmission Corp. • Tennessee Gas Pipeline Co. • Texas Eastern Transmission Corp. • Transcontinental Gas Pipeline Co.		
Fueling Stations	New Jersey	Share of U.S.	Period
Motor Gasoline	3,301	2.0%	2007
Liquefied Petroleum Gases	10	0.4%	2007
Compressed Natural Gas	11	1.4%	2007
Ethanol	0	0.0%	2007
Other Alternative Fuels	0	0.0%	2007

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Consumption

per Capita	New Jersey	U.S. Rank	Period
Total Energy	301 million Btu	36	2006
by Source	New Jersey	Share of U.S.	Period
Total Energy	2,605 trillion Btu	2.6%	2006
Total Petroleum	234,096 thousand barrels	3.1%	2006
Motor Gasoline	103,580 thousand barrels	3.1%	2006
Distillate Fuel	36,651 thousand barrels	2.4%	2006
Liquefied Petroleum Gases	1,979 thousand barrels	0.3%	2006
Jet Fuel	33,726 thousand barrels	5.7%	2006
Natural Gas	547,908 million cu ft	2.4%	2006
Coal	4,642 thousand short tons	0.4%	2006
by End-Use Sector	New Jersey	Share of U.S.	Period
Residential	570,253 billion Btu	2.7%	2006
Commercial	600,586 billion Btu	3.4%	2006
Industrial	452,644 billion Btu	1.4%	2006
Transportation	981,348 billion Btu	3.4%	2006
for Electricity Generation	New Jersey	Share of U.S.	Period
Petroleum	21 thousand barrels	0.6%	Oct-08
Natural Gas	10,042 million cu ft	1.8%	Oct-08
Coal	285 thousand short tons	0.4%	Oct-08
for Home Heating (share of households)	New Jersey	U.S. Avg.	Period
Natural Gas	67%	51.2%	2000
Fuel Oil	19%	9.0%	2000
Electricity	10%	30.3%	2000
Liquefied Petroleum Gases	2%	6.5%	2000
Other/None	2%	1.8%	2000

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Environment

Special Programs	New Jersey		
Clean Cities Coalitions	New Jersey		
Alternative Fuels	New Jersey	Share of U.S.	Period
Alternative-Fueled Vehicles in Use	14,393	2.4%	2006
Ethanol Plants	0	0.0%	2008
Ethanol Plant Capacity	0 million gal/year	0.0%	2008
Ethanol Use in Gasohol	6,227 thousand gal	0.2%	2004
Electric Power Industry Emissions	New Jersey	Share of U.S.	Period
Carbon Dioxide	19,368,084 metric tons	0.8%	2003
Sulfur Dioxide	46,314 metric tons	0.4%	2003
Nitrogen Oxide	31,093 metric tons	0.7%	2003

➔ [See more Environment data for all States](#)

— = No data reported; NA = Not available; W = Withheld to avoid disclosure of individual company data.
 NM = Not meaningful due to large relative standard error or excessive percentage change.

Update on Jan. 23, 2009

New statistics for October 2008:

- Price of electricity sold to the residential, commercial, and industrial sectors
- Price of coal delivered to the electric power sector
- Net electricity generation by fuel
- Fuel stocks at electric power producers
- Consumption for electricity generation by fuel

New statistics for 2008:

- Rotary rigs in operation
- New statistics for 2007:**
- Electric power industry net summer capability
 - Electric power industry emissions of carbon dioxide, sulfur dioxide, and nitrogen oxide

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References

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tables that display comprehensive State data from as early as 1960 to the present
- [State Electricity Profiles](#)
tables that provide time series data from 1990 forward for key electricity indicators by State
- [State Renewable Electricity Profiles](#)
tables that provide data for the most recent year on capacity and generation of electricity from renewable sources
- [State Compendium of Nuclear Power Plants](#)
State-by-State reports on the nuclear industry
- [Natural Gas Residential Choice Programs](#)
written overviews of the status of natural gas industry restructuring in each State, focusing on the residential customer class
- [Status of Electricity Restructuring by State](#)
annotated map showing details of the status of electricity restructuring in each State
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reports and maps that explore regional variations in U.S. energy consumption

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