

NEW YORK'S COMPETITIVE ELECTRIC MARKETS ARE WORKING



Frequently Asked Questions about Competition in New York

How does New York benefit from competition in the electricity industry?

New York is benefiting from competition in the electric industry in many ways. Competitive suppliers have invested nearly \$6 billion in New York power plants since 1999 and contributed more than \$30 million to their local communities by funding new public parks, increasing public access to New York's waterways, and funding scholarships at local community colleges, among other contributions. An additional 2,000 megawatts of generation is currently under construction and employing hundreds of skilled construction workers

Competition in electricity markets is also spurring innovation and efficiency throughout the electric industry.

What is wholesale competition?

In New York the New York Independent System Operator manages the electric grid and runs competitive wholesale markets. This is where independent power producers, competitive energy suppliers and utilities buy and sell the electricity that will then be resold to New York's consumers. The markets function similarly to any other wholesale market – for instance a fish market where chefs purchase the daily catch to sell in their restaurant. Since the electric industry was restructured, utilities and other retail electricity providers may choose to buy power from many different suppliers.

What is retail competition?

Retail competition is intended to give consumers in New York the ability to choose to receive their electric service from companies other than their traditional utilities. Competitive suppliers, or energy service companies (ESCOs) are able to provide a wider array of pricing plans and other energy services – offering consumers and businesses unprecedented flexibility in their energy purchases. ESCOs may offer services such as hedges against price fluctuations, alternative energy resources, and energy efficiency projects, to name a few. These offerings allow consumers and businesses to choose the services that best meet their needs.

What can New York do to improve our energy situation?

New York policy makers and consumers must commit to maintaining a safe, reliable supply of electricity through a balance of generation, transmission and energy efficiency. These three elements are the backbone of our electric system. We will always need large-scale electric generators to serve our ever-increasing demand for power. A well maintained transmission system is key to getting electricity from generators to where it is used. Another component of a well-functioning system is an efficient use of energy by consumers and businesses. The NYISO runs innovative markets that allow large users of electricity to realize the value of curtailing electricity use at certain times. This is a good start, but individual New Yorkers can do more to

use energy wisely. More efficient home appliances, programmable heating and cooling systems and old-fashioned conservation efforts like not lighting unused rooms will also help maintain a safe reliable system.

Why are gas prices increasing?

While the price of gasoline, the backbone of the transportation industry, has recently begun to return to more normal levels, the price of natural gas, used to heat homes, generate electricity and power manufacturing, continues to be well above historical levels. There are many factors contributing to the high price of natural gas. First, demand for natural gas has steadily increased in recent decades, as more homes use the fuel as the primary source of heat in winter. In addition, more electric generators turn to natural gas to meet environmental standards. This growing demand has not been met with growing supply or natural gas infrastructure. In addition, New York and the Northeast are at the end of most existing pipelines. That means natural gas must travel great distances to reach us. 2005 was also a particularly difficult year for the natural gas supply industry due to major disruptions caused by a succession of devastating hurricanes in the Gulf of Mexico.

While natural gas is a global market that cannot be controlled by one state, there are things New York can do to help ease the strain on the natural gas system. First, New York needs to expand its natural gas infrastructure, including pipelines, and consider expanding liquefied natural gas facilities. Second, New York should better coordinate energy and environmental regulations to ensure that environmental goals do not prevent the state from maintaining a diverse mix of energy resources by encouraging an over-reliance on any single fuel source.

Why are electricity prices increasing?

Electricity prices increase when the demand for electricity grows and when fuel prices increase.

New York's demand for electricity has been steadily growing for the last decade. In 1995 the peak demand for electricity was 27,206 mw; by 2005 that number had risen to 32,075 mw. That is an 18 percent increase in the last ten years.

Since competitive markets consistently choose the most efficient generators to run first, as demand rises, less efficient generators are needed to meet demand. Thus, higher demand results in higher prices.

In addition, the price of electricity is closely tied to the cost of the fuels used to generate electricity. Electric generators must purchase fuel just as businesses and consumers do. As natural gas, oil and coal prices increase so do electricity prices.

Why is a diversity of fuels important for reliable electricity supply?

New York's existing facilities are powered by a mix of fuels, including natural gas, hydropower, wind, solar, biomass, waste-to-energy, nuclear, and coal. This diversity of generating types reduces the impact of price or supply changes of any one fuel type on the electric markets. If any of these fuels is not available or becomes too expensive, the other remaining fuels supply the needed electricity.

In general, New York's electric system is less reliable if it depends too much on any one fuel source. For instance, New York is experiencing an increased reliance on natural gas, so more of our generation pricing is dependent on natural gas prices. More gas supply infrastructure is needed to maintain electric system reliability and decrease the risk of price volatility.

New York needs base-load facilities, powered by a diversity of fuels, which can operate all the time to meet the State's energy needs.

What fuels are used to generate electricity in New York?

A wide variety of fuels are used to produce high pressure steam to turn the blades of a turbine which spins the shafts of a generator. Inside the generator, a coil of wires spins in a magnetic field to create electricity.

35 percent of New York's electric generating capacity is powered by **dual-fueled** oil and gas facilities. These facilities are very beneficial to system reliability; if either oil or natural gas is not available or is too expensive, the other fuel can still be used to supply electricity.

15 percent of New York's electric generating capacity is powered by **natural gas**.

15 percent of New York's electric generating capacity is powered by **hydropower**. Hydropower comes from harnessing the energy of flowing water to generate electricity.

14 percent of New York's electric generating capacity is powered by **nuclear energy**. Nuclear energy is created as atoms split through a process known as fission, which heats water to produce steam.

10 percent of New York's electric generating capacity is powered by **coal**. Most coal used in New York comes from Pennsylvania and West Virginia and is delivered to the state by train and barge.

10 percent of New York's electric generating capacity is powered by **oil**.

The rest of New York's generating capacity is powered by a variety of alternative fuel sources including:

Wind pushes the rotors of windmills, which are connected to electric generators.

Solid waste is collected by trucks and transported to waste-to-energy facilities, instead of landfills.

Biomass includes wood, agricultural residue, and energy crops.

Landfill gas comes from the natural decomposition of organic materials and is composed mostly of methane and water; methane is captured and used to power engines or turbines that make electricity.