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A Status Check on New York's Grid Reliability

By: Arthur "Jerry" Kremer

While odds are good that New York will get through the summer of 2016 without a major blackout, one can never be too sure. And now is also the time for New York to take a number of concerted steps to guard against costly and dangerous future blackouts.

THE RAMIFICATIONS OF BLACKOUTS

Blackouts are very costly to businesses and individuals, due to lost food, lost opportunities to work, and other factors.

For example, a manufacturer who experiences a sudden production shutdown could have more than \$100,000 of materials that become useless. Restaurants lose business and vast amounts of food.

High technology companies are no longer able to perform their services. Even e-commerce can screech to a halt, if not when a blackout occurs when charged phones lose their power. Many who telecommute or who work at home are not able to do so.

“90 New Yorkers died as a result of the 2003 blackout”

From a health and safety standpoint, blackouts are ominous. Senior citizens are particularly vulnerable as they may be in sweltering apartments from which they will need to climb many flights of stairs. Looking for medication in the dark, especially if a walker is being used, can be perilous.

The August 14-15, 2003 blackout shows how severe blackouts can be. According to the New York City Comptroller's office, that blackout cost New York City alone more than \$1 billion, due to lost wages, spoiled food and other factors.ⁱ

A Johns Hopkins study found that 90 New Yorkers died as a result of the 2003 blackout including 12 from accidents, 28 from cardiovascular conditions, three from respiratory problems, and 37 by various health conditions.ⁱⁱ

GUARDED OPTIMISM FOR THE SUMMER OF 2016

The New York Independent System Operator (NYISO), the non-profit operator of the state's electric grid, announced on May 19 that, "... electricity supplies in New York state are expected to be adequate to meet forecasted demand this summer."ⁱⁱⁱ

The peak power demand, with temperatures assumed at 95 degrees Fahrenheit, is expected to be 33,360 megawatts and the state has total capacity of 41,874 megawatts. One megawatt of electricity serves approximately 800-1,000 homes.^{iv}

While NYISO's report is focused on electricity supplies, there are other factors that can impact grid reliability. In fact, New York's recent major blackouts were not tied to electricity supply. In addition to the 2003 blackout, these include the Superstorm Sandy blackout of 2012, Hurricane Irene (2011) and regional blackouts, most notably in Queens (2006), and Washington Heights (1999).

ADDRESSING THE CHALLENGES

New York's grid faces many challenges in the years ahead to stay reliable.

On the supply front, many coal and nuclear plants are facing significant challenges to stay in business. Renewable power alone is not able to fill the gap.

Yet against this backdrop the State of New York is even pushing to close Indian Point, the state's largest plant which provides 11 percent of the state's electricity. As Indian Point has continuously been found to be operating safely by the independent U.S. Nuclear Regulatory Commission, the state should end its opposition to the plant's license renewal.



New York should also look to produce more electricity as larger electricity use reflects a growing and thriving economy. Such electricity will be particularly important in the years ahead for businesses in such energy-intensive areas as high technology, hospitality, biotechnology research, and manufacturing.

In fact, many New Yorkers would benefit simply from getting better air conditioning. According to the U.S. Energy Information Administration, more than half of New York households (53%) use individual window or wall air conditioning units, while only 20% have a central air conditioning system.^v

Another major challenge is how electricity is transported.

New York's transmission infrastructure is aging and needs significant improvements. As of the close of 2010, 85 percent of the state's high-voltage transmission facilities were at least 30 years old.^{vi}

The expanded use of renewables, which provide intermittent power, also presents grid management problems. Germany, Denmark and Hawaii are among the places that have faced significant challenges accommodating large sources of renewable generation. It will be important that New York's "transmission transition" goes smoothly.

New York also needs more pipelines to bring in natural gas to the state. The DEC's recent rejection of a permit for the Constitution Pipeline also presents supply challenges.

SUMMARY

Ensuring grid reliability may seem mundane, but it is critical for a thriving economy and public safety. The current situation, though positive, should be seen as opportunity to keep clean sources of power online and to add to them, while also making needed investments in transmission lines and gas pipelines. By taking these steps, New York will keep the lights and air conditioning, while laying the foundation for a literally brighter economic future.



ABOUT THE AUTHOR

Arthur "Jerry" Kremer is the former chairman of the Assembly Ways and Means Committee and a principal author of the state's power plant siting law. He now serves as chairman of the New York Affordable Reliable Electricity Alliance (New York AREA), a diverse coalition of business, labor, and community leaders and organizations. Entergy, the owner-operator of Indian Point, is a member. Founded in 2003, New York AREA's mission is to ensure that New York State has an ample and reliable electricity supply and economic prosperity for years to come. For more information, visit www.area-alliance.org.

ⁱ Reuters, "New York City economy loses \$1B from blackout." August 18, 2003. Retrieved June 24, 2016 http://usatoday30.usatoday.com/money/industries/energy/2003-08-18-ny-blackout-costs_x.htm

ⁱⁱ Kerry Grens, Reuters, "Spike in deaths blamed on 2003 New York blackout." January 27, 2012. Retrieved June 24, 2016 <http://www.reuters.com/article/us-blackout-newyork-idUSTRE80Q07G20120127>

ⁱⁱⁱ New York Independent System Operator, Press Release, "New York's Electric System is Prepared for Summer," May 19, 2016. Retrieved June 24, 2016 http://www.nyiso.com/public/webdocs/media_room/press_releases/2016/Summer%20Outlook%202016_5_19_%202016.pdf

^{iv} Ibid.

^v U.S. Energy Information Administration, "New York State Energy Profile," July 16, 2015. New York Quick Facts section (first section of document). Retrieved on June 24, 2016 <http://www.eia.gov/state/?sid=NY>

^{vi} New York State Energy Planning Board, "New York State Transmission and Distribution Systems Reliability Study and Report," August 2012. Item appears on p. 53 of the PDF. Retrieved on June 24, 2016 <http://nyssmartgrid.com/wp-content/uploads/2012/09/reliability-study.pdf>