

External Affairs & Corporate Communications

Summary of Q2 Legislative Outreach and Content Development

Kevin Lanahan

Vice President, External Affairs & Corporate Communications

Management Committee

June 30, 2022

Web, Digital and Media Campaign Content



Video Campaign



Web & Digital



The NYISO is responsible for planning the power system to prepare for future reliability risks. As we move to a zero-emissions grid, it's critical we understand how the growth of intermittent resources and extreme weather could impact the ability to maintain reliability of the New York bulk electric system.

Reliability Risk Factors: Key Takeaways

Our CRP evaluates the reliability of NY's grid through 2030 and concludes that while the state's bulk electric system is expected to meet reliability requirements, risks to reliability and resilience remain. Key risk factors include:

- Resource adequacy margins are tightening across the New York grid through time, from Buffalo to Long Island. New York would experience even smaller margins if additional power plants become unavailable or if demand is greater than forecasted. If the margins are totally depleted, the reliability of the grid would be at risk.
- 2 While transmission security within New York City is maintained through the ten-year period in accordance with current design criteria. the margin would be very tight starting in 2025 and would be deficient beginning in 2028 if forced outages are experienced at the historical
- 3 The reliability plan is heavily reliant on the timely completion of planned transmission projects. If the planned projects were delayed for any reason, the grid's ability to reliably serve customer demand would be jeopardized.
- A Extreme events such as heatwaves or storms could result in deficiencies to serve demand statewide, especially in New York City considering the plans included in the CRP. This outlook could improve as more resources and transmission are added to New York City.

New York ISO

Reliably managing New York's power grid & wholesale energy markets since 1999

- 66 -The latest study demonstrates that our reliability margins are thinning to concerning levels beginning in 2023. We have to move carefull with the grid in transition in order to maintain reliability and avoid the kind of problems we've seen in other parts of the U.S.

> - Zach G. Smith NVISD VP of System & Resource Planning

Extreme weather strains on NY's grid:

*Extreme weather driven by climate change is impacting the grid around the country. The grid in NY must be resilient to the risk of climate change.

·The system may cross a reliability "tipping point" in future years such that the transmission system could not fully serve the demand.

-Careful planning and investment is needed to maximize the clean-energy benefits of solar and both onshore and offshore wind generation.

Comprehensive System Planning Core to our mission at the

THE GRID OF THE FUTURE

W in C C blog

Related Content

Road to 2040 Blog Series

Offshore Wind, Cla

Targets, and Our F

How Soler on Dis

Needs of a Clean B

New York ISO is our responsibility to prepare for the impact of changes in supply and demand of power to ensure the reliable operation of New York's transmission system and

We produce many reports and studies to inform and educate stakeholders and policymakers on topics including grid reliability, resource adequacy, economic system planning, and public

the CLCPA 6. Climate change will impact meteorological conditions and events that introduce additional reliability risks.

4. It will also be necessary

throughout the state in order

relate to how the resource mix

evolves in compliance with

to expand transmission

renewable resources.

5. Overall, the key

reliability challenges

Identified in this study

Episode 3: Keeping the Lights On

Climate Change Study: Potential

NYS Power System Impacts

*Climate Change Impact and Resiliency: an Assessment of Climate

assesses the system impacts associated with climate change and the

Change Impacts on Power System Reliability in New York State,"

need to transition the grid to zero-emissions resources by 2040.

This third installment of our #OrdothieFuture video series looks as

related events, and how we can excit similar events from happening

By modeling what the changing climate

means for the New York energy grid, we will be able to pursue the changes necessary to keep the grid resilient and reliable in the coming years VP of System & Resource Planning, New York ISO



Key findings

1. The vortability of

a fundamental

challenge tomeetin

electricity demand.

2. Battery storage

output from wind and

solar resources presents

resources help to fill in voids

but extended periods rapidly

deplete storage capabilities

3 Dispatchable, emission-

free resources are needed

intermittency on the system

in renewable resources output,

Reliably managing New York's power grid & wholesale energy markets

The Path to a Reliable, Greener Grid for New York THE NEW YORK ISO

ANNUAL GRID & MARKETS REPORT

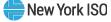
Power Trends 2022







New York ISO



Recently Published Blogs

- Grid Reliability Needs and How to Resolve Them, April 13, 2022
- Quarterly Grid Reliability Reports Address Rapid Rate of Change, May 25, 2022
- Offshore Wind, Clean Energy Targets, and Our Role Preparing the Grid for New Resources, May 27, 2021
- How the Installed Reserve Margin Supports Reliability in New York, March 30, 2022



Blog Themes

How We Keep the Grid Reliable in New York

February 24, 2021





The power outages that occurred recently in Texas and California this past summer have raised questions of whether similar events could occur here in New York. It's worthwhile to examine how the NYISO's markets are different than the markets in those two states and to learn more about our unique approach to maintaining grid reliability.

The work we do as the New York Independent System Operator is distinct from the role the Texas and California grid operators play. Primary among those differences are the NVISO's capacity markets and planning functions. Let's explore some of those differences in detail.

New York has an Installed Capacity Market

A main part of the NYISO's mission is to manage the operation of the grid in New York and administer the wholesale

How a Natural Gas Moratorium Could Cause Bumps in the Road to an Emissions-Free Grid

June 2, 2021



Now that New York State has set 2040 as the year to establisi electric grid, industry and government are working together to achieve this monumental goal.

The Climate Action Council (CAC), made up of state agency representatives, energy industr and academics, is leading the way. The CAC, and its working groups and advisory panels, b compile specific recommendations for a scoping plan, a roadmap of sorts, on how the stat

The NYISO was pleased to be named to the CAC's Power Generation Advisory Panel, which recommending how to achieve a clean, reliable, affordable, and equitable electric system. F Advisory Panel and other groups presented those recommendations to the CAC.

One proposal by the Power Generation Advisory Panel is a moratorium on the siting of any state, including the repowering of old natural gas plants into newer, cleaner generators.

Proponents of the proposal say the state needs to take aggressive and immediate action to

However, the NYISO has cautioned that such a temporary ban could have a detrimental impact on reliability in New York, and could actually lead to higher emissions throughout the transition to zero emissions. As the CAC work to develop an integrated plan continues, the NYISO recommends a more effective means to reach these targets, which are outlined below.

Maintaining Grid Reliability

Reliability of the system is core to our mission and always will be. As we've observed with recent events in California and

The New York ISO's Approach to Grid Reliability

February 25, 2021





Reliability has been and will continue to be job one for the NYISO.

We operate under the strictest reliability standards in the country with oversight and collaboration from FERC, NERC, NPCC, the NYS Reliability Council and the NYSPSC.

The NYISO is an independent organization. This independence provides the strong foundation from which we make decisions. Any recommendation is always based solely on facts, data, information and in-depth analysis, free of influence from outside financial interests or politics.



Electricity Prices in New York

- A white paper by the NYISO
- Explores various factors and cost drivers behind recent increases
- Explains how wholesale electric markets benefit consumers by searching for the lowest cost solutions
- Summarizes material from The White House, the Energy Information Administration, the PSC, U.S. Department of Labor, and Power Trends





Media Outreach

BUSINESS

Climate battle will transform how we live and

work in Capital Region



Larry Rulison

SUBSCRIBER EXCLUSIVE

Power lines will bring wind and solar energy from upstate but will it be enough to help NY achieve green energy goals?

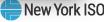
A superhighway of electricity transmission lines will deliver clean energy from upstate to the Lower Hudson Valley and New York City for the first time.

Thomas C. Zambito Rockland/Westchester Journal News
Published 5:01 AM EDT Aug. 4, 2021 | Updated 7:43 AM EDT Aug. 4, 2021

Can New York Really Get to 100% Clean Energy by 2040?

Clean power supply is being generated in upstate New York, but it is not making its way to New York City, the area that relies most heavily on power from fossil fuels.





Podcasts







Podcast Ep. 14: NYISO VP Zach Smith on Emission-Free Grid Planning, Climate Change & the Interconnection Queue

It's Zach Smith's job to prepare the New York energy grid for the future. Our Vice President of System and...



PODCAST Ep. 12: Emilie Nelson Advises the CAC that a System of Markets, Physics and People Will Produce a Reliable Zero-Emissions Grid

Emilie Nelson, NYISO's Executive Vice President, has more than two decades of experience in the energy...



Legislative Engagement



Legislative Engagement

NYISO Issues Memo on Pollution Justice Act of 2021

"Recent events in TX and CA demonstrate the need for careful planning as the state transitions to a decarbonized electric system, dependent on intermittent resources. The NYISO's preliminary review of S.4378-A/A.6251 reveals the likelihood of significant risks to the reliable operation of the electric system, including the need for forced disconnections of retail electric customers."



Kevin Lanahan

Vice President External Affairs & Corporate Communications 10 Krey Boulevard, Rensselaer, NY 12144

S.4378-A / A.6251 Pollution Justice Act of 2021 Potential Impacts on Electric System Reliability

Recent events in Texas and California demonstrate the need for careful planning as the state transitions to a decarbonized electric system, dependent on intermittent resources. The NYISO's preliminary review of S.4378-A / A.6251 reveals the likelihood of significant risks to the reliable operation of the electric system, including the need for forced disconnections of retail electric customers.

Additional analysis of the bill is critical and warranted to identify all reliability risks to the electric service, which is essential for public health and safety. The NYISO will continue to examine the bill for specific system impacts.

S.4378-A / A.6251 would likely require the retirement of a significant number of power plants that are critical to support reliability under a compressed timeframe. Important work is underway to responsibly transition the electric system under the mandates of the Climate Leadership and Community Protection Act (CLCPA) of 2019. The NYISO is actively engaged in working to reach the statutory targets of the CLCPA.

The number of power plants that would be classified under the bill as a "replaceable peaker plant" is expansive as compared to a New York State Department of Environmental Conservation's (DEC) recently adopted final rule reducing the allowable level of nitrogen oxide (NOx) from peaker plants.

Like S.4378-A / A.6251, the DEC rule, adopted in 2020, imposes new, stringent requirements on peaking power plants, but creates critical exemptions for "black start" resources, which the proposed legislation does not. A "black start" resource is essential for system restoration during large scale system outages. Further, the DEC rule also provides for important compliance options that can support reliability of the system during the transition to dependence on large amounts of renewable resources. After significant input, analysis and public comment, the DEC rule responsibly speeds the state's transition of peaker plants to energy storage resources while accounting for reliability needs of the system.

As drafted, the NYISO estimates that S.4378-A / A.6251 could impact nearly 5,000 MW to as much as 10,000 MW of needed generating capacity. This equates to 12% to 21% of the current generating fleet in New York. For perspective, this reflects the amount of generating capacity



Legislative Engagement (Cont.)

Clean Futures Act amendments

- 1 (1) the existence of a reliability need. For the purposes of this
- 2 <u>subdivision</u>, a "reliability need" means an electricity system need,
- 3 which if unmet would result in a violation of a North American Electric Reliability Corporation mandatory standard, Northeast Power Coordinating Council Criteria, or New York State Reliability Council Rules;
- 4 (2) the unavailability of either local or bulk transmission system upgrades, energy storage, zero carbon electric generation, demand response, and/or energy efficiency that would address such reliability need within an appropriate timeframe



Legislative Engagement (Cont.)

- Senate Counsel's office
- Assembly Program & Counsel staff
- State Senate Chair of Environmental Conservation Committee
- State Senate Chair of Energy Committee
- Assembly Chair of Energy Committee
- Senator Schumer's staff



Progress and Success



Qualitative & Quantitative Engagement Metrics

- NYISO requests for legislative and other key briefings have increased substantially
- The data:
 - 26,000 views of our blog and press pages
 - 11,000 Twitter followers reached
 - 10,000 new visitors to press and blog pages (out of 26,000 total)
 - 7,800 video views
 - 4,900 views of our Power Trends report page
 - 3,500 views of our new "2040 Grid" landing page



Thought Leadership Campaign Award

Our thought leadership program, delivered through our blog, videos and podcasts, illustrates the NYISO's expertise and independence as the authoritative source.



