

# 2014 Reliability Needs Assessment Draft Report

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# Topics for Today

- ◆ **Major Findings**
- ◆ **Sensitivity and Scenarios**
- ◆ **Next Steps**

# 2014 Reliability Needs Assessment of the New York Bulk Power Transmission System

- **Scope:**
  - *Assesses both transmission security and adequacy*
  - *Assesses resource adequacy*
  
- **Study period:**
  - From year 2015 through 2024*

# Major Findings

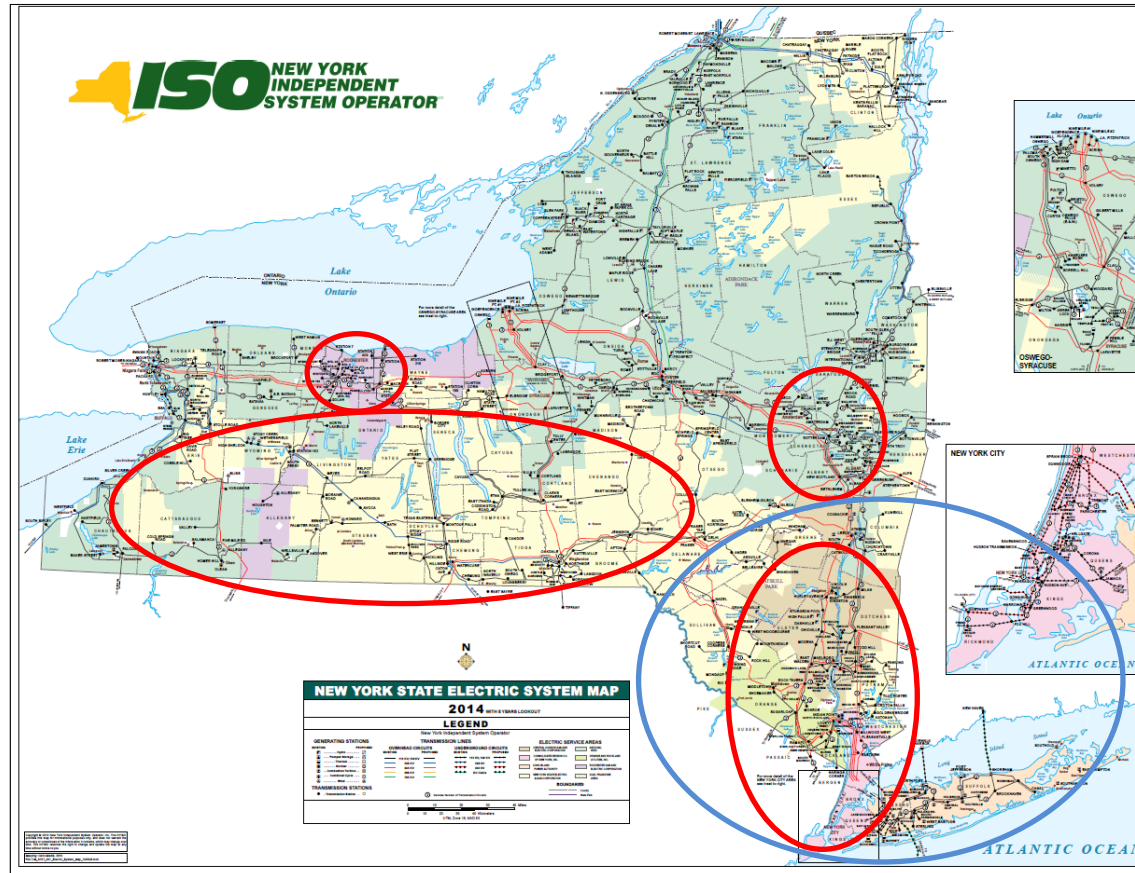
- ◆ **Transmission security needs in portions of the bulk power transmission system begin in 2015**
- ◆ **NYCA LOLE violation due to inadequate resource capacity located in Southeast New York (SENY) begins in 2019**
- ◆ **Major drivers:**
  - *Recent and proposed generator retirements or mothballing combined with load growth*
  - *Capacity margin (capacity less the load forecast) decreases throughout the study period*

# Summary of Reliability Criteria Violations

Year of Need	Transmission Security Violations (Area/Load Zone/Transmission Owner)	Resource Adequacy (LOLE)
2015	Rochester Area in Genesee (Zone B), owned by RG&E	No violation
	Binghamton Area in Central (Zone C), owned by NYSEG*	
	Syracuse Area in Central (Zone C), owned by N. Grid	
	Utica Area in Mohawk Valley (Zone E), owned by N. Grid	
	Albany Area in Capital (Zone F), owned by N. Grid	
2016	No additional violations	
2017	Rochester Area issues mitigated	
	Additional Syracuse Area in Central (Zone C), owned by N. Grid	
	Additional Utica Area in Mohawk Valley (Zone E), owned by N. Grid*	
	Binghamton Area voltage in Central (Zone C), owned by NYSEG	
2018	Buffalo Area in Dysinger (Zone A), owned by N. Grid*	
2019	No additional violations	Violation (LOLE = 0.11)
2020	Additional Binghamton Area in Central (Zone C), owned by NYSEG*	Violation (LOLE = 0.13)
2021	Additional Buffalo Area in West (Zone A), owned by N. Grid*	Violation (LOLE = 0.15)
2022	Additional Buffalo Area in West (Zone A), owned by N. Grid*	Violation (LOLE = 0.18)
	Transmission between Capital (Zone F) and Hudson Valley (Zone G), owned by N. Grid	
2023	No additional violations	Violation (LOLE = 0.22)
2024	No additional violations	Violation (LOLE = 0.26)

\* Some violations would be resolved upon the return of the Dunkirk plant to service.

# Approximate Location of Violations



Note: The red circles indicate the areas where the load may be impacted by transmission security constraints, and the blue circle indicates the region with resource adequacy violations.

# Factors that May Affect the Reliability Needs

- ◆ **Generation additions/exits:**
  - *Dunkirk – the 2014 RNA treated this “coal to gas” conversion as a sensitivity case; the parties have agreed to the terms approved by the NYSPSC. The return of Dunkirk can resolve some transmission security violations in the Buffalo and Binghamton areas.*
  - *Similar factors not analyzed by the 2014 RNA are: Danskammer and Selkirk*
- ◆ **Possible delays in the implementation of the announced Local Transmission Plans**
- ◆ **Additional demand response/energy efficiency**
- ◆ **New limitations on generation energy production due to further environmental regulations, e.g., EPA’s MATS and Carbon Rules**

# Summary of Scenarios

- ◆ ***Transmission Security with 90/10 forecast***
  - *Approximately 2,400 MW higher forecast would result in the earlier occurrence of the reliability needs identified in the base case*
  - *Based on 90/10 transmission security study assumptions, beginning in 2017 there would be insufficient resources to meet the minimum 10-minute operating reserve requirement of 1,310 MW. Starting in 2020, there would be insufficient resources to meet the projected 90/10 peak load.*
  
- ◆ ***Stressed Winter Scenario***
  - *Winter of 2013-2014 experienced five major cold snaps*
  - *Resources may become energy limited due to fuel constraints*
  - *Assuming no assistance from neighboring areas, a capacity loss of 7,250 MW would cause LOLE violation in 2015*



# Summary of Scenarios (cont.)

- ♦ **If the Indian Point Plant were retired by the end of 2015, significant violations of transmission security and resource adequacy criteria would occur in 2016**
- ♦ **Zones at Risk shows the level of capacity removal at which a NYCA LOLE violation would occur for the year 2015**
  - *A-F at 2500 MW*
  - *G-I at 650 MW*
  - *J at 650 MW*
  - *K at 550 MW*
- ♦ **“High Load forecast” advances year of need to 2017**

# Next Steps

- ◆ **Board reviews and takes action**
- ◆ **NYISO will issue requests for solutions to the identified Reliability Needs:**
  - *NYISO holds a public information session in late September*
  - *TOs provide updated Local Transmission Plans that may impact Reliability Needs for use in CRP*
  - *NYISO requests regulated backstop solutions from Responsible TOs*
  - *NYISO solicits alternative regulated and market-based responses from Developers*
  - *NYISO considers major system changes that occurred subsequent to April 15, 2014 for inclusion in the CRP Base Case model for evaluation of solutions.*
- ◆ **MMU review is posted on NYISO website**

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



[\*www.nyiso.com\*](http://www.nyiso.com)