

2012 Reliability Needs Assessment

Henry Chao

*Vice President, System & Resource Planning
New York Independent System Operator*

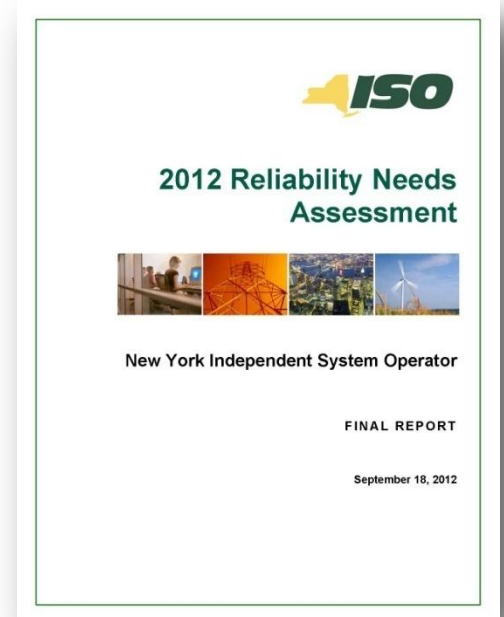
Public Forum

September 24, 2012



Topics

- ◆ **What is the NYISO Reliability Planning Process?**
- ◆ **History of RNA/CRP**
- ◆ **2012 RNA**
 - *NY Resource Situation*
 - *Reliability Needs*
- ◆ **Solutions Process**
- ◆ **Comprehensive Reliability Plan (CRP)**



Comprehensive Reliability Planning Process (CRPP)

- ◆ Biennial process evaluates ability of New York's generation, transmission and demand-side resources to serve New York load over a 10-year period.
- ◆ Key planning concepts:
 - *Resource Adequacy* – sufficient amount of resources to serve the demand
 - *Transmission System Security* - the ability of the transmission system to continue to deliver electricity to the demand
- ◆ The CRPP consists of two studies:
 - *RNA* - which identifies potential problems
 - *CRP* - which evaluates specific solutions to those problems

History of RNA/CRP

2005

- RNA – *1,750 MW needs by 2010*
- CRP – *3,105 MW planned resource additions*

2007

- RNA – *2,000 MW needs by 2016*
- CRP – *3,007 MW planned resource additions*

2008

- RNA – *2,750 MW needs by 2017*
- CRP – *3,380 MW planned resource additions*

2009

- RNA/CRP (*No Needs identified*)

2010

- RNA/CRP (*No Needs identified*)

RNA Load & Capacity Comparison

2010 RNA vs. 2012 RNA

	2010 RNA Horizon Year 2020	2012 RNA Year 2020	Year 2020 Delta MW	2012 RNA Horizon Year 2022
Load	35,334	35,526	192	36,230
Special Case Resources (SCRs)	2,251	2,165	-86	2,165
Capacity without SCRs	41,239	40,196	-1,043	40,196

NY Resource Situation

2013 - 2022

NY State Resource/Load Ratio

125.8% in 2013

116.9% in 2022

	2018	2019	2020	2021	2022
	34,868	35,204	35,526	35,913	36,230
	12,400	12,570	12,725	12,920	13,050
	5,797	5,843	5,900	5,965	6,038

Resources (MW)					
NYCA	Capacity**			40,196	40,196
	SCR			2,165	2,165
	Total			42,361	42,361
	Res./Load Ratio			118.0%	116.9%
Zone J	Capacity**			9,269	9,269
	SCR			540	540
	Total	9,269			
	Res./Load Ratio ***	84			
Zone K	Capacity**	5,112			
	SCR				
	Total	5,112			
	Res./Load Ratio ***	95			
	Res. & UDR/Load Ratio****	112			

NYC (Zone J) Resource/Load Ratio

92.2% in 2013

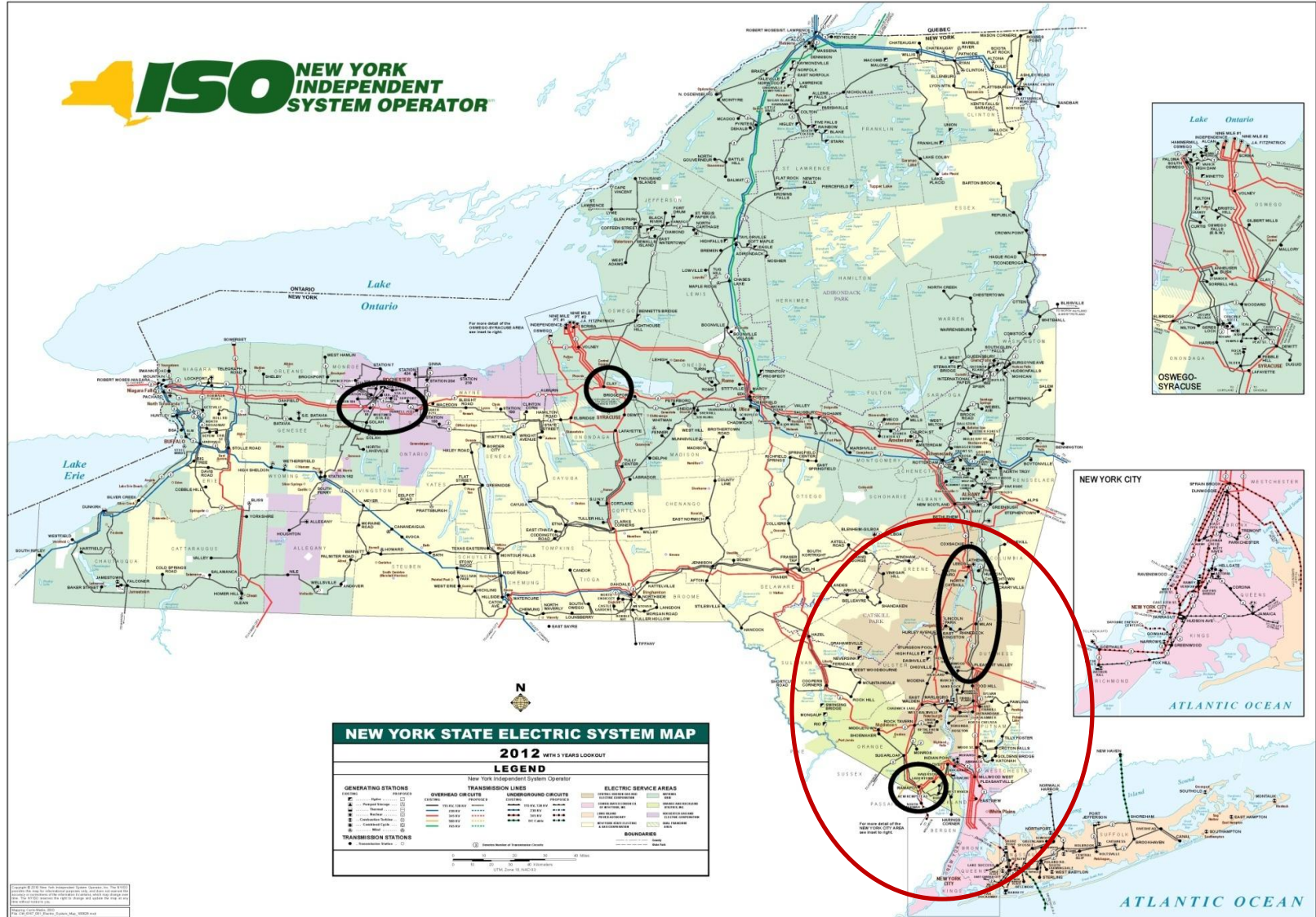
82.5% in 2022

Long Island (Zone K) Resource/Load Ratio

112.6% in 2013

105.3% in 2022

Reliability Needs



RNA Results Summary

- ◆ **2012 RNA Base Case shows Reliability Needs during the ten-year study period:**
 - *2013 transmission security needs for RG&E, NGrid, and O&R*
 - *2020 – 2022 resource adequacy needs in Zones G-K*
 - *2022 transmission security needs for the Leeds-PV Corridor*
 - *NYISO to solicit solutions to reliability needs*
- ◆ **Scenario Loss of Load Expectation (LOLE) Results**
 - *“High Load” advances year of resource need to 2017*
 - *“Low Load” delays year of resource need to after 2022*
 - *Indian Point retirement creates resource and transmission need in 2016*
 - *Coal retirements would advance year of need to 2019*

Roles of Parties Proposing Solutions

- **Interested Parties provide market-based solutions**
 - *Can be large or small generation projects, demand-side management, transmission, suggested NYISO rule or procedure changes, or other actions/projects*
- **Responsible Transmission Owner**
 - *Provides a regulated backstop solution to meet the Reliability Need*
 - *Provides updates to its Local Transmission Plan*
- **Any party can provide alternative regulated solutions**

Market-Based or Alternative Regulated Solutions

- (1) evidence of a commercially viable technology,**
- (2) a major milestone schedule,**
- (3) evidence of site control, or a plan for obtaining site control,**
- (4) the status of any contracts (other than an Interconnection Agreement) that are under negotiation or in place,**
- (5) the status of any interconnection studies and an interconnection agreement,**
- (6) the status of any required permits,**
- (7) the status of equipment procurement,**
- (8) evidence of financing, and**
- (9) any other information requested by the NYISO**

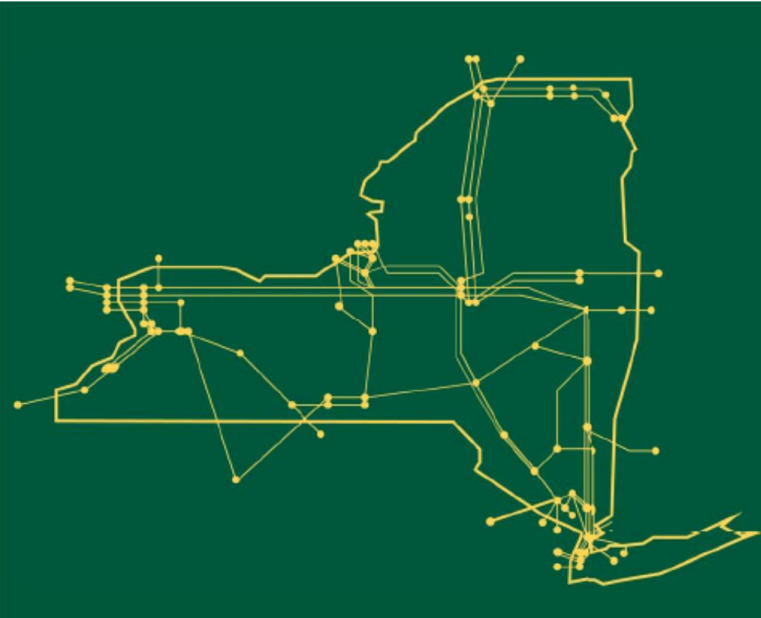
Regulated Backstop Solutions (RBS)

- **RBS projects submitted by responsible Transmission Owners which have an obligation to serve**
- **Must submit sufficient detail for NYISO to determine trigger date**
- **Detail similar to Market Based and Alternative Regulated Solutions, but require more detail for projects in first five years**

Comprehensive Reliability Plan

- ◆ **CRP will evaluate solutions and determine whether all reliability needs are met**
- ◆ **CRP will be finalized by 2013 Q1**
- ◆ **CRP results will set base case foundation for 2013 CARIS**

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