

# New Capacity Zone (NCZ) Study Inputs and Assumptions

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# Topics

- ◆ **NCZ Study Background**
- ◆ **NCZ Study Inputs & Assumptions**
  - *Inputs & Assumptions Matrix*

# NCZ Study Background

- ◆ NCZ: A single Load Zone or group of Load Zones that is proposed as a new Locality, and for which the ISO shall propose an ICAP Demand Curve
- ◆ Study requirements and procedures specified in Section 5.16 of the Market Services Tariff
- ◆ NCZ Study is performed on a time line related to the Demand Curve reset process

# NCZ Study Background

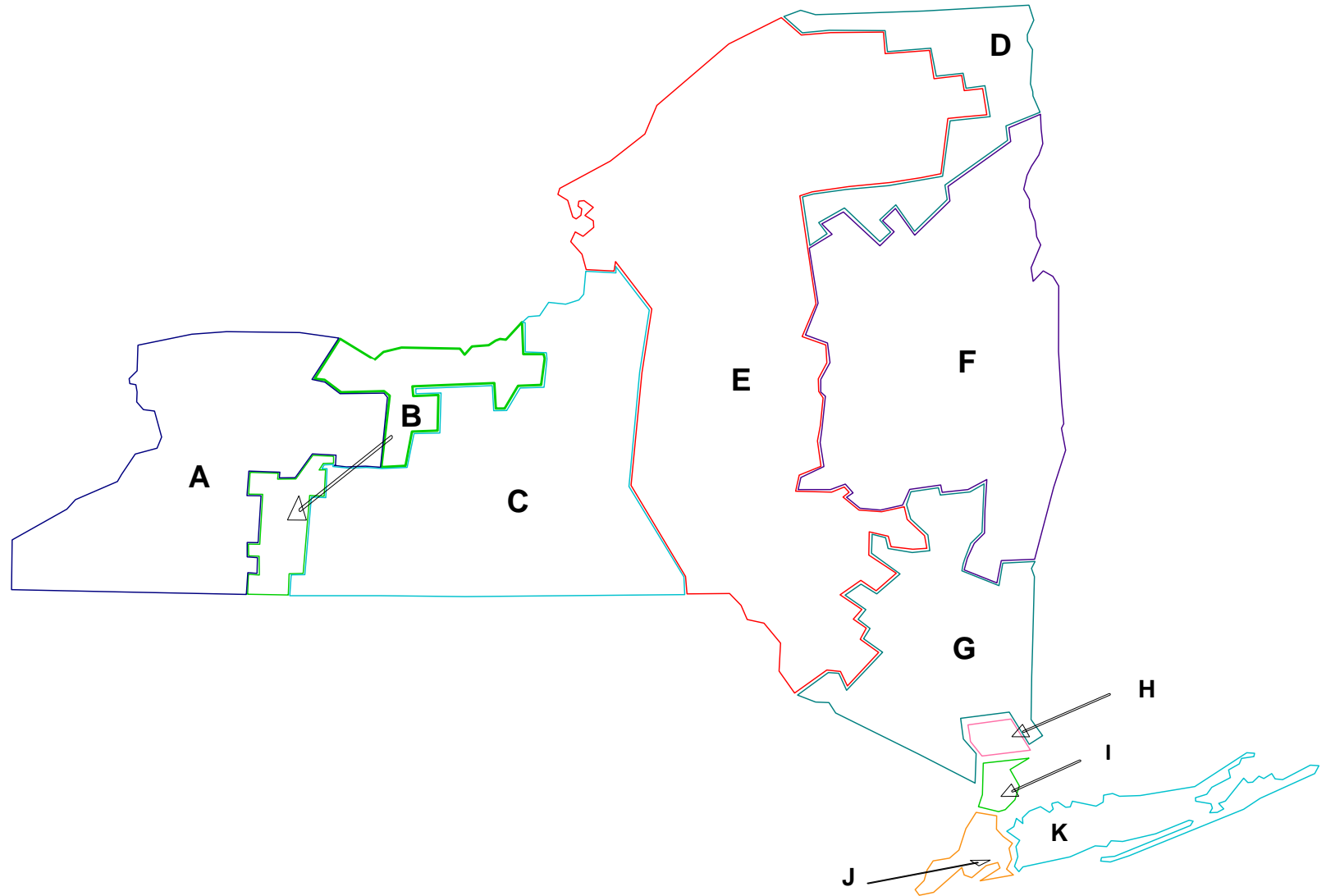
- ◆ Purpose: To determine whether there is a need to create an NCZ
- ◆ The NCZ Study is a deliverability study
- ◆ Closely follows the deliverability study inputs, assumptions and methodology outlined in Attachment S of the OATT
- ◆ The NCZ Study performs deliverability testing for Highways (the “bottled capacity” test, not the “transfer capability impact” test)

# NCZ Study Background

- ◆ The previous (2012 – 2013) NCZ Study identified negative deliverability margin (i.e., bottlenecked capacity) for the UPNY-SENY Highway interface (the interface in the then Rest of State Capacity Region between Load Zones A – F and G – I)
  - *Deliverability margin was found to be significantly positive for each of the other Highway interfaces.*
- ◆ Study led to creation of the Lower Hudson Valley (LHV) Capacity Zone (“G – J Locality”).

# NCZ Study Background

- ◆ The 2015 – 2016 NCZ Study, started September 1, 2015, is the first since creation of the G – J Locality
- ◆ The 2015 – 2016 NCZ Study will evaluate deliverability for the Highway interfaces as defined in Attachment S, Section 25.1; *i.e.*, in the Rest of State (Zones A – F) and Lower Hudson Valley (Zones G – I) Capacity Regions
- ◆ Highway interfaces to be tested: Dysinger East, West Central, Volney East, Moses South, Central East/Total East and UPNY-ConEd
- ◆ January 15, 2016 is the deadline for NYISO to provide the NCZ Study report to stakeholders.



# NCZ Study Inputs & Assumptions

- ◆ **NCZ Study inputs and assumptions are in accordance with Section 5.16.1 of the MST**
- ◆ **Inputs and Assumptions outlined herein are specific to the 2015 - 2016 NCZ Study**
- ◆ **Study Year and Load Conditions**
  - *2020 capability period (5 years look ahead)*
  - *Summer peak load conditions contained in the NYISO 2015 Load and Capacity Data Report (Gold Book)*



# NCZ Study Inputs & Assumptions

## ◆ Transmission System

- *Existing transmission facilities in the Gold Book*
- *All firm transmission plans in the Gold Book scheduled to be in service by 2020*

### Partial list:

- **TOTS Projects (Marcy South Reinforcement, 2<sup>nd</sup> Rock Tavern Ramapo line, Staten Island Unbundling)**
- **SDU (21% series compensation on the Leeds-Hurley Avenue line)**
- **Five Mile Road (new 345 kV station on the Homer City-Stolle Road line)**
- **Station 255 (new 345 kV station between Dysinger Tap and Rochester)**
- **Mainesburg and Farmers Valley (new PJM substations on the Homer City 345 kV tie-lines)**

# NCZ Study Inputs & Assumptions

- ◆ **Generation and Merchant Transmission**
  - *Existing generators with CRIS rights*
  - *Existing merchant transmission facilities with Unforced Capacity Deliverability Rights*
  - *De-activated resources with unexpired CRIS as per Attachment S section 25.9.3.1*
  - *Previous Class Year projects that accepted Deliverability MW or a System Deliverability Upgrade cost allocation (and paid cash or posted required security)*
    - **Previous Class Year projects excluded due to withdrawal from the Interconnection Queue: NRG Berrians GT, Berrians GT II and Berrians GT III**

# NCZ Study Inputs & Assumptions

## ◆ Base case conditioning

- *Steps contained in OATT Attachment S Sections 25.7.8.2.3, 25.7.8.2.4, 25.7.8.2.5, 25.7.8.2.10, and 25.7.8.2.11 (see Input & Assumptions Matrix)*

## ◆ Study Methodology

- *Highways Deliverability test methodology contained in OATT Attachment S Sections 25.7.8.2.6, 25.7.8.2.7, 25.7.8.2.8, 25.7.8.2.9, 25.7.8.2.12, and 25.7.8.2.13*
- *Generation to generation shift within each capacity region that contains Highways*
- *Each Capacity Region tested on an individual basis*

# Inputs & Assumptions Matrix

#	Parameter	Description	Reference
1	Installed Capacity Requirement	NYCA Installed Capacity Requirement to achieve LOLE less than 0.1 day per year	2015 IRM report
2	IRM Emergency Transfer Limits	Emergency transfer limits on ROS interfaces corresponding to IRM study	
3	Locational Minimum Capacity Requirement	Lowest feasible capacity requirement for each capacity region to satisfy the ICAP Requirement	2015 LCR report, approved by OC on Jan. 14, 2015
<b>Load model</b>			
4	Peak Load Forecast	NCZ Study Capability Period peak demand forecast contained in the latest ISO's Load and Capacity Data report	2020 Summer peak load conditions from 2015 Gold Book
5	Load Forecast Uncertainty	Uncertainty relative to forecasting NYCA loads for any given year, which is sensitive to different weather and economic conditions.	2015 IRM report

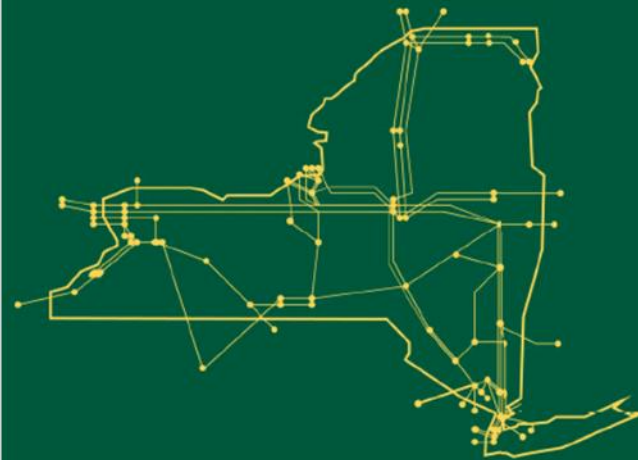
# Inputs & Assumptions Matrix

#	Parameter	Description	Reference
<b>Generator model</b>			
6	Existing CRIS generators and projects with Unforced Capacity Deliverability Rights	Existing generators in-service on the date of the latest ISO's Load and Capacity Data report	2015 Gold Book
7	Planned generation projects or Merchant Transmission Facilities	Project that have accepted either (a) Deliverable MW or (b) a System Deliverability Upgrade cost allocation and provided cash or posted required security pursuant to OATT Attachment S, which for (a) and (b) is from a Class Year Final Decision Round that occurs prior to the NCZ Study Start Date	
8	ICAP/UCAP translation	Convert ICAP to UCAP based on derated generator capacity incorporating availability	2015 IRM
9	Deactivated CRIS units	Units retaining CRIS rights for three years after being considered "deactivated" unless the ability to transfer those rights has expired	Generator units deactivated before September 1, 2012

# Inputs & Assumptions Matrix

#	Parameter	Description	Reference
<b>Transmission model</b>			
10	Existing transmission facilities	As identified as existing in the ISO's Load and Capacity Data report most recently published prior to the NCZ Study Start Date.	2015 Gold Book
11	Firm plans for changes to transmission facilities by TOs	Planned changes of facilities in the latest ISO's Load and Capacity Data report that are scheduled to be in-service prior to the NCZ Study Capability Period	
12	System Upgrade Facilities and System Deliverability Upgrades	Facilities associated with planned projects identified in (7) above, except that System Deliverability Upgrades will only be modeled if the construction is triggered	
<b>Import/Export model</b>			
13	External System Import/export	NYCA scheduled imports from HQ/PJM/ISO-NE	NYISO Tariffs - OATT Section 25, Attachment S
14	Base case interchange schedules between NYCA Capacity Regions	Actual flow scheduled from ROS to NYC and LI to satisfy LCR (Based on CY15 Deliverability Base Cases)	-ROS to LHV: 750 MW - ROS to NYC: 2550 MW - ROS to LIPA: 1065 MW

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