

Implementation of New Capacity Zone in Class Year Deliverability Studies

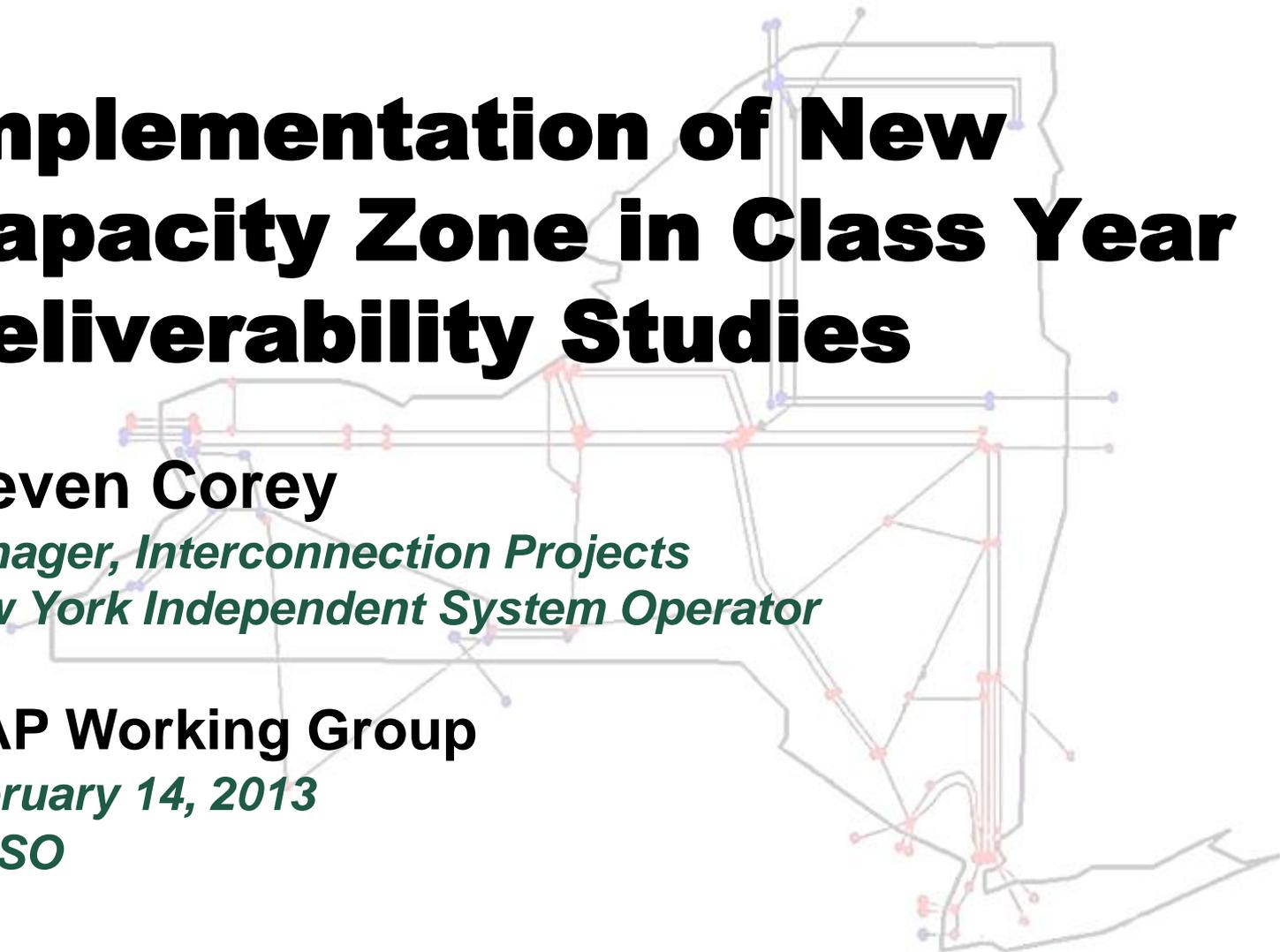
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NYISO



Outline

- ◆ Overview of current Deliverability methodology / implementation
- ◆ Proposed New Capacity Zone (NCZ)
- ◆ Proposed implementation of NCZ in Class Year Deliverability Studies

Overview of current Deliverability methodology / implementation

- ◆ **Section 25.7 of Attachment S of the OATT - Cost Allocation Methodology for Capacity Resource Interconnection Service (CRIS).**
- ◆ **Deliverability “test” applied to 3 New York Capacity Regions:**
 - *Rest of State (ROS, Zones A - I)*
 - *New York City (NYC, Zone J)*
 - *Long Island (LI, Zone K)*

Overview of current Deliverability methodology / implementation

- ◆ **3 Categories of Transmission Facilities:**
 - *Highways – Transmission facilities 115 kV and above that comprise internal NYCA interfaces and in series BPS facilities. Highway interfaces: Dysinger East, West Central, Volney East, Moses South, Central East/Total East, UPNY-SENY and UPNY-ConEd.*
 - *Other Interfaces – Interfaces into New York capacity regions, Zone J and Zone K, and external ties into the NYCA.*
 - *Byways – All transmission facilities of the NYS Transmission System that are neither Highways nor Other Interfaces.*

Overview of current Deliverability methodology / implementation

- ◆ **Class Year Deliverability Study Procedures:**
 - *Set up Deliverability Study cases in accordance with Attachment S methodology and assumptions (Deliverability cases are power flow cases).*
 - *Perform Deliverability Tests for each Capacity Region as applicable (Highways, Byways, and Other Interfaces tests, as applicable).*
 - *If deliverability issues are identified, evaluate, identify and develop cost estimates and cost allocation of System Deliverability Upgrades (SDUs) that would be required for the requested CRIS to be deliverable.*

Proposed NCZ

- ◆ **Currently, for Resource Adequacy, the IRM and corresponding NYCA Minimum Installed Capacity Requirement are determined for the NYCA, and LCRs are determined for two Localities within NYCA (Zone J and Zone K).**
- ◆ **NYISO has proposed to create and implement a NCZ comprised of Load Zones G, H, I, J and K.**
- ◆ **With the proposed NCZ, the IRM and NYCA Minimum Installed Capacity Requirement will be determined for NYCA, but LCRs will be determined for three Localities: Zone J, Zone K, and (new Locality) Zones G through K.**

Proposed Implementation of NCZ in Class Year Deliverability Studies

- ◆ **General Approach – Maintain the current basic framework of the Deliverability methodology and implementation.**

Proposed Implementation of NCZ in Class Year Deliverability Studies

◆ Capacity Regions:

- *Currently – 3 Capacity Regions: ROS (Zones A through I), NYC (Zone J) and LI (Zone K)*
- *Proposed – 4 Capacity Regions: ROS (Zones A through **F**), **Lower Hudson Valley (LHV, Zones G, H and I)**, NYC (Zone J) and LI (Zone K).*

◆ Highway Interfaces:

- *Currently – comprised of NYCA interfaces: Dysinger East, West Central, Volney East, Moses South, Central East/Total East, UPNY-SENY and UPNY-ConEd*
 - Note: Currently all Highway interfaces are in ROS.
- *Proposed - comprised of NYCA interfaces: Dysinger East, West Central, Volney East, Moses South, Central East/Total East, **UPNY-SENY** and UPNY-ConEd.*
 - Note: UPNY-ConEd interface will be in LHV, the other Highway interfaces remain in ROS.

Proposed Implementation of NCZ in Class Year Deliverability Studies

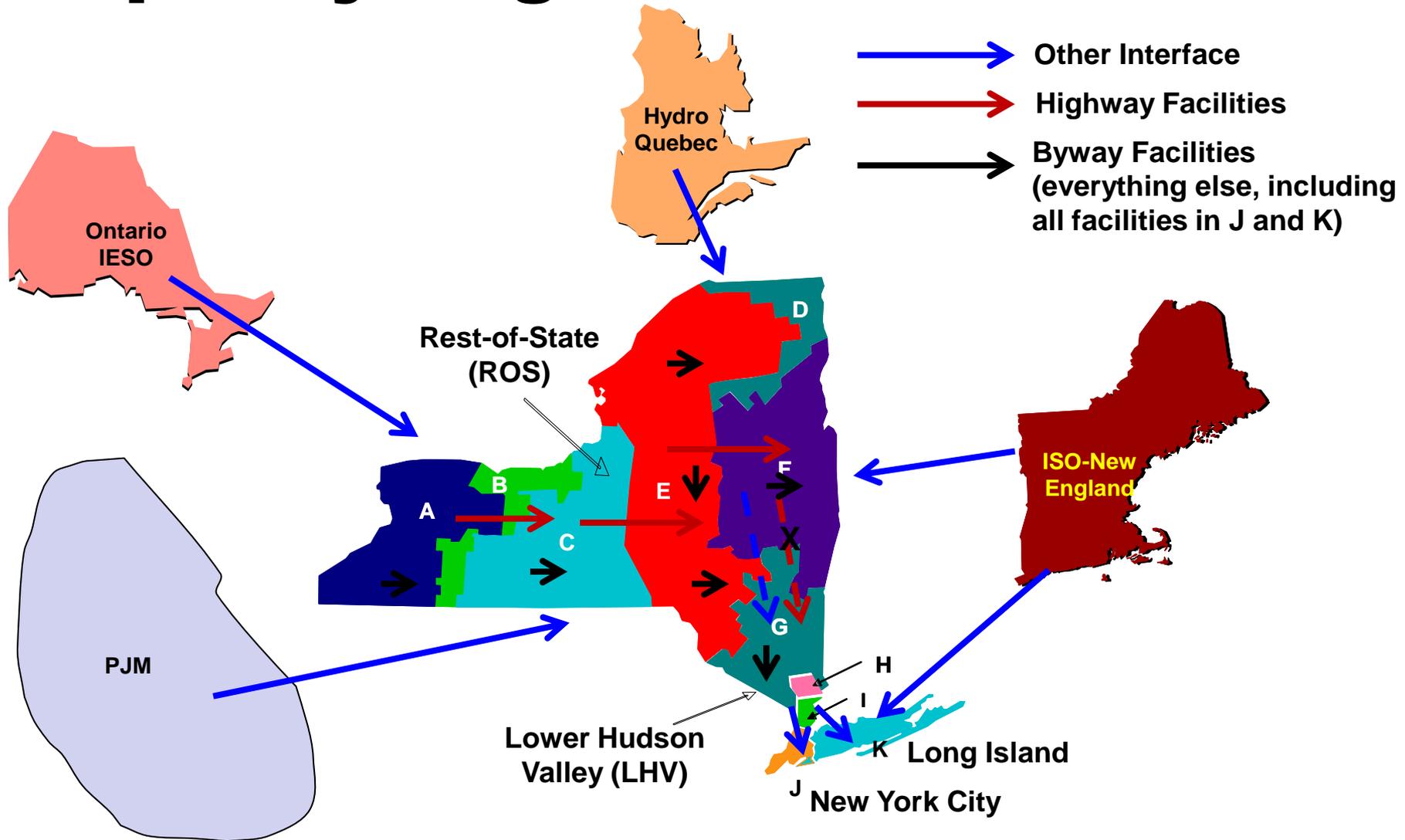
◆ Other Interfaces:

- *Currently – ROS (Zones A through I) to NYC, ROS to LI, Hydro Quebec (HQ) to NYISO, PJM to NYISO, ISO-NE to NYISO (NE to NY tie-lines except Norwalk Harbor, CT to Northport, LI), and Norwalk Harbor to Northport.*
- *Proposed - ROS (Zones A through F) to LHV (Zones G through I), LHV to NYC, LHV to LI, Hydro Quebec (HQ) to NYISO, PJM to NYISO, ISO-NE to NYISO (NE to NY tie-lines except Norwalk Harbor, CT to Northport, LI), and Norwalk Harbor to Northport.*
 - Note that, with the NCZ, the UPNY-SENY changes from a Highway interface to an Other Interface.

◆ Highway Facilities:

- *Since UPNY-SENY will no longer be a Highway interface, NYISO will re-evaluate the “in series” Highway facilities and determine whether and which facilities should be re-classified as Byways.*

Capacity Regions and Facilities



Proposed Implementation of NCZ in Class Year Deliverability Studies

- ◆ **Effect of NCZ on Set up of Deliverability Study cases:**
 - *Basic methodology not changed, but application of methodology is affected.*
 - *Case set up procedures will apply to 4 Capacity Regions rather than 3. Current ROS Capacity Region will be divided into ROS and LHV.*
 - *Affects the UCAP Deration Factors, which are applied on a Capacity Region basis.*
 - *Affects Load and Load Forecast Uncertainty determined and applied to Capacity Regions.*
 - *Requires determination of base case schedule of transfers between the 4 Capacity Regions (see next slide).*

Proposed Implementation of NCZ in Class Year Deliverability Studies

- ◆ Effect of NCZ on Set up of Deliverability Study cases – determination of base case scheduled transfers between Capacity Regions.
 - *Current – ROS to NYC and ROS to LI base case transfers are determined assuming internal NYC and LI generation levels set to minimum needed to meet the respective LCRs.*
 - *Proposed – Using the same basic methodology, determine generation levels for the Localities in the following steps:*
 1. *Determine minimum generation level for the new Locality (Zones G through K) based on its LCR. Levelize generation throughout Zones G through K in proportion to UCAP values.*
 2. *Check NYC and LI generation levels from Step 1 and determine whether the NYC and LI LCRs are met. If the NYC and/or LI LCRs are not met, increase the NYC and/or LI generation levels up to the minimum needed to meet their LCRs, and reset the generation level in LHV to rebalance the overall generation level for the new Locality.*

Proposed Implementation of NCZ in Class Year Deliverability Studies

- ◆ **Effect of NCZ on Performance of Deliverability tests:**
 - *ROS – Deliverability test methodology for Highways and Byways basically the same, but fewer combinations due to change in the ROS Capacity Region.*
 - *LHV - Deliverability test methodology for Highways and Byways basically the same, but UPNY-ConEd is the only Highway interface in the LHV Capacity Region.*
 - The UPNY-ConEd interface is the boundary between Zone G and Zone H.
 - Since the flow across the UPNY-ConEd interface is always North to South, Deliverability testing in LHV will be performed by increasing generation in Zone G and decreasing generation by a like amount in Zones H and I.

Proposed Implementation of NCZ in Class Year Deliverability Studies

- ◆ **Effect of NCZ on Performance of Deliverability tests:**
 - *NYC and LI – There are no Highways within the NYC or LI Capacity Regions, only Byways. The NCZ does not affect the Deliverability testing methodology for the NYC or LI Capacity Regions.*
 - *Other Interfaces – Internal*
 - Current – “No Harms Test” separately performed for ROS to NYC and ROS to LI as applicable.
 - Proposed – No Harms Test will be separately performed for ROS to LHV, LHV to NYC and LHV to LI, as applicable.
 - *Other Interfaces – External into NYCA – The NCZ does not affect the No Harms Test methodology for these Interfaces.*

Proposed Implementation of NCZ in Class Year Deliverability Studies

- ◆ **Effect of NCZ on Performance of Deliverability tests:**
 - *Evaluation of requests for External CRIS Rights – Deliverability evaluation will continue to consider that the requested External CRIS Rights “sink” to ROS Capacity Region. The NCZ affects the definition of the ROS Capacity Region.*
 - *Evaluation of proposed transfers of Deliverability Rights (Different Locations) – the NCZ does not affect the basic methodology for such evaluations.*

Proposed Implementation of NCZ in Class Year Deliverability Studies

- ◆ **Effect of NCZ on evaluation, identification and cost allocation of SDUs.**
 - *The basic methodology regarding SDUs will be the same.*
 - *Introduction of the LHV Capacity Region changes the UPNY-SENY interface from a Highway interface to an Other Interface. This will change how Deliverability is evaluated for that Interface, which will change the prospect for identification of SDUs and cost allocation of any such SDUs.*
- ◆ **Schedule for Implementation of the NCZ – NYISO proposes to implement the NCZ for the Class Year 2012 Deliverability Study.**

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