NYISO Planning Update

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Inter-Area Planning Stakeholder Advisory Committee (IPSAC) Meeting

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Reliability Planning Process

- Two-year process

- Reliability Needs Assessment (RNA)
  - Evaluates the adequacy and security of the bulk power system over a ten-year study period, and identifies Reliability Needs

- Comprehensive Reliability Plan (CRP)
  - Develops a comprehensive plan to satisfy the reliability needs identified in RNA
2016 RNA

- Two Reliability Needs identified
  - NYSEG (Oakdale 345/115 kV)
  - PSEG-LIPA (East Garden City to Valley Stream 138 kV line)

- NYSEG and PSEG-LIPA presented Local Transmission Plans and operational procedures eliminating the two Reliability Needs

- Approved by NYISO Board on October 18, 2016
2016 CRP

- Under the conditions studied in the 2016 RNA, the New York State Bulk Power Transmission Facilities meets all applicable Reliability Criteria over the 2017-2026 Study Period
- Approved by NYISO board on April 11, 2017
- Final report posted at below link:
  http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Planning_Studies/Reliability_Pla
Economic Planning Process

- Two-year process: Congestion Assessment and Resource Integration Study (CARIS)
  - **Phase I: Study Phase**
    - Performed in alternate years to the RNA
    - Determine top congested locations in NYCA
    - Develop generic solutions – transmission, generation, demand response, and energy efficiency
    - Provide information to developers and marketplace
  - **Phase II:**
    - Specific Projects
      - Transmission projects seeking regulated cost recovery under NYISO Tariff
      - Eligibility threshold: Cost over $25M, B/C ratio over 1.0, 80% beneficiary vote
  - **Additional CARIS Studies**
    - Assumptions and scenarios customizable
    - Confidential except for basic information
2015 CARIS Phase 1

KEY CONGESTION CORRIDORS
2015 Congestion Assessment and Resource Integration Study (CARIS)

Legend
- 765 kV
- 500 kV
- 345 kV
- 230 kV

Western 230 kV System
Central East
New Scotland to Pleasant Valley
2016 CARIS Phase 2

- The 2016 CARIS Phase 2 Base Case results
  - Presented at the July 5, 2016 ESPWG

- Specific Projects and Additional CARIS Studies
  - Posted at following link:
Public Policy Planning

- Two-year process performed in parallel with RNA/CRP
  - Phase I: Identify Needs and Assess Solutions
    - PSC identifies transmission needs driven by Public Policy Requirements and defines sufficiency criteria
    - NYISO solicits solutions (transmission, generation, or EE/DR)
    - NYISO evaluates viability and sufficiency of all solutions
    - PSC reviews Viability and Sufficiency Assessment (VSA) and confirms continued transmission need
  - Phase II: Transmission Evaluation and Selection
    - NYISO evaluates viable and sufficient transmission solutions to identify the more efficient or cost-effective solution
    - NYISO Board may select a transmission solution for purposes of cost allocation and recovery under the NYISO Tariff
Western NY Public Policy Transmission Need (PPTN)

- **July 20, 2015 PSC Order** -- NYISO to consider projects that increase Western NY transmission capability sufficient to:
  
  - Obtain the full output from Niagara (2,700 MW including Lewiston Pumped Storage);
  
  - Maintain certain levels of simultaneous imports from Ontario across the Niagara tie lines (i.e., maximize Ontario imports under normal operating conditions and at least 1,000 MW under emergency operating conditions);
  
  - Maximize transfers out of Zone A to the rest of the state;
  
  - Prevent transmission security violations (thermal, voltage or stability) that would result under normal and emergency operating conditions; and
  
  - Maintain reliability of the transmission system with fossil-fueled generation in Western NY out-of-service, as well as in-service.
Western NY PPTN - Timeline

- November 1, 2015 – NYISO issued solicitation for Public Policy Transmission Projects and Other Public Policy Projects
- December 31, 2015 – Eight developers submitted 15 project proposals
- April 29, 2016 – NYISO issued draft VSA
- May 30, 2016 – NYISO finalized VSA and identified 10 viable and sufficient projects
- October 13, 2016 – PSC issued order confirming the WNY PPTN
  - Next steps – NYISO currently working on the evaluation and selection of transmission solutions
AC TRANSMISSION PPTN

- Segment A (Central East)
  - New Edic/Marcy to New Scotland 345 kV line
  - Decommission Porter to Rotterdam 230 kV lines
  - 230/345 kV connection to Rotterdam

- Segment B (UPNY/SENY)
  - New Knickerbocker to Pleasant Valley 345 kV line
  - Rock Tavern substation terminal upgrades
  - Shoemaker – Sugarloaf 138 kV line

- See PSC Order for full description
AC Transmission PPTN - Timeline

- December 17, 2015 – PSC issued Order finding the need for new AC transmission facilities to reduce congestion from upstate to downstate NY
- February 29, 2016 – NYISO issued solicitation for Public Policy Transmission Projects and Other Public Policy Projects
- April 29, 2016 – Six Developers submitted 16 project proposals
- September 21, 2016 – NYISO issued draft VSA
- October 27, 2016 – NYISO finalized VSA and identified 13 viable and sufficient projects
- January 24, 2017 – PSC issued order confirming the AC Transmission PPTN

Next steps – NYISO will proceed with evaluation and selection of transmission solutions.
2016-2017 Public Policy Planning Cycle

- August 1, 2016 – NYISO initiated 2016-2017 Public Policy Transmission Planning Process (PPTPP) cycle by issuing solicitation for proposed transmission needs driven by Public Policy Requirements
- September 30, 2016 – 12 entities proposed transmission needs
- October 3, 2016 – NYISO filed proposals with PSC for its consideration
- Next steps – If PSC determines there is a need for transmission, NYISO will solicit proposals for specific projects
Stakeholder Material

- The NYISO Comprehensive System Planning Process is regularly discussed at the Electric System Planning Working Group (ESPWG):

- Study documentation is available at:
The Mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefit to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policy makers, stakeholders and investors in the power system

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