Updates on NYISO’s Comprehensive System Planning Process

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Interregional Planning Stakeholder Advisory Committee (IPSAC) Meeting

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NYISO Comprehensive System Planning Process (CSPP)

- Reliability Planning Process (RPP)
  - Reliability Needs Assessment (RNA)
  - Comprehensive Reliability Plan (CRP) Viability & Sufficiency Evaluation Phase
    - CRP Transmission Evaluation & Selection Phase
- Economic Planning Process
- Public Policy Transmission Planning Process
  - NYPSC Determines Need & NYISO Requests Proposals
  - Access Transmission & Non-Transmission Viability & Sufficiency
  - Evaluation & Select Transmission Solution(s)
  - Project Analysis & Determination of Beneficiaries
  - Voting (Beneficiaries)
  - Congestion Assessment and Resource Integration Study (CARIS)

Generator Deactivation Assessment
Reliability Planning Process

- **Two-year process starting in even years**
- **Reliability Needs Assessment (RNA)**
  - Evaluates the adequacy and security of the bulk power transmission facilities over a ten-year study period, and identifies Reliability Needs
  - Reliability Needs are defined as violations of planning criteria of NERC, NPCC or NYSRC
- **Comprehensive Reliability Plan (CRP)**
  - Develops a comprehensive plan to satisfy the reliability needs identified in RNA
Status of Reliability Planning Process

- Under the conditions studied in the 2018 RNA, the New York State Bulk Power Transmission Facilities meet all applicable Reliability Criteria over the 2019-2028 study period. Final RNA report posted at below link:
  

- The NYISO is currently working on the 2018 CRP.

- The NYISO will continue to track the progress of planned projects and monitor system conditions that could give rise to a reliability need before the next RNA.
Generator Deactivation Assessment

■ When is the study conducted?
  • A generator submits a deactivation notice or becomes unavailable due to an ICAP Ineligible Forced Outage. A generator must provide a minimum of 365 days prior notice before retiring or entering into a mothball outage. The NYISO conducts the assessment within 90 days of determining the notice is complete.

■ Who does the assessment?
  • NYISO, in coordination with the Responsible Transmission Owner(s), of whether a Generator Deactivation Reliability Need will result from the deactivation. Such needs result from violations on either the bulk power transmission facilities or TO local transmission systems. Within the NYISO, the System Resource Planning Department conducts the assessment.
Generator Deactivation Assessment

- What to do with the findings?
  - The assessment evaluates five years from the end of the 365 day notice period. If a reliability need is identified, the NYISO works with the market participants and the responsible transmission owner to identify the appropriate plan of action. If there are not sufficient market-based solutions, the NYISO may identify a transmission solution. If needed until a permanent solution is complete, the NYISO may offer a Reliability Must Run (RMR) contract to the generator.

- What’s an RMR contract?
  - A voluntary contract offered by the NYISO to a viable and sufficient generator solution
  - An RMR contract is a last resort; the emphasis is on permanent transmission solutions. Generators with RMRs are modeled as out of service in the 10 year reliability planning process.

- There are no pending Generator Deactivation Reliability Needs as of Oct. 2018
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 three 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, benefit/cost ratio over 1.0, load payment saving over cost, 80% beneficiary vote
    - **Additional CARIS Studies**
      - Assumptions and scenarios customizable
      - Confidential except for basic information
2017 CARIS Phase 1: Congestion Groupings
Status of CARIS

- The 2017 CARIS Phase 1 Report
  - Presented at the March 28, 2018 Management Committee (MC)
  - Approved by the NYISO Board on April 17, 2018

- The NYISO finalized the 2018 CARIS 2 base case which was presented at the September 12, 2018 Business Issues Committee (BIC).

- No specific 2018 CARIS 2 project proposals have been submitted as of October 29th.
Public Policy Transmission Planning

- Two-year process performed in parallel with RNA/CRP

- Phase I: Identify Needs and Assess Solutions
  - NYISO solicits transmission needs driven by Public Policy Requirements
  - PSC identifies transmission needs and defines additional evaluation criteria
  - NYISO solicits solutions (transmission, generation, or EE/DR)
  - NYISO performs Viability and Sufficiency Assessment (VSA)
  - PSC reviews assessment and confirms continued transmission need

- Phase II: Transmission Evaluation and Selection
  - NYISO staff evaluates viable and sufficient transmission solutions and recommends the more efficient or cost-effective solution
  - Stakeholder review and advisory votes at BIC and MC
  - NYISO Board may select a transmission solution for purposes of cost allocation and recovery under the NYISO Tariff
Western NY Project Selection

- NYISO staff recommended Empire State Line Proposal 1 (T014), proposed by NextEra Energy Transmission New York, as the more efficient and cost effective solution.

- In October 2017, the NYISO Board of Directors selected the NextEra project.

- Final Western NY report is posted at: http://www.nyiso.com/public/markets_operations/services/planning/planning_studies/index.jsp
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
Status of AC Transmission PPTN

- The NYISO Board continues to review the information before them, including the technical study report, analyses, recommendations and stakeholder comments, and will make a decision once that process is complete.
Future Public Policy Transmission Need

- The NYISO initiated the 2018-2019 PPTPP cycle in August 2018 by issuing a solicitation for proposed transmission needs driven by Public Policy Requirements.
- 15 entities proposed transmission needs (posted at link below). The NYISO filed the proposals with the NYPSC and forwarded to LIPA for its consideration those proposals that would involve construction of transmission on Long Island.

  http://www.nyiso.com/public/markets_operations/services/planning/planning_studies/index.jsp

- If the NYPSC determines that there is a need for transmission, the NYISO will solicit projects from developers to satisfy that need.
Interregional Transmission Updates

- As of October 2018, Con Edison has advised the NYISO and stakeholders that the Hudson-Farragut B-3402 and the Marion – Farragut C-3403 345 kV lines will be modeled as out-of-service for planning studies going forward.

- The St. Lawrence – Moses 230 kV L-33 PAR between Ontario and New York remains out of service with no return date.
Key Strategic Initiatives that May Impact Future Planning in New York

- **Public Policy Integration**
  - Clean Energy Standard calls for 40% CO₂ emission reductions and 50% renewable energy from the electric sector by 2030
  - Carbon Pricing, Energy/Capacity Market Design changes for high renewable penetration; Performance Assurance
  - Distributed Energy Resource and Energy Storage Integration
  - New York State Department of Environmental Conservation (NYSDEC) stakeholder draft to limit NOx emissions from downstate gas turbine generators
  - NYSDEC CO₂ emission rule for existing units will lead to deactivation of remaining coal facilities by 2020.

- **Resilience**
  - Fuel & Energy security initiative
  - Climate change impact and resilience study
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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