New York ISO
Independent System Operator

Internal Controllable Lines *Learning Session*

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Agenda

- Purpose of Today's Discussion
- Background
- Interconnection Discussion
- Energy Market Discussion
- Capacity Market Discussion
- TCC Market Discussion
- Questions

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Purpose of Today's Discussion

- There is growing interest in understanding the NYISO's capabilities regarding market and operational treatment of internal controllable lines, such as High Voltage Direct Current (HVDC) lines.
  - Today, there are no internal controllable lines in operation within the NYCA.
- Today, the NYISO will describe the current state of market rules and provide color on the potential design pathways that exist.
- This discussion is to both educate market participants on existing rules for internal controllable lines as well as help scope the requested 2022 project for more fully developing rules to facilitate internal controllable lines.

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Background

- The NYISO last considered concepts for internal controllable lines in 2004.
- On Oct. 15, 2020, the NYPSC established a new Tier 4 REC within the Clean Energy Standard (CES).
  - Through Tier 4, the State will procure the unbundled environmental attributes (*i.e.*, Tier 4 RECs) associated with renewable generation delivered into Zone J.
- NYSERDA issued a Request for Proposal (RFP) for Tier 4 REC resources on January 13, 2021.
- This has led to a renewed interest from stakeholders in developing market participation rules for internal controllable lines

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Interconnection Discussion

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Interconnection

- **The NYISO currently has rules for evaluating interconnection requests for proposed internal controllable lines.**
- **These rules cover**
  - the interconnection study process for evaluating internal controllable line projects and identifying required reliability upgrades, ultimately concluding with an Interconnection Agreement with the ISO; and
  - the process for evaluating internal controllable line projects requests for CRIS and identifying deliverability upgrades required to make the project deliverable at its requested CRIS level
- **These rules can be found in OATT Attachment P (Section 22), OATT Attachment S (Section 25) and OATT Attachment X (Section 30)**
  - Transmission projects that seek UDRs must request CRIS and be evaluated through the Large Facility Interconnection Procedures in Attachment X, not Attachment P
  - The manner in which internal controllable lines are evaluated in the interconnection study process is detailed in Attachment L of the Transmission Expansion and Interconnection Manual
- **The NYISO does not envision a need to revise these rules to accommodate new internal controllable line projects.**

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Capacity Market Discussion

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Capacity Market

- **The NYISO's Tariff currently allows internal controllable lines to enter the Capacity Market utilizing an Internal UDR construct**
  - Internal UDRs must be sourced from ROS and sink into a locality
- **The existing rules for Internal UDRs are premised on the idea that energy schedules for the line would be determined similarly to how energy schedules for external controllable lines are determined**
  - Energy schedules for external controllable lines are based on two factors
    - The market participant must have a reservation to use the line; and
    - The market participant's energy offer is accepted
  - The NYISO has not determined that this construct for determine energy schedules on internal controllable lines is supportable within the structure of the NYISO's tariff or software
  - Therefore, reviewing these rules to make sure the market will support outcomes in the best interests of all stakeholders is needed

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Capacity Market

- **Although high level rules to allow Internal UDRs to participate within the Capacity Market exist, these rules also have gaps including but not limited to:**
  - The determination of requirements for providing capacity on the Internal UDR
  - The determination of obligations for the Internal UDR that sells capacity
- **Therefore, the capacity market rules will need to be revisited as part of the effort to develop rules for establishing energy schedules on internal controllable lines**

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Energy Market Discussion

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Energy Market

- Currently, the NYISO's Tariff does not contain rules for the scheduling or pricing of internal controllable lines
- The NYISO has been considering high level concepts for scheduling and pricing internal controllable lines that would lead to efficient use of the line while supporting grid reliability
- At this time, the ISO believes that scheduling the internal controllable line to minimize as-bid production costs would be the most compatible with the existing Energy Market design
  - This approach has other implications that also need to be considered
  - The scheduling of the line would occur independent of but simultaneously with the scheduling of resources, which is similar to how Phase Angle Regulators are scheduled by the ISO

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Energy Market

- **Additionally, the current energy market design does not allow for advanced reservations of internal transmission rights**
  - Instead the ISO awards firm transmission rights to any resource that receives an energy schedule
  - The ISO currently believes that developing rules for and administering an advanced reservation system would be costly and extremely time consuming, and recommends continuing to leverage the existing process for allocation of transmission rights

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TCC Market Discussion

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TCC Market

- **The TCC Market has rules to handle new transmission projects**
- **See OATT Section 19 (Attachment M) for more details on the sales or awards of TCCs**
  - OATT Section 19.2.4 specifically describes the rules for Awards of Incremental TCCs

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Next Steps

- The NYISO will work with stakeholders to develop a 2022 project for prioritization

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Questions?

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Our mission, in collaboration with our 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 policymakers, stakeholders and investors in the power system

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