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Independent System Operator

Interconnection Order No. 2023 Proposed Compliance Approach

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Interconnection Issues Task Force (IITF)

December 1, 2023

Key changes from 11/14 IITF presentation are noted in red

Topics Covered in this Presentation

(topics noted in red for discussion in this meeting)

- NYISO's Proposed Cluster Study Process – Overview
- Cluster Study Process – Structure and Timeline
- Interim Transition Rules
- Cluster Study Process Transition
- Pre-Application Process
- Application Window – Requirements, Validation, Deficiencies, Site Control
- Study Deposits and Commercial Readiness Deposits
- Customer Engagement Window and Physical Infeasibility Screen
- Project Modifications
- Proposed Withdrawal Penalties

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Topics Covered in this Presentation

(topics noted in red for discussion in this meeting)

- Phase 1 and Phase 2 studies, including cost allocation for study costs and upgrades
- Affected System study process
- Reforms related to Technological Advancements prescribed in Order No. 2023
  - Co-Located Generating Facilities Behind Single POI
  - Generator Facility Additions
  - Alternative Transmission Technologies
  - Operating Assumptions for Storage Resources
  - Surplus Interconnection Service
  - Modeling and Ride-Through Requirements for Non-Synchronous Generating Resources
- Incorporating Small Generating Facilities into the Cluster Study Process
- Interconnection Agreement negotiation process and new pro forma agreements

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NYISO's Proposed Cluster Study Process – Overview

Proposed Cluster Study Process

- **Key Aspects:**
  - An overall timeline that aligns with the timeline laid out in Order No. 2023;
  - A rolling, optional Pre-Application process;
  - An enhanced scope for the Customer Engagement Window (including a physical infeasibility screen);
  - A two-phase Cluster Study that incorporates SRIS-type analyses and Class Year analyses (including POI upgrades) rather than an SRIS-type cluster study and re-study followed by an individual facilities study;
  - Limited project modifications and opportunities to cure deficiencies;

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Proposed Cluster Study Process

- **Key Aspects, cont.:**
  - Inability for projects to move forward if deemed physically infeasible;
  - Increased financial commitments, including study deposits and commercial readiness deposits largely aligned with those in Order No. 2023;
  - Withdrawal penalties;
  - More stringent Site Control requirements; and
  - Incorporating Small Generating Facilities into the Cluster Study Process.

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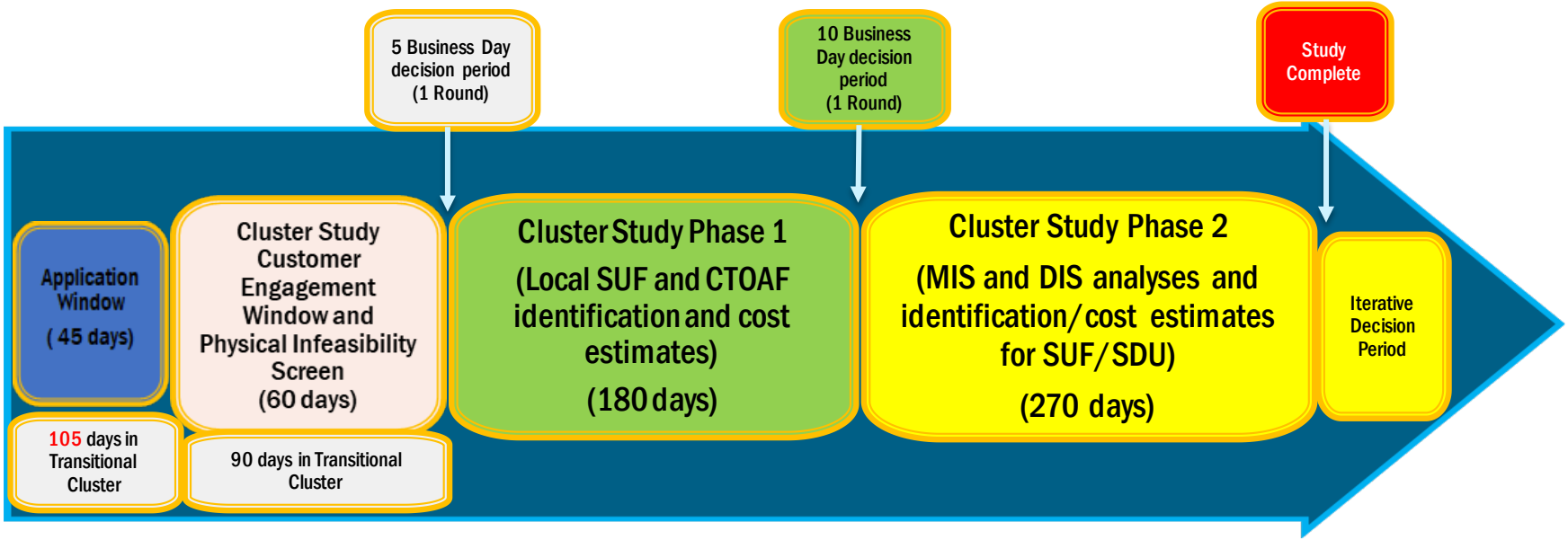
Cluster Study Process – Structure and Timeline

NYISO's Proposed Cluster Study Process



Total Timeline: 569 days (1.6 years)

Total Timeline in Order No. 2023: 495 days to 585 days (1.4 – 1.6 years)

(see Appendix for details re: Order No. 2023 Cluster Study structure and timeline)

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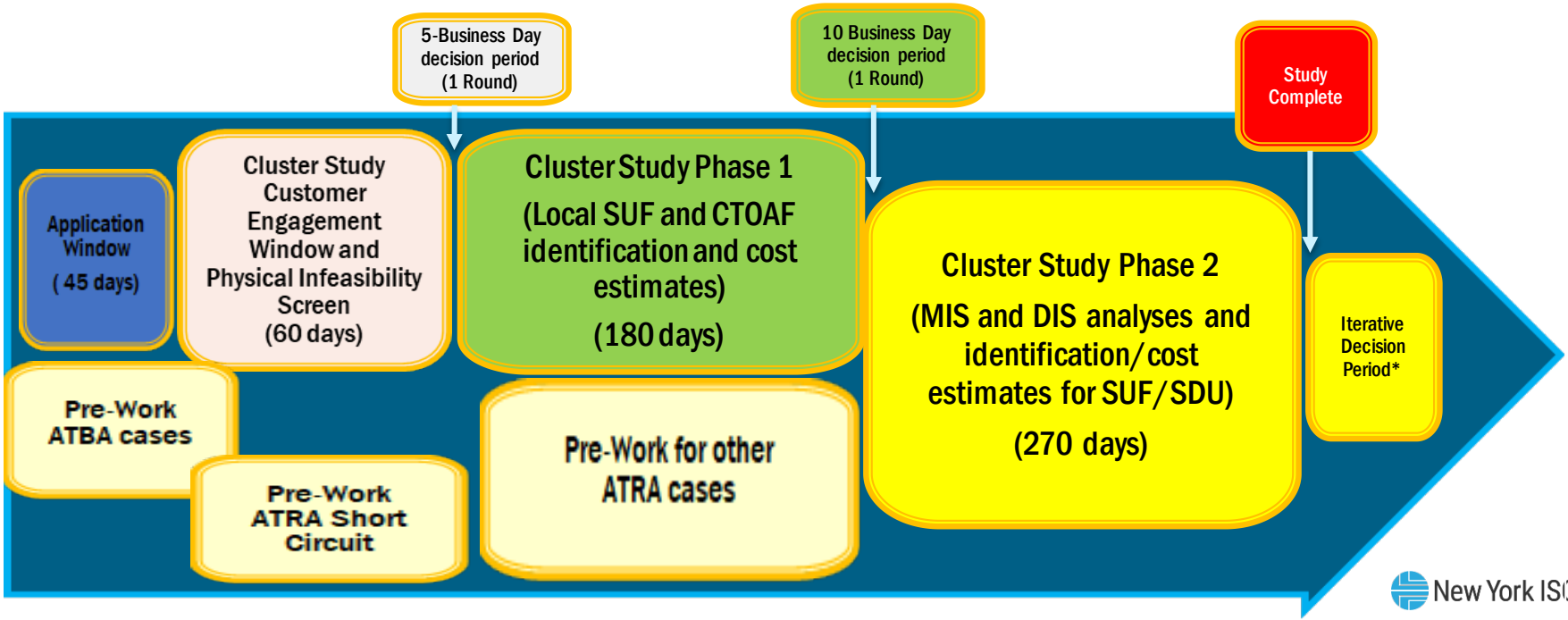
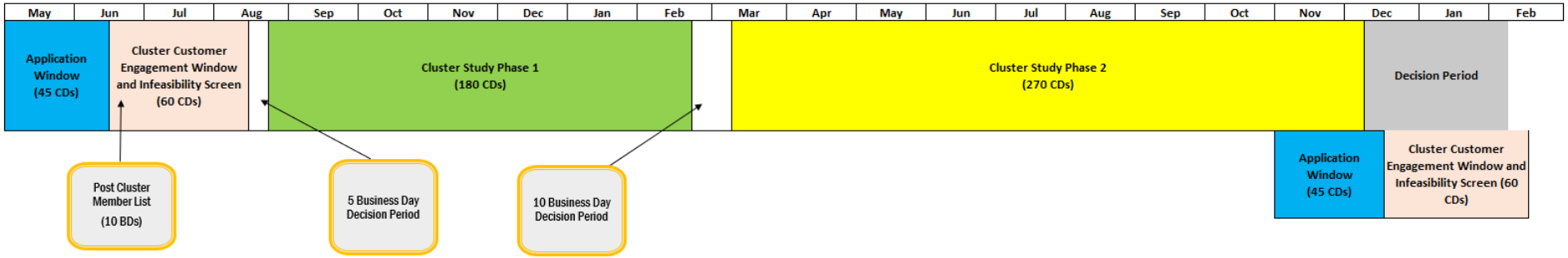
NYISO's Proposed Cluster Study Process

NYISO will perform pre-work to prepare for Cluster Study Phase 1 and Phase 2



Sequencing of Cluster Studies

- Clusters begin every 18 months with slight overlap, but not overlap that would cause rework or inefficiencies



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Interim Transition Rules

Interim Transition Rules

- **NYISO filed a partial compliance filing/waiver on November 3, 2023 to establish interim transition rules to expedite the efficient transition to the new Cluster Study process. Specifically, the transition rules:**
  - Eliminate the SRIS requirement for pending queue projects;
  - Eliminate the option to elect a detailed Optional Feasibility Study (allowing Interconnection Customers to continue to elect the limited Optional Feasibility Study scope provided for in Section 30.6.2(1)); and
  - Provide pending queue projects various options for how they want to move forward (outlined on the following slides).
- **NYISO commenced implementing these rules on 11/30/2023.**
- **NYISO provided notices to Developers concerning the implementation of the interim transition rules, including a FAQ document.**

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Interim Transition Rules, cont.

- **Optional Feasibility Study Options for Pending Queue Projects:**
  - Projects with detailed Optional Feasibility Study scope executed prior to 12/1/2023 must do one of the following by 12/8/2023:
    - Elect to complete the detailed Optional Feasibility Study;
    - Elect to terminate the detailed Optional Feasibility Study and remain in the queue (subject to transition rules requiring an Interconnection Request in the Transitional Cluster Study);* or
    - Elect to withdraw from the NYISO queue.
  - Projects with limited Optional Feasibility Study executed prior to 12/1/2023 must do one of the following by 12/8/2023:
    - Elect to complete the limited Optional Feasibility Study;
    - Elect to terminate the limited Optional Feasibility Study and remain in the queue (subject to transition rules requiring an Interconnection Request in the Transitional Cluster Study);* or
    - Elect to withdraw from the NYISO queue.

*Default approach if Interconnection Customer fails to timely elect otherwise

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Interim Transition Rules, cont.

- **SRIS Options for Pending Queue Projects:**
  - Projects with OC-approved SRIS scopes prior to 12/1/2023 must do one of the following by 12/8/2023:
    - Elect to complete the SRIS;
    - Elect to terminate the SRIS and remain in the queue (subject to transition rules requiring an Interconnection Request in the Transitional Cluster Study);* or
    - Elect to withdraw from the NYISO queue.

*Default approach if Interconnection Customer fails to timely elect otherwise

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Interim Transition Rules, cont.

- **Additional Transition Rules:**
  - Projects with validated Interconnection Requests that have timely elected an SRIS or Optional Feasibility Study but do not have an approved scope prior to 12/1/2023 must do one of the following by 12/8/2023:
    - Elect to proceed with a limited Optional Feasibility Study if one has not yet been performed;
    - Elect to remain in the queue without proceeding to a limited Optional Feasibility Study (subject to transition rules requiring an Interconnection Request in the Transitional Cluster Study);* or
    - Elect to withdraw from the NYISO queue.

  *Default approach if Interconnection Customer fails to timely elect otherwise

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Interim Transition Rules, cont.

- **Additional Transition Rules:**
  - Projects with validated Interconnection Requests that have not made election to move to Optional Feasibility Study or SRIS prior to 12/1/2023 must do one of the following within 5 Business Days of completion of its Scoping Meeting or Optional Feasibility Study:
    - Elect proceed to a limited Optional Feasibility Study if one has not yet been performed;
    - Elect to remain in the queue without proceeding to a limited Optional Feasibility Study (subject to transition rules requiring an Interconnection Request in the Transitional Cluster Study)*; or
    - Elect to withdraw from the NYISO queue.

*Default approach if Interconnection Customer fails to timely elect otherwise

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Proposed Cluster Study Transition
(Post-Compliance Filing Process)

Transition Cluster Study Overview

- **Order No. 2023 provides for a 360-day transition cluster that precedes the initial "standard" Cluster Study.**
  - This would delay the commencement of the new Cluster Study process.
- **NYISO proposes to transition directly into the new Cluster Study process rather than awaiting the end of a year-long transitional study**
  - As depicted on the following slide, the initial Transitional Cluster Study Application Window will allow Interconnection Customers additional time to enter this initial study (105 days vs. 45 days).
    - The validation period will be extended from 5 Business Days to 10 Business Days for the initial Transitional Cluster Study Application Window.
  - The Customer Engagement Window/Physical Infeasibility Screen will also be extended by 30 days (90 days vs. 60 days) for purposes of the transitional process.
  - The Transitional Cluster Study will otherwise follow the same process with the same timelines as the "standard" new Cluster Study process.

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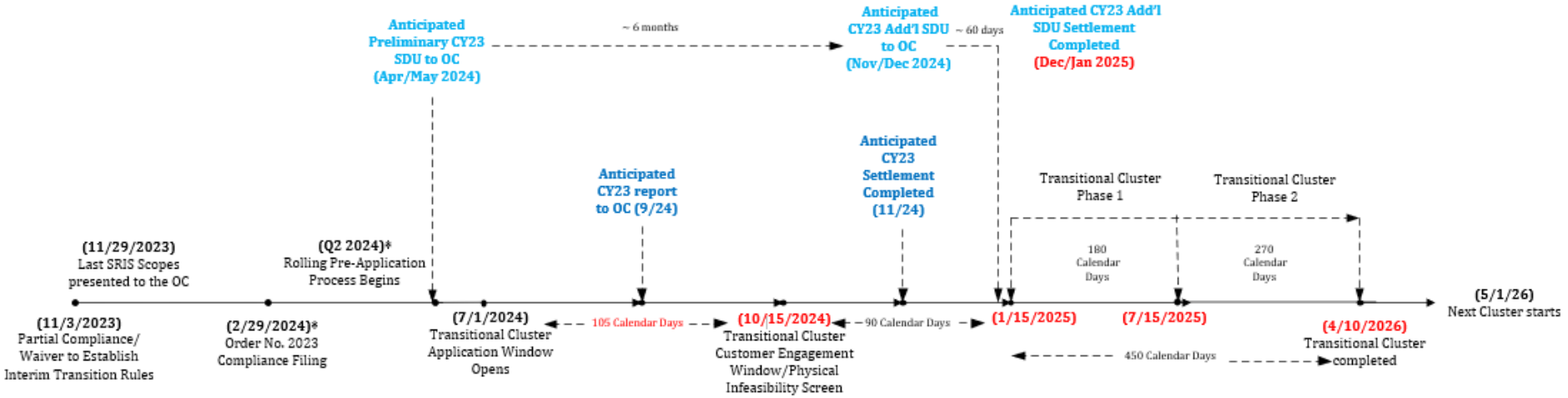
Transition Process Timeline



*For the purpose of this timeline, the date of the NYISO's compliance filing and start date for the rolling Pre-Application Process is tentative.

Dates indicated in red reflect changes to allow for the potential completion of the CY23 Additional SDU Study prior to the commencement of the Transitional Cluster Phase 1.

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New and Pending Interconnection Requests

- **New Interconnection Requests will continue to be permitted and validated pending the final compliance filing.**
- **Projects pending in the interconnection queue on the compliance filing effective date:**
  - Projects in NYISO's current queue will not automatically transition to Transitional Cluster Study. To enter the Transitional Cluster Study, pending queue projects must submit a new Interconnection Request in the Application Window and will be assigned a new queue number upon validation in the Transitional Cluster Application Window
  - Projects pending in the queue on the start date of the Transitional Cluster Application Window will be withdrawn.
  - Deposits required for entry into the Transitional Cluster Application Window will not be offset by the $10,000 Interconnection Request fee submitted with the project's initial Interconnection Request submitted in the pre-Cluster Study Process. The NYISO will not transfer Study Deposits provided in the pre-Cluster Study Process to satisfy Study Deposit requirements in new process.
  - NYISO will refund any existing Study Deposits subject to reconciliation for any incurred study costs.

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Pending Interconnection Requests

- **Class Year 2023 projects:**
  - Will proceed under the current Class Year Study process
    - Additional SDU Study completion date (including Security posting) must be 15 BDs prior to Phase 1 start date (vs. ATBA lock down date in subsequent Class Year)
  - Upon the project's acceptance of its Project Cost Allocation for SUFs and posting of Security, the project will proceed to the Interconnection Agreement stage.
  - If the project rejects its Project Cost Allocation for SUFs or has a Security Posting Default:
    - The project can enter the Transitional Cluster Study, as discussed on the following slides.
    - For projects that paid a deposit in lieu of satisfying a regulatory milestone to enter Class Year 2023:
      - Such projects will be eligible for a refund of the $3,000/MW portion of the deposit upon rejection of Project Cost Allocation for SUFs or a Security Posting Default.
      - The $100,000 portion of the regulatory milestone deposit is refundable only if the regulatory milestone is satisfied by February 13, 2024.

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Pending Interconnection Requests

- **Class Year 2023 – Contingent Transitional Study Projects:**
  - CY23 will not be completed during the Application Window for the Transitional Cluster Study.
  - A Developer may submit a CY23 project as a contingent project in the Application Window for the Transitional Cluster Study to enable the project to enter the Transitional Cluster Study if it does not accept its Project Cost Allocation and/or post Security in the CY23 decision period.
  - To do so, the projects must satisfy the same application requirements at the Application Window as all other projects, including the non-refundable Application Fee, Study Deposit, and Site Control requirements and must be the same project as the project was proposed in CY23.
  - If the Developer of the contingent project does accept its Project Cost Allocation and posts Security in CY23, then the contingent project will be removed from the Cluster for the Transitional Cluster Study without a withdrawal penalty.
- **Same rule will apply to projects in Additional SDU Studies in Cluster Study process:**
  - If a project in an Additional SDU Study for Cluster "A" wants to enter a subsequent cluster in the event the Additional SDU Study is not completed prior to 15 BD before Cluster B Phase 1, it must submit an application during the Application Window for Cluster B

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Pending Interconnection Requests

- **CY2023 – Impact of Contingent Projects on Physical Infeasibility Determinations**
  - As detailed in slides 51-53 below, NYTOs will perform physical infeasibility screens of projects in the Cluster during the Customer Engagement Window.
  - If one or more contingent projects are seeking access to a limited point of interconnection with other projects in the Transitional Cluster Study, the NYTO will perform two assessments:
    - First assessment will assume all the contingent projects accept their Project Cost Allocation and posts Security in CY23 and will assess whether there are physical infeasibility issues for the other Transitional Cluster Study projects. This analysis will be used if the contingent project proceeds in CY23.
    - Second assessment will assume the contingent projects do not accept its Project Cost Allocation and posts Security in CY23. This analysis will be used if the contingent project does not proceed in CY23.
      - In such case, the NYTO will assess the physical infeasibility of all Transitional Cluster Study projects, including the contingent project, based on their priority in the Transitional Cluster Study. That is, a contingent project does not have priority due to its participation in CY23; its priority will be determined, as with all other projects, on its date/time for submitting its Interconnection Request in Application Window.
      - To consider whether this may impact timing for the Customer Engagement Window.

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Pre-Application Process

Pre-Application Process

- **NYISO proposes to include in its compliance filing a Pre-Application process to further the goal of Order No. 2023 to provide greater information access to potential Interconnection Customers.**
- **Proposed Pre-Application Process would be available to prospective:**
  - Small Generating Facilities;
  - Large Generating Facilities; and
  - Transmission projects subject to the Large Facility Interconnection Procedures (currently defined as “Class Year Transmission Projects”)

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Pre-Application Process

- **Any requester (whether in the interconnection queue or not) can submit a request using the Pre-Application Request form.**
  - $5,000 per Point of Interconnection
    - 25% allocated to NYISO
    - 75% allocated to Connecting TO/Affected TOs
  - Maximum of 2 POIs per Pre-Application Request
  - Pre-Application Requests can be submitted on a rolling basis at any time except during the following 90-day timeframe:
    - 45-calendar days before a Cluster Application Window begins through the end of the Application Window
    - This pause will enable the NYISO/NYTOs to focus on completing pending Pre-Application Requests and timely validating Interconnection Requests in the Application Window.
  - Pre-Application Request form template is posted with the meeting materials

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Pre-Application Process, cont.

- **NYISO will route the Pre-Application Request to the applicable Connecting Transmission Owner and Affected Transmission Owner (ATO for local SUFs only)**
  - Upon the Transmission Owner confirmation that it is the Connecting Transmission Owner, it will proceed to a scoping meeting
  - Connecting Transmission Owner will complete the Pre-Application Report within 25 Business Days after the Pre-Application scoping meeting.
- **Information available in a Pre-Application Report* (see template posted with meeting materials):**
  - POI line/substation name, ID, bus numbers and circuit IDs, voltage, ratings (normal, LTE and STE), terminal end stations
  - For sub-transmission and distribution POIs, circuit loading, peak and minimum load, existing generation MW and proposed generation MW
  - Additional Information (e.g., potential new substation bus configuration, transmission constraints, planned transmission upgrades, parallel lines, breaker rating, available breaker positions, existing/known constraints known physical feasibility issues)

*To the extent readily available data exists

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Application Window

Application Window - Overview

- Interconnection Requests permitted anytime during the 45-day Application Window (105-day window for the transitional cluster)
- Single POI per Interconnection Request unless:
  - Project is a Class Year Transmission Project
  - Project is a Generating Facility interconnecting via two kV levels in the same Capacity Region
- Projects that are alternatives cannot be evaluated in the same Cluster Study
- CRIS-only projects must submit an Interconnection Request during the Applicaation Window but will have a lower application fee ($5,000) and study deposit ($50,000).

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Interconnection Request Requirements

1. Non-refundable application fee $10,000 (cash only) ($5,000 for CRIS-only projects): 75% allocated to NYISO and 25% CTO/ATOs

2. Study Deposit (cash or Letter of Credit):

Size of Proposed Generating Facility Associated with Interconnection Request	Amount of Deposit
< 80 MW	$100,000
≥ 80 MW < 200 MW	$150,000
≥ 200 MW	$250,000

- Study Deposit for CRIS-only projects is $50,000.

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Interconnection Request Requirements, cont.

3. Conceptual one-line diagram that includes:

- The Project name, and the Interconnection Customer name on the diagram;
- The facility address (specific location – coordinates or closest street address);
- The number of inverters or generator units (type, nameplate rating MW and MVA), and configuration of the facility;
- The facility's electrical components (*i.e.*, generation, transformers (GSU, PSU, current transformer, and potential transformers), breakers, switches, cables/lines/feeders, compensation, FACTs, auxiliary load, buses, etc.) as described in the modeling data form;
- The capability and voltage levels of the electrical components, their connection to each other and to the New York State Transmission System or Distribution System;
- The Point of Interconnection (name of the substation name (specify the bus) or transmission/distribution line name and number);
- References to other diagram sheets if there is more than one diagram sheet (i.e., use references to indicate how the diagrams are interconnected).
- Acronyms used in the conceptual breaker one-line diagram should follow ANSI Standard Device Numbers & Common Acronyms.

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Interconnection Request Requirements, cont.

4. Completed Interconnection Request must also include a project layout that shows general project layout and location of project in relation to proposed POI, including specific POI
    - Must indicate voltage level, address, coordinates, location in relation to facility
    - Interconnection Customer does not need to specify breaker position in a substation
5. Workable individual project models (*e.g.*, short circuit, steady-state, and stability)
6. Attestation (for Large Facilities) required by the final, approved NYSRC Reliability Rule B.5 (currently PRR 51) establishing minimum interconnection standards for Large Inverter Based Resource (IBR) Generating Facilities based on IEEE Standard 2800-2022

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Interconnection Request Requirements, cont.

7. Demonstration of Site Control (described further on slides 36-42)
8. Executed Study Agreement/Agreement to study terms and conditions included in the Interconnection Request.

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Interconnection Request - Validation

- **Validation on a rolling basis**

- **Within 5 Business Days* of receipt of Interconnection Request**
  - NYISO reviews Interconnection Request to identify the Connecting TO and Affected TOs
  - NYISO notifies Connecting TO and Affected TOs it is aware of via Interconnection Portal
  - Connecting TO confirms (via portal) it is the Connecting TO and confirms Affected TOs
  - NYISO confirms receipt of payment of application fee and study deposit
  - NYISO validates model (i.e, confirms it is a workable model)
  - NYISO notifies Interconnection Customer that Interconnection Request is valid or identify deficiencies

- ***10 Business Days for validation for the Transitional Cluster Study to account for administering new process and to address potentially significant number of Interconnection Requests**

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Interconnection Request - Deficiencies

- An Interconnection Customer must cure Interconnection Request deficiencies within 10 Business Days (15 Business Days for Transition Application Window) of its receipt of a deficiency notice from the NYISO, but no later than the end of the Application Window.
- Interconnection Requests submitted with less than 5 Business Days prior to the end of the Application Window may not have the opportunity to cure deficiencies. (NYISO is afforded 5 Business Days to validate Interconnection Requests.) This period will be 10 Business Days for the Transition Cluster Study.
- Only one opportunity to cure deficiencies (*i.e.*, if cure attempt is deficient, Interconnection Request will be withdrawn, but Interconnection Customer can submit a new Interconnection Request prior to the close of the Application Window)
- Cure process will not be iterative process; NYISO will address deficiencies in a single determination after Interconnection Customer completes the submission of materials during the cure period (*i.e.*, Interconnection Customer submits information in response to deficiency on Day 1 of the cure period and additional information on Day 9. NYISO will not separately validate each submission).

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Interconnection Request – Site Control

- Demonstration of 100% Site Control for Generating Facility with Interconnection Request
  - Site Control for the term of expected operation of the Generating Facility
  - Re-confirmation of 100% Site Control with project modifications or COD extensions
  - Developer not required to demonstrate Site Control for generator tie line or POI facilities
- Elimination of the option to post a deposit in lieu of Site Control unless the Interconnection Customer can demonstrate a "regulatory limitation" making it practically infeasible to obtain Site Control within the required time frame (discussed in more detail on slides 39-40).
- For co-located generating facilities on the same site and behind the same Point of Interconnection, the Interconnection Customer must demonstrate via contract or other agreement shared land use for all co-located generating facilities that meet the Site Control definition.
- Interconnection Customer cannot submit the same land for multiple Interconnection Requests, unless the site is large enough to host multiple generating facilities.

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Interconnection Request – Site Control

- Interconnection Customer must demonstrate the exclusive land right to develop, construct, operate, and maintain its generating facility or, where facilities are co-located, to demonstrate a shared land use right to develop, construct, operate, and maintain co-located facilities.

- Proposed definition (consistent with *pro forma* definition in Order No. 2023) revises the existing Site Control definition in NYISO's interconnection procedures as follows:

Site Control shall mean ~~documentation reasonably demonstrating~~ the exclusive land right to develop, construct, operate, and maintain the Generating Facility over the term of expected operation of the Generating Facility. Site Control may be demonstrated by documentation establishing: (1) ownership of, a leasehold interest in, or a right to develop a site ~~for the purpose of constructing~~ of sufficient size to construct and operate the Large Generating Facility or Class Year Transmission Project; (2) an option to purchase or acquire a leasehold site of sufficient size to construct and operate the Large Generating Facility or Class Year Transmission Project for such purpose; or (3) ~~an exclusivity or other business relationship between~~ any other documentation that clearly demonstrates the right of Interconnection Customer ~~and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or~~ to exclusively occupy a site ~~for such purpose.~~ of sufficient size to construct and operate the Large Generating Facility or Class Year Transmission Project. The ISO will maintain acreage requirements for each facility type on its OASIS or public website.

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Interconnection Request – Site Control, cont.

- **An Interconnection Customer with a demonstrated regulatory limitation, including those associated with obtaining a lease on Tribal lands, may submit a deposit in lieu of Site Control.**
  - To demonstrate regulatory limitations, Interconnection Customer must submit:
    1) a signed affidavit from an officer of the company indicating that Site Control is unobtainable due to regulatory limitations as the term is defined by the NYISO; and
    2) documentation sufficiently describing and explaining the source and effects of such regulatory limitations, including a description of any condition that must be met to satisfy the regulatory limitations and the anticipated time by which the Interconnection Customer expects to satisfy the regulatory restrictions.
  - Order allows Transmission Providers to develop the specific definition and to update the definition over time as relevant federal, state or local laws change.

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Interconnection Request – Site Control, cont.

- **Deposit in lieu of Site Control for an interconnection customer with a demonstrated regulatory limitation**
  - $10,000 per MW, subject to a floor of $500,000 and a ceiling of $2 million, as established in Order No, 2023.
  - Deposit must be submitted at the same time as submission of the Interconnection Request.
  - Deposit will be held by the NYISO until the Interconnection Customer can demonstrate 100% Site Control prior to entering the Cluster Study Phase 2, unless Interconnection Customer provides documentation that demonstrates they are taking identifiable steps to secure the necessary regulatory approvals.
  - Such Interconnection Customer must demonstrate 100% Site Control within 180 calendar days of the effective date of the LGIA. Otherwise, the LGIA may be terminated, and the Interconnection Customer could be subject to forfeiting its security.
  - The deposit is refundable but cannot be applied toward interconnection studies or withdrawal penalties.

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Interconnection Request– Site Control, cont.

Technology-specific Acreage Requirements

- Interconnection Customer must demonstrate that the area covered by the Site Control can reasonably accommodate the development of the proposed generating facility based on the identified technology and equipment in the Interconnection Request and any known limitations with the parcel (*e.g.*, wetlands or exclusions to the Interconnection Customer's right to develop the property).
- Per Order No. 2023, Transmission Providers have flexibility to establish appropriate technology-specific acreage requirements for generating facilities but must publicly post the requirement.
- The NYISO uses general acreage guidelines as a starting point, but considers the information submitted by the Interconnection Customer based on the specifics of the facility or proposed technology.

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Interconnection Request– Site Control, cont.

- **General Requirements**
  - Interconnection Customers must clearly set forth the acreage.
  - If the same Site Control is being used for facilities under different Interconnection Requests, Interconnection Customers must also explain whether the facilities are mutually exclusive alternatives or if all proposed facilities will be built within the area.
  - When more than one facility is to be built within the area covered by the same Site Control, the Interconnection Customer must demonstrate how all the facilities will be situated within the area.
  - The name on the Site Control must match the name of the Interconnection Customer on the Interconnection Request.
    - If the name of the Interconnection Customer submitting the Interconnection Request does not match the name in the Site Control Documents, the Interconnection Customer is responsible for providing additional documentation explaining the corporate relationship.
  - Detailed site plan and equipment layout must be provided detailing the conceptual design of the proposed facility and how it is to be situated within the area that is covered by the Site Control and available for the Interconnection Customer's use.

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Interconnection Request – Site Control, cont.

- NYISO proposes the following technology-specific acreage requirements:

Technology Type	Acres/MW
Solar	• 2.8 acres/MWdc for fixed tilt PV plants • 4.2 acres/MWdc for tracking plants
Wind (Land Based)	15 acres/MWac
Offshore Wind	50 acres/MWac
Battery Energy Storage	0.01 acre/MWhac
Other	Submit a scaled site plan detailing the conceptual design of the proposed facility and how it is to be situated within the area that is covered by the Site Control.

- Acreage requirements will be included in NYISO manual; Developers will have the opportunity to review and comment on requirements as part of manual update

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Study Deposits and Commercial Readiness Requirements

Study Deposits/Fees

- Non-refundable Application Fee submitted with Interconnection Request during the Application Window: $10,000 (in cash) plus a one-time Study Deposit based on size of project submitted with Interconnection Request:

Size of Proposed Generating Facility Associated with Interconnection Request	Amount of Deposit
< 80 MW	$100,000
≥ 80 MW < 200 MW	$150,000
≥ 200 MW	$250,000

- Study Deposits and Commercial Readiness Deposits can be submitted as cash or through a Letter of Credit
  - Letters of Credit are subject to NYISO tariff requirements in Services Tariff Section 26.6.1.2.
- Application Fee and Study Deposit is in addition to the Commercial Readiness Deposits detailed on slide 47.
- If Small Generating Facilities are included in Cluster Study Process, the one-time Study Deposit for these facilities is $100,000.
- For CRIS-only projects, the one-time Study Deposit is $50,000.

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Study Deposits/Fees cont'd.

- **The NYISO will invoice Interconnection Customers actual study costs on a monthly basis.**
  - Failure to timely pay a monthly invoice will result in withdrawal of the project from the interconnection queue
- **Study Deposit will remain in place for duration of the Cluster Study Process and will be subject to withdrawal penalties as described below.**
- **If, at the completion of Phase 2 of the Cluster Study Process, Interconnection Customer accepts its cost allocation and posts security, the NYISO will refund the Study Deposit amount in full.**

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Transition Cluster Fees/Deposits

- All Interconnection Customers electing to participate in the Transition Cluster Study must submit the $10,000 non-refundable application fee with its Interconnection Request submittal during the Application Window along with the applicable Study Deposit.
- NYISO will not require the $5M transition fee, as described in Order No. 2023.

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Commercial Readiness Deposits

To enter Phase 1 (Phase 1 Deposit) [Due during Decision Period 1]	$4,000/MW
To enter Phase 2 (Phase 2 Deposit) [Due during Decision Period 2]	The greater of (i) Phase 1 Deposit, and (ii) 20% of cost estimate determined in Phase 1 (cost estimates include: Local SUF and CTOAF)
At conclusion of Phase 2 in Decision Period (pay cash and/or security)	100% of costs estimate of SUFs, SDUs, and CTOAFs identified in Phase 1 and Phase 2

- NYISO will not require demonstration of a Regulatory Milestone.
- Deposits are cumulative, not additive.
- If Small Generating Facilities are included in Cluster Study Process, they will have to satisfy these requirements.
- Commercial Readiness deposits will not be required for CRIS-only projects

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Total Fees and Deposits

<table>
<tr><td>To submit an Interconnection Request</td><td>$10,000 non-refundable fee plus study deposit:
<table><tr><th>Size of Proposed Generating Facility Associated with Interconnection Request</th><th>Amount of Deposit</th></tr><tr><td>< 80 MW</td><td>$100,000</td></tr><tr><td>≥ 80 MW < 200 MW</td><td>$150,000</td></tr><tr><td>≥ 200 MW</td><td>$250,000</td></tr></table></td></tr>
<tr><td>To enter Phase 1 (Phase 1 Deposit)</td><td>$4,000/MW (not applicable for CRIS-only projects)</td></tr>
<tr><td>To enter Phase 2 (Phase 2 Deposit)</td><td>The greater of (i) Phase 1 Deposit, and (ii) 20% of cost estimate determined in Phase 1 (cost estimates include: Local SUF and CTOAF) (not applicable for CRIS-only projects)</td></tr>
<tr><td>At conclusion of Phase 2 in Decision Period (pay cash and/or security)</td><td>100% of costs estimate of SUFs, SDUs, and CTOAFs identified in Phase 1 and Phase 2 (not applicable for CRIS-only projects)</td></tr>
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Customer Engagement Window

Customer Engagement Window

- **Commences immediately after completion of the Application Window; engagement window will be a 60 calender day period (90 calendar days for Transition Cluster Study).**
- **NYISO will publish the list of the projects in the cluster with associated priority**
  - List is publicly posted within 10 Business Days after commencement of the Customer Engagement Window
  - Priority within the Cluster is assigned based on Interconnection Request submission date/time in Application Window
  - Project may withdraw without penalty within 5 Business Days of publication of list.
- **Physical Infeasibility Screen**
  - Performed by the Connecting TO and Affected TOs
- **NYISO coordinates a Clustered Scoping Meeting for all projects in the Cluster Study**
  - Discuss the study scope, schedule, and work plan
  - Discuss results of the physical infeasibility screen
  - Alert Interconnection Customers to potential physical infeasibility issues

New York ISO

Customer Engagement Window - Physical Infeasibility Screen

- **A project deemed physically infeasible will not be permitted to proceed to the next Cluster Study phase.**
  - If physical infeasibility is identified in Customer Engagement Window's preliminary physical infeasibility screen, the project cannot proceed to Cluster Study Phase 1.
  - If physical infeasibility is identified in Cluster Study Phase 1, the project cannot proceed to Cluster Study Phase 2.
  - If physical infeasibility is identified in Cluster Study Phase 2, the project cannot proceed to the Cluster Study Phase 2 decision phase.
- **See following slide for proposed definition of physical infeasibility**

New York ISO

Customer Engagement Window - Physical Infeasibility Screen

- **A project may be deemed physically infeasible if:**
  1) the substation for the selected Point of Interconnection (POI) does not have any available bus positions and
     a) is not expandable electrically or within the existing substation footprint, or
     b) adjacent usable vacant land is not available, or
     c) proposals by Interconnection Customer are inconsistent with Good Utility Practice or Applicable Reliability Standards; or
  2) A viable tie line cable route cannot be established from either the Point of Change of Ownership to the Point of Interconnection or, where those points are the same, a viable route within or from the fence line; or

New York ISO

Customer Engagement Window
- Physical Infeasibility Screen Definition, cont.

3) The project capacity exceeds the ratings of equipment at the substation selected for the POI and replacement equipment that would be adequately rated for the project capacity is not commercially available from an approved supplier and within applicable specifications set by the Transmission Owner, and an alternative upgrade is not physically feasible *(e.g.*, higher voltage POI substation).

- **Acceptable commercially available equipment is equipment manufactured by an approved supplier of a particular CTO and conforming with engineering specifications and procedures of the CTO.**

New York ISO

Prioritization for Infeasibility Issues

- As a general matter, projects participating in a Cluster Study will not have priority over other projects participating in the same study based on queue number.
- Priority rules will only be triggered in the event of certain physical infeasibility determinations that result in a "jump ball" between two similarly situated projects for access to limited points of interconnection.
- Priority within the Cluster is assigned based on Interconnection Request submission date/time in Application Window.

New York ISO

Modifications

Project Modifications

- **Modifications during Cluster Study Process only permitted in limited instances**
  - Interconnection Customers may propose a POI modification (not modifications to electrical parameters) within 5 Business Days after the NYISO posts the Cluster list in the Customer Engagement Window.
  - Consequence of such modification during the Customer Engagement Window is a drop in the project's priority within the Cluster.
  - As with current Class Year process rules, Interconnection Customers cannot make other modifications within Cluster Study Process. They can propose such modifications for NYISO materiality review following the Phase 2 decision period at the completion of the Cluster Study Process.

New York ISO

Project Modifications

- **COD extensions:**
  - Current rule allows a project's COD to be extended up to 4 years from completion of Class Year Study. Further extensions require demonstration of reasonable progress against project milestones in the IA.
  - NYISO does not propose a different COD extension period, but does propose to revise the criteria for demonstrating reasonable progress:
    - Reasonable progress need not be tied to milestones in the Interconnection Agreement
    - COD extension can be requested prior to executing an Interconnection Agreement
  - NYISO has concerns about allowing longer extensions in the absence of re-studies or adjustments to secured cost estimates but is considering potential process changes discussed on the following slide.

New York ISO

Project Modifications

- **COD extensions, cont.:**
  - NYISO is considering the ability to extend CODs subject to:
    - Demonstration of reasonable progress notwithstanding the delay;
    - Schedule agreed upon by the CTO that demonstrates that its project would meet the extended COD;
    - Confirmation by the NYISO that extending the COD would not have a material adverse impact on other projects that may be relying on the project's upgrades;
    - Interconnection Customer making an inflation-adjusted payment to update Security posted for required System Upgrade Facilities:
    - Confirmation by the NYISO and CTO that restudy, including updates to cost estimates for SUFs, SDUs and CTO AFs based on then current system conditions is not required.

New York ISO

Withdrawal Penalties

Withdrawal Penalties

- If a project withdraws during the Application Window, there is no withdrawal penalty
- Withdrawal Penalty 1 - If a project withdraws during the Customer Engagement Window or at the Decision Point to Enter Phase 1, it forfeits 25% of its Study Deposit, unless the project withdraws within 5 Business Days of the NYISO publishing the cluster member list.
- Withdrawal Penalty 2 - If a project withdraws during Phase 1 or at the Decision Point at the conclusion of Phase 1, it forfeits 50% of the Study Deposit and 10% of the Phase 1 entry Deposit.
- Withdrawal Penalty 3 - If a project withdraws during Phase 2 or at the Decision Point at the conclusion of Phase 2, it forfeits 100% of the Study Deposit and 20% of the Phase 2 entry Deposit.
- Security Forfeiture - If a project accepts its project cost allocation and pays cash or posts Security, and later withdraws, it may forfeit up to 100% of this deposit if other projects are relying on the CTOAFs or upgrades.

New York ISO

Withdrawal Penalties

- **Reduce penalty amount for physical infeasibility issues:**
  - The below proposal strikes an appropriate balance between fairness and deterring speculative Interconnection Requests.
  - Reductions:
    - Reduce Withdrawal Penalty 1 amount to $10,000 (vs. 25% of study deposit)
    - Reduce Withdrawal Penalty 2 amount to 50% of the Study Deposit (vs. 50% of the Study Deposit plus 10% of the Phase 1 entry Deposit)
    - Reduce Withdrawal Penalty 3 amount to 100% of the Study Deposit (vs. 100% of the Study Deposit plus 20% of the Phase 2 entry Deposit)
  - Above reductions only permitted if there is a physical infeasibility determination precluding project from moving forward (*i.e.*, not just increase in costs)

New York ISO

Withdrawal Penalties

- **Reduce penalty amount for increases in upgrades costs:**
  - Only applicable at end of Phase 2 (for increases to Phase 1 cost estimates)
  - Reductions:
    - Applies if cost increase is greater than 50% (i.e., the final cost allocation at end of Phase 1 vs. total non-SDU cost allocation that Interconnection Customer rejects at end of Phase 2).
    - Reduces Withdrawal Penalty 3 amount to 100% of the Study Deposit (vs. 100% of the Study Deposit plus 20% of the Phase 2 entry Deposit)

New York ISO

Withdrawal Penalties

Allocation of Withdrawal Penalties

- Any withdrawal penalties will first be used to offset the study costs of the remaining projects in the cluster that have accepted their cost allocation and posted security.
- If penalty costs have been collected greater than actual study costs amounts for a given cluster, this amount will be allocated to projects in the withdrawing project's cluster upon their commercial operation on a pro rata basis to incentivize projects to proceed to commercial operation.
  - Pro rata amount established at completion of Phase 2 Decision Period
  - Funds will be paid out to a particular Interconnection Customer upon its achievement of Commercial Operation
  - Funds allocated to an Interconnection Customer that later withdraws before Commercial Operation will be forfeited and used to offset NYISO interconnection administrative costs

New York ISO

Withdrawal Penalties

Allocation of Withdrawal Penalties – Example

- Assume 10 projects have accepted their Project Cost Allocation and posted the related Security at the conclusion of Phase 2 of a Cluster Study.
  1) The NYISO will first use the collected withdrawal penalty amounts for that Cluster Study to offset the study costs incurred by the remaining 10 projects in the Cluster Study.
  2) After Step 1, assume that there is $1,000,000 remaining.
     - The NYISO will divide the $1,000,000 by the 10 projects to determine a $100,000 amount for which each project is eligible if it enters into Commercial Operation.
     - Upon the project's entering into Commercial Operation, the NYISO will distribute the $100,000 to the Interconnection Customer.
     - If the project withdraws, that $100,000 will instead be forfeited and used by the NYISO to offset its interconnection administrative costs.

New York ISO

Phase 1 Study

Phase 1 Study

- **Comparable Class Year Part 1 Study**
- **Will provide Interconnection Customers with Project Cost Estimate for Local SUFs, CTOAFs, and Distribution Upgrades**
  - Interconnection Customer must accept or reject in decision period following Phase 1.
  - Upon acceptance, Interconnection Customer must submit to the NYISO the greater of (i) Phase 1 Deposit, and (ii) 20% of cost estimate determined in Phase 1 less study deposits/commercial readiness deposits already posted.
- **Local SUFs, CTOAFs, and Distribution Upgrades subject to change in Phase 2 based on rejections in Phase 1 decision period.**

New York ISO

Phase 2 Study/ Additional SDU Study

Phase 2 Study/ Additional SDU Study

- **Comparable to Class Year Part 2 Study**
- **Will provide Interconnection Customers with Project Cost Estimate for non-Local SUFs, SDUs and updated Local SUFs, CTOAFs, and Distribution Upgrades, as applicable**
  - Interconnection Customer must accept or reject in decision period following Phase 2 (iterative decision period).
  - Upon acceptance, Interconnection Customer must post with the applicable CTO/ATO 100% of costs estimate of SUFs, SDUs, and CTOAFs (and Distribution Upgrades as applicable) identified in Phase 1 and Phase 2.

New York ISO

Affected System Rules

Affected System Requirements

- **Order No. 2023 establishes new requirements for addressing the impact of interconnections on neighboring Affected Systems.**
  - If the host Transmission Provider identifies an Affected System impact, it will notify the Affected System Operator (ASO) and Interconnection Customer (IC) within 10 Business Days (BDs) of completion of its Cluster Study/Re-Study.
  - ASO has 20 BDs to indicate it will perform an Affected System Study, then 15 BDs to share a cost estimate/schedule of the study, then 10 BDs to provide the IC with a study agreement.
    - IC must execute the study agreement and provide a study deposit within 10 BDs.
    - ASO will have 5 BDs to identify deficiencies in the technical data, which the IC must cure within 10 BDs.
  - ASO must perform and complete the Affected System Study and provide the study report to the IC and host Transmission Provider within 150 calendar days (study delays subject to penalty)
  - ASO and IC will meet to discuss the study report within 10 BDs.
  - ASO will tender a construction agreement to the IC for any required upgrades within 30 calendar days of providing the study report.
  - Order No. 2023 included pro forma Affected System study agreements and construction agreements.

New York ISO

Affected System Requirements, cont.

- ## Impact on Host Transmission Provider Process:
  - If an IC connecting to the host Transmission Provider's system has not received Affected System Study report from the ASO by the date that it would be required to execute an interconnection agreement with the host Transmission Provider, the host Transmission Provider shall at the IC's request extend the interconnection agreement deadline to 30 Calendar Days after receipt of the study report.
  - IC can elect to proceed with interconnection agreement.
  - Host Transmission Provider can also determine that delays in the agreement will cause material impact on the cost/timing of equal or lower queued projects and require execution/filing unexecuted within 30 Calendar Days.
- ## Impact on Affected System Operator Process:
  - The ASO will assign an Affected System Queue Position to an IC requiring an Affected System Study in its region based upon the date of execution of the study agreement.

New York ISO

Affected System Requirements, cont.

- ## NYISO Implementation of Affected System Requirements:
  - For Affected Systems/Affected Transmission Owners within the [New York Control Area] impacted by interconnections to the New York State Transmission System or Distribution System, the NYISO will address the impacts through the Cluster Study Process, which is consistent with NYISO's current process.
  - NYISO will adopt the new Order No. 2023 requirements, as modified to function within the NYISO's new interconnection procedures in the following circumstances:
    - For Affected Systems that are neighboring Control Areas (e.g., PJM, ISO-NE) impacted by interconnection to the New York State Transmission System or Distribution System; or
    - When there are impacts on the New York State Transmission System due to an interconnection to a neighboring Control Area.

New York ISO

Affected System Requirements, cont.

- **NYISO Implementation of Affected System Requirements, cont.:**
  - When NYISO is the host Transmission Provider, it will notify a neighboring Control Area of an Affected System impact as soon as it becomes apparent to the NYISO:
    - Initially, NYISO will identify Affected System impacts after the Application Window closes and the projects in the Cluster have been confirmed
    - After Phase 2 analysis, additional Affected System impacts may be identified.
  - When a transmission system within the New York Control Area is an Affected System for an interconnection to a neighboring Control Area, the NYISO will, in coordination with the impacted TO or system operator located in New York, perform the process set forth in Order 2023 to study the impacts, and to identify any required upgrades, in New York.
  - The NYISO will adopt the pro forma Affected System study agreements and construction agreements, as modified to account for NYISO's process and to account for role of the TO or other system operator,

New York ISO

Study Costs - Cost Allocation

Study Costs - Cost Allocation

- Order No. 2023 provides for a study cost allocation that includes a ration for allocating the shared costs of cluster studies provided that: (i) between 10% and 50% of study costs must be allocated on a per capita basis and (ii) the remainder (between 90% and 50%) must be allocated pro rata by MW.
- Order No. 2023 does not establish a clustered facilities study or a cost allocation for a clustered facilities study.
- NYISO proposes to use its existing rules for allocating study costs for the Class Year Study process for purposes of the similar Cluster Study. See Att. X Section 30.13.3.
- In particular, Cluster Projects will be responsible for Cluster Study Costs as follows:

1. Each Cluster Project shall pay the actual cost of studying the Attachment Facilities and Distribution Upgrades for its own facility;*
2. Each Cluster Project shall pay the actual cost of studying Local System Upgrade Facilities for its own facility;* and
3. Each Cluster Project shall pay an equal share of all other Cluster Study costs.

* If more than one Cluster Project contributes to the need for a particular Attachment Facility, Distribution Upgrade, or Local SUF, those Cluster Projects shall share equally in the cost to study that facility.

New York ISO

Upgrades - Cost Allocation

Upgrades - Cost Allocation

- **Order No. 2023 establishes two allocation methodologies for allocating the costs of upgrades, which depend on whether the upgrades are located at the POI Substation, including switchyard stations (i.e., the "Substation Network Upgrades") or other upgrades ("System Network Upgrades").**
  - The costs of Substation Network Upgrades (*i.e.,* NYISO's Local SUFs) and interconnection facilities are to be allocated on a per capita basis for each project using the facilities.
  - The cost of System Network Upgrades (*i.e.,* non-Local SUFs) are to be allocated using a proportional impact method.
  - The Transmission Provider is required to describe how each type of upgrade would be allocated among developers in the Cluster (*e.g.*, allocation for upgrades caused by voltage support, short-circuit analysis, etc.).
- **The NYISO proposes to continue to use a proportional impact method.**
  - The NYISO determines proportional impacted based on the trigger for the upgrade: (i) for thermal upgrades: MW impact; (ii) for short circuit upgrades; ampere impact; (iii) for stability upgrades; ampere impact; (iv) for voltage upgrades: voltage deviation impact; and (v) for protection/communication upgrades: equally per project.

New York ISO

Incorporating Small Generating Facilities into the Cluster Study Process

Small Generating Facilities in the Cluster Study Process

- NYISO has received favorable feedback for incorporating Small Generating Facilities into the Cluster Study Process and intends to include this change in compliance filing.
- Proposed Small Generating Facilities that have a completed system impact study (identifying no non-Local SUFs) prior to the commencement of the Application Window for the Transitional Cluster Study may elect to proceed with the facilities study under the Attachment Z rules.
  - The Small Generating Facility would complete the facilities study under the Small Generator Interconnection Procedures in Att. Z and move to the Small Generator Interconnection Agreement.
  - If the facilities study for the Small Generating Facility identifies the need for non-Local SUFs, the project will need to submit the project in the next Cluster Study.
- All other Small Generating Facilities must transition to the Cluster Study Process in the same manner as described for Large Facilities above.

New York ISO

Interconnection Agreement

Interconnection Agreement (IA)

- NYISO will tender to Developer a draft interconnection agreement as soon as practicable after completion of the final decision period at conclusion of Cluster Study Phase 2.
- Negotiation period will be 6 months (unless all parties agree to extend this period).
- Developers and TOs will still have the option of using an E&P Agreement to start on engineering and procurement during the negotiation of the IA, which agreement will be superseded by the IA.

New York ISO

Interconnection Agreement (IA), cont.

- Small Generating Facilities subject to a facilities study under the Small Generator Interconnection Procedures will use the pro forma Small Generator Interconnection Agreement.
- Small Generating Facilities that proceed to the Cluster Study Process will be subject to an updated standard interconnection agreement.

New York ISO

Technological Advancements Prescribed in Order No. 2023

Co-Located Generating Facilities Behind Single POI

- **Order No. 2023 requires Transmission Providers to allow more than one generating facility to co-locate on a shared site behind a single POI and share a single IR.**
  - Co-located generating facilities can be owned by a single developer with multiple generating facilities sharing a site or by multiple developers that have a contract/agreement that allows for shared land use.
- **NYISO's interconnection procedures already provide for Co-Located Shared Resources. NYISO intends to retain these requirements in new procedures**
- **Order 2023 provides that generating facilities with different terminal voltage levels would need to submit separate IRs.**
  - NYISO proposes to request an independent entity variation to allow a single IR for a generating facility interconnecting via two kV levels in the same Capacity Region.

New York ISO

Modifications to Consider Generating Facility Additions

- Order No. 2023 requires Transmission Provider to evaluate the proposed addition of a generating facility at the same POI prior to deeming such an addition a material modification if the addition does not change the originally requested interconnection service level. This requirement does not change Transmission Provider's ability to find the requested change material if it impacts cost/timing of an equal or lower queued developer.
- NYISO currently permits a non-material modification as long as the total requested ERIS does not increase by more than 2 MW and the requested CRIS does not increase.
- NYISO intends to retain these requirements in new procedures
- FERC established its requirements for pre-facilities study agreement changes (after which the request can be found a material modification without review.)
    - NYISO intends to request an independent entity variation to limit modifications during the Cluster Study Process to the 5 Business Day-period after publication of the Cluster member list during the Customer Engagement Window.

New York ISO

Consideration of Enumerated Alternative Transmission Technologies in Interconnection Studies

- **Order No. 2023 required Transmission Providers to evaluate the following list of alternative transmission technologies: static synchronous compensators, static VAR compensators, advanced power flow control devices, transmission switching, synchronous condensers, voltage source converters, advanced conductors, and tower lifting.**
  - Transmission Provider to determine, in its sole discretion, whether such technology should be used consistent with good utility practice, applicable reliability standards, and other applicable reliability requirements.
  - Transmission Providers must include an explanation of the results of the evaluation for feasibility, cost, and time savings in the applicable study report.
  - The new rules mandate a process for evaluating the alternatives, not a particular outcome or presumption.
- **NYISO intends to adopt reforms consistent with Order No. 2023.**

New York ISO

Operating Assumptions for Electric Storage Resources in Interconnection Studies

- **Order No. 2023 required Transmission Providers, at the request of developers, to use operating assumptions in interconnections studies (for ERIS and NRIS) that reflect the proposed charging behavior of electric storage resources (whether stand alone, co-located generating facility, or part of hybrid generating facility)**
  - *I.e.*, whether the interconnecting generating facility will or will not charge during peak load conditions – unless good utility practice, including applicable reliability standards, otherwise requires the use of different operating instructions.
  - Transmission Providers to memorialize such operating requirements in the LGIA or require control technologies.
- **NYISO will seek an independent entity variation not to apply this requirement.**
  - Would add significant new complexity and time to the interconnection study process
  - Not consistent with NYISO's market rules and would create inconsistent planning rules across different types of intermittent resources
  - Could require NYISO to incorporate assumptions inconsistent with a resource's likely performance.
  - Could adversely impact the NYISO's ability to plan for certain system scenarios, including rare system conditions, which could result in the NYISO not identifying SUFs required to maintain system reliability

New York ISO

Availability of Surplus Interconnection Service

- Order No. 2023 required Transmission Providers to allow developers to access the surplus interconnection service process once original developer has an executed LGIA (or requests it be filed unexecuted), to enable other generating facilities to use unused interconnection service earlier than currently allowed.
- This requirement does not apply to the NYISO's interconnection procedures.
- NYISO received independent entity variation from FERC in Order No. 845 compliance filing as the surplus interconnection service concept does not apply in NYISO.

New York ISO

Modeling and Ride-Through Requirements for Non-Synchronous Generating Resources

- **Order No. 2023 required that each developer requesting to interconnect a non-synchronous generating facility in LGIP or SGIP is required to submit to the Transmission Provider:**
  1. a validated user-defined RMS positive sequence dynamic model;
  2. an appropriately parameterized generic library RMS positive sequence dynamic model, including a model block diagram of the inverter control system and plant control system, that corresponds to a model listed in a new table of acceptable models or a model otherwise approved by WECC; and
  3. a validated EMT model, if the Transmission Provider performs an EMT study as part of the interconnection study process.
- **NYISO intends to adopt the reforms consistent with Order No. 2023 with Independent Entity Variations to the extent necessary for implementation.**

New York ISO

Ride-Through Requirements for Non-Synchronous Generating Resources

- **Order No. 2023 required that, during abnormal frequency conditions and voltage conditions within the "no trip zone" defined by NERC Reliability Standard PRC-024-3 (or successor), the non-synchronous generating facility must ensure that, within any physical limitations of the generating facility, its control and protection settings are configured or set to:**
  1. continue active power production during disturbance and post disturbance periods at pre-disturbance levels unless providing primary frequency response or fast frequency response;
  2. minimize reductions in active power and remain within dynamic voltage and current limits, if reactive power priority mode is enabled, unless providing primary frequency response or fast frequency response;
  3. not artificially limit dynamic reactive power capability during disturbances; and
  4. return to pre-disturbance active power levels without artificial ramp rate limits if active power is reduced, unless providing primary frequency response or fast frequency response.

New York ISO

Ride-Through Requirements, cont.

- In addition, large generating facilities are required to stay connected to and synchronized with the transmission system during system disturbances within under-voltage and over-voltage conditions.
- Order No. 2023 required that all newly interconnecting large generating facilities are required to provide frequency and voltage ride through capability consistent with any standards and guidelines that are applied to other generating facilities in the balancing authority area on a comparable basis.
- NYISO intends to adopt the reforms consistent with Order No. 2023 and applicable NYSRC Reliability Rules.

New York ISO

Next Steps

Additional Topics to be Discussed

- Requirements regarding study delays and metrics for new study structure
- Additional details, clarifications, updates, as needed based on stakeholder feedback

New York ISO

Next Steps

- December 14 (Comprehensive Compliance Proposal)
- January – February 2024
  - Additional details, clarifications, updates, as needed based on stakeholder feedback
  - Tariff review
- Targeted filing date: February 29, 2024 – April 3, 2024
  - Deadline is April 3, 2024

New York ISO

Appendix A:
Order No. 2023 Overview

Order No. 2023 Rulemaking Process

- **July 15, 2021** – FERC issued an Advanced Notice of Proposed Rulemaking (ANOPR) to broadly examine FERC's current electric regional transmission planning, cost allocation, and generator interconnection policies.
- **April 21, 2022** – FERC issued a Transmission Planning NOPR.
- **June 16, 2022** – FERC issued the Interconnection NOPR in Docket No. RM22-14-000.
- **July 28, 2023** – FERC issued Order No. 2023. (184 FERC ¶ 61,054)
  - FERC Chairman Phillips described Order No. 2023 as a "historic," "landmark," and "watershed" order and one of the longest orders in FERC's history.

New York ISO

Overview of Order No. 2023

- **The final rule requires Transmission Providers to adopt revised *pro forma* generator interconnection procedures (LGIP) and agreements "to ensure that interconnection customers can interconnect to the transmission system in a reliable, efficient, transparent, and timely manner, and to prevent undue discrimination."**
  - FERC's *pro forma* term "Transmission Provider" as applied in the NYISO's interconnection procedures encompasses both the NYISO and the New York Transmission Owners.
  - The NYISO's interconnection procedures assign the responsibilities of "Transmission Providers" to the NYISO, as the system operator, and the New York Transmission Owners, as the owners of the impacted transmission and distribution facilities in New York.
- **FERC describes its reforms as primarily falling into 3 categories:**
  - First-Ready, First-Served Cluster Study Process.
  - Reforms to Increase the Speed of Interconnection Queue Processing.
  - Reforms to Incorporate Technical Advancements in the Interconnection Process.

New York ISO

Overview of Order No. 2023

- **Compliance Deadline**
  - Compliance filing is due on December 5, 2023, which is 90 days from the date Order No. 2023 was published in the Federal Register (absent an extension granted by the Commission).
  - Motions for Extension of Time filed by other parties are pending. If such motions are denied, NYISO anticipates seeking a modest extension of the compliance filing deadline.
- **Independent Entity Variations**
  - Deviations from the compliance directives are permitted if the transmission provider demonstrates the variations are either "consistent with or superior to" the FERC *pro forma* LGIP or, in the context of RTOs/ISOs merit an independent entity variation
  - In Order No. 2003 when the LGIP was initially created, the Commission acknowledged the differing characteristics of each region and provided ISOs and RTOs with the flexibility to seek independent entity variations from the final rule "to customize its interconnection procedures and agreements to fit regional needs."
  - Order No. 2023 gives ISOs/RTOs flexibility to propose independent entity variations for reforms to accommodate regional needs.

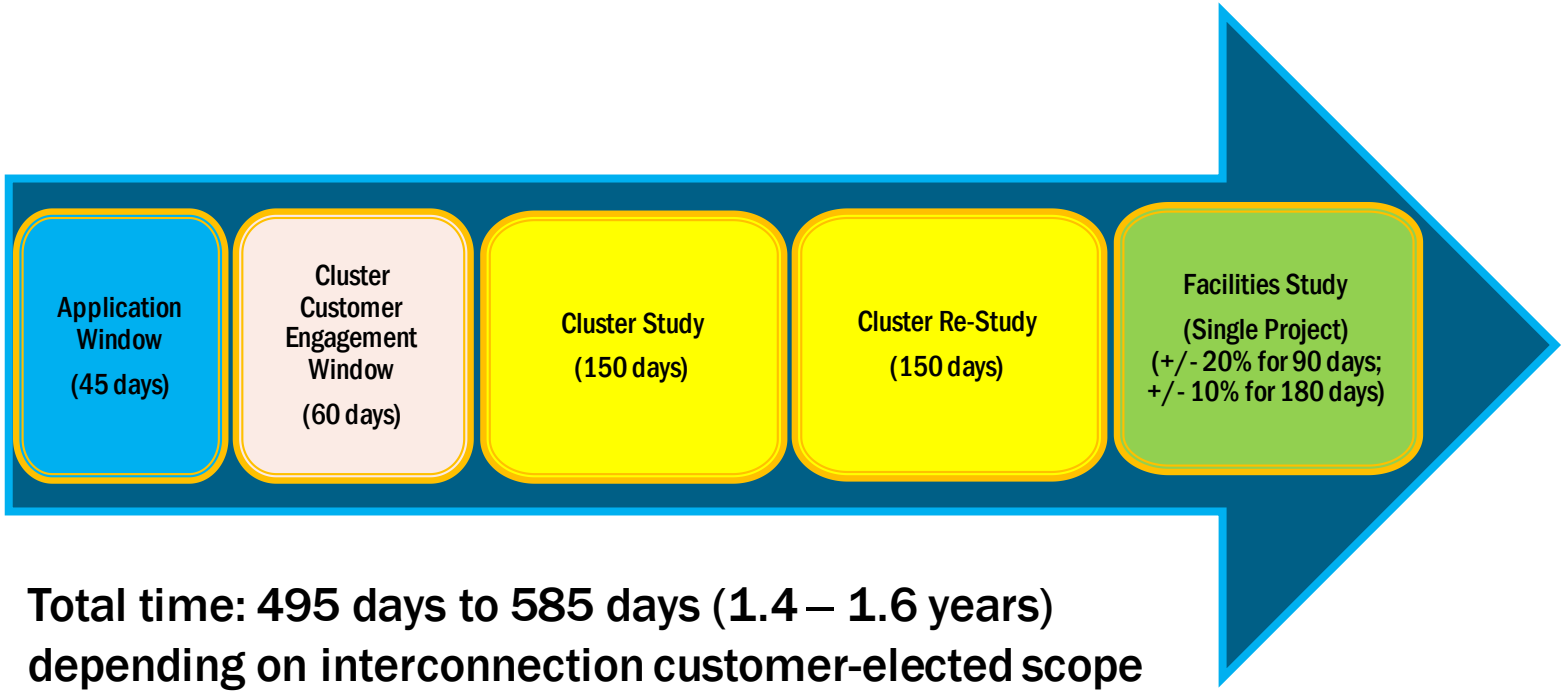
New York ISO

Motions for Rehearing/Clarification

- **Along with other ISOs/RTOs, transmission owners and industry groups, the NYISO submitted a Motion for Rehearing and Clarification on select issues in Order No. 2023.**
  - NYISO requested rehearing to permit each Transmission Provider to establish firm interconnection study deadlines that are tailored to specific study scopes and circumstances for each region rather than one-sized-fits-all timeframes.
  - NYISO requested rehearing to eliminate the requirement that Transmission Providers must post an anonymized list of projects eligible to participate in the cluster study.
  - NYISO requested clarification that Interconnection Customers only get one opportunity to correct deficiencies in its Interconnection Request and that the Commission did not intend for that cure period to be extended.
- **On September 28, 2023, FERC denied all requests for rehearing by operation of law, providing that the requests for rehearing will be addressed in a future order.**

New York ISO

Order No. 2023 Cluster Study Timeline



Total time: 495 days to 585 days (1.4 – 1.6 years) depending on interconnection customer-elected scope for the Facilities Study

New York ISO

Order No. 2023 Transition Process

- **Order No. 2023 provides for three options that can be exercised depending on the progress of the Interconnection Request:**

1) Interconnection Customers that have been tendered facilities study agreements by the Transmission Provider may proceed to a transitional serial study (a facilities study) or may opt to move to the transitional cluster study.

2) Interconnection Customers in the interconnection queue that have not been tendered a facilities study agreement (have not completed the system impact study) will be eligible for the transitional cluster study.

3) All other Interconnection Customers will be subject to the new interconnection procedures.

New York ISO

FERC Order Extending Order No. 2023 Compliance Filing Deadline

- On October 25, 2023, FERC issued an order that, among other things, extends the Order No. 2023 Compliance Filing Deadline to April 3, 2024.
- The date of the NYISO's compliance filing and start date for the rolling Pre-Application Process is yet to be determined.

New York ISO

Questions?

Roles of the NYISO

- **Reliable operation of the bulk electricity grid**
  - Managing the flow of power on 11,000 circuit-miles of transmission lines from hundreds of generating units
- **Administration of open and competitive wholesale electricity markets**
  - Bringing together buyers and sellers of energy and related products and services
- **Planning for New York's energy future**
  - Assessing needs over a 10-year horizon and evaluating projects proposed to meet those needs
- **Advancing the technological infrastructure of the electric system**
  - Developing and deploying information technology and tools to make the grid smarter

New York ISO

Our Mission & Vision

Mission

Ensure power system reliability and competitive markets for New York in a clean energy future

Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

New York ISO