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Independent System Operator

# Interconnection Order No. 2023 Proposed Compliance Approach


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## Interconnection Issues Task Force (IITF)

November 14, 2023

Key changes from 11/2 IITF presentation are noted in red

# Agenda (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
- Incorporating Small Generating Facilities into the Cluster Study Process
- Next Steps

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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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# Proposed Cluster Study Process

- **Additional aspects and details under development to be discussed in future meetings:**
  - Additional detail on Phase 1 and Phase 2 studies;
  - Affected System study process;
  - Cost allocation for study costs and upgrades;
  - Requirements regarding study delays;
  - Detailed metrics for new study structure;
  - Technological advancements prescribed in Order No. 2023;
  - IA negotiation process;
  - Transition rules for Small Generating Facilities.

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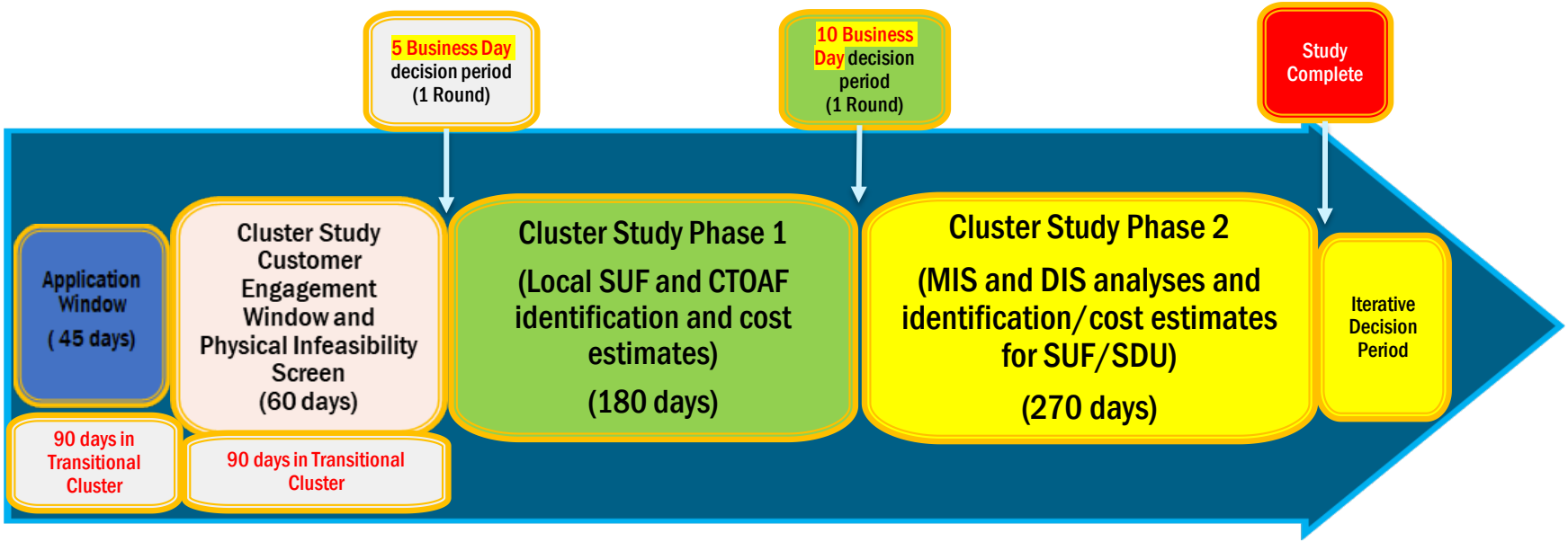
# Cluster Study Process – Structure and Timeline

# 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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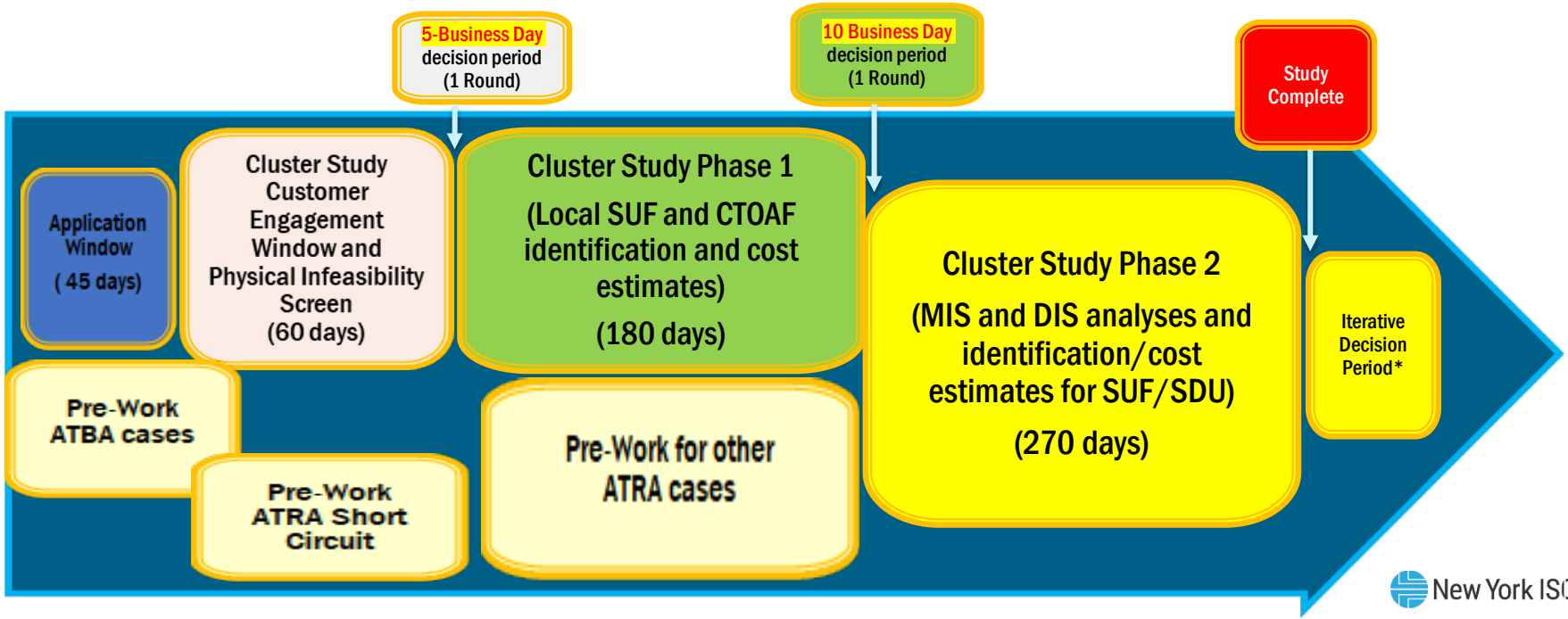
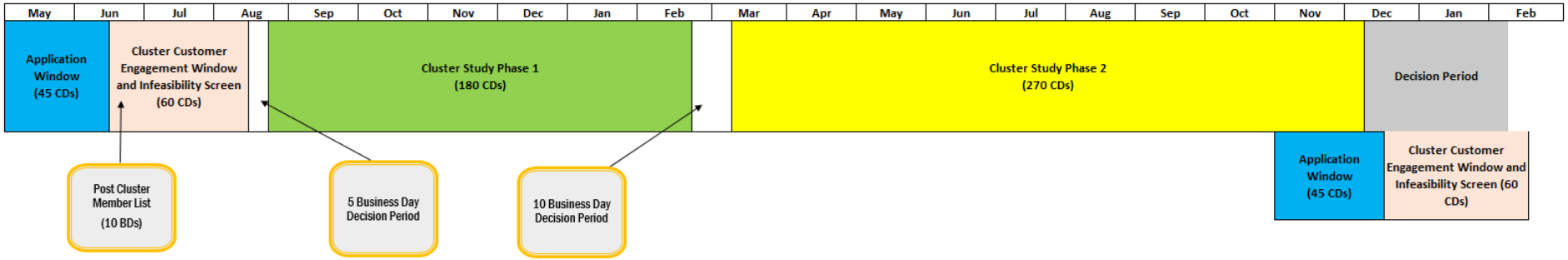
# NYISO's Proposed Cluster Study Process

## 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 plans to implement these rules 12/1/2023 absent a FERC order rejecting the proposed tariff revisions.**

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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 (90 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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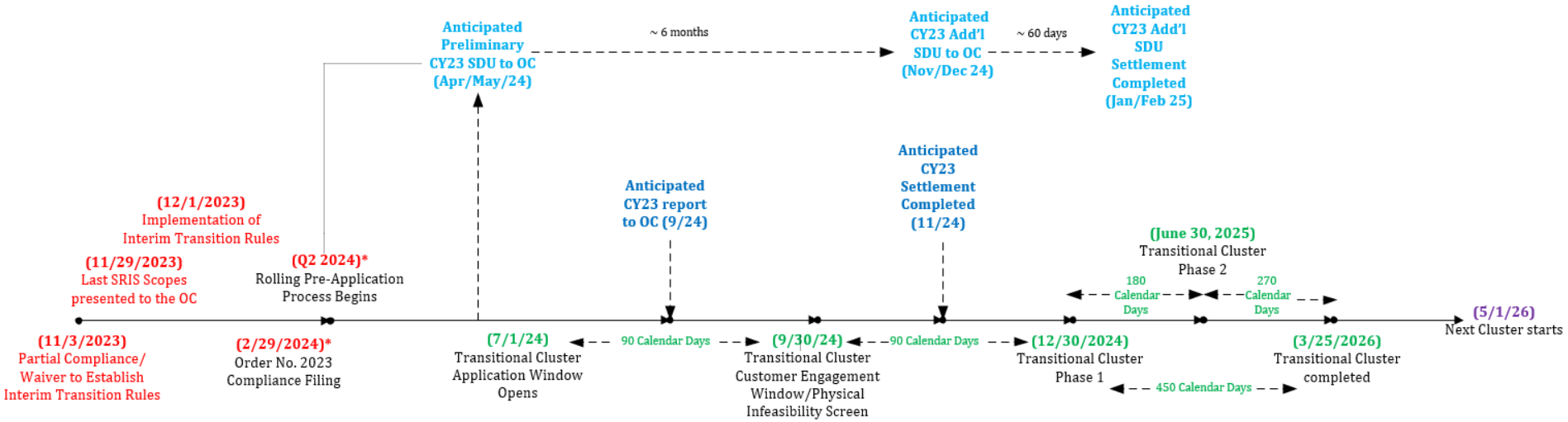
# Transition Process Timeline




*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.

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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:**
  - 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.

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# Pending Interconnection Requests

- **Class Year 2023 projects:**
  - Will proceed under the current Class Year Study process
  - 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 any Cluster Study after the Transitional Cluster Study.
    - Projects that paid a deposit in lieu of satisfying a regulatory milestone to enter Class Year 2023 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.
  - To enter the Transitional Cluster Study, a Class Year 2023 project must withdraw from the queue and Class Year and submit an Interconnection Request in the Transitional Cluster Application 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
  - 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 (90-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

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# Interconnection Request Requirements

1. Non-refundable application fee $10,000 (cash only): 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 |

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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 NYSRC Reliability Rule B.5 (currently PRR 151) establishing minimum interconnection standards for Large Inverter Based Resource (IBR) Generating Facilities based on IEEE Standard 2800-2022
7. Demonstration of Site Control (described further below)

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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
- *NYISO proposes to allow 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 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)

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# Interconnection Request – Site Control

- Demonstration of 100% Site Control with Interconnection Request
  - Re-confirmation of 100% Site Control with project modifications or COD extensions
- 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 35-36).
- 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<br>• 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. |

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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 44.
- 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)** | $4,000/MW |
| **To enter Phase 2 (Phase 2 Deposit)** | 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.

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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</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)</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</td></tr>
</table>

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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
- **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

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# 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**

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# 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 from the Point of Change of Ownership to the Point of Interconnection cannot be established; or
  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.

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# 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.

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# Modifications

# Project Modifications

- **Modifications only permitted in the Application Window and in the initial phase of the Customer Engagement Window**
  - 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.
- **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 has concerns about allowing longer extensions in the absence of re-studies or adjustments to secured cost estimates.

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# Withdrawal Penalties

# Withdrawal Penalties

- 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.
- If a project withdraws at or before the Decision Point at the conclusion of Phase 1, it forfeits 50% of the Study Deposit and 10% of the Phase 1 entry Deposit.
- If a project withdraws at or before the Decision Point at the conclusion of Phase 2, it forfeits 100% of the Study Deposit and 20% of the Phase 2 entry Deposit.
- 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.

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# Withdrawal Penalties

- **Reduce penalty amount for physical infeasibility issues:**
  - The below proposal strikes an appropriate balance between fairness and deterring speculative Interconnection Requests.
  - Proposed reductions:
    - Reduce withdrawal penalty at Customer Engagement Window decision period to $10,000 (vs. 25% of study deposit)
    - Reduce withdrawal penalty at end of Phase 1 to 50% of the Study Deposit (vs. 50% of the Study Deposit plus 10% of the Phase 1 entry Deposit)
    - Reduce withdrawal penalty at end of Phase 2 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)

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# Withdrawal Penalties

- **Reduce penalty amount for increases in upgrades costs:**
  - Only applicable at end of Phase 2 (for increases to Phase 1 cost estimates)
  - Proposed 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 at end of Phase 2 to 100% of the Study Deposit (vs. 100% of the Study Deposit plus 20% of the Phase 2 entry Deposit)

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# 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

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# 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.

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# Incorporating Small Generating Facilities into the Cluster Study Process

# Small Generating Facilities in the Cluster Study Process

- NYISO requests feedback regarding incorporating Small Generating Facilities into the proposed Cluster Study process
- MISO, SPP, CAISO, and PJM already have a combined process, with limited exceptions, such as a Fast Track Process permitted under certain circumstances.
- Potential Benefits
  - More efficient and streamlined interconnection process
  - Single set of rules
  - Base case alignment
    - Small Gens are studied individually without Large Facilities in pending interconnection studies. As a result, the collective impact at a POI involving both Large and Small generators may not be adequately captured without performing sensitivities.
  - May expedite the total study process for Small Generating Facilities

New York ISO

# Small Generating Facilities in the Cluster Study Process, cont.

- **Potential Benefits, cont.**
  - Without merging processes, NYISO will need to develop the following additional rules:
    - Rules to account for impacts of Small Generating Facilities on projects in the new Cluster Study process, including:
      - how/when to fold them into the new Cluster Study; and
      - the potential impact/delay caused by adding projects at later stages of the Cluster Study process.
    - Rules to evaluate pending Cluster Study projects in the base cases of Small Generating Facilities Study or to perform sensitivities for Small Generating Facilities Study, making their ultimate cost allocation and upgrades contingent upon decisions in the Cluster Study.

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# Small Generating Facilities in the Cluster Study Process, cont.

- **Potential Downsides:**
  - Larger scope of compliance plan and compliance tariff revisions
  - Potentially more stringent entry requirements
  - Time required to develop transition rules for Small Generating Facilities currently in the queue
  - Increase the number of projects that have to be studied in the Cluster Study process (but efficiencies gained may outweigh this downside)
  - Less flexibility for Small Generating Facilities regarding timing for submitting an Interconnection Request
    - Would be limited to the Cluster Study Application Window vs. current rolling submission process

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# Next Steps

# Next Steps

- Compliance proposals to be discussed in increasing detail at Interconnection Issues Task Force meetings. Upcoming IITF meetings:
  - December 1
  - December 14
  - January 11
  - February 6

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# 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.

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# 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.

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# 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.**

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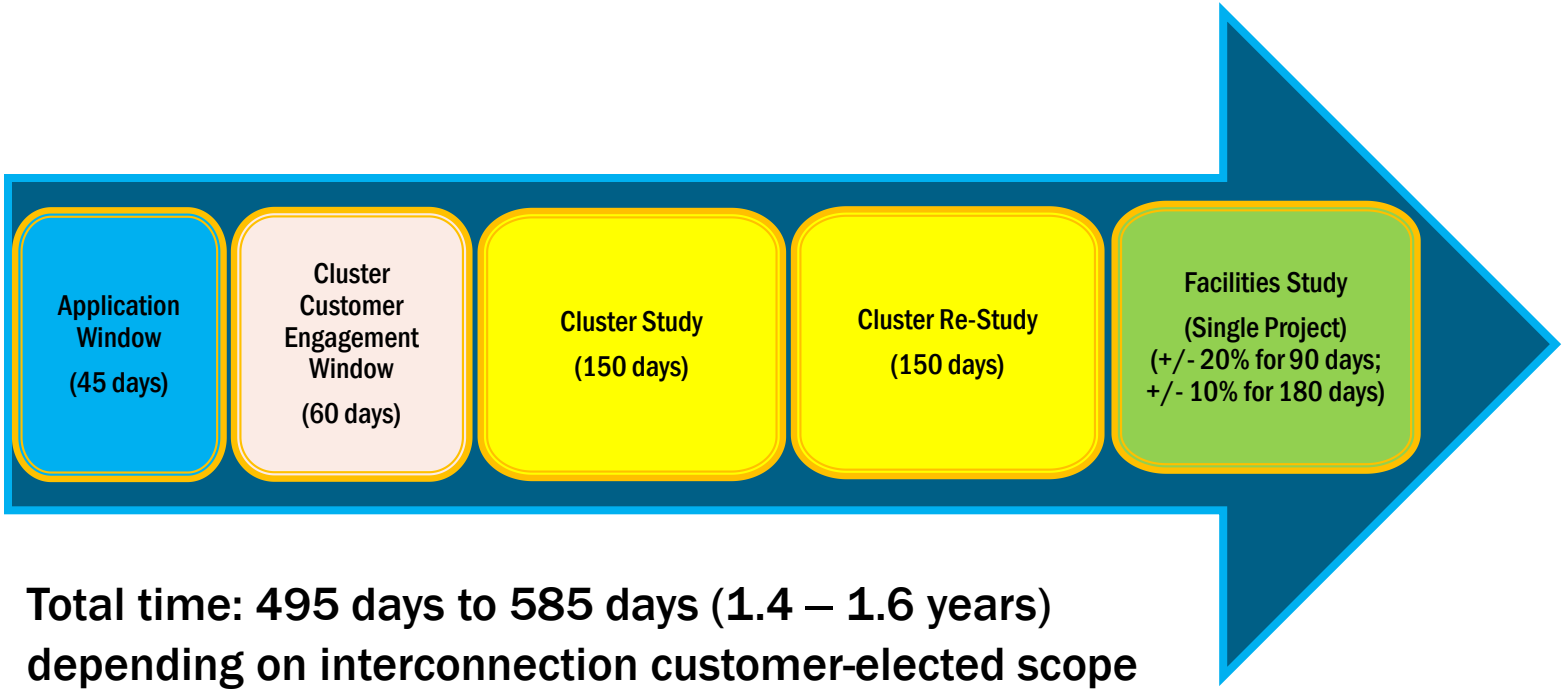
# Order No. 2023 Cluster Study Timeline




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

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# 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.

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# 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.

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# 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

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# 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

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