New York ISO

NYISO's Standard Interconnection Procedures

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Interconnection Process Overview
WebEx Presentation
2024

Topics of Discussion

- Introduction to NYISO's Standard Interconnection Procedures (SIP)
  - Key aspects of SIP
  - Process and Timeline
    - Transition Cluster
- Interconnection Projects Portal and Features
- Pre-Application Process
- Submitting an Interconnection Request/CRIS-Only Request
  - Application Requirements
  - Submitting an IR Application through the Interconnection Projects Portal

Topics of Discussion (cont.)

- Customer Engagement Window
- Cluster Studies
  - Cluster Study – Phase 1 Study
  - Cluster Study – Phase 2 Study
- Study Deposits, Readiness Deposits and Withdrawal Penalties
- Post Phase 2 Study Requirements
- Additional Resources

Introduction to NYISO's Standard Interconnection Procedures

Background: NYISO's Interconnection Process

- Purpose of NYISO's interconnection process: to evaluate the impacts of proposed generation, transmission, and load projects on the New York Transmission System or Distribution System (as applicable) and to identify and cost allocate attachment facilities and upgrades required to meet reliability requirements
  - Three types of Interconnection Requests analyzed by NYISO:
    - Generator and transmission additions intended to increase the amount of supply available to the grid,
    - Transmission projects intended to provide consumers greater access to supply across the grid, and
    - Certain substantial load interconnections, such as manufacturing facilities, data centers, or other large loads that will add significant demand to the grid
- This presentation focuses on interconnection procedures for Generating Facilities and Cluster Study Transmission Projects subject to the new Standard Interconnection Procedures

NYISO's New Standard Interconnection Procedures (SIP)

- NYISO submitted its filing to comply with Order Nos. 2023 and 2023-A with FERC on May 1, 2024, with a requested effective date of May 2, 2024
  - Filing included a conditional request for prospective waivers
    - Waiver Request No. 1: Waivers of any of the existing requirements in the NYISO's Standard Large Facility Interconnection Procedures (LFIP) in Attachment S and X, the existing Small Generator Interconnection Procedures (SGIP) in Attachment Z to the OATT, and the new Standard Interconnection Procedures in Attachment HH that might otherwise limit the NYISO's ability to perform and complete the Transition Cluster Study Process
    - Waiver Request No. 2: If the Commission determines that the inclusion of Small Generating Facilities in the Cluster Study Process is outside the scope of the compliance filing, that the Commission then waive the SGIP requirements to the extent necessary to permit the NYISO to temporarily incorporate small projects in the Transition Cluster Study Process
  - Ministerial errata filing was submitted May 8, 2024, to correct a tariff base in Section 32.5
- Reforms include compliance with FERC Order 2023 and 2023-A: "Improvements to Generator Interconnection Procedures and Agreements"
  - Ensure that Interconnection Customers "are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner"
  - Prevent undue discrimination, reducing interconnection queue backlogs, and
  - Provide greater certainty during the interconnection process

OATT 40 ATT HH: Standard Interconnection Procedures

Key Aspects of the NYISO's Standard Interconnection Procedure

- Overall process timeline that aligns with the timeline laid out in FERC Order Nos. 2023 and 2023-A
- A rolling, optional Pre-Application Process, to provide Interconnection Customers an opportunity to obtain information on potential POIs prior to submission of their Interconnection Requests
- More stringent submission requirements, including increased Study Deposits, Readiness Deposits, technical data, and Site Control requirements, and strict deadlines to cure deficiencies within the Application Window
- Customer Engagement Window that includes a physical infeasibility screen to identify physically infeasible interconnections
- A two-phase Cluster Study that incorporates SRIS-type analyses and Class Year analyses (including POI upgrades) rather than an SRIS-type cluster followed by an individual facilities study

Key Aspects of Standard Interconnection Procedure (cont.)

- Decision periods within the Cluster Study Process that include Readiness Deposits and Withdrawal Penalties, along with a mechanism for distributing any collected withdrawal penalty funds
- Limited project modifications during the Cluster Study Process and provision of additional mechanisms for requesting extensions to a project's commercial operation date
- Penalty framework for study delays in the performance of the Cluster Study or an Affected System Study
- Increased financial commitments, including Study Deposits and Readiness Deposits
- Incorporating Small Generating Facilities into the SIP
- Revised Affected System requirements
- The SIP tariff provisions are consolidated in new OATT Attachment HH

Types of Interconnection Service

- Two types of interconnection service may be requested under the Standard Interconnection Procedures:
  - Energy Resource Interconnection Service (ERIS) : Basic interconnection service allowing an Interconnection Customer to interconnect its Generating Facility or Cluster Study Transmission Project to the New York State Transmission System or Distribution System in accordance with NYISO Minimum Interconnection Standard
    - Allows for Energy market participation to enable wholesale grid to receive electric energy from the resource
  - Capacity Resource Interconnection Service (CRIS): Service provided by NYISO to Interconnection Customers that satisfy the NYISO Deliverability Interconnection Standard or are otherwise eligible to receive CRIS
    - CRIS is one of the eligibility requirements allowing an Interconnection Customer to participate as an Installed Capacity Supplier

OATT 40 ATT HH, Section 40.5.6

NYISO OATT Tariff Revisions

Pre-compliance filing OATT (Open Access Transmission Tariff) Attachments

- Att. S: Rules to Allocate Responsibility for the Cost of New Interconnection Facilities;
- Att. X: Standard Large Facility Interconnection Procedures; and
- Att. Z: Small Generator Interconnection Procedures

- Att. P: Transmission Interconnection Procedures
- Transmission expansion and load projects rules in the body of the OATT

New OATT (Open Access Transmission Tariff) Attachment

- Attachment HH: Rules for the new Cluster Study Process - the Standard Interconnection Procedures
  - Consolidates existing requirements from previous OATT Attachments as revised for the new Cluster Study Process in compliance with Order No. 2023

- Att. P: Transmission Interconnection Procedures (with revisions conforming to Att. HH)
- Transmission expansion and load project rules in the body of the OATT (with revisions conforming to Att. HH)

Entities Involved in NYISO's Standard Interconnection Procedures

- Interconnection Customer (IC)
  - Entity that submits an Interconnection Request or CRIS-Only Request that is subject to the application of the Standard Interconnection Procedures as set forth in Section 40.2.3 of this Attachment HH
- Connecting Transmission Owner (CTO)
  - TO that owns, leases or otherwise possesses interest in a portion of NYS Transmission System or Distribution System at the POI of the interconnecting facility; is a party to the Standard Interconnection Agreement
- Affected Systems
  - Affected TO (ATO): TO other than the CTO that owns, leases or otherwise possesses interest in a portion of the NYS Transmission System where System Deliverability Upgrades, System Upgrade Facilities, Affected Network Upgrade Facilities, or Network Upgrade Facilities are or will be installed
  - Affected System Operators: Entity that operates an electric system within the New York Control Area other than the transmission system owned, controlled or operated by the Connecting Transmission Owner that may be affected by the proposed interconnection (includes ATO but can include non-TOs)
  - External Affected System Operator: Entity that operates an electric system outside of the New York Control Area that may be affected by the proposed interconnection (e.g., PJM or ISO-NE)
- NYISO

Roles of the Entities Involved in the Interconnection Process

New York ISO

Interconnection Customer (IC)

- Submits an Interconnection Request or CRIS-Only Request during the Application Window
- Provides technical data and ensures all application requirements for the request are met during the Application Window and throughout the Cluster Study Process
- Is financially responsible for the Study Costs and Readiness Deposits associated with the Cluster Study Process and required upgrades
- Participates in studies and discussions with the NYISO and/or the TO/ASO
- Works with the NYISO and TO/ASO to develop and execute the Interconnection Agreement and any construction agreements
- Main entity involved in construction of its owned interconnection facilities

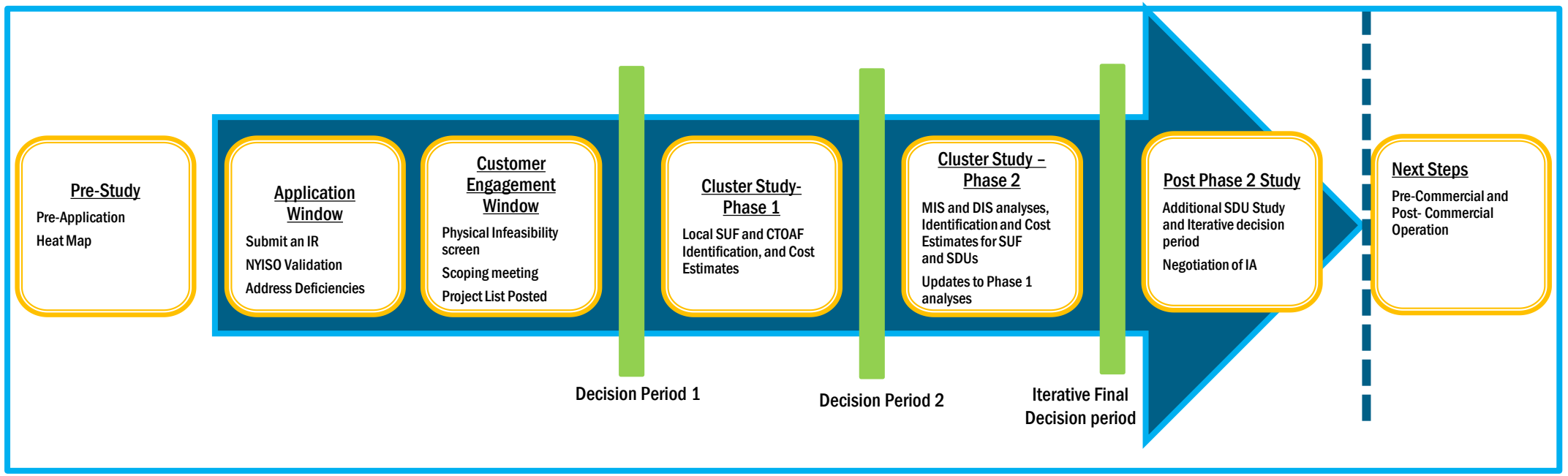
NYISO

- Coordinates the interconnection process
- Identifies CTO and ATO for each IR or CRIS-Only Request
- Conducts and coordinates the Cluster Study Coordinates the stakeholder process (Operating Committees and working groups)
- Works with the IC and TO to develop and execute the Interconnection Agreement and any construction agreements
- Files the agreements with FERC if required

Transmission Owner (TO)/Affected System Operators (ASO)

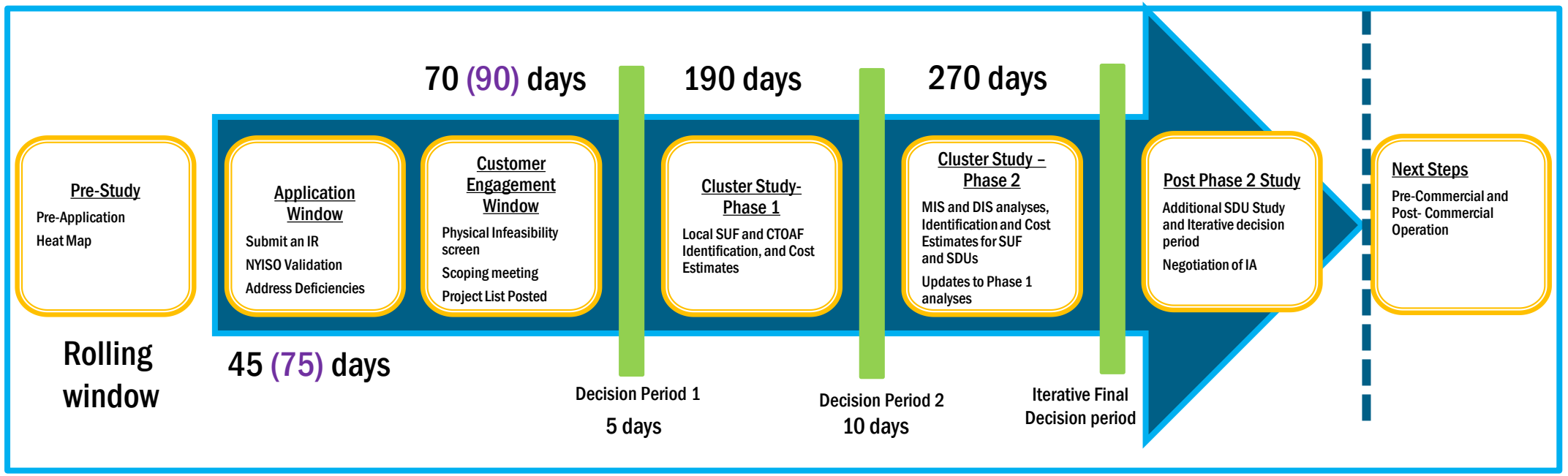
- Participates in Cluster Study to assist in and/or perform Cluster Study analyses and to ensure proposed projects meet all Applicable Reliability Requirements
- Involved in construction of the interconnection facilities
- Works with the IC and NYISO to develop the Interconnection Agreement and/or construction agreements, as applicable

Stages of NYISO's Standard Interconnection Procedure



OATT 40 ATT HH, Standard Interconnection Procedures

Timeline and Process – Stages of the NYISO's Standard Interconnection Procedures and Transition Cluster



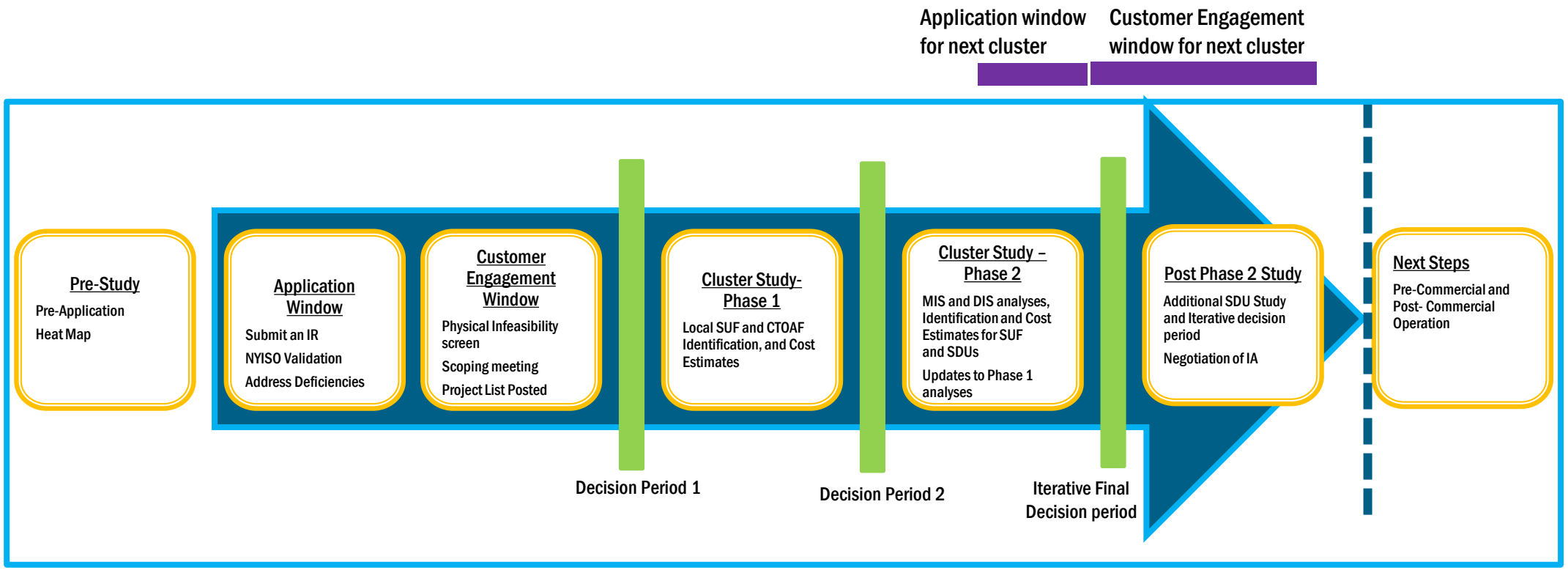
Total timeline: 590 days (1.6 years)

(time duration for initial Transition Cluster Study)

Application Window for initial Transition Cluster Study will open on August 1st 2024

Sequencing of Cluster Studies

- Clusters could begin approximately every 18 months with slight overlap
- Overlap will not cause rework or inefficiencies
- The following cluster's Application Window will overlap with the present cluster's Phase 2 Study



Pending Interconnection Requests

- On May 2, 2024, pending queue projects that did not meet the criteria to retain their queue position were withdrawn from the NYISO's Queue
  - The projects will not automatically transition to the Transition Cluster Study
  - To enter the Transition Cluster Study, any project, including those still in the Queue, must submit a new Interconnection Request or CRIS-Only Request in the Application Window and will be assigned a new Queue Position number upon validation in the Application Window for the Transition Cluster Study
  - Deposits required for entry into the Application Window for the Transition Cluster Study 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 incurred study costs

OATT 40 ATT HH, Section 40.5.4.11

Pending Interconnection Requests (cont.)

- Class Year 2023 projects:
  - Will proceed under the current Class Year Study process
  - If the project is in the Additional SDU Study, its Additional SDU Study completion date (including Security posting) must be 10 BDs prior to Cluster Study Phase 1 start date (vs. ATBA lock down date in subsequent Class Year). Otherwise, the Additional SDU Study will be terminated
  - Upon the project's acceptance of its Project Cost Allocations for SUFs/SDUs identified in Class Year 2023 and posting of Security, the project will proceed to the Interconnection Agreement stage
  - A Class Year 2023 project could become a member of the Transition Cluster Study if it has satisfied the application requirements as discussed in the next slide during the Application Window as a Contingent Project, if:
    - The project rejects its Project Cost Allocation for SUFs
    - The project's Additional SDU Study is terminated

Contingent Transitional Study Projects for Class Year 2023

- Interconnection Customer may submit an Interconnection Request for a Class Year 2023 project as a Contingent Project during the Application Window for the Transition Cluster Study
- This enables the project to enter the Transition Cluster Study with its own, new Queue Position if it does not accept its Project Cost Allocation in the CY23 decision period
  - Such projects must satisfy the same application requirements during the Application Window as all other projects
  - Must be the same project as the project it proposed in CY23
- If the Interconnection Customer of a Contingent Project accepts its Project Cost Allocation in the final decision round in CY23, then it will be removed from the Transition Cluster Study without a Withdrawal Penalty

OATT 40 ATT HH, Section 40.5.4.1

Interconnection Projects Portal

Interconnection Projects Community Portal

Submissions & Uploads

Allows Interconnection Customer to submit Interconnection Requests electronically and upload required documentation

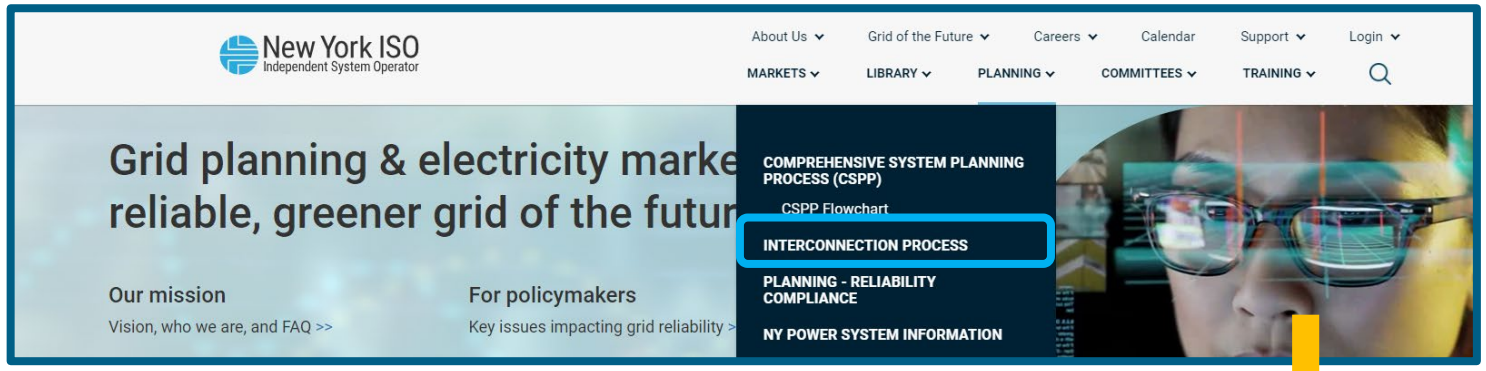
Notifications & Reminders

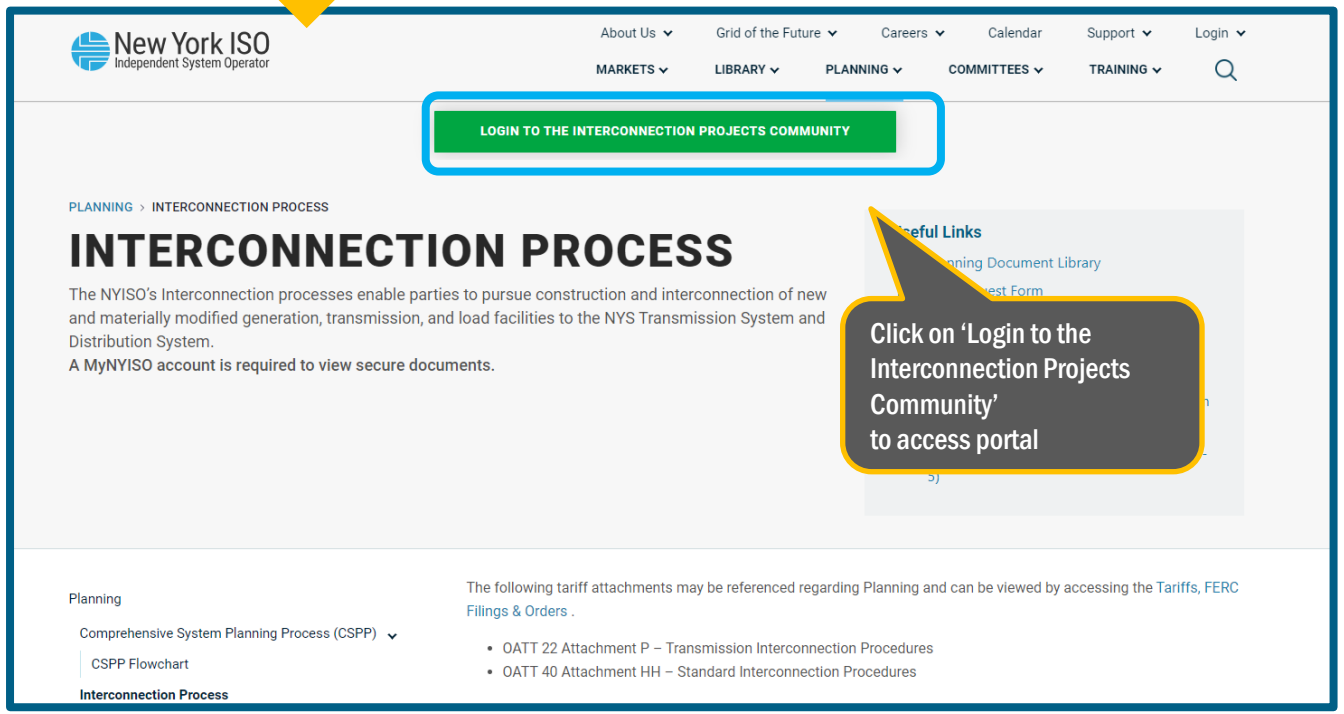
Provides certain automated notification and reminder emails regarding outstanding information and deadlines related to an Interconnection Request

Status & Tracking

Interconnection Customer can obtain status updates on projects throughout the Interconnection Request lifecycle and track where request is at in the overall process

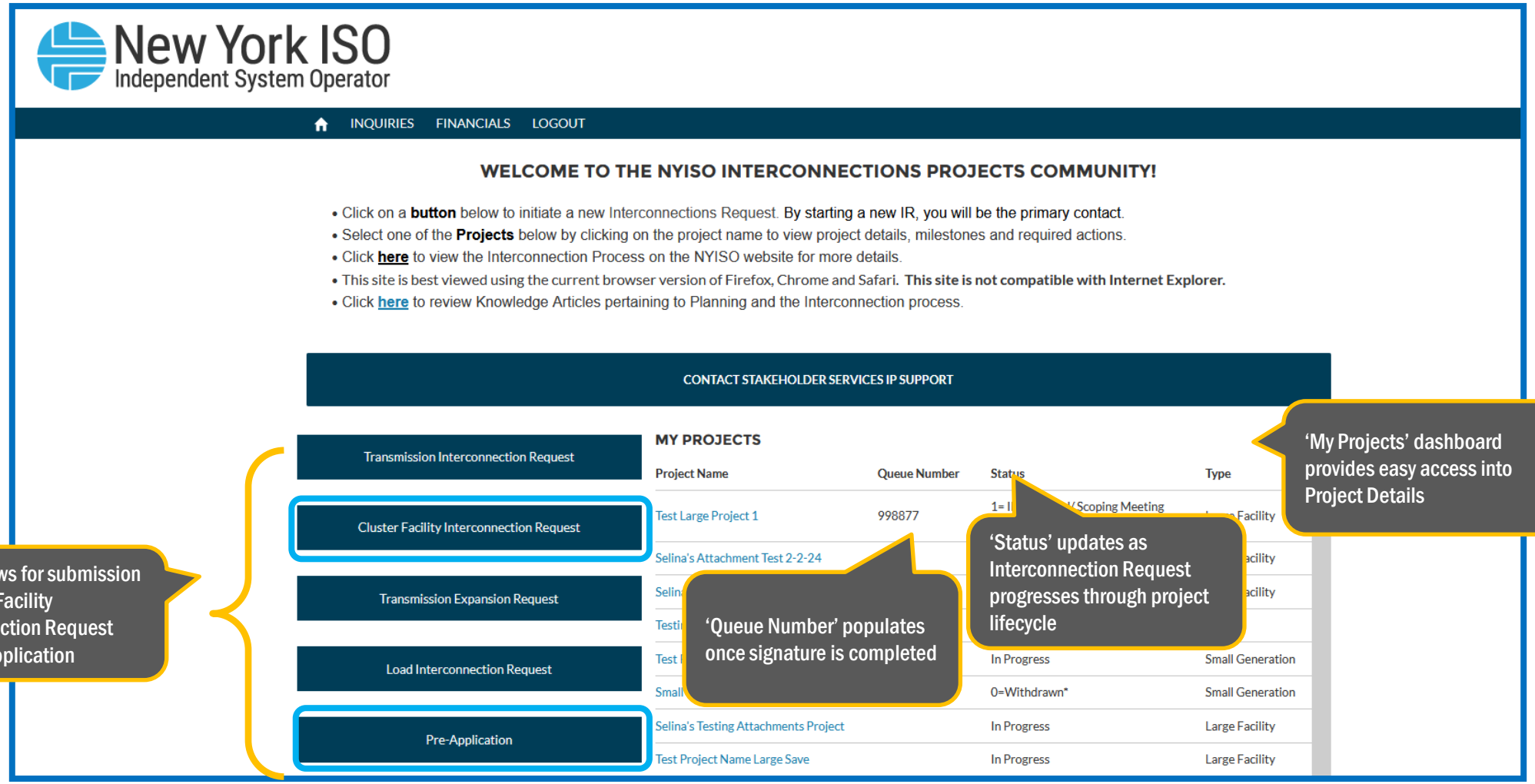
Interconnection Projects Portal Access



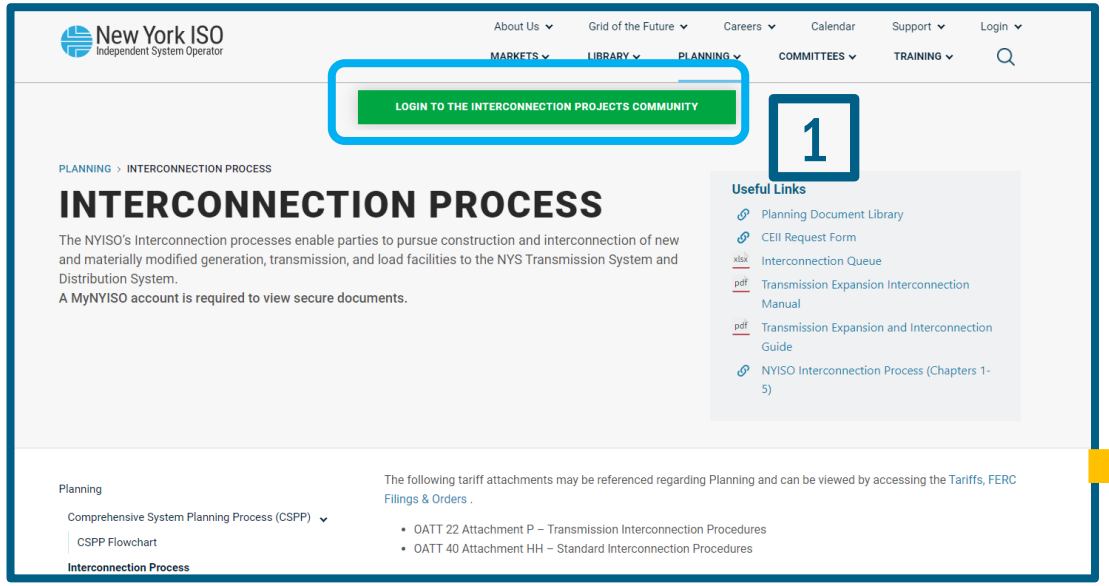


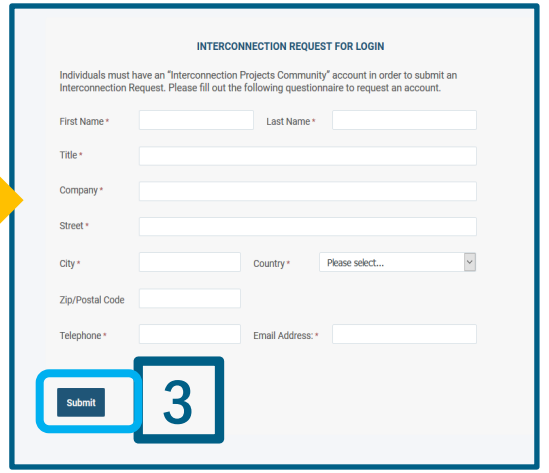
FOR TRAINING PURPOSES ONLY

Interconnections Projects Portal Homepage



Interconnections Projects Portal Account/Access Request





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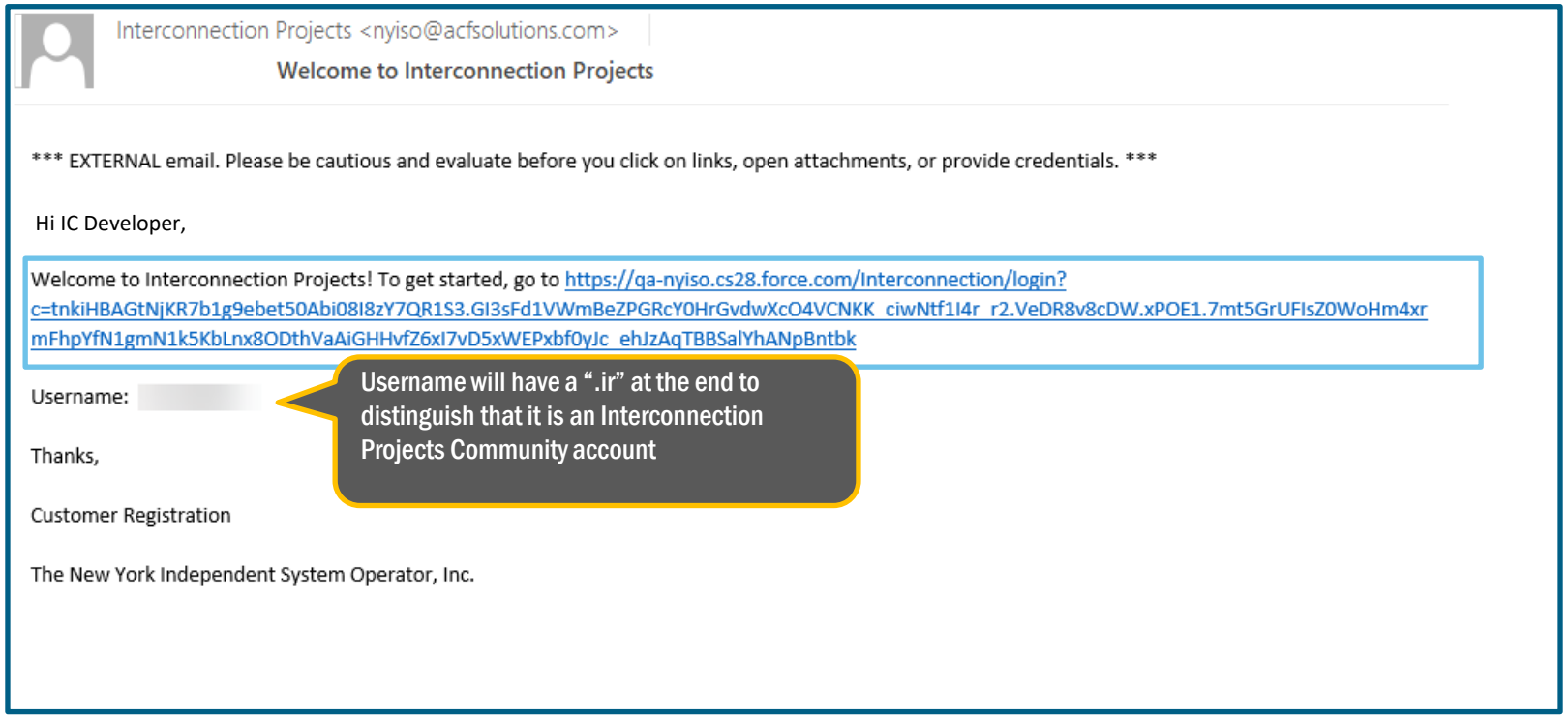
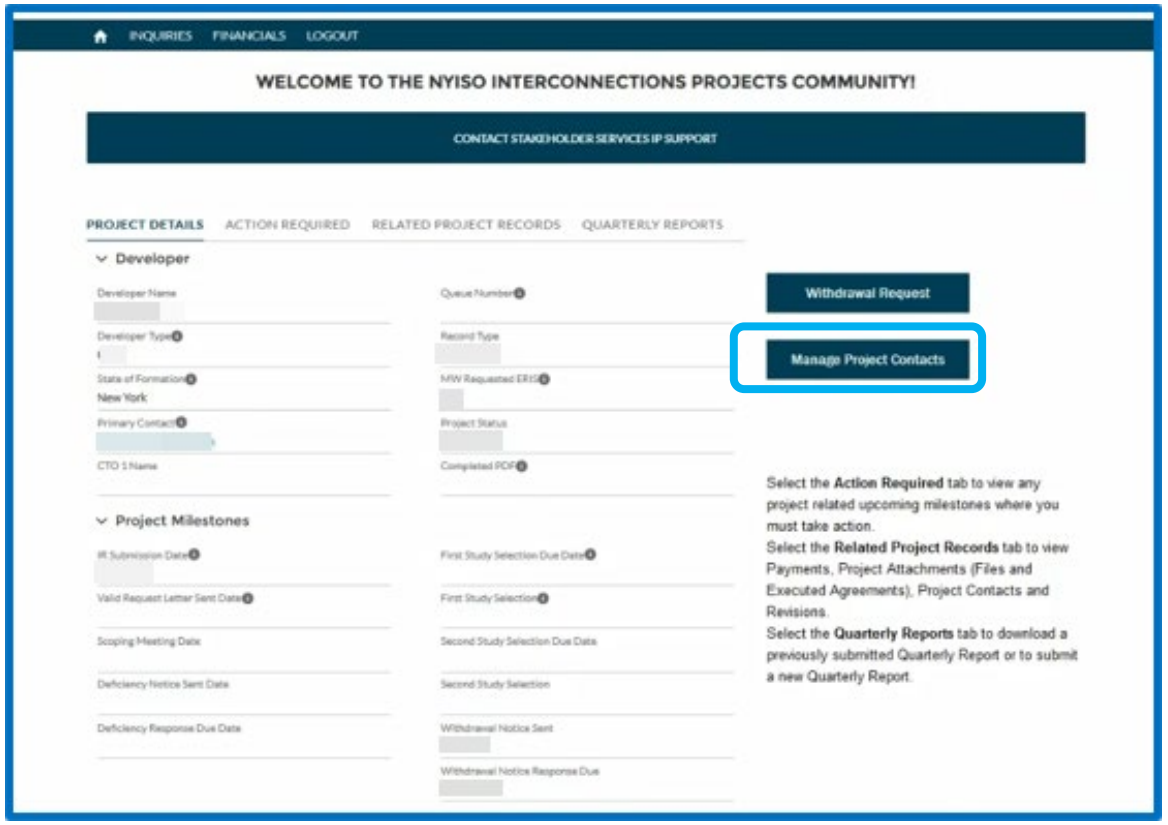
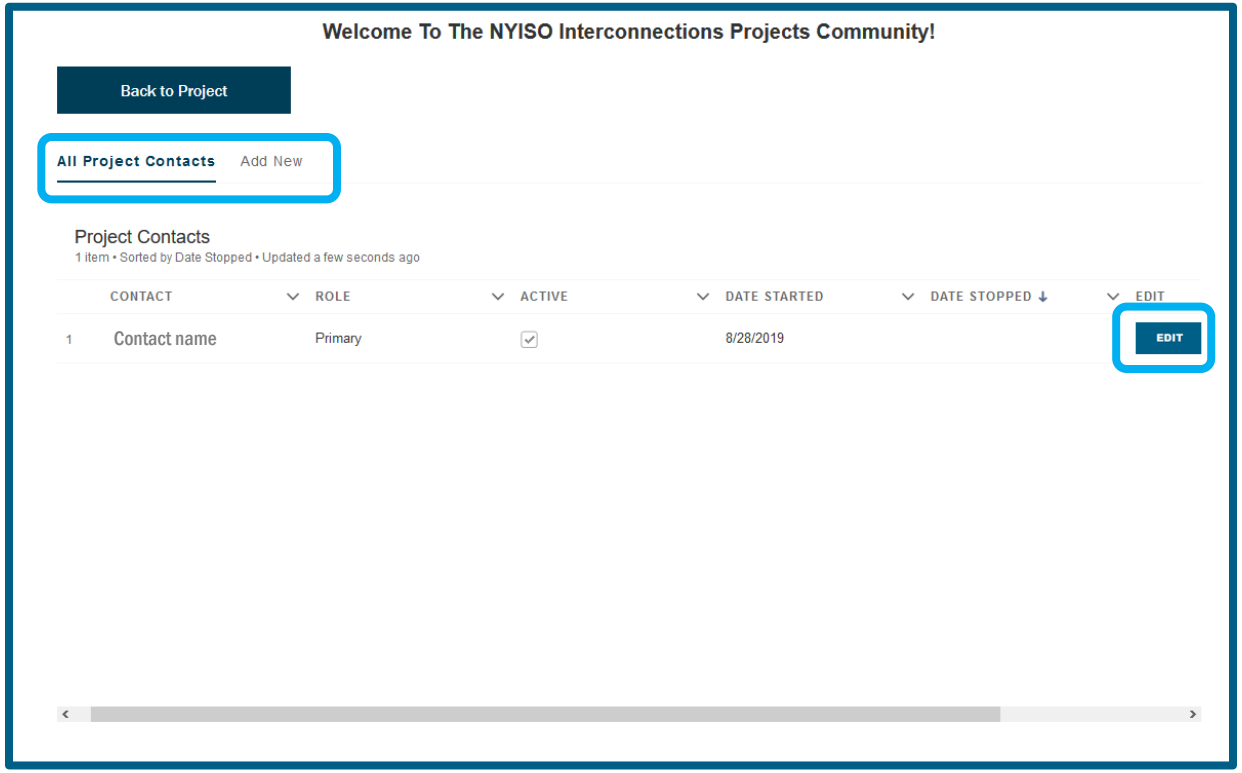


Interconnections Projects Portal - Managing Project Contacts

- When a project is initially submitted, that user is automatically assigned as the primary contact to receive notifications regarding the project
- Only primary contacts have the ability to edit and add new contacts
- In order to make changes to contacts, the primary contact must edit each contact on an individual project basis
- It is the responsibility of the primary contact to make changes to contacts and add contacts to a project as necessary
  - If a primary contact fails to timely reflect changes to the contacts through the portal, a notification sent to the contacts listed in the portal shall still constitute notice to the developer of the project

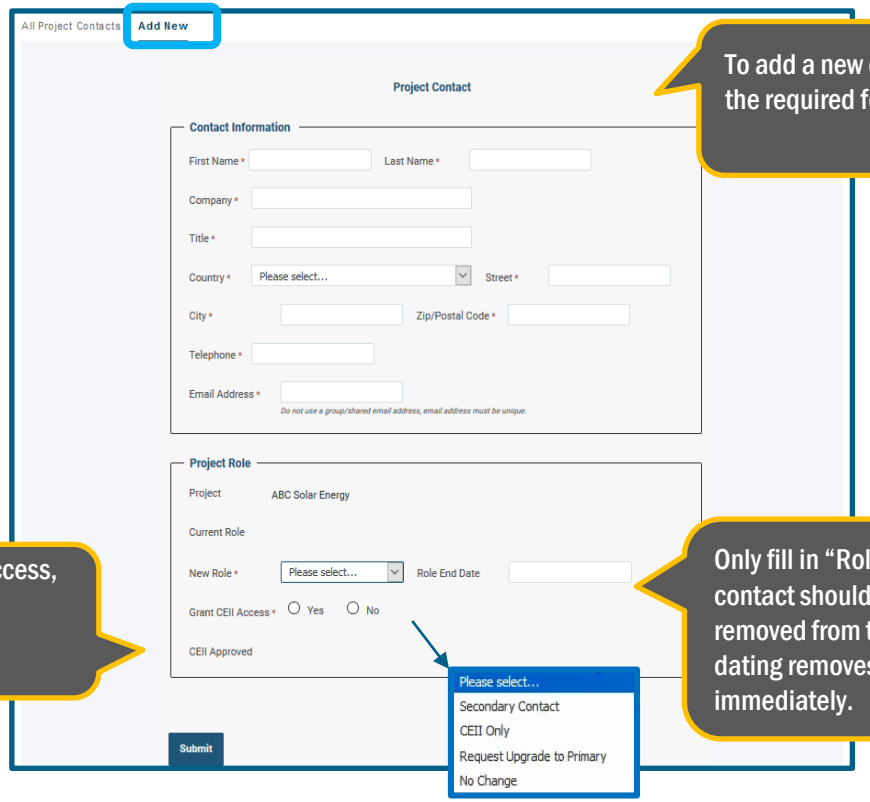
Interconnections Projects Portal - Managing Project Contacts





FOR TRAINING PURPOSES ONLY

Interconnections Projects Portal - Adding a New Project Contact



To add a new contact, fill out the required form fields

If the contact should be granted CEII Access, click on the "Yes" option prior to form submission

Only fill in "Role End Date" if the contact should be immediately removed from the project; Future dating removes access immediately.

Pre-Application Process

Pre-Application Process

- The Pre-Application process is an optional process available to all prospective Interconnection Customers subject to Attachment HH
- Provides greater information access to potential Interconnection Customer before submitting an Interconnection Request
- Pre-Application Requests can be submitted on a rolling basis at any time except during the timeframe just before and through the Application Window:
  - No pre-application requests may be submitted 45-calendar days before a Cluster Application Window begins through the end of the Application Window (90 days (120 days in the Transition Cluster))
  - This pause will enable the NYISO/NYTOs to focus on completing pending Pre-Application Requests and timely validating Interconnection Requests in the Application Window
- Any requester (whether in the interconnection queue or not) can submit a request using the Pre-Application Request form
  - Maximum of 2 POIs per Pre-Application Request
    - $5,000 per Point of Interconnection
      - 25% allocated to NYISO
      - 75% allocated to Connecting TO

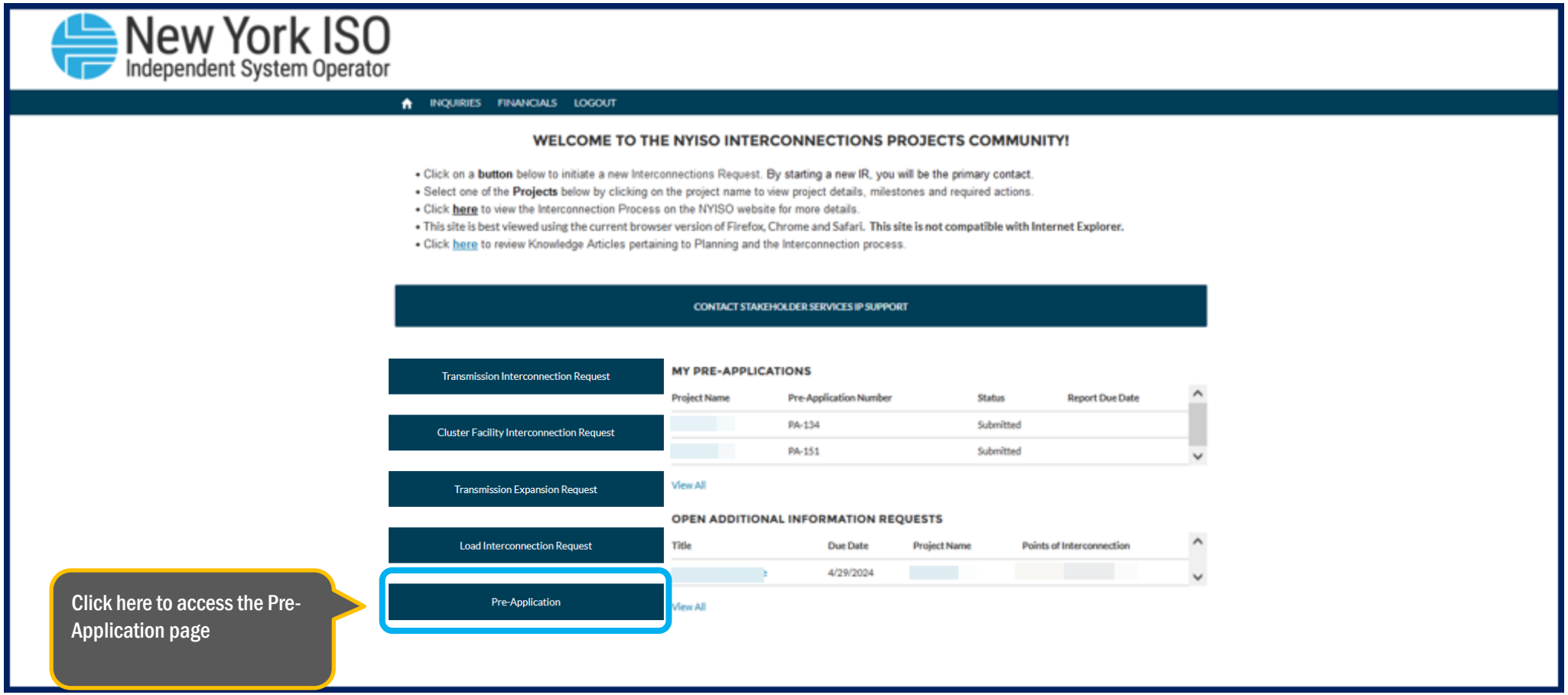
OATT 40 ATT HH, Section 40.4.2

Pre-Application Request Form : OATT 40 ATT HH, Appendix 2

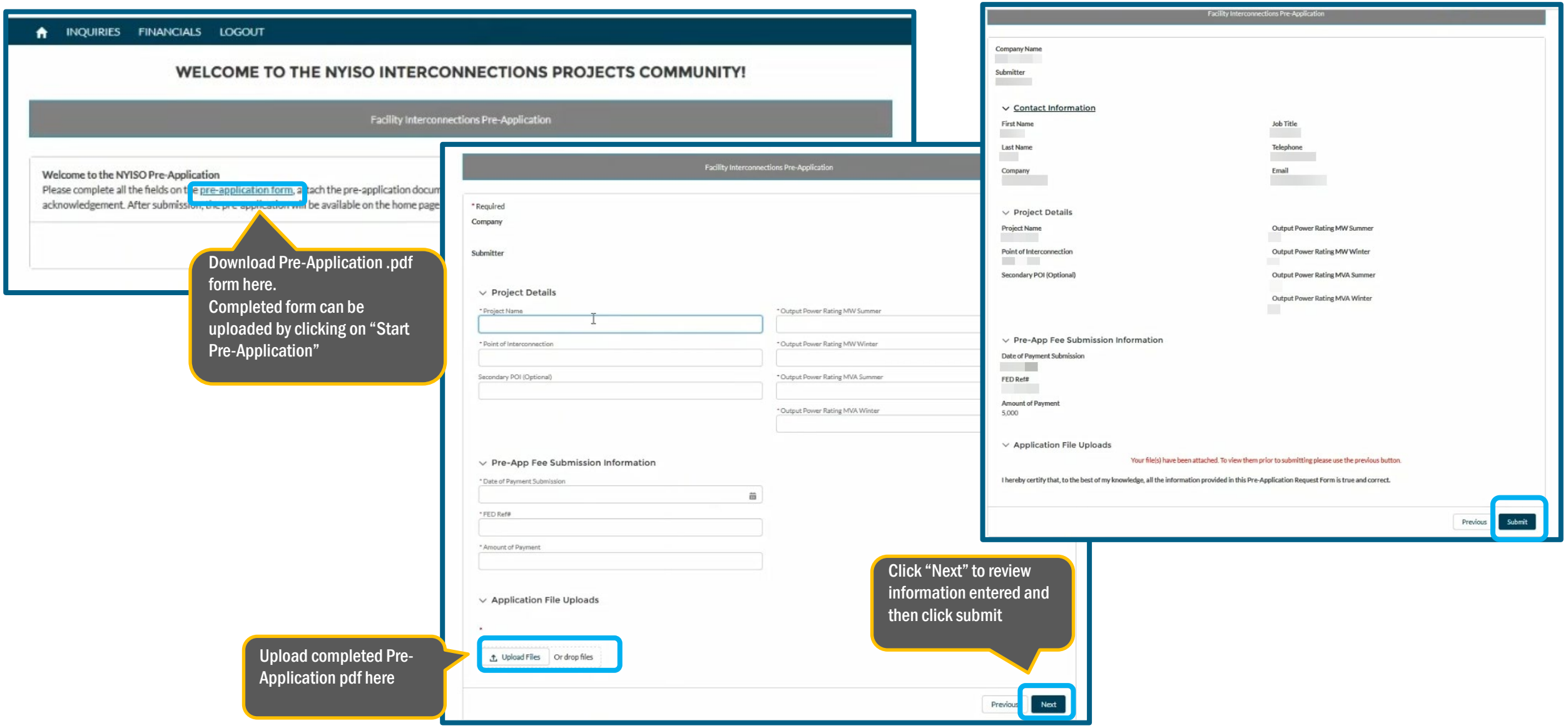
Pre-Application Process (cont.)

- NYISO will route the Pre-Application Request to the applicable Connecting Transmission Owner
  - 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 (to the extent readily available data exists)
  - 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.*, description of potential new substation bus configuration (not a conceptual one-line diagram), transmission constraints, planned transmission upgrades, parallel lines, breaker rating, available breaker positions, existing/known constraints known physical feasibility issues)

Submitting a Pre-Application Request through the Interconnection Projects Portal

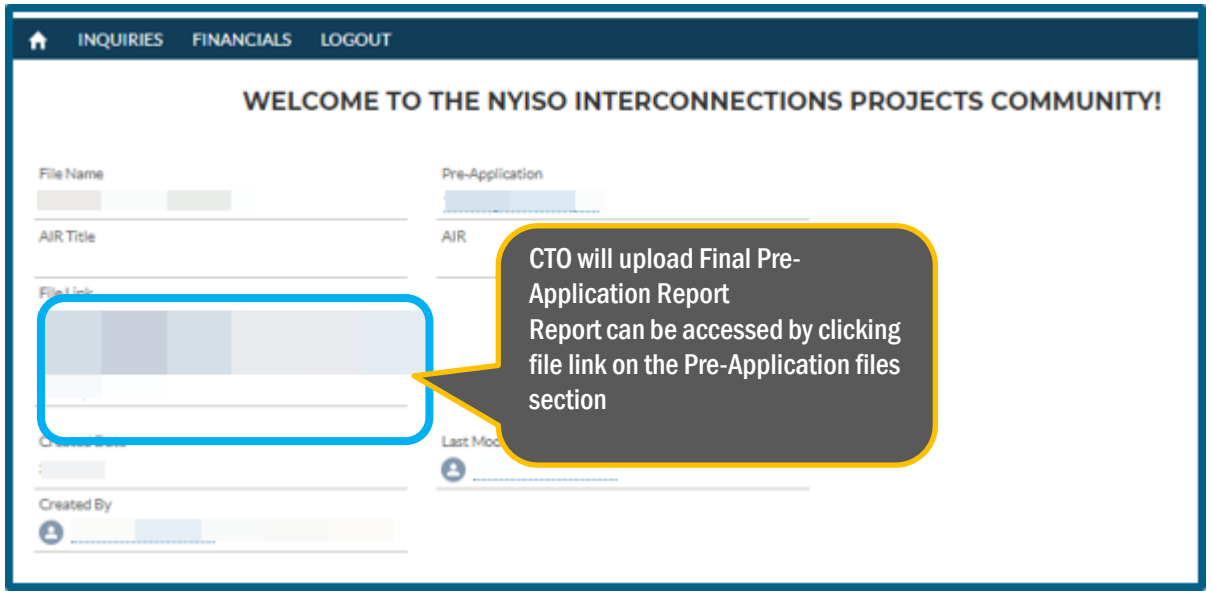


Submitting a Pre-Application



Pre-Application Process

- Additional information will be updated/completed by NYISO & CTO(s)
  - Project Status
  - Pre-App Scoping Meeting Date
  - Report Due Date (25 BDs from Scoping meeting date)
  - CTO & CTO's contact details
  - Additional Information Requests (AIR)
  - Final pre-application report (uploaded by CTO)
- The Interconnection Customer can:
  - View information
  - Access file(s)
  - Manage Project Contacts
  - Respond to Additional Information Requests (AIR)



Submitting an Interconnection Request

Submitting an Interconnection Request - Application Window

- Interconnection Requests can be entered any time during the 45-day Application Window through the Interconnection Projects Portal
  - 75-day window for the Transition Cluster Study Process
- Single POI per Interconnection Request unless:
  - Project is a Cluster Study 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 a CRIS-Only Request during the Application Window but will have a lower application fee ($5,000) and study deposit ($50,000)

OATT 40 ATT HH, Appendix 1

IR Application Requirements

Interconnection Request Requirements

- Non-refundable Application Fee $10,000 (cash only) (Non-refundable $5,000 for CRIS-Only projects): 75% allocated to NYISO and 25% Connecting TO

- Study Deposit (Cash, Letter of Credit and/or Surety Bond):

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

OATT 40 ATT HH, Section 40.5.5

Interconnection Request Requirements (cont.)

- 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

Interconnection Request Requirements (cont.)

- 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
- Workable individual project models (*e.g.*, short circuit, steady-state, and stability)
- Attestations (for Generating Facilities greater than 20 MW) required by the final, approved NYSRC Reliability Rule B.5 (currently RR 151) establishing minimum interconnection standards for Inverter Based Resource (IBR) Generating Facilities based on IEEE Standard 2800-2022
- Demonstration of Site Control

Interconnection Request - Required Modeling Data for All Projects Joining Cluster Study

- Required modeling types and applicable data formats for all projects joining the Cluster Study:
  - Steady State (aka power-flow) modeling data – a PSS/e version 35.3.3 in either .RAW or .SAV format and .IDEV format
  - Short circuit modeling data – an Aspen version 15.7 in .OLR format and .CHF format
  - Dynamics (aka stability) modeling data – a PSS/e version 35.3.3. DYR format
    - For use in the cluster studies, all projects must provide a workable standard library model
  - A completed copy of the "NYISO Modeling Data Summary for Interconnection Projects“
- The models must adhere to the guidelines provided in the “NYISO Modeling Guideline for Interconnection Projects” document
- The models must pass the usability test laid out in the “NYISO Dynamic Models Usability Test Methodology for Interconnection Projects” document

Interconnection Request - Required Modeling Data for Generating Facility Joining Cluster Study (cont.)

- To the extent possible, a generating facility will be modeled using an equivalent representation with same type devices combined to represent the aggregate units in each collection network
- A generating facility comprised of more than a single inverter (e.g., battery, flywheel, solar, wind) and other similar technology should have similar equivalent model representation
- The equivalent representation should include:
  - Equivalent generator step-up transformer,
  - Collector system equivalent,
  - Station transformer, and
  - Interconnection generator lead
- Reactive compensation and power factor correcting devices should also be included, as appropriate

Interconnection Request – Site Control

- Demonstration of full Site Control for Facility (Generating Facility or Cluster Study Transmission Project) with Interconnection Request
  - Site Control must cover a period of at least 10 years from date of the submission of the IR
  - Interconnection Customer must promptly inform the NYISO of any material change to Site Control
    - If no longer sufficient, the project is subject to withdrawal
  - Interconnection Customer must re-confirm full Site Control before execution of the Standard Interconnection Agreement
  - Interconnection Customer is not required to demonstrate Site Control for generator tie line or POI facilities

OATT 40 ATT HH, Section 40.5.5.1.5

Technical Bulletin: Site Control in the Interconnection Cluster Study Process

Interconnection Request – Site Control

- Definition of Site Control:
  - The necessary land right sufficient to develop, construct, operate, and maintain the Facility over a term of at least ten (10) years from the date of the submission of the Interconnection Request
  - Site Control may be demonstrated by documentation establishing:
    - Ownership of, a leasehold interest in, or a right to develop a site of sufficient size to construct and operate the Facility;
    - Option to purchase or acquire a leasehold site of sufficient size to construct and operate the Facility; or
    - Other documentation that clearly demonstrates the right of Interconnection Customer to occupy a site of sufficient size to construct and operate the Facility
  - The term "necessary land right" restricts the use of the site for mutually exclusive projects, but does not restrict multi-use applications of the site in addition to its use for the Facility, such as agriculture, ranching, etc.

OATT 40 ATT HH, Section 40.5.5.1.5

Technical Bulletin: Site Control in the Interconnection Cluster Study Process

Interconnection Request– Site Control

- All Interconnection Customers must demonstrate full Site Control at the time of their Interconnection Request and submit the following:
  - Legally binding instrument that demonstrates Interconnection Customer has the rights to develop specific fuel source and clearly sets forth the acreage to accommodate the Facility,
    - "Accepted Site Control Document Types"
      - A legally binding instrument, fully executed, that demonstrates the following:
        - The Interconnection Customer has the right to develop specific fuel source
        - Statement of exclusivity
        - Permission to use the site
        - Clearly identifies acreage of parcel
        - Term of at least 10 years from the date of submission of the Interconnection Request
  - A signed attestation from an officer of the company; and
  - A detailed site plan and equipment layout detailing the conceptual design of the proposed facility

Interconnection Request– Site Control

- Accepted Site Control document types:
  - Title, Deed, or Tax Bill
  - Lease Agreement (includes BOEM lease for offshore wind projects)
  - Option to Lease or Option to Purchase (underlying lease term combined with the option term must add up to at least 10 years)
  - Easement/Option for Easement
  - Right of Way
- If document is not from the NYISO's accepted list, language in the document must demonstrate Interconnection Customer has the rights described on previous slide

Interconnection Request– Site Control

- Attestation
  - The Interconnection Customer will submit one of two attestation forms with their Interconnection Request, depending on if their project meets the NYISO's technology-specific acreage requirements
    - Both Attestation Forms are attached to the Site Control Technical Bulletin
  - Projects that Meet NYISO's Technology-specific Acreage Requirements
    - The Interconnection Customer must select the attestation that notes "Use this form for projects that meet the Site Control minimum acreage requirements as set forth in ISO Procedures"
    - On this attestation, the Interconnection Customer must indicate:
      1) Amount of acreage covered by the provided Site Control materials;
      2) Project meets the Site Control requirements set forth in NYISO OATT and ISO Procedures *(i.e.,* NYISO manuals and technical bulletins)*;* and
      3) Acreage provided in the attestation that covers the Site Control for the Project is consistent with the acreage and other Site Control parameters for the Project's technology type set forth in ISO Procedures

Interconnection Request– Site Control

- Attestation (cont.)
  - Projects that Do Not Meet the Minimum Acreage or are Technologies Not Specified in NYISO's Minimum Acreage Requirements (this includes Cluster Study Transmission Projects)
    - Interconnection Customer must select the attestation that notes "Use this form for projects that do not meet the minimum acreage requirements, or the project is a technology type with acreage not specified in ISO Procedures"
    - Interconnection Customer must provide a detailed narrative that explains:
      1) Special circumstances of the Project which permits a different acreage amount for Site Control than the requirements in the ISO procedures; or
      2) Description of the Project's technology type and how the land can accommodate the Project and meet Site Control requirements
    - Additionally, Interconnection Customer must submit, with the Attestation, a Site plan and equipment layout (including any known limitations on the site - wetlands, unusable land, spacing, setbacks, etc.) signed and stamped by a licensed electrical or civil professional engineer (PE)

Interconnection Request– Site Control

- Site Plan and equipment layout should include the following details:
  - Project Boundaries
  - Boundaries of Parcel(s) and/or total lease area
  - POI
  - Proposed Tie-Line and Collector Routes
  - Interconnection Customer's Attachment Facilities
  - Any known site limitations such as wetlands, unusable land, spacing, setbacks, etc. for the purposes of determining any restrictions to the amount of acreage available for the project
- Specific site plan requirements for certain technologies:
  - Energy Storage projects – indicate whether it is an indoor or outdoor facility
  - Solar projects - include the calculation of the percentage of land available for all equipment/facilities and the direct area occupied by the PV arrays
  - Offshore wind projects - include wind turbine layouts and spacing of rotor diameter, shipping lanes, marine cables, and no surface occupancy (portions of bight not suitable for construction)

Interconnection Request– Site Control

- Cluster Study Transmission Projects
  - An Interconnection Customer must demonstrate Site Control for only the portion of the Facility and accompanying equipment that is located on land, such as the converter station(s)
  - An Interconnection Customer must provide documentation that meets the criteria described in the "Accepted Site Control Document Types" section of the Site Control Technical Bulletin
  - Site Control is not required for the transmission line itself, its path, or the right of way
  - An Interconnection Customer must provide the following for all types of Cluster Study Transmission Projects:
    1. Attestation which provides a detailed narrative explaining how the site can accommodate the land-based portions of the transmission project; and
    2. Site Plan and equipment layout
       - Details dependent upon the type of transmission project, for the land-based portions of the transmission project, signed and stamped by a licensed professional engineer
       - For all types of transmission projects, the site plan should include any known limitations on the site such as wetlands, unusable land, spacing, setbacks, etc., and other technology-specific requirements

Interconnection Request– Site Control

- Site Plan for Cluster Study Transmission Projects
  - Specific site plan requirements for Cluster Study Transmission Projects should include the following:
    - HVDC Cluster Study Transmission Project: Provide a site plan and footprint of converter stations at each end of the transmission line
    - Other Cluster Study Transmission Projects: Provide a detailed description of the transmission project including site plan and footprint of any land-based portions of the project other than the transmission path

Interconnection Request – Site Control

- Technology-specific Acreage Requirements
  - Interconnection Customer must demonstrate that the acreage covered by the Site Control materials can reasonably accommodate the development of the proposed Facility, and is consistent with the acreage and other parameters for the Facility's technology type set forth in the Table below

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

Interconnection Request – Site Control

- The party's name listed on the documentation to demonstrate site control should match the name of the Interconnection Customer on the Interconnection Request form or revised Interconnection Request form, if approved by the NYISO
  - In situations where the name differs, the Interconnection Customer is responsible for providing additional documentation explaining the corporate relationship such as an SEC filing, a document on file with the applicable secretary of state, other official corporate document, or a purchase sale agreement
- If the same Site Control is being used for facilities under different Interconnection Requests:
  - Interconnection Customers must also explain how all proposed facilities will be situated within the area (mutually exclusive alternatives are not permitted)
- Interconnection Customer cannot submit duplicate land rights for multiple Interconnection Requests, unless the site is large enough to host multiple Facilities
- For multi-unit Facilities on the same site and behind the same Point of Interconnection:
  - Interconnection Customer must demonstrate via one of the "Accepted Site Control Document Types" shared land use for all co-located Facilities that meet the Site Control definition

Interconnection Request – Site Control

- An Interconnection Customer may submit a Site Control Deposit in lieu of Site Control at the time of their Interconnection Request submission
  - If they have a demonstrated Regulatory Limitation, from a federal, state, local, or Tribal law other than permitting or siting requirements, which makes it infeasible to obtain site control prior to submission of its Interconnection Request
  - For example, a Regulatory Limitation could be a federal, state, local and/or Tribal law that requires a validated NYISO Interconnection Request before an Interconnection Customer may obtain necessary land rights to demonstrate Site Control
- To demonstrate a Regulatory Limitation, Interconnection Customer must submit:
  1) 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

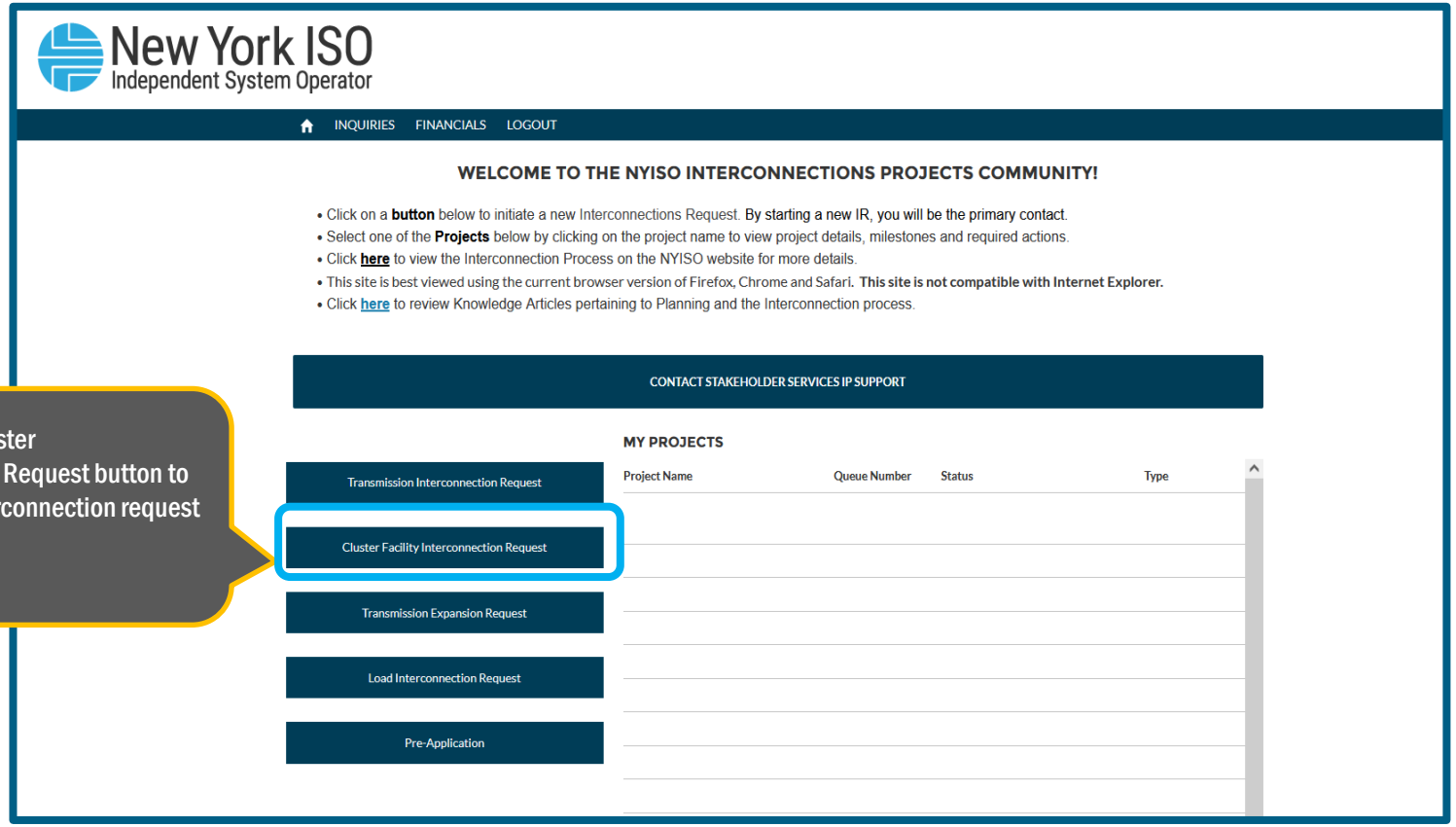
OATT 40 ATT HH, Section 40.5.5.4

Interconnection Request – Site Control

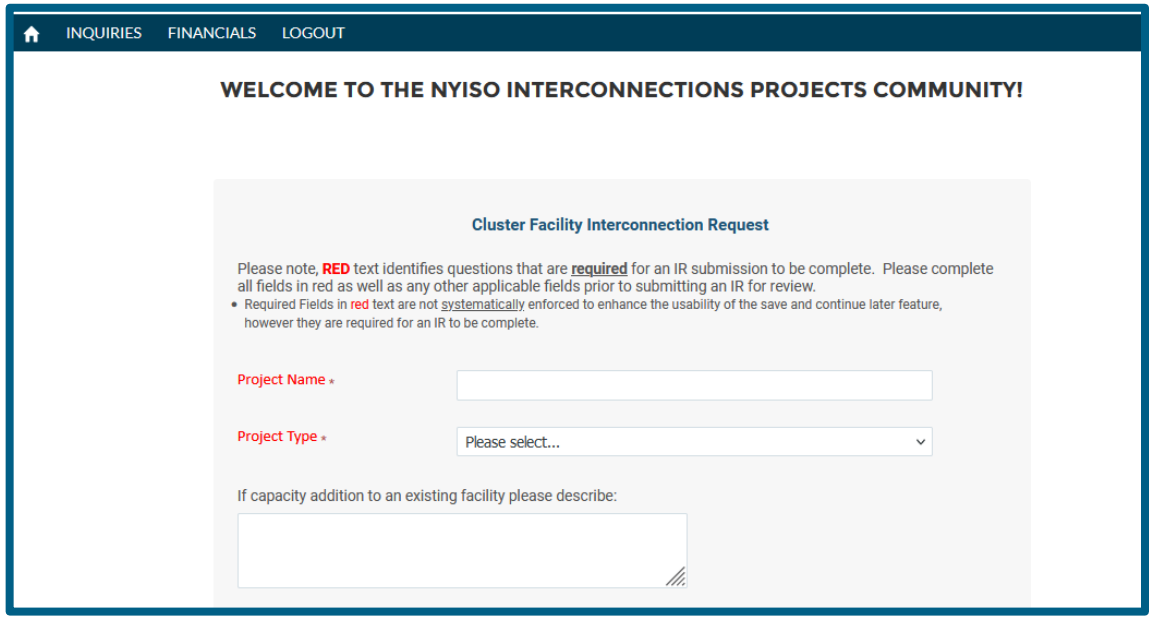
- Site Control Deposit for an Interconnection Customer with a demonstrated Regulatory Limitation
  - $10,000 per MW, subject to a floor of $500,000 and a ceiling of $2 million, as established in Order No. 2023
  - Deposit must be submitted at the same time as submission of the Interconnection Request
  - Deposit will be held by the NYISO until the Interconnection Customer can demonstrate full Site Control prior to entering the Cluster Study Phase 2 Study, unless Interconnection Customer provides documentation that demonstrates they are taking identifiable steps to secure the necessary regulatory approvals
  - The deposit is refundable but cannot be applied toward study costs in the Cluster Study Process or Withdrawal Penalties
- Such Interconnection Customer must demonstrate full Site Control within 180 calendar days of the effective date of the Standard Interconnection Agreement

Submitting an Interconnection Request through the Interconnections Project Portal

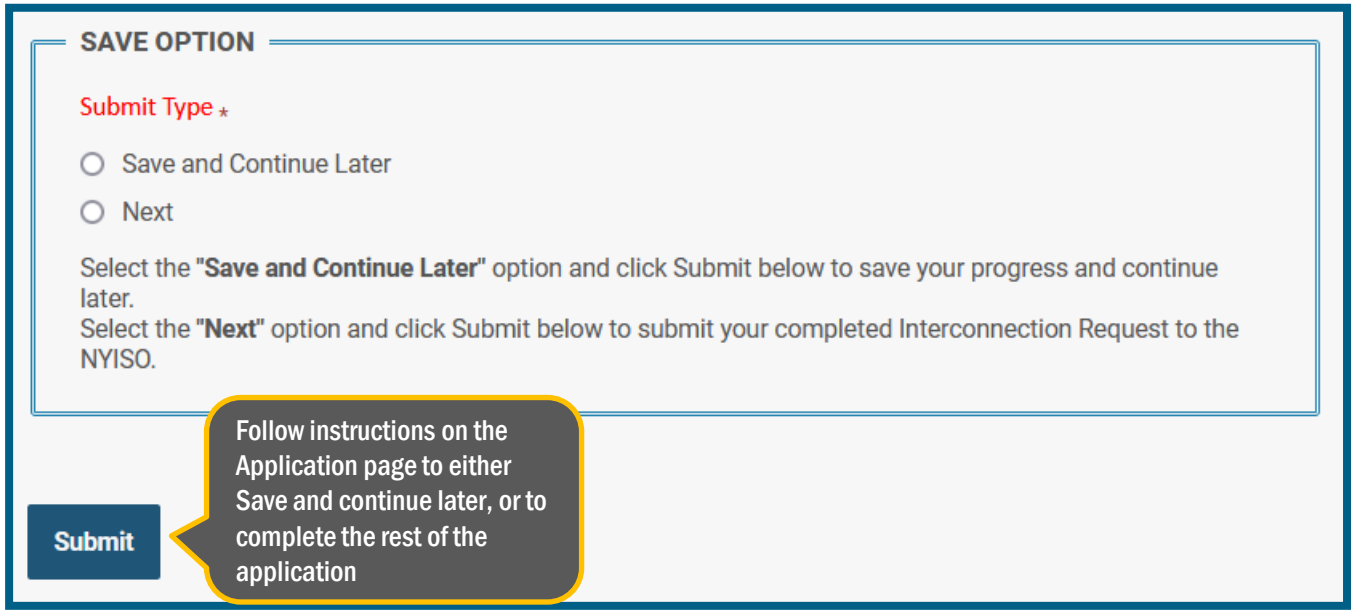
Submitting an Interconnection Request



Submitting an Interconnection Request



Follow instructions on the Application page to complete the required fields



Follow instructions on the Application page to either Save and continue later, or to complete the rest of the application

Submitting an Interconnection Request

later.
Select the **"Next"** option and click Submit below to submit your completed Interconnection Request to the NYISO.

Attachments

Attach a conceptual breaker one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

The conceptual breaker one-line diagram is a representation of electrical components that are connecting into the NYSTS or Distribution System as applicable. This conceptual breaker one-line diagram should include, at a minimum:

- The Project name, and the Interconnection Customer name on the diagram;
- The facility address (specific location of the Facility);
- 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 NYISO Reliability Analysis Data Manual;
- 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); and
- 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.

One-Line Diagram document

Upload One-Line Diagram *

Browse... No file selected.

Upload One-Line Diagram . On the one-line diagram ation. (Maximum load on CT/PT). On the one-line diagram indicate the

Interconnection Customer can upload the One-line diagram for the plant according to the requirements specified

Add another response

Will an alternate source of auxiliary power be available during CT/PT maintenance?

○ Yes ○ No

Required modeling data for Reliability Assessment must be submitted by uploading files in the correct data format. Must be submitted as a zip file.

another response

A workable Project power flow, short circuit, transie documentation (as set forth in Attachment A) must be provided wit PSSE files require in .raw or .sav and .dyr format. ASP

Power Flow Model

Power Flow Model Browse... No file selected.

(file types .raw or .sav) *

Add another response

Short Circuit Model

Short Circuit Model Browse... No file selected.

(file type .olr) *

Add another response

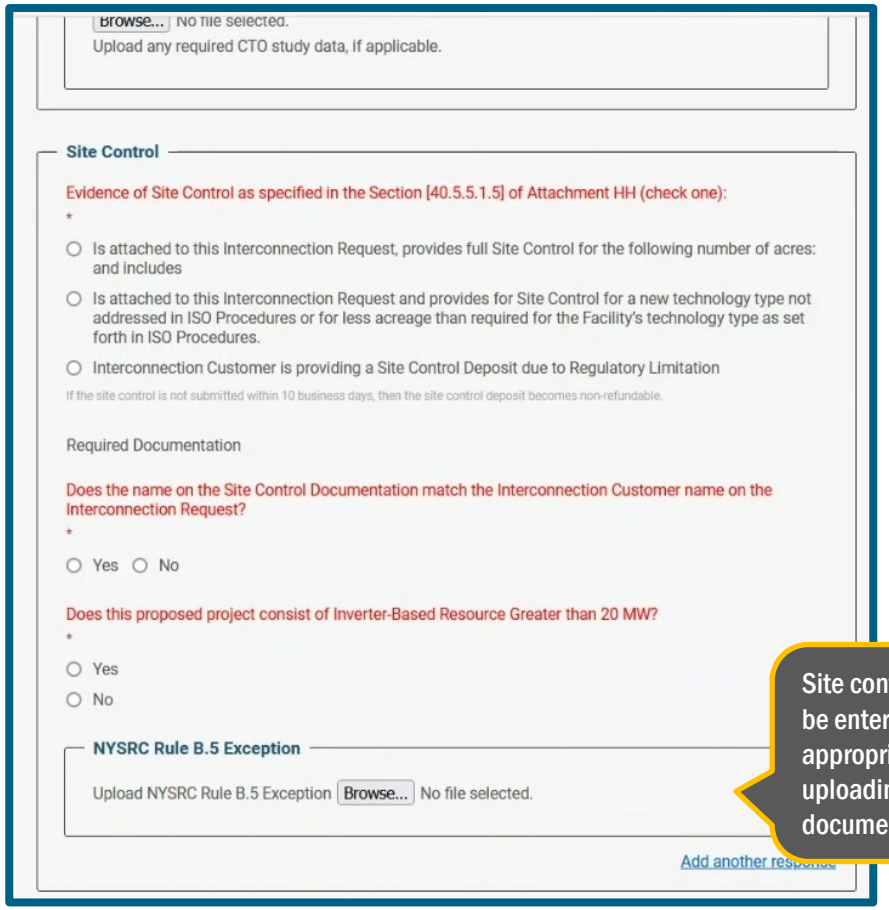
Dynamics Model

Dynamics Model Browse... No file selected.

(file type .dyr) *

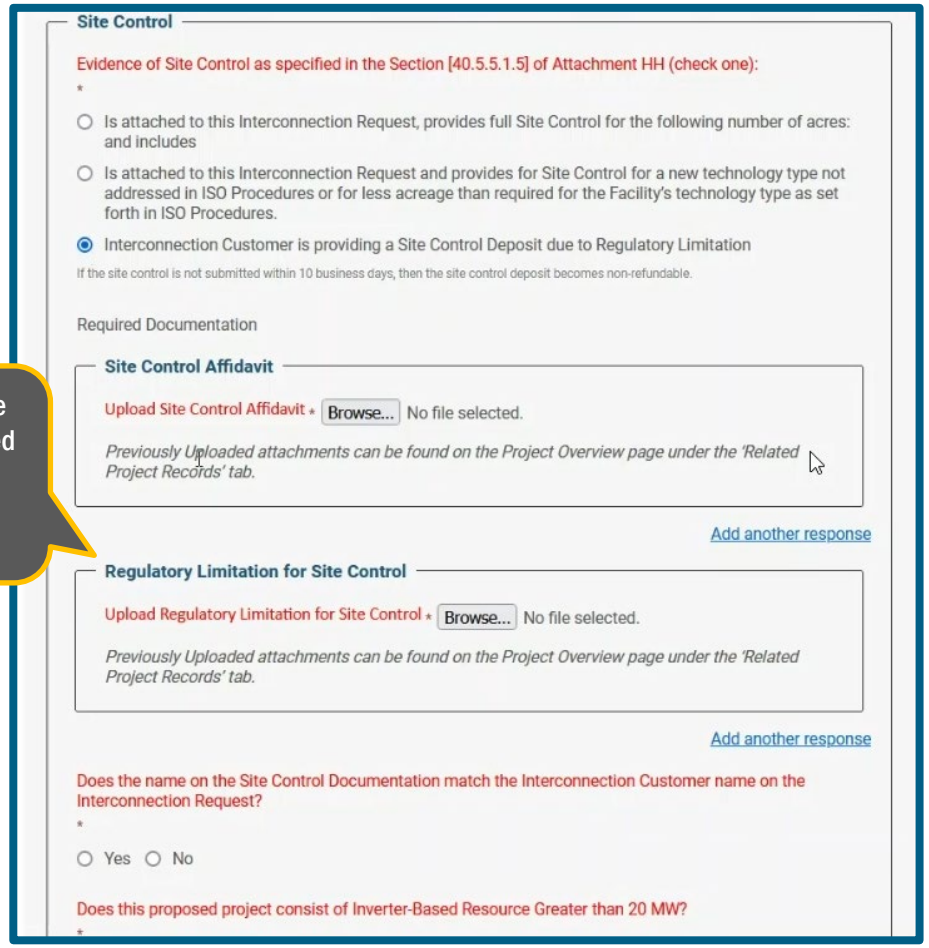
Add another response

Submitting an Interconnection Request

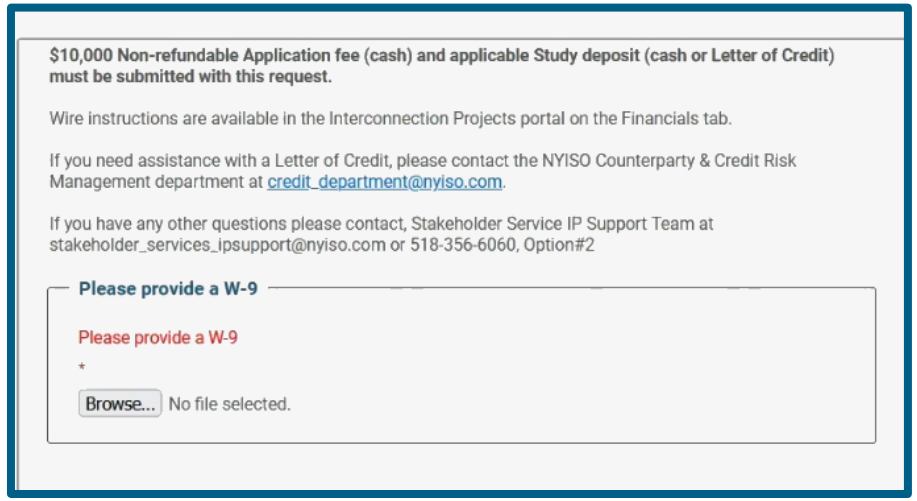


Site control information must be entered by choosing the appropriate options, and uploading applicable documentation

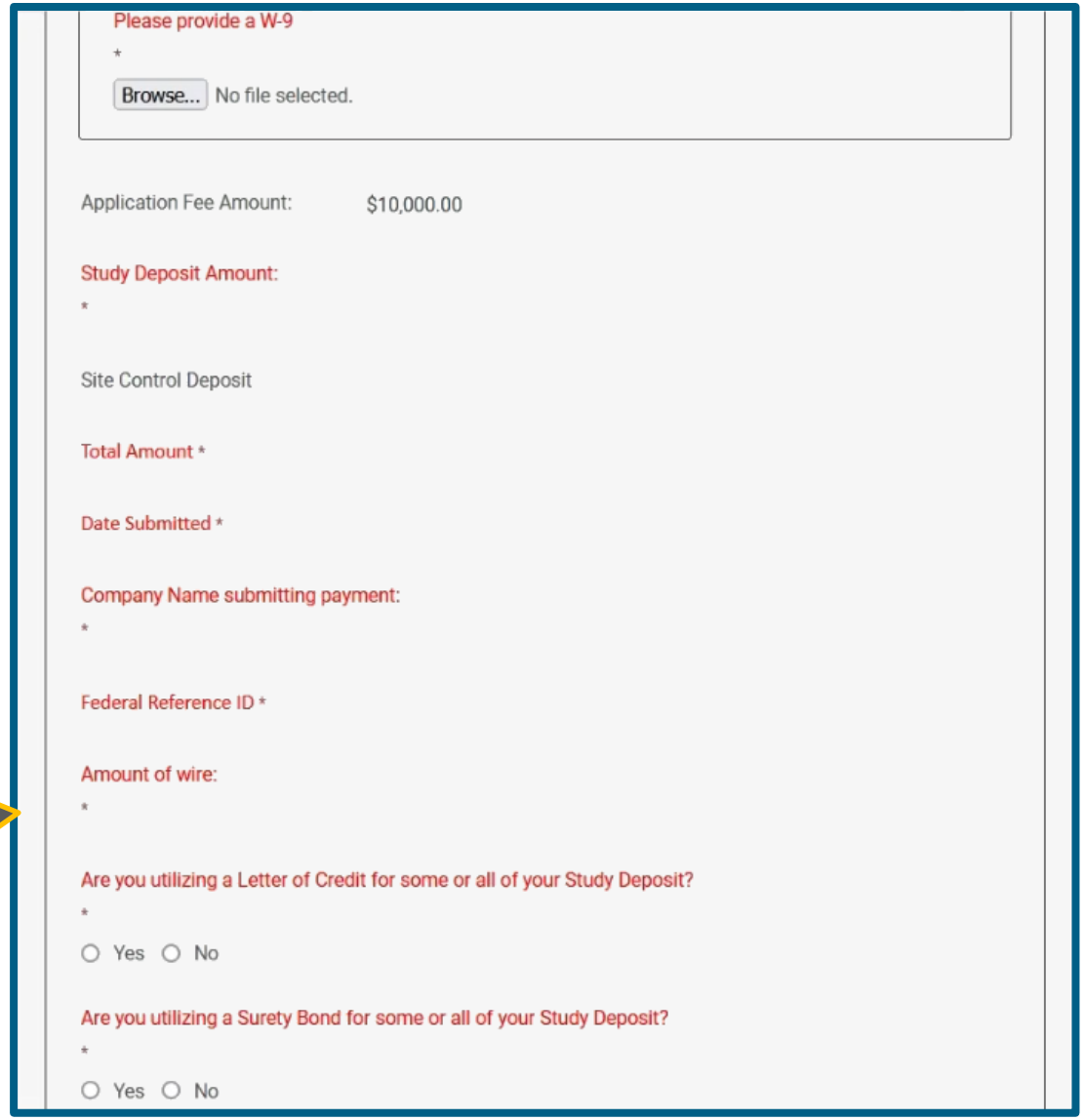
Regulatory limitations for site control must be demonstrated by uploaded required documentation



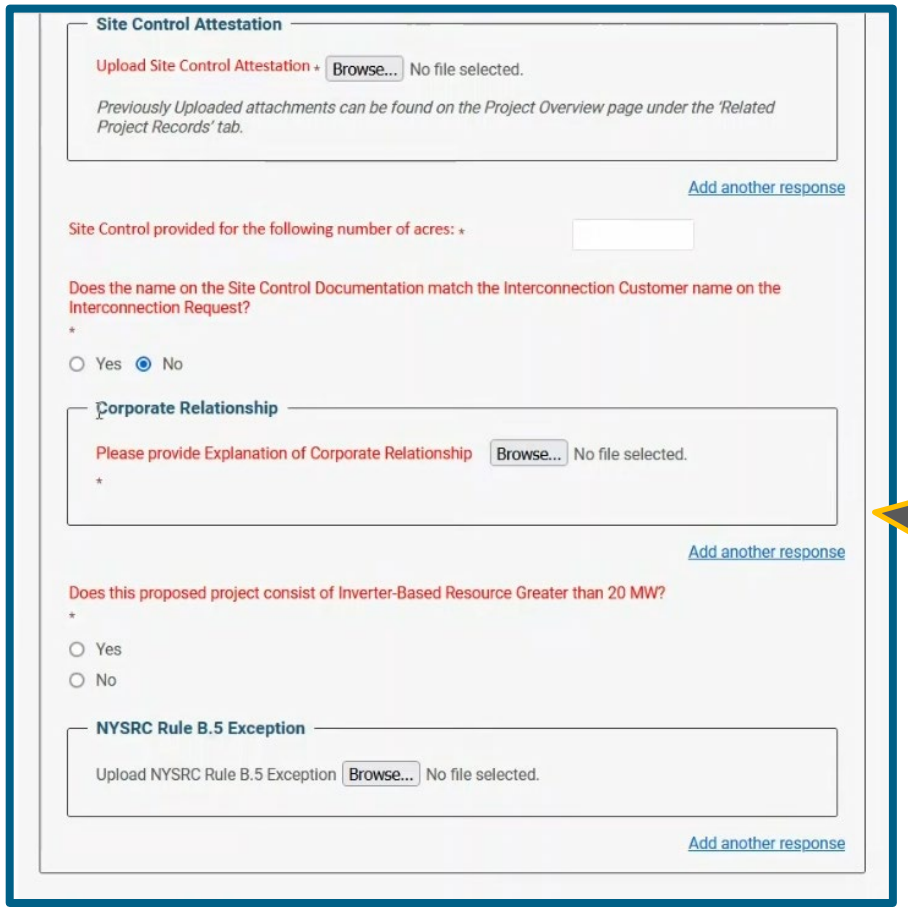
Submitting an Interconnection Request



Financial information for the Application fee, Study deposit and Additional Site control deposit must be provided in order to successfully submit an Interconnection Request.



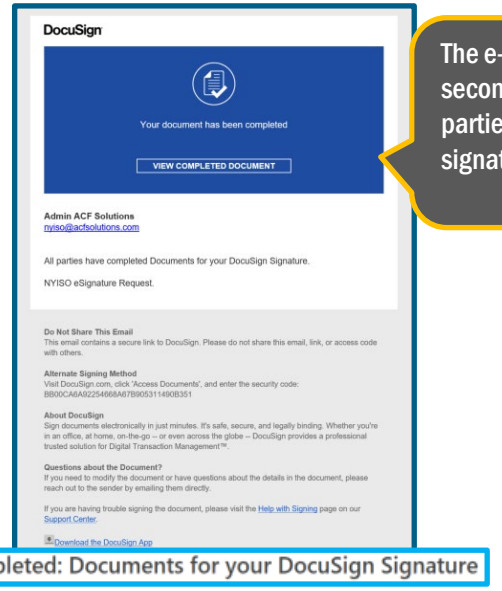
Submitting an Interconnection Request



Interconnection Customer must submit all required attestations as part of the IR submission

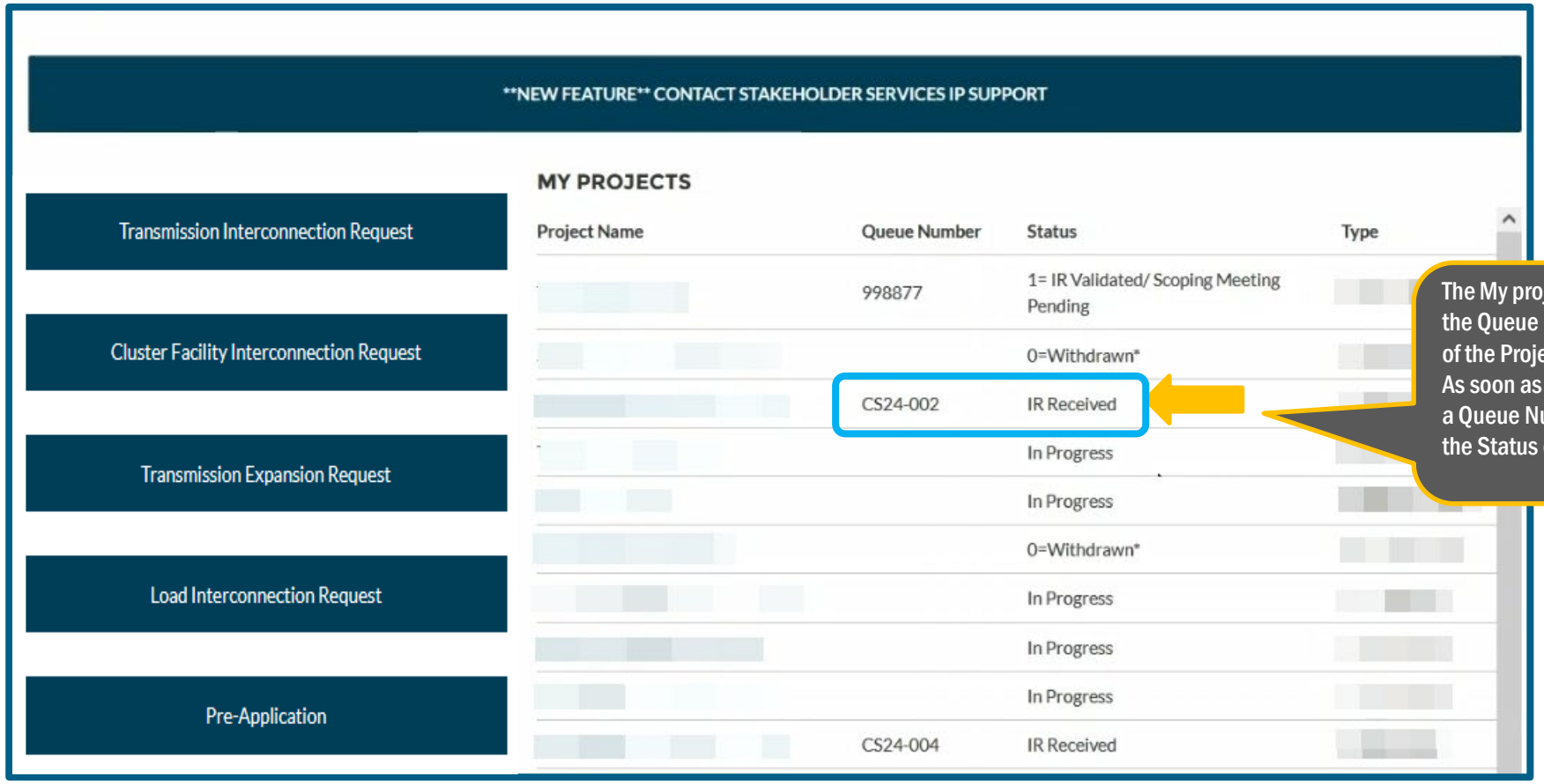
eSignature for Interconnection Request

The e-signer will be required to click on the "Review Document" button to access the document



The e-signer will receive a second email once all parties have provided e-signatures

Interconnection Request Acknowledgement



The My projects dashboard will display the Queue Number as well as the Status of the Project
As soon as the e-signature is completed, a Queue Number will be assigned, and the Status of the Project will be updated

Interconnection Request Validation

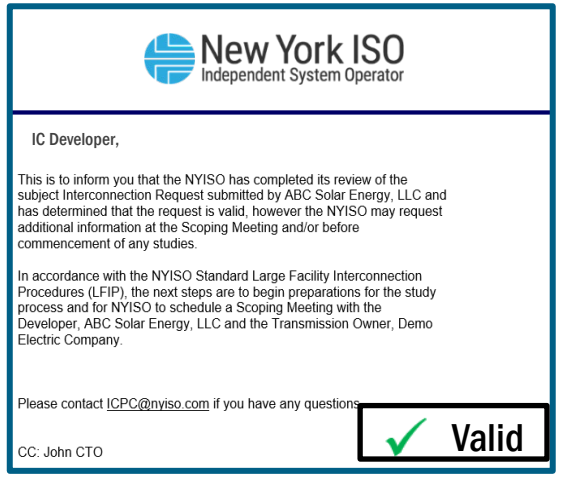
- NYISO will validate Interconnection Requests submitted within the Application Window on a rolling basis
- Within 10 Business Days of receipt of Interconnection Request (15 days for Transitional Cluster Study)
  - NYISO reviews Interconnection Request to identify the Connecting TO and Affected TOs
  - NYISO notifies Connecting TO and Affected TOs 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 performs review of Interconnection point and technical review of data and equipment
  - NYISO acknowledges receipt of the facility model
  - NYISO notifies Interconnection Customer that Interconnection Request is valid or identify deficiencies

OATT 40 ATT HH, Section 40.5.7

Interconnection Request Validation

- NYISO notifies Interconnection Customer that Interconnection Request is valid or identify deficiencies

Request is deemed either Valid or Deficient



New York ISO
Independent System Operator

IC Developer,

This is to inform you that the NYISO has completed its review of the subject Interconnection Request submitted by ABC Solar Energy, LLC and has determined that the request is valid, however the NYISO may request additional information at the Scoping Meeting and/or before commencement of any studies.

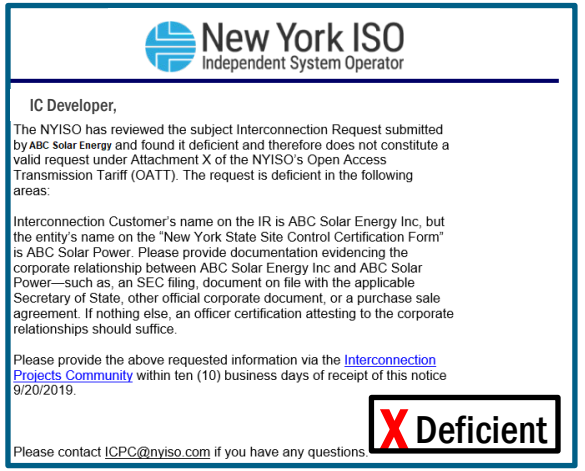
In accordance with the NYISO Standard Large Facility Interconnection Procedures (LFIP), the next steps are to begin preparations for the study process and for NYISO to schedule a Scoping Meeting with the Developer, ABC Solar Energy, LLC and the Transmission Owner, Demo Electric Company.

Please contact ICPC@nyiso.com if you have any questions.

CC: John CTO

✓ Valid

or



New York ISO
Independent System Operator

IC Developer,

The NYISO has reviewed the subject Interconnection Request submitted by ABC Solar Energy and found it deficient and therefore does not constitute a valid request under Attachment X of the NYISO's Open Access Transmission Tariff (OATT). The request is deficient in the following areas:

Interconnection Customer's name on the IR is ABC Solar Energy Inc, but the entity's name on the "New York State Site Control Certification Form" is ABC Solar Power. Please provide documentation evidencing the corporate relationship between ABC Solar Energy Inc and ABC Solar Power—such as, an SEC filing, document on file with the applicable Secretary of State, other official corporate document, or a purchase sale agreement. If nothing else, an officer certification attesting to the corporate relationships should suffice.

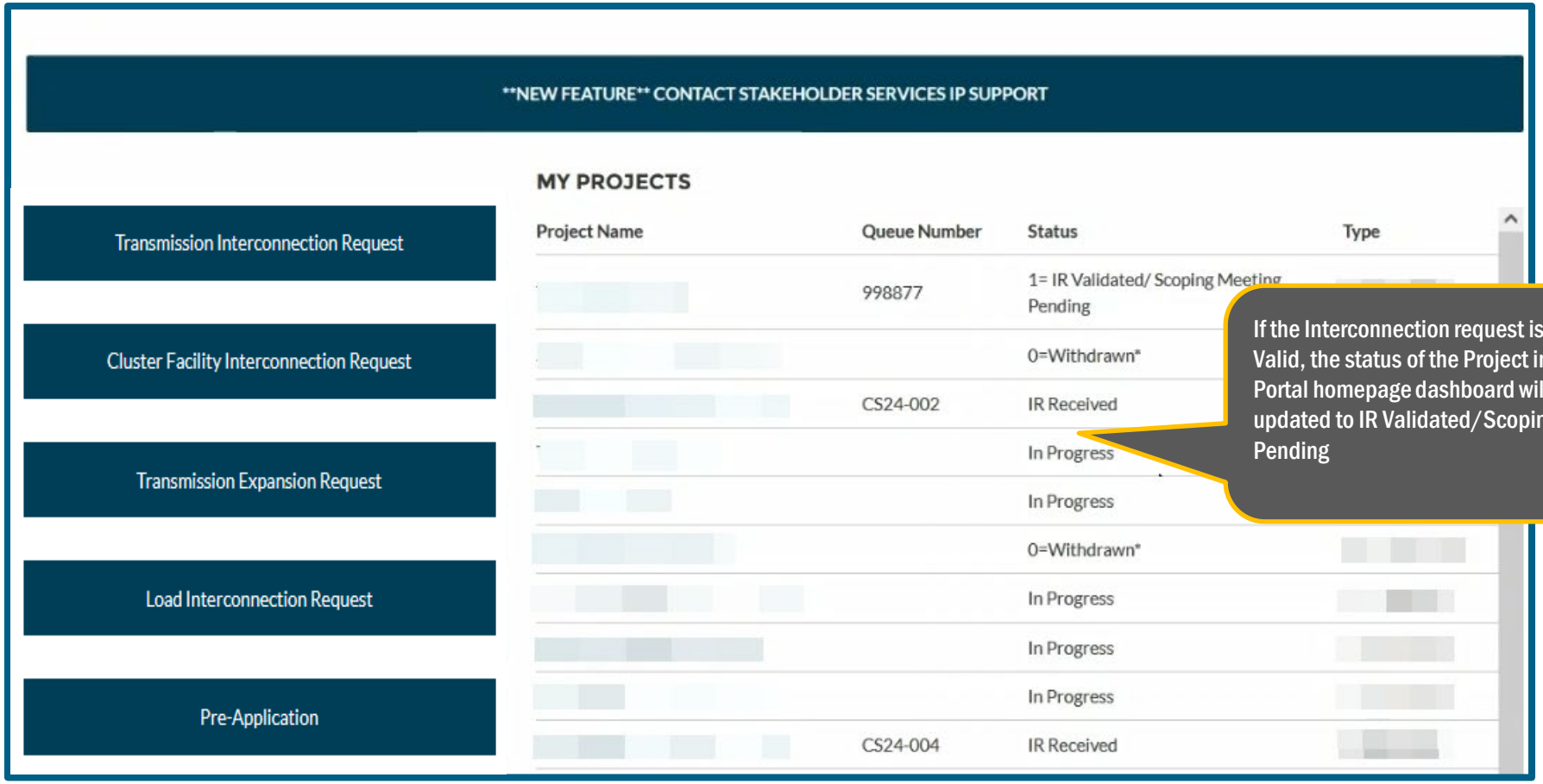
Please provide the above requested information via the Interconnection Projects Community within ten (10) business days of receipt of this notice 9/20/2019.

Please contact ICPC@nyiso.com if you have any questions.

X Deficient

Note: Notifications provided are just an example, and may not be the exact notices that will be sent by the NYISO

Interconnection Request Validation



The Project will move on to the next phase – the Customer Engagement Window

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 10 Business Days prior to the end of the Application Window may not have the opportunity to cure deficiencies as NYISO is afforded 10 Business Days to validate Interconnection Requests (15 Business Days for the Transition Cluster Study)
- Interconnection Customer can continue to cure deficiencies throughout the duration of the Application Window
- NYISO will identify deficiencies in its first review of the application, and Interconnection Customer must address all deficiencies with each cure response submittal
  - NYISO will not separately validate each submission for individual deficiencies
- The Interconnection Customer must also satisfy the requirements for submitting and addressing deficiencies for the Facility model and any TO-specific technical information

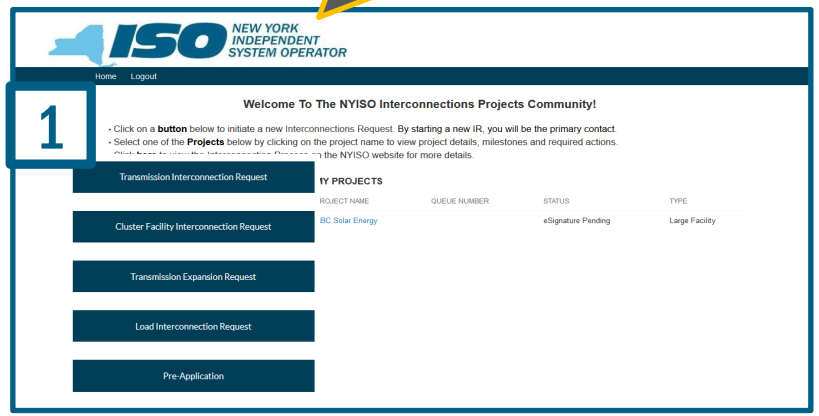
OATT 40 ATT HH, Section 40.5.7.2

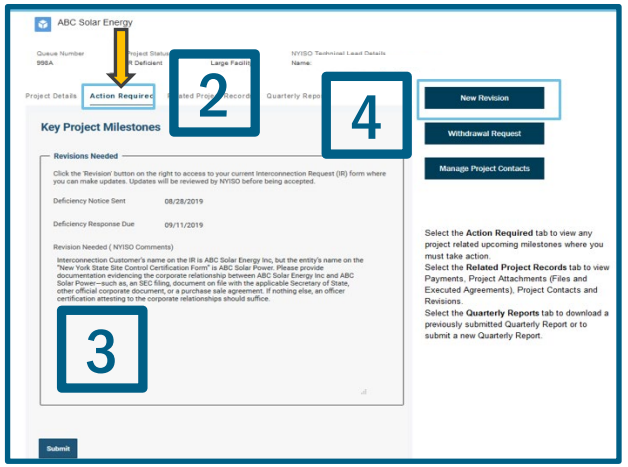
Interconnection Request - Deficiencies

- NYISO will review the submitted information to cure the identified deficiencies within 10 Business Days (15 Business Days for the Transition Cluster) and notify the Interconnection Customer of any additional deficiencies
- This process will continue until the close of the Application Window
  - Interconnection Customer may have more than one cure opportunity, depending on the timing within the Application Window
- NYISO will continue its validation process in the start of the Customer Engagement Window for applications submitted late in the Application Window
- Interconnection Customers must satisfy subsequent requests for additional information needed to address incomplete data, errors, or additional information required for the NYISO's or Transmission Owners' performance of their responsibilities in Attachment HH within 10 Business Days

Interconnection Request Validation Results: Deficiencies

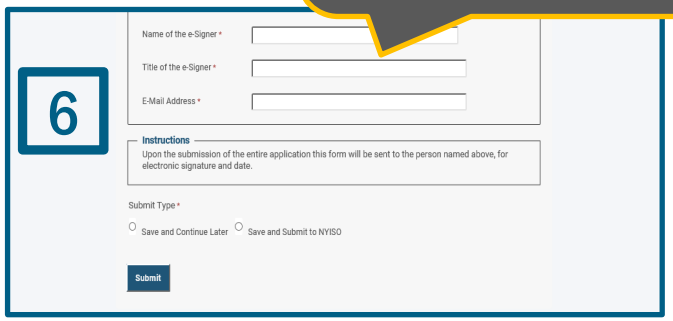
Deficiency must be cured within 10 (15 for transition cluster) business days of receipt of 'Deficiency Letter



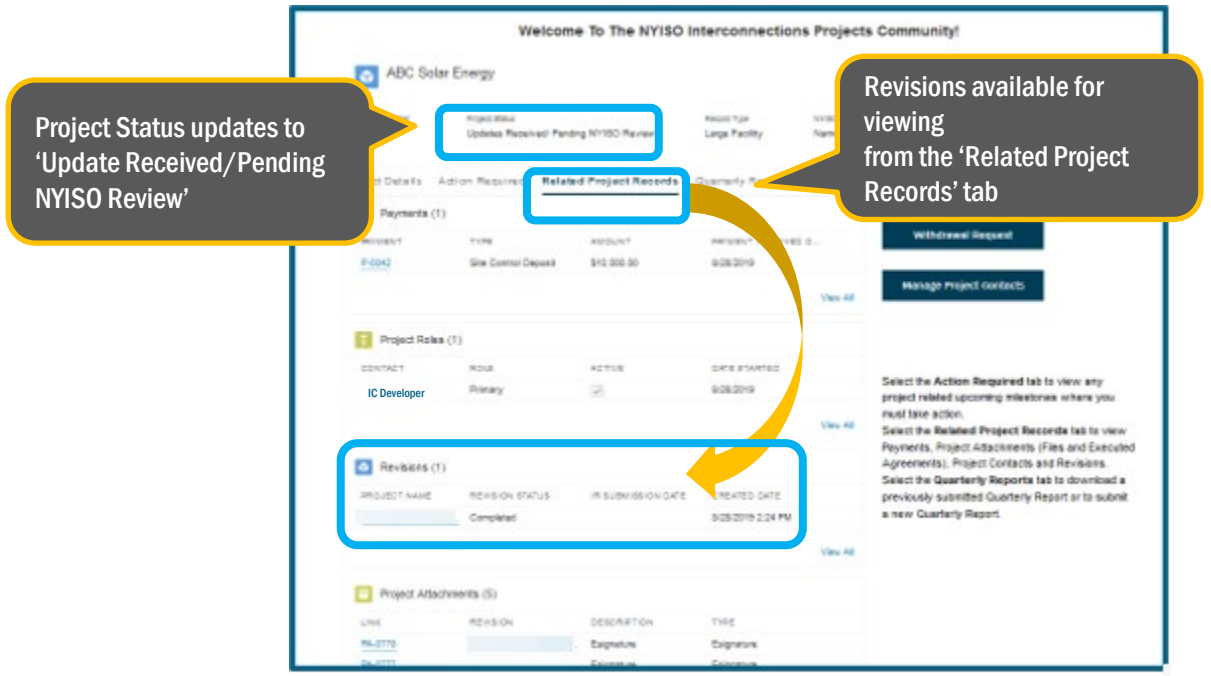


A revision requires a description of the project changes

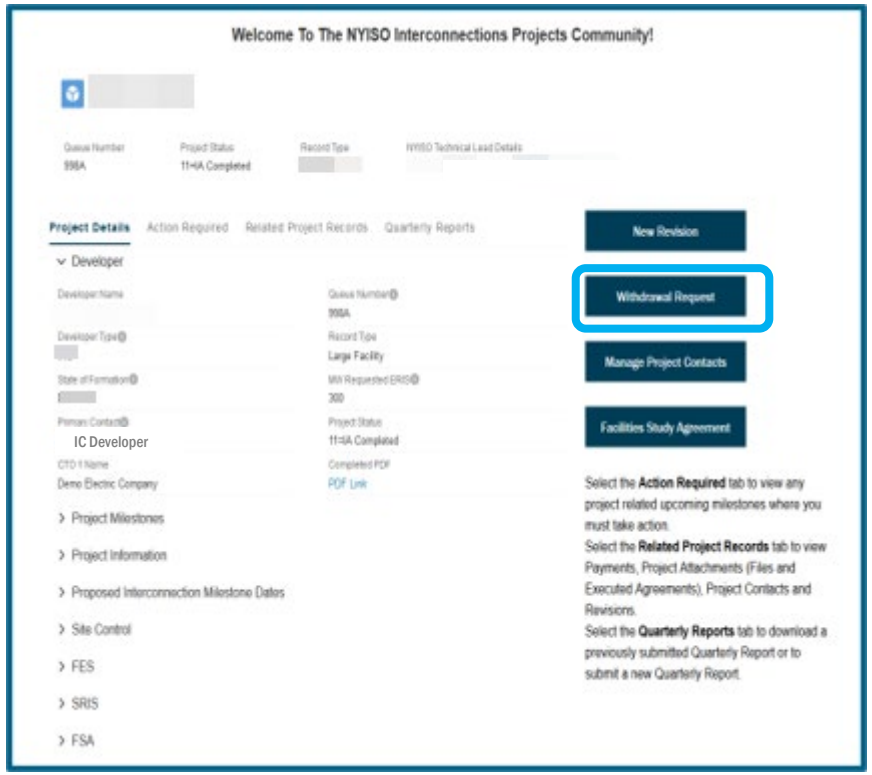
An e-signature is required as a part of the revision only if it includes a change in the developer of the project

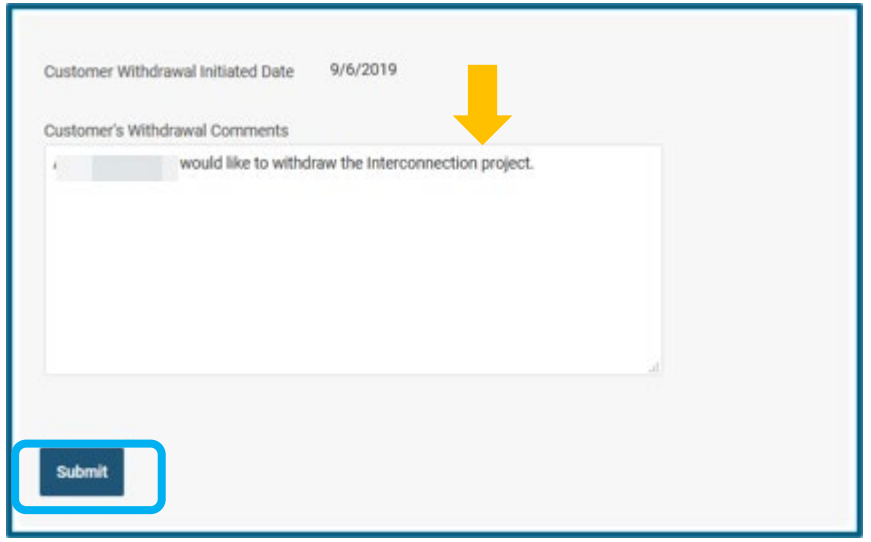


Interconnection Request Validation Results: Deficiency



Customer Initiated Withdrawal





OATT 40 ATT HH, Section 40.6.4

Customer Engagement Window

Customer Engagement Window

- Commences immediately after completion of the Application Window
- Customer Engagement Window will be a 70-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 after 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

OATT 40 ATT HH, Section 40.7

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 the Cluster Study Phase 1 Study
  - If physical infeasibility is identified in the Phase 1 Study, the project cannot proceed to the Phase 2 Study
  - If physical infeasibility is identified in the Phase 2 Study, the project cannot proceed to the decision phase at the conclusion of the Phase 2 Study

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
  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)

Phase 1 Entry Decision Period

- Starts on first business day after end of Customer Engagement Window and extends for a 5-business day period
- A Cluster Study Project will be included in the Phase 1 Study if, during the Phase 1 Entry Decision Period, the Interconnection Customer for the Cluster Study Project:
  - Notifies the NYISO of its election for its Cluster Study Project to proceed to the Phase 1 Study;
  - Submits to the NYISO an updated proposed Initial Backfeed Date, an updated proposed Synchronization Date, and an updated proposed Commercial Operation Date; and
  - Provides the NYISO with the Readiness Deposit 1 for its Cluster Study Project
- The Readiness Deposit 1 is $4,000/MW (not applicable for CRIS-Only projects)
- If a project withdraws during the Customer Engagement Window or at the Decision Point to Enter Phase 1, or if NYISO withdraws the project due to non-satisfaction of requirements
  - Withdrawal Penalty 1 – Interconnection Customer forfeits 25% of the Study Deposit
    - Not applicable to projects withdrawn due to physical infeasibility

OATT 40 ATT HH, Section 40.7.5

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
    - Contingent Projects may not change their POI during this time period
    - If a Contingent Project has withdrawn from its ongoing study or that study is completed prior to this 5 BD period, such project may propose a POI modification during this period
  - Consequence of such modification during the Customer Engagement Window is a drop in the project's priority within the Cluster
  - 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
  - Interconnection Customer may withdraw from the Application Window and resubmit a modified project in that Application Window or in a subsequent Cluster Study Application Window, subject to the timing and submission requirements for a new Interconnection Request

Cluster Study – Phase 1 Study

Cluster Study - Phase 1 Study

- Cluster Study Phase 1 Study :Comparable to Class Year Part 1 Study
  - Commences first business day after 5-business day Phase 1 Entry Decision Period
  - Runs for 190 days
  - Concludes with NYISO's Operating Committee approval of Phase 1 Cost Estimates Summary Report
- Design and engineering studies performed by Connecting Transmission Owners and Affected Transmission Owners to identify requirements to reliably interconnect the Cluster Study Project with the New York State Transmission System or Distribution System in accordance with Applicable Reliability requirements
- Will provide Interconnection Customers with Project Cost Estimates for:
  - Local System Upgrade Facilities (SUFs),
  - CTO Attachment Facilities (CTOAFs), and
  - Distribution Upgrades
- These cost estimates are subject to change in Phase 2 based on rejections in Phase 1 decision period

OATT 40 ATT HH, Section 40.9, 40.10

Cluster Study –Phase 1 Study

- Phase 1 Study requirements and the NYISO's and CTO/ATOs' respective responsibilities concerning key Phase 1 Study process steps are included in Att. HH, Section 40.10
- To proceed to the Phase 2 Study, the Interconnection Customer must, in the decision period following the Phase 1 Study:
  - Accept or reject its Project Cost Allocation determined in Phase 1; and
  - Satisfy the Readiness Deposit 2 requirements
- The Readiness Deposit 2 is calculated as the greater of (i) the Readiness Deposit 1, and (ii) 20% of the cost estimate determined in the Phase 1 Study
  - To satisfy this requirement, Interconnection Customer must provide to the NYISO the incremental difference, if any, between the Readiness Deposit 1 amount that it previously submitted to enter the Phase 1 Study and the Readiness Deposit 2 amount
- A Cluster Study Project that withdraws from the queue or has been withdrawn by the NYISO for not fulfilling requirements may be subject to a Withdrawal Penalty
  - 50% of the Study Deposit and 10% of the Readiness Deposit 1, except if withdrawal is due to physical infeasibility

Cluster Study - Phase 2 Study

Cluster Study - Phase 2 Study

- Cluster Study Phase 2 Study: Comparable to Class Year Part 2 Study
  - Commences first business day after 10-business day Phase 2 Entry decision period
  - Runs for 270 days
  - Concludes with NYISO's Operating Committee approval of Cluster Study Report
- NYISO will identify the System Upgrade Facilities, System Deliverability Upgrades and Distribution Upgrades required for:
  - Reliable interconnection of Cluster Study Projects to the New York State Transmission System or to the Distribution System in compliance with the NYISO Minimum Interconnection Standard and,
  - For Cluster Study Projects requesting CRIS, any System Deliverability Upgrades for their requested CRIS in compliance with the NYISO Deliverability Interconnection Standard
- As applicable, the Phase 2 Study will provide Interconnection Customers with Project cost estimate for:
  - Non-Local System Upgrade Facilities (SUFs),
  - System Deliverability Upgrades (SDUs) and updated Local SUFs,
  - Connecting Transmission Owner's Attachment Facilities, and
  - Distribution Upgrades

Cluster Study – Phase 2 Study

- The Connecting Transmission Owner, Affected Transmission Owner, or Affected System Operator will determine:
- Cost estimates for, and a preliminary schedule to construct, the upgrade facilities, and
- Updating, as needed, the identification of and cost estimates of the upgrade facilities identified in the Phase 1 Study
- Phase 2 Study requirements and the NYISO's, CTO's and ATO's respective responsibilities concerning key Phase 2 Study process steps are included in ATT. HH Section 40.11, 4.12 and 4.13
- Interconnection Customer must accept or reject its cost allocation(s) in the iterative decision period following Phase 2

OATT 40 ATT HH, Section 40.11, 40.12, 40.13

Additional SDU Studies

- The NYISO will perform, if applicable, an Additional SDU Study as set forth in Section 40.14
- Interconnection Customer may elect to pursue Additional SDU studies, based on NYISO's Notice of SDUs requiring additional studies
  - If the Class Year Deliverability Study or Cluster Study Deliverability Study identifies the need for a new System Deliverability Upgrade
  - Interconnection Customer indicates one of multiple System Deliverability Upgrade alternatives identified by the NYISO
  - The option Interconnection Customer elects will be evaluated in the Additional SDU Study
- If the Additional SDU Study is not completed (including Security posting) by 10 BDs prior to the next Cluster Study Phase 1 start date the Additional SDU Study will be terminated
- If the Interconnection Customer does not elect to pursue an Additional SDU Study for required System Deliverability Upgrades, or if the NYISO does not receive the Interconnection Customer's election by the deadline:
  - The Interconnection Customer may only accept or reject its Deliverable MW, if any, in the Cluster Study

OATT 40 ATT HH, Section 40.14

Iterative Final Decision Period

- At the conclusion of the Phase 2 Study, the NYISO will commence the Final Decision Period
  - Each Interconnection Customer will elect through iterative decision rounds whether to accept its Project Cost Allocation and pay cash or post Security for:
    - the Connecting Transmission Owner's Attachment Facilities,
    - Distribution Upgrades,
    - System Upgrade Facilities, and/or
    - System Deliverability Upgrades
- An Interconnection Customer that accepts its Project Cost Allocation and pays cash or posts Security in the allocated amount for its Cluster Study Project will proceed to the negotiation process for a Standard Interconnection Agreement and any required construction agreements for that project
  - 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

OATT 40 ATT HH, Section 40.15

Iterative Final Decision Period

- If an Interconnection Customer does not accept its Project Cost Allocation, or does not pay cash or post Security in the allocated amount for its Cluster Study Project
  - The Cluster Study Project will be withdrawn from the Queue and may be subject to a Withdrawal Penalty
    - Withdrawal Penalty 3 - If a project withdraws during Phase 2 or at the Decision Point at the conclusion of Phase 2, it forfeits an amount equal to 100% of the Study Deposit and 20% of the Readiness Deposit 2
    - 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
- An Interconnection Customer that accepts a CTOAF and SUF Project Cost Allocation and/or SDU Project Cost Allocation will not be provided with the option to accept Revised Project Cost Allocation following a Subsequent Decision Round Period
  - Unless the Revised Project Cost Allocation is:
    - An increase of greater than ten percent (10%) in the CTO and SUF Project Cost Allocation or the SDU Project Cost Allocation; or
    - A decrease in the Interconnection Customer's Deliverable MW

Study Deposits, Readiness Deposits and Withdrawal Penalties

Study Deposits and Fees (cont.)

- The NYISO will invoice Interconnection Customer's actual study costs on a monthly basis
  - Failure to timely pay a monthly invoice will result in withdrawal of the project from the Queue
  - NYISO may use the Study Deposit to cover any invoiced but unpaid study costs
  - Per FERC pro forma in Order 2023, if a project withdraws prior to the study, the project is responsible for the NYISO's costs of processing its Interconnection Request/CRIS-Only Request
- Applicable Study Deposit and Readiness Deposit will remain in place for duration of the Cluster Study Process
  - Will be subject to Withdrawal Penalties
- At the completion of Phase 2 of the Cluster Study Process, if Interconnection Customer accepts its cost allocation and posts Security:
  - NYISO will refund the full amount of both the Study Deposit and Readiness Deposit (after final invoicing and payment of study costs)
- 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

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 (Readiness Deposit 1)</td><td>$4,000/MW (not applicable for CRIS-Only projects)</td></tr>
<tr><td>To enter Phase 2 (Readiness Deposit 1)</td><td>The greater of (i) Readiness Deposit 1, and (ii) 20% of cost estimate determined in the Phase 1 study (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</td></tr>
</table>

Credit Instruments

- Interconnection Customers may provide a Letter of Credit ("LOC") or Surety Bond to cover all, or a portion of, certain deposits, including but not limited to:
  - Study Deposit
  - Phase 1 Deposit
  - Phase 2 Deposit
  - Site Control Deposit
- The Counterparty & Credit Risk Management Department has standard LOC and Surety Bond language that must be used when a bank or surety company issues a new LOC or Surety Bond to the NYISO
- The NYISO's standard LOC and standard Surety Bond cannot be changed and must conform to one of the NYISO's standard templates available on the NYISO Credit website:
  - NYISO Standard Letter of Credit
  - NYISO Standard Letter of Credit - On Behalf Of
  - NYISO Standard Confirming Letter of Credit
  - NYISO Standard Surety Bond
  - NYISO Standard Surety Bond – For the Benefit Of

Credit Instruments

- Specific requirements must be met for a financial institution to issue a LOC to the NYISO:
  - A letter of credit must be issued or guaranteed by:
    - Approved U.S. or Canadian commercial bank, or
    - Approved U.S. or Canadian branch of a foreign bank
  - Issuer must have a minimum “A” rating from Standard & Poor’s, Fitch, Moody’s, or Dominion.
  - Any issuer that does not satisfy the minimum ratings requirement may have the letter of credit confirmed by another commercial bank or financial institution that meets the ratings requirement.
- Specific requirements must be met for a surety company to issue a Surety Bond to the NYISO:
  - A Surety Bond must be issued by a U.S. Treasury-listed surety with a minimum "A" rating from A.M. Best

Credit Instruments

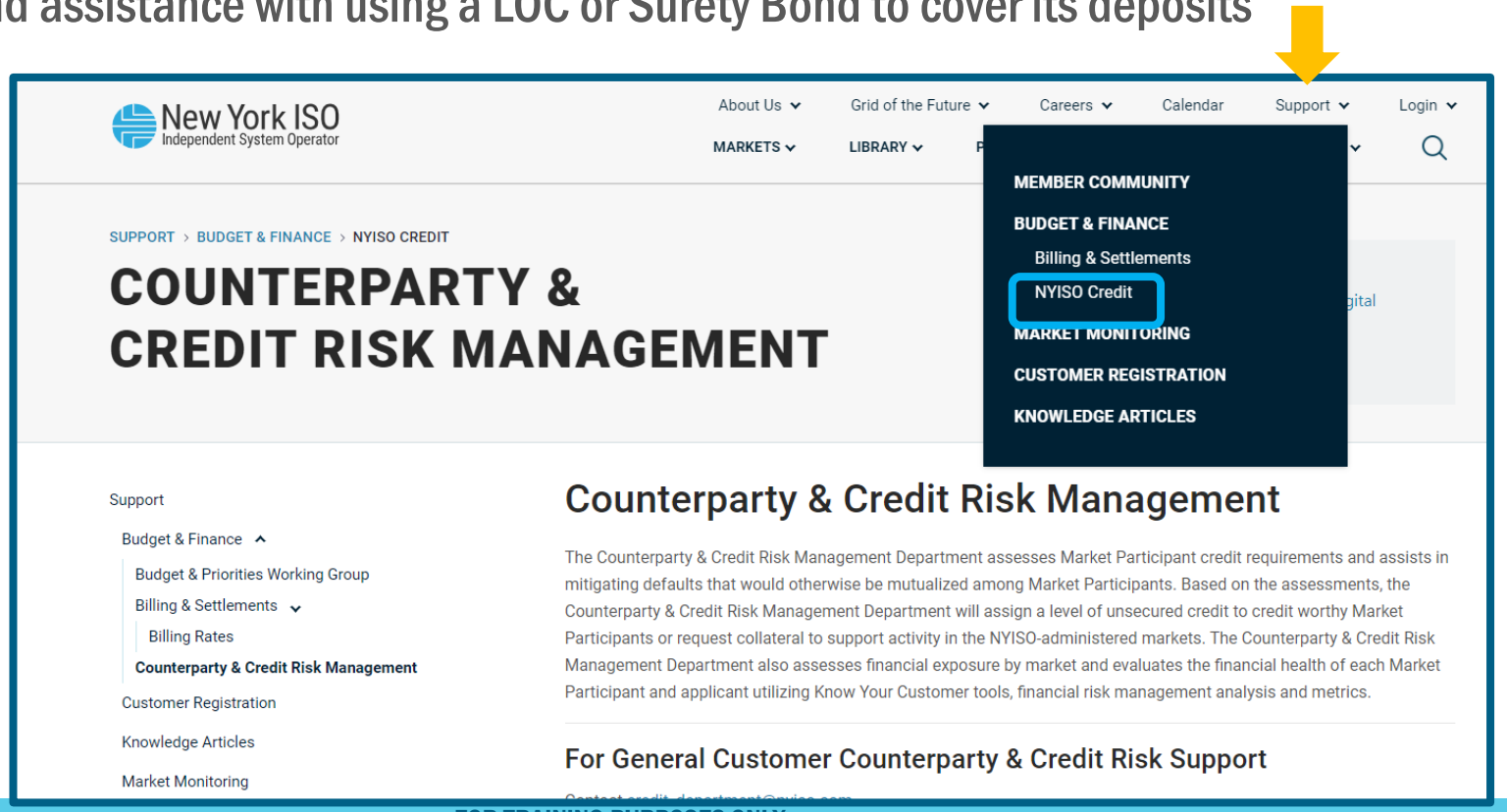
- The NYISO will require the following for each credit instrument:
  - One LOC or Surety Bond per project per Interconnection Customer
    - The original initial instrument must be received and verified prior to acceptance to meet deposit requirements
  - Project name must be included on the credit instrument
  - An amendment/rider will need to be issued in the event of a change in any of the following:
    - Deposit amount
    - Interconnection Customer name or
    - Project name

Credit Instruments

- The process for issuing a new LOC or Surety Bond can be very time intensive
  - If an Interconnection Customer is planning to use a LOC or Surety Bond for their deposits, the NYISO recommends that process begin as soon as possible
  - The NYISO recommends emailing a draft copy to the Counterparty & Credit Risk Management team to ensure it is acceptable prior to the financial institution or surety company issuing the original LOC or Surety Bond
  - Once confirmed, the NYISO requires the original LOC or Surety Bond to be mailed to, and reviewed by, the NYISO to ensure no changes have been made prior to its acceptance

Credit Instruments

- The Interconnection Customer may reach out to the Counterparty & Credit Risk Management Department directly to verify if a financial institution or surety company meets the minimum issuer requirements
  - The Counterparty & Credit Risk Management team can be reached directly at credit_department@nyiso.com for any questions and assistance with using a LOC or Surety Bond to cover its deposits



Withdrawal Penalties

- If a project withdraws during the Application Window or up to 5 Business Days of the NYISO publishing the cluster member list in the Customer Engagement Window, there is no withdrawal penalty

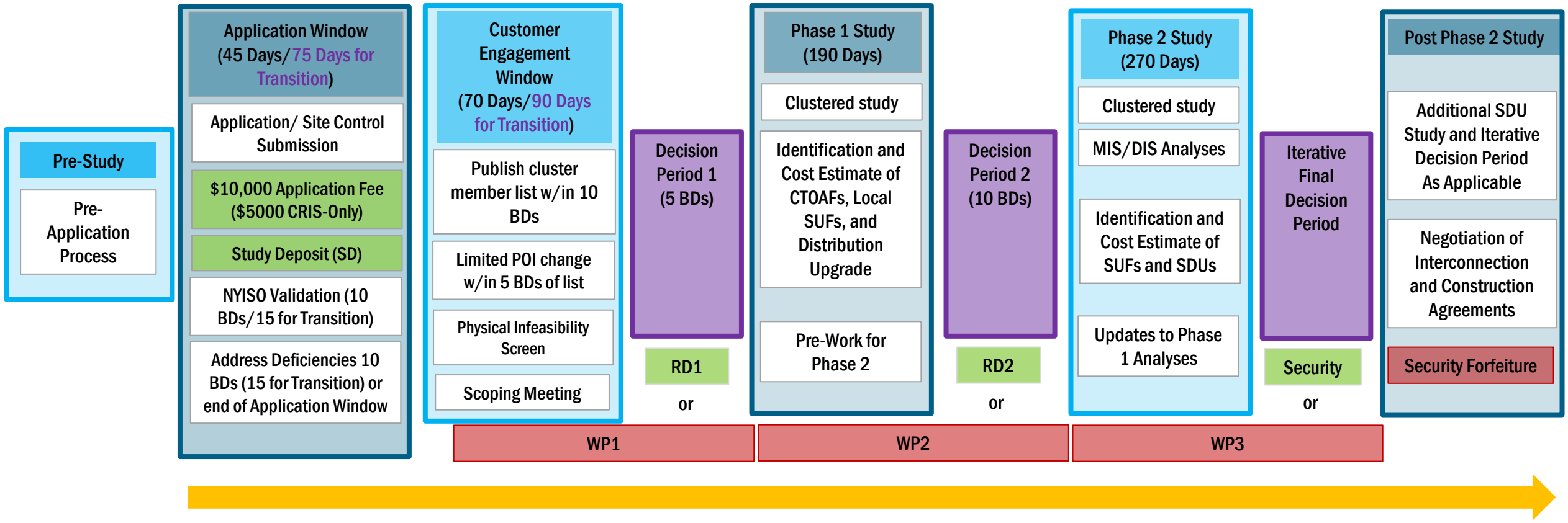
Penalty	Amount	Timeline
WP1	25% of SD, except if withdrawal is of a contingent project or due to physical infeasibility	During Customer Engagement Window up to end of Decision Period 1
WP2	50% of SD + 10% of RD1, except if withdrawal is due to physical infeasibility	During Cluster Study Phase 1 up to end of Decision Period 2
WP3	100% of SD +20% of RD2, except if withdrawal is due to physical infeasibility or if there has been a 50% cost increase between Phase 1 and Phase 2 (non SDU) costs	During Cluster Study Phase 2 up to end of Iterative Final Decision Period
Security Forfeiture	Up to 100% of Security subject to forfeiture if other projects relying on the upgrades identified for its project	During Post Phase 2 Study

OATT 40 ATT HH, Section 40.6.5.1

Withdrawal Penalties

- Withdrawal penalties are in addition to any outstanding amounts owed for study costs
- In the event the Interconnection Customer does not pay its study cost invoice(s) and/or Withdrawal Penalty invoice(s), the NYISO may use the cash deposit, letter of credit, or surety bond to cover the outstanding balance(s)
- Withdrawals for physical infeasibility issues will not be subject to penalty

NYISO's Standard Interconnection Procedures Overview



NYISO's Standard Interconnection Procedures– Study Deposits and Withdrawal Penalties

New York ISO

Study Deposit (SD) Amounts

Size	Amount
< 80 MW	$100,000
≥ 80 < 200 MW	$150,000
≥ 200 MW	$250,000
CRIS-Only	$50,000

Readiness Deposits (RD) /Security Amounts

Deposit	Amount
RD1*	$4,000/MW
RD2*	The greater of (i) RD1, and (ii) 20% of cost estimate determined in Phase 1 for Local SUF and CTOAF
Security	100% of cost estimate of SUFs, SDUs, and CTOAFs identified in Phase 1 and Phase 2

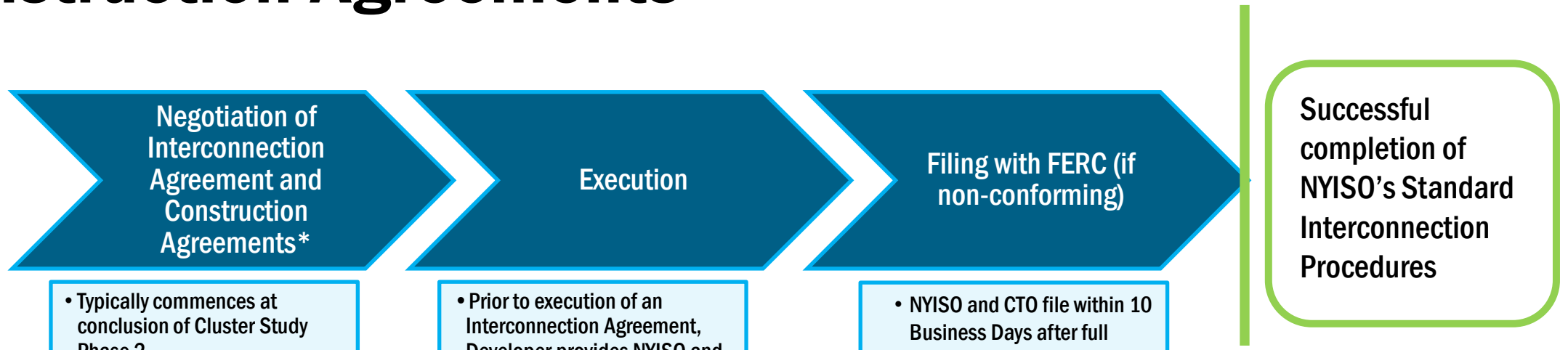
* N/A to CRIS-Only projects

Withdrawal Penalty (WP) Amounts

Penalty	Amount
	If a project withdraws during the Application Window or up to within 5 Business Days of the NYISO publishing the cluster member list in the Customer Engagement Window, there is no withdrawal penalty. Also. no withdrawal penalty for contingent projects and projects that withdraw due to physical infeasibility
WP1	25% of SD, except if withdrawal is of a contingent project or due to physical infeasibility
WP2	50% of SD + 10% of RD1, except if withdrawal is due to physical infeasibility
WP3	100% of SD +20% of RD2, except if withdrawal is due to physical infeasibility or if there has been a 50% cost increase between Phase 1 and Phase 2 (non SDU) costs.
Security Forfeiture	Up to 100% of Security subject to forfeiture if other projects relying on the upgrades identified for its project

Next Steps after Completion of a Cluster Study

Execution of Interconnection Agreement and Construction Agreements



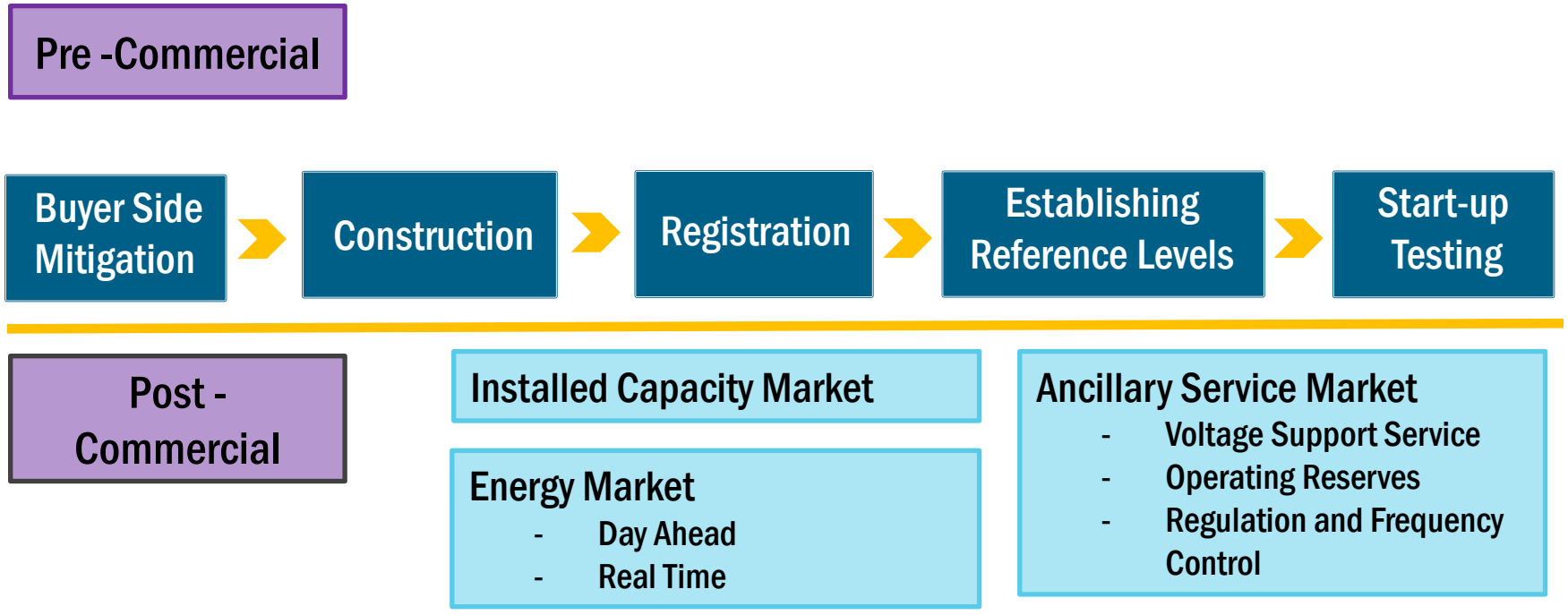
** Construction Agreements are required for upgrades on Affected Systems

OATT 40 ATT HH, Sections 40.8.3.11 and 40.21.3

** MILESTONES

a. Execution of a contract for the supply or transportation of fuel to the Generation Facility;
b. Execution of a contract for the supply of cooling water to the Generation Facility
c. Execution of a contract for the engineering for, procurement of major equipment for, or construction of, the Generating Facility;
d. Execution of a contract for the sale of electric energy or capacity from the Generation Facility; or
e. Application for an air, water or land use permit

Supplier Next Steps



Additional Resources

- NYISO Tariff: OATT 40 Attachment HH – Standard Interconnection Procedures
- Manuals: Transmission Expansion and Interconnection Manual – revisions in development
- Technical Bulletins: Site Control in the Interconnection Cluster Study Process
- Committee meeting materials
  - Transmission Planning Advisory Subcommittee (TPAS) meeting materials
  - Interconnection Issues task Force (IITF) meeting materials
  - Interconnection Project Facilities Study Working Group (IPFSWG)
- Other NYISO Resources
  - NYISO FERC filing in compliance with Order No. 2023/2023-A: 20240501_NYISOFlngLtr_Order2023CmpInc.pdf (etariff.biz)
  - Video Series
    - Connecting more renewable energy to the grid
  - Podcasts
    - Ep.25: VP Zach Smith on the Interconnection process and the Growth of Clean Energy on the Grid

Additional Resources

- Market Training Resources in Development
  - E-learning module: NYISO's Standard Interconnection Procedures
  - Frequently Asked Questions (FAQ): NYISO's Standard Interconnection Procedures

Questions?

For any future assistance, please contact the IP Support team of NYISO Stakeholder Services at stakeholder_services_ipsupport@nyiso.com

IP Support team:
Melissa Cannon - Senior Stakeholder Services Liaison
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