

NYISO's Standard Interconnection Procedures (SIP)

General

1. How does the new process differ from the prior procedures and what efficiencies does the NYISO anticipate it will provide?

The NYISO's new "Standard Interconnection Procedures" represent the most substantial enhancements to the NYISO's interconnection process in two decades. The new procedures will result in a shorter interconnection process that will provide Interconnection Customers with more information to make informed decisions.

Among key improvements, the new process:

- Shortens the timeframe for the NYISO's interconnection process in line with the timeframe established in Order No. 2023 by establishing a two-phase Cluster Study Process that incorporates the NYISO's longstanding "first-ready, first-served" clustered Class Year Interconnection Facilities Study and eliminates the stand-alone feasibility and system impact studies.
- Establishes a pre-application process and a heatmap to provide Interconnection Customers with the opportunity to obtain additional information prior to the submission of their Interconnection Requests.
- Provides physical infeasibility screening early in the Cluster Study Process to identify physically infeasible interconnections and permit penalty free withdrawals due to physical infeasibility.
- Establishes enhanced submission requirements, including more stringent study deposit, technical data and site control requirements, and strict deadlines to cure deficiencies.
- Establishes several decision periods within the Cluster Study Process with commercial readiness deposits and withdrawal penalties, along with a mechanism for distributing any collected withdrawal penalty funds.
- Establishes rules to limit project modifications during the Cluster Study Process and to provide additional mechanisms for requesting extensions to a project's commercial operation date.
- Establishes a penalty framework for missed deadlines in the performance of the Cluster Study or an Affected System Study.

- Incorporates into the Cluster Study Process technological advancement requirements identified in Order No. 2023 related to co-located resources, generator additions, alternative transmission technologies, and modeling and ride-through requirements for non-synchronous generating resources.
- Revises the scope of operating procedures used to mitigate reliability impacts under the NYISO Minimum Interconnection Standard so that upgrades are less likely to be required for resources such as energy storage resources.
- Addresses requirements for Affected Systems located in the New York Control Area and neighboring systems.
- Aligns the treatment of generating facilities 20 MW or smaller with the Cluster Study Process, incorporating all generation facilities into a single, standardized process.
- Establishes a Transition Cluster Study Process available to all Interconnection Customers that satisfy the process entry requirements to enable Interconnection Customers to immediately make use of the new study process without prerequisite studies.
- Provides for additional pro forma forms and agreements to expedite the interconnection process, the negotiation of required agreements, and the construction of required upgrades; and
- Consolidates the interconnection procedures and agreements currently spread across multiple tariff attachments into a single new OATT Attachment HH.

These improvements will collectively drive substantial efficiencies and improvements in the NYISO's interconnection process and are directly targeted at enabling the increasing number of projects seeking to interconnect in New York to do so in a reliable, efficient, transparent, and timely manner.

2. What is the difference between a Class Year Study and a Cluster Study?

The Class Year Study is the final study of the successive interconnection studies conducted in the Large Facility Interconnection Procedures for proposed interconnections of Small Generating Facilities (if applicable), Large Generating Facilities, and Class Year Transmission Projects with the New York State Transmission System or with the Distribution System in accordance with the requirements in Attachments S, X, and Z to the ISO OATT. This study identifies and allocates the cost of attachment facilities and upgrades needed to reliably interconnect all the projects in a Class Year. The Class Year Study for Class Year 2023 is the final Class Year Study conducted by the NYISO.

The Cluster Study is the single clustered interconnection study for the Cluster Study Process established in the new Standard Interconnection Procedures. The Cluster Study Process commences with the NYISO's opening of the Application Window for that process. This is followed by the Customer Engagement Window during which proposed projects are assessed to determine if they are physically infeasible and the NYISO hosts a scoping meeting for the cluster of projects. The NYISO then performs the Cluster Study, which includes the Phase 1 Study and the Phase 2 Study. The new Cluster Study mirrors in large part the current Class Year Study, with an enhanced scope, additional decision periods, more stringent requirements, and an overall more expedited timeline. The NYISO has commenced the first Cluster Study Process – the Transition Cluster Study Process – with the opening of the Application Window for that process on August 1, 2024.

Class Year Study and Cluster Study are defined in [OATT Attachment HH, Section 40.1](#).

3. How are Small Generating Facilities incorporated into the new process?

Under the new procedures, all Generating Facilities, including those 20 MW or smaller, that propose to interconnect to the New York State Transmission System or Distribution System proceed through the Standard Interconnection Procedures. That is, all Generating Facilities would be required to submit an Interconnection Request in the Application Window for a Cluster Study Process subject to the same requirements and would participate in that Cluster Study Process. All Generating Facilities that complete the Cluster Study Process would then enter into a Standard Interconnection Agreement with the NYISO.

To consolidate the SGIP into the Standard Interconnection Procedures, the NYISO has established transition rules for Interconnection Customers in its Queue that are currently participating in the OATT Attachment Z Small Generator Interconnection Procedures. See [OATT Attachment HH, Sections 40.3.1.2, 40.3.1.4, and 40.3.1.5](#).

4. When will the next Cluster Study begin after the Transition Cluster Study?

For Cluster Study Processes after the Transition Cluster Study Process, the Cluster Study Process Start Date shall be fifteen (15) Calendar Days prior to the scheduled date for the NYISO's presentation in the prior study process of the Cluster Study Report for the Operating Committee's approval.

The NYISO will set this date in the following manner. Within thirty (30) Calendar Days of the commencement of the Phase 2 Study of the Transition Cluster Study Process or a subsequent Cluster Study Process, the NYISO will provide a preliminary schedule for the next Cluster Study Process, including a preliminary Cluster Study Process Start Date, based on the then-scheduled date for the NYISO's presentation of the Cluster Study Report to the Operating Committee. Sixty (60) Calendar Days prior to the latest scheduled date of the NYISO's presentation of the Cluster Study Report to the Operating Committee, the NYISO shall provide the final Cluster Study Process Start Date using that scheduled Operating Committee date.

For additional detail regarding the Cluster Study Process Start Date, see [OATT Attachment HH, Section 40.5.1](#).

Pre-Application Information

5. When will Heatmaps be available?

The Heatmap is the NYISO's publicly posted interactive visual representation of estimated incremental injection capacity available at each point of interconnection and related table of metrics in accordance with the requirements in [OATT Attachment HH, Section 40.4.1](#). The Heatmap will first become available beginning thirty (30) Calendar Days after the conclusion of the latter of the Final Decision Period or the Additional SDU Study Decision Period for the Transition Cluster Study. However, if the

Interconnection Customer is looking for study data, the Interconnection Customer can request the FERC 715 cases in preparation for the Transitional Cluster Study Process.

6. Are 2 POIs allowed on a single Pre-Application Request?

Yes, Interconnection Customers can choose to submit two POIs in one Pre-Application Request Form. Notwithstanding whether the POIs are included in one or two applications, the cost is still \$5,000 per POI. For administrative purposes, however, if submitted in a single Pre-Application Request, the NYISO will split it into 2 separate Pre-Application requests: PA-xxx and PA-xxxA.

For additional detail regarding the Pre-Application process, see [OATT Attachment HH, Section 40.4.2](#).

7. Are site plans and conceptual one-line diagrams required for Pre-Application Requests?

They are not required; however, a conceptual one-line diagram can allow the Connecting Transmission Owner to provide more information about the proposed POI.

For additional detail regarding the information requested in a Pre-Application Request, see [OATT Attachment HH, Section 40.4.2.2](#) and the request form set forth in [Appendix 4 to OATT Attachment HH: Pre-Application Request Form](#).

Submitting an Interconnection Request in the new Cluster Study Process

8. Is there a detailed list of submission requirements for entering the Transition Cluster Study?

See: [Technical Bulletin No. 262 Transition Cluster Study Process](#)

9. How is the queue number position determined?

The NYISO assigns the Queue number to an applicant based on the date/time during an Application Window that it submits the Interconnection Request or CRIS-Only Request, which includes completing the eSignature component.

For additional detail regarding the assignment of Queue position, see [OATT Attachment HH, Section 40.6.1](#).

10. Are alternative projects allowed in the Transition Cluster Study?

No. Except as permitted by the Contingent Project rules in [OATT Attachment HH, Section 40.5.4.1](#), an Interconnection Customer, or an Interconnection Customer and one of its Affiliates, cannot submit an Interconnection Request for a mutually exclusive Cluster Study Project with projects in the Queue or projects proceeding in the same Application Window. See [OATT Attachment HH, Section 40.5.5.3](#).

11. How can a facility comprised of multiple co-located technologies allocate ERIIS and CRIS values in its Interconnection Request?

An Interconnection Customer initially states its election to be evaluated in the Cluster Study for Energy Resource Interconnection Service (ERIS) alone, or for both ERIS and Capacity Resource Interconnection Service (CRIS), as a part of its Interconnection Request. For Projects comprised of multiple Generators, an Interconnection Customer must request a single ERIS value for the Facility and also specify the ERIS of the multiple Generators comprising the Facility as requested by Interconnection Customer in its Interconnection Request. For projects comprised of multiple Generators, the total ERIS for the Facility may be less than the sum of the ERIS for the individual Generators. The requested ERIS of the individual Generators is subject to the following limitations:

- 1) The requested ERIS for the Energy Storage Resource in a Co-located Storage Resource or Hybrid Storage Resource cannot exceed the lesser of the Point of Injection limit or its nameplate; and
- 2) The requested ERIS for each Resource in a Co-located Storage Resource or Hybrid Storage Resource other than the Energy Storage Resource cannot exceed the lesser of:
 - a) The Point of Injection limit plus the full withdrawal capability of the Energy Storage Resource or
 - b) The relevant Resource's nameplate.

If the Facility is comprised of multiple Generators of the same or different technology type (*e.g.*, Co-located Storage Resource or single technology facility with multiple units, each proposed to be assigned a single PTID), the requested MW level of CRIS must be requested at the Facility level (*i.e.*, corresponding to the Facility as described in the Interconnection Request or CRIS-Only Request, as applicable), and shall be allocated among the multiple Generators, as requested by Interconnection Customer; *provided, however*, the requested MW level of CRIS cannot exceed the minimum of the following: (a) the expected maximum injection capability in MW for the Facility as described in the Interconnection Request or CRIS-Only Request, as applicable, including all co-located Generators sharing the same injection limit (*e.g.*, the entire Distributed Energy Resource, the entire Co-located Storage Resource or the entire multi-unit single technology resource); *provided, however*, if the Project includes a Resource with Energy Duration Limitation, its expected maximum injection capability in MW is limited by the Interconnection Customer-selected duration); (b) the nameplate capacity of the Facility (*i.e.*, collective injection capability of all units within the proposed Facility expressed in MW); or (c) the sum of the Facility's requested and existing ERIS, as applicable.

A facility must have ERIS in order for it to obtain CRIS as CRIS is optional. So, NYISO cannot allocate CRIS to a Generator where it does not have an established ERIS.

For additional detail regarding ERIS and CRIS requests for facilities comprised of multiple Generators of the same or different technology type, see [OATT Attachment HH, Sections 40.5.6.3 and 40.5.6.5](#).

12. What are common modeling deficiencies, and where can a prospective Interconnection Customer find modeling and data requirements?

At the Interconnection Request stage, the Interconnection Customer should submit modeling data in accordance with the following guidelines:

- [Modeling-Data-Summary-for-NYISO-Interconnection Studies](#)
- [Modeling-Guideline-for-NYISO-Interconnection-Data](#)

These modeling guidelines provide detailed requirements and instructions to help the Interconnection Customer submit accurate and complete information. This guide includes a model usability test document which will detail the tests the NYISO uses to determine whether stability and short-circuit models are acceptable.

Common deficiencies include information that does not align with all the modeling data provided. For example, the steady state models may not match the information submitted as part of the Interconnection Request, or they may not match the short-circuit models. It is important that all the models, the project description, and the Interconnection Request align.

Another common deficiency is that the plant does not meet the ride-through criteria. The ride-through deficiency is often seen in the stability as well as short-circuit models.

EMT models are not required at the time of the submission of the Interconnection Request. However, under special scenarios, NYISO may request the EMT models.

13. How can Interconnection Request or CRIS-Only Request deficiencies be cured and when can they lead to withdrawal?

Once an Interconnection Customer submits an Interconnection Request or CRIS-Only Request, the NYISO will review the request and send a validation notice or a deficiency letter listing out the deficiencies in the application within 15 Business Days of receiving the request. The Interconnection Customer then has 15 Business Days to respond and cure the entire list of deficiencies. If the deficiencies are not cured, the NYISO will notify the Interconnection Customer, and this iterative process will continue until the Application Window closes. If a deficiency is not cured by the close of the Application Window, then the project will be withdrawn and not allowed to continue on in the Transition Cluster Study.

Additional deficiencies can be identified during or outside the Application Window that must also be cured – *e.g.*, deficiencies in facility models, deficiencies in response to Transmission Owner-specific data requests and failure to respond to requests for additional information. See [OATT Attachment HH, Sections 40.6.7.3 and 40.5.7.4](#)

For additional detail regarding addressing deficiencies in an Interconnection Request or CRIS-Only Request, see [OATT Attachment HH, Sections 40.5.7.2](#).

Customer Engagement Window

14. How does priority factor into the physical infeasibility screen?

The NYISO will assign priority within the Cluster based on the Interconnection Request's submission date/time in Application Window. A Cluster Study Project will retain this priority in the Cluster Study, unless it elects to change its Point of Interconnection within the limited window provided for such change during the Customer Engagement Window. If the Cluster Study Project requests such change of its Point of Interconnection, its priority will be updated based on the date and time of the NYISO's receipt of the Interconnection Customer's submission of completed Facility Modification Request form requesting such change.

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. Connecting Transmission Owners and Affected Transmission Owners will perform physical infeasibility screening of all Cluster Study Projects (including the Contingent Project) based on their priority in the Cluster Study.

For additional detail regarding priority rules, see [OATT Attachment HH, Sections 40.6.1.2, 40.7.2.3 and 40.7.3.4.](#)

15. When will the Scoping Meeting take place within the Customer Engagement Window, and what is the format and procedure?

The scoping meeting takes place at the very end of the Customer Engagement Window after the NYISO posts the Physical Infeasibility screening report. The Scoping Meeting will be a group meeting including all of the projects with validated Interconnection Request and CRIS-Only Requests included in the Cluster for that Cluster Study Process, along with their respective Connecting and Affected TOs. Interconnection Customers will be required to sign a Non-Disclosure Agreement prior to the group Scoping Meeting, which will provide for confidentiality of commercially sensitive information identified in the Scoping Meeting pertaining to any other Interconnection Customers.

For additional detail regarding the Scoping Meeting, see [OATT Attachment HH, Section 40.7.4.](#)

Modifications

16. What project modifications are permitted during the Cluster Study Process and when?

During the Cluster Study Process, the only modification that is allowed is a change in POI, which must occur within 5 Business Days after the NYISO posts the Cluster Study Project List in the Customer Engagement Window. Outside of this modification, an Interconnection Customer cannot request a modification to the information provided in its Interconnection Request or CRIS-Only Request for its Cluster Study Project during the Application Window until the completion of the later of the Final Decision Period or Additional SDU Study Decision Period in which its Cluster Study Project is participating.

For additional detail regarding modification rules, see [OATT Attachment HH, Sections 40.6.3 and 40.7.2.3.](#)

17. Which stage in the process allows for changes to the project owner/developer?

An Interconnection Customer may transfer its Queue Position for its Interconnection Request or CRIS-Only Request to another entity only if: (i) such entity acquires the specific Facility identified in the Interconnection Request or CRIS-Only Request, (ii) the Point of Interconnection does not change, (iii) for an Interconnection Request, the acquiring entity demonstrates Site Control for its Project, (iv) the transferring Interconnection Customer is up-to-date on payments to the NYISO, and (v) the acquiring entity submits any deposits required for its Interconnection Request or CRIS-Only Request under this Attachment HH. Prior to approving a project name change or an Interconnection Customer name change, all appropriate documentation must be received, reviewed, and approved by the NYISO, including changes to security instruments covering the deposits.

For additional detail regarding transferring a queue position see [OATT Attachment HH, Sections 40.6.2.](#)

18. How can modifications be requested after the Cluster Study completion?

The process for changes outside of the study period have changed in the new Standard Interconnections Procedure. The new requirements are established in [OATT Attachment HH, Section 40.6.3.](#) For any requested modification, the Interconnection Customer must submit a Facility Modification Request, in the form of OATT Attachment HH Appendix 5, via email to the NYISO's interconnection support mailbox (interconnectionSupport@nyiso.com) and must provide a revision in the portal providing the required details of the change. With the exception for changes in project name, Interconnection Customer name and requested extensions of Commercial Operation Date, the Interconnection Customer must, in addition to the revision required for the applicable change, provide an updated one-line diagram, an updated modeling data form, and updated power flow, short circuit and dynamics models and submit a \$10,000 deposit.

19. What are the requirements for Commercial Operation Date (COD) Extensions?

See: [Technical Bulletin No. 263 COD Extension Requests](#) and [OATT Attachment HH, Section 40.6.3.4](#).

- Requests to extend a COD date up to and including May 2, 2028, under Part 1 of the COD extension rules.
- To obtain this extension, the Interconnection Customer must also satisfy the other two prongs of the extension rules, including having an agreed upon milestone schedule with the CTO that demonstrates the project meeting the requested extended date.
- An Interconnection Customer may not simply indicate it will complete its project sometime before May 2, 2028, to obtain an extension; it must have a planned schedule for meeting its specifically requested COD.
- An Interconnection Customer may request multiple extensions of its project's COD using the extension option that the COD be on or before May 2, 2028. However, each requested extension must satisfy the other two prongs of the COD extension rules as described above.
 - The Interconnection Customer is required to provide the NYISO with any requested extension as soon as it becomes apparent to the Interconnection Customer that it will not meet its proposed Initial Feedback Date (see OATT Attachment HH, Section 40.6.3.6).
 - An Interconnection Customer must be proactive in requesting an extension and cannot simply wait until its existing COD is nearly expired to request a modification.
- If an Interconnection Customer later concludes its project cannot be completed until after May 2, 2028, it must meet another one of the options to satisfy the first prong of the extension rules (e.g., demonstrating it has made reasonable progress by meeting a milestone defined in the tariff) to get a subsequent extension.

Cluster Studies (Phase 1, Phase 2, and Decision Periods)

20. How does the Cluster Study Phase 1 differ from Phase 2?

The Phase 1 Study in the Cluster Study is comparable to Part 1 study in the current Class Year Study process. The Phase 1 Study focuses on attachment facilities and Local System Upgrade Facilities required to reliability interconnect a project at its requested ERIS. In particular, the studies in the Phase 1 Study are mainly design and engineering studies individually performed for each project in the Cluster Study to address the CTOAFs and the SUFs (i.e., the SUFs at each Point of Interconnection (POI) and the related metering, protection and telecommunication facilities), required for each project, and Distribution Upgrades, if applicable. The Connecting Transmission Owner standards, design requirements and practices are applied for these design studies. These identified attachment facilities and upgrades are subject to change in the Phase 2 Study based on rejections in the Phase 2 Entry Decision Period.

The Phase 2 Study of the Cluster Study is comparable to the Part 2 study in the current Class Year Study process. The Phase 2 Study evaluates the need for non-Local SUFs and, for projects requesting CRIS, it

performs a deliverability evaluation. In particular, the Phase 2 Study includes power system simulation studies, which are performed with the goal to identify the remainder of the SUFs required for ERIS NYISO Minimum Interconnection Standard, and any SDUs required for CRIS under the NYISO Deliverability Interconnection Standard. The study identifies the SUFs and SDUs required for the Cluster Study Projects in the aggregate, through the performance of steady state, transient stability, short circuit assessments, etc. In addition, the Phase 2 Study updates the results of the Phase 1 Study to address the impact of projects that have withdrawn or been deemed withdrawn during the Cluster Study.

21. Are the results of the Cluster Study Phase 1 revisited/updated in Phase 2?

Yes, in the Phase 2 Study, the NYISO will provide Interconnection Customers with Project Cost Estimates for non-Local SUFs, SDUs (mainly identified in Phase 2 Study) and updated Local SUFs, CTOAFs, and Distribution Upgrades if applicable.

Study Deposits, Readiness Deposits and Withdrawal Penalties

22. Can an Interconnection Customer use a Surety Bond instead of a Letter of Credit or cash deposit for the initial Study Deposit?

Yes, an Interconnection Customer may use a Surety Bond instead of Letter of Credit or cash deposit for the initial Study Deposit. It must be in the standard format and include the developer's name and project name. See [Attachment HH OATT, Sections 40.2.4, 40.2.4.2.3H](#). See [Counterparty & Credit Risk Management - NYISO](#)

23. Can an Interconnection Customer satisfy its Readiness Deposit 1 with a cash deposit and then provide a Letter of Credit or Surety Bond for its Readiness Deposit 2?

Yes. An Interconnection Customer may use multiple forms of security to meet its deposit requirements, subject to satisfying the requirements for that particular form of security. See [Attachment HH OATT, Section 40.2.4](#).

24. Can an Interconnection Customer provide redlines, if any, for Surety Bonds?

The NYISO suggests providing a draft copy in advance to ensure it meets the NYISO's standard and includes the Interconnection Customer Name and Project Name. The NYISO will not accept changes to the standard language.

Additional Market Training Materials

1. NYISO's Standard Interconnection procedures e-learning module located at <https://www.nyiso.com/online-learning>