



State Jurisdictional Interconnection Process Review

Affected System Operator (ASO) Study Coordination

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Order Nos. 2023/2023-A - Conforming Changes to ISO Planning Procedures (ASO Study Coordination)

Proposed Effective Date: September 2024 (for PP5-6)

- The ISO identified the need for several conforming changes to Planning Procedure 5-6: Interconnection Planning Procedure for Generation and Elective Transmission Upgrades (PP5-6) and Planning Procedure 10: Planning Procedure to Support the Forward Capacity Market (PP10), as a result of Order Nos. 2023/2023-A
 - Order Nos. 2023/2023-A result in significant reforms to the interconnection process to move to a “first ready, first served” Cluster Study construct with clustered Interconnection Requests equally queued
- This is the third RC meeting where the ISO will discuss the proposed PP5-6 modifications to describe **ASO Study Coordination**
 - This presentation introduces PP5-6 redlines
 - Background on the proposed approach to the PP5-6 revisions was first discussed at the [March 19, 2024 meeting](#)
 - An overall description of the proposed design approach for ASO Study Coordination with the new Order No. 2023 process was presented at the [June 18, 2024 meeting](#)
 - At the June 18, 2024 meeting, the ISO identified the potential for changes to PP5-1 related to ASO Study Coordination. The ISO no longer believes that PP5-1 changes will be required.

AFFECTED SYSTEM OPERATOR STUDY COORDINATION

*Alignment with the new Order No. 2023 interconnection
process*



ASO Study Coordination – Roles & Responsibilities

- The ISO serves as an affected party to Distributed Energy Resource (DER) ASO studies, and helps to coordinate project approvals through Section I.3.9 of the Tariff
- The Interconnecting TO is responsible for conducting the Transmission System Impact Study on the developer's behalf for state jurisdictional projects
- The ISO's role in these studies is to provide hands-on guidance on study practices and modeling methods to ensure the study is in compliance with the applicable Tariff and Planning Procedure requirements in support of I.3.9 approval



Coordination of ASO Studies with FERC Jurisdictional Studies – Post-Order No. 2023

- FERC Order No. 2023 mandates that cluster studies must be used to study FERC jurisdictional interconnection requests
 - The Order No. 2023 cluster study process requires fixed, targeted timeframes for the initiation and completion of cluster studies
 - These fixed timeframes necessitate coordination of ASO study initiation and completion
- In order to better coordinate between ASO studies and FERC Order No. 2023 Clusters, ISO-NE is seeking to update the process by which ISO-NE reviews and approves state jurisdictional projects through the I.3.9 process
 - ISO-NE is seeking to create windows for these I.3.9 reviews to ensure efficient alignment of the processes



Coordination of ASO Studies with FERC Jurisdictional Studies

- There will be a delineation between projects that are relevant* to FERC jurisdictional studies, and those that are not
 - ASO studies taking place in an electrical part of the system that are not relevant will be able to complete their studies without respecting an ongoing FERC study
 - ASO studies taking place in an electrical part of the system that are relevant will need to respect and coordinate with an ongoing FERC study
- These ASO studies will need to model all relevant FERC jurisdictional projects and associated upgrades in the ASO base cases
 - Depending on the in-service date of the projects, the ASO study may need to run both pre- and post-FERC project cases

*The determination of relevance is based upon a review of electrical proximity, the likelihood of causing common violations, and whether identified upgrades of FERC Interconnection Requests may impact the performance of the proposed projects



State Jurisdictional Submittals

- Pursuant to section I.3.9 of the ISO New England Transmission, Markets, and Services Tariff, Market Participants (MP) are required to submit notice to the ISO for additions or changes to any generating resource at least 60 days prior to the project's planned in-service date
 - In many cases, the Transmission Owner (TO) submits these applications on behalf of a developer because they are not yet, or will not be a Market Participant
- Review of these applications is implemented through ISO-NE [Planning Procedure 5-1 \(PP5-1\)](#)
 - In accordance with PP5-1, any new or increased generation with a nameplate capability greater than 1 MW must either submit a Generator Notification Form (GNF) or a Proposed Plan Application (PPA)



State Jurisdictional Submittals (cont'd)

- The ISO reviews these GNFs and PPAs and provides a response on the level of analysis required pursuant to [Planning Procedure 5-3 \(PP5-3\)](#)
 - Level 0 indicates concurrence of a project's Generator Notification Form proceeding to the Reliability Committee Consent Agenda
 - No study is required for these projects under Planning Procedure 5-1
 - Level III requires that the project undergo a transmission System Impact Study (SIS), consistent with Planning Procedure 5-6, to support the PPA, prior to it proceeding to the Reliability Committee for an advisory vote



Why ISO is Proposing to Change the Timing of Determination Requests

- As described earlier, ASO studies will have to coordinate with and respect ISO Cluster Studies
 - This will naturally establish windows for the start and completion of ASO studies
- Note that coordination has always been required between ISO Interconnection Studies and ASO studies
 - Under the first-come-first-served approach (pre-Order No. 2023), ASO studies have always been required to respect any ISO Interconnection Study that had started
 - This has always had the potential to cause ongoing ASO studies to require additional time to complete while the new ISO study was incorporated
 - Post-Order No. 2023, the potential to be affected by a newly starting ISO study is eliminated by the clustering windows for ISO Interconnection Requests
- **The Trade-off:**
 - The **set of ISO requests for an ASO study to coordinate with is fixed** upon the close of the ISO Cluster Request Window
 - However, **the ASO process must coordinate with these windows**



Why ISO is Proposing to Change the Timing of Determination Requests – Example

- If the ISO continued to process determinations for DER projects on a rolling monthly basis, the following could occur in the months after the ASO coordinated studies are initiated
- Example Substation with no existing DERs in electrical proximity

Months After Closing of Cluster Windows	DER Project Proposed at the Example Substation (MW)	ISO Determination Under the Current Rolling Monthly Process
Month +1	4.9	Level 0
Month +2	4.9	Level 0
Month +3	4.9	Level 0
Month +4	4.9	Level 0
Month +5	4.9	Level III*

*A Level III study of the 4.9 MW proposal in Month +5



Why ISO is Proposing to Change the Timing of Determination Requests – Example (cont'd)

- If the ISO continued to process determinations for DER projects on a rolling monthly basis, the example on the previous slide would result in a Level III study of the individual 4.9 MW project submitted in Month +5
 - By itself, this Level III study will be time consuming, but may not show any adverse impacts because the 4.9 MW size is small relative to the adverse impact thresholds
- If all of the proposals had been submitted in the period prior to the closing of the clustering windows, then a Level III study would have been identified for the aggregated 24.5 MW at the example substation
 - A Level III study of the aggregated 24.5 MW may have identified adverse impacts



Proposed Changes to Determination Practice

- Updates to the current determination procedure are required as part of coordination with FERC Order No. 2023
- At the end of the screening:
 - If the aggregation at the station under review plus the electrically close stations is <20 MW, and the newly proposed addition of individually <5 MW DERs at that station plus those at electrically close stations is <20 MW, then the projects will be determined to be Level 0
 - If the aggregation at the station under review plus the electrically close stations is 20 MW or greater, and the newly proposed addition of individually <5 MW DERs at that station plus those at electrically close stations is <20 MW, then the projects will be determined to be Level 0
 - If the aggregation at the station under review plus the electrically close stations is <20 MW, and the newly proposed addition of individually <5 MW DERs is >20 MW, then the projects will require Level III analysis

*ISO-NE will no longer consider one-at-a-time project additions. Determinations will be made solely based on the total aggregate of all projects submitted during the submission windows that are electrically close based on the screening criteria.



AFFECTED SYSTEM OPERATOR STUDY COORDINATION

PP5-6 Redlines



Alignment with Update OP-14 (Voltage Requirements)

PP5-6 Section	Procedure Change	Reason for Change
6.1: <i>Voltage Control and Reactive Power Requirements</i>	<p>Where specified in Schedule 22, 23 or 25, Generating Facilities, ETUs and their associated Interconnection Facilities, that are capable of voltage control, are required to be capable of a composite power delivery at their maximum rated power output (maximum MW) at the Point of Interconnection (or at the high side of the station transformer, or at the Point of Interconnection if there is no station transformer, in the case of a non-synchronous Generating Facility) at both the power factor of 0.95 leading and 0.95 lagging. Further, all Generating Facilities equal to or greater than 5 MW will be required to be capable of a composite power delivery at their maximum rated power output (maximum MW) at the Point of Interconnection (or at the high side of the station transformer, or at the Point of Interconnection if there is no station transformer, in the case of a non-synchronous Generating Facility) at both the power factor of 0.95 leading and 0.95 lagging. The Interconnection Study shall verify this capability.</p>	Alignment with recent OP-14 revisions (effective 7/3/2024), which clarify that the reactive requirements for new distribution-connected generators will be in accordance with TO requirements

Alignment with Update OP-14 (Voltage Requirements) (cont'd)

PP5-6 Section	Procedure Change	Reason for Change
6.1: <i>Voltage Control and Reactive Power Requirements</i>	<p><u>System Impact Cluster</u> Study testing shall evaluate the compliance of the voltage control capability with the requirements of OP-14. For all generating facilities equal to or greater than 5 MW, the study will assume that the Generating Facility's responsiveness to voltage changes is active and in-service, unless the study identifies that such responsiveness cannot be activated (for example because of the pre-existing voltage control strategy for a distribution feeder).</p>	Alignment with recent OP-14 revisions (effective 7/3/2024), which clarify that the reactive requirements for new distribution-connected generators will be in accordance with TO requirements



ASO Studies Overview

PP5-6 Section	Procedure Change	Reason for Change
11.1: <i>ASO Studies Overview</i>	<u>State-jurisdictional generation interconnection projects (including battery storage projects) undergoing interconnection study for the purposes of supporting I.3.9 applications must meet the requirements of Generating Facilities as listed in this document. Interconnection Studies comprised of state jurisdictional projects undergoing Level III analysis are considered Affected System Operator (ASO) studies. The ISO serves as the affected party to these studies and helps to coordinate these projects' approval pursuant to section I.3.9 of the Tariff. The Transmission Owner (TO) is responsible for conducting the Interconnection Study on the project developer's behalf for state jurisdictional projects. ISO's role in these studies is to provide guidance on study practices and modeling methods, to ensure the study is in compliance with the applicable Tariff and Planning Procedure requirements in pursuit of I.3.9 approval.</u>	Introduction of ASO studies and the role of the TO and the ISO

ASO Studies Overview (cont'd)

PP5-6 Section	Procedure Change	Reason for Change
<p>11.1: <i>ASO Studies Overview</i></p>	<p><u>The ISO's participation as the ASO includes, but is not limited to:</u></p> <ul style="list-style-type: none"> • <u>Providing written input to the TO regarding study scopes</u> • <u>Providing cases and relevant EMT/stability models to the TO for use in the study</u> • <u>Facilitating PSCAD model sharing between TOs and project developers for relevant projects in the study</u> • <u>Coordinate feedback and guidance between TO and ISO-NE internal review related to clarification of study scope and results</u> • <u>Ensuring the study will meet the study and modeling requirements of this Planning Procedure 5-6 to include, but not limited to:</u> <ul style="list-style-type: none"> • <u>Steady state, stability, short circuit, and EMT study methodologies</u> • <u>Modeling requirements</u> • <u>Studied load levels</u> • <u>Study case definitions</u> • <u>DER modeling methodology</u> • <u>Transmission and generation projects relevant to the study</u> • <u>Performance requirements</u> • <u>Providing steady state, short circuit, and stability base cases</u> • <u>Ensuring study is coordinated with relevant ISO Interconnection Studies</u> 	<p>Additional details on the role of the ISO</p>

ASO Scope and Study Report Review Timing

PP5-6 Section	Procedure Change	Reason for Change
11.2: ASO Scope and Study Report Review Timing	<p><u>ASO study scopes of work and study reports shall be reviewed with the following timelines:</u></p> <ul style="list-style-type: none">• <u>The ISO shall acknowledge receipt within five (5) Business Days of receiving the ASO study scope or study report</u>• <u>The ISO shall provide comments within fifteen (15) Business Days of receiving the ASO study scope or study report</u>• <u>The Transmission Owner shall provide responses to ISO-NE comments within fifteen (15) Business Days of receiving ISO-NE comments.</u>• <u>The ISO shall issue approval of the finalized ASO study scope or study report no later than five (5) Business Days after receipt of Transmission Owner responses to ISO-NE comments so long as ISO agrees the responses address ISO comments completely.</u><ul style="list-style-type: none">• <u>ISO-NE will respond within 5 BD's should it be identified that TO has not addressed the comments fully.</u>	Clarifies timing of ISO responses/comments in response to TO scope of work submittals

Coordination of ASO Studies with ISO Interconnection Studies

PP5-6 Section	Procedure Change	Reason for Change
11.3: <i>Coordination of ASO Studies with ISO Interconnection Studies</i>	<p><u>ASO studies taking place in a part of the system that are not relevant to any ongoing ISO Interconnection Studies will be able to complete their studies without respecting those ongoing ISO Interconnection Studies as necessary.</u></p> <p><u>ASO studies taking place in a part of the system that are relevant will need to respect and coordinate with those relevant ongoing ISO Interconnection Studies. Coordination includes but is not limited to:</u></p> <ul style="list-style-type: none"><u>Using base cases that represent the study year(s) of the relevant ISO Interconnection Studies</u><u>Modeling all relevant ISO Interconnection Requests, and any associated upgrades in the ASO study base cases, and keeping them current</u><u>Updating ASO study scopes to reflect latest information as learned in ISO studies</u>	Coordination with ISO Interconnection Studies

Coordination of ASO Studies with ISO Interconnection Studies – Post-Order No. 2023

PP5-6 Section	Procedure Change	Reason for Change
11.4: <i>Coordination of ASO Studies with ISO Interconnection Studies – Post-Order No. 2023</i>	<p><u>FERC Order No. 2023 establishes a Cluster Study process that requires fixed targeted timeframes for the initiation and completion of ISO Interconnection Requests. These fixed timeframes necessitate alignment of ASO study initiation and completion. ISO shall continue to perform Level 0 and Level III determinations, in accordance with Appendix I of this Planning Procedure, through the beginning date of the Transitional Cluster Study, 2024. Thereafter, the next opportunity to submit requests for Level 0 and Level III determinations will be during the next state project submission window as described in section 11.5</u></p> <p><u>ASO studies that are relevant to the ISO Cluster Study will continue to coordinate with the study as described in section 11.3.</u></p> <p><u>ASO studies taking place in a part of the system that are not relevant to the ISO Cluster Study will be able to complete their studies without respecting the ISO Cluster Study.</u></p>	Coordination with ISO Interconnection Studies – Following effective date of Order No. 2023

ASO Studies Completing Before the Beginning of the Transitional Cluster Study (TCS)

PP5-6 Section	Procedure Change	Reason for Change
<p>11.4.1.1: <i>ASO Studies Completing Before the Beginning of the Transitional Cluster Study (TCS)</i></p>	<p><u>Prior to the start of the TCS, determinations will be made on whether the state jurisdictional projects within an on going ASO study, that are relevant to the TCS, will be able to be included in the base cases of the TCS. The minimum criteria for the TCS to include these state jurisdictional projects undergoing an Interconnection Study, is as follows:</u></p> <ul style="list-style-type: none"> • <u>The projects within the ASO study being ready to receive Reliability Committee approval within 90 days of the start of the TCS. This is defined as:</u> <ul style="list-style-type: none"> • <u>The ASO study having completed preliminary EMT analyses</u> • <u>Identification and design of any upgrades needed to address violations has been completed</u> • <u>Models used for both the projects under study, and any associated upgrades have been finalized</u> • <u>Submitting finalized models from the ASO study, to the ISO prior to the start date of the TCS</u> <p><u>State jurisdictional projects that do not meet these thresholds will not be able to be included in the TCS base cases, and shall meet the requirements of Section 11.4.1.2.</u></p>	<p>ASO studies that will be completed in time to be included in the ISO TCS base case</p>

Coordination of ASO Studies with the Transitional Cluster Study (TCS)

PP5-6 Section	Procedure Change	Reason for Change
11.4.1.2: <i>Coordination of ASO Studies with the Transitional Cluster Study (TCS)</i>	<p><u>Those ASO studies that do not meet the thresholds listed in section 11.4.1.1, that the ISO has determined are relevant to the TCS shall respect the TCS, and coordinate with the TCS. Coordination includes:</u></p> <ul style="list-style-type: none">• <u>Using the TCS study cases as the base case</u>• <u>Modeling all relevant ISO Interconnection Requests within the TCS</u>• <u>Modeling all relevant upgrades from the TCS</u>• <u>Updating study scopes to reflect latest information as learned from the TCS</u>	ASO studies that will be respect and be completed in parallel with the TCS



Coordination of ASO Studies with the Transitional Cluster Study (TCS) – Timing

PP5-6 Section	Procedure Change	Reason for Change
<p>11.4.1.3: <i>Coordination of ASO Studies with the Transitional Cluster Study (TCS) – Timing</i></p>	<p><u>Those ASO studies as identified in section 11.4.1.2 shall provide a scope of work for ISO review. The approval of the scope of work shall apply for the remainder of the TCS with the exception of additional sensitivities being added for unforeseen issues that may arise within the TCS.</u></p> <p><u>The ISO will continue to coordinate any other information from the TCS to the relevant TO's as needed for the duration of the TCS. This includes:</u></p> <ul style="list-style-type: none"> • <u>Setting up coordination calls on a time frame agreed upon by both the TO and the ISO</u> • <u>Making timelines and project specifics available</u> • <u>Forwarding updated modeling files should they be needed</u> • <u>Forwarding results</u> • <u>Forwarding upgrade files</u> <p><u>ASO studies that have been identified as needing to respect the TCS will need to wait until the TCS is sufficiently completed before completing their analyses to ensure the TCS finalized upgrades are respected.</u></p>	<p>ASO studies that will be respect and be completed in parallel with the TCS</p>

Timelines for Transition

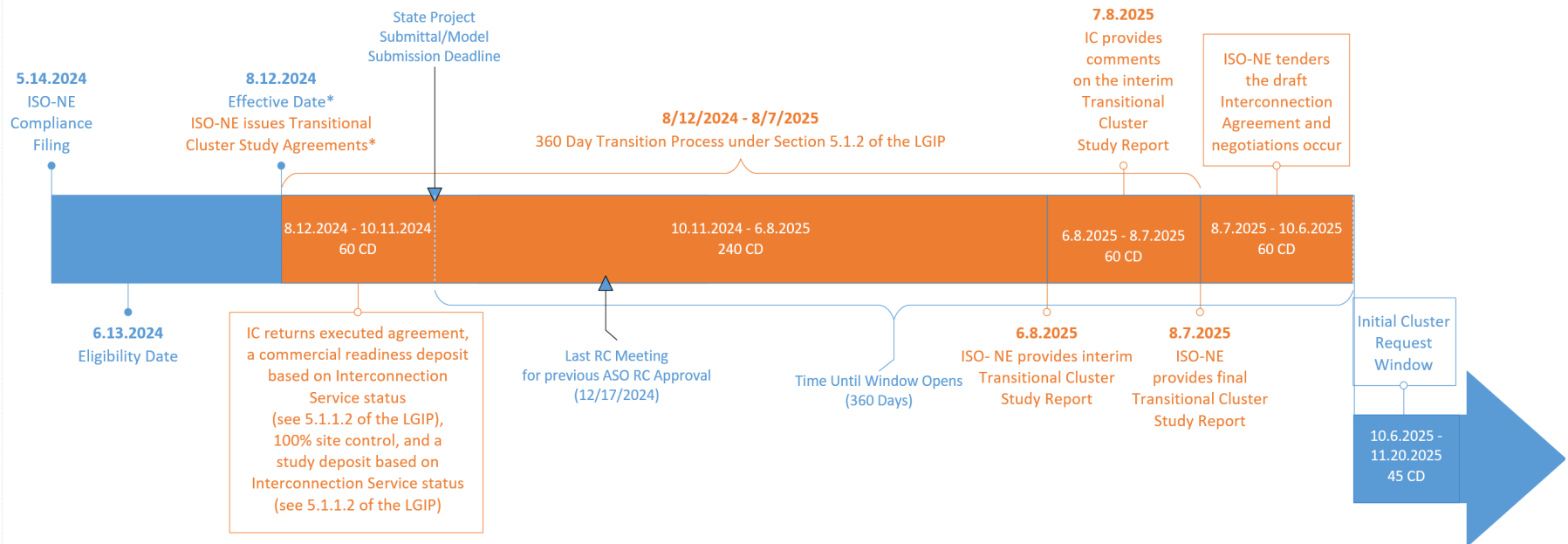
Transition Order 2023 Timeline Transitional Cluster Study

Key

LGIP = Large Generator Interconnection Procedures

IC = Interconnection Customer

CD = Calendar Days



*Late stage System Impact Studies have until 8/30/2024 to have comments addressed and to be finalized. Interconnection Customers for which the System Operator projects to complete the system impact studies between 6/13/2024 and 8/30/2024, shall be tendered a Transitional Cluster Study Agreement no later than the Commission-approved effective date of this LGIP. However, if the Interconnection Customer accepts the results of its system impact study on or before 8/30/2024, the System Operator shall not include the Interconnection Request in the Transitional Cluster Study, and instead will tender a Large Generator Interconnection Agreement pursuant to Section 11 of this LGIP, and refund any deposits associated with participation in the Transitional Cluster Study.

*This will be the requested Effective Date in ISO-NE's compliance filing, but it will actually be determined by the FERC approval.

Post-Transition: ASO Studies Completing Before the Beginning of the Cluster Study

PP5-6 Section	Procedure Change	Reason for Change
<p>11.4.2.1: <i>ASO Studies Completing Before the Beginning of the Cluster Study</i></p>	<p><u>Prior to the start of the ISO Cluster Study, determinations will be made on whether the state jurisdictional projects within on-going ASO studies that are relevant to the ISO Cluster Study, will be able to be included in the base cases of the ISO Cluster Study. The minimum criteria for the ISO Cluster Study to include these state jurisdictional projects undergoing an interconnection study, is as follows:</u></p> <ul style="list-style-type: none"> • <u>The projects within the ASO study being ready to receive Reliability Committee approval within 90 days of the start of the ISO Cluster Study. This is defined as:</u> <ul style="list-style-type: none"> • <u>The ASO study having completed preliminary EMT analyses</u> • <u>Identification and design of any upgrades needed to address violations has been completed</u> • <u>Models used for both the projects under study, and any associated upgrades have been finalized</u> • <u>Submitting finalized models from the ASO study, to the ISO prior to the start date of the ISO Cluster Study</u> <p><u>State jurisdictional projects that do not meet these thresholds will not be able to be included in the ISO Cluster Study base cases and shall meet the requirements of Section 11.4.2.2.</u></p>	<p>ASO studies that will be completed in time to be included in an upcoming ISO Cluster Study base case</p>



Coordination of ASO Studies with the Cluster Study

PP5-6 Section	Procedure Change	Reason for Change
11.4.2.2: <i>Coordination of ASO Studies with the Cluster Study</i>	<p><u>Those ASO studies that do not meet the thresholds listed in section 11.4.2.1, that the ISO has determined are relevant to the ISO Cluster Study shall respect the ISO Cluster Study, and coordinate with the ISO Cluster study. Coordination includes:</u></p> <ul style="list-style-type: none">• <u>Setting up coordination calls on a time frame agreed upon by both the TO and the ISO</u>• <u>Using the ISO Cluster Study cases as the base case</u>• <u>Modeling all relevant projects within the ISO Cluster Study</u>• <u>Modeling all relevant upgrades from the ISO Cluster Study</u>• <u>Updating study scopes to reflect latest information as learned from the ISO Cluster Study</u>	Coordination with the ISO Cluster Study

Coordination of ASO Studies with the Cluster Study – Timing

PP5-6 Section	Procedure Change	Reason for Change
<p>11.4.2.3: <i>Coordination of ASO Studies with the Cluster Study – Timing</i></p>	<p><u>TOs shall provide a scope of work for those ASO studies identified in section 11.4.2.2. The approval of the scope of work shall apply for the remainder of the ISO Cluster Study with the exception of additional sensitivities being added for unforeseen issues that may arise within the ISO Cluster Study.</u></p> <p><u>ISO will continue to coordinate any other information from the ISO Cluster Study to the relevant TO's as needed for the duration of the ISO Cluster Study. This includes:</u></p> <ul style="list-style-type: none"> • <u>Making time lines and project specifics available</u> • <u>Forwarding updated modeling files should they be needed</u> • <u>Forwarding results</u> • <u>Forwarding modeling files for any upgrades as they become available</u> 	<p>Coordination with the ISO Cluster Study – Timing</p>

Coordination of ASO Studies with the Cluster Restudy

PP5-6 Section	Procedure Change	Reason for Change
11.4.2.4: <i>Coordination of ASO Studies with the Cluster Restudy</i>	<p><u>Prior to the start of the ISO Cluster Restudy (if one is needed) the ISO will make determinations on which state jurisdictional projects are relevant to the restudy work.</u></p> <ul style="list-style-type: none"><u>Projects from the ongoing ASO study, that are relevant to the ISO Cluster Restudy, will need to undergo further analysis to respect the restudy, and will be coordinated in the same manner as the ISO Cluster Study coordination</u><u>New projects that were determined to require Level III analysis during the previous ISO Determination Window, and are relevant to the ISO Cluster Restudy, shall either be included in the current ASO Study and coordinate with the ISO Cluster Restudy, or start their own separate ASO study that respects the ISO Cluster Restudy and the current ASO Study</u><u>Projects from the ongoing ASO study, that are not relevant to the ISO Cluster Restudy, will not be required to respect the ISO Cluster Restudy</u>	Coordination with an ISO Cluster Restudy

State Jurisdictional Project Clustering Milestones

PP5-6 Section	Procedure Change	Reason for Change
11.5: <i>State Jurisdictional Project Clustering Milestones</i>	<ul style="list-style-type: none">• <u>State project submission window: This window starts at the same time as the ISO Cluster Request Window and lasts for 20 CDs. During this time the ISO will accept all requests for Level 0 and Level III determinations. These can be submitted in the form as described in Appendix I of this document, or in the form of Generator Notification Forms or Proposed Plans Applications</u>• <u>ISO determinations window: This window starts at the end of the state project submission window and lasts 30 CDs. During this time ISO will provide determinations in accordance with Appendix I of this document for all projects submitted within the state project submission window</u>	Analysis Level determination requests and ISO determination review

State Jurisdictional Project Clustering Milestones (cont'd)

PP5-6 Section	Procedure Change	Reason for Change
<p>11.5: <i>State Jurisdictional Project Clustering Milestones</i></p>	<ul style="list-style-type: none"> • <u>ASO scoping period: This window starts at the end of the ISO determinations window and concurrently, 5 CDs after the end of the ISO Cluster Request Window. This window lasts for 55 days during which ISO will coordinate with the relevant TOs to develop scopes of work for the ASO studies that are being started to support the I.3.9 applications for the state jurisdictional projects that were determined to be Level III during the ISO determinations window.</u> • <u>Cluster study window: The ASO study will start at the same time as the ISO Cluster Study, and have until the start of the next ISO Cluster Study to satisfy the requirements of section 11.4.2.2</u> 	<p>Scoping and Study periods</p>

State Jurisdictional Project Clustering Milestones (cont'd)

PP5-6 Section	Procedure Change	Reason for Change
11.5: <i>State Jurisdictional Project Clustering Milestones</i>	<ul style="list-style-type: none"><u>Interim state project submission window: This window opens 270 CD after the close of the previous state project submission window. During this time, ISO will accept requests for Level 0 and Level III determinations. These can be submitted in the form as described in Appendix I of this document, or in the form of Generator Notification Forms or Proposed Plans Applications</u><u>Interim ISO determinations window: This window starts at the end of the interim state project submission window and lasts 30 days. During this time the ISO will provide determinations in accordance with Appendix I of this document for all projects submitted within the interim state project submission window</u>	Interim Analysis Level determination requests and ISO determination review

State Jurisdictional Project Clustering Milestones (cont'd)

PP5-6 Section	Procedure Change	Reason for Change
11.5: <i>State Jurisdictional Project Clustering Milestones</i>	<ul style="list-style-type: none"> • <u>Interim ASO scoping period: This window starts at the end of the interim ISO determinations window. This window lasts for 55 days during which the ISO will coordinate with the relevant TO's to develop scopes of work for the ASO studies that are being started to support the I.3.9 applications for the state jurisdictional projects that were determined to be Level III during the interim ISO determinations window</u> • <u>ISO-NE restudy decision: The timeline for the next opening of the state project submission window is dependent on whether or not there is an ISO Cluster Restudy:</u> <ul style="list-style-type: none"> • <u>If there is an ISO Cluster Restudy the next state project submission window will open 270 days after the close of the interim state project submission window</u> • <u>If there is no ISO Cluster Restudy the next state project submission window will open approximately 145 Days after the close of the interim state project submission window</u> 	Interim scoping period and ISO Cluster Restudy coordination timing

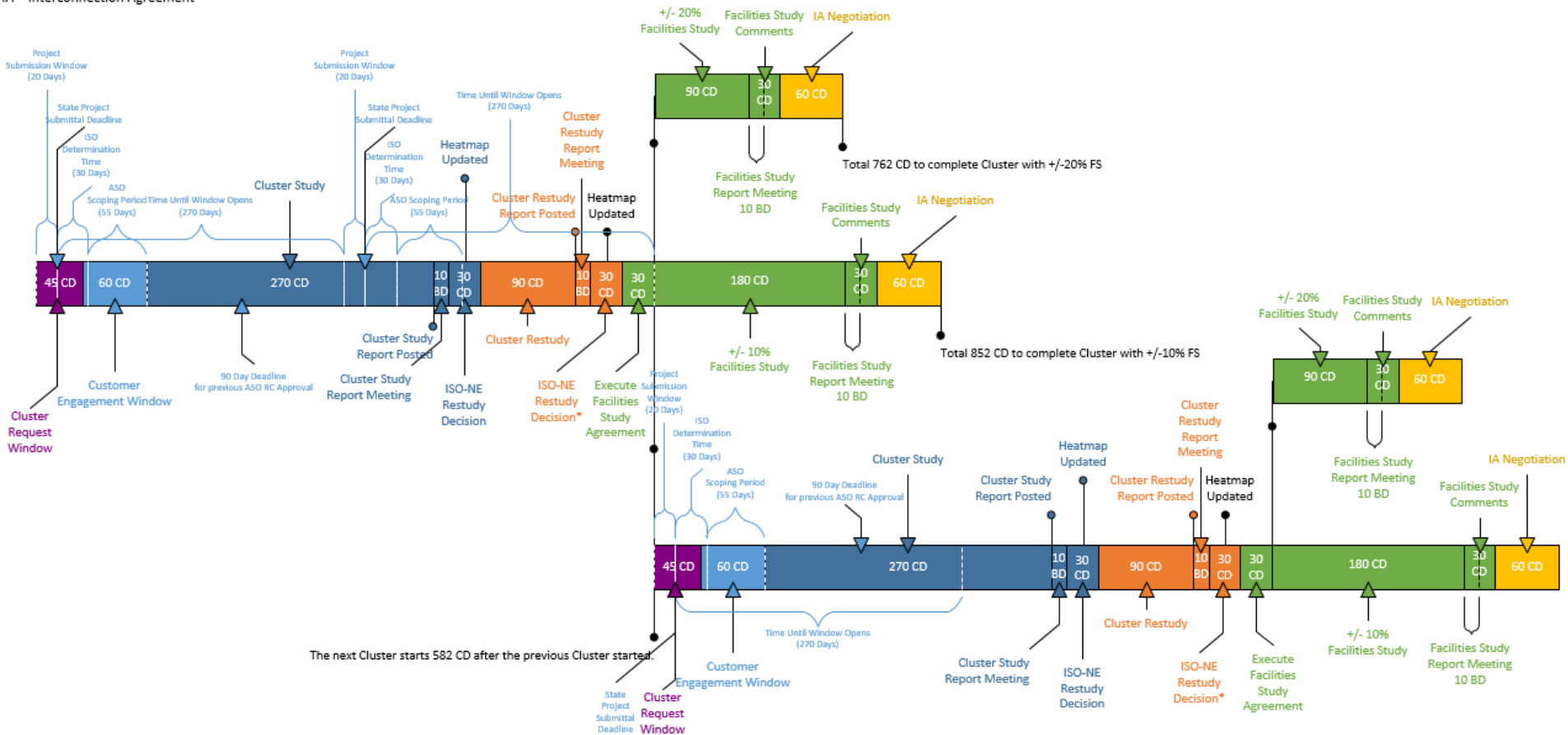


Timelines Post-Transition

Key

CD = Calendar Days
BD = Business Days
FS = Facilities Study
IA = Interconnection Agreement

ISO-NE Order 2023 Timeline



*If additional restudies are necessary, go back to Cluster Restudy.

Appendix I – Determination Procedure for New or Increased Generation >1MW and <5 MW

PP5-6 Section	Procedure Change	Reason for Change
<i>Appendix I</i>	<p><u>ISO shall respond to requests for determinations within 10 business days of receiving the request with the determination of whether the project will need to submit a Generator Notification Form, or Proposed Plans Application. The ISO will also respond with the determination of what level of analysis is required to support the application. Determinations will be valid until the start of the next ISO Cluster Request Window.</u></p> <p><u>In these cases, where insufficient analysis is provided to support the proposal, the applications may need to be withdrawn and re-submitted at a later time with sufficient analysis.</u></p>	Submittal of Analysis Level determination requests

Appendix I – Determination Procedure for New or Increased Generation >1MW and <5 MW (cont'd)

PP5-6 Section	Procedure Change	Reason for Change
Appendix I	<p><u>TO Actions:</u> <u>Step 0: TO submits determination request(s) to the ISO with at least the following information from the proposed project(s):</u></p> <ul style="list-style-type: none">• <u>Unique Project Identifier</u>• <u>Transmission Substation</u>• <u>Distribution Substation</u>• <u>Feeder</u>• <u>MW Output</u>• <u>Fuel Type</u>• <u>Technology Type</u>• <u>Bus Number</u> <p><u>OR:</u> <u>TO or MP submits Generator Notification Form(s)/Proposed Plans Application(s) to the Proposed Plans Inbox</u></p>	Submittal of Analysis Level determination requests

Appendix I – Determination Procedure for New or Increased Generation >1MW and <5 MW (cont'd)

PP5-6 Section	Procedure Change	Reason for Change
Appendix I	<p><u>ISO Actions:</u></p> <p><u>Step 0: Identify if any project is 5MW or greater</u></p> <ul style="list-style-type: none"> <u>If a project is 5MW or greater, notify TO that Level III analysis is required before that project can receive approval</u> <u>If a project is less than 5MW, move to Step 1</u> <p><u>Step 1: Identify the transmission/BES/PTF station(s) that the project(s) normally feed up to. (which ever station is electrically closest for those with multiple paths)</u></p> <p><u>Step 2: Aggregate all inverter based projects submitted for determinations at each station identified in Step 1</u></p> <p><u>Step 3: Determine if aggregate(s) from step 2 exceeds threshold</u></p> <ul style="list-style-type: none"> <u>If aggregate is 20MW or greater, notify TO that Level III analysis is required before any new proposals can be approved</u> <u>If aggregate is less then 20MW, move to step 4</u> 	ISO actions

Appendix I – Determination Procedure for New or Increased Generation >1MW and <5 MW (cont'd)

PP5-6 Section	Procedure Change	Reason for Change
Appendix I	<p><u>Step 4: Run 3 phase fault at station identified in step 1 for 6 cycles</u></p> <p><u>Step 5: Create list of all transmission/BES/PTF stations that are at .3pu voltage or less</u></p> <p><u>Step 6: Reset simulation</u></p> <p><u>Step 7: Run steps 4 - 6 for each station within the documented list of stations from step 5</u></p> <p><u>Step 8: Aggregate all inverter based projects submitted for determinations, between all stations documented in step 5</u></p> <p><u>Step 9: Notify TO of determinations</u></p> <ul style="list-style-type: none"> <u>• If Aggregate(s) in step 8 is 20MW or greater, then notification will indicate Level III analysis is required before any new proposals can be approved.</u> <u>• If Aggregate(s) in step 8 is less than 20MW then notification will indicate Level 0 analysis is required (no analysis needed, submitted as Generator Notification Form)</u> 	ISO actions

Conclusion & Next Steps

- Modifications to PP5-6 are needed to document current ASO study practice as they relates to state jurisdictional projects
- Further modifications to PP5-6 are needed to support coordination of state jurisdictional project reviews and studies with FERC Order No. 2023
- The ISO will request a September 2024 effective date



Stakeholder Schedule

Stakeholder Committee and Date	Scheduled Project Milestone
Reliability Committee March 19, 2024	Initial Presentation
Reliability Committee June 18th, 2024	Updated Presentation
Reliability Committee July 16, 2024	Review PP5-6 Redlines
Reliability Committee July 25, 2024	Additional meeting to continue discussion on PP5-6 redlines from the July 16, 2024 RC and introduce any related amendments. Please contact the RC Secretary (dpatnaude@iso-ne.com) by no later than July 18 to request time to present on the agenda
Reliability Committee August 13-14, 2024	Review PP5-6 Redlines and Stakeholder Amendments; Vote
Participants Committee September 5, 2024	Vote

Questions

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