New York ISO
Independent System Operator

Large Load Integration Procedures:
Proposal in Response to the FERC Large Load Show Cause Order

Alison Stuart

Manager, Reliability Studies

ESPWG/TPAS/ICAPWG

September 1, 2026

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Topics Covered in this Presentation

- NYISO's Proposed Large Load Integration Procedures Overview
- Bulk Electric Large Load (BELL) Study Structure and Timeline
- BELL Study Components
  - Large Load Pre-Application
  - Large Load Integration Request
  - Resource Adequacy and Modeling Period
  - System Impact Study
  - Facilities Study Entry Decision
  - Assessment of Load Integration
- Study Deposits
- Modification
- Agreements
- BELL outcome examples including Co-located and Partner Resources
- Affected System study process
- Large Load Performance Requirements
- Transition Proposal
- Large Load Tracking

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Schedule

- **September 2026**
  - 9/8 ESPWG/TPAS/ICAPWG – Market Design Discussion
  - 9/14 ESPWG/TPAS/ICAPWG – Planning Discussion and Tariff Draft Review
  - 9/22 ESPWG/TPAS/ICAPWG – Planning and/or Market Design additional Tariff Draft Review
- **October 2026**
  - 10/1 ESPWG/TPAS/ICAPWG - Planning and/or Market Design Tariff Draft Review
  - 10/14 BIC Presentation & Vote – Market Design
  - 10/15 OC Presentation & Vote – Planning
  - 10/28 MC Presentation & Vote
- **November 2026**
  - 11/16 Section 205 Filing

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Background

- On June 18, 2026, FERC issued Show Cause Orders to each FERC-jurisdictional RTO/ISO and their FERC-jurisdictional Transmission Owner ("TO") members on the topic of large and co-located load integration (EL26-69)
- NYISO was required, within 30 days of the issuance of the Order, to submit a report on Resource Adequacy in the NYCA and how NYISO intends to ensure that adequate generation will be available to serve existing and new large loads
  - On July 20, 2026, NYISO filed its Resource Adequacy Informational Report
- On August 3, 2026, NYISO requested an abeyance from FERC to place the Show Cause proceeding on hold for 90 days to allow time to work with stakeholders to develop a Section 205 filing
- FERC granted the NYISO's, the NYTOs', and the Non-Incumbent TOs' motions for abeyance on August 14, 2026
  - The Section 205 process will involve the normal tariff filing process (MIWGs/ESPWG, BIC or OC, and MC votes on tariff language, etc.)
  - Accordingly, NYISO will work with stakeholders to further develop design and tariff language for the Section 205 filing which is due by November 16, 2026

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Previous Presentations

Date/Working Group	Presentation Title	Subject Matter
July 23, 2026 ESPWG	Large Load FERC Show Cause Order	NYISO presented its initial proposed framework for addressing FERC's Large and Co-Located Load Show Cause Order
August 13, 2026 ESPWG	Large Load FERC Show Cause Order	NYISO responded to stakeholder feedback on market participation opportunities for Large Loads, discussed updates/clarifications to the BELL process and some associated definitions, reviewed process maps for Co-Located and Partner Generators as well as New Large Load Projects and Existing Loads, and reviewed proposed Large Load technical, performance, and operational requirements.
August 20, 2026 ESPWG	FERC Show Cause Order on Large and Co-Located Loads	NYISO responded to stakeholder feedback and presented additional detail on the market design

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Large Load Integration Procedures Overview

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Key Aspects of the Proposed Large Load Integration Procedures

- Increased readiness obligations for Large Load projects including application fees, study deposits, and commercial readiness screening
- An optional pre-application process and mandatory application process
- Bulk Electric Large Load ("BELL") study process including a System Impact Study, and Assessment of Load Integration
- New Non-Firm Withdrawal Service for Large Loads that do not fully mitigate their adverse reliability impacts (including resource adequacy and/or transmission security impacts)
- New concept of Partner Resources that may mitigate a Large Load's adverse impact to resource adequacy
- Defined processes for evaluating Co-Located Large Loads
- Performance requirements for Large Loads
- Modification process for Large Loads
- Project tracking process for Large Loads

Some topics will be forthcoming in more detail at future ESPWG/TPAS/ICAP meetings

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Applicability of Large Load Integration Procedures

- **Large Load definition:**
  - Commercial or industrial load located at a single site, behind one or more POIs, that has a peak load of 50 MW or greater connected to the New York State Transmission System
- **Projects subject to the NYISO Large Load Integration Procedures include:**
  - Proposed Large Loads
  - Modifications to existing loads
  - Modifications to proposed Large Loads

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

BELL Study Components

- **90-day Resource Adequacy and Modeling Period ("RAMP")**
  - Determine the resource adequacy impact of a Large Load project (including Co-located or Partner Generators, if applicable) to determine the preliminary amount of Firm and Non-Firm Withdrawal Services to be offered to the Large Load
  - Determine the preliminary attachment facilities
  - Determine the preliminary physical infeasibility
  - Model Large Loads and develop the SIS study package
- **90-day System Impact Study ("SIS")**
  - Non-binding and informational
  - Perform transmission security analyses and preliminarily determine the impact allocation of each Large Load project to adverse reliability impacts, if any
  - Preliminarily determine if and how much Non-Firm Withdrawal Service can address the adverse reliability impacts, if any,
  - Preliminarily identify Network Upgrades (with non-binding good-faith cost and time to construct estimates) necessary to mitigate the adverse reliability impacts, if any
- **Assessment of Load Integration ("ALI")**
  - Determine resource adequacy impact, perform transmission security analyses and determine the impact allocation of each Large Load project to adverse reliability impacts, if any
  - Determine the amount of Firm and Non-Firm Withdrawal Services to be offered to the Large Load
  - Identify Network Upgrades necessary to mitigate the adverse reliability impacts, if any

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

NYISO BELL Process Overview

Pre-Application Fee

Pre-Application (Optional)
NYISO: identifies CTO | CTO: POI screening and determination, establishing baseline and uprate MW amount for existing loads

Application Fee

Application (Mandatory)
NYISO: validates IR, identifies CTO/ATO(s)/Affected System(s) | CTO: commercial readiness

Study Deposit 1

Resource Adequacy and Modeling Period (RAMP)
(90 days)

Part 1

CTO: physical infeasibility screening, preliminary attachment facilities determined

NYISO: Resource Adequacy evaluation

Project models built and validated

Study base cases developed

SIS Entry Decision (15 days)

Will customer proceed to SIS?

MW reduction option

Affected Systems Notified

Part 2

Study base cases revised and auxiliary files are developed

SIS scope developed

Scoping Meeting with customers and TOs

SIS scope provided to TPAS/OC

SIS
(90 days)

Bundled study to determine adverse reliability impacts NYISO for BES CTO/ATO for non-BES

EMT study screening

CTO/ATO: Identify cost/time estimates for preliminary Network Upgrades

NYISO: Identify preliminary firm and non-firm withdrawal service MW based on observed criteria violations, preliminary impact allocation of violations

Customer Review of SIS results (15 days)

Results Meeting with customers and TOs

SIS Results to TPAS/OC

Facilities Study Entry Decision (15 days)

Will customer proceed to FS?

If yes, optional upgrades or non-firm withdrawal service?

Changes to partner generator/co-location arrangement?

MW reduction option

Study Deposit 2

Affected Systems Notified

Assessment of Load Integration (ALI)

Update to SIS findings and identified upgrades

CTO/ATO: final upgrades and estimates, (including evaluation of alternative transmission technologies)

NYISO: Update impact allocation for BES issues, identify updates to firm and non-firm withdrawal service MW

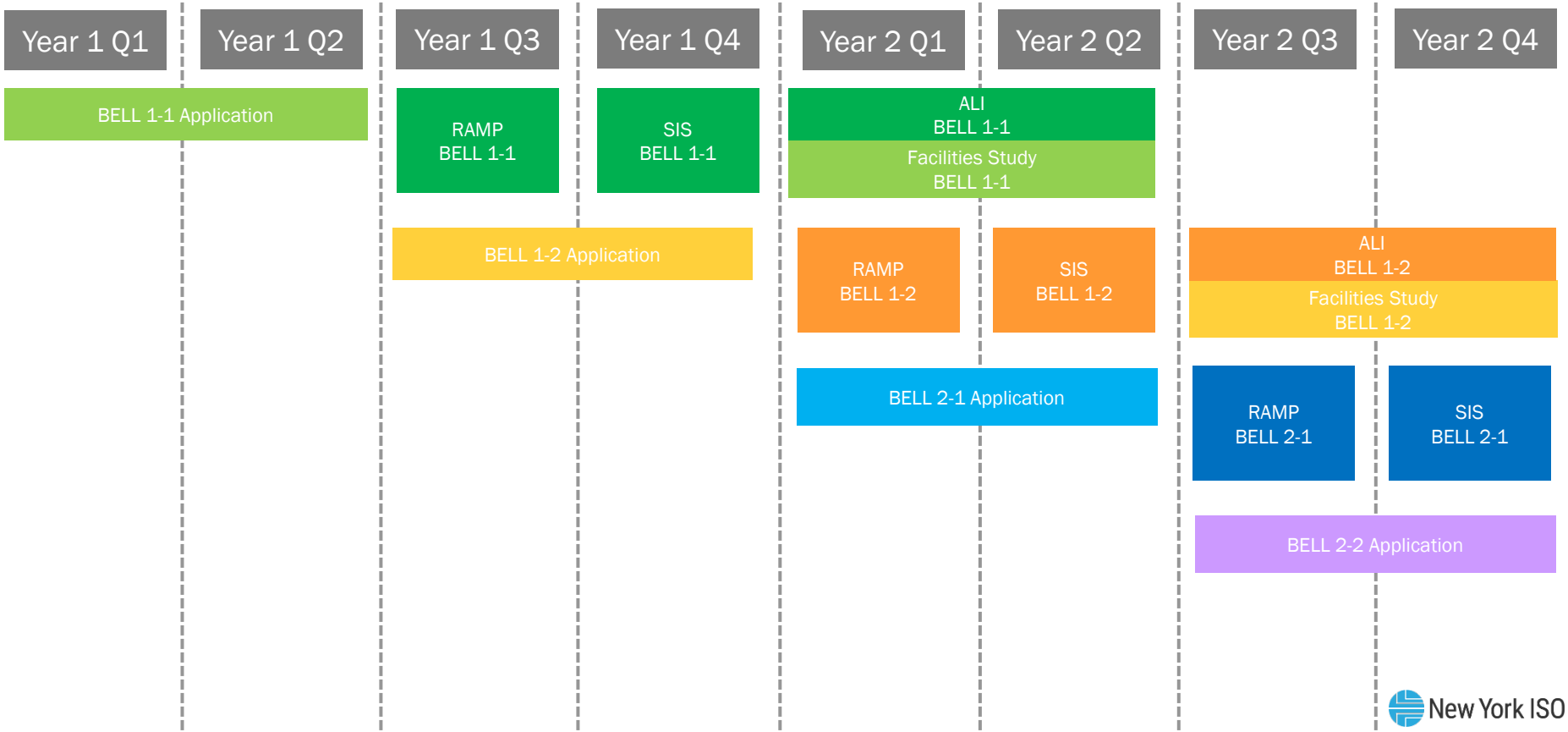
Facilities Study (FS)
(performed by TOs)

CTO/ATO: Negotiation of Interconnection and Construction Agreements and cost allocation based on impact allocation

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

FOR DISCUSSION PURPOSES ONLY

Sample Quarterly Schedule



New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Large Load Pre-Application

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Pre-Application Process

- NYISO proposes to include an optional Pre-Application process to provide greater information access to potential Eligible Customers
- Any requester (whether in the interconnection queue or not) can submit a request using the Pre-Application Request form
  - $5,000 per Point of Interconnection
    - 25% allocated to NYISO
    - 75% allocated to Connecting TO/Affected TOs
  - Pre-Application Requests can be submitted on a rolling basis at any time

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Pre-Application Process, cont.

- **Within 5 Business Days of NYISO's receipt of the request, NYISO will route the Pre-Application Request to the applicable Connecting Transmission Owner (CTO) and Affected Transmission Owner(s) (ATO)**
  - CTO and ATO(s) will provide the Pre-Application Report within 20 Business Days
- **Information available in a Pre-Application Report**
  - POI line/substation name, ID, bus numbers and circuit IDs, voltage, ratings (normal, LTE and STE), terminal end stations
  - 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)

*To the extent readily available data exists

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Large Load Integration Request

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Large Load Integration Request Overview

- **Large Load Integration Requests are permitted anytime**
- **Large Load projects with validated Integration Requests will be included in the next available BELL study**
  - Integration Requests submitted within 30 Business Days of an upcoming RAMP are at risk for not entering the next available BELL cycle
- **Projects alternatives that are mutually exclusive will not be evaluated**
  - Each project must identify:
    - A single proposal for one or more POIs
    - A single proposal for project size
    - A single proposal for project type – if the project is comprised of multiple project types, describes all project types
      - Once the Integration Request is validated, modifying the project POI, size, or type(s) will be subject to the load modification process

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Integration Request - Validation

- **Validation on a rolling basis for Integration Requests**
- **Step 1: Within 5 Business Days of receipt of Integration Request**
  - NYISO reviews Integration Request to identify the CTO and ATO
  - NYISO notifies CTO and ATOs it is aware of via Interconnection Projects Portal
  - CTO confirms (via Interconnection Projects Portal) it is the CTO and confirms ATOs
  - NYISO confirms receipt of payment of Application Fee and Study Deposit 1
- **Step 2: Within 15 Business Days of Step 1**
  - NYISO reviews Large Load Modeling form
  - NYISO reviews models (i.e., confirms it is a workable model)
  - CTO performs a screening for commercial readiness, and notifies NYISO of the result
  - NYISO notifies Eligible Customer that the Integration Request is valid or identifies deficiencies

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Integration Request - Deficiencies

- An Eligible Customer must cure Integration Request deficiencies to have a validated Integration Request and proceed to the next available BELL study
- Eligible Customers will have opportunities to cure deficiencies
- NYISO is afforded 10 Business Days to review submittals to cure deficiencies
- Eligible Customers must address all identified deficiencies in their cure attempt

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Integration Request Requirements

1. **Non-refundable Application Fee (cash only)**
2. **Study Deposit 1 (cash, letter of credit, and/or surety bond)**
3. **Completed Large Load Modeling form including**
   - Description of the Large Load Project
   - Operational characteristics
   - Information regarding Co-Located and/or Partner Resources
     - If Partner Resource is identified, Partner Resource attestation is required
   - 10-year daily and seasonal demand forecasts including project ramp up

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Integration Request Requirements, cont.

4. **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);
   - 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;
   - The Point of Interconnection (name of the substation (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

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Integration Request Requirements, cont.

5. **Project layout diagram that shows the general project layout and location of project in relation to proposed POI, including the specific POI(s)**
   - Must indicate voltage level, address, coordinates, location in relation to facility
   - Interconnection Customer does not need to specify breaker position in a substation
6. **Materials supporting commercial readiness**
7. **Workable individual project models (e.g., short circuit, steady-state, and stability)**

***Additional technical data may be required from Interconnection Customers at later stages.**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Integration Request – Commercial Readiness

- Commercial readiness will be determined by the CTO
- Commercial readiness criteria may be TO specific
- NYISO continues to coordinate with the TOs in determining the commercial readiness requirements for Eligible Customers

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Fees, Study Deposits, and Study Costs

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Application Fee

- **Non-refundable Application Fee submitted with Large Load Integration Request : $10,000 (in cash)**
  - 75% allocated to NYISO and 25% to CTO/ATOs

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Study Deposits

- **Study Deposit 1 based on size of project submitted with Large Load Request:**
  - 50 MW to 200 MW $100,000
  - 200 MW to 500 MW $150,000
  - 500 MW+ $200,000
- **Study Deposit 2 based on size of project submitted with Facilities Study Entry Decision:**
  - 50 MW to 200 MW $200,000
  - 200 MW to 500 MW $250,000
  - 500 MW+ $300,000
- **Study Deposits can be submitted as cash, a letter of credit, and/or a surety bond**
  - Letter of credit and surety bond are subject to NYISO tariff requirements in MST Sections 26.6.1.2 and 26.6.1.3

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Invoicing

- **The NYISO will invoice Eligible Customers actual study costs on a monthly basis**
  - Failure to timely pay a monthly invoice will result in withdrawal of the project from the interconnection queue and will be assessed interest on any unpaid invoiced amounts calculated in accordance with section 35.19a(a)(2) of FERC's regulations
  - NYISO will not draw on the study deposit to cover unpaid monthly invoices of the project; however, NYISO will use the study deposit to cover the unpaid balance, if any, when NYISO reconciles the final invoice when either the study is completed or the project is withdrawn from the interconnection queue
- **Study Deposits will remain in place for duration of the BELL Study**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Resource Adequacy and Modeling Period (RAMP)

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

RAMP: Part 1

- **NYISO: Performs a resource adequacy evaluation for each project**
  - Determine the adverse impact of the Large Load project and associated resources, if any, on NYCA resource adequacy
  - RA evaluation result is shared with the Eligible Customer
- **CTO: Performs a preliminary physical infeasibility screening and determined preliminary attachment facilities**
  - System diagrams depicting the proposed POI of the Large Load project provided to NYISO
  - Contingency definitions are provided to the NYISO
  - Physical infeasibility screening results are shared with the Eligible Customer through the Interconnection Projects Portal
- **NYISO: Builds preliminary study package (including cases and auxiliary files for steady-state, stability, short-circuit, and transfer limit analyses) using the year 5 system representation from the current STAR as the base case**
- **CTO: Reviews preliminary study package**
- **NYISO: Performs supplemental pre-project analyses**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

SIS Entry Decision

- **The Eligible Customer will have 5 Business Days from receiving the Screening results to decide whether they will enter the System Impact Study**
  - If yes, the Eligible Customer may provide limited allowable project modifications (e.g., project size reduction)
  - If no, the project will be withdrawn
    - Failure to respond in a timely manner will be considered a withdrawal
- **The Eligible Customer will make their elections in the Interconnection Projects Portal**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

SIS Scope

- **Following the SIS Entry Decision, NYISO will draft the SIS scope and provide the scope to the impacted CTOs and ATOs for review**
  - Select sensitivities may be included to evaluate the impact of nearby load projects not modeled at their full requested MW in the STAR base case
- **NYISO will provide notification to stakeholders within 5 Business Days of SIS commencement**
  - SIS Scope
  - List of projects that elected to enter the SIS with key project information

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

RAMP: Part 2

- NYISO: Revises the study package to reflect SIS Entry elections
- CTO/ATO/Affected Systems: Reviews study package
- NYISO: Finalizes and distributes study package to all impacted TOs, and commences the SIS

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Resource Adequacy Evaluation

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Resource Adequacy Impact Requirement

- **Large Loads subject to the BELL shall not adversely impact NYCA resource adequacy**
  - To mitigate the adverse impact to resource adequacy, Large Loads must be associated with a Co-located or Partner Resource (such as generation) and/or take Non-Firm Withdrawal Service
  - As further described in the next slides, Large Load projects will be assessed on their impact to resource adequacy, not whether there is a violation of resource adequacy criteria.
- **NYISO will evaluate Large Load projects in accordance with the Resource Adequacy Impact Standard to determine level of firm withdrawal rights:**
  - If load does not co-locate or partner with new resources, then Non-Firm Withdrawal Service
  - If load co-locates or partners with new resources that adequately mitigate the load's resource adequacy impact, then Firm Withdrawal Service*
  - If load co-locates or partners with new resources that partially mitigates the load's resource adequacy impact, then Partial Firm Withdrawal Service

***Firm Withdrawal Service is still be subject to mitigating any transmission security violation. Large Load would only obtain Firm Withdrawal Service once co-located or partner resources are in-service.**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Timing of Resource Adequacy Impact Evaluation

- **Resource adequacy impact could be evaluated at different stages**
  - Will be evaluated at the beginning of the BELL study
  - During the ALI or at any point thereafter as part of a modification review if the Large Load:
    - Makes modifications to the load
    - Finds partner resource to gain Firm Withdrawal Service
    - Modifies the associated resource

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Resource Adequacy Impact Methodology

- **The most recent resource adequacy model from the Reliability Planning Process will be used to evaluate the impact of each Large Load project on NYCA resource adequacy. Large Load and associated resource will be tested together under the understanding that the associated resource will receive CRIS**
- **Step 0: Associated resources**
  - Large loads with associated resources will proceed to Step 1
  - Large loads without associated resources will receive Non-Firm Withdrawal Service
- **Step 1: Pass/fail de minimis impact**
  - If the combined Large Load project along with associated resource degrades resource adequacy by more than 25 MW, go to step 2.
  - MW impact will be based on comparable “perfect capacity” calculated consistent with how NYISO evaluates compensatory MW.
- **Step 2: Partial Firm Withdrawal Service MW determination**
  - To determine Partial Firm Withdrawal Service MW amount for the Large Load, NYISO will determine how much of the Large Load must be “flexible” to bring the LOLE back to the pre-project level.
  - In the resource adequacy simulation, flexible load will be reduced prior to employing EOPs such as SCRs, reduction of reserves, or emergency assistance

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Illustrative Examples

- **The following examples are for illustrative purposes only**
  - Resource adequacy results mentioned are comparative examples and are not based on simulation results
  - The examples assume an “always on” load with 100% capacity factor
- **Operating characteristics of proposed load projects and associated resources will be considered during resource adequacy impact evaluations**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Resource Adequacy Evaluation: Illustrative Example 1

- Load Project: 100 MW load in Zone B
- Associated Resource: None
- RA test results: N/A
- Outcome: 100 MW Non-Firm Withdrawal Service

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Resource Adequacy Evaluation: Illustrative Example 2

- **Load Project: 100 MW load in Zone B**
- **Partner Resource: 100 MW solar in Zone C and 50 MW 8-hr battery storage in Zone E**
- **RA test results:**
  - RA impact = -15 MW (less than 25 MW de-minimis)
  - Flexible load amount: N/A
- **Outcome: 100 MW Firm Withdrawal Service**
  - Note: Large Load would only obtain Firm Withdrawal Service once co-located or partner resources are in-service

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Resource Adequacy Evaluation: Illustrative Example 3

- **Load Project: 100 MW load in Zone B**
- **Partner Resource: 50 MW wind in Zone C and 25 MW 4-hr battery storage in Zone E**
- **RA test results:**
  - RA impact = -65 MW (greater than 25 MW de-minimis)
  - Flexible load amount to return to pre-Project LOLE = 65 MW
- **Outcome: 35 MW Firm Withdrawal Service, 65 MW Non-Firm Withdrawal Service**
  - Note: Large Load would only obtain Firm Withdrawal Service once co-located or partner resources are in-service

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

System Impact Study

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

SIS: Transmission Security Analysis

- Analysis performed in accordance with the SIS scope and the Transmission Security Standard
- NYISO is responsible for evaluating Bulk Electric System (BES), and TOs are responsible for evaluating non-BES
- For each violation, the NYISO/TO will identify if it can be resolved by Non-Firm Withdrawal Service
  - If not, the violation must be addressed by upgrades or adjustments to project size
- NYISO will determine preliminary Firm and Non-Firm Withdrawal Service MWs based on the observed violations

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

SIS: Impact Allocation

- NYISO: calculates each project's impact to observed BES violations
- TOs: calculate each project's impact to observed non-BES violations
- Impact allocation methodologies will be documented in NYISO Procedures
  - For thermal violations and thermal transfer limit degradations, DFAX and project size will likely be used as the basis
  - For voltage/stability violations and voltage/stability transfer limit degradations, impact allocation methodology is under development

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

42

SIS: Network Upgrades

- TOs: Identify preliminary potential Network Upgrades and corresponding non-binding, good faith cost estimates and time to construct estimates
- TOs: Provide non-binding, good faith cost estimates and time to construct estimates for preliminary Attachment Facilities as determined in the Screening period

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

SIS: Report and Committee Meetings

- Within 90 days from SIS commencement, NYISO and the TOs will provide the draft SIS report to the Customers for review
- NYISO and the TOs will finalize the SIS report and present the finalized SIS report at TPAS and OC meetings for approval
- NYISO will post the SIS report to MyNYISO following OC approval

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Assessment of Load Integration (ALI)

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Facilities Study Entry Decision

- The customer will have 15 calendar days from the date of SIS report approval by the OC to elect whether they will enter the Assessment of Load Integration and subsequent Facilities Study
  - If yes, the customer must:
    - Provide Study Deposit 2
    - Indicate any reduction in project size
    - Indicate any changes to associated resources including Co-located and/or Partner Resources in order to take Firm and Non-Firm Withdrawal Service MW, as applicable
  - If no, the project will be withdrawn
    - Failure to respond in a timely manner will be considered a withdrawal
- The customer will make their elections in the Interconnection Projects Portal
- NYISO will re-perform the RA evaluation during the ALI for any projects that elected to reduce its size or made changes to their associated resources

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

ALI: Base Case and Inclusion Rules

- The ALI base cases will use the year 5 cases from the most recent STAR
- TOs will provide NYISO with system changes to reflect in the ALI base case and updates to associated study files
- System changes will primarily include Large Loads evaluated in the previous BELL cycle and as identified by the TO but were not included in the most recent STAR base cases

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

ALI: Scoping

- **Analysis to be performed in accordance with the ALI scope**
  - ALI scope will depend on the FS Entry Decisions and system changes as provided by the TOs
- **NYISO will draft the ALI scope and provide the scope to the impacted CTOs and ATOs for review**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

ALI: Transmission Security Analysis

- NYISO is responsible for evaluating BES, and TOs are responsible for evaluating non-BES
- NYISO will confirm Firm and Non-Firm Withdrawal Service MWs based on the observed violations and results of the Resource Adequacy Evaluation

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

ALI: Impact Allocation

- NYISO: confirms each project's impact to observed BES violations
- TOs: confirms each project's impact to observed non-BES violations

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

ALI: Network Upgrades

- **TOs: confirm Network Upgrades**
  - With consideration for alternative transmission technologies if not considered in the SIS
- **NYISO: confirms that the combination of Network Upgrades and Non-Firm Withdrawal Service (if applicable) resolve all transmission security violations observed on the BES and adverse impacts to resource adequacy**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

ALI: Report

- NYISO and the TOs will provide the draft ALI report to the Customers for review prior to finalization
- NYISO will post the ALI report to MyNYISO following finalization

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Withdrawal Rules

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Withdrawal

- **A Large Load project will be withdrawn from the BELL process under the following circumstances**
  - Failure to timely pay a monthly invoice
  - Failure to cure an Integration Request deficiency within the allotted time
  - The Large Load project does not elect to continue to the SIS at the SIS Entry Decision Point
  - The Large Load project does not elect to continue to the ALI/FS at the FS Entry Decision Point
  - The Large Load project does not enter into an Interconnection Agreement (or equivalent milestone indicating acceptance of Network Upgrades) with the CTO within 365 days of completion of the Facilities Study
- **Withdrawn projects must re-enter the BELL process with a new Integration Request Application**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Post-BELL Study

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Facilities Studies

- **Facilities studies will remain two-party between Eligible Customer and CTO (with involvement of ATOs and Affected Systems, as needed)**
  - TOs will continue to be responsible for determining cost allocation of Network Upgrades
  - TOs can use the impact allocation findings to determine the appropriate cost allocation for the Network Upgrades during the Facilities study

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Transmission Service Agreement (TSA)

- **Transmission Service Agreement (TSA)**
  - Three-party pro forma agreement between NYISO, Transmission Customer, and Large Load (if Large Load is not its own Transmission Customer/LSE) to be added to the NYISO OATT
    - NYISO is considering a three-party format in order to address transmission and operational requirements in one place and avoid having multiple agreements
    - Given the NYISO's financial reservation-based transmission services model, the content of a NYISO TSA will likely differ from a traditional pro forma model TSA
  - The TSA will address and incorporate by reference obligations under the tariff, including the following:
    - Obligations for Firm and Non-Firm Withdrawal Service
    - Operational and performance requirements, e.g., ramp rate limits and curtailment/disconnection obligations
    - Other applicable tariff obligations of the Transmission Customer and Large Load while highlighting important specific

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Interconnection Agreements

- **Load Interconnection Agreement**
  - Two-party agreement between Transmission Owner and Large Load
  - Identifies required Network Upgrades and Large Load's cost responsibility
  - Contains security requirements associated with cost responsibility and liabilities specified under the IA
- **Possible Revisions to NYISO's Standard Interconnection Agreement**
  - The NYISO is considering whether additions or revisions to the Standard Interconnection Agreement will be needed to address Large Load issues related to Co-Located Resources and Partner Resources that are not encompassed by other agreements or addressed in the tariff.

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Large Load Modifications Proposal

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Modification of Proposed Large Loads

- **For proposed Large Loads, limited project modifications are allowed at decision points in the BELL process proposal (e.g., reduction of MW and changes to co-located or Partner Resource arrangements)**
  - Other modifications cannot be proposed until the completion of the interconnection studies
- **Upon completion of the BELL process, Eligible Customers may submit a request for a modification for changes such as:**
  - An incremental change to the requested withdrawal amount of 1 MW
  - Load type and operating characteristics
  - Interconnection configuration
  - Co-location arrangements including the addition of new Generators, changes to existing or planned Generators consistent with the current modification rules for Generators (Attachment HH)
- **The NYISO will determine (with input from the CTO/ATO/Affected Systems) if the requested modification is deemed material based on the nature of the modification**
  - Studies will be performed, if needed, to evaluate the impact of the modification

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Modification of Existing Loads

- **Modification requests for existing load projects are required to be processed under the Large Load Integration Procedures in the following instances:**
  - For existing loads 50 MW or greater, requesting to increase in size by 10 MW or greater
    - A one-time 10 MW de minimis threshold would be applied
  - For existing loads less than 50 MW, requesting to increase in size by 10 MW or greater for a total of 50 MW or greater:
    - The requested incremental MWs are subject to the BELL process

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

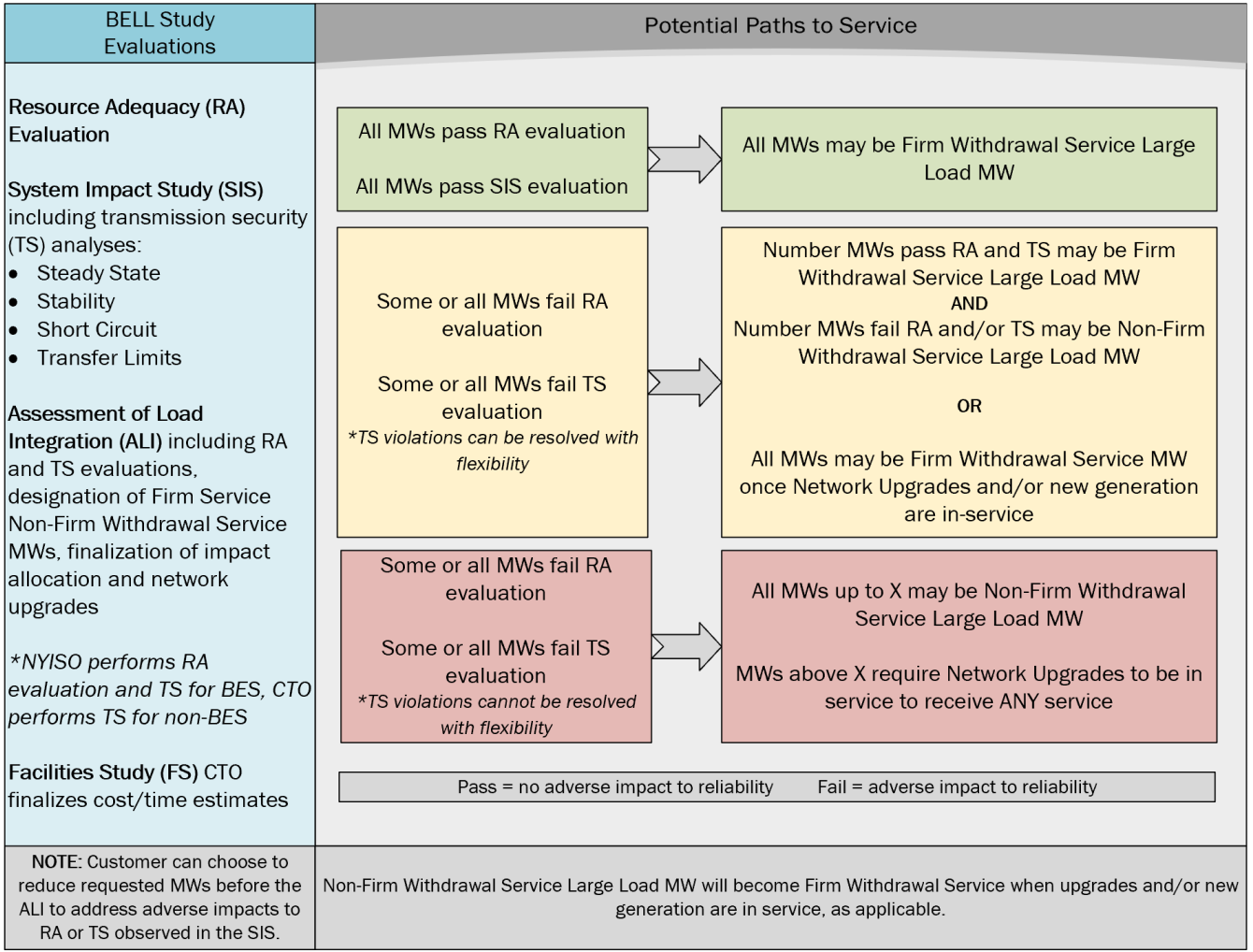
BELL Study Examples

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

BELL Outcomes

- Examples of paths to service in the following slides



©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Adverse Reliability Impacts and Potential Paths to Service

- **Examples of adverse reliability impacts that <u>could</u> be resolved by taking Non-Firm Withdrawal Service**
  - ❑ Adverse resource adequacy impact
  - ❑ Thermal overloads on transmission elements that are ISO-secured or are eligible to be ISO-secured
  - ❑ Thermal transfer degradation (if the limiting element is an ISO secured facility)

These violations can be addressed by adding new supply, taking Non-Firm Withdrawal Service, reducing the project size, or building the necessary network upgrades.

- **Examples of adverse reliability impacts that <u>cannot</u> be resolved by taking Non-Firm Withdrawal Service**
  - ❑ Thermal overloads on transmission lines that are not ISO-secured
  - ❑ High or low voltage violations
  - ❑ Stability violations (undamped, oscillations, first-swing instability)
  - ❑ Voltage transfer degradation
  - ❑ Stability transfer degradation
  - ❑ Overdutied circuit breakers

These violations can be addressed by using new supply, reducing the project size, or building the necessary network upgrades.

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Adverse Reliability Impacts and Potential Paths to Service

- **Considering the outcome of the RA evaluation and the TS analyses (including the type of TS violation) in the SIS, an Eligible Customer may choose a combination of "solutions" to address adverse impacts**
  - "Solutions" may include associating with additional resources, accepting NFWS, reducing in project size, and/or upgrades
    - Note: SIS/ALI study will not determine the MW size of the project required to eliminate the need for a network upgrade for violations such as voltage, stability, and short-circuit. In other words, the SIS/ALI studies will not "right-size" the projects for such violations.
  - The chosen combination of "solutions" will be evaluated in the ALI
- **Examples that illustrate potential combinations that could resolve a set of adverse impacts are provided in slides 66 - 69**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Large Loads & Partner Resources

- **A Large Load may identify one or more Partner Resources**
  - Partner Resources may mitigate some or all adverse impacts observed in Resource Adequacy Evaluation
  - Partner Resources must be in the same Capacity Region as the Large Load
  - Partnered Resources must complete the interconnection process and obtain CRIS
  - Partner Resources must be proposed projects that do not yet meet the inclusion rules in the Reliability Planning Process

Capacity Region	Zones
Rest of State	A-F
Lower Hudson Valley	G-I
New York City	J
Long Island	K

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

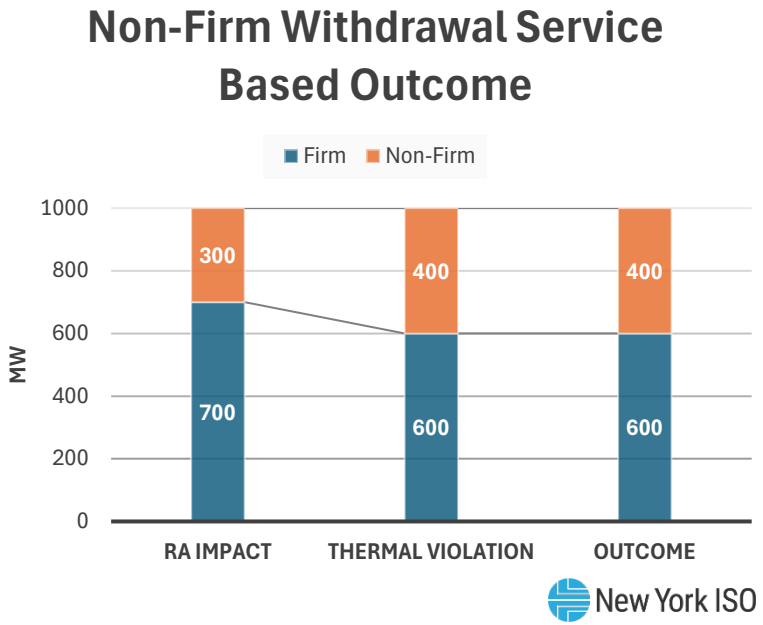
BELL Outcome Example: Option 1

1000 MW Large Load with Co-located or Partner Resource

- Project does not associate with additional resources and does not choose to pursue upgrades

Adverse reliability impacts		Potential outcomes
300 MW adverse impact to resource adequacy	⟺	Accept 300 MW non-firm for RA impact
Thermal violation on a 345 kV transmission line when the load is greater than 600 MW	⟺	Accept 400 MW non-firm withdrawal service for thermal violation

BELL Outcome = 400 MW Non-Firm Withdrawal Service and 600 MW Firm Withdrawal Service



New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

BELL Outcome Example: Option 2

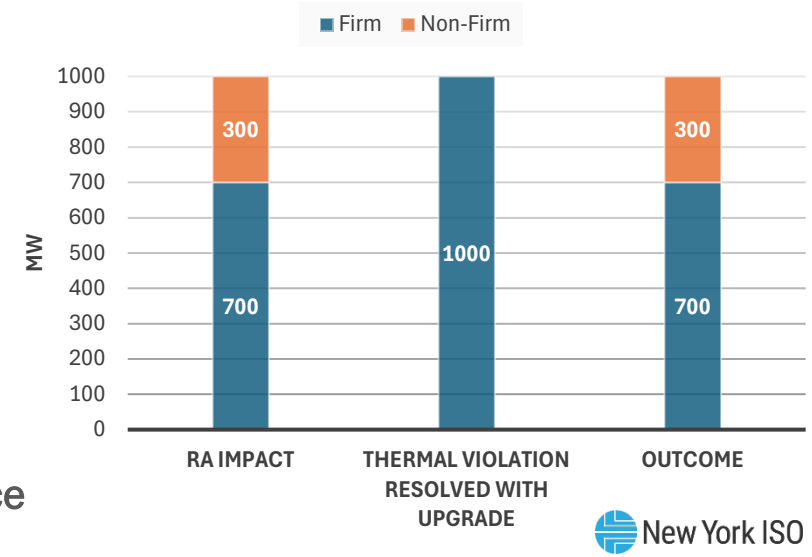
1000 MW Large Load with Co-located or Partner Resource

- Project does not associate with additional resources but chooses to pursue upgrades

Adverse reliability impacts		Potential outcomes
300 MW adverse impact to resource adequacy	⟺	Accept 300 MW non-firm for RA impact
Thermal violation on a 345 kV transmission line when the load is greater than 600 MW	⟺	Network upgrade to mitigate thermal violation

BELL Outcome = 300 MW Non-Firm Withdrawal Service and 700 MW Firm Withdrawal Service

Thermal Upgrade Based Outcome



New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

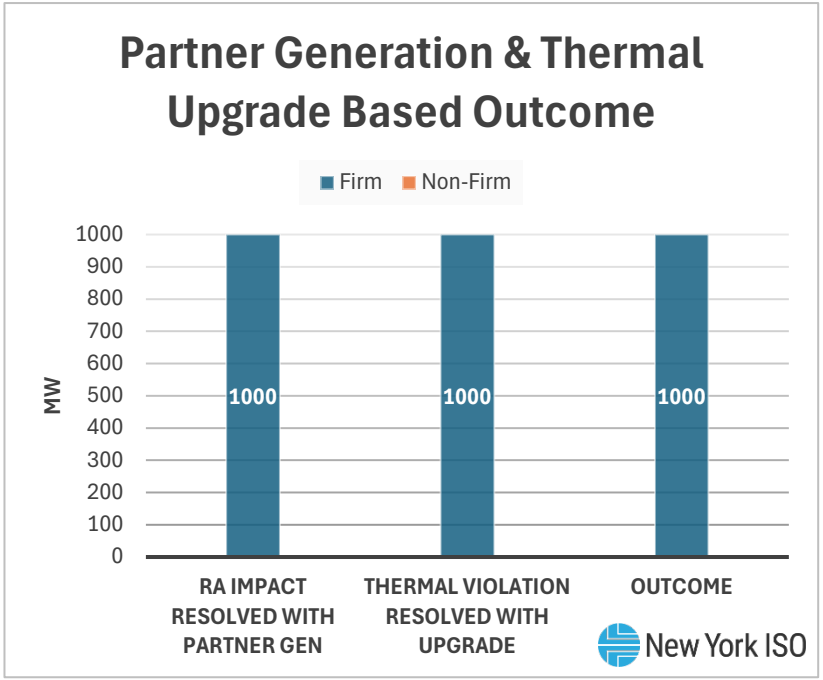
BELL Outcome Example: Option 3

1000 MW Large Load with Co-located or Partner Resource

- Project identifies additional associated resources and chooses to pursue upgrades

Adverse reliability impacts		Potential outcomes
600 MW adverse impact to resource adequacy	⟺	Identifies additional Partner generation
Thermal violation on a 345 kV transmission line when the load is greater than 600 MW	⟺	Network upgrade to mitigate thermal violation

BELL Outcome = 1000 MW firm



©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

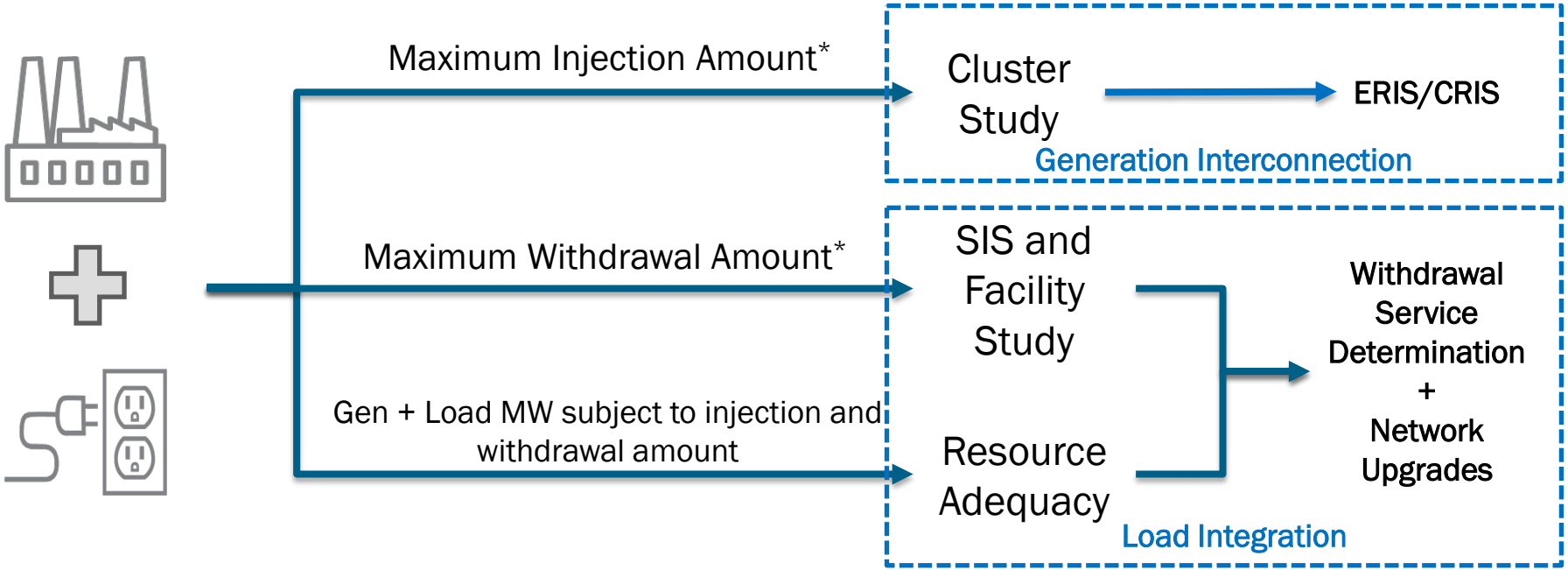
Co-Located Large Load & Associated Generator

- Eligible Customers must indicate the requested injection and withdrawal limits and appropriate control mechanisms to effectuate those limits
- Co-located Large Load and associated Generator will be studied for their maximum requested withdrawal amount in the BELL study
- Associated Generators not seeking ERIS and/or CRIS and not seeking MW injection on to the system may be eligible to bypass the Cluster Study Process
  - Associated Generators seeking ERIS/CRIS must complete Cluster Study to receive ERIS/CRIS
- Co-located Large Load & associated Generator will be studied as part of the Resource Adequacy Evaluation and provided an allocation of Firm and Non-Firm Withdrawal Service amounts up to the requested withdrawal amount of the integration request
  - The Large Load can integrate taking Non-Firm Withdrawal Service during the time prior to the generator's commencement of participation in the ICAP market

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Co-Located Large Load and Generation Evaluation

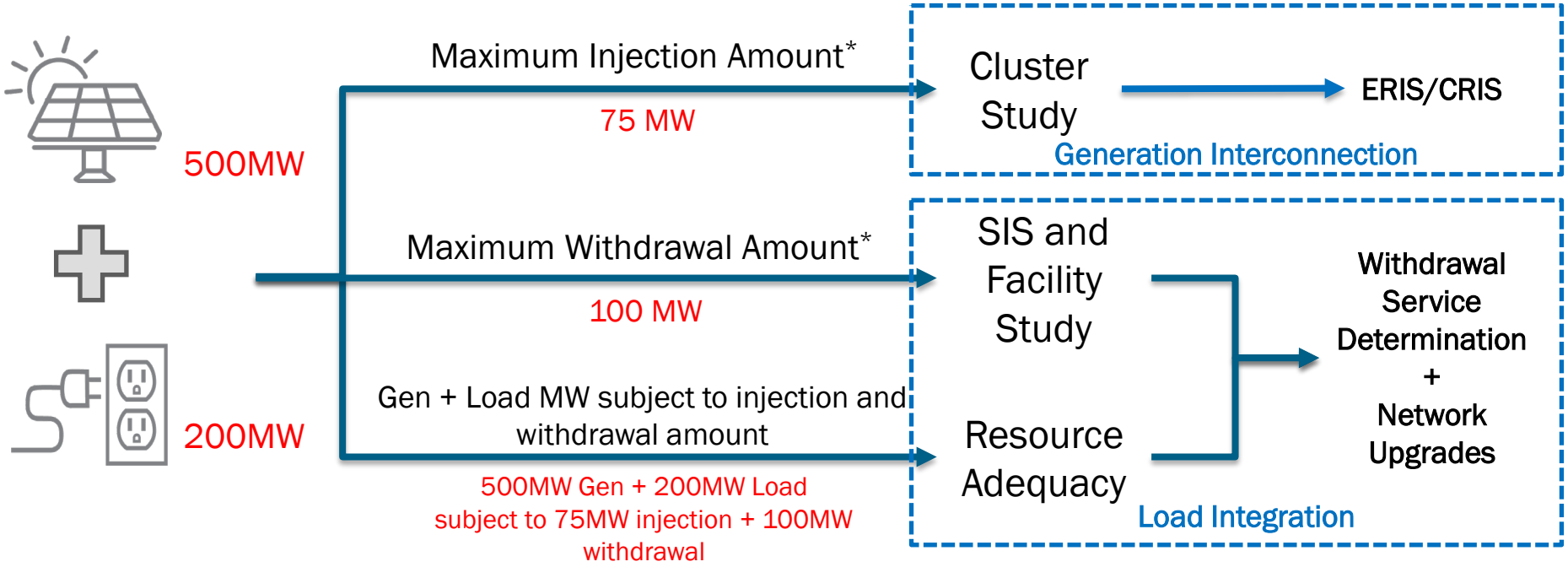


*effectuated using appropriate control mechanism

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Co-Located Large Load and Generation Example

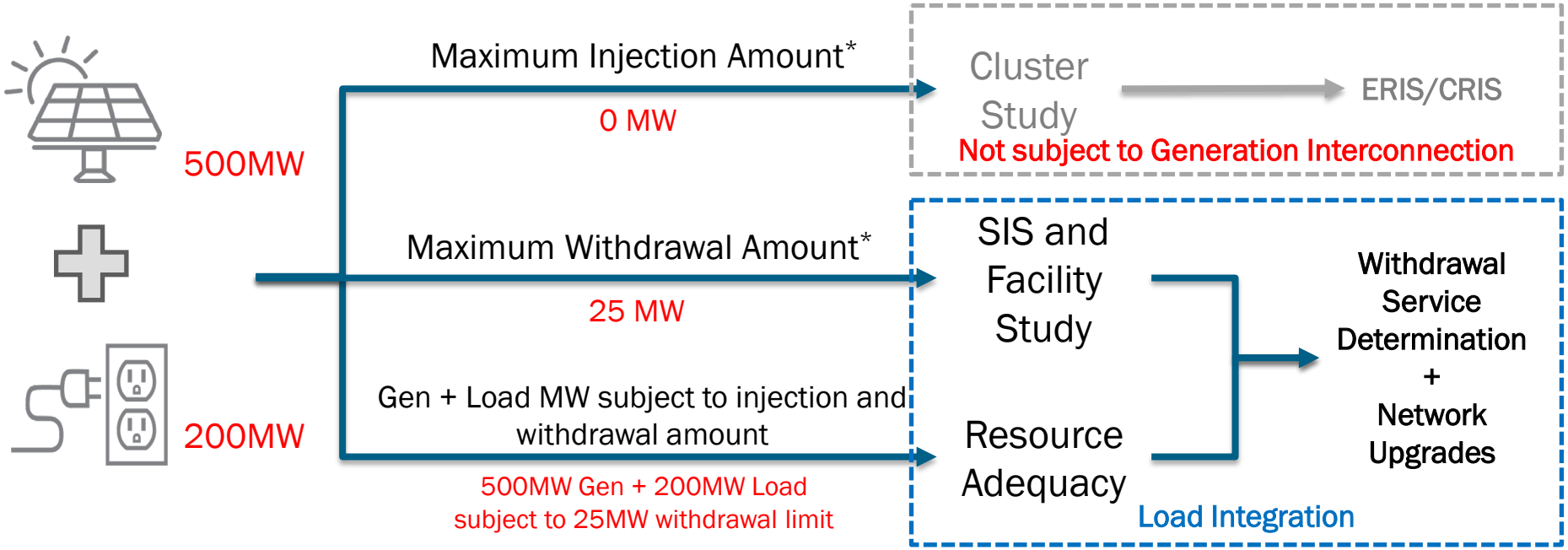


*effectuated using appropriate control mechanism

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Co-Located Large Load and Generation Example



*effectuated using appropriate control mechanism

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Affected System Rules

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Affected System Rules

- **The process by which NYISO and NY TOs as Affected Systems would evaluate the reliability impact of projects in neighboring areas is under development**
  - Likely will leverage the process developed for the Cluster Study, as applicable

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Large Load Performance Requirements

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Proposed Large Load Performance Requirements

Category	Proposed Requirement
Active Power Ramp Rate	Considering 100 MW/5-minutes for individual facilities (100 MW/min NYCA wide)
Active Power Recovery	90% of pre-disturbance level within 1.0 seconds of voltage recovering to ≥ 0.90 per unit
High & Low Voltage Ride Through	See next slide
High & Low Frequency Ride Through	See next slide
Multi-disturbance Ride Through	Avoid disconnection based only on expected reclosures or dip counting. If using disturbance counter logic, coordinate with the transmission owner or operator.
Stable Operation	Facilities must not cause amplification (negative damping) of power oscillations in response to small deviations in voltage and frequency within the continuous operating range.
Torsional & Controller Interaction	Must not have adverse interactions with nearby power system equipment. Compensatory devices required if adverse interaction cycling is expected. Subject to EMT screening and EMT studies, as needed
Cycling	Must not introduce repetitive power cycling into the power system. Compensatory devices required if load cycling is expected. Subject to EMT screening and EMT studies, as needed
Reactive Power Capability Requirement	Large load facilities must be designed to maintain unity power factor at the POI under normal conditions during steady state operation
Voltage Phase Jump	Must be able to ride-through voltage phase angle jumps of ±25 degree

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Proposed Voltage Ride-Through Requirements

RMS Positive Sequence Voltage (p.u.)	Minimum Ride-Through Time (s)
V>1.20	May ride-through or trip
1.10<V≤1.20	0.5
0.9≤V≤1.10	Continuous operation, no trip.
0.80≤V<0.90	2
0.50≤V<0.80	0.5
V<0.50	0.15

During low voltages (<0.9 p.u.), power consumption may be temporarily reduced

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Proposed Frequency Ride-Through Requirements

System Frequency (Hz)	Minimum Ride-Through Time (s)*
>61.8	May trip
>61.2	299
≤ 61.2 and ≥ 58.8	Continuous
<58.8	299
<57.0	May trip

*Unless the load is identified by the transmission owner as part of the UFLS program then follow TO requirements

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Proposed Protection and Controls

- **Remote disconnect ability by CTO**
  - NYISO can request disconnect of a Large Load by CTO when reliability is at risk
- **Injection and withdrawal limits for co-located facilities implemented using dynamic plant controllers**
  - No automatic breaker operation allowed at the POI voltage
- **Active-power variation monitoring relays**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Proposed Monitoring Requirements

- **Minimum telemetry requirements for proposed Large Loads**
  - Phase 1 analog metering
  - Revenue grade metering
  - SCADA MW/MVAR metering
  - Power quality (PQ) metering
  - Digital fault recorder (DFR)
  - Phasor measurement unit (PMU) installations

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Process for Requesting Exemption from Performance Requirements

- NYISO proposes to develop a process by which a customer may request exemption to a performance, protection and control, or monitoring requirement
  - NYISO has not yet determined which requirements exemptions may be allowed
  - Use of compensatory equipment (e.g., E-STATCOMs, battery energy storage systems, super capacitors, or rack-level storage) as a solution will be considered
- Customers must propose an alternative to the requirement, with justification for why the requirements cannot be met, and technical rationale to support that the proposed alternative would not adversely impact the reliability of the transmission system
- NYISO and/or the TO may need to perform studies to determine if a proposed alternative to a requirement is permissible

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

BELL Transition Proposal

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Transition Plan Considerations

- **This proposed transition plan shows how load projects currently in the NYISO interconnection queue may proceed. <u>This plan is preliminary and subject to change based on stakeholder feedback.</u>**
- **To the extent possible, this potential transition plan aims to:**
  - Not disrupt existing commercial arrangements
  - Allow a reasonable amount of time for finalization of nearly complete agreements
  - Consider system reliability implications
  - Continue existing and ongoing study efforts

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Preliminary Transition Plan Outline

- **A project's transition plan depends on the milestones achieved by the project as of the dates indicated below:**

Transition Group	Milestones Met	Transition Plan
A	1. OC approved SIS scope before 6/18/26; 2. OC approved SIS report before 3/1/27; **and** 3. Facilities Study ongoing or completed before 6/18, or not required	Grandfathered
B	1. OC approved SIS scope before 6/18/26; 2. OC approved SIS report before 3/1/27; **and** 3. Not included in Group A	Transitional BELL Study ("BELL-0")
C	1. Not included in Group A; **and** 2. Not included in Group B	BELL-1

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Current Projects that would not meet the Proposed Large Load Definition

- **Some existing load projects do not meet the proposed definition for a Large Load**
  - These projects would not be subject to NYISO Large Load Integration Procedures but would be subject to TO interconnection procedures
    - Proposed load project less than 50 MW
    - Proposed incremental increase to an existing load project greater than 10 MW for a total of 50 MW or greater

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Transition Group A

- **Milestones for Group A consideration:**
  - OC approved SIS Scope as of 6/18/26
  - OC approved SIS report as of 3/1/27
  - Facilities Study ongoing or complete as of 6/18/26, or not required
- **Interim Plan:**
  - Targeting completion of unfinished SISs no later than March 2027
  - All unfinished Facilities Studies should proceed
- **Proposed Transition Plan:**
  - Grandfathered projects must complete the existing NYISO and TO interconnection study processes
  - Grandfathered projects must take firm withdrawal service and mitigate the applicable transmission security violations as determined in the Facilities Study
  - Group A projects would bypass the BELL study process, continue through Facilities Studies with the CTO as needed, and are eligible to receive full Firm Withdrawal Service once upgrades are in-service
    - Future modifications to these projects would be subject to the Large Load Modification Process

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Transition Group B

- **Milestones for Group B consideration:**
  - OC approved SIS Scope as of 6/18/26
  - OC approved SIS report as of 3/1/27
  - Not included in Group A
- **Interim Plan:**
  - Targeting completion of unfinished SISs no later than March 2027
- **Proposed Transition Plan:**
  - Group B projects would proceed through a transitional BELL Study (“BELL-0”) throughout 2027
  - Group B projects would be subject to the Resource Adequacy Evaluation and enter an Assessment of Load Integration

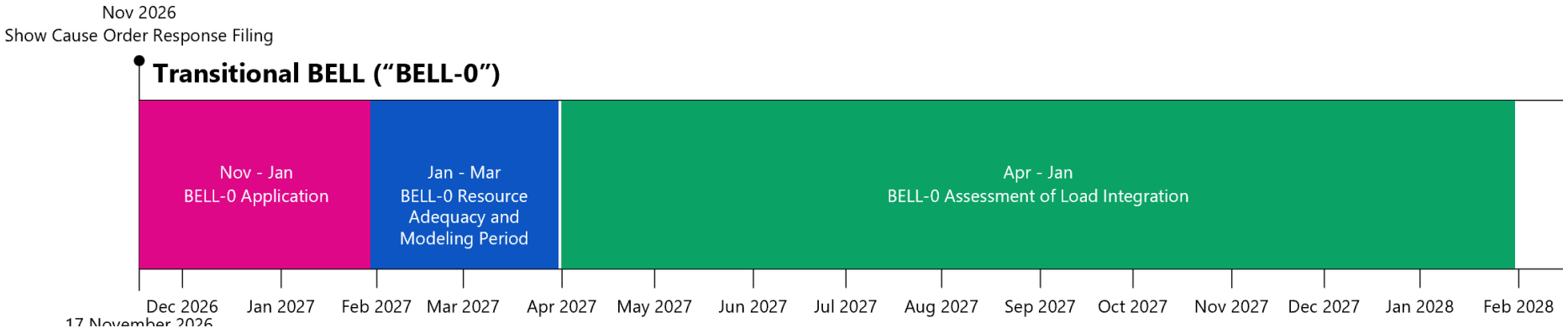
New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Proposed Transitional BELL (“BELL-0”) and Potential Schedule

- **BELL-0 would consist of:**
  1. Application (Application fee required)
  2. Resource Adequacy and Modeling Period
  3. Assessment of Load Integration

  NYISO would not perform an SIS for these projects



©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

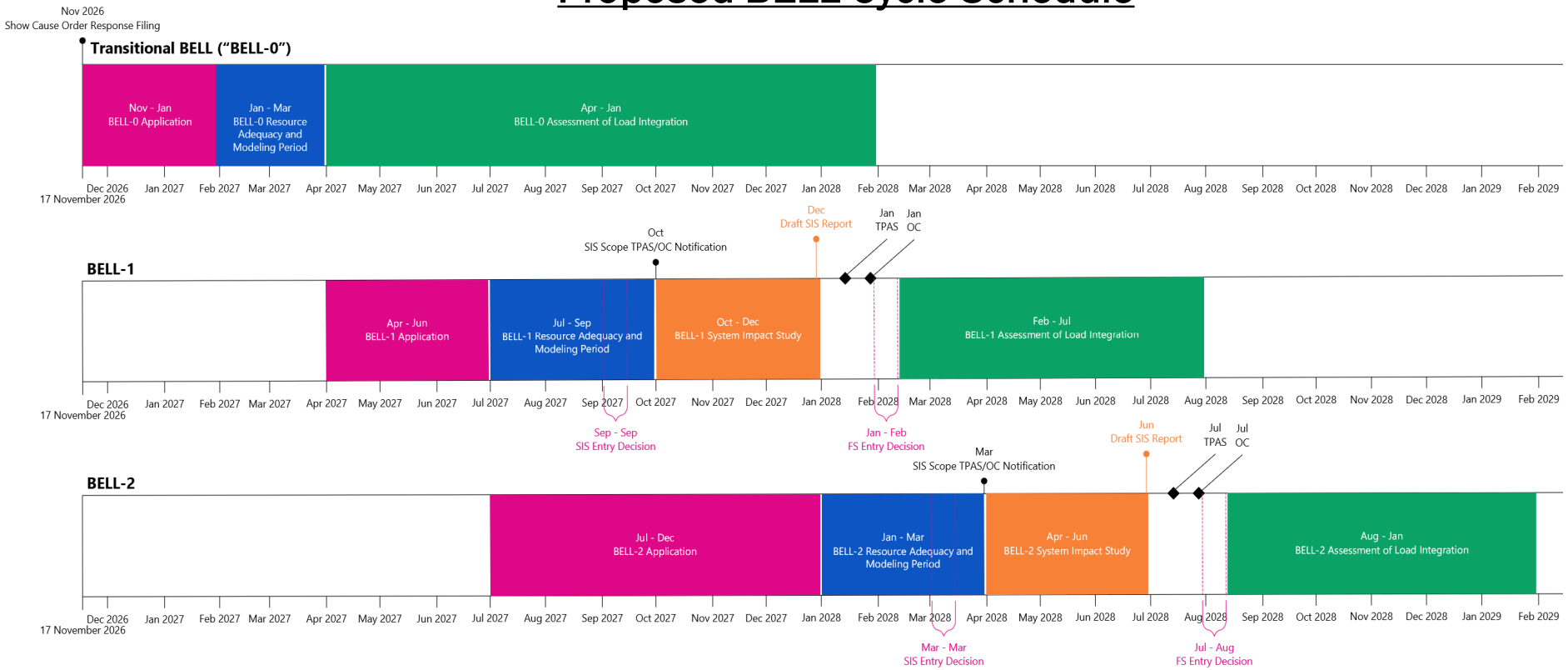
Transition Group C

- **Milestones for Group C consideration:**
  - Not included in Group A
  - Not included in Group B
- **Interim Plan:**
  - NYISO will make reasonable efforts to progress these system impact studies under the current process
- **Proposed Transition Plan:**
  - Projects will be withdrawn from the queue
  - Projects may reapply for BELL-1

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Proposed BELL Cycle Schedule



New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Large Load Tracking

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Project Tracking Process

- **Proposal for a new load interconnection webpage on the NYISO website for hosting information on Large Loads including:**
  - Project tracking spreadsheet including project size, in-service date, project type, location, status, etc.
  - Geographical maps
  - Dashboards with visuals summarizing projects by type, size, status, and location
  - Network Upgrade tracking spreadsheet for projects that have completed an SIS including the type of equipment, cost estimates, and status of Network Upgrades
- **Information on the load interconnection webpage to be updated monthly**

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Next Steps

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Next Steps

- NYISO thanks stakeholders for their feedback and continued engagement on the proposed Large Load Integration procedures
- Please timely send any additional feedback to MemberRelations@nyiso.com

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Next Steps

- 9/8 ESPWG/TPAS/ICAPWG– Market Design Discussion
  - Co-Located Resource examples
  - Settlement Rules for CLRs; Loads taking FWS/NFWS
  - BSM Exclusion Rules
- 9/14 ESPWG/TPAS/ICAPWG – Planning and/or Market Design Discussion and Tariff Draft Review
- 9/22 ESPWG/TPAS/ICAPWG – Planning and/or Market Design Tariff Draft Review
- 10/1 ESPWG/TPAS/ICAPWG - Planning and/or Market Design Tariff Draft Review
- 10/14 BIC Presentation & Vote – Market Design
- 10/15 OC Presentation & Vote – Planning
- 10/28 MC Presentation & Vote

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED

Questions?

© COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED.

New York ISO

Our Mission & Vision

Mission

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

Vision

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

New York ISO

©COPYRIGHT NYISO 2026. ALL RIGHTS RESERVED