



Luminary Energy Comments re:

2025 Quarter 3 Short-Term Assessment of Reliability (STAR) Near-Term Reliability Needs

October 27, 2025

On October 13, 2025, the New York Independent System Operator, Inc. (NYISO) issued its 2025 Quarter 3 Short-Term Assessment of Reliability (Q3 STAR). The NYISO briefed stakeholders and issued a statement regarding the findings of the Q3 STAR at the October 20, 2025 Electric System Planning Working Group (ESPWG) meeting. At that meeting, the NYISO invited comments regarding the Q3 STAR report, and set a due date of October 27, 2025 for submittal. These comments express Luminary Energy’s feedback and suggestions regarding the findings of the report and the steps necessary to mitigate these and likely risks in the future through a stronger alignment between the NYISO planning processes and criteria with the NYISO wholesale capacity market design features.

The Q3 STAR identifies Near-Term Reliability Needs on both Bulk Power Transmission Facilities (BPTF) and non-BPTF systems, finding expected transmission security margin deficiencies in the New York City Locality in summer, 2026 and through the entire five-year timeframe of the analysis. The Q3 STAR also reports transmission security margin deficiencies in the Long Island Locality in the summer of 2027 and through the remainder of the study period. Both findings trigger provisions of the NYISO’s Open Access Transmission Tariff (OATT) to solicit regulated solutions from Con Edison and LIPA, as well as market-based solutions¹.

The NYISO notes in the Q3 STAR that “wholesale electricity markets administered by the NYISO are an important tool to help mitigate reliability risks. The markets are designed, and continue to evolve and adapt, to send appropriate price signals for new market entry and the retention of resources that assist in maintaining reliability.”² Luminary Energy strongly supports the NYISO’s mission of supporting grid reliability and consumer cost efficiency through robust system planning, expert grid operations, and open and transparent wholesale electricity markets. Luminary Energy acknowledges and commends the NYISO on its efforts to continuously improve its planning processes as the power system faces more uncertainty than ever before and evolve the wholesale markets as energy policies seemingly shift on a day-to-day basis.

¹

https://www.nyiso.com/documents/20142/54553125/03_2025Q3STAR_NearTermReliabilityNeedExplanatoryStatement.pdf/cb74f444-3904-40a5-4322-f40a8819d38c at p. 5

²

https://www.nyiso.com/documents/20142/54553125/03_2025Q3STAR_NearTermReliabilityNeedExplanatoryStatement.pdf/cb74f444-3904-40a5-4322-f40a8819d38c at p.5

In fact, the NYISO’s improvements in accounting for uncertainty and the aging fleet in its planning processes go a long way to ensuring that future generations will continue to have reliable electricity while the power system undergoes one of the largest transformations since the Edison, Tesla, and Westinghouse era. It remains important, due to the nature of the NYISO’s prompt Installed Capacity Market design, that there is strong alignment between the NYISO’s planning process assumptions and its wholesale market design as the marketplace relies on information from these planning processes to guide long term investment decisions.

Luminary Energy’s comments focus on the need for deliberative approaches to identifying, developing, and enacting reforms that enhance the alignment between the planning processes and wholesale electricity market objectives detailed by the NYISO in the Q3 STAR. A greater alignment in planning functions and wholesale market rules will benefit reliability and better support cost minimalization to consumers.

Comment 1: Enhanced consideration of Transmission Security Needs and Resource Performance in the NYISO Capacity Markets

The Q3 STAR found that the “planned system through the study period meets resource adequacy criterion”³. The Reliability Needs identified for action under the provisions of the NYISO OATT stem from identified transmission security margin deficiencies. However, as acknowledged in the NYISO’s filing of 2025-2029 ICAP Demand Curves “The current NYISO-administered capacity market is designed to address New York’s resource adequacy needs and not transmission security.”⁴ In supporting the NYISO’s position in that proceeding, FERC noted “NYISO states that it has commenced a multi-year collaborative process with its stakeholders to evaluate potential enhancements to its current capacity market to value resource contributions to transmission security. We believe that the separate stakeholder process is the appropriate forum to address any potential transmission security concerns.”⁵

The findings of the Q3 STAR reinforce the need to develop and implement capacity market rules that reflect the reliability benefits of resources that can respond to and address transmission security. However, the project identified to explore these issues was not prioritized for 2026. Given the pressing reliability findings of the Q3 STAR and the acknowledged gap in sufficient market rules to support addressing transmission security performance through competitive capacity market rules, Luminary

³ <https://www.nyiso.com/documents/20142/39103148/2025-Q3-STAR-Report-Final.pdf/> at p. 22

⁴ NYISO November 29, 2024 submittal to FERC in ER25-596-000

https://nyisoviewer.etariff.biz/ViewerDocLibrary//Filing/Filing5246/Attachments/20241129_NYISOfgLTR_2025-2029DCR.pdf at p. 26.

⁵ FERC January 28, 2025 Order in ER25-596-000 https://nyisoviewer.etariff.biz/ViewerDocLibrary/FercOrders/20250128-3048_ER25-596-000_36753.pdf at 73.

Energy encourages the NYISO to re-prioritize engagement with stakeholders to develop effective wholesale market changes that will attract and retain resources needed to support the transmission security needs first identified by the NYISO in its Q2 2023 STAR and more recently in its Q3 2023 STAR.

Comment 2: Modeling of Outage Rates

In modeling expected outage rates for supply in the Q3 STAR, NYISO employs a NERC five-year class average Equivalent Forced Outage Rate on Demand (EFORd), adding that “NERC class average derating factors used in the STAR do not have a mechanism for excluding 9300 events (generator outages due to transmission system problems)”⁶. This approach is mostly consistent with the generator performance assumptions used in the IRM study because transmission outages, other than cable outages, are not reflected in the Resource Adequacy model. However, there remains two inconsistencies with the use of derate information between the wholesale market and the NYISO planning processes.

The first inconsistency is the treatment of resource derates in the NYISO’s determination of Transmission Security Limits that create a UCAP floor for each of the NYISO’s three Localities (i.e., Zones G-J, Zone J, and Zone K). Importantly, excluding these 9300 events from the determination of the Transmission Security Limit (TSL) creates a situation where the transmission elements that are not part of the BPTF system but are relied on to deliver capability from resources to the BPTF system are assumed, by default, to have no impact on resource availability. Since it is expected that TSLs will set the Locality Capacity Requirements for most Localities for the foreseeable future, this treatment creates a potentially significant gap between the market signal for adequate resources in the Locality and the short-term planning findings for that same Locality. The exclusion of 9300 events in the TSL calculation based on the NYISO’s own analysis is resulting in TSLs, and therefore LCRs, a few percent lower than is needed to support NYISO’s transmission security margin criteria employed within the STAR.

The second inconsistency is with the manner in which the NYISO calculates resource specific derates based on an EFORd methodology for use in its wholesale capacity market. We strongly encourage the NYISO to leverage this more accurate, and region specific, information in its planning analysis that supports the CRP, RNA and STAR. It is understood that NERC average information may be necessary to use when a new resource does not have enough historic operation. However, there is more accurate information that is developed by the NYISO and used by the New York State Reliability Council for the purpose of establishing an annual IRM and the NYISO for the determination of TSLs. The NYISO should remove this inconsistency between its planning and market processes.

⁶ <https://www.nyiso.com/documents/20142/39103148/2025-Q3-STAR-Report-Final.pdf/> at p.24

Comment 3: Growing Winter Reliability Risks

The Q3 STAR provides some rolled up information about the growing winter reliability risks. This information is helpful to understand how changes in winter demand and resource availability is leading to increases in winter reliability risks. Luminary Energy encourages the NYISO to release more information regarding the shift of resource adequacy risks from the summer to the winter to help inform the marketplace on how the distribution of loss of load events is changing and the severity of the loss of load events. This information provides valuable information that helps market participants make stronger connections between proposed winter-based market enhancements and winter reliability concerns, and better assess how the evolving market design will support power system reliability for the New York Control Area. Additionally, we encourage the NYISO to start formally assessing winter reliability risks as part of its planning processes and specifically as it performs its STAR assessments.

Conclusion

Luminary Energy appreciates the opportunity to respond to the issuance of the Q3 STAR. We believe the findings of the Q3 STAR send a clear signal that reliability margins are historically thin, creating the urgent need for action to preserve grid reliability and market effectiveness. Luminary Energy offers suggestions intended to assist the NYISO and its stakeholders in considering current and expected risks to grid reliability and wholesale market viability and efficiency that go beyond the findings of the Q3 STAR and the Comprehensive Reliability Plan currently under stakeholder review. Aligned, Luminary Energy believes that the NYISO's planning functions, wholesale market design, and grid operations can meet the challenges ahead reliably and cost effectively. Luminary Energy looks forward to working with the NYISO, stakeholders, and policymakers to address these issues through the NYISO's shared governance process.



Memorandum

To: NYISO Staff

FROM: David Patton, Pallas LeeVanSchaick, and Joseph Coscia

DATE: October 27, 2025

RE: MMU Comments on the 2025 Q3 Short Term Assessment of Reliability (STAR)

As NYISO's Market Monitoring Unit (MMU), our goals are to help ensure that the markets administered by the ISO function efficiently and to identify and report on market design flaws. We submit these comments on the implications of the 2025 Q3 STAR for NYISO's markets.

In this STAR Report, NYISO determined that up to 1,130 MW of capacity in New York City and 254 MW in Long Island are needed to avoid capacity deficiencies from 2026 to 2030, which will be retained through out-of-market contracts. This will likely reduce New York City capacity prices below the going forward costs of many generators and cause additional generators to consider retirement. On Long Island, the generators seeking to retire are relatively new and would likely be economic to remain in service if capacity prices were consistent with their reliability value, but Long Island capacity prices are consistently inefficiently low.

These developments raise concerns about the ability of the wholesale market to retain needed resources and the likelihood that NYISO will be compelled enter into additional out-of-market contracts to maintain adequate resources. This memo describes these concerns and provides our recommendations to address them through the market.

A. Misalignment of Market and Planning Requirements in New York City

One of the main causes the premature retirement of resources that are needed for reliability is the misalignment between the Reliability Planning Process (RPP) and the NYISO capacity market that we highlighted in our comments on the 2024 RNA and 2025 CRP.¹ The RPP establishes planning requirements that exceed the market's requirements because of: (a) inconsistent modeling assumptions between the planning and market studies for the same time period, and (b) the use of speculative future scenarios in planning studies that ignore market responses to tightening margins. Key drivers of the STAR's New York City Reliability Need that drive differences between planning and market requirements include:

- *Inconsistent forced outage rate assumptions:* capacity market requirements are determined using lower forced outage rates than the planning studies. New York City's capacity market LCR would be approximately 350 MW higher if consistent outage rate assumptions were used.

¹ See MMU Comments on the 2024 RNA [here](#) and on the 2025 CRP [here](#).

- *Use of “higher demand” load forecast:* NYISO determines the magnitude of Reliability Needs based on a “higher demand forecast” which exceeds the baseline demand forecast by 130 MW in 2026 growing to 630 MW by 2030. The “higher demand” forecast assumes higher economic growth than expected and that future electrification policies will not provide incentives to avoid charging EVs during peak conditions.
- *Exclusion of planned projects:* NYISO excludes the contributions of several planned generation and transmission projects that are included in its base case assumptions when quantifying future Reliability Needs. These projects are expected to contribute to New York City’s transmission security margin by: 800 MW starting in 2026 (CHPE), 80 MW in 2027 (Empire Wind I), and 100 MW in 2030 (Propel NY Energy – Alternate 5).

Since the Reliability Needs are driven by assumptions that are more conservative than expected future conditions, the effective planning requirements will likely exceed the future market requirements. For example, the factors listed above will result in effective planning requirements for 2029 exceeding the market requirements by 350 to 930 MW, depending on whether planned projects enter service as scheduled and whether load growth follows a trajectory that more closely resembles the baseline or ‘high demand’ scenario.²

Setting market requirements consistently below planning requirements undermines the market’s ability to provide incentives to satisfy the planning needs. The resulting declaration of Reliability Needs will lead to out-of-market actions that increase capacity market surpluses and lower expected capacity prices. The expectation of low capacity prices weakens incentives to maintain generating capacity in a reliable condition, repair equipment following outages, participate in demand response programs, and import capacity. For example, we project New York City capacity prices of approximately \$7.0 per kW-month in summer 2026 after CHPE enters service if the Gowanus and Narrows peaking resources are retained to address Reliability Needs.³ This is likely well below the long-term going-forward costs (GFCs) of many resources in New York City, which would increase pressure on other existing generators to retire.

The alignment between the NYISO markets and planning could be improved with changes to the following market parameters and reliability planning assumptions:

- *Market forced outage rates:* The generator outage rates used to set capacity market requirements significantly overestimated generators’ availability during recent peak load conditions.⁴ These assumed outage rates may be biased downward because of: (a) underreporting of partial forced derates, (b) misclassification of some forced outages as planned outages, and (c) aspects of the EFORd calculation that overestimate availability of units that usually run at low output levels.
- *Treatment of future projects in planning studies:* Planning studies should not assume unreasonable delays of planned projects that otherwise meet inclusion criteria in scenarios used to declare Reliability Needs. Assuming indefinite delays of projects that

² This assumes that NYISO will re-assess the magnitude of the Reliability Need in 2029 to account for the contribution of CHPE once it enters service, which is expected in 2026.

³ The continued retention of peaking resources is an example; NYISO has not committed to any specific solution.

⁴ See 2025-Q2 Quarterly State of the Market Report [here](#), slide 6.

have achieved advanced milestones is unreasonable and could lead to excessive declaration of Reliability Needs. Placing limits on the potential delays (e.g., one year from the planned in-service date and/or a percentage of the remaining timeline) could strike a reasonable balance.

- *Plausibility of scenario assumptions:* Planning studies should avoid declaring Reliability Needs based on scenarios that unrealistically ignore market responses to tightening capacity margins. For example, market and regulatory responses make a scenario of runaway load growth due to electric vehicle charging during the peak hour unlikely.

Changes to capacity market demand curves (such as the targeted level of excess capacity) may be needed to ensure the market sets adequate prices when the planning process indicates a potential need for reliability. However, such a change would be costly to consumers, so it is preferable to improve the alignment of the planning and market processes to the extent possible.

B. Market Design Flaws Highlighted by 2025 Q3 STAR

The 2025 Q3 STAR evaluated the proposed generator deactivations of two Long Island facilities that are *not* obligated to retire by state environment regulations (the Far Rockaway and Pinelawn facilities). Failures to appropriately compensate suppliers for the reliability they provide may lead to inefficient retirements, investment, imports and demand response. Eventually, this leads to Reliability Needs that could have been avoided by better market signals. Below is a list of market design shortcomings we have previously identified in our State of the Market or other reports that will tend to weaken market responses to the issues identified in the 2025 Q3 STAR.

- *Inefficiently-Low Locational Capacity Requirement for Long Island:* the capacity market LCR for Long Island is routinely set at an inefficiently low level due to flaws in NYISO's LCR Optimizer method.
 - For example, the reliability value of capacity, as reflected in the Marginal Reliability Impact (MRI) of capacity, is 230 percent higher in Long Island than New York City, but the LCR for Long Island is so low that the Long Island capacity price usually exhibits little or no premium over the NYCA capacity price.⁵
 - The low LCR along with other flaws in the capacity demand curves for the four-year period beginning May 2025 have led to capacity prices in Long Island that are substantially below the net cost of new entry and under the going-forward costs of much of the existing capacity.⁶ Long Island's capacity demand curve is based on a Net CONE estimate of \$97 per kW-year (UCAP), compared to estimated going-forward costs of \$128 to \$147 per kW-year for some existing steam units.⁷
- *Lack of Granular Capacity Zones:* Reliability Needs may arise because of local capacity requirements that are not represented in the capacity market. As a result, the market may

⁵ See slide 34 of NYISO's presentation "2026-2027 Informational CAFs (iCAF) Set 1" at slide 34, available [here](#).

⁶ See our comments on NYISO's 2024 Demand Curve Reset filing, available [here](#).

⁷ This estimate is derived from public information from the long term Power Supply Agreement currently in effect between LIPA and National Grid, FERC Form 1 cost data reported for Long Island generators, and recent property tax settlements between LIPA and host communities.

fail to retain capacity or attract entry or demand response in those areas. We have recommended establishing more granular capacity zones that would better reward capacity in import-constrained areas and avoid overpaying capacity in export-constrained areas.⁸ The details of the 2025 Q3 STAR suggest that capacity zones in New York City’s 138 kV system, southwestern Long Island, and the area encompassing zones H through K are needed to provide efficient investment incentives.⁹

- *Use of Out of Merit Dispatch Instead of Day-Ahead and Real-Time Constraints:* The 2025 Q3 STAR finds a non-BPTF deficiency on the 69 kV system in Long Island due to the deactivation of the Far Rockaway GTs. These units are frequently dispatched out of merit in actual operations to manage network constraints that are not modeled in the market (roughly 800 unit-hours in the past 12 months).¹⁰ Modeling transmission constraints in the market provides more efficient incentives to resources that can help manage the constraints. The use of out-of-market dispatch and cost-based compensation provides incentives for units to operate inefficiently by rewarding higher-cost resources.¹¹
- *Overpayment of Resources with Low Transmission Security Value:* The 2025 Q3 STAR finds Reliability Needs driven by transmission security requirements. When the capacity market LCR is set at its transmission security-based floor (as has been the case consistently in New York City), resources that cannot contribute to meeting transmission security needs are compensated as if they do. After the entry of the CHPE line, which is expected in the summer of 2026, we estimate that 925 MW of UCAP that does not satisfy transmission security-based capacity needs will receive inefficiently high capacity payments.¹²

Addressing these market design issues along with the misalignment between the planning and market requirements will be key for allowing the market to facilitate investment and retirement decisions that satisfy the NYISO’s planning requirements. This should reduce the need for the NYISO to address Reliability Needs through out-of-market actions that raise costs and further undermine the performance of the markets. We look forward to discussing these comments and addressing any questions they may raise.

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⁸ See discussion of Recommendation #2022-4 in section VIII.C of our 2024 State of the Market Report, available [here](#).

⁹ The local capacity needs in New York City and Long Island are discussed in pages 45-48 of the STAR Report, while the capacity need for Zones H-K during winter are identified on page 98.

¹⁰ Data on operator-initiated commitments can be found on NYISO’s website [here](#).

¹¹ For example, it is noteworthy that from 2021 to 2025, Far Rockaway Unit 2 operated on natural gas in 92 percent of its run hours. However, from October 2024 through September 2025, the same facility operated on diesel oil in 100 percent of its run hours. These percentages can be estimated using the EPA’s publicly available CAMPD data.

¹² This includes 300 MW of demand response, 200 MW at the Ravenswood facility, and 425 MW of the CHPE line (using approximate zonal average derating factors). See section VIII.E and Recommendation 2022-1 in our 2024 State of the Market Report, available [here](#).