

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

Proceeding on Motion of the Commission	)	Case 24-E-0165
Regarding the Grid of the Future	)	

New York Solar Energy Industries Association Comments Regarding the Grid of the Future Proceeding

I. Introduction

In April 2024, the New York Public Service Commission (PSC or Commission) initiated the Grid of the Future proceeding, with the stated objective of unlocking “innovation and investment to deploy flexible resources – such as DERs and virtual power plants (VPPs) - to achieve our clean energy goals at a manageable cost and at the highest levels of reliability.”¹ New York Solar Energy Industries Association (NYSEIA) thanks the Commission for taking this critical step, and subsequently commissioning Grid Flexibility Reports to quantify New York’s grid flexibility potential, to highlight key barriers to realizing that potential and to begin outlining strategies to unlock the potential.

NYSEIA’s comments include some guiding principles, however, we are making an intentional choice to emphasize concrete, tactical recommendations that can unlock grid flexibility quickly. Our specific areas of focus include: 1) creating adequate price signals for all parties, including customers, DER providers, and utilities; 2) animating a robust market for behind-the-meter energy storage with performance-based compensation; 3) accelerating front-of-the-meter distributed energy resource (DER) deployment and lowering costs through flexible interconnection; 4) improving VDER compensation for front-of-the-meter DER; and 5) aggressively pursuing opportunities to lower the cost of DERs.

NYSEIA wholeheartedly supports the Commission’s broad vision of an intelligent, cohesive, multi-technology VPP framework that animates a marketplace for distributed energy resources (DER) and empowers customers to lower their electricity bills through participation, either directly or through solutions providers and aggregators. We understand the value of establishing an overarching framework to guide the development of a multigigawatt VPP in New York. We also observe that technological solutions have distinct costs, deployment models, and operational potential for providing grid services, and that New York has already developed many programs that support grid flexibility. Therefore, rather than initiating a ground up development of the perfect multi-technology VPP, which could take years,

¹ Case 24-E-0165 - Proceeding on Motion of the Commission Regarding the Grid of the Future. New York Public Service Commission. Order Instituting Proceeding. April 18, 2024.

NYSEIA instead urges the Commission and New York's utilities to use an agile approach, quickly establishing and adapting discrete programs to accelerate flexible resource deployment, activation and integration. An agile approach will allow New York to quickly launch and scale programs that save ratepayers money while still building toward a holistic, integrated suite of programs that allow New York to unlock the value of flexible resources.

II. Comments on the Grid Flexibility Study

A. Overview

In Q1 2025, the Brattle Group issued a three-volume Grid Flexibility Study under this proceeding. The study found that New York can unlock 8.5 gigawatts of grid flexibility potential by 2040, or 25% of the net system peak demand². The study also found that flexible resources could provide nearly \$3 billion in annual savings to New York ratepayers by avoiding costly investments in generation capacity as well as the transmission and distribution system, noting that flexible resources will also lower energy prices for all ratepayers by reducing peaks and better aligning supply and demand. Importantly, the study finds that grid flexibility resources are not only cost-effective in comparison to futuristic dispatchable emissions-free resources (i.e., green hydrogen); the vast majority of the 8.5 gigawatts of flexible resources identified in the Study would also be cost-effective in comparison to fossil fuel generators.

At a time of rising energy demand and increased focus on energy affordability, the Study's cost-effectiveness finding is immensely consequential. Simply put, the Grid Flexibility Study has identified demand response and DER as lower cost alternatives to overbuilding traditional generation, transmission and distribution infrastructure in New York State. This finding should motivate the Commission and other stakeholders to identify and execute strategies to accelerate flexible resource deployment and achieve these cost savings for ratepayers.

B. Price Signals are Critical for All Parties, Including Customers, DER Providers, and Utilities

New York's energy market includes various price signals that drive the behavior of market participants. Understanding each parties' motivation is critical for designing and scaling up successful programs quickly and with minimal friction. In general, utilities seek to maximize their profit by spending money on traditional infrastructure, upon which they earn a guaranteed rate of return. Utilities also advance programmatic initiatives or seek to achieve high performance metrics in order to unlock Earnings Adjustment Mechanisms (EAM) – bonuses that allow them to increase their profit – and to avoid the imposition of Negative Revenue Adjustments (NRA) – penalties that eat into utility profits. DER Providers either seek to sell their solutions to end customers, or, alternatively, to deploy resources and

² Case 24-E-0165 - Proceeding on Motion of the Commission Regarding the Grid of the Future. The Brattle Group. New York's Grid Flexibility Potential, Volumes I-III. January and March 2025.

operate them profitably by selling energy and other services to their customer and/or the utility. Finally, there is the customer. Customers seek to minimize their energy bills while maximizing comfort and convenience. Engaged customers can accomplish these objectives by: conserving, generating and storing their own electricity; by installing smart electric vehicle (EV) charging and other equipment; and/or by enrolling in demand response or other programs that offer compensation in exchange for participation.

The next section of NYSEIA's comments focus on price signals for DER providers and customers. However, we would be remiss if we did not acknowledge that unlocking New York's VPP potential will require every party to be rowing in the same direction, and it is important for the Commission to develop meaningful price signals to ensure that New York's utilities are compensated for scaling up their grid flexibility programs. In parallel with any ambitious new grid flexibility programs or goals, NYSEIA strongly encourages the Commission to approve utility investments in IT infrastructure and to offer compelling EAMs or other incentives to ensure that utilities are invested in the success of the programs, which could be complex and require significant effort on the part of the utility companies.

C. New York Can Animate the Market for Behind-the-Meter Energy Storage through Smart Programs, Incentives and Rate Design

The Brattle Group Study notes that, under status quo conditions, New York is estimated to have 240 megawatts of BTM battery energy storage systems (BESS) by 2040, providing \$57M in annual net benefits to consumers. However, the report notes that policy and programmatic interventions could dramatically expand that potential to 1.1 gigawatts, delivering \$418M in annual net benefits³.

The Study identifies several strategies to unlock this potential: expand participation by increasing the value to customers and improving the customer experience; improve BTM BESS utilization through improved forecast and dispatch strategies; permitting reform, with a focus on New York City; allowing expanded distribution grid services to maximize utility and revenue; and reducing program administrative costs through scale and efficiency. NYSEIA supports the pursuit of all of these strategies:

- Expand participation by increasing the value to customers and improving the customer experience. NYSEIA agrees that, in order to animate the market for BTM BESS, it will be necessary to increase the value to customers compared to existing and proposed programs. This subject is expanded upon in the next section of NYSEIA's comments.
- Improve BTM BESS utilization through improved forecast and dispatch strategies. NYSEIA agrees that intelligent battery management will be needed to ensure that utilities maximize the grid-services value of customer-sited batteries while preserving battery operating life and the customers' resiliency by maintaining a minimum level of charge, especially in weather conditions where blackouts are more likely.

³ Ibid.

- Permitting reform. While local permitting is outside the purview of the Commission, the Grid Flexibility Study rightly highlights permitting as a key barrier to BTM BESS deployment. NYSEIA strongly supports efforts to educate local government officials regarding energy storage and to establish appropriate code requirements that are rooted in science and promote safe energy storage installations throughout New York State. In cases where permitting reform is necessary, stakeholders should seek to advance these reforms in consultation with manufacturers, local AHJs and code and product safety experts to ensure that the end result is requirements that protect public safety and are reasonable and appropriate. Permitting barriers to BTM BESS are most acute in New York City, where local code requirements are nearly universally preventing BTM BESS adoption. The core barrier to BTM BESS deployment is language in NYC Fire Code Section 608 which requires that the owner of a stationary BESS provide 24/7 real-time remote monitoring to provide the FDNY with real-time notification if there is risk of a thermal event. This code requirement was developed years ago with larger-scale batteries in mind; however, it has been applied broadly to all stationary batteries, including small residential BESS where compliance with this requirement has proven infeasible. NYSEIA has met with several leading global manufacturers of safe residential BESS, and they have indicated that they do not offer this functionality despite having products that meet the most stringent UL product safety standards. NYSEIA has engaged the FDNY and requested that this real-time monitoring requirement be waived for small residential BESS products, provided that they be installed by licensed professionals in low-density residential zones of the City and that the BESS are UL-9540 listed, UL-9540A-tested, and the manufacturers have received a product-specific Certificate of Approval from the FDNY. We have even proposed alternative approaches to ensure prompt notification that rely upon commercially available technology, such as heat and smoke detectors. Unfortunately, these options were not acceptable to the FDNY, and there is currently an impasse until the City either modifies its real-time alerting requirement for small residential BTM BESS, or, alternatively, until manufacturers and installers develop custom functionality and business models specifically to support BTM BESS in NYC. Until one of these two outcomes is achieved, New Yorkers will be unable to access life-saving resilient backup power and utility bill savings, and New York State will be unable to deploy and marshal critical resources that can help meet New York's peak electricity demand.
- Distribution grid services to allow customers to monetize the various value streams batteries can provide. NYSEIA supports this point.
- Reduce program costs through scaling up the program. Scaling up the program to achieve efficiencies in program management will be possible if the program encourages resource deployment and participation; an outcome that can be achieved by designing a robust program, as described in the following section.

Designing a Robust BTM BESS Program

NYSEIA offers the following recommendations to support the development of a robust BTM BESS program with strong customer and DER provider participation.

<u>Policy Element</u>	<u>Preferred Policy Position</u>	<u>Direct Load Control (DLC) for BYOB Program</u>	<u>Distribution Load Relief Program (DLRP)</u>	<u>Auto- / Term-Dynamic Load Management (DLM) Program</u>
Net Metering Eligibility	No restrictions	No restrictions on NEM participation	Customers must forgo performance (energy) payments if they are on NEM	Not available for NEM participants, only available to VDER-compensated resources
Settlement / Measurement Point	Inverter/battery telemetry; stackable with other technologies that use differing telemetry	ESS telemetry with baseline	Meter data with weather baseline	Meter data with baseline
Event Participation	Voluntary	Voluntary, with significant reduction to compensation for non-performance	Options for mandatory or voluntary participation	Focused on mandatory performance
Enrollment	OEM/installer-led enrollment	"Service provider" led	Aggregator or Direct Participant (multi-account direct participant varies)	Aggregator or Direct Participant (single acct except for NatGrid)
Event Duration	2 hours	Unspecified	Four hour minimum	Designed for 4 hours
Caps on Events	No caps necessary with sufficient performance payments	No caps	No caps	No caps
Consistency of Performance Payments	Set time with guaranteed program terms; prohibit retroactive changes to program terms and compensation	Unspecified	No programmatic consistency guarantee	Individual multi-year agreements in place

The bulleted list below outlines the proposed terms of the utility Bring Your Own Battery (BYOB) program, as presented in the January 2025 PSC meeting and reflected in the Direct Load Control (DLC) battery tariffs for National Grid, Orange and Rockland, Rochester Gas & Electric, and NYSEG. It also identifies the policy changes we propose and the obstacles to implementing them.

Net Energy Metering

- Ask: The Commission and the Utilities should state explicitly that customers participating in NEM are eligible for the DLC program.
- Blocker: None
- Best Practice: In nearly all other successful VPP programs, customers are not asked to choose between remaining on NEM and receiving VPP performance payment. Dispatched battery discharge provides an incremental grid service above and beyond circumstantial grid exports that are compensated under NEM tariffs.

Settlement

- Ask 1: Utilities should always use BESS system telemetry rather than utility meter data for settlement under the DLC program.
- Ask 2: The Commission should direct utilities to remove baselining from their compensation calculation when using system telemetry for settlement.
- Ask 3: Customers with BTM BESS enrolled in DLC or similar programs should also be allowed to participate in other programs, such as EV managed charging or smart thermostat programs.
- Blocker 1: While the Commission spoke favorably about using battery telemetry in its April 2025 Order in Case 14-E-0423 (pg 22-23), it stopped short of requiring utilities to use this approach which will "accurately value and incentivize the valuable grid resources provided by ESS."⁴
- Blocker 2: The Commission approved the BYOB updates to the DLC programs as discussed in its April 2025 Order in Case 14-E-0423 (pg 25), which adopted the proposed baselining procedure of [payment = \$50 * (avg event performance * (avg hourly output during event - avg output during similar period non-event time))]. This approach to baselining may discourage discharging outside of demand response events, even when doing so provides system benefits, because doing so will erode the event performance payment to the BTM BESS. NYSEIA recommends that this calculation be simplified to [payment = \$50 * avg event performance].
- Blocker 3: It may be complex for utilities to properly account for and compensate customers that participate in multiple grid flexibility programs that offer compensation based on different telemetry (e.g., a single customer with a BTM BESS that is compensated based on system telemetry and a smart thermostat that uses baselining and is connected to the same utility meter).

⁴ Case No. 14-E-0423. Proceeding on Motion of the Commission to Develop Dynamic Load Management Programs. New York Public Service Commission. ORDER ADDRESSING DYNAMIC LOAD MANAGEMENT PROGRAM MODIFICATIONS. April 25, 2025.

- Best Practice 1: Measuring performance for a BESS must occur at the inverter to ensure the resource is accurately compensated.
- Best Practice 2: Baselineing is an unnecessary carryover from demand response programs that is ill-suited for calculating compensation for BESS. Baselineing a battery's event during a performance against a battery's "normal operation" will discourage customers and DER providers from utilizing the BESS outside of events, leaving value on the table for all parties. It is both simpler and more predictable to compensate for performance based on BESS telemetry and without baselineing.
- Best Practice 3: Allow multitechnology participation and validate scenarios to ensure accurate customer billing and compensation. A well-designed program should allow customers to maximize their grid flexibility by stacking technologies and participation in complementary or multitechnology programs.

Event Duration

- Ask: The Commission should specify a two-hour event duration for the BYOB program and any future VPP program.
- Blocker: Neither the Commission nor utilities have specified a standard event duration for DLC programs and other DLM programs have wider event ranges.
- Best Practice: Specifying two hour events encourages utilities to deploy VPP capabilities at the most valuable times on the system, maximizing ratepayer and environmental benefits. Shortening the length of events also increases total potential compensation for participating BTM BESS. Higher performance-based compensation will increase customer participation in grid flexibility programs, and drive increased BTM BESS adoption by improving the economic value proposition of a customer-owned energy storage device.

OEM-Led Enrollment with Third-Party Enabled Assignment

- Ask: Utilities should post the list of eligible "service providers" on their websites as indicated in their tariffs, and should provide a clear application process for organizations to become "service providers".
- Blocker: None
- Best Practice: Creating an explicit pathway for OEMs or installers to enroll customers in VPP or other similar programs expedites participation and program growth. Utilizing the relationships OEMs and installers already have with customers reduces hurdles to signing up and sharing data.

Caps on Number of Events and Event Participation

- Ask: The Commission should disincentivize utility abuse of customer devices by (a) setting a maximum number of events over which event performance is calculated, (b) directing utilities to increase the performance payment if they call more than a certain number of events in a season, or (c) add an energy delivered element of the compensation calculation.

- Blocker: None
- Best Practice: Caps on the number of called events are not necessary when performance is adequately compensated on a per-event basis. Allowing performance payment to be calculated based on average performance across all events called in a season risks incentivizing the utility to call excess events because the DER payment is based on average kW delivered, not total kWh delivered. If customers are not compensated on a kWh basis, the Commission should consider adding some guardrails to protect devices from unfair use by capping the number of two-hour events they can call in a season.

Program Consistency

- Ask: The Commission should require utilities to lock in minimum compensation rates for 10 years for customers when they enroll in VPP programs.
- Blocker: None
- Best Practice: States that understand the value of distributed energy resources and the role of residential energy storage systems to meet peak demand have taken the proactive step of creating price locks based on when a customer enrolls in the program. This improves customer experience by setting and meeting clear expectations regarding utility bill savings and the payback period for BTM BESS.

Adequate Compensation is Needed to Drive BESS Deployment

The Grid Flexibility Study found that New York could unlock up to 1.1 gigawatts of BTM BESS by 2040. Achieving this outcome will require robust price signals/economic incentives to drive BTM BESS deployment. Until now, resiliency (backup power) has been the primary driver of BTM BESS adoption in New York, and adoption has been quite limited. An analysis of utility interconnection data compiled by NYSERDA shows that only 4.5% of customers that installed solar in 2024 included energy storage:

Resi BESS Attachment Rate by Utility								
Year	Central Hudson	Con Ed	National Grid	NYSEG	O&R	PSEG LI	RGE	Grand Total
2020	4.8%	0.5%	3.4%	6.7%	0.2%	3.5%	4.4%	2.4%
2021	12.5%	1.7%	6.7%	13.6%	4.5%	8.4%	3.7%	5.8%
2022	7.8%	1.6%	6.7%	12.9%	14.1%	7.6%	7.1%	5.6%
2023	6.0%	0.9%	6.5%	11.9%	11.3%	3.4%	4.1%	3.5%
2024	6.8%	1.0%	3.9%	11.6%	26.5%	4.6%	6.3%	4.5%
Grand Total	7.4%	1.2%	5.5%	11.7%	12.0%	5.4%	5.3%	4.4%

Resi BESS Project Count by Utility								
Year	Central Hudson	Con Ed	National Grid	NYSEG	O&R	PSEG LI	RGE	Grand Total
2020	37	30	33	39	2	197	8	346
2021	131	123	89	91	45	568	9	1,056
2022	138	152	96	121	165	614	25	1,311
2023	132	116	110	138	148	354	12	1,010
2024	128	109	67	113	280	347	16	1,060
Grand Total	566	530	395	502	640	2,080	70	4,783

Source: NYSERDA Statewide Distributed Solar Projects. Analysis by NYSEIA. February 2025.

Increasing New York’s residential BTM BESS deployment rate will require compelling price signals for both customers and DER providers. There are two main forms of compensation for DER: 1) upfront capacity-based incentives/rebates to defray the upfront cost; and 2) performance-based compensation that a DER earns over time. New York is currently pursuing a combination of the two for BTM BESS, with upfront NYSERDA incentives and modest ongoing utility performance-based compensation – \$50/kW-year for the current year – through the Dynamic Load Control (DLC) program.

In June 2025, NYSERDA began offering upfront capacity-based incentives of \$200-250/kWh for residential BTM BESS⁵, and includes enrolling in DLC or a similar program as an eligibility requirement. These upfront incentives will help defray the cost of energy storage for customers, and will undoubtedly increase BTM BESS attachment rates. However, the Commission should temper its expectations regarding the potential increase to BESS attachment rate based upon the upfront incentive and modest revenue through DLC participation. Long Island has offered similar incentives for several years, and Long Island’s 2024 BESS attachment rate of 4.6% tracks closely with the statewide average, which was 4.5%. NYSEIA asserts that the NYSERDA incentives primarily drive customers who are already considering backup generators to adopt BESS as a cost-effective alternative, whereas more significant performance-based compensation could actually drive DER providers, such as residential solar leasing companies, to finance and deploy tens of thousands of BTM BESS with the dual objective of providing customer resiliency and serving as a grid resource. Rather than relying exclusively on NYSERDA up-front rebates to drive adoption and utilizing a compliance-based approach to ensure DLC BYOB program enrollment, NYSEIA encourages the Commission to consider making robust grid

⁵ NYSERDA. Residential Energy Storage Incentive Dashboard. Accessed July 10, 2025.

service programs tailored specifically to BTM batteries that reflect actual avoided capacity costs, such that the grid service revenue potential of BTM BESS becomes a compelling driver of adoption.

NYSEIA thus recommends that the Commission and the utilities reference the utility Marginal Cost of Service (MCOS) when determining the appropriate compensation levels for BTM BESS. The MCOS is the cost for the utility to serve an incremental kilowatt of load, and BTM BESS can directly offset that marginal cost by reducing peak load through utility grid service event participation. MCOS values vary among New York's utilities, but in many cases they are far in excess of \$50/kW. The \$50/kW-year compensation level proposed by the Joint Utilities may be an appropriate floor; however, it should not be a ceiling. NYSEIA recommends that DLC compensation be set at the higher of: 1) a reasonable floor value established by the Commission; and 2) the utility's levelized 10-year MCOS value. The utilities filed updated MCOS studies on June 30, 2025, and these studies are currently being evaluated by DPS Staff and stakeholders for consistency. These studies will be the basis for deriving VDER compensation, and NYSEIA recommends that they also be the basis for determining compensation for behind-the-meter BESS ahead of the 2026 cooling season.

- Ask: Increase the DLC compensation level ahead of the next cooling season based upon utility MCOS and a reasonable floor value. Residential BTM BESS compensation should be adequate to not only induce BESS that would already be deployed for resiliency to participate, but should also be adequate to encourage adoption and help animate a large market for residential BESS. Higher performance-based compensation can also enable reduced reliance on upfront NYSERDA incentives in the future, eliminating the risk of program incentive cliff.
- Blocker: In January 2025, the Joint Utilities proposed offering up to \$50/kW-year for BTM BESS – a level that was approved by the Commission in April 2025. This modest level of compensation is far below that of comparable programs in adjacent markets (e.g. Massachusetts ConnectedSolutions), far below the levelized MCOS for most New York utilities, and will not drive BTM BESS adoption at-scale.
- Best Practice: Align performance-based compensation with the MCOS. Consider increasing performance-based compensation further and balance upfront capacity-based incentives over time in order to increase program longevity.

D. Flexible Interconnection will Accelerate Cost-Effective Distributed Energy Resource Deployment and Integration

Large DER deployment, specifically community solar, has been a primary progress driver towards New York's nation-leading clean energy goals. Last year alone, New York deployed approximately one gigawatt of solar projects between 1-5 megawatts in scale. New York now has a growing pipeline of 1-5 megawatt retail BESS projects in the interconnection queue that promise to similarly deliver rapid progress toward New York's energy storage goal. As large DER penetration has increased over time, utility interconnection costs have risen dramatically. The traditional methods for evaluating

interconnection hosting capacity and managing DERs are resulting in significant hosting capacity constraints, with new large DER commonly triggering cost-prohibitive substation upgrades, resulting in project cancellations and reduced DER deployment.

Flexible interconnection can help overcome this barrier, enabling the unabated rapid and cost-effective deployment of large DER at-scale. In Volume III of the Grid Flexibility Analysis, Brattle Group describes flexible interconnection as “agreements between the utility and the customer to operate the customer’s load/DER within prescribed import/export limits. These limits, referred to as “operating envelopes”, are defined by the utility based on available distribution system capacity. Operating envelopes may be fixed at the time of interconnection or time-varying based on real-time available capacity.”⁶

Just as flexible loads and dispatchable DER can defer or eliminate the need for costly traditional utility infrastructure, flexible interconnection, or active management of DER, can also defer or eliminate the need for expensive distribution upgrades in anticipation of future load growth or to increase grid utilization rate. Flexible interconnection (Flex IX) is not a novel concept; it has been adopted widely in Europe and both National Grid and Avangrid have implemented successful Flex IX pilot projects in New York over the last decade that they are actively seeking to expand. NYSEIA supports the expansion of these pilots, but also recommends that New York proactively pursue a statewide framework for flexible interconnection that is broader in scope.

Through a NYSERDA-supported study, NYSEIA, New York Battery Energy Storage Technology Consortium (NY-BEST) and Electrical Power Research Institute (EPRI) are conducting an analysis to estimate how much solar PV and retail BESS capacity could be unlocked in New York with Flex IX at different levels of allowable curtailment. The study focuses on large DER (1-5 MW) and analyzes transformer thermal hosting capacity constraints where Flex IX can address these constraints to determine theoretical technical potential followed by a techno-economic analysis to estimate the statewide cost and benefits of Flex IX. EPRI’s technical assessment of more than one thousand Upstate substations revealed that implementing Flex IX could increase New York’s PV hosting capacity by 71–97% at curtailment levels between 5% and 10%⁷. In other words, EPRI’s technical analysis found that New York could roughly double its cost-effective PV hosting capacity through Flex IX. This is a compelling statistic, and motivates DER stakeholders to pursue Flex IX as a solution to enable sustained DER deployment even as federal clean energy tax credits sunset in the coming years.

Flexible Interconnection of DER can unlock significant cost-effective hosting capacity in New York while avoiding capital intensive and long lead time transformer upgrades. It is important to acknowledge that Flex IX, and the possibility of DER curtailment, is a major paradigm shift from the perspective of project developers, independent power producers and financiers. For New York to unlock its Flex IX

⁶ Ibid.

⁷ Flexible Interconnection Study in New York State: Cost-Benefit Analysis (NYSERDA PON 4393). NYSEIA, NY-BEST and EPRI. Interim Deliverable. May 2025.

potential, it will be critical for New York to establish standard and predictable policies to ensure market certainty, reduce complexity, minimize curtailment risks and attract private capital.

NYSEIA encourages the Commission to support utility-driven efforts to expand existing Flex IX pilot programs. We also recommend the Commission initiate a proceeding to develop a statewide flexible interconnection framework so New York can realize the full potential of Flex IX. While Flex IX can be a compelling solution for small DER, the major interconnection bottleneck today is for large DER, where distribution upgrades have become cost prohibitive in many cases. NYSEIA recommends that the Commission focus on large DER initially, however, we acknowledge that there are use cases for Flex IX at all scales and encourage the Commission to consider diverse Flex IX use cases where stakeholders identify cost-saving and system design optimization opportunities.

Based on NYSEIA's Flex IX research and stakeholder engagement to date, we offer the following suggestions for consideration. A successful Flex IX framework for New York must be:

- **Broadly available** as an option to address thermal constraints at substations (as well as other use cases). Allow for both top-down utility-driven deployment and bottom-up DER-driven deployment.
- **Standardized across New York Utilities** to provide a consistent framework and queue rules to create efficiency, reduce complexity and ensure market certainty.
 - While we support the rapid development of a *statewide* framework for Flex IX, we appreciate that utilities have different levels of readiness. The vision of a standardized statewide framework should not preclude utilities that are ready from moving faster.
- **Financeable, predictable and reliable**, with transparent curtailment studies, clearly defined curtailment rules, and guardrails to prevent excessive curtailment.
 - Transparent Curtailment Assessment Methodology and Data Availability. NYSEIA presumes that large DER with flexible interconnections will undergo a curtailment study to estimate how much curtailment the DER should reasonably expect. These curtailment studies should include detailed and transparent assumptions. In curtailment assessments completed for individual projects, the assessment should provide 8760 load data, available load forecast, upstream capacity limitations, and identify any future upgrades in the utility capital plan that might impact the hosting capacity constraints.
 - Minimize and Manage Curtailment Risks. Establish curtailment rules to prevent excessive curtailment of future flexible DER. These rules should protect DER owners from excessive curtailment while protecting ratepayers and utility shareholders from undue risk. Guardrails to protect DER from excessive curtailment will be foundational to the widespread acceptance of Flex IX and therefore will be needed to unlock New York's Flex IX potential. The exact contours of this risk management scheme should be developed with robust stakeholder input.

- **Incentivize utilities to launch and operate a successful Flex IX program that maximizes DER participation, minimizes traditional upgrade costs, and prevents excessive curtailment.** Utilities have a central role in implementing Flex IX, and they should be incentivized to roll this out in a manner that maximizes DER utilization and minimizes curtailment. This could be accomplished through EAMs or an alternative utility compensation mechanism.
- **Technology agnostic, distributed, and future proof,** with robust standards for safety, reliability and interoperability that enables multiple technologies to be deployed today while enabling seamless integration with future utility Distributed Energy Resource Management Systems (DERMS).

E. VDER Rate Design Improvements can Accelerate Distributed Solar + Storage Deployment with Reduced Reliance on Capacity-Based Incentives

NYSEIA thanks the Commission and Staff for its ongoing efforts to improve the accuracy of utility Marginal Cost of Service studies (Case 19-E-0283) and to improve VDER compensation (Case 15-E-0751). Smart changes to VDER compensation can drive continued large DER deployment in high value areas with reduced reliance on capacity-based incentives. In addition to the active proceeding that seeks to improve the Demand Reduction Value and Locational System Relief Value, NYSEIA encourages the Commission to consider revisiting the administratively-set Environmental (“E”) Value. The Commission has taken recent action to accelerate the phaseout of the NYSEIDA NY-Sun program, eliminating previously-authorized funds that were intended to provide capacity-based incentives to support the deployment of distributed solar projects in New York. If the Commission seeks to phase out these upfront incentives but wants distributed solar deployment to continue unabated, NYSEIA encourages the Commission to consider the E Value as one impactful tool it can use to achieve this outcome.

F. At a Time of Reduced Federal Support, Prioritizing Policies that Lower Costs is Critical

Intelligent DER compensation and VPP program designs will be critical for animating the market and unlocking New York’s grid flexibility potential. However, it is equally important that the Commission pursue measures to reduce the cost to deploy these flexible resources. A few examples include:

- Meter Socket Adapters: Meter Socket Adapters (MSAs) are a piece of hardware that simplifies and lowers the cost to interconnect residential clean energy upgrades, including solar PV, battery energy storage systems, air source heat pumps and electric vehicle chargers. In many cases, MSAs can lower costs by thousands of dollars per installation by eliminating the need for main service panel replacements and complicated re-wiring inside of homes. Instead, MSAs create a clean point of interconnection for DERs or EV loads in the meter socket, or streamline the deployment of BTM BESS configured to provide back-up power. Neighboring states like New Jersey allow for the use of MSAs, and they are being used widely across the country. MSA

technology is mature and can be deployed in a manner that lowers clean energy costs for homeowners while maintaining safety and reliability. ConnectDER and Tesla recently filed a petition (Case 24-E-0526) to establish a standard process for MSAs to be approved for use by New York's utilities. NYSEIA urges the Commission to grant their petition and establish a reasonable process whereby MSAs can be reviewed and approved by utilities so they can be used as a cost-saving tool for residential clean energy upgrades.

- Interconnection Reforms: In addition to pursuing Flex IX, NYSEIA urges the Commission to pursue other interconnection reforms that will lower costs and accelerate deployment. Opportunities for interconnection cost savings include: allowing DER developers to self-perform certain distribution upgrades; granting NYSEIA's interconnection cost-certainty petition to protect DER providers from cost-overruns (Case 24-E-0621, filed on February 14, 2025); and unlocking currently inaccessible hosting capacity on Avangrid's 34.5 KV sub-transmission system by clarifying that it is part of the distribution system and therefore subject to the NY Standardized Interconnection Requirements and eligible for the VDER tariff. This should be considered an illustrative list only. There are additional reforms and process improvements that will lower costs and accelerate deployment, and NYSEIA encourages the Commission and DPS Staff to aggressively pursue these reforms through New York's Interconnection Policy and Technical Working Groups and through docketed proceedings.
- Permitting Improvements: While it is outside the direct purview of the Commission, we urge invested stakeholders to work with colleagues in State and Local government to address permitting barriers to deploying DER. In New York City, this means working to address NYC's Fire Code provisions that effectively prohibit BTM BESS. On Long Island and in Upstate NY, this means working with local government officials to provide them with accurate information about energy storage safety and the benefits of solar PV to help address restrictive local laws that are based on inaccurate information. It also means supporting legislative efforts to improve DER siting and permitting.

Conclusion

The recent Grid Flexibility Study highlights flexible resources as an immense opportunity for New York to drive progress toward the State's decarbonization goals while lowering systemwide costs and putting money back in the pockets of participating customers. NYSEIA wholeheartedly supports the Commission's broad vision of an intelligent, cohesive, multi-technology VPP framework that animates a marketplace for DER and empowers customers to lower their electricity bills through participation. New Yorkers need relief from rising energy costs as soon as possible, which is why NYSEIA recommends that the Commission use an agile approach, establishing and adapting discrete programs to accelerate flexible resource deployment, activation and integration rather than building a new program from the ground up. NYSEIA thanks the Commission for initiating this important proceeding and for the opportunity to provide input.