August 21, 2024

VIA ELECTRONIC FILING
Hon. Michelle L. Phillips, Secretary
New York Public Service Commission
Three Empire State Plaza, 19th Floor
Albany, New York 12223-1350

Re: PSEG Long Island's Utility 2.0 Long Range Plan & Energy Efficiency Plan, 2024 Annual Update (Matter 14-01299)

Dear Long Island Power Authority and Department of Public Service,

On behalf of New York Solar Energy Industries Association (NYSEIA), I am pleased to provide the following comments on the PSEG-LI Utility 2.0 Long Range Plan & Energy Efficiency Plan 2024 Annual Update. While we commend many elements of PSEG-LI's plan, it lacks the ambition needed to drive meaningful near-term reduction to Long Island's reliance on fossil fuels. We respectfully offer several recommended changes to support clean energy progress on Long Island through rapid and coordinated deployment of distributed solar photovoltaic (PV) and battery energy storage systems (BESS).

NYSEIA is a nonprofit industry trade association proudly representing hundreds of distributed solar and storage businesses with thousands of employees across the Empire State. Our mission is to advance distributed solar energy and energy storage deployment in New York State through engagement on key legislative, regulatory, and statutory policy matters affecting these industries. Our membership is primarily composed of local, regional, and national firms working every day to help achieve the ambitious clean energy and equity goals outlined in the Climate Leadership and Community Protection Act (CLCPA).

We appreciate the opportunity to provide feedback on this plan, and look forward to continuing to work collaboratively with PSEG-LI, LIPA and DPS to drive rapid and cost-effective progress toward Long Island's share of the ambitious 2030, 2040 and 2050 (CLCPA) mandates.

Sincerely,

Noah Ginsburg
Executive Director
New York Solar Energy Industries Association

Introduction

PSEG-LI's Utility 2.0 Long Range Plan & Energy Efficiency Plan, 2024 Annual Update includes chapters dedicated to five strategic priority areas: solar PV, energy storage, heat pumps, energy efficiency and electric vehicles. The filing reports on progress toward Long Island share of statewide 2025 and 2030 clean energy deployment goals (based on Long Island's share of statewide peak electric demand), and finds that Long Island is exceeding its goal with PV deployment, is on track with heat pump adoption, and behind schedule with energy storage, efficiency and electric vehicle (EV) adoption. The filing includes program design recommendations and funding requests for each priority area, and concludes with a benefit-cost analysis (BCA) for proposed investments.

In this filing, PSEG-LI requests a total of $121.3 million in incremental funding, including $27.6M for Utility 2.0 programs, including electric vehicle infrastructure, $0.65M in BESS incentives, and $3.6M for Integrated Energy Data Resources (IEDR). PSEG-LI also requests $93.7M toward energy efficiency (EE) programs serving homes and businesses, including $20.1M in rebates that will benefit low- to moderate-income (LMI) households. The EE funding request also includes $2.3M toward the Dynamic Load Management (DLM program) and $0.25M toward community solar.

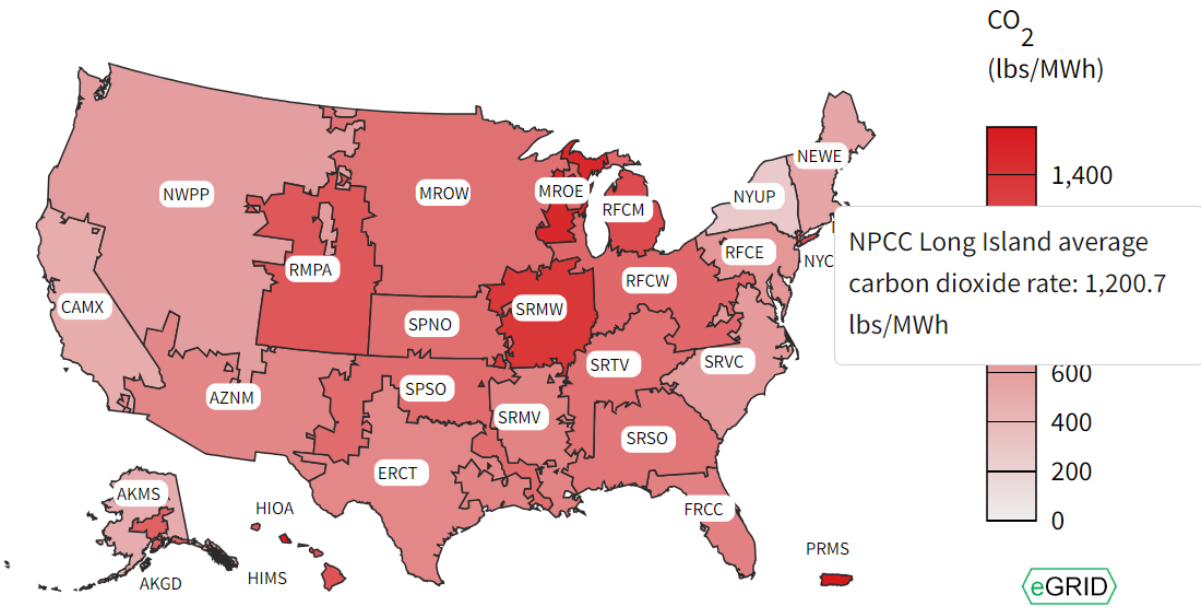
NYSEIA strongly supports these investments in PSEG-LI's clean energy programs. However, we do not believe that PSEG-LI's plan is adequate to get Long Island on track with energy storage, efficiency or EV deployment and recommend further investment in these areas. Additionally, in light of recent reports that New York is not on track to achieve its overall clean energy mandates, we recommend further investment in solar PV on Long Island. Solar PV is Long Island's most successful clean energy program, and modest investments (in the form of additional staffing, programmatic improvements, and targeted rebates) could meaningfully accelerate solar deployment on Long Island, serving as an important hedge against setbacks for offshore wind projects, which are central to achieving 70% renewable by 2030 in Long Island's Integrated Resource Plan. LIPA's most recent Integrated Resource Plan (IRP) assumes no net load growth through 2030, with energy efficiency and distributed solar and energy storage offsetting load growth. Realistically, this can only be achieved in one of two ways: 1) weak adoption of electric vehicles and air source heat pumps; or 2) rapid deployment of distributed solar, energy storage and energy efficiency. NYSEIA strongly supports the latter option and urges PSEG-LI to update its investment plan to support this outcome.

Distributed solar + storage doesn't just deliver clean electrons and bill savings to participating households, businesses and institutions – it also provides significant savings to non-participating ratepayers through wholesale energy price impacts and mitigating the need for expensive infrastructure upgrades to support load growth. When aggregated and orchestrated, distributed solar + storage can function as a distributed ("virtual") power plant, allowing PSEG-LI to call on these distributed resources as it would a traditional fossil fuel plant. Building out a robust virtual power plant on Long Island will allow Long Island to shutter some of its polluting generators earlier than it would otherwise be able to, providing significant environmental and public health benefits.

Importantly, rooftop and community solar can serve LMI renters and other households who are not benefiting from existing programs, and investment in LMI community solar can bring the overall plan into compliance with the CLCPA mandate that at least 35% of New York's clean energy investments benefit Disadvantaged Communities (DAC). Finally, PSEG-LI's proposed $650,000 incremental investment in BESS incentives constitute a gross underinvestment in energy storage resources, which are critical for integrating more renewables and reducing Long Island's reliance on fossil fuels, especially in light of the $816M statewide residential and retail BESS program that the New York Public Service Commission (NY PSC) authorized in June 2024. NYSEIA urges Long Island's full implementation of New York's Energy Storage Roadmap.

Long Island Should Set More Ambitious Distributed Solar Deployment Goals

Long Island must take a more ambitious approach to clean energy deployment than is outlined in PSEG-LI's Utility 2.0 plan. Scaling up distributed solar and storage deployment will provide immense benefits to Long Islanders. It's important to remember that PSEG-LI's electric supply is more polluting than any other utility service territory in the continental United States East of Michigan; according to the US Environmental Protection Agency, a shocking 93.8% of Long Island's electricity comes from fossil fuel combustion.[1]

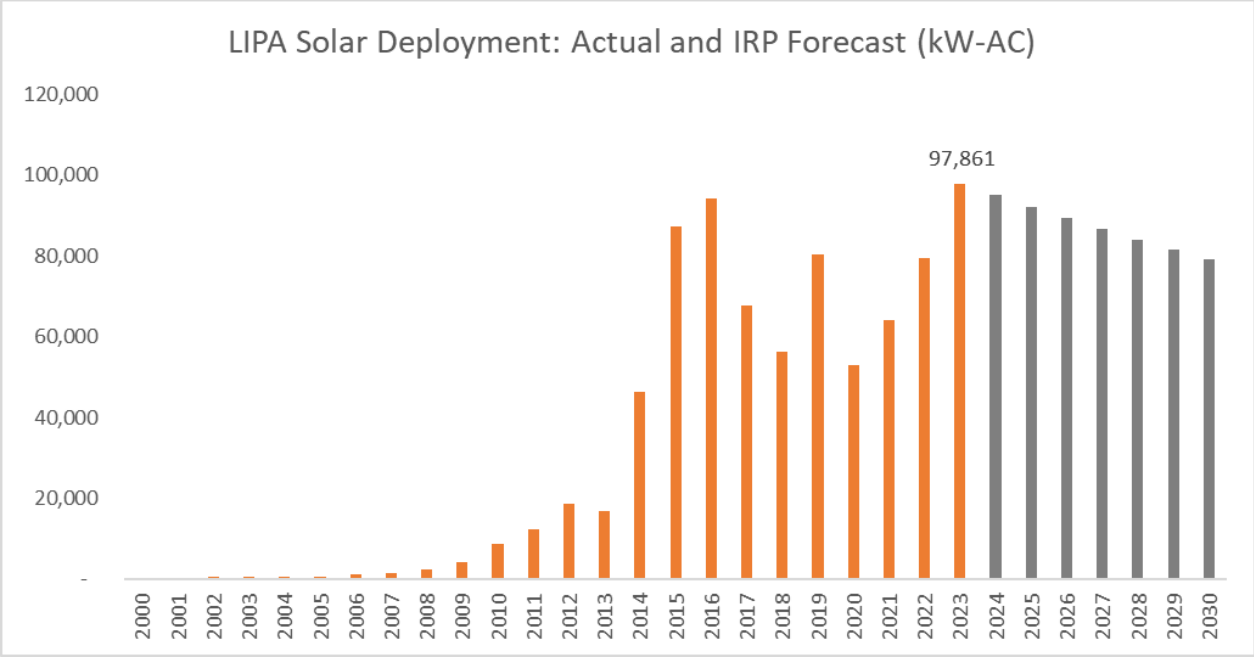


Source: Environmental Protection Agency. eGRID. August 2024.

[1] US Environmental Protection Agency. eGRID. https://www.epa.gov/egrid/power-profiler#/. Accessed August 20, 2024.

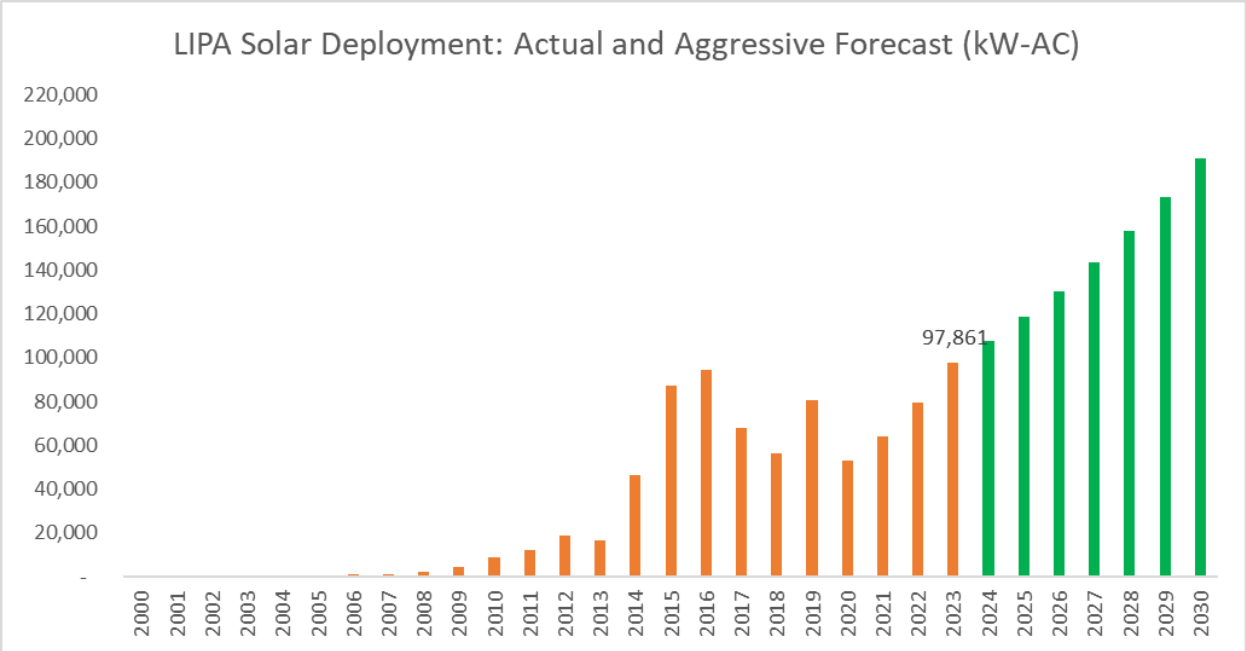
Rather than waiting for offshore wind to come online, NYSEIA recommends that Long Island set and achieve ambitious distributed solar and energy storage deployment targets. PSEG-LI's Utility 2.0 report states that based on load share, Long Island's "portion" of the statewide distributed solar goal is 750 MW-DC by 2025 and 1,300 MW-DC by 2030. However, the utility's share of statewide peak demand is not the appropriate way to determine an ambitious solar PV deployment goal for Long Island. Instead, this should be based upon the emissions reduction potential, total addressable market, and historical rates of adoption. This approach to goal setting would encourage PSEG-LI to not only fix what's broken, but to invest in what's working, driving continuous improvement to programs and delivering meaningful progress toward New York's overall CLCPA mandates.

Long Island isn't starting from scratch; with over 80,000 behind-the-meter PV systems installed to date, Long Island's behind-the-meter solar penetration rate is 8%, the highest in the state. This is a notable achievement, and PSEG-LI should seek to build upon it. As noted in NYSEIA's comments in response to LIPA's most recent IRP, Long Island's solar market could actually *shrink* each year through 2030 and still achieve the 1,400 MW by 2030 figure included in the IRP. Based on Long Island's outsized carbon footprint and significant distributed solar potential, it is not in the public interest to decrease annual distributed solar deployment on Long Island:



Source: Department of Public Service. SIR Inventory. Accessed February 26, 2024. LIPA 2023 Integrated Resource Plan. Actual deployment data may exclude certain utility-scale solar projects. NYSEIA forecast to achieve the 1.4 GW by 2030 noted in the IRP.

Instead, NYSEIA encourages LIPA and PSEG-LI to advance policies and programs that support a 10% annual growth rate to Long Island's distributed solar capacity additions. This would result in approximately 1.8 gigawatts of distributed capacity by 2030; or 400-500 MW more than what's included in LIPA's 2023 IRP and PSEG-LI's Utility 2.0 filing. This additional zero-emissions capacity (paired with energy storage) could support the on-time retirement of at least one of LIPA's steam generators slated for 2030 retirement, even in the event of delays or setbacks with planned offshore wind projects.



Source: Department of Public Service. SIR Inventory. Accessed February 26, 2024. NYSEIA 10% YoY growth projection.

In June 2024, New York Solar Energy Industries Association (NYSEIA) released *Raising New York's Distributed Solar Goal: 20 Gigawatts by 2035*, a policy roadmap to guide the next phase of New York's clean energy transition, calling for a doubling of the state's distributed solar deployment goal, from 10 gigawatts by 2030, to 20 gigawatts by 2035. The roadmap recognizes that New York has fallen behind on its overall renewable energy mandates, in large part due to the fact that utility-scale projects have been delayed or derailed due to inflationary pressures and supply chain challenges. At the same time, rooftop and community solar projects have continued to be built at a record pace despite facing the same economic challenges as utility-scale projects. Distributed solar has proven to be adaptable and resilient due to the projects' smaller sizes and shorter development timelines. Statewide, rooftop and community solar represents 93% of the operational solar that has ever been constructed in New York State. If the State doubles the distributed solar goal, Long Island's share of that capacity would be 2.5 gigawatts by 2035. Rather than waiting for the state to take action, Long Island should proactively adopt a higher distributed

solar goal, building on the momentum of its success to date, and cementing Long Island's position as a statewide leader in renewable energy deployment.

PSEG-LI Should Make Cost-Effective Investments to Enable Rapid Solar PV Deployment

There are a number of modest programmatic changes and cost-effective investments that PSEG-LI should consider adding to its Utility 2.0 plan.

Address Long Island's Unique and Unnecessary Telecommunications Barriers to Commercial Solar and Storage Deployment

Pursuant to LIPA's Small Generator Interconnection Procedures, solar and energy storage projects 500 kW-AC and above require Supervisory Control Access and Data Acquisition (SCADA) Network connection or Direct Transfer Trip (DTT) installation. Verizon is the sole provider of communications infrastructure for SCADA on Long Island, and between coordinating with Verizon and PSEG-LI, it regularly takes months or even years to provide the network connectivity for the SCADA equipment. This issue is causing extensive delays for many solar projects on Long Island, including fully constructed projects that are simply awaiting network connectivity.

This summer, LIPA assisted NYSEIA to engage with Verizon and PSEG-LI to better understand the nature of the issue. Unlike all other utilities in New York State, PSEG-LI has shifted the responsibility of establishing and maintaining Verizon telecommunications service for SCADA to monitor DERs onto the interconnection customer. The challenge with this approach is that the sole recipient of the SCADA data is PSEG-LI, and the data must be securely ported into PSEG-LI's network. The result is an inefficient process whereby each DER customer must establish a separate Verizon account and work with Verizon, third-party consultants and PSEG-LI to securely integrate the SCADA installation with PSEG-LI's system. Verizon personnel indicated that it would be far more efficient for PSEG-LI to setup each SCADA system under their account, and to simply back-bill the DER customer for any expenses associated. NYSEIA strongly encourages PSEG-LI to revert to this system, which is both more efficient and is in better alignment with statewide practices. To the extent PSEG-LI has additional staffing costs associated with internally managing its SCADA deployment, NYSEIA encourages LIPA to approve such costs.

Lower the Cost of Residential Solar Interconnection with Meter Socket Adapters

In many cases, existing residential electric service panels do not have sufficient capacity to interconnect a solar + storage system (or EV charger) even though the utility electric service to the home has sufficient hosting capacity. Upgrading the main service panel is expensive and complicated, and can result in many homeowners deferring otherwise viable clean energy investments. In such cases, meter socket adapters, such as ConnectDER and Tesla Backup Switch, can enable solar + storage systems, EV chargers and other devices to connect upstream from the main service panel, right on the customer side of the utility meter. Meter socket adapters can provide a faster and more cost-effective interconnection option, allowing more residential solar + storage projects to move forward. Con Edison has implemented successful pilot projects with meter socket adapters, and PSEG New Jersey now allows for the widespread use of this

cost-saving technology. NYSEIA encourages PSEG-LI to allow for the widespread use of meter socket adapters on Long Island, using the same safety standards the utility is applying in its other service territory.

Support Troubleshooting and Client Communication on Utility Voltage Issues that Impact Solar Customers

When the utility grid voltage is outside of the typical range, or at the high end of the ANSI allowable voltage range of 114-126V, this causes solar inverters to trip and turn off. Residential solar customers across Long Island are impacted by this issue, which shuts down their solar energy systems for part of the day. This happens more often in the "shoulder months" and mid-day when the demand on the grid is low. Unfortunately, this affects customers' solar systems in their peak production time.

While PSEG-LI has a section in their website that addresses the FAQ on DG high voltage issues, there is no current procedure or pathway to formally log these issues or address them together. Instead, clients are advised to call PSEG directly to have their service tested, and technicians that respond are often uneducated on the DG voltage issues and provide inaccurate or confusing information to the homeowners. Oftentimes, PSEG visits multiple times before addressing and fixing the issue but no reports or visit updates are relayed back to the solar company. This places a significant burden on homeowners and provides a negative customer experience for our mutual customers, who see this experience as 'finger pointing' and a blame game between solar companies and utility. We would like to see more collaboration and proactive problem solving on this issue holistically.

Support Community Solar on Long Island

Community solar is a powerful tool to expand access to the benefits of clean energy among low-income households and renters who are unable to install solar on their own homes. Despite having a larger landmass and more suitable building topology, Long Island has less community solar than New York City and Westchester. The main difference between the economics of community solar in Con Edison and PSEG-LI territory are the upfront incentives; community solar projects in Con Edison territory can access generous upfront incentives – more than $1/Watt-DC for community solar projects that serve low- to moderate-income (LMI) subscribers. On Long Island, there are no capacity-based incentives available for community solar projects and low-income community solar projects are not able to access NYSERDA's Inclusive Community Solar Adder. This represents a significant gap in Long Island's solar market, and is a missed opportunity to bring direct utility bill savings to Disadvantaged Communities, as required by the CLCPA. If capacity-based incentives are not financially feasible, LIPA could consider offering a performance-based incentive instead, with an enhanced Community Credit for community solar projects that commit to serving LMI subscribers. Here is an overview of the NY-Sun incentives that are available in the neighboring Con Edison territory:

NY-Sun base incentive for commercial projects up to 1 MW-DC: *$0.80/Watt-DC*
Inclusive Community Solar Adder (LMI community solar incentive): *$0.20/Watt-DC*
Parking Canopy and Rooftop Canopy Incentive Adder: *$0.20/Watt-DC*

NYSEIA strongly encourages PSEG-LI and LIPA to participate in the statewide Inclusive Community Solar Adder (ICSA) incentive program, which induces community solar providers to serve LMI customers, and to offer a parking canopy incentive to increase the economic feasibility of solar parking canopies on Long Island. In addition to offering incentives that bring Long Island into parity with neighboring utilities, NYSEIA recommends that PSEG-LI adopt interconnection practices that will lower costs for new community solar projects. Specifically, NYSEIA requests that PSEG-LI adopt Con Edison's practice of allowing rooftop community solar projects to leverage the existing transformer(s) serving the building to interconnect new distributed solar projects. This practice lowers costs for distributed solar projects by leveraging existing infrastructure rather than requiring the customer to pay for duplicative transformers that provide no incremental value. Con Edison's best practice is one that NYSEIA would like to see all utilities in New York adopt, but this reform is particularly important on Long Island, as most of the community solar projects will be rooftop projects and this is where the potential impact is greatest.

Long Island Should Fully Implement the Energy Storage Roadmap Order

NYSEIA notes with concern that PSEG-LI's current plan does not commit to implementing the Energy Storage Roadmap Order issued by the New York State Public Service Commission (PSC) in June 2024. The PSEG-LI plan lacks robust programs necessary to meet the ambitious state energy storage goals or to reduce Long Island's heavy reliance on fossil fuels. Specifically, PSEG-LI's proposed budget for battery energy storage systems (BESS) is only $1.5 million (including rollover from last year), a minute fraction of Long Island's $97 million "pro rata share" of the statewide residential and retail BESS program that was authorized by the PSC in June. The residential program is modest, and the absence of any proposed investment in retail BESS is a significant oversight that needs to be addressed.

New York has some of the most ambitious clean energy goals in the country, and the policies in the Energy Storage Roadmap Order are essential for achieving those goals and ensuring grid reliability. The roadmap and subsequent implementation plan outline a clear and cost-effective path to deploy BESS, which PSEG-LI acknowledges are critical for balancing intermittent renewable energy sources like solar and wind, reducing reliance on fossil fuels, and enhancing grid resilience. Zone K relies more heavily on fossil fuel generation than any other part of the state, and that will continue if Long Island doesn't embrace energy storage. By failing to align with the Energy Storage Roadmap order, PSEG-LI is not contributing to the statewide goal, and risks falling behind in energy storage deployment. Implementing this roadmap would be a strategic move to support the region's transition to a cleaner energy mix while providing economic and environmental benefits to the Long Island community. For these reasons, NYSEIA strongly urges PSEG-LI and LIPA to reconsider its approach and fully implement the Energy Storage Roadmap order.

PSEG-LI's Benefit Cost Analysis has Major Flaws that Undervalue Energy Storage

There are several flaws in Benefit Cost Analysis (BCA) that undervalue energy storage. One basic flaw is that the BCA counts the private capital that is leveraged by the incentive program as a cost

that lowers the BCA. However, the only true cost to Long Island ratepayers would be cost of the incentives required to catalyze the deployment of private capital for BESS projects. This should be the goal of PSEG-LI's analysis: to determine whether the ratepayer investment delivers meaningful grid and societal benefits. If this approach were used, residential, retail and NWAs would all have benefit cost ratios demonstrating that the programs are a strong investment.

A more nuanced flaw in the retail storage BCA is the selection of small system sizes for analysis. A typical retail storage system is 5 MW-AC with 3-4 hours of usable energy storage capacity. However, PSEG-LI's BCA analyzes 100 kW and 1,000 kW systems. Sufficient detail was not provided to determine exactly how these assumptions are impacting the BCA; however, it demonstrates a misunderstanding of the retail storage market and raises questions about the accuracy of the analysis.

Another key flaw with the BCA for all BESS applications is the gross undervaluation of net avoided CO2; PSEG-LI's BCA actually includes a *negative* value for net avoided CO2, possibly based on the net energy consumption of batteries due to roundtrip efficiency. However, a negative emissions impact is an illogical conclusion to draw based on typical battery operations, rate design and Long Island's IRP. Residential batteries typically charge at night and discharge during times of peak demand, based on the time-of-day rate structure. Retail energy storage projects are primarily front-of-the-meter resources compensated via the Value of Distributed Energy Resources (VDER) Value Stack Tariff. The VDER tariff provides compensation for projects to export power during times of peak demand, which corresponds to peak emissions. Retail storage projects typically charge overnight during times of low demand. There is already a differential emissions coefficient for energy during peak demand and off peak. However, as LIPA's IRP is implemented, this differential will grow as Long Island's primary source of off-peak supply becomes offshore wind. In the near future, fossil fuel combustion will be limited to times of peak demand and low renewable resource availability. Not only is storage critical for *enabling* this future state reliably and with limited renewable energy curtailment; the differential emissions coefficients for daytime and nighttime energy consumption will be significantly greater and cannot be discounted in the BCA. Finally, PSEG-LI's description of the Value Stream for Net Avoided CO2 suggests that the "E Value" was somehow incorporated into the analysis. The E value is a VDER value stack component that is only applicable to renewable energy generators; it has no bearing on compensation for standalone energy storage systems.

Another confusing element of PSEG-LI's retail storage BCA is the utility's reference to "Commercial TOU" participation for the LBMP value stream. As stated above, retail energy storage systems are generally front-of-the-meter resources compensated under VDER. It appears that PSEG-LI staff or consultants may be assuming that retail storage assets are behind-the-meter commercial energy storage systems. However, the vast majority (>90%) of the retail storage capacity in the interconnection queue in nearby utility service territories and statewide are front-of-the-meter VDER compensated resources. NYSEIA recommends that PSEG-LI confer

with colleagues at NYSERDA and DPS and rely upon the analyses conducted by NYSERDA and DPS until these methodological issues are resolved.

#	Value Stream	Calculation Methodology	Benefits (NPV, $M)	Costs (NPV, $M)
4	Avoided Outage Costs	Calculated by valuating the avoided cost of acquiring a retail-scale gas backup generator[174]	69.5	
5	Net Non-Energy Benefits	Includes Investment Tax Credit (ITC) applied to upfront storage system costs (30%)	105.9	
6	Avoided Energy (LBMP)	Based upon 100% enrollment in commercial TOU rates and cost of electricity during peak versus off-peak ours	18.9	
7	Net Avoided CO_2	Accounts for the avoided CO_2 emissions during on- and off-peak hours for enrolled systems, the Value of E for PSEG Long Island Service Territory, and annual energy % losses	-0.4[175]	
8	Participant DER Cost	Accounts for participant cost of energy storage system hardware and installation cost		352.9
9	Program Administration Costs	Includes costs for customer outreach and general program administration		0.4
	Total Benefits		281.4	
	Total Costs			353.4
	SCT Ratio		0.80	

Source: PSEG-LI Utility 2.0 Plan; Figure 4-14. July 2024.

In the BCA for NWA, PSEG-LI's hypothetical project used for the analysis appears to incorporate elements of NWA projects and elements of traditional retail energy storage systems. First, the hypothetical use case described in PSEG-LI's filing is compensated under VDER, which is far more typical of a retail storage project than an NWA project. VDER is a tariff that provides price signals to third-parties, whereas NWA projects tend to be utility controlled and are governed by bilateral grid services agreements between the utility and the energy storage system owner. The hypothetical NWA use case included in PSEG-LI's filing also includes "performance incentive shares for DAC customers". Again, this is a feasible structure for traditional retail energy storage systems, but has never been done for an NWA project. If PSEG-LI's goal is to deliver direct financial benefits to DAC customers through energy storage, NYSEIA recommends that PSEG-LI offer strong Inclusive Storage Incentives for both residential and retail BESS (as outlined in NYSERDA's August 19, 2024 Energy Storage Implementation Plan) and participate in the Statewide Solar for All program, which allows standalone retail BESS to participate and provide direct utility bill savings to Energy Affordability Program customers. Finally, NYSEIA reminds PSEG-LI that it can achieve meaningful transmission & distribution infrastructure cost deferral with retail energy storage projects using the Locational System Relief Value (LSRV) component of the VDER value stack. If PSEG-LI has identified locations where DERs can defer the need for expensive upgrades, PSEG-LI could publish updated maps that include these LSRV zones and offer DERs in these zones additional compensation for exporting during times of peak demand. This is an existing construct in the VDER tariff that was rolled out nearly a decade ago and applies to retail energy storage and community solar projects across New York.

Retail Energy Storage is Economically Feasible and Should be Supported

PSEG-LI's Utility 2.0 Plan states that implementing a Retail Energy Storage Incentive Program is not economically feasible or socially beneficial. NYSEIA strongly disagrees with this statement. When it comes to CLCPA implementation, New York Climate Action Council's Scoping Plan notes that the cost of inaction exceeds the cost of action by more than $115 billion.[2] More recently and specifically, the March 2024 Energy Storage Roadmap filed by NYSERDA and DPS states that "while the procurement of 6 GW to achieve the 2030 target increases costs slightly in the near term…the energy storage will provide a net saving of $1.94B over the period to 2050."[3] These cost savings are realized through wholesale market impacts and by enabling increased reliance on intermittent renewable energy resources with limited curtailment and reducing the need for overbuilding expensive transmission and distribution infrastructure. Another meaningful source of savings is reduced reliance on fossil fuel "peaker plants" which are expensive to operate and disproportionately polluting. Retail storage is also uniquely able to deliver direct utility bill savings to LMI PSEG-LI ratepayers through CDG and/or Statewide Solar for All. Long Island is New York's highest emissions utility service territory that has the most to gain from deploying BESS at scale. A look at Con Edison's interconnection queue demonstrates the immense potential for retail storage to be deployed at scale in the near-term. NYSEIA strongly encourages LIPA and PSEG-LI to reconsider its decision to opt out of New York's statewide retail storage program.

PSEG-LI's Alternative Concepts for a LIPA Retail Storage Incentive Pilot Program are not Appropriate for New York

PSEG-LI's Utility 2.0 plan includes several alternative proposals for LIPA's consideration. These proposals include: competition for indexed storage credits; pay for performance rather than upfront incentives; LIPA ownership of storage; use of LIPA substations for siting; and allocation of project benefits to DAC. While these are interesting ideas to consider, the value of Long Island being part of New York's statewide energy storage market far outweighs the theoretical benefits of any alternative proposed. In conclusion, NYSEIA recommends that PSEG-LI update its Utility 2.0 plan to include full implementation of the retail and residential energy storage programs outlined in the PSC's June 2024 Energy Storage Roadmap Order.

[2] Climate Action Council. Scoping Plan. December 2022. https://climate.ny.gov/resources/scoping-plan/

[3] New York State Department of Public Service and the New York State Energy Research and Development Authority. New York's 6 GW Energy Storage Roadmap: Policy Options for Continued Growth in Energy Storage. Case 18-E-0130. March 15, 2024.

Long Island has an Opportunity to Build a Massive Distributed ("Virtual") Power Plant

Long Island is New York's most mature residential solar market, and already has a strong emerging market for residential energy storage. Long Island also has the dirtiest energy mix in New York, with nearly exclusive reliance on fossil fuel combustion to meet the island's electricity needs. In some respects, these characteristics make Long Island's energy mix more similar to Puerto Rico and Hawaii than to the rest of New York. According to LIPA's most recent IRP, Long Island's current plan is to remain reliant on fossil fuels until offshore wind comes online in 2030. Exclusive reliance on a single resource is a risky approach and Long Island's ability to achieve its share of New York's clean energy mandates could be undermined by a single project delay or cancellation. NYSEIA urges PSEG-LI and LIPA to diversify its CLCPA compliance strategy by launching a large-scale distributed ("virtual") power plant (VPP) program with this goal in mind. According to the US Department of Energy, "VPPs are fit-for-purpose grid resources that can help manage high and variable demand at a low cost…VPPs can increase the grid's capacity to serve growing electricity consumption by shifting or shedding demand to shrink peaks and reduce the need for peaking generation assets." [4] PSEG-LI already has many of the foundational elements of a VPP program in place: a default time-of-day rate for residential customers, a residential energy storage incentive program, and a Dynamic Load Management (DLM) program that allows residential BESS to participate. By fully funding a residential BESS program and improving DLM program design, PSEG-LI can create the conditions for New York's first large-scale VPP.

Improve the DLM Program for Residential BESS

In December 2023, NYSEIA and Sunrun submitted joint comments regarding the DLM program. NYSEIA's main recommendations to improve the DLM program are to increase performance-based compensation for the Commercial System Relief Program (CSRP) and Distribution Load Relief Program (DLRP), in which BESS customers participate, and to specifically allocate funding towards marketing CSRP and DLRP to residential customers. The current compensation levels for CSRP and DLRP are too low to motivate meaningful participation for BESS customers. And while Long Island's default time-of-day rate increases the value proposition for residential BESS for some customers, many customers that install solar are already offsetting the majority of their electric bill and, therefore, have limited upside benefit from time-of-day arbitrage. A more meaningful DLM revenue stream will be needed for these customers to justify investment in a BESS. NYSEIA recommends that PSEG-LI look closely at the Eversource ConnectedSolutions program in Massachusetts, which provides participants approximately $275/kW/year or $1,375 per year for a typical 5 kW system that participates in 30-60 demand response events per year.[5] This is a level of compensation that has resulted in robust program participation while achieving positive benefit-cost ratios.[6] A similar program on Long Island that is broadly marketed to

[4] Downing, Jennifer, et. al. US Department of Energy. Pathways to Commercial Liftoff: Virtual Power Plants. September 2023.

[5] Eversource. https://www.eversource.com/content/residential/save-money-energy/energy-efficiency-programs/demand-response/battery-storage-demand-response. Accessed August 20, 2024.

[6] MA DPU. Docket No. 22-119. Eversource Energy 2019-2021 Energy Efficiency Term Report (corrected), p. 12. April 18, 2023. Available at:

residential customers could result in rapid and cost-effective deployment of residential BESS, helping reduce Long Island's near-exclusive reliance on fossil fuels and advancing key environmental justice objectives of the state. It could also serve as a model for the rest-of-state as New York considers strategies to advance grid flexibility.

Recommendations to Harness the Opportunity for VPP on Long Island

- Convene a Long Island VPP collaborative working group to bring together leaders from the utilities, state agencies, DER providers, aggregators, technology providers, and equipment manufacturers to develop a strategy to build out a large-scale VPP on Long Island.
- Implement the recommendations regarding PV and energy storage interconnection, incentives and compensation included in these comments.

Conclusion

NYSEIA strongly supports PSEG-LI's proposed investments which are outlined in the company's 2024 Utility 2.0 filing. NYSEIA urges PSEG-LI and LIPA to make additional cost-effective investments to accelerate distributed solar and energy storage deployment on Long Island. Scaling up distributed solar and storage on Long Island will provide immense benefits to Long Island residents and businesses in the form of lower electric bills, cleaner air and a stronger local economy. These benefits can, and should, accrue to Long Island's disadvantaged communities through thoughtful program design and investment in proven solutions to expand access to benefits, such as community solar. Thank you for the opportunity to provide input and we look forward to continuing to work collaboratively with PSEG-LI and LIPA to develop impactful policies and programs that enable a Long Island solar + storage renaissance.

https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/17550247