



March 15, 2024

Dear Long Island Power Authority,

On behalf of the New York Solar Energy Industries Association (NYSEIA), I am pleased to provide the following comments in response to Long Island Power Authority's (LIPA) 2023 Integrated Resource Plan (IRP).

Founded in 1994, NYSEIA is New York's only statewide trade association dedicated to expanding the adoption of distributed-scale solar and storage in New York State. Our 200+ member companies employ thousands of workers in the clean energy industry, including dozens of solar and energy storage providers that are based on Long Island and serve Long Island residents and businesses. NYSEIA is proud to help convene the Long Island Solar & Storage Alliance, a collective of Long Island solar and storage companies, advocates and institutions dedicated to strengthening Long Island's solar + storage market.

We appreciate the opportunity to provide feedback on LIPA's IRP, and look forward to continuing to work collaboratively with LIPA to make rapid and cost-effective progress toward the ambitious 2030, 2040 and 2050 Climate Leadership and Community Protection Act (CLCPA) goals.

Sincerely,

Noah Ginsburg
Executive Director
New York Solar Energy Industries Association

I. Introduction

LIPA's 2023 Integrated Resource Plan (IRP) outlines a plan to align the service territory's energy system with the Climate Leadership and Community Protection Act (CLCPA). The plan includes: significant additional renewable energy generation and energy storage capacity; transmission system investment; phasing out fossil fuel generation; and electrification, with dedicated programs to ensure affordability for low- and moderate-income (LMI) households. The IRP's key findings include the following:

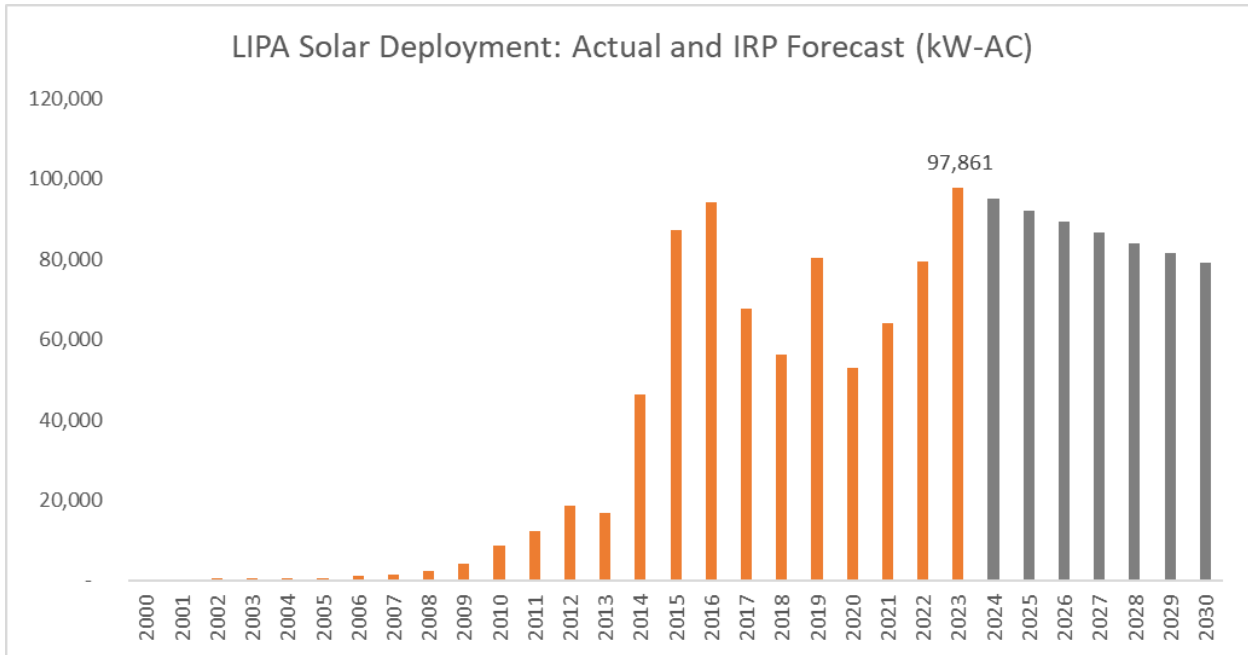
- Offshore wind and energy storage will allow LIPA to retire up to 800 MW of fossil fuel power plants by 2030;
- Energy efficiency, distributed solar + storage, and time-of-day rates designed to shift consumption patterns will offset electric load growth through 2030; and
- Significant load growth is anticipated beyond 2030 as the adoption of home electrification and electric vehicles accelerates.

New York Solar Energy Industries Association (NYSEIA) appreciates LIPA's commitment to achieving the CLCPA mandate of a 70% renewable electricity supply by 2030. LIPA's IRP relies heavily on offshore wind and assumes no near-term net load growth. NYSEIA recommends that LIPA adopt policies and programs to accelerate distributed solar + storage deployment, positioning Long Island to achieve 70% renewable by 2030 while preparing for the more ambitious 100% renewable by 2040 and fully decarbonized economy by 2050 requirements.

II. Load Growth Forecast and Reliance on Centralized Resources

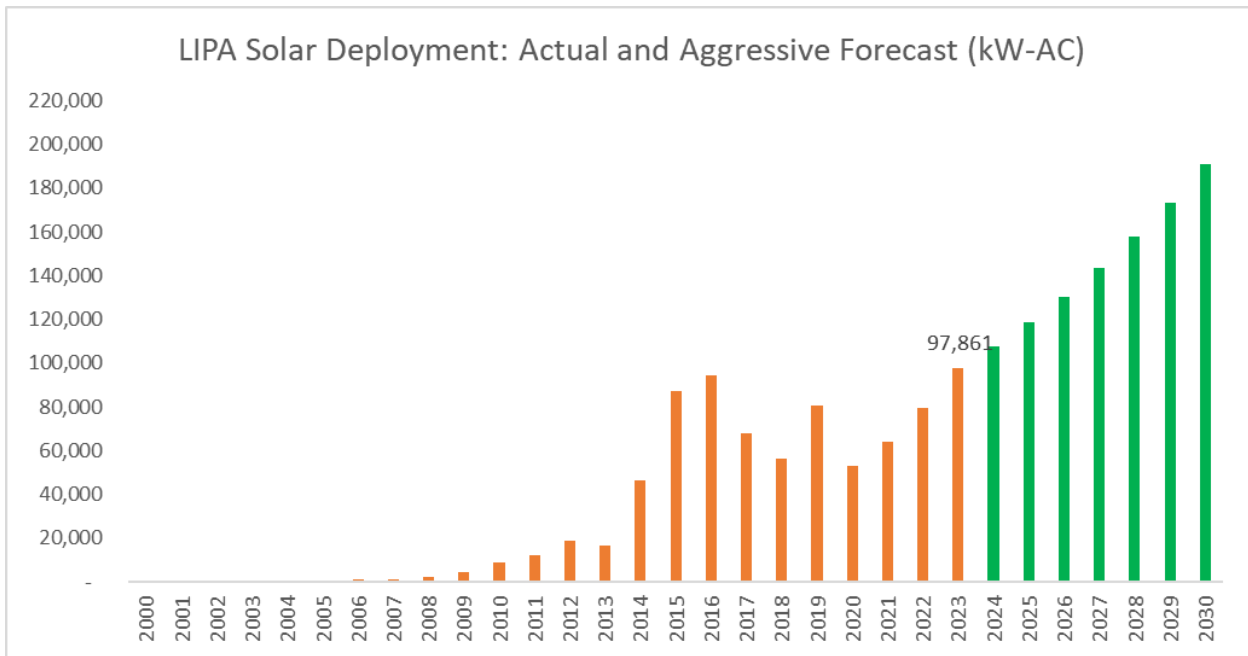
LIPA's IRP relies heavily on offshore wind with a limited hedge. NYSEIA appreciates the critical role of offshore wind in achieving New York's CLCPA goals, and congratulations LIPA and the State of New York for energizing America's first substantial offshore wind project just this week. However, over the last decade, offshore wind projects have faced significant challenges, including rising costs and implementation delays. Based on the IRP, LIPA's ability to retire polluting fossil fuel plants by 2030 hinges upon the success of a few large offshore wind projects. NYSEIA sincerely hopes these projects are successful and delivered on-time, but also recommends diversifying LIPA's zero-emissions resource mix by scaling up distributed solar + storage in parallel with Long Island's offshore wind buildout.

At the same time, LIPA's IRP assumes no net load growth through 2030, with energy efficiency and distributed solar + 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 + storage and energy efficiency. NYSEIA strongly supports the latter option. We appreciate LIPA's conceptual support for scaling up distributed solar to mitigate load growth. However, the IRP assumes that Long Island's total solar capacity will reach a mere 1.4 gigawatts by 2030. Annual solar deployment would actually need to decrease by at least 4% per year to reach this level.



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.

NYSEIA encourages LIPA to support an alternative scenario with strong near-term adoption of electrification and rapid deployment of distributed solar + storage. Programs that support a 10% annual growth rate to LIPA’s distributed solar capacity additions will result in approximately 1.8 gigawatts of distributed capacity, or 400 MW-AC more than the total solar capacity in LIPA’s 2023 IRP. 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. NYSEIA would welcome the opportunity to work with LIPA to build a distributed (“virtual”) power plant with this ambitious goal in mind.



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

III. Scaling Up Distributed Energy Resource Deployment

Scaling up distributed solar and storage deployment will provide immense benefits to Long Islanders. Long Island's solar industry employs thousands of local workers in both blue collar and white-collar professions across Nassau, Suffolk and Far Rockaway. Distributed solar + storage doesn't just deliver clean electrons and bill savings to participating homeowners, 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 “virtual power plant”, allowing LIPA to call on these resources as it would a traditional fossil fuel plant. Building out a robust virtual power plant on Long Island will allow LIPA to shutter some of its polluting generators earlier than it would otherwise be able to, providing significant environmental and public health benefits.

There are many policy options that can support a flourishing and growing distributed solar + storage market on Long Island, including several that were included in LIPA's 2023 IRP. NYSEIA is pleased to voice support for the proposed initiatives and to offer the following recommendations for consideration by LIPA.

Ensure that Long Islanders Can Benefit from Residential and Retail Energy Storage Incentives Outlined in New York's Energy Storage Roadmap.

NYSEIA supports LIPA's proposal to procure additional energy storage to reach up to 750 MW on Long Island. However, we think LIPA could go further. In December 2022, the New York State Energy Research and Development Authority (NYSERDA) filed a proposal to deploy 6 gigawatts of energy storage capacity by 2030. NYSERDA's plan included support for residential, retail and utility-scale (“bulk”) energy storage. NYSERDA proposes supporting the residential and retail energy storage market with capacity-based incentives and proposes supporting bulk storage with a performance-based incentive. Historically, LIPA customers have not always been able to access NYSERDA programs because LIPA customers do not pay the Systems Benefit Charge. However, NYSEIA appreciates that LIPA customers do pay into various clean energy programs through the Regional Greenhouse Gas Initiative and otherwise. LIPA and PSEG-LI also have a history of funding LIPA-specific energy efficiency and clean energy programs. NYSEIA strongly encourages LIPA to ensure that Long Islanders have equal access to robust energy storage incentive programs as their counterparts in the rest of the state.

NYSEIA appreciates that LIPA is offering an interim residential energy storage incentive even before the PSC adopts the Energy Storage Roadmap. Residential energy storage is a key driver of scaling DG in a way that benefits all ratepayers. The market is still in its early stages, with a few thousand systems deployed. Residential storage is an important multi-value resource, providing utility bill savings and resilience to the homeowner while offering LIPA a flexible, dispatchable distributed resource that can mitigate the need for expensive grid upgrades, especially as levels of deployment increase. NYSEIA encourages LIPA to support a much larger energy storage incentive program. In addition to allocating a larger overall budget for this important resource to support additional capacity, we recommend that LIPA increase the capacity-based incentives and/or update the Dynamic Load Management Program compensation for these resources to accelerate near-term deployment of residential energy storage.

Strengthen Dynamic Load Management (DLM) Programs and Partner with Aggregators to Launch New Virtual Power Plant Programs.

LIPA has a large and growing fleet of residential solar customers. However, energy storage attachment rates are still low, limiting these resources' effective load carrying capacity. Capacity-based incentives for energy storage will help defray the upfront cost for customers, but long-term revenue streams enabled by performance-based compensation will allow solar finance companies and aggregators to offer lower-cost energy storage options to customers, whose primary interest in energy storage may be resiliency. LIPA's recent updates to its existing Dynamic Load Management Tariff Programs are welcome improvements that increase the feasibility of behind-the-meter energy storage resources participating. However, NYSEIA encourages LIPA to strive to create DLM programs that accelerate storage deployment, attract aggregators, and encourage innovative business models, such as standalone storage, vehicle-to-grid and retrofitting existing PV systems with energy storage to provide homeowners resiliency and grid services. Continuing to improve upon LIPA's existing DLM programs, and setting performance-based incentives at adequate levels to encourage participation, will allow distributed storage deployment to accelerate rapidly in the near-term, leveraging customer and industry investment to construct flexible grid assets which will become increasingly valuable over time with electric load growth.

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 LIPA 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 service low- to moderate-income (LMI) subscribers. In LIPA territory, there are no capacity-based incentives available for community solar projects and low-income community solar projects are not able to access NYSEIDA's Inclusive Community Solar Adder. If capacity-based incentives are not feasible, LIPA could consider a performance-based incentive instead, with an enhanced Community Credit for community solar projects that commit to serving LMI subscribers.

Implement Time of Day (TOD) rates in 2024 and 2025.

NYSEIA has worked closely with LIPA to ensure that the transition to TOD rates is minimally disruptive to the solar industry and to ensure that the transition is beneficial for current and future solar customers. NYSEIA supports this effort, and appreciates LIPA's collaborative approach and commitment to ensuring that TOD rates are compatible with new and existing solar customers. One significant challenge with transitioning solar net metering customers to TOD rates is the accumulation of banked credits in peak or off-peak periods. NYSEIA appreciates LIPA's commitment to allowing customers to exchange credits between peak and off-peak periods with a fair conversion rate. NYSEIA recommends that LIPA automate the process of optimally allocating banked credits at the end of each month to increase customer savings and to limit the need for customers to take any proactive action in order to receive their solar savings. If a near-term rollout of automated credit optimization/allocation is not feasible, NYSEIA encourages LIPA to develop a process where the utility proactively identifies an accumulation of banked credits, notifies the customer and offers them a simple (one-click) option to approve reallocation of banked credits.

Increase hosting capacity by at least 700 MW for distributed energy resources (“DER”).

Hosting capacity is a growing constraint for cost-effectively interconnecting DERs across the state. LIPA’s IRP notes that 37% of LIPA’s existing feeders have less than 1 MW of hosting capacity. NYSEIA appreciates and supports LIPA’s plans to create additional hosting capacity through the deployment of a DER Management System (DERMS), proactive grid investments, smart-inverter settings, and considering real-time load and PV output when sizing feeders and rating their hosting capacity. NYSEIA appreciates that LIPA is pursuing federal funds to support many of the proposed grid investments to increase hosting capacity. If these funds are not awarded, NYSEIA still encourages LIPA to make these investments, which will enable DER deployment, enabling long-term cost savings.

Address Telecommunications Barriers to Commercial Solar Deployment.

Pursuant to LIPA’s Small Generator Interconnection Procedures, solar projects above 500 kW-AC require Supervisory Control Access and Data Acquisition (SCADA) Network connection or Direct Transfer Trip (DTT) installation. The sole provider of communications infrastructure for SCADA on Long Island is Verizon. Verizon’s process is not clearly defined, there is no dedicated point of contact at Verizon overseeing the process, and Verizon 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. The solar industry seeks LIPA’s assistance to engage Verizon and establish a streamlined process with reasonable timelines for Verizon to provide DERs with the necessary network connectivity.

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 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, 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 NYSEIA encourages LIPA to allow for the widespread use of meter socket adapters provided that the systems meet relevant safety standards.

IV. Conclusion

LIPA’s 2023 IRP outlines a strong plan to integrate new clean energy resources into the Long Island power grid by 2030. LIPA’s heavy reliance on offshore wind for its 2030 goals is not without risk; project delays and cost overruns could impact the feasibility of achieving the goal of generating 70% renewable electricity by 2030. Rapidly scaling up distributed solar + storage deployment can ensure that LIPA is able to make steady, cost-effective progress towards the 2030 goal while providing significant economic, environmental and public health benefits to Long Islanders. Long Island was once the strongest solar market in New York State, and our best days are not behind us. NYSEIA encourages LIPA to double down on distributed solar + storage, and looks forward to continuing to work collaboratively with LIPA to develop impactful policies and programs that enable a Long Island solar + storage renaissance.