



New York Distributed Solar + Storage Market Outlook

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Noah Ginsburg, Executive Director



Agenda

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New York Solar Energy Industries Association

www.nyseia.org

info@nyseia.org



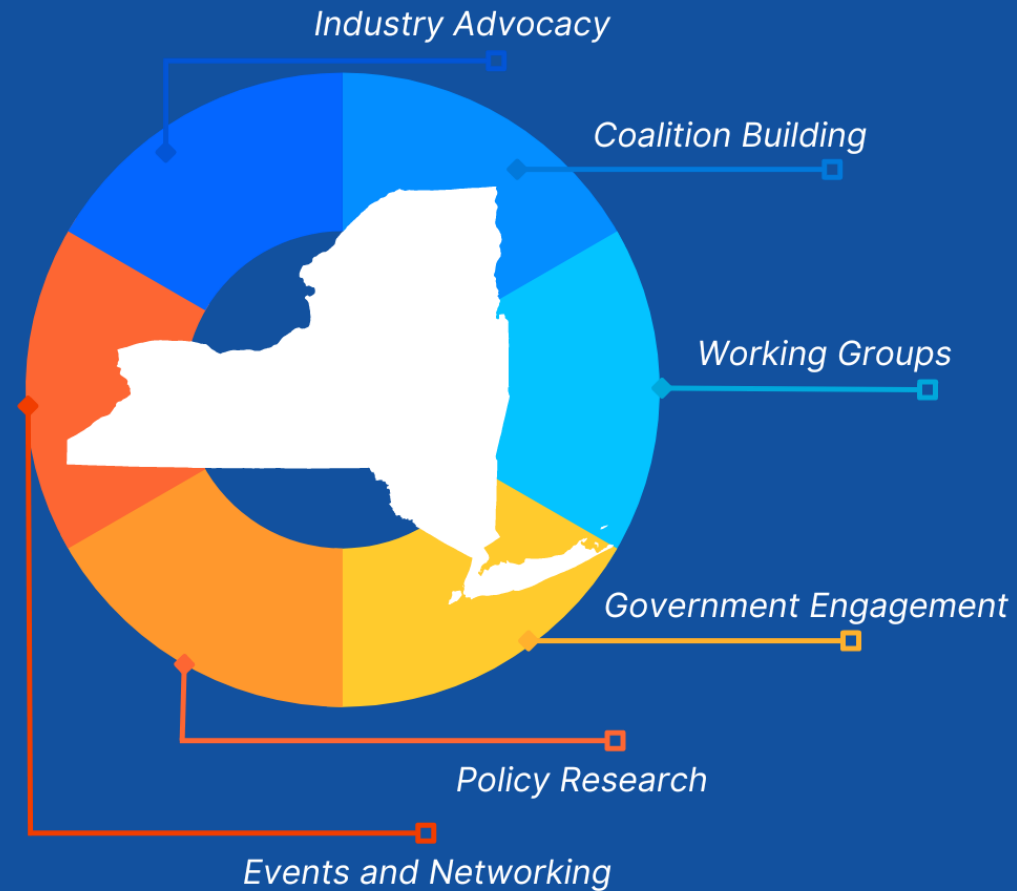
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About NYSEIA

ADVANCING SOLAR ENERGY FOR NEW YORK



New York Solar Energy Industries Association advocates for sustainable growth of solar energy across New York State. Join our trade association to accelerate the solar revolution.



<https://www.nyseia.org>

NY Distributed Solar + Storage Policy Framework

New York has a robust policy framework to support distributed solar + storage deployment.

New York has strong foundational policies, including: net metering for onsite solar; a Value of Distributed Energy Resources (VDER) tariff for exporting solar + storage projects; a standardized interconnection process; community solar and remote crediting framework; and NYSERDA's NY-Sun program which provides capacity-based incentives for diverse project types.

In 2019, New York's legislature enacted the Climate Leadership and Community Protection Act (CLCPA), climate legislation that requires New York to achieve the following outcomes:

- 70% renewable electricity supply by 2030
- 100% emissions free electricity supply by 2040
- 100% emissions free economy by 2050
- 35-40% of New York's clean energy benefits must accrue to disadvantaged communities

The CLCPA also codified a distributed solar goal of 6 gigawatts by 2025 and 3 gigawatts of energy storage by 2030.

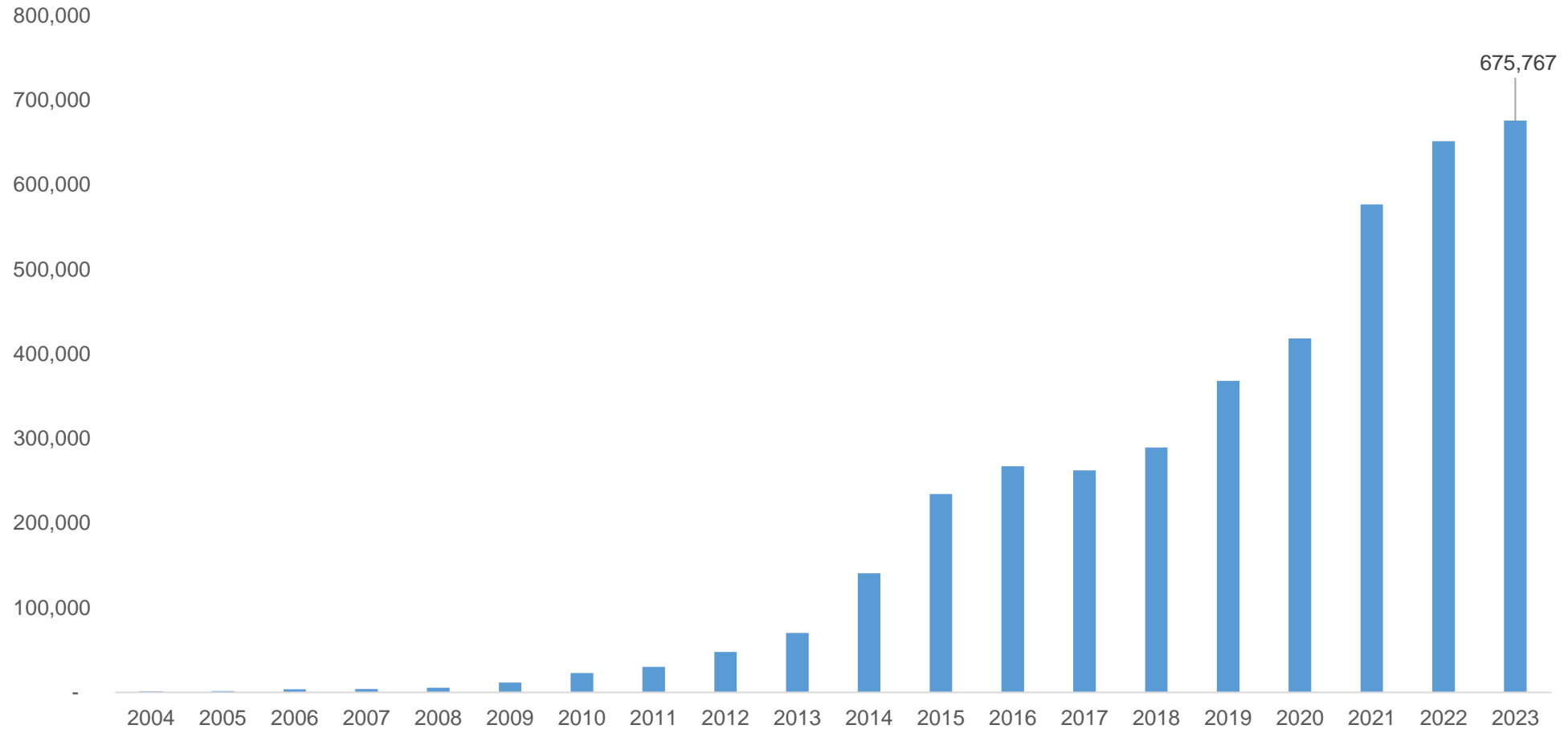
In 2021, Governor Hochul raised New York's distributed solar goal to 10 gigawatts by 2030.

In 2022, Governor Hochul announced a proposal to raise New York's storage goal to 6 gigawatts by 2030.

NY Distributed Solar Market: Statewide Statistics

New York deployed more distributed solar in 2023 than any prior year, nearly one gigawatt DC:

New York Annual Distributed Solar Deployment (kW-AC)

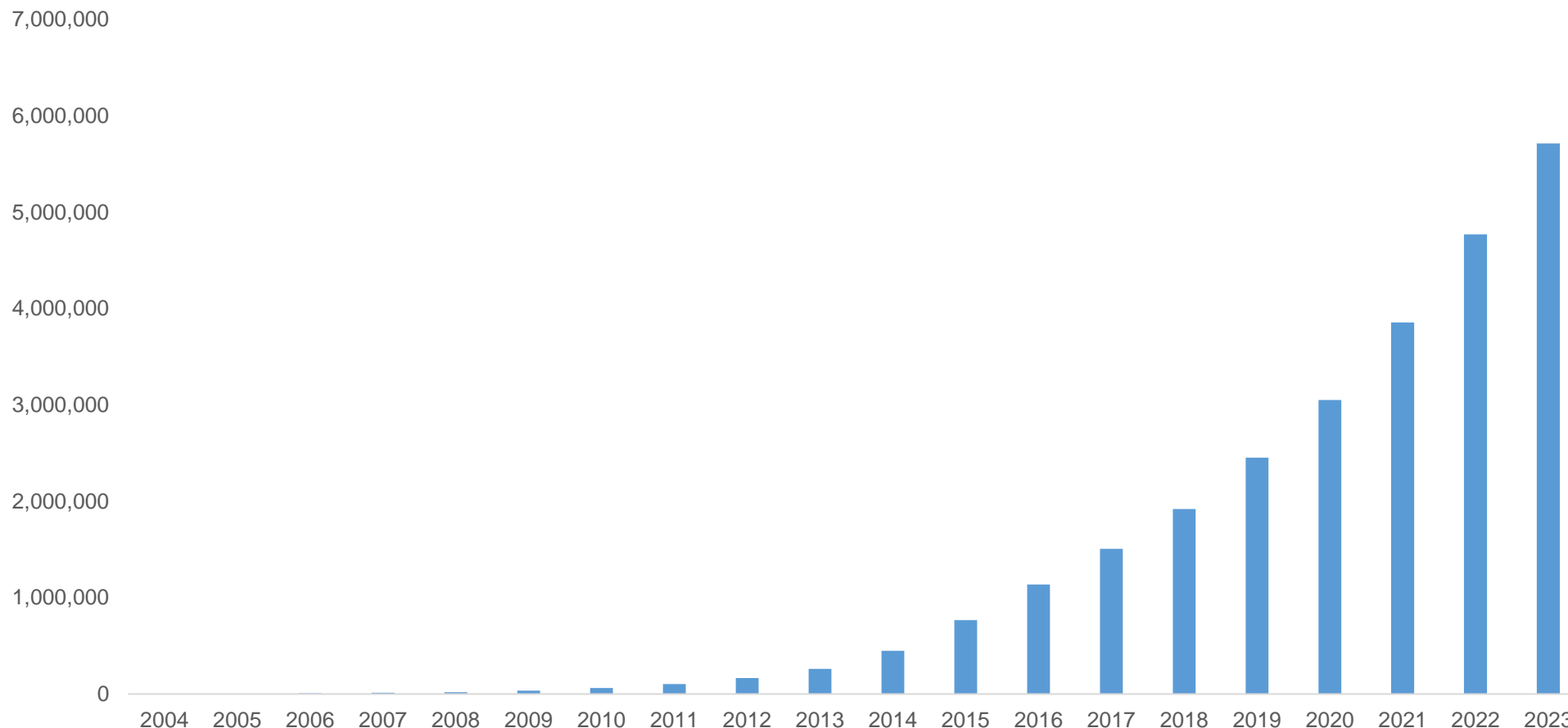


Data source: New York Department of Public Service. Distributed Generation SIR Inventory. February 2024.

NY Distributed Solar Market: Statewide Statistics

New York's cumulative installed distributed solar capacity is rapidly approaching six gigawatts ahead of schedule:

NY Cumulative Distributed Solar Deployment (kW-DC)*

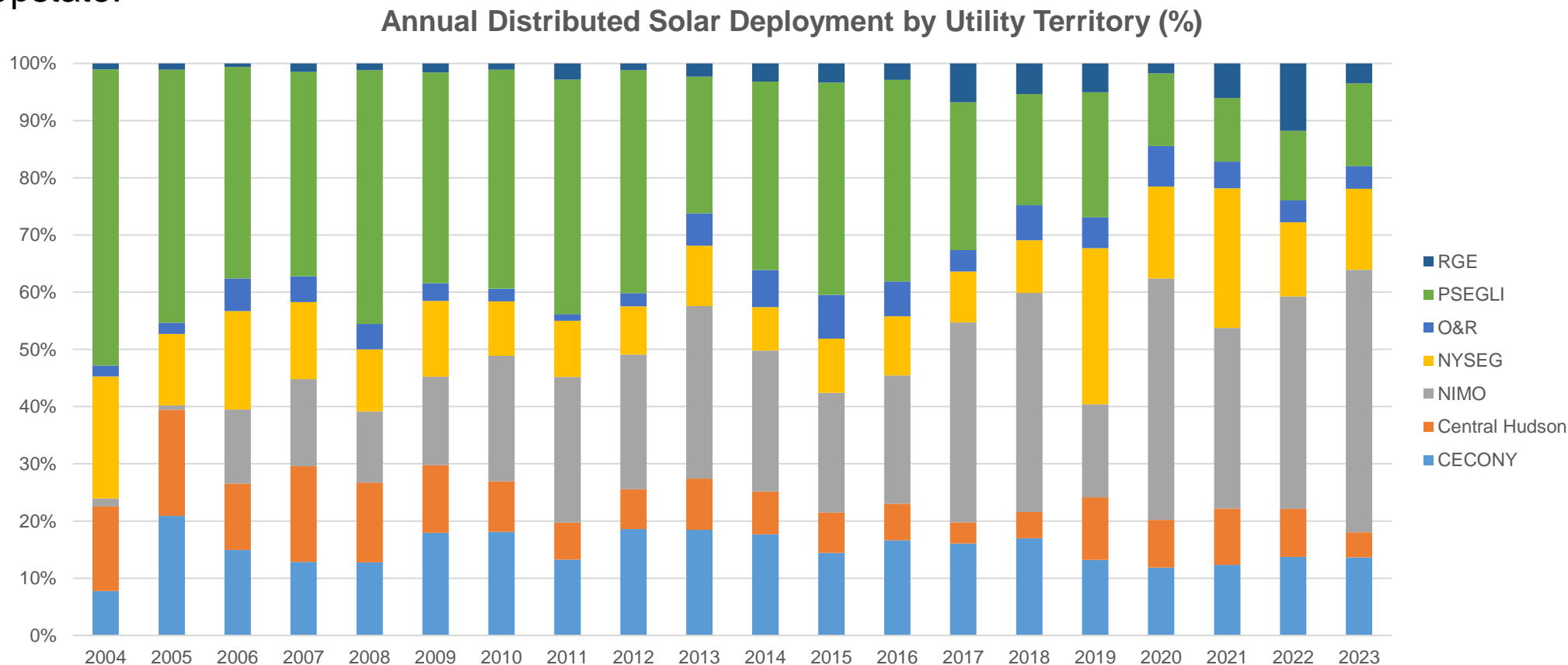


Data source: New York Department of Public Service. Distributed Generation SIR Inventory. February 2024.
*Source data is in kW-AC. NYSEIA estimated DC/AC ratio by year, ranging from 1.20 in 2004 to 1.40 in 2023



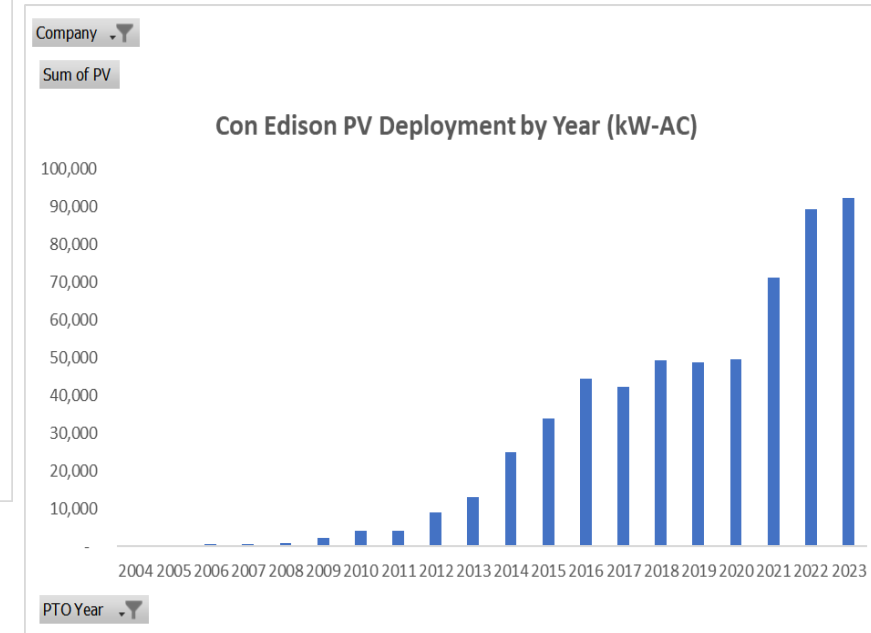
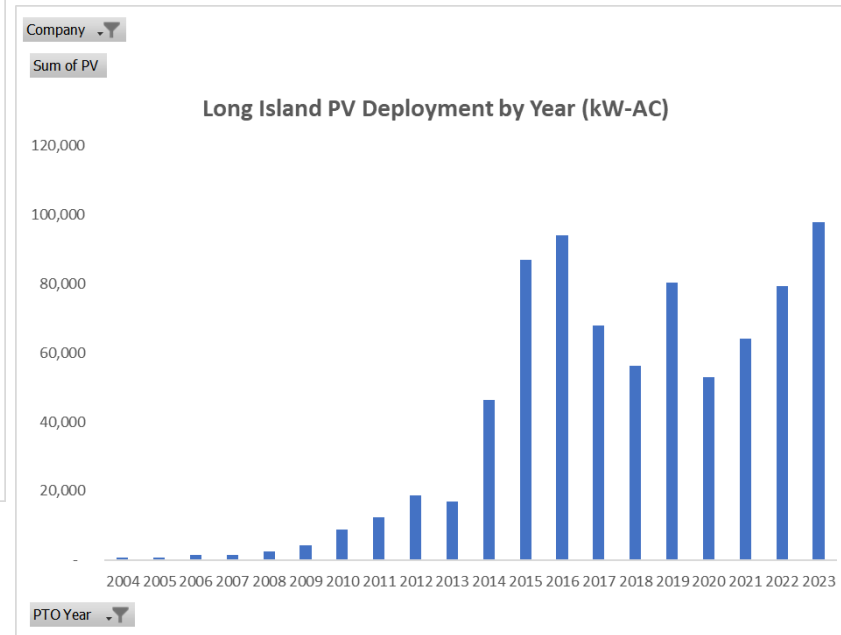
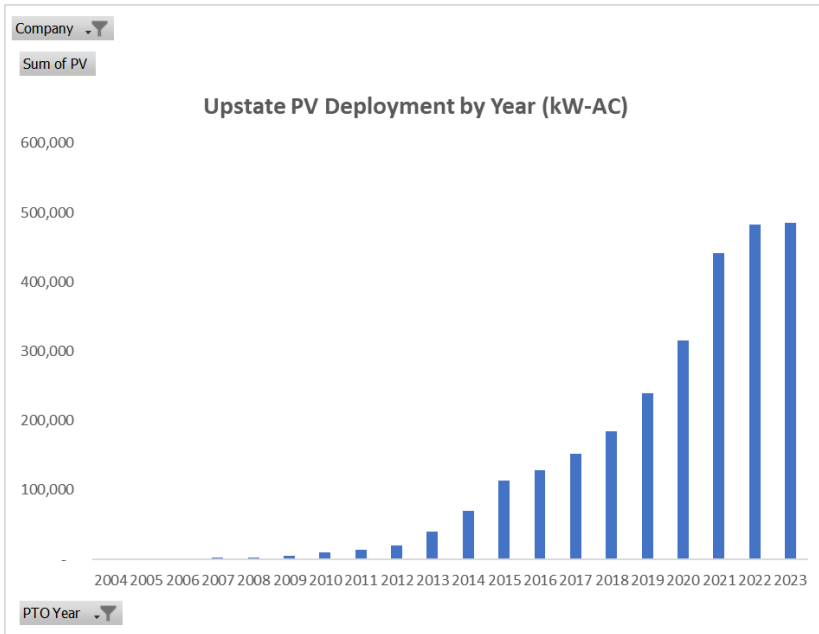
NY Distributed Solar Market: Regional Trends

Over the last decade, community solar deployment has accelerated significantly, supplanting rooftop solar as the primary contributor of solar capacity. This trend has resulted in a greater share of New York's solar capacity being installed Upstate:



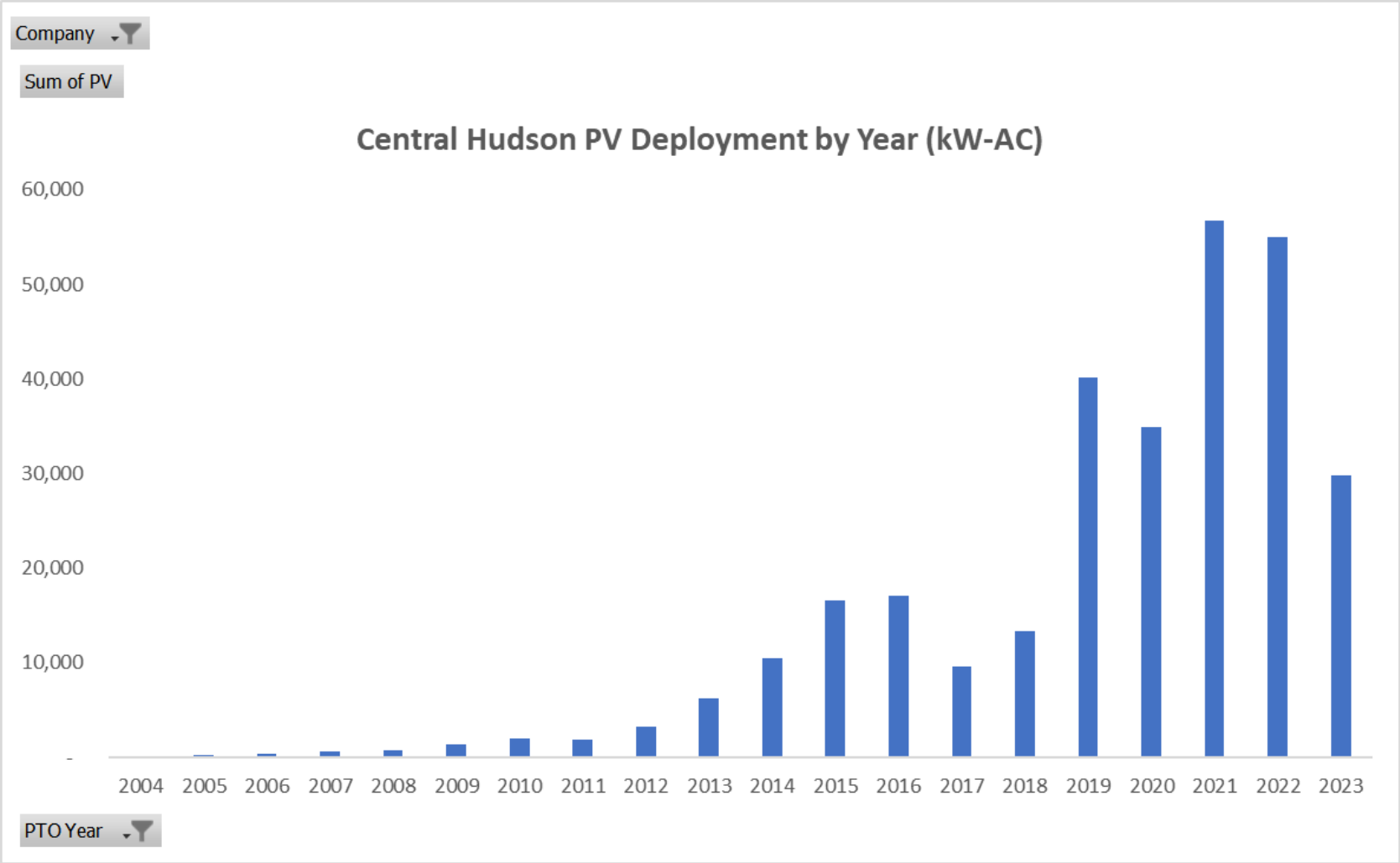
Data source: New York Department of Public Service. Distributed Generation SIR Inventory. February 2024.

NY Distributed Solar Market: Regional Trends



Data source: New York Department of Public Service. Distributed Generation SIR Inventory. February 2024.

Distributed Solar: Central Hudson



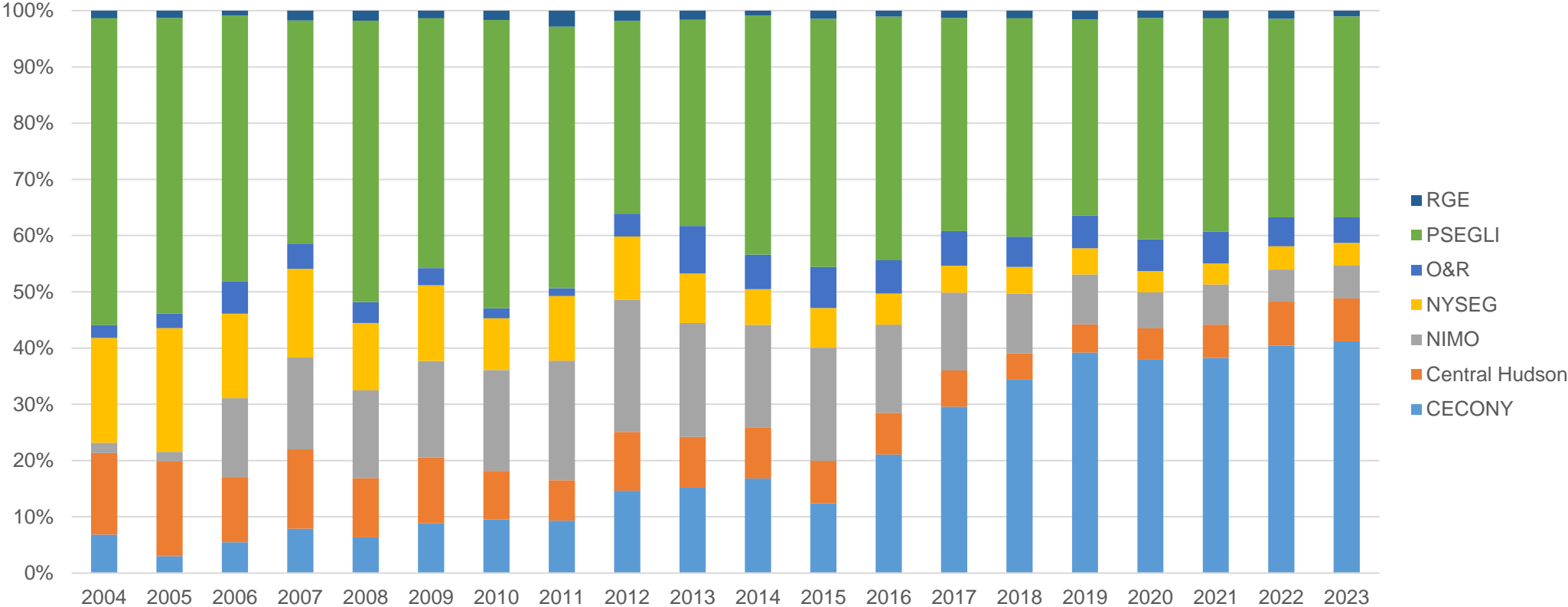
Data source: New York Department of Public Service. Distributed Generation SIR Inventory. February 2024.



NY Net Metered/Residential Solar Market Trends

In the early years, Long Island dominated the rooftop solar industry, followed by Upstate. NYC had limited solar adoption. Over the last decade, the Con Edison onsite solar market has expanded faster than any other region. In 2021, NYC/Westchester surpassed Long Island's rooftop solar market for the first time. The market share for rooftop solar in Con Edison territory continues to grow.

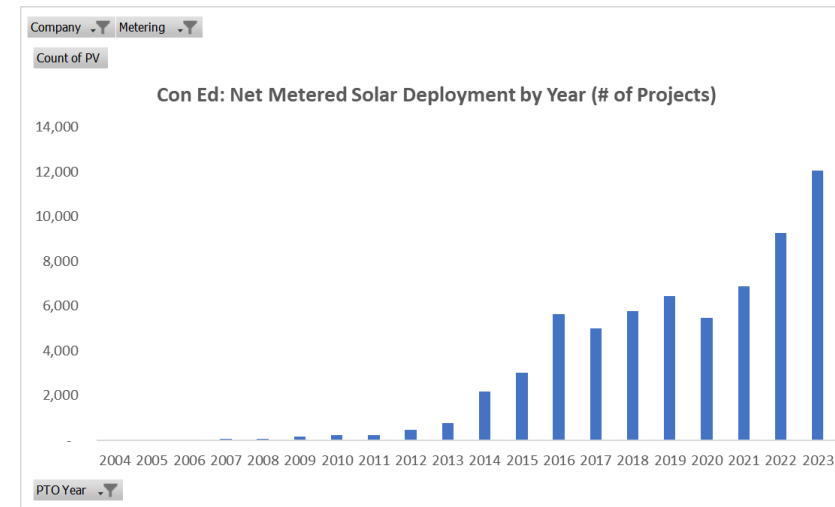
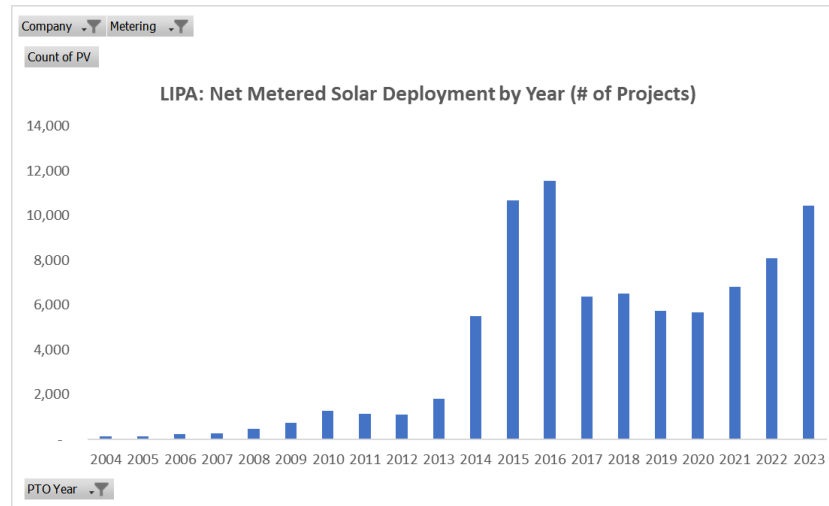
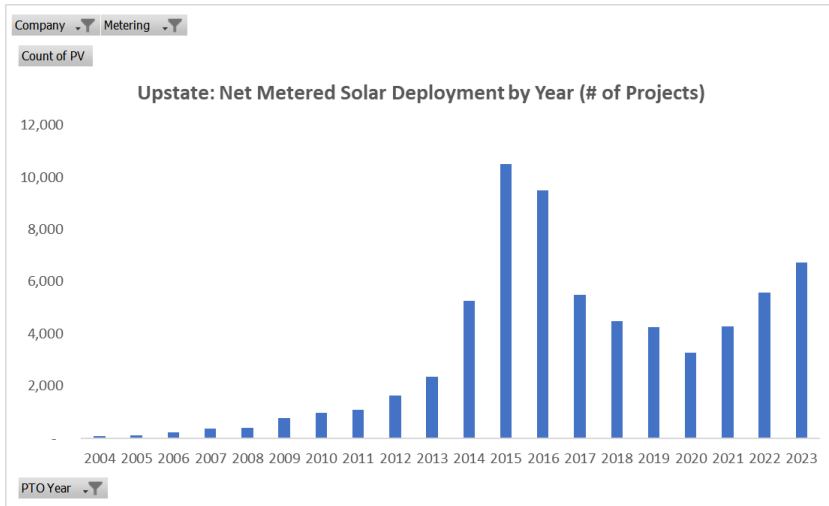
Net Metered Solar Projects by Utility



Data source: New York Department of Public Service. Distributed Generation SIR Inventory. February 2024.

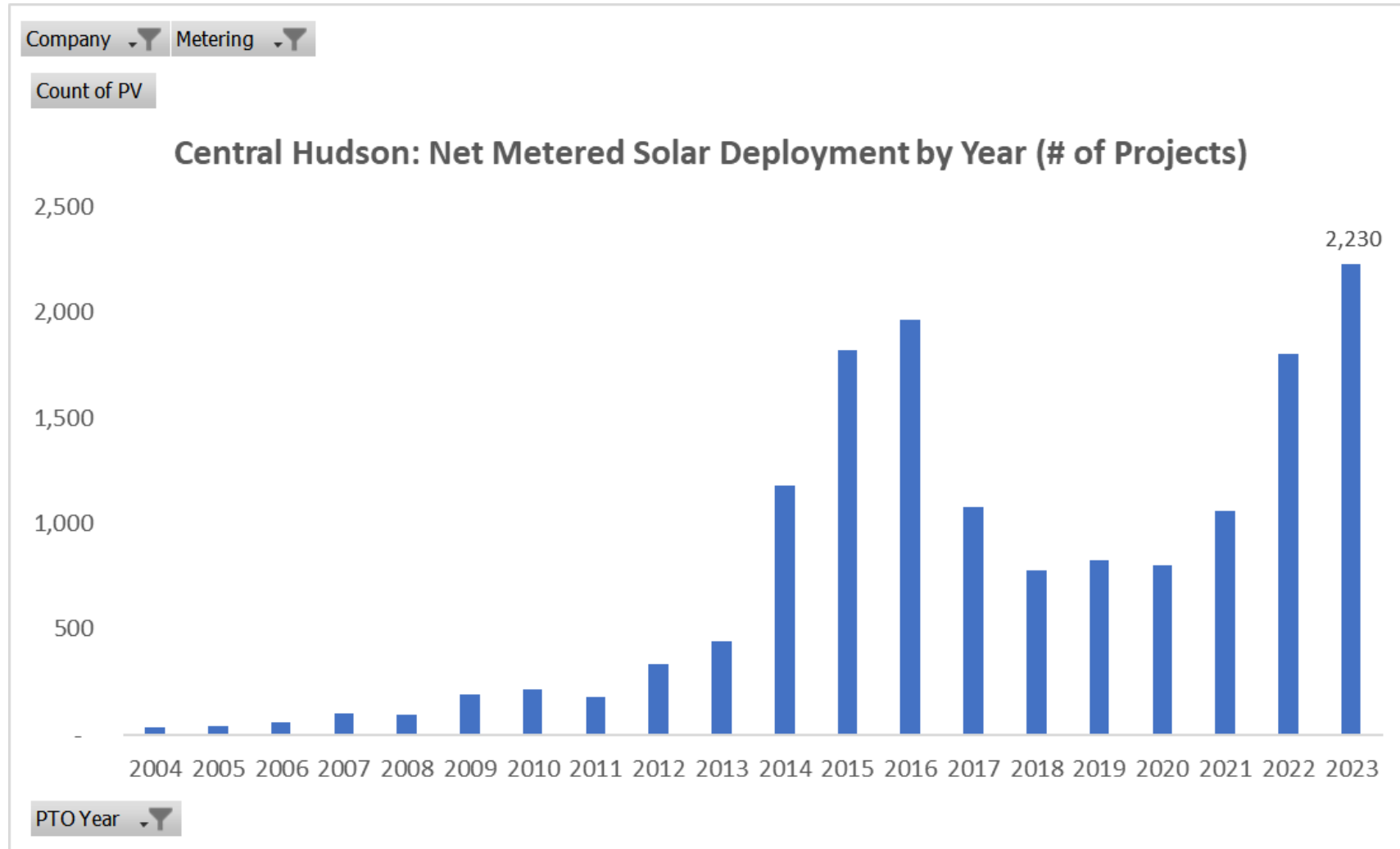


Net Metered Solar: Regional Trends



Data source: New York Department of Public Service. Distributed Generation SIR Inventory. February 2024.

Net Metered Solar: Central Hudson

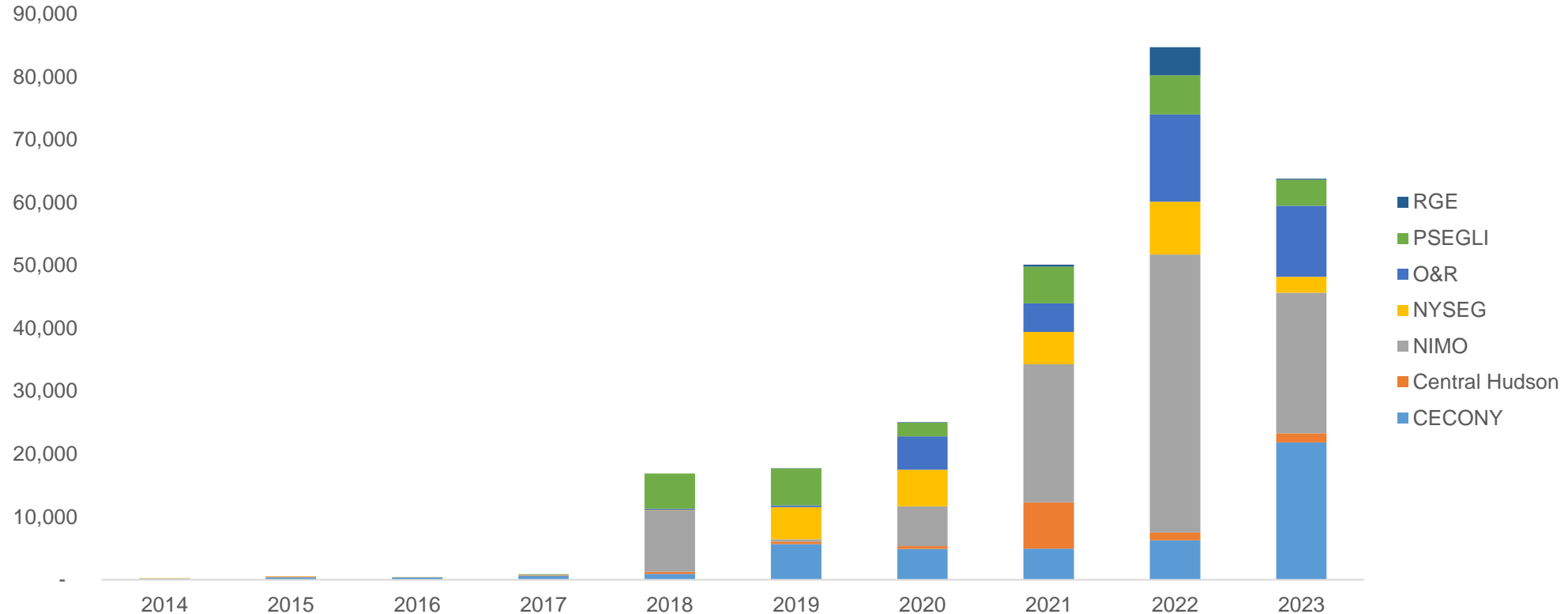


Data source: New York Department of Public Service. Distributed Generation SIR Inventory. February 2024.

NY Distributed Storage Market Trends

Distributed storage deployment is still in its early days in New York, but there is a growing pipeline of standalone energy storage projects in the interconnection queue, especially in Con Edison territory. New York's Energy Storage Safety Working Group is proactively developing recommendations to ensure the safe deployment of energy storage in NY. New York's solar + storage industry is eagerly awaiting the pending Energy Storage Roadmap Order, which will create incentives for bulk, retail and residential energy storage.

Annual Energy Storage Deployment (kW-AC)



Data source: New York Department of Public Service. Distributed Generation SIR Inventory. February 2024.

Deployment Trends are Impressive, but a Lagging Indicator

New York is a strong, maturing distributed solar market. 2023 was New York's best year yet in terms of distributed solar deployment; however, deployment is a lagging indicator (especially for community solar).

Key threats to the sustained growth of New York's distributed solar market include:

- **Rising installation costs** due to macro trends of inflation and higher interest rates;
- **Declining incentives** as NYSERDA's NY-Sun funding is exhausted;
- **Rising interconnection costs**, as "low-hanging fruit is picked" and multi-year/multimillion dollar substation upgrades are increasingly being required by New York's utilities; and
- **Permitting barriers**, as municipalities adopt restrictive local laws to prevent solar as a land-use.

New York can overcome these challenges with the right policy interventions.



NYSEIA 2024 Policy Priorities

Community Solar Siting Reform

Residential Solar Tax Credit Expansion

Interconnection Reform

CDG Billing & Crediting Improvements

Rate Design Improvements

NY-Sun ICSA Expansion and Statewide Solar for All

Storage Permitting and Incentives

Distributed Solar + Storage Industry Legislative Priorities

- **Residential Solar Tax Credit Modernization (S3596C/A6739B):** if enacted, this legislation will:
 - ✓ Raise the per household cap for the NY Solar Equipment Credit to \$10,000
 - ✓ Allow for the inclusion of energy storage equipment as eligible basis
 - ✓ Make the credit refundable for low-income households

- **Community Solar Siting Reform (A3579A/S8392):** if enacted, this legislation will:
 - ✓ Expand NYSERDA's municipal outreach, engagement and technical assistance
 - ✓ Make clean energy PILOTs revenue exempt from the property tax cap so host communities can grow their local tax base with clean energy projects
 - ✓ Create a state-level appeal process at the Office of Renewable Energy Siting (ORES) for distributed energy resources unreasonably burdened by local permitting



National Grid Petition for Declaratory Ruling

On December 22, 2023, National Grid filed a petition for a declaratory ruling regarding interconnection because of the utility's erroneous grid impact studies, and their subsequent delays and re-studies for 60 CDG projects in Western NY. In November, National Grid completed their re-studies and shared the results, which included incremental costs and additional upgrades (relay replacements) for 45 affected projects.

National Grid's petition seeks:

- a Commission ruling that affirms NY utilities' ability to impose uncapped retroactive scope and budget modifications to interconnection upgrades, even after the completion of a CESIR studies, the execution of interconnection agreements, and system installation.
- a waiver of certain SIR requirements for 45 of the 60 impacted projects in Western NY.

If the requested declaratory ruling is granted, it could have significant statewide implications. NYSEIA is responding to National Grid's petition before the March 25th comment deadline.



NYSERDA Post 10 GW Filing

On January 5, 2024, NYSERDA and DPS filed their proposal to the New York Public Service Commission for how to leverage funding allocated to the NY-Sun program in the 10 GW Order in April 2022 to support additional community solar capacity for low-income customers in New York State.

- NYSERDA's proposal outlines several scenarios, indicating that NYSERDA can support 557 MW to 1,254 MW of additional solar capacity using previously allocated funding, with the incremental capacity estimate varying (Table Below).

Scenario Number	Project Configuration	Customer Bill Discount	Upstate MW Funded	ConEd MW Funded	Statewide MW Funded
#1	100% ICSA	10%	670	94	784
#2	100% Statewide Solar For All	10%	1,102	132	1,254
#3	50%-50% ICSA/SSFA Split	10%	833	110	963
#4	100% ICSA	20%	456	81	557
#5	100% Statewide Solar For All	20%	621	108	750
#6	50%-50% ICSA/SSFA Split	20%	526	93	639

- NYSEIA will submit comments in response to this proposal. In addition to voicing overall support for stretching the funding to support additional low-income community solar capacity, NYSEIA will advocate for NYSERDA to allocate funding to maintain NY-Sun incentives for the Upstate residential market segment along with other minor program enhancements.

State of the State and Budget DG Policies

On Tuesday, January 9th, Governor Kathy Hochul delivered her annual State of the State address to a joint session of the New York State Legislature, and issued her executive budget on 1/16.

- **Overarching theme of the Governor's agenda:** making New York more affordable.
- The Governor announced two distributed solar + storage initiatives:
- **Launching Statewide Solar for All (SSFA), a utility administered opt-out low-income solar program**
- **Initiating a PSC proceeding to improve the interconnection process for distributed energy resources.** *The proceeding will consider "incentives, penalties, and other mechanisms for New York State utilities to facilitate faster and more efficient interconnection."*



New York Distributed Solar + Storage Market Outlook

Distributed solar is being deployed at a record pace. New York is ahead of schedule and under budget for Governor Hochul's 10 GW by 2030 goal.

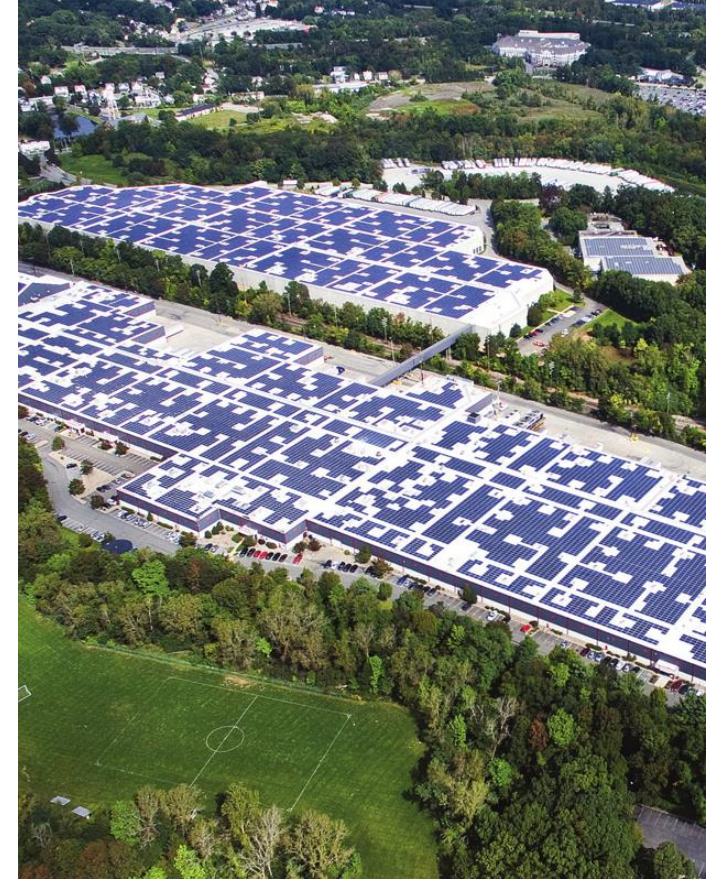
The rooftop solar market is going strong in the NYC region, and that will continue due to the recent extension/expansion of NYC solar + storage property tax abatement.

The Upstate community solar market is going strong, although project economics are tight since the Community Adder was exhausted in 2023.

Permitting barriers, rising interconnection costs, and declining incentives threaten near-term progress.

With smart policies to address these challenges, New York's distributed solar market will continue to outperform and help New York close the gap on its broader clean energy and equity goals.

New York's energy storage market is poised for an exciting chapter of growth. Industry appreciates the important work of the Inter-Agency Energy Storage Safety Working Group and eagerly awaits the Energy Storage Roadmap Order which will enable NYSERDA to launch incentive programs to drive that growth.



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