

Clean Energy Fund

Quarterly Performance Report
Through December 2025

Final Report | June 2026



NYSERDA
New York State Energy Research
and Development Authority

NYSERDA's Mission:

NYSERDA catalyzes New York's clean energy transition.

Our Vision:

Clean energy that supports a healthier and thriving future for all New Yorkers.

Our Promise to New Yorkers:

NYSERDA serves New York State as a trusted and credible resource for energy information, policies, and programs, through objective analysis and planning, innovative solutions, and impactful investments that are valued by New York residents and businesses.

NYSERDA Record of Revision

Document Title
Clean Energy Fund Quarterly Performance Report through December 31, 2025

Revision Date	Description of Changes	Revision on Page(s)
March 2, 2026	Original Issue	
March 31, 2026	A minor discrepancy in the indirect energy savings reported was discovered and has been corrected in this refiled report to ensure consistency with the CEF Annual Report. Energy savings figures in Table 4 under <i>Indirect Benefits Evaluated in Current Reporting</i> has increased ~2%, along with the associated Total column and associated energy savings in narrative updated. No other information in the report or the data scorecard is impacted.	2,12
June 1, 2026	During the March 31 refiling update, part of section 1.0 was inadvertently removed from the report. This accidental omission has been corrected, restoring Table 1 as originally reported.	4

Clean Energy Fund Quarterly Performance Report through December 31, 2025

Final Report

Prepared by:

New York State Energy Research and Development Authority

Albany, NY

About The Clean Energy Fund and This Report

The Clean Energy Fund (CEF), approved by the Public Service Commission (PSC) Order on January 21, 2016¹ and later modified on September 9, 2021,² was established as a commitment to clean energy and efficiency measures, recognizing that deploying programs at scale has potential to address the pressing environmental and energy challenges, while providing enormous economic opportunity for New York State. The CEF supports New York State’s advancement of clean energy and climate goals along with a more affordable and resilient energy system. Energy efficiency is a cornerstone of the State’s strategy to promote clean energy solutions for consumers while addressing climate change. The New Efficiency New York recommendations, as advanced in the white paper, issued by the Department of Public Service (DPS) and New York State Energy Research and Development Authority (NYSERDA or the Authority) on April 26, 2018, and as adopted by the Public Service Commission in its December 13, 2019 order, establishes a new 2025 energy efficiency target of 185 trillion British thermal units (TBtu) of cumulative annual site energy savings.³ The Climate Leadership and Community Protection Act (Climate Act), signed July 2019 and effective January 1, 2020, adopted this energy efficiency target, which puts the State on a path to complete carbon-neutrality across all sectors of the economy, including power generation, transportation, buildings, industry, and agriculture. In April 2022, the PSC approved an expansion to the NY-Sun program to further support efforts meeting the State’s clean electricity goals. The Climate Act mandates the following:

- 85% Reduction in GHG Emissions by 2050
- 100% Zero-emission Electricity by 2040
- 70% Renewable Energy by 2030
- 9,000 MW of Offshore Wind by 2035
- 3,000 MW of Energy Storage by 2030⁴
- 6,000 MW of Solar by 2025 and 10,000 MW of Solar by 2030
- 22 million tons of carbon reduction through Energy Efficiency and Electrification
- Minimum 35 percent of the benefits of clean energy investments are directed to disadvantaged communities

Through the CEF and its other portfolios, NYSERDA works to foster the transformation of markets, pushing them to accurately value clean energy, energy efficiency, and resiliency, while encouraging competition and innovation that delivers value to consumers.

The CEF is comprised of four distinct portfolios (CEF Portfolio):

- Market Development (MD)
- Innovation & Research (IR)
- NY-Sun
- NY Green Bank

This report provides a collective view of progress for all four portfolios against CEF targets (Figures 1 and 2) and further details quarterly and cumulative activity for the MD and IR portfolios through September 30, 2025 (Figure 3). The September 9, 2021, PSC Order requires quarterly reporting for the MD and IR portfolios which continue to include the following:

- Progress toward cumulative and annually-prorated incremental targets and budgets.
- Progress toward the CEF's contribution to New Efficiency: New York (NE:NY) targets.
- A performance summary discussion of key CEF initiatives.
- A summary of acquired benefits and projected benefits committed, compared to investment plan projections.

To meet these reporting requirements, this report document is accompanied by a scorecard (spreadsheet) that contains all plan and progress information related to CEF activity, also filed quarterly. This New York State Energy Research and Development Authority (NYSERDA) scorecard is consolidated with each State utility scorecard to publish data on [Open NY](#), where it is available to all stakeholders. Finally, the publishing of these data sets coincides with a similar update to the [Clean Energy Dashboard \(CED\)](#), an interactive and dynamic tool first published in 2019 to improve accessibility and transparency of ratepayer-funded clean energy program reporting statewide.

NY-Sun reports progress quarterly within the NYSERDA scorecard and CED and is summarized in section 3 of this report. Quarterly reporting for NY Green Bank is similarly provided within NYSERDA's quarterly scorecard and the CED, but also within a separately filed report.⁵

Table of Contents

NYSERDA Record of Revision	i
About The Clean Energy Fund and This Report	i
Table of Contents	iii
List of Figures	iii
List of Tables	iv
1 Clean Energy Fund Performance Overview	1
1.0 Progress Toward Aggregate Clean Energy Fund Goals	1
2 Market Development and Innovation & Research Performance	5
2.0 Top Energy Impact Initiative Performance Summary	6
2.1 Quarterly Benefits Progress Versus Plan	11
2.2 Quarterly Budgets Progress Versus Plan	13
3 NY-Sun Performance	17
3.0 Quarterly Benefits Progress	18
3.1 Quarterly Budgets Progress	21
4 Evaluation, Measurement, and Verification Summary	23
4.0 Clean Energy Communities Market Evaluation (2019-2023)	24
4.1 Clean Energy Communities Impact Evaluation (2019-2023).....	26
4.2 Dandelion Ground Source Heat Pump Case Study (2025)	28
4.3 Dr. Max Zhang Environmental Research Case Study (2025).....	29
4.4 Orange & Rockland Grid Modernization Case Study (2025).....	30
4.5 Gradient Window Heat Pump Case Study	31
Endnotes	EN-1

List of Figures

Figure 1. Clean Energy Fund Portfolio Expected Investment Versus Targets	1
Figure 2. Clean Energy Fund Portfolio Expected Benefits versus Targets.....	2
Figure 3. Market Development/Innovation & Research Progress and Performance	6

List of Tables

Table 1. Other Anticipated Benefits through 2025 and 2030	4
Table 2. Performance Summary for Market Development’s Top Energy Impact Initiatives	7
Table 3. Market Development and Innovation & Research Portfolio—Annual Direct Benefits	11
Table 4. Market Development and Innovation & Research Portfolio—Annual Indirect Benefits	12
Table 5. Market Development Initiatives by Focus Area—Budgets and Spending	13
Table 6. Innovation & Research Initiatives by Focus Area—Budgets and Spending	16
Table 7. NY-Sun—Installed Capacity and Production (NY-Sun Only)	18
Table 8. NY-Sun—Installed Capacity and Production (NY-Sun SEEF Only)	19
Table 9. All Other Solar—Installed Capacity and Production Beyond NY-Sun	20
Table 10. NY-Sun—Budgets and Spending	21
Table 11. NY-Sun—Solar Energy Equity Framework (SEEF) Spending Details	22
Table 12. Non-CEF NYSERDA Solar Spending	22
Table 13. Evaluations Completed Q4 2025	23

1 Clean Energy Fund Performance Overview

1.0 Progress Toward Aggregate Clean Energy Fund Goals

Figures 1 and 2 present a comprehensive picture of progress against the CEF authorized budget and associated benefit targets reflecting all four CEF Portfolios (MD, IR, NY-Sun, and NY Green Bank). Progress shown against each key performance metric represents results through December 31, 2025, and nets out overlap across portfolios where it is known to occur. Market Development and Innovation & Research plans depicted throughout this report reflect the November 21, 2025 Compiled Investment Plan (CIP) while NY-Sun plans reflect the July 16, 2025 Operating Plan.

Figure 1 captures the status of CEF funding while Figure 2 depicts progress of the combined portfolios against the latest CEF ordered benefit targets. Figures 1 and 2 should be viewed together to properly relate investments to results. In each of these visuals, combining what has been expended/acquired with encumbered/committed results demonstrates NYSERDA's total progress toward CEF targets, while adding in the remaining expected (planned) values serves to illustrate the full potential in NYSERDA's programmed portfolios. Funding for both Market Development and Innovation & Research portfolios could be contracted through December 31, 2025, and as of the filing of this report has now concluded.

Figure 1. Clean Energy Fund Portfolio Expected Investment Versus Targets

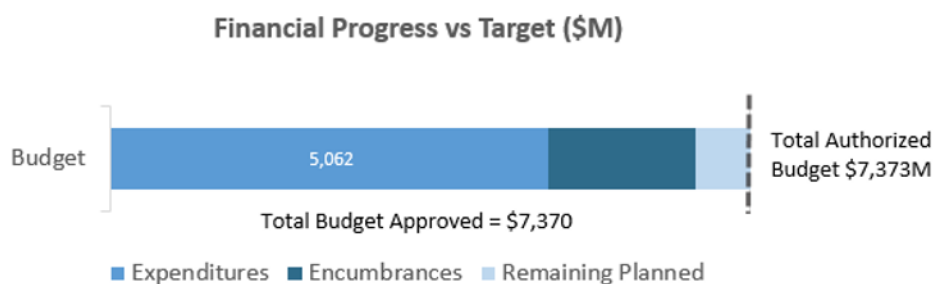


Figure 1 Supporting Data		Total Authorized Budget	Budget Approved Current Total	Budget Approved % of Authorized	Expended Funds Current Total	Expended Funds % of Authorized	Encumbered Funds Current Total	Encumbered Funds % of Authorized	Remaining Planned Total Balance	Remaining Planned % of Authorized	Funding Not Yet Approved
Market Development (MD)	Program Funds	\$ 2,399.7 M	\$ 2,370.9 M	100%	\$ 1,691.5 M	71%	\$ 664.7 M	28%	\$ 14.6 M	1%	\$ 0.9 M
	NYS Cost Recovery Fee		\$ 28.0 M		\$ 19.8 M		\$ 0.0 M		\$ 8.2 M		
Innovation & Research (IR)	Program Funds	\$ 631.7 M	\$ 623.0 M	100%	\$ 387.6 M	62%	\$ 222.2 M	35%	\$ 13.2 M	3%	\$ 1.9 M
	NYS Cost Recovery Fee		\$ 6.8 M		\$ 4.0 M		\$ 0.0 M		\$ 2.8 M		
MD and IR combined	Administration	\$ 274.4 M	\$ 274.4 M	100%	\$ 245.4 M	89%	\$ 0.0 M	0%	\$ 29.0 M	11%	\$ 0.0 M
	Evaluation	\$ 124.2 M	\$ 124.2 M	100%	\$ 58.5 M	47%	\$ 48.0 M	39%	\$ 17.7 M	14%	\$ 0.0 M
	MD and IR Total	\$ 3,430.0 M	\$ 3,427.2 M	100%	\$ 2,406.8 M	70%	\$ 934.9 M	27%	\$ 85.5 M	2%	\$ 2.8 M
NY-Sun	Program Funds	\$ 2,904.8 M	\$ 2,904.8 M	100%	\$ 1,658.0 M	57%	\$ 773.1 M	27%	\$ 473.7 M	16%	\$ 0.0 M
	NYS Cost Recovery Fee	\$ 28.8 M	\$ 28.8 M	100%	\$ 15.1 M	53%	\$ 0.0 M	0%	\$ 13.7 M	47%	\$ 0.0 M
	Administration	\$ 58.8 M	\$ 58.8 M	100%	\$ 32.1 M	55%	\$ 0.1 M	0%	\$ 26.6 M	45%	\$ 0.0 M
	Evaluation	\$ 3.5 M	\$ 3.5 M	100%	\$ 1.8 M	52%	\$ 0.2 M	6%	\$ 1.5 M	42%	\$ 0.0 M
	NY-Sun Total	\$ 2,995.8 M	\$ 2,995.8 M	100%	\$ 1,707.0 M	57%	\$ 773.4 M	26%	\$ 515.5 M	17%	\$ 0.0 M
NY Green Bank	Total	\$ 947.1 M	\$ 947.1 M	100%	\$ 947.1 M	100%	\$ 0.0 M	-	\$ 0.0 M	-	-
CEF Total		\$ 7,372.9 M	\$ 7,370.2 M	100%	\$ 5,060.9 M	69%	\$ 1,708.3 M	23%	\$ 600.9 M	8%	\$ 2.8 M

- Authorized Funding per Order: Approving Clean Energy Fund Modifications, issued and effective September 9, 2021, and inclusive of the approved 10 GW Distributed Solar Roadmap in April 2022, and later revision to NY-Sun funding and distributed solar Target issued April, 2025.

- NY-Sun totals shown here exclude \$407 million in non-CEF NYSERDA funded solar project expenditures (see Table 12).

The summary of benefit progress reflects evaluated totals, incorporating verified gross acquired savings where evaluations have been completed, and reflects gross savings values elsewhere. Through Q4 2025, measurement and verification activities have resulted in an adjustment to direct gross total energy savings by approximately -2.0 TBtu. Indirect benefits from market transformation are included in acquired totals where they have been quantified through evaluation, now adding approximately 8.5 TBtu total energy savings. Conservative estimates of indirect benefits are also included in the remaining plans generally reflecting 50 percent of the anticipated achievement as is consistent with other plan filings that account for uncertainty in timing and potential overlap across the portfolio that has yet to be fully evaluated.

Figure 2. Clean Energy Fund Portfolio Expected Benefits versus Targets

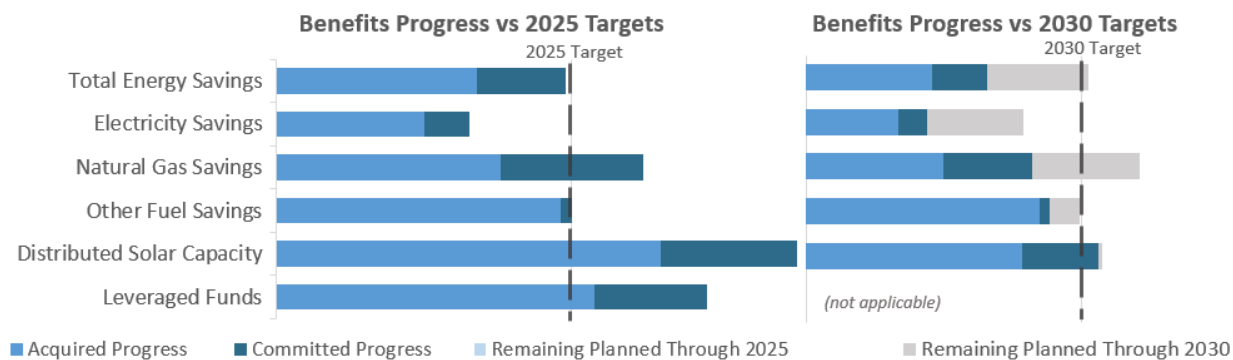


Figure 2 Supporting Data	Acquired Progress	Committed Progress	Remaining Planned Through 2025	Total Expected Through 2025	2025 Order Target	Remaining Planned Through 2030	Total Expected Through 2030	2030 Order Target
Total Energy Savings (MMBtu equivalent, millions)	35.7	16.0	-	46.5	53.0	28.9	80.9	79.0
Electricity Savings (MWh, millions)	3.3	1.0	-	4.4	6.7	3.5	7.9	10.0
Natural Gas Savings (MMBtu, millions)	18.9	12.2	-	25.8	25.0	14.9	46.1	38.0
Other Fuels Savings (MMBtu, millions)	14.4	0.6	-	14.3	15.0	1.9	16.9	17.0
Distributed Solar Capacity (Renewable MW)	7,841	2,773	-	10,614	6,000	163	10,777	10,500
Leveraged Funds (\$ millions)	\$21,578	\$7,687	-	\$29,266	\$20,000	-	\$29,266	n/a

Benefits Metrics Progress as Percent of Totals	Acquired + Committed (values summed from above)	Acquired + Committed as a Percentage of Total Expected Through 2025	Acquired + Committed as a Percentage of 2025 Order Target	Acquired + Committed as a Percentage of Total Expected Through 2030	Acquired + Committed as a Percentage of 2030 Order Target
Total Energy Savings (MMBtu equivalent, millions)	52.0	112%	98%	64%	66%
Electricity Savings (MWh, millions)	4.4	100%	66%	56%	44%
Natural Gas Savings (MMBtu, millions)	31.2	121%	125%	68%	82%
Other Fuels Savings (MMBtu, millions)	15.1	106%	100%	89%	89%
Distributed Solar Capacity (Renewable MW)	10,614	100%	177%	98%	106%
Leveraged Funds (\$ millions)	\$29,266	100%	146%	100%	n/a

- Energy savings values are annual; Total Energy Savings measures the combined Electricity and Fuel savings net of usage; therefore, values will not sum to the total of individual electric and fuel savings values.
- CEF initiatives not dedicated to building energy efficiency (Electric Vehicles - Rebate, Combined Heat and Power, and Fuel Cells) have been excluded from progress and plans toward the first four energy saving targets shown above.
- Overlap where it is known or perceived to exist between portfolios has been removed from progress reported.
- Distributed Solar Capacity includes 1,782 MW of non-NYSERDA installations taken from the Statewide Solar Projects dashboard, which is populated with data from utility interconnection inventories. This data set includes all distributed solar interconnected in NYS, including hundreds of MWs which did not receive NYSEERDA funding. Committed project data is maintained by NYSEERDA independently of interconnection data. Since the two data sets define project completion date

differently, some projects reported as committed may also be included as acquired under the “Non-NYSERDA Statewide Installations” (interconnection balance) figure. As the pipeline of NYSERDA commitments are drawn down over time (projects are considered acquired in both data sources), this overlap will be systematically eliminated.

- Distributed Solar 2030 Order Target updated to reflect April 2025 DPS Order.
- Leveraged Funds progress here includes non-CEF NYSERDA funded solar projects of \$2,072 million acquired and \$124 million committed, consistent with overall reporting toward CEF distributed solar targets which include all solar statewide.
- Leveraged Funds Total Expected benefit values do not currently include any anticipated indirect impacts.
- Neither Distributed Solar or Leveraged Funds Total Expected Through 2025 and 2030 values include forward-looking estimates from NY Sun or NY Green Bank portfolios at this time.
- Benefits metrics that have not been given 2030 Targets in the Order are shown as “not applicable.”

As Figures 1 and 2 illustrate, NYSERDA has made significant progress positioning the collective portfolios to achieve the CEF Order Targets on both 2025 and 2030 timelines. An explanation of progress and the current portfolio mix is as follows:

- Now at the conclusion of the ten-year CEF commitment timeline, every metric except for electricity savings is near or above a linear measure of progress when comparing the total committed benefits through the current quarter, and this progress will be bolstered as more evaluation studies enable reporting of indirect impacts from the CEF.
- Acquired Total Energy Savings (MMBtu equivalent) through 2025 continue to show the effects of current clean energy and broader market challenges (supply chain disruptions, skilled labor availability, increased construction costs) however the outlook for impact anticipated through 2030 remains positive, with Targets achievable through the combination of direct benefits related to projects and indirect market impacts influenced by programs broadly.
- Electricity savings are being delivered more slowly than fuel savings as illustrated by the Figure 2 visual, but the strong foundation of fuel-related projects, of which significant savings are already considered acquired in the portfolio, is boosting the near-term 2025 view and firming up the overall potential for 2030 achievement.
- Renewable energy capacity MW surpassed the 6GW 2025 target in Q3 2024 and the portfolio is well positioned to achieve the expanded 2030 target of 10.5 GW.
- Leveraged funding acquired and committed progress is outpacing other metrics due to strong NY-Sun and Innovation & Research returns, still reflecting significant gains this quarter as a result of reporting follow-on funding for a large number of innovation projects for the first time in Q4 last year, as well as significant investment in a company supported through the Long Duration Energy Storage initiative.

The September 2021 CEF Order included a target regarding equity for disadvantaged communities (DACs), specifically that a minimum of 35 percent of the benefits of CEF investments would accrue to disadvantaged communities. In April 2025, NYSERDA filed the third installment of this Disadvantaged Communities Report focused on ratepayer funded programs, which included place-based investments and benefits across the Clean Energy Fund portfolio, covering years 2020–2024. Data through 2025 will be filed with the Public Service Commission by March 15, 2026.

Additionally, NYSERDA is required to track and report other reference metrics outlined in Appendix C of the CEF Order and monitors other impacts as well. Carbon emissions reductions and bill saving metrics are presented in Table 1 below for the combined CEF portfolios. Outdoor air quality improvements from fuel savings include reductions in particulate matter (PM 2.5), nitrogen oxides (NOx), sulfur dioxide (SO₂), ammonia (NH₃), and volatile organic compounds (VOC). Avoided co-pollutants contribute to improved health outcomes in communities across the State.

Table 1. Other Anticipated Benefits through 2025 and 2030

Annual Benefits Metrics ** Direct + Indirect Benefits ** Overlap Accounted	Acquired Progress	Committed Progress	Total Progress as of Current Reporting Period	2025 Order Expectation (Anticipated Benefit)	2030 Order Expectation (Anticipated Benefit)
Emissions Reductions (CO ₂ e Metric Tons, millions)	8.2	3.0	11.2	9.0	14.0
Participant Bill Savings (\$ millions)	\$1,459	\$676	\$2,135	n/a	n/a
PM 2.5 (lbs, millions)	2,800	6	2,805	n/a	n/a
NOx (lbs, millions)	832,646	1,529	834,175	n/a	n/a
SO ₂ (lbs, millions)	3,583	11	3,593	n/a	n/a
NH ₃ (lbs, millions)	3,252	68	3,319	n/a	n/a
VOC (lbs, millions)	32,534	78	32,612	n/a	n/a

- As with other tables presented earlier, overlap where it is known or perceived to exist between portfolios has been removed from progress reported.
- Air pollutant emissions factors were applied to direct and indirect annual energy savings and usage by sector (commercial, industrial, residential, transportation) and fuel groups (distillate oil, natural gas, propane, and other fuels).
- For Steam and Other fuel group energy savings, natural gas factors were used, the closest conservative approximation available across sectors.
- For Steam and Other fuel group energy usage, distillate oil factors were used, for a conservative approximation that was widely available across sectors.
- Commercial, Industrial and Residential factor sources include USA EPA, and other technical reports.^{6, 7, 8}
- Transportation factors were developed using EPA's Motor Vehicle Emissions Simulator (MOVES).

2 Market Development and Innovation & Research Performance

On May 20, 2022, NYSERDA filed a comprehensive update to all MD and IR portfolio plans in the first edition of the Compiled Investment Plans (CIP), as prescribed in the CEF Order. These plans convey expected funding and benefit progress for each initiative, which are used to gauge progress over time as outlined in these quarterly reports and elsewhere. Each fall, NYSERDA completes its annual update to forecasts for all CEF initiatives, which incorporates reported historical progress and revises forward looking plans to account for that history as well as to learn from the market. This update was filed November 1, 2024, approved by DPS December 20, 2024 and operational beginning January 1, 2025. The plans were later updated with two subsequent filings in April and November, both of which have been incorporated into the plans presented throughout this report. In October NYSERDA filed an extension request regarding the annual Fall reforecast and CIP update for 2025, which was later approved by DPS. NYSERDA will incorporate actual progress reported through 2025 for all budgets and benefits updated in the CIP along with other traditional forecast updates when the plans are filed April 1, 2026.

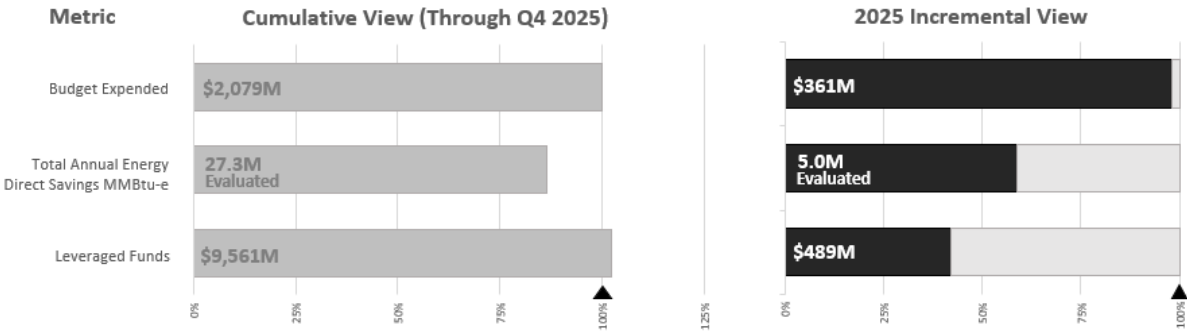
NYSERDA closely monitors progress of the portfolios towards CEF benefits targets using both cumulative and incremental measures, which can be reviewed in granular detail for the portfolio and for each program and metric within the [Clean Energy Dashboard](#). In addition to these resources, NYSERDA also reports CEF-related efforts specific to the Low-to-Moderate Income Joint Implementation Plan⁹ and the New York State Clean Heat Implementation Plan in respective Annual Reports.

Figure 3 provides a high-level view of NYSERDA's MD and IR portfolio performance to plan, measuring progress toward expended funding and acquired direct benefit plans through Q4 2025¹⁰. Key points to understand the data presented in Figure 3 include:

- The Cumulative View (Through Q4 2025) represents years 2016–2025; 100 percent in this view represents the cumulative *planned* amounts for that timeframe, prorated to enable comparison of progress through the current quarter.
- The 2025 Incremental View represents progress reported in the current calendar year against the current calendar year plan in total, with an expectation that 100 percent of the plan should be achieved by year-end. This secondary measure helps NYSERDA monitor and assess specific trends throughout the year. Progress illustrated in this view can be influenced by how NYSERDA finishes the previous year as those plans represent an estimate; the portfolio may start the new year either ahead or behind the forecasted finish of the previous year.
- Total Annual Energy Savings is measured in MMBtu equivalents consistent with Figure 2; Gross and Evaluated (Verified Gross) reported savings scenarios are reflected in these progress bars to illustrate both viewpoints of progress as the results from evaluation studies become more prominent in NYSERDA progress reporting.

- For each of these metrics, all CEF MD and IR initiatives are included (no exclusions); CEF Admin, Evaluation, and NYS Cost Recovery Fees are excluded from the budget totals.

Figure 3. Market Development/Innovation & Research Progress and Performance



Cumulative measures of NYSERDA’s performance in Figure 3 show strong progress through Q4 2025, though the incremental view shows slower progress toward the 2025 plan for total energy savings and leveraged funding. Because NYSERDA estimates how the previous year is expected to finish a full quarter before it closes, the subsequent year always begins with some level of progress over/under the forecasted plan. In the case of 2024, NYSERDA finished the year with benefits totals higher than the revised plan forecasted in the 11/1/24 filing for both energy savings and leveraged funding, meaning less *incremental* progress is necessary in 2025 to deliver on the *cumulative* goal. *Incremental* progress is likely to appear lagging plan throughout the year for leveraged funding considering the plan has not yet been updated to reflect the significant gains reported in Q4 2024. Regarding leveraged funding, NYSERDA has surpassed the cumulative leveraged funding goal through year-end 2025 (as well as the 2025 Order Target for all CEF), so lower incremental progress is not an indication of under-performance. Energy savings related to two Market Development programs continues to lag plan, in part because of recent evaluation which found less savings were realized than anticipated. More details for the Top 15 Energy Savings Impact initiatives can be found in Table 2.

2.0 Top Energy Impact Initiative Performance Summary

In NYSERDA’s Market Development portfolio, 15 key initiatives currently account for approximately 92 percent of the expected total energy saving benefits (represented by equivalent annual MMBtu) and 55 percent of the total approved Market Development budget. These initiatives warrant special attention due to the weight they carry in terms of the overall success of the CEF in delivering expected benefits and are characterized in greater detail in Table 2 that follows.

See table next page.

Table 2. Performance Summary for Market Development’s Top Energy Impact Initiatives

Cumulative progress to plan is measured on a prorated basis through Q4 as described in detail for Figure 3 above. Budget Percent Performance is progress against approved funding expenditure plans while Energy Percent Performance is progress against the equivalent annual MMBtu (total energy) acquired plan. Energy savings represents verified gross direct savings where evaluated and gross savings only where evaluation results are not applicable. Since both Budget and Energy plans extend beyond Q4 2025 and progress is affected by project pace and market conditions, performance that differs from 100% at this time does not imply the program will conclude over/under plan, nor that the final return on investment will vary from approved plans. Reasons for significant differences from 100% are noted in Table 2 and NYSERDA will update plans as warranted in the April 1 filing of its Compiled Investment Plan.

MMBtu Impact Rank	Initiative	Cumulative Progress (% Performance To Plan)			Progress Narrative
		Budget %	Savings Type	Energy %	
1	Technical Services	114%	Evaluated:	127%	The Technical Services budget is fully committed and expenditure remains strong. Benefits will continue to accumulate as studies and engagements are completed. An impact evaluation for the Technical Services portfolio is underway, and future reports will include results.
2	Product and Appliance Standards	102%		n/a	Work is ongoing to implement standards adopted in 2023 with the expansion of the statewide compliance program. This initiative forecasts all impacts as indirect savings. An evaluation is underway to quantify indirect savings and future quarterly reports will summarize findings.
3	Market Challenges	83%	Gross:	23%	<p>Carbon Challenge: There are 27 active Carbon Challenge projects in various stages of implementation. Three of the projects were expected to acquire energy savings before the end of 2025, which is now delayed until Q1 2026. Active projects have continually experienced delays due to a variety of factors. Chiefly, increased construction costs have strained supply chains and increased estimated project costs, often leading to review of design plans and sourcing. The program continues to monitor projects for potential impacts on labor and equipment delivery related to these and other market dynamics.</p> <p>Empire Building Challenge: Awards from the third round of Empire Building Challenge projects were announced in September 2025, showcasing 10 new multifamily projects. This brings the total number of Empire Building Challenge demonstrations to 19, all currently in different stages of design and implementation. Two projects are now completed and reporting savings, and have begun M&V. More savings will be reported as measures are installed per the phased implementation plans of these large demonstrations. A roadshow is planned for 2026. An evaluation is anticipated to begin by Q2 2026. Future quarterly reports will summarize findings.</p>

Table 2 continued

MMBtu Impact Rank	Initiative	Cumulative Progress (% Performance To Plan)			Progress Narrative
		Budget %	Savings Type	Energy %	
4	Building Operations and Maintenance Partnerships	102%	Evaluated:	97%	The program closed to new applications in October 2025, with all CEF funds committed. An impact evaluation was completed in Q1 2025. A follow-up evaluation is underway now and is anticipated to be complete Q3 2026.
5	Energy Management Technology	99%	Evaluated:	36%	Program funds have been fully committed and expenditures are on target. An updated Real Time Energy Management (RTEM) Commercial impact evaluation was completed in Q3 2025, identifying electricity realization rates consistent with prior studies (62%) and natural gas realization rates doubled from prior studies (66%). A first evaluation of multifamily RTEM identified low realization rates for electricity and natural gas, 9% and 3%, respectively. The evaluation also estimated indirect savings for Commercial and Multifamily for the first time, adding 0.6 TBtu.
6	Industrial Transition	100%	Evaluated:	98%	This inactive program has one remaining open project which will be completed to close out the program 2026. A final impact evaluation was completed in Q3 2025 and showed high realization rates: 94% for electricity and 90% for heating fuels.
7	LMI Multifamily	123%	Evaluated:	94%	Affordable housing partnership (Direct Injection) program expenditures are trending favorably. NYS Homes and Community Renewal (HCR) has fully expended project incentive funds as of Q4 2025 and NYC Department of Housing Preservation and Development (HPD) is expecting \$1.9 million in project incentive expenditures in Q1 2026. Evaluation activities are ongoing and Phase 1 of the study is anticipated to be complete by early Q2 2026. Future quarterly reports will summarize findings. Multifamily Performance Program was nearly fully expended by end of Q4 2025. A closeout impact evaluation for the program is expected to be completed in Q1 2026. Owner's Representative for Multifamily Buildings fully committed its allocated CEF funding this quarter. Commitments for technical services for LMI Multifamily also continued to be strong throughout Q4 2025. Technical services is undergoing an impact evaluation with results expected in Q2 2026.
8	Energy Management Practices	97%	Evaluated:	103%	Strategic Energy Management and On-site Energy Manager are closed. This market will be served in NYSEERDA's new EE/BE portfolio through Technical Services. Total progress of energy benefits on remaining open projects continues to trend in a positive direction, with strong realization rates from the 2024 Impact Evaluation.

Table 2 continued

MMBtu Impact	Initiative	Cumulative Progress (% Performance To Plan)			Progress Narrative
		Rank	Budget %	Savings Type	
9	Codes and Standards for Carbon Neutral Buildings	93%		n/a	The new energy code, adopted in July 2025, took effect at the end of 2025. While NYS included zero emissions new construction requirements in the code, those were paused due to ongoing litigation. NYC also adopted an updated code based on the NYS code with strengthening amendments. The code going into effect represents the successful culmination of the 5-year development, advancement, and regulatory process that NYSEERDA supported. Code training and resources to support code update were awarded and are in development. This initiative forecasts all impacts as indirect savings. An evaluation was completed in Q1 2025 and found NYSEERDA exceeded its targets in each of the 5 years of the evaluation and delivered approximately 2.0 TBtu of savings from CEF-specific activities over that time. Since 2015, work on codes is responsible for a total of 3.7 TBtu of savings across all funding sources.
10	New Construction – Market Rate	120%	Evaluated:	98%	The initiative continues to perform well on progress of both budget and energy benefits, with significant expenditures coming from Building Cleaner Communities (BCCC), Buildings of Excellence (BOE), and the New Construction-Commercial and New Construction-Housing legacy programs as projects advance through construction stages toward completion. The Buildings of Excellence Early Design Support program closed in Q4 2025 with an influx of projects that will continue to contribute toward progress in the future. The 2025 Round of BCCC was launched in Q2 2025 and closed in Q3 2025 with awards announced, and funding reserved in Q4 2025. Round 6 of BOE was launched in Q2 2025 with awards made in Q4 2025. A solicitation for enhanced commissioning was launched in Q3 2025, with funding awarded in Q4 2025. Direct contracting for technical assistance support also occurred in Q4 2025. An evaluation focusing on multifamily and commercial projects was completed Q1 2025 showing strong realization rates. An update is underway now and anticipated to be complete Q1 2026. New Construction initiatives are similar across both the market rate and LMI sectors.
11	Clean Energy Communities	100%	Evaluated:	100%	Strong demand from local governments required NYSEERDA to suspend the Clean Energy Communities (CEC) Program in November 2024 with funding fully allocated. A market evaluation was completed in Q4 2025 and estimated indirect impacts from the program: approximately 1.3 TBTU of indirect energy savings and over 300,000 MWh's of Renewable Generation for program years 2019-2023. This study also found that 77% of local governments have implemented high impact actions; 85% of municipalities have taken advantage of the tools and resources to execute clean energy activities with Clean Energy Coordinators; and without the assistance of the CEC program, over half of NYS communities would lack the capacity, or have only limited ability, to carry out such activities independently. Section 4 of the report summarizes results from this study in greater detail.

Table 2 continued

MMBtu Impact	Initiative	Cumulative Progress (% Performance To Plan)			Progress Narrative
		Rank	Budget %	Savings Type	
12	New Construction LMI	103%	Evaluated:	89%	The initiative continues to perform well on progress of both budget and energy benefits, with significant expenditures coming from Buildings of Excellence (BOE) and the New Construction-Housing legacy program as projects advance through construction stages toward completion. The Buildings of Excellence Early Design Support program closed in Q4 2025 with an influx of projects that will continue to contribute toward progress in the future. Round 6 of BOE was launched in Q2 2025 with awards made in Q4 2025. A solicitation for enhanced commissioning was launched in Q3 2025, with funding awarded in Q4 2025. Direct contracting for technical assistance support also occurred in Q4 2025. An evaluation focusing on multifamily and commercial projects was completed Q1 2025 showing strong realization rates. An update is underway now and anticipated to be complete Q1 2026. New Construction initiatives are similar across both the market rate and LMI sectors.
13	Clean Green Campuses	111%	Evaluated:	116%	The initiative remains in good standing on both budget expenditures and benefits, with open projects finalizing remaining efforts and expenditures anticipated to be complete in 2026.
14	P-12 Schools	117%	Gross:	67%	Program incentives are fully committed. Progress of budget expenditures continues to be strong. Acquired energy savings are slightly lagging due to two large projects being delayed. The acquired savings will continue to increase as more Clean Green Schools Initiative technical assistance projects are completed. A market evaluation examining indirect savings is slated to begin in Q1 2026 alongside an updated impact evaluation that commenced in late 2025 as part of a larger Technical Services impact evaluation.
15	Heat Pumps Phase 2 (2020)	94%		n/a	Pace of expenditures is trending favorably. This initiative forecasts all impacts as indirect savings and to date, NYSEERDA has measured over 1.2 TBtus of equivalent energy savings covering period 2020 - 2023, considerably higher than the forecast savings for that same time period. Analysis for the 2024 program year will begin in Q1 2026 incorporating utility heat pump project data and, as available, industry data. Results will be detailed in future reports.

2.1 Quarterly Benefits Progress Versus Plan

Table 3. Market Development and Innovation & Research Portfolio—Annual Direct Benefits

The table that follows represents all Market Development and Innovation & Research initiatives and their associated direct benefits. Progress reported here is a blend of “verified gross” and “gross” savings. Where evaluation studies have been completed and yield realization rates, verified gross acquired savings are reported. Where studies are not yet complete, those initiatives and/or time periods will continue reporting gross savings. Note: measurement and verification activities have reduced cumulative acquired gross savings by approximately 2.0 TBtu through Q4 2025.

Market Development Innovation & Research Annual Benefits Metrics <small>** Direct Only **</small>	Planned Incremental Acquired Benefits in Current Year	Current Year Acquired Benefits Through Current Quarter	Cumulative Acquired Benefits Through Current Quarter	Committed Benefits as of Current Quarter (Committed but not acquired)	Total Progress as of Current Quarter (Total Acquired + Committed)	Total Expected Benefits Through 2025	Total Progress as % of Total Expected Benefits Through 2025	Total Expected Benefits Through 2030	Total Progress as % of Total Expected Benefits Through 2030
Total Energy Savings (MMBtu)	8,576,282	5,040,768	27,285,767	15,982,181	43,267,948	31,504,850	137%	46,171,234	94%
Electricity Savings (MWh)	720,265	326,941	2,561,383	1,028,731	3,590,114	3,017,313	119%	3,873,767	93%
Total Fuel Savings (MMBtu)	6,431,241	4,584,098	29,522,045	12,784,660	42,306,705	31,496,593	134%	43,631,794	97%
Natural Gas Fuel Savings (MMBtu)	6,001,365	3,350,717	15,061,384	12,200,024	27,261,408	17,876,508	153%	28,786,854	95%
Other Fuel Savings (MMBtu)	429,875	1,233,381	14,460,661	584,636	15,045,298	13,620,085	110%	14,844,939	101%
Renewable Energy Generation (MWh)	14,093	21,367	146,723	55,318	202,041	170,575	118%	172,255	117%
Renewable Energy Capacity (MW)	1	17	207	2	209	184	114%	184	113%
Total Leveraged Funds (\$M)	\$1,162	\$489	\$9,561	\$4,117	\$13,677	\$9,357	146%	\$12,713	108%

- Verified savings as a percent of total reported direct savings varies by metric and includes electricity (58% verified), natural gas (58%), and other fuels (11%). The measurement and verification work to verify savings is done on a periodic basis, most commonly covering at least 1-2 years of program activity. This work can only begin once adequate post-installation operation has occurred. Additionally, methods and data availability vary significantly between electricity, natural gas, and other fuels, which is one of the underlying causes of varying percentages of savings verified.
- Total Energy Savings measures the combined electricity and fuel savings net of usage; therefore, may not sum to the total of individual electric and fuel savings values.
- NYSERDA makes no claim to the environmental attributes or any New York Generation Attribute Tracking System (NYGATS) certificates that may be associated with these projects.

Table 4. Market Development and Innovation & Research Portfolio—Annual Indirect Benefits

Indirect benefits are defined as long-term market effects from market activity not directly funded by NYSERDA. Progress is reported as market impacts are verified through the completion of market evaluation studies which will occur over time, depending upon the period of each study, which varies from one initiative to another. More information on the Evaluation, Measurement, and Verification can be found in Section 4 of this report. NYSERDA makes conservative estimates of indirect benefits, generally reflecting 50 percent of the remaining planned, anticipated achievement, accounting for uncertainty in timing and potential overlap across the portfolio that has yet to be fully evaluated. Note that while indirect benefits quantified through Q4 2025 generally show higher evaluated results than planned for programs that have been evaluated, NYSERDA has not yet evaluated and quantified all indirect benefits anticipated across the portfolio through 2025 and 2030.

Market Development ** Indirect Only **	Cumulative Indirect Benefits Evaluated Through Previous Period	Indirect Benefits Evaluated in Current Reporting Period	Total Indirect Benefits Evaluated Through Current Reporting Period	Total Indirect Benefits Expected Through 2025	Total Indirect Benefits Evaluated as % of Total Expected Through 2025	Total Indirect Benefits Expected Through 2030	Total Indirect Benefits Evaluated as % of Total Expected Through 2030
Total Energy Savings (MMBtu equivalent)	7,206,630	1,291,783	8,498,413	14,965,650	57%	34,745,438	24%
Electricity Savings (MWh)	854,711	283,459	1,138,170	1,685,141	68%	4,360,785	26%
Total Fuel Savings (MMBtu)	4,668,418	356,431	5,024,849	9,694,270	52%	20,499,005	25%
Natural Gas Fuel Savings (MMBtu)	3,629,939	289,681	3,919,620	7,961,645	49%	17,323,975	23%
Other Fuel Savings (MMBtu)	1,038,480	66,750	1,105,230	1,732,625	64%	3,175,030	35%
Renewable Energy Generation (MWh)	478,683	320,136	798,819	785,183	102%	1,157,877	69%
Renewable Energy Capacity (MW)	58	401	459	369	124%	516	89%

- Cumulative Indirect Benefits Evaluated Through Previous Period reflects the total reported indirect benefits as of the period, but not necessarily all indirect savings anticipated through the reporting period, since additional studies will likely conclude for past periods and add to these overall figures.
- Total Indirect Benefits Evaluated Through Current Reporting Period, Total Energy Savings updated to include Energy Usage which is not presented as its own metric on this table. Of reported Electricity Usage, -120,127 MWh is netted in the Total Energy Savings calculation.
- Indirect leveraged funding will be captured with future assessments.

2.2 Quarterly Budgets Progress Versus Plan

Table 5. Market Development Initiatives by Focus Area—Budgets and Spending

See endnote section for more information.^{11,12,13}

Market Development Focus Area Initiative	Current Year Expenditures Plan	Current Year Expenditures Through Current Quarter	Encumbrances as of Current Quarter	Total Progress as of Current Quarter (Expended + Encumbered)	Total Expected Expenditures Through 2025	Total Progress as % of Total Expenditures Through 2025	Total Expected Expenditures Through 2030	Total Progress as % of Total Expenditures Through 2030
Clean Heat & Cooling								
Heat Pumps Phase 1 (2017)	\$667,179	\$403,120	\$577,520	\$56,401,540	\$56,102,697	101%	\$56,502,537	100%
Heat Pumps Phase 2 (2020)	\$4,240,868	\$4,714,957	\$18,707,973	\$62,665,007	\$43,477,697	144%	\$62,168,595	101%
Renewable Heat NY - Clean and Efficient Biomass Heating	\$115,703	\$41,608	\$28,441	\$13,405,810	\$13,410,575	100%	\$13,410,575	100%
Solar Thermal Transition	-	-	-	\$287,513	\$287,513	100%	\$287,513	100%
Clean Heat & Cooling Total	\$5,023,749	\$5,159,684	\$19,313,934	\$132,759,870	\$113,278,482	117%	\$132,369,221	100%
Codes and Standards, & Other Multisector Initiatives								
Codes and Standards for Carbon Neutral Buildings	\$8,837,592	\$6,571,586	\$21,990,023	\$50,506,328	\$30,782,311	164%	\$50,500,000	100%
Information Products and Brokering	\$750,000	\$367,619	\$1,591,329	\$4,299,754	\$3,281,162	131%	\$4,299,998	100%
Market Characterization & Design Market Development	\$1,868,916	\$998,413	\$2,471,137	\$23,379,031	\$21,778,397	107%	\$24,574,225	95%
Product and Appliance Standards	\$3,879,143	\$4,202,798	\$5,477,475	\$17,199,002	\$11,449,094	150%	\$17,199,002	100%
NYGridConnect	\$1,484,735	\$1,212,680	\$3,900,551	\$13,074,799	\$9,129,296	143%	\$13,000,000	101%
Codes and Standards, & Other Multisector Initiatives Total	\$16,820,386	\$13,353,097	\$35,430,515	\$108,458,913	\$76,420,259	142%	\$109,573,225	99%
Commercial / Industrial / Agriculture								
Advancing Agricultural Energy Technologies	\$1,084,399	\$138,000	\$1,145,400	\$2,100,088	\$2,104,449	100%	\$2,104,449	100%
Agriculture Transition	-	-	-	\$3,598,821	\$3,598,821	100%	\$3,598,821	100%
Clean Green Campuses	\$2,075,000	\$3,228,423	\$2,392,709	\$21,614,264	\$17,358,472	125%	\$21,650,002	100%
Commercial Transition	\$124,999	\$173,204	\$0	\$12,424,392	\$12,424,397	100%	\$12,424,397	100%
Energy Management Practices	\$3,121,236	\$2,406,339	\$3,675,887	\$26,256,743	\$23,295,753	113%	\$26,476,777	99%
Energy Management Technology	\$11,806,692	\$10,818,100	\$34,333,394	\$108,064,022	\$73,146,793	148%	\$108,298,861	100%
Greenhouse Lighting and Systems Engineering	\$729,513	\$415,909	\$363,604	\$5,000,000	\$4,950,000	101%	\$5,000,000	100%
Industrial Transition	\$168,404	\$11,139	\$153,753	\$45,197,572	\$45,196,736	100%	\$45,196,736	100%
Market Challenges	\$21,832,030	\$9,449,656	\$103,235,751	\$150,923,546	\$60,070,169	251%	\$148,132,457	102%
P-12 Schools	\$3,620,000	\$6,203,329	\$31,357,906	\$50,860,878	\$16,735,306	304%	\$57,600,000	88%
Pay for Performance	-	-	\$79,417	\$1,779,034	\$1,699,616	105%	\$1,699,616	105%
Real Estate Tenant	\$1,200,116	\$460,011	\$911,444	\$15,790,474	\$15,398,346	103%	\$15,798,390	100%
Technical Services	\$15,786,103	\$26,821,825	\$45,488,212	\$124,411,954	\$67,888,020	183%	\$122,927,780	101%
Commercial / Industrial / Agriculture Total	\$61,548,492	\$60,125,934	\$223,137,479	\$568,021,788	\$343,866,876	165%	\$570,908,285	99%
Communities								
Clean Energy Communities	\$10,598,056	\$8,522,606	\$16,869,900	\$66,279,256	\$49,363,723	134%	\$66,271,963	100%
Community Energy Engagement	-	-	-	\$4,388,546	\$4,388,546	100%	\$4,388,546	100%
Communities Total	\$10,598,056	\$8,522,606	\$16,869,900	\$70,667,802	\$53,752,270	131%	\$70,660,509	100%

Table 5 continued

Market Development Focus Area Initiative	Current Year Expenditures Plan	Current Year Expenditures Through Current Quarter	Encumbrances as of Current Quarter	Total Progress as of Current Quarter (Expended + Encumbered)	Total Expected Expenditures Through 2025	Total Progress as % of Total Expenditures Through 2025	Total Expected Expenditures Through 2030	Total Progress as % of Total Expenditures Through 2030
Low-to-Moderate Income								
Healthy Homes Feasibility Study	-	-	-	\$179,282	\$179,282	100%	\$179,282	100%
Heat Pumps Phase 2 (2020)	\$4,034,206	\$2,510,452	\$16,656,871	\$27,865,469	\$12,732,352	219%	\$28,000,000	100%
LMI Multifamily	\$31,529,880	\$38,488,602	\$69,296,460	\$177,187,964	\$87,488,496	203%	\$179,529,592	99%
LMI Outreach & Engagement	\$2,921,022	\$1,341,289	\$3,144,446	\$8,446,748	\$7,015,918	120%	\$8,467,401	100%
LMI Pilots	-	-	-	\$852,665	\$852,665	100%	\$852,665	100%
Low Rise New Construction Transition - LMI	\$232,000	\$239,731	\$197,979	\$7,926,284	\$7,728,133	103%	\$7,920,376	100%
Multifamily New Construction Transition - LMI	\$610,000	\$521,814	\$664,157	\$7,970,981	\$7,340,693	109%	\$7,970,981	100%
New Construction - LMI	\$16,479,608	\$18,631,853	\$50,501,600	\$131,626,658	\$78,972,813	167%	\$131,806,255	100%
NYS Healthy Homes Value Based Payment Pilot	\$997,750	\$859,624	\$232,545	\$4,254,945	\$4,255,016	100%	\$4,255,016	100%
Regional Clean Energy Hubs	\$20,344,958	\$10,590,768	\$24,258,398	\$46,809,111	\$35,155,803	133%	\$47,000,000	100%
RetrofitNY - LMI	\$2,011,698	\$867,471	\$690,339	\$8,723,522	\$8,005,928	109%	\$8,717,439	100%
REVitalize	-	-	-	\$291,424	\$291,424	100%	\$291,424	100%
Single Family - Low Income	\$33,829,378	\$33,811,828	\$84,620	\$281,922,780	\$281,855,709	100%	\$281,855,709	100%
Single Family - Moderate Income	\$2,560,548	\$2,066,126	\$105,540	\$102,746,368	\$102,716,289	100%	\$102,751,836	100%
Solar for All	\$1,300,000	\$890,448	\$4,203,497	\$11,715,053	\$8,189,120	143%	\$12,839,585	91%
Low-to-Moderate Income Total	\$116,851,048	\$110,820,008	\$170,036,453	\$818,519,252	\$642,779,641	127%	\$822,437,561	100%
Multifamily Residential								
Energy Management Technology	\$2,224,891	\$441,041	\$5,737,509	\$14,055,096	\$10,101,438	139%	\$14,056,041	100%
Market Challenges	\$2,503,544	\$1,310,009	\$4,995,465	\$13,190,323	\$7,477,145	176%	\$13,300,000	99%
Multifamily Low Carbon Pathways	\$1,670,074	\$1,488,051	\$14,859,200	\$19,586,075	\$5,498,156	356%	\$19,670,380	100%
Multifamily Market Rate Transition	-	-	-	\$156,214	\$156,214	100%	\$156,214	100%
Technical Services	\$5,702,460	\$6,224,193	\$10,415,707	\$31,092,007	\$19,720,955	158%	\$30,717,634	101%
Multifamily Residential Total	\$12,100,969	\$9,463,294	\$36,007,881	\$78,079,714	\$42,953,907	182%	\$77,900,268	100%
New Construction								
Commercial New Construction Transition	\$1,055,000	\$1,536,209	\$889,739	\$12,520,935	\$11,211,782	112%	\$12,645,983	99%
Low Rise New Construction Transition - Market Rate	\$61,200	\$27,619	\$52,857	\$4,381,292	\$4,363,224	100%	\$4,381,285	100%
Multifamily New Construction Transition - Market Rate	\$162,248	\$91,508	\$98,014	\$1,626,873	\$1,614,346	101%	\$1,626,873	100%
New Construction - Market Rate	\$11,170,827	\$19,895,492	\$99,964,339	\$151,874,277	\$43,185,273	352%	\$157,975,614	96%
New Construction Total	\$12,449,275	\$21,550,828	\$101,004,949	\$170,403,377	\$60,374,625	282%	\$176,629,755	96%

Table 5 continued

Market Development Focus Area Initiative	Current Year Expenditures Plan	Current Year Expenditures Through Current Quarter	Encumbrances as of Current Quarter	Total Progress as of Current Quarter (Expended + Encumbered)	Total Expected Expenditures Through 2025	Total Progress as % of Total Expenditures Through 2025	Total Expected Expenditures Through 2030	Total Progress as % of Total Expenditures Through 2030
Renewables / Distributed Energy Resources (DER)								
Anaerobic Digesters Transition	\$1,855,229	\$1,053,329	\$5,532,984	\$13,414,066	\$12,593,213	107%	\$13,245,671	101%
Clean Energy Siting and Soft Cost Reduction	\$1,439,353	\$768,392	\$4,527,026	\$8,795,000	\$4,991,535	176%	\$8,795,000	100%
Combined Heat & Power Transition	\$5,397,027	\$3,858,952	\$774,374	\$50,736,299	\$51,499,999	99%	\$51,499,999	99%
Fuel Cells	-	-	-	\$4,786,644	\$4,786,644	100%	\$4,786,644	100%
Offshore Wind Master Plan	-	-	-	\$4,965,882	\$4,965,882	100%	\$4,965,882	100%
Offshore Wind Pre-Development Activities	-	-	\$84,700	\$9,618,801	\$9,789,462	98%	\$9,789,462	98%
ORES Support	\$381,600	\$248,408	\$1,199,256	\$4,304,117	\$3,413,346	126%	\$4,176,546	103%
Reducing Barriers to Distributed Deployment	\$3,241,160	\$1,524,690	\$3,816,349	\$15,450,000	\$14,639,708	106%	\$15,450,000	100%
Small Wind Transition	-	-	-	\$3,323,673	\$3,323,673	100%	\$3,323,673	100%
Solar Plus Energy Storage	\$2,272,609	\$1,424,500	-	\$34,449,989	\$35,298,116	98%	\$35,298,116	98%
Renewables / Distributed Energy Resources (DER) Total	\$14,586,978	\$8,878,272	\$15,934,689	\$149,844,471	\$145,301,578	103%	\$151,330,992	99%
Single Family Residential								
Consumer Awareness	-	-	-	\$2,251,671	\$2,251,671	100%	\$2,251,671	100%
Heat Pumps Phase 2 (2020)	\$4,825,000	\$2,009,885	\$7,080,397	\$14,402,182	\$10,136,900	142%	\$14,337,698	100%
Pay for Performance	-	-	-	\$885,684	\$885,684	100%	\$885,684	100%
Residential	\$13,986,659	\$12,111,233	\$3,908,977	\$57,487,584	\$53,158,531	108%	\$56,998,862	101%
Single Family Market Rate Transition	-	-	-	\$23,528,344	\$23,528,344	100%	\$23,528,344	100%
Single Family Residential Total	\$18,811,659	\$14,121,118	\$10,989,374	\$98,555,464	\$89,961,130	110%	\$98,002,260	101%
Transportation								
Electric Vehicles - Rebate	\$64,000	-	-	\$39,406,074	\$39,486,074	100%	\$39,498,889	100%
EV Charging and Engagement	\$1,500,000	\$5,864,334	\$1,210,822	\$7,387,491	\$2,200,001	336%	\$7,184,091	103%
Transportation Total	\$1,564,000	\$5,864,334	\$1,210,822	\$46,793,565	\$41,686,075	112%	\$46,682,980	100%
Workforce Development								
Building Operations and Maintenance Partnerships	\$4,278,752	\$4,689,647	\$7,279,475	\$31,249,951	\$23,559,580	133%	\$31,365,551	100%
Talent Pipeline	\$10,609,141	\$12,155,924	\$27,518,382	\$82,914,395	\$53,849,230	154%	\$83,000,000	100%
Workforce Development Total	\$14,887,893	\$16,845,571	\$34,797,857	\$114,164,346	\$77,408,810	147%	\$114,365,551	100%
NYS Cost Recovery Fee Market Development	\$3,217,757	\$2,461,827	-	\$19,762,131	\$20,518,062	96%	\$27,978,633	71%
Total Market Development	\$288,460,262	\$277,166,573	\$664,733,851	\$2,376,030,695	\$1,708,301,715	139%	\$2,398,839,240	99%

Table 6. Innovation & Research Initiatives by Focus Area—Budgets and Spending

See endnote section for more information. ^{14, 15, 16}

Innovation & Research Focus Area Initiative	Current Year Expenditures Plan	Current Year Expenditures Through Current Quarter	Encumbrances as of Current Quarter	Total Progress as of Current Quarter (Expended + Encumbered)	Total Expected Expenditures Through 2025	Total Progress as % of Total Expenditures Through 2025	Total Expected Expenditures Through 2030	Total Progress as % of Total Expenditures Through 2030
Buildings Innovation								
ClimateTech Commercialization Support	\$3,550,000	\$6,834,319	\$111,206	\$9,995,525	\$6,850,000	146%	\$10,000,000	100%
NextGen Buildings	\$7,587,395	\$8,518,313	\$44,257,186	\$71,456,916	\$25,817,664	277%	\$65,000,000	110%
Buildings Innovation Chapter Total	\$11,137,395	\$15,352,633	\$44,368,391	\$81,452,441	\$32,667,664	249%	\$75,000,000	109%
Clean Transportation Innovation								
Electric Vehicle Innovation	\$9,192,445	\$2,670,893	\$16,663,263	\$31,664,299	\$20,762,520	153%	\$31,850,000	99%
Public Transportation and Mobility	\$3,200,000	\$3,639,205	\$10,561,566	\$22,282,497	\$11,621,052	192%	\$22,500,000	99%
Clean Transportation Innovation Total	\$12,392,445	\$6,310,097	\$27,224,829	\$53,946,796	\$32,383,572	167%	\$54,350,000	99%
Climate Resilience Innovation								
Grid ClimateTech Ready Capital	-	-	-	-	-	0%	\$12,000,000	0%
Hydrogen Innovation	\$1,310,836	\$261,926	\$6,683,834	\$7,028,005	\$1,392,029	505%	\$7,000,000	100%
Market Characterization & Design Innovation & Research	\$190,506	\$146,481	\$180,974	\$1,750,644	\$1,601,546	109%	\$1,750,653	100%
Climate Resilience Innovation Total	\$1,501,342	\$408,407	\$6,864,808	\$8,778,649	\$2,993,575	293%	\$20,750,653	42%
Energy Focused Environmental Research								
Energy-Related Environmental Research	\$5,800,000	\$3,294,427	\$10,989,679	\$47,769,978	\$40,303,952	119%	\$47,800,000	100%
Energy Focused Environmental Research Total	\$5,800,000	\$3,294,427	\$10,989,679	\$47,769,978	\$40,303,952	119%	\$47,800,000	100%
Gas Innovation								
Hydrogen Innovation	\$4,163,540	\$6,483,884	\$16,331,851	\$25,115,863	\$5,704,786	440%	\$24,800,000	101%
Long Duration Energy Storage	\$3,430,000	\$7,426,248	\$8,841,352	\$17,000,000	\$5,276,678	322%	\$17,000,000	100%
Utility Thermal Network Technical Support	\$500,000	\$218,601	\$2,407,428	\$2,947,802	\$955,516	309%	\$3,000,000	98%
Gas Innovation Total	\$8,093,540	\$14,128,732	\$27,580,630	\$45,063,665	\$11,936,981	378%	\$44,800,000	101%
Grid Modernization								
Future Grid Performance Challenge	\$7,885,157	\$8,871,521	\$31,009,927	\$57,895,584	\$25,308,795	229%	\$58,063,066	100%
Grid ClimateTech Ready Capital	\$2,425,000	\$4,941,915	\$10,346,197	\$15,912,986	\$3,124,013	509%	\$22,000,000	72%
High Performing Electric Grid	\$5,708,237	\$1,776,948	\$17,870,276	\$64,795,089	\$50,856,102	127%	\$64,800,000	100%
Power Electronics Manufacturing Consortium	-	-	-	\$16,694,490	\$16,694,490	100%	\$16,694,490	100%
Grid Modernization Chapter Total	\$16,018,394	\$15,590,384	\$59,226,400	\$155,298,149	\$95,983,401	162%	\$161,557,556	96%
Negative Emissions Technologies								
CarbonTech Development	\$1,627,083	\$1,641,571	\$222,826	\$5,113,980	\$4,837,500	106%	\$5,113,980	100%
Natural Carbon Solutions	\$4,444,587	\$4,256,872	\$17,709,548	\$22,996,237	\$5,798,501	397%	\$20,486,020	112%
Negative Emissions Technologies Total	\$6,071,670	\$5,898,443	\$17,932,374	\$28,110,217	\$10,636,001	264%	\$25,600,000	110%
Renewables Optimization								
Energy Storage Technology and Product Development	\$4,168,000	\$5,827,838	\$19,752,653	\$40,222,821	\$18,808,330	214%	\$39,500,000	102%
National Offshore Wind Research & Development Consortium	\$2,442,556	\$1,857,573	\$878,222	\$22,500,910	\$21,828,185	103%	\$22,500,000	100%
Renewables Optimization Total	\$6,610,556	\$7,685,411	\$20,630,875	\$62,723,731	\$40,636,515	154%	\$62,000,000	101%
Technology to Market								
CarbonTech Development	\$4,382,083	\$4,482,675	\$342,760	\$14,364,413	\$13,842,985	104%	\$14,362,020	100%
Catalytic Capital for ClimateTech	\$461,740	\$221,619	\$983,350	\$19,360,222	\$18,513,186	105%	\$19,360,229	100%
ClimateTech Commercialization Support	\$7,647,777	\$6,536,216	\$688,619	\$50,416,764	\$51,056,915	99%	\$54,927,913	92%
ClimateTech Expertise & Talent	\$1,620,947	\$2,006,058	\$1,812,722	\$12,049,275	\$9,852,249	122%	\$12,049,276	100%
Manufacturing Corps	\$1,442,500	\$1,188,010	\$1,452,376	\$17,058,959	\$15,723,575	108%	\$17,058,959	100%
Novel Business Models and Offerings	\$664,558	\$3,420,956	\$2,088,618	\$13,385,910	\$13,383,394	100%	\$13,383,394	100%
Technology to Market Total	\$16,219,605	\$17,855,534	\$7,368,446	\$126,635,543	\$122,372,303	103%	\$131,141,791	97%
NYS Cost Recovery Fee Innovation & Research	\$945,836	\$719,071	-	\$4,023,771	\$4,250,538	95%	\$6,780,273	59%
Total Innovation and Research	\$84,790,782	\$87,243,139	\$222,186,432	\$613,802,939	\$394,164,501	156%	\$629,780,273	97%

3 NY-Sun Performance

As represented in Figure 2 above, NYSERDA's NY-Sun Portfolio continues to show strong progress toward the CEF distributed solar capacity targets. Benefits progress in the following tables is conveyed in both capacity (megawatts direct current) and generation (megawatt-hours). Additional detail around progress by year can be found in the [NYSERDA-Supported Solar Projects dashboard](#). Major highlights that speak to progress through the current quarter include:

- In October 2024, NYSERDA announced that 6 GW of distributed solar had been successfully installed, marking the first completion of a Climate Act target. As of the end of Q4 2025, there are 7,841 MW of distributed solar completed in the state.
- New York's national leadership in community solar continued, with 860 MW completed in 2024 and 703 MW completed in 2025.
- There are nearly 2,800 MW of solar in development with NYSERDA awards. These projects are at an advanced stage of development and will contribute to the 10.5 GW by 2030 target.
- On April 24, 2025, the Public Service Commission issued an *Order Approving NY-Sun Program Modifications*.¹⁷ The Order increased NY-Sun's 10 GW goal by an incremental 500 MW, specifying that the additional capacity must be dedicated to community solar projects using the Statewide-Solar For All model. The Order also reduced the NY-Sun budget to \$2.996 billion, by removing \$271 million in funding no longer needed to meet expanded goals given market context and program efficiencies. These changes have been incorporated throughout this report (Figures 1, 2; Tables 7, 10).

Quarterly benefit and budget progress is conveyed in the tables that follow.

3.0 Quarterly Benefits Progress

Table 7. NY-Sun—Installed Capacity and Production (NY-Sun Only)

Table 7 shows installed solar capacity (MW) and production (MWh) across major market sectors. The table includes all projects receiving NY-Sun funding, including those that are supported by the Solar Energy Equity Framework (SEEF). Projects included in SEEF benefit low- to moderate-income (LMI) households, affordable housing providers, residents of disadvantaged communities (DACs), and public schools serving DACs. As an example, a solar installation at the residence of an eligible LMI homeowner in Albany would be included in the “Upstate-Residential” category in Table 8, as well as in the “SEEF Only” Table 8. Community solar projects are categorized based on their location and size, with most of the State’s total community solar capacity categorized as “Upstate-Commercial/Industrial” for the purpose of this table.

Evaluated Totals (verified gross where evaluated; gross where not)							
Distributed Solar Energy Annual Benefits: Capacity (MW) & Production (MWh) of NY-Sun ** Includes SEEF & non-SEEF Projects **	Projects Completed (Installed) through Prior Year	Projects Completed (Installed) in Current Year	Cumulative Projects Completed (Installed Units) through Current Quarter	Projects Approved or Contracted But Not Yet Completed (Current Pipeline)	Total Progress (Installed + Pipeline) through Current Quarter	Total Expected Installed Projects through 2030	Total Progress as % of 2030 Goal
Capacity of Commercial/Industrial (Competitive) (MW)	117.6	-	117.6	-	117.6	117.6	100%
Capacity of Upstate - Residential (MW)	554.4	67.9	622.2	23.9	646.1	527.0	123%
Capacity of Upstate - Nonresidential (MW)	168.3	20.5	188.8	31.2	220.0	279.0	79%
Capacity of Upstate - Commercial/Industrial (MW)	2,951.9	828.7	3,780.5	2,506.6	6,287.1	6,613.0	95%
Capacity of Con Ed - Residential (MW)	403.1	43.5	446.5	5.0	451.5	441.0	102%
Capacity of Con Ed - Nonresidential (MW)	213.3	50.8	264.1	163.1	427.2	835.0	51%
Capacity Total (MW)	4,408.5	1,011.3	5,419.8	2,729.7	8,149.5	8,812.6	92%
Production of Commercial/Industrial (Competitive) (MWh)	136,193	-	136,193	-	136,193	n/a	n/a
Production of Upstate - Residential (MWh)	564,214	64,564	628,779	23,362	652,141	n/a	n/a
Production of Upstate - Nonresidential (MWh)	186,441	21,013	207,454	32,960	240,414	n/a	n/a
Production of Upstate - Commercial/Industrial (MWh)	3,764,442	1,294,195	5,058,637	3,342,871	8,401,508	n/a	n/a
Production of Con Ed - Residential (MWh)	416,251	42,732	458,982	5,054	464,036	n/a	n/a
Production of Con Ed - Nonresidential (MWh)	259,237	72,345	331,582	191,214	522,796	n/a	n/a
Production Total (MWh)	5,326,778	1,494,849	6,821,627	3,595,462	10,417,089	n/a	n/a

Table 8. NY-Sun—Installed Capacity and Production (NY-Sun SEEF Only)

Table 8 is limited to projects that are supported by SEEF, which includes “adder” incentives for qualifying projects that are offered in addition to the “base” NY-Sun incentives received by all qualifying projects in the applicable market sector. The projects included in Table 8 are a subset of those in Table 7.

Distributed Solar Energy Annual Benefits: Capacity (MW) and Production (MWh) of NY-Sun ** Solar Energy Equity Framework ONLY **	Evaluated Totals (verified gross where evaluated; gross where not)				
	Projects Completed (Installed Units) Through Prior Year	Projects Completed (Installed Units) in Current Year	Cumulative Projects Completed (Installed Units) Through Current Quarter	Projects Approved or Contracted but Not Yet Completed (Current Pipeline)	Total (Installed + Pipeline) Through Current Quarter
Capacity of Upstate - Residential (MW)	9.0	7.0	16.0	3.2	19.1
Capacity of Upstate - Nonresidential (MW)	2.2	0.7	2.9	0.8	3.7
Capacity of Upstate - Commercial/Industrial (MW)	172.6	183.6	356.1	741.4	1,097.5
Capacity of Con Ed - Residential (MW)	9.9	5.5	15.4	0.7	16.1
Capacity of Con Ed - Nonresidential (MW)	34.2	13.3	47.5	37.4	84.9
Capacity Total (MW)	227.8	210.1	437.8	783.4	1,221.2
Production of Upstate - Residential (MWh)	9,328	6,441	15,769	3,073	18,842
Production of Upstate - Nonresidential (MWh)	2,160	749	2,909	807	3,716
Production of Upstate - Commercial/Industrial (MWh)	297,567	336,337	633,904	981,175	1,615,079
Production of Con Ed - Residential (MWh)	10,365	5,674	16,039	731	16,770
Production of Con Ed - Nonresidential (MWh)	45,412	20,905	66,317	43,070	109,388
Production Total (MWh)	364,833	370,105	734,938	1,028,856	1,763,795

Table 9. All Other Solar—Installed Capacity and Production Beyond NY-Sun

Table 9 tracks all other reported progress toward the statewide solar deployment goals of 6 GW by 2025 and 10.5 GW by 2030. It includes projects that received non-CEF NYSERDA funding as well as projects installed independent of NYSERDA funding. NYSERDA utilizes data from utility interconnection inventories published by the Department of Public Service to determine non-NYSERDA reported installations. Since the two data sets can define project completion date differently, some overlap may exist between the two, however the totals presented here (MW, MWh) will never exceed the reported interconnected totals. As the pipeline of NYSERDA commitments are drawn down over time (projects are considered acquired in both data sources), this overlap is systematically eliminated.

Distributed Solar Energy Annual Benefits: Capacity (MW) and Production (MWh) of Other Solar Installations^a	Projects Completed (Installed Units) Through Prior Year	Projects Completed (Installed Units) in Current Year	Cumulative Projects Completed (Installed Units) Through Current Quarter	Projects Approved or Contracted but Not Yet Completed (Current Pipeline)	Total (Installed + Pipeline) Through Current Quarter
Capacity of NYSERDA (non-CEF) Installations (MW)	614.1	25.2	639.3	43.2	682.5
Capacity of Non-NYSERDA Statewide Installations (MW)			1,781.6		1,781.6
Capacity Total (MW)	614.1	25.2	2,420.9	43.2	2,464.1
Production of NYSERDA (non-CEF) Installations (MWh)	672,966	22,577	695,543	50,004	745,546
Production of Non-NYSERDA Statewide Installations (MWh)			1,489,464		1,489,464
Production Total (MWh)	672,966	22,577	2,185,007	50,004	2,235,010

3.1 Quarterly Budgets Progress

Table 10. NY-Sun—Budgets and Spending

Table 10 shows encumbrances and expenditures across major market sectors and programmatic areas with the NY-Sun initiative. The “MW Block Incentives & Adders” section breaks down encumbrances and expenditures across the major market sectors, excluding funding with the Solar Energy Equity Framework. All SEEF encumbrances and expenditures, including “adder” incentives, are tracked as a line item. As an example, for a solar installation at the residence of an eligible LMI homeowner in Albany the expenditure of the “base” NY-Sun incentive would be included in the “Upstate-Residential” sub-category in the “MW Block Incentives & Adder” section, while the “adder” incentive from the SEEF budget would be included in the “Solar Energy Equity Framework (SEEF)” line item. Table 11 provides a more in-depth look at SEEF encumbrances and expenditures and tracks the total NY-Sun funding committed to SEEF-eligible projects.

NY-Sun	Expenditures through Prior Year	Current Year Expenditures through Current Quarter	Cumulative Expenditures through Current Quarter	Encumbrances as of Current Quarter	Total Progress as of Current Quarter (Expended + Encumbered)	Total Expected Expenditures	Total Progress as % of Total Expected Expenditures
MW Block Incentives & Adders							
Commercial/Industrial (Competitive)	\$48,616,265	\$0	\$48,616,265	\$299,343	\$48,915,609	n/a	n/a
Upstate - Residential	\$235,862,250	\$10,881,623	\$246,743,873	\$3,899,178	\$250,643,051	n/a	n/a
Upstate - Nonresidential	\$71,562,815	\$5,739,700	\$77,302,515	\$9,537,646	\$86,840,161	n/a	n/a
Upstate - Commercial/Industrial	\$720,127,270	\$190,015,239	\$910,142,509	\$350,804,509	\$1,260,947,018	n/a	n/a
Con Ed - Residential	\$115,794,759	\$7,388,130	\$123,182,889	\$1,125,583	\$124,308,473	n/a	n/a
Con Ed - Nonresidential	\$125,410,589	\$35,108,657	\$160,519,245	\$109,056,619	\$269,575,864	n/a	n/a
MW Block Subtotal	\$1,317,373,948	\$249,133,349	\$1,566,507,297	\$474,722,878	\$2,041,230,176	\$2,227,201,000	71%
Solar Energy Equity Framework (SEEF) Adder	\$31,357,588	\$31,877,782	\$63,235,370	\$118,092,028	\$181,327,398	\$399,764,000	45%
Funds to Assist Transition to Prevailing Wage	\$0	\$4,547,756	\$4,547,756	\$193,169,603	\$197,717,359	\$238,725,000	83%
Consumer Education	\$1,603,540	\$202,226	\$1,805,766	\$1,694,234	\$3,500,000	\$6,500,000	54%
Implementation and Quality Assurance	\$19,445,417	\$2,442,052	\$21,887,470	\$2,679,456	\$24,566,925	\$32,600,000	75%
Administration	\$28,252,331	\$3,823,714	\$32,076,046	\$65,100	\$32,141,146	\$58,756,000	55%
Evaluation	\$1,620,397	\$209,181	\$1,829,578	\$211,421	\$2,040,999	\$3,500,000	58%
NYS Cost Recovery	\$12,838,258	\$2,284,629	\$15,122,887	\$0	\$15,122,887	\$28,800,000	53%
NY-Sun Total	\$1,412,491,480	\$294,520,689	\$1,707,012,169	\$790,634,721	\$2,497,646,890	\$2,995,846,000	83%

Table 11. NY-Sun—Solar Energy Equity Framework (SEEF) Spending Details

This table is a subset of budget and spending data reported in Table 10 intended to provide greater detail on SEEF and Other Incentive investments relative to the broader NY-Sun budget. Other Incentives shown here reflect the base MW Block and non-SEEF incentive adders and are a subset of spending shown in Table 11 under MW Block Incentives & Adders.

Solar Energy Equity Framework (SEEF)	SEEF Adder Expenditures	Other Incentive Expenditures	SEEF Adder Encumbrances	Other Incentive Encumbrances	SEEF Adder Total Progress	Other Incentive Total Progress	SEEF Total Progress
Upstate - Residential	\$7,933,686	\$3,972,902	\$2,086,723	\$493,777	\$10,020,409	\$4,466,679	\$14,487,088
Upstate - Nonresidential	\$1,500,205	\$881,755	\$589,496	\$227,239	\$2,089,701	\$1,108,994	\$3,198,695
Upstate - Commercial/Industrial	\$20,434,352	\$72,773,629	\$81,087,825	\$138,211,180	\$101,522,176	\$210,984,809	\$312,506,985
Con Ed - Residential	\$8,964,022	\$2,970,905	\$441,107	\$121,970	\$9,405,129	\$3,092,875	\$12,498,004
Con Ed - Nonresidential	\$17,589,799	\$25,489,686	\$30,789,111	\$25,551,437	\$48,378,910	\$51,041,123	\$99,420,033
Technical Assistance and Implementation	\$6,813,306	\$0	\$3,097,766	\$0	\$9,911,072	\$0	\$9,911,072
Total	\$63,235,370	\$106,088,877	\$118,092,028	\$164,605,602	\$181,327,398	\$270,694,479	\$452,021,877

Table 12. Non-CEF NYSERDA Solar Spending

This table quantifies NYSERDA investments in solar projects that are funded outside of the Clean Energy Fund. Project costs related to other non-NYSERDA installed solar (statewide interconnections) is not available and therefore not included.

Other Solar Installations	Expenditures through Prior Year	Current Year Expenditures through Current Quarter	Cumulative Expenditures through Current Quarter	Encumbrances as of Current Quarter	Total Progress as of Current Quarter (Expended + Encumbered)
NYSERDA (non-CEF) Installations	\$399,466,357	\$7,836,560	\$407,302,917	\$31,713,090	\$439,016,007

4 Evaluation, Measurement, and Verification Summary

In accordance with the Department of Public Service CE-05: Evaluation, Measurement, & Verification (EM&V) Guidance, NYSERDA is required to file all final EM&V Reports in the Document and Matter Management system. This section will include a compilation of the high-level summaries of the EM&V reports due for filing within the reporting period.

For the Q4 2025 reporting period, six evaluation studies were finalized as presented in Table 13. For more information on the schedule of studies as they pertain to NYSERDA’s Market Development and Innovation & Research initiatives, please reference the Compiled Investment Plan or view reporting for historical periods to see past summaries both found on NYSERDA’s website.

Table 13. Evaluations Completed Q4 2025

Evaluated Program	Evaluation type	Evaluated program year(s)
Clean Energy Communities	Market	Q1 2019 – Q2 2023
Clean Energy Communities	Impact	Q1 2019 – Q2 2023
Dandelion Ground Source Heat Pump Case Study	Case Study	2025
Dr. Max Zhang Environmental Research Case Study	Case Study	2025
Orange and Rockland Smart Grid Case Study	Case Study	2025
Gradient Window Heat Pump Case Study	Case Study	2025

The latest Compiled Investment Plans:

<https://www.nyserdera.ny.gov/About/Funding/Clean-Energy-Fund/>

Clean Energy Fund Reports:

<https://www.nyserdera.ny.gov/About/Publications/Program-Planning-Status-and-Evaluation-Reports/Clean-Energy-Fund-Reports>

Note that NYSERDA began providing these summaries with the 2021 Annual CEF Performance Report.

4.0 Clean Energy Communities Market Evaluation (2019-2023)

Summary of Report Findings, Recommendations, and NYSERDA Response to Recommendations.

Key findings and associated recommendations from the Clean Energy Communities Market Evaluation include:¹⁸

Market Assessment

Finding 1

The Contractor team estimated indirect impacts for the 2019-2023 reporting period of 356,645 MMBtus, 275,092 MWh of indirect energy savings and 320,135 MWh of renewable generation. These impacts are an indication of the CEC program successes in assisting local governments to take actions toward a clean energy economy, and progressing NYS toward achievement of the Clean Energy Standard.

Recommendation 1: N/A. There is no recommendation for this finding.

Finding 2: The CEC Program provides valuable resources and support for municipalities to execute clean energy activities. Without the assistance of the CEC Program, over half of NYS communities would lack the capacity, or have only limited ability, to carry out such activities independently. This underscores the continued relevance of the CEC Program, highlighting that the barriers it was designed to overcome remain significant challenges for many communities across the state.

Recommendation 2: N/A. There is no recommendation for this finding.

Finding 3: DAC communities were found to have lower engagement and participation in the CEC Program compared to non-DAC communities. A key contributing factor may be their less frequent interaction with CEC Coordinators, one of the Program's most valued and commonly used resources. While Coordinators play a critical role in supporting municipalities, representatives from DAC communities report fewer interactions than their non-DAC counterparts. Notably, one-third of DAC representatives indicate they do not engage regularly with their Coordinators, which means they may not be fully aware of the range of available guidance and resources that a CEC Coordinator can provide.

Recommendation 3: When communities engage with their Coordinator, it often greatly improves their knowledge and awareness of clean energy. To boost CEC Program activity in DACs, the Contractor team recommends that Coordinators make explicit efforts to connect with municipal representatives in the DAC communities within their territories over the next 12 months. Once connected, Coordinators can inform community representatives about the resources available through the CEC Program and Coordinators.

- **NYSERDA Response to Recommendation 3:** Implemented. Although the data indicates there is less outreach support to DAC communities than non-DAC communities, NYSERDA has made it a priority to support DAC communities through the Program and Coordinator network. Once the next program is launched, NYSERDA will take additional steps to prioritize DAC support.

Finding 4: The recurring additions of High Impact Actions (HIAs) to the Program offerings ensure that the Program offerings evolve with the changing energy landscape, keeping the CEC Program current with the market changes. Updates to the Program’s HIA list provide communities with new options, helping to maintain the Programs continued to respond to market changes. The introduction of new HIAs gives communities a reason to engage regularly with the CEC Program, promoting long-term participation.

Recommendation 4: N/A There is no recommendation for this finding.

Grants Analysis

Finding 5: The CEC Program design is flexible and evolves with changing market conditions. This adaptability allows communities to receive grants for executing the clean energy actions most relevant to their situations. For example, more action grants were awarded for Community Solar Campaigns in 2021, while Clean Heating and Cooling Campaigns received more grants in 2023. As rooftop and community solar become more common, the need for municipal campaigns to promote them diminishes. In contrast, heat pumps are now a statewide priority that requires more public education. Therefore, the CEC Program grants ensure the Program remains relevant by adapting to communities over time. In addition, the CEC Program offers flexibility for how communities use the grant funding. Many communities combined multiple CEC grants to fund their clean energy projects.

Recommendation 5: N/A. There is no recommendation for this finding.

Finding 6: The documentation format for CEC-funded grant projects limits the Program’s ability to effectively track and report on energy impacts. The existing format and instructions for providing project information do not always yield sufficient detail to determine the specific activities and measures funded by CEC grants. Documentation also does not indicate whether a community used grant funding to support completion of an HIA. Simple administrative changes can greatly improve the tracking of grant funds and determination of their energy impact.

Recommendation 6a: The Contractor team recommends that when CEC Program staff review the project description in grant applications, they confirm that the description presents sufficient details to know what energy-saving (or energy-generating) measures will be implemented as part of the project. If the project description lacks sufficient details, the community should add them.

- **NYSERDA Response to Recommendation 6a:** Implemented. The program team will revise the grant application to provide additional clarity and capture benefits for the 2026 program.

Recommendation 6b: The Contractor team recommends the CEC Program add a question to the grant project application that asks communities if they plan to use the grant funding to support the completion of a HIA, and if so, identify the HIA.

- **NYSERDA Response to Recommendation 6b:** Implemented. In the new program, the team will capture additional information, including if a grant will be used for the completion of a HIA.

4.1 Clean Energy Communities Impact Evaluation (2019-2023)

Summary of Report Findings, Recommendations and NYSERDA Response to Recommendations.

Key findings and associated recommendations include the Clean Energy Communities (CEC) Impact Evaluation include:¹⁹

The evaluation verified the per-capita and total energy savings for three High Impact Actions (HIAs): Benchmarking -Advanced Reporting, Clean Heating and Cooling Demo, and Clean Energy Upgrades for use in estimating indirect program impacts. The evaluated and verified savings results for each action are shown in Table 14 below.

Table 14. Evaluated HIA Savings Impacts

HIA	Annual Impact ^{**}	Annual Efficiency kWh Savings	Annual Natural Gas Btu Savings	lbCO2e
Benchmarking-Advanced Reporting	Total Verified Gross	1,281,721	14,216,984	2,191,711
	Per-Capita Verified Gross	0.246	2.729	0.42
Clean Heating and Cooling Demo	Total Verified Gross	18,343	1,728,992	57,163
	Per-Capita Verified Gross	0.016	1.476	0.049
Clean Energy Upgrades	Total Verified Gross	7,762,154	2,505,934	20,167,959
	Per-Capita Verified Gross	4.135	1.335	10.744

*Impacts are reported in units of kW, kWh, Btu, and lbCO2e for purposes of improving readability.

** Additional impacts per HIA found within the final report document.

The evaluation additionally estimated Beneficial Electrification impacts for the Clean Heating & Cooling Demo and the Clean Energy Upgrades HIAs, as seen in Table 15 below.

Table 15. Evaluated HIA Beneficial Electrification Impacts

Beneficial Electrification kWh by HIA	Total Verified Gross Impacts	Per-capita Verified Gross Impacts
Clean Heating and Cooling Demo	-203,321	-0.174
Clean Energy Upgrades	-140,085	-0.075

Finding 1: Results of the Benchmarking – Advanced Reporting HIA showed better performance in large communities than in small ones. Achieving energy savings from benchmarking is a long-term investment with greater potential for success in communities that have dedicated energy managers and buildings with integrated controls. While those characteristics are more commonly found in larger communities, small communities can also achieve savings but may require additional support and continued touchpoints with their NYSERDA CEC Coordinators.

Recommendation 1: To promote longer-term engagement, NYSERDA should consider adding a new HIA within the benchmarking activities that requires continued tracking of energy use, up to 24 months, and that demonstrates an improvement in energy use intensity tracking for all buildings that were a part of the Benchmarking – Advanced Reporting HIA. The HIA would drive deeper savings in municipal buildings and provide NYSERDA with detailed building-level energy use data that might be useful in identifying targeted HIAs.

- **NYSERDA Response to Recommendation 1:** Implemented. Benchmarking - Municipal Buildings - receive points if they submit a certified copy of an executed local law, ordinance, or resolution that requires the applying jurisdiction to make available to the public on the internet on an annual basis energy use information for each municipal building that is owned or occupied by the applying jurisdiction that is 1,000 square feet or larger. At a minimum, publicly disclosed energy use information shall include each building’s energy use intensity (EUI), annual greenhouse gas emissions, and an energy performance score where available.

Finding 2: The Clean Heating and Cooling Demo participation requirements include submission of a certification form, with limited estimated energy information. It does not include essential equipment details such as the heat pump make, model, or rated capacity. Collecting this information at the time of installation is the most reliable approach to ensure data accuracy and would enable NYSERDA to verify compliance with HIA

technical requirements. This data is critical for estimating the magnitude of energy and emissions impacts across participating communities. In the Clean Energy Upgrades HIA, the option for “comparable information” remains inadequately defined, introducing uncertainty regarding the data’s completeness and comparability.

Recommendation 2: To improve the accuracy of energy savings estimates, NYSERDA should revise the certification form for the Clean Heating and Cooling Demo HIA to include a required photo of the equipment nameplate, along with data entry fields for equipment capacity, heating efficiency, and cooling efficiency. Communities can obtain this information with support from the installation contractor. Additionally, the Contractor team recommends removing the option to submit “comparable information” under the Clean Energy Upgrades HIA. Eliminating this vague provision will help ensure that backup documentation includes sufficient detail to support more precise energy savings calculations.

- **NYSERDA Response to Recommendation 2:** Rejected. At first attempt, minimal CEC projects were able to be matched to the Clean Heat dataset. NYSERDA is confident this will be a useful data set in the future by working on the alignment needed for matching purposes.

Finding 3: The current work applied the 2010 US Census data for normalizing results to per capita totals, which is consistent with the Program Opportunity Notice (PON) during the Program years 2019—2023. The 2020 Census showed an overall increase in statewide population of 4.2%. However, community-to-community population changes vary positively and negatively.

Recommendation 3: Future iterations of the CEC Program PON should update community size descriptions (large and small) to use 2020 Census data. Future evaluations can also apply 2020 Census values to stay aligned.

- **NYSERDA Response to Recommendation 3:** Implemented. All future analysis and evaluations will implement the 2020 Census.

4.2 Dandelion Ground Source Heat Pump Case Study (2025)

Founded in 2017, Dandelion Energy (“Dandelion”) offers ground source heat pump (GSHP) drilling and installation services for residential and commercial customers across the United States. NYSERDA awarded Dandelion \$375,000 in 2018 to purchase a compact sonic drill, which Dandelion hypothesized would reduce drilling costs, minimize negative impacts to customers’ yards, and expand the company’s addressable market by reducing the outdoor space requirements for drilling.

A compact sonic drill is smaller and lighter than the drills traditionally used by geothermal installers in the US and emits high-frequency sonic vibrations to penetrate the ground. Dandelion was the first US-based company

to use a compact sonic drill for GSHP installation, although the technology is commonplace in the European geothermal industry. Dandelion determined that the sonic element of the drill did not improve efficiency or reduce costs as anticipated due to differences in geologic conditions between New York State (NYS) and Europe. However, the company did determine that the smaller size of the drill was beneficial for increasing the number of potential customers and reducing the amount of damage to customers' yards.

This case study explores and attempts to quantify how NYSERDA's initial grant to Dandelion for the compact sonic drill helped the company evolve and expand the residential market for GSHPs in New York State (NYS).²⁰ In addition to market development, the case study also explores project benefits related to energy savings, emissions reductions, and improved customer satisfaction.

Summary of Report Findings

Selected key findings from the Dandelion Case Study include:²¹

- NYSERDA's grant signaled Dandelion's credibility to investors and helped the company secure an additional \$86 million in venture capital funding between 2018 and 2024.
- Dandelion used some of this follow-on investment to purchase another compact drill (this time without the sonic drilling technology). NYSERDA's initial award helped reduce the corporate risk of investing in subsequent drills by allowing Dandelion to prove the feasibility and benefits of the compact drilling approach.
- Between 2018 and 2023, Dandelion installed approximately 2,600 GSHPs, of which approximately 1,560 projects (60 percent) would not have been possible without compact drilling (i.e., space constraints precluded the use of a larger drill).
- Given current trends in GSHP adoption, this case study estimates that an additional 54,700 residential GSHPs could be installed in NYS through 2050 given the increase in addressable market due to the innovative use of compact drilling proven by Dandelion with support from NYSERDA.
- By 2050, this case study estimates that the additional 54,700 GSHPs deployed in NYS because of compact drilling would generate:
 - 58 million MMBtu in net energy savings,
 - 3.6 million MTCO₂e in avoided net GHG emissions, and
 - \$707 million in avoided damages from net GHG emissions.

4.3 Dr. Max Zhang Environmental Research Case Study (2025)

Dr. K. Max Zhang (hereafter "Dr. Zhang") is the Provost's Fellow for Public Engagement at the Cornell Atkinson Center for Sustainability and the Irving Porter Church Professor of Engineering. He received his PhD in Mechanical Engineering from the University of California, Davis in 2004. His research interests include renewable energy systems, air pollution, decarbonization, and environmental justice.

NYSERDA's Environmental Research Program, designed to support energy policy-relevant research, has awarded approximately \$2 million in funding across eight contracts. Dr. Zhang leveraged this NYSERDA funding to secure over \$3 million in additional research funding.

This case study describes the impacts of Dr. Zhang’s research funded by NYSERDA’s Environmental Research Program as it relates to public policy, energy generation, air quality modeling, and environmental justice, highlighting the benefits of Dr. Zhang’s NYSERDA-funded research to New York State.

Summary of Report Findings

Selected key findings from the Dr. Zhang Case Study include:²²

- NYSERDA’s Environmental Research Program, designed to support energy policy-relevant research, has awarded Dr. Zhang approximately \$2 million in funding across eight contracts. Dr. Zhang has leveraged this NYSERDA funding to secure over \$3 million in additional research funding.
- Dr. Zhang has published 23 academic papers based on research funded by NYSERDA, all of which sought to improve understanding of air pollution and other effects from how we generate or use energy. As of April 2024, Dr. Zhang’s NYSERDA-funded papers have been cited over 640 times, including 11 papers that have each been cited over 20 times and seven that have each been cited over 50 times.
- Dr. Zhang’s work on energy and air quality is filling critical knowledge gaps. The insights from Dr. Zhang’s models will help New York State determine the most efficient and robust mix of renewable energy sources throughout the year depending on weather. In addition, Dr. Zhang’s work to identify more efficient methods of balancing energy supply and demand will result in lower cost electrification.
- Dr. Zhang’s work was cited in the New York State Department of Environmental Conservation’s regulation on Distributed Generation Sources, which established emission control requirements for sources used in demand response programs.²³
- Dr. Zhang’s dual-use solar research was cited in New York State Senate Bill 7081, which aims to preserve agricultural activities and promote ecosystem services at utility-scale solar farms.
- Dr. Zhang’s NYSERDA-funded work has resulted in follow-on policy research funded by other New York-based and national agencies

4.4 Orange & Rockland Grid Modernization Case Study (2025)

NYSERDA’s Smart Grid program promotes modernization of New York State’s electric grid by funding research and technology development projects that can be implemented at utility scale. Through these projects, the program aims to:

- Increase grid efficiency by reducing losses and improving system management,
- Reduce costs and improve technologies associated with integrating renewable energy sources, and
- Improve the ability of the grid to predict, withstand, and recover from power outages.

Examples of smart grid technologies include remote sensing devices for monitoring grid conditions in real-time, tools enabling two-way communication between a utility’s operations center and various points on the grid, and automated controls for optimizing grid performance. These technologies and devices are relatively new on the market and are evolving quickly.

Orange & Rockland is one of seven electric utilities in New York State. Its service territory covers over 300,000 households across six counties in New York and New Jersey. NYSERDA’s Smart Grid program began supporting Orange & Rockland’s grid modernization efforts in 2007, when the utility responded to a competitive

solicitation for distribution automation proposals and was awarded \$1 million to conduct a smart grid pilot project. The pilot upgraded two 13.2 kV electric circuits in West Nyack with advanced sensors, field devices, online decision-making software, and improved communications. In 2010, Orange & Rockland was awarded \$2 million to expand its distribution automation work to upgrade the southeastern portion of Orange & Rockland's territory in Rockland County. The work was carried out over three years from 2014-2016 and included upgrades to fourteen 13.2 kV electric circuits sensors. One of the main drivers for the project was to improve grid reliability for customers, especially during major storm events.²⁴

These smart grid upgrades, deployed from 2014-2016, significantly improved grid reliability in Orange & Rockland, significantly reducing the frequency and duration of electricity outages after 2016 when compared to past performance, and performance statewide. The grid upgrades also increased grid efficiency, allowing Orange & Rockland to defer the construction of a new substation by eight years.

This case study quantifies the key benefits that resulted from Orange & Rockland and NYSERDA's investment in the Utility's grid modernization improvements, including improved grid reliability, economic cost savings, and avoided CO₂ air pollution emissions.

Summary of Report Findings

Selected key findings from the Orange and Rockland Smart Grid Case Study include:²⁵

- \$3 million awarded (\$1M in 2015, \$2M in 2016) to Orange & Rockland by NYSERDA for grid modernization upgrades.
- \$8.7 million invested by Orange & Rockland (\$3.4M in 2015, \$5.3M in 2016) in the grid modernization upgrades.
 - \$2.90 committed by Orange & Rockland for every \$1 of NYSERDA funding.
- Reliability benefits of the grid modernization upgrades valued to be at least \$14.5 million for three storm events in 2020-2021. As the frequency and severity of storms increases due to climate change, the upgrades made during the project are likely to provide additional reliability benefits.
- Economic benefits of \$1.4 million from deferring \$5 million capital expenditure of building a new substation by 8 years.
- 5,274 metric tons of CO_{2e} emissions avoided from deferring substation construction.
- \$1.3 million of environmental benefits from avoided CO_{2e} from deferred substation construction.
- \$3.0 million in health benefits from avoided PM_{2.5 eq.} and the reduction in adverse health events from air pollution, from deferred substation construction.
- Total benefit of NYSERDA's and Orange & Rockland's funding is approximately \$20 million.
 - \$3.87 in benefits for every \$1 of NYSERDA funding (valued in \$2024).
- NYSERDA's funding helped inform Orange & Rockland's decision to plan significant follow-on smart grid investments and enabled equipment suppliers to further develop technologies and expand their businesses.

4.5 Gradient Window Heat Pump Case Study

In 2021, the New York City Housing Authority (NYCHA) initiated a search for a scalable and affordable solution for decarbonizing its building portfolio. NYCHA manages over 170,000 apartments in 2,550 buildings

across NYC, more than half of which were constructed prior to 1950 and rely on energy inefficient steam radiators and window air conditioners for heating and cooling.²⁶ NYCHA had previously conducted pilots of electrification technologies including air source heat pump (ASHP) mini-splits and geothermal heat pumps, but installing these solutions required extensive building retrofits and proved to be cost prohibitive.

NYCHA identified window heat pumps (WHPs) as a potential solution that could be both scalable and cost-effective. WHPs are compact, energy efficient ASHPs that are mounted in a window like traditional air conditioners but offer both cooling and heating capabilities. WHPs are easy to install and require no structural modifications (e.g., cutting holes in walls to accommodate mini-splits, running condensate and refrigerant lines, or adding ductwork for ducted systems). NYCHA was aware that some manufacturers were developing room air conditioners with limited heating capabilities suitable for mild climates, but a true cold climate WHP technology was not yet commercially available.²⁷

To address this commercialization gap, NYSERDA collaborated with NYCHA through the NextGen Building Innovation Challenge (PON 3519) and awarded contracts to manufacturers Gradient and Friedrich to develop a WHP that could meet NYCHA's needs. In addition, NYSERDA, NYCHA, and NYPA jointly issued an RFP under the Clean Heat For All Challenge (CH4A) for a pilot demonstration of 30,000 WHP units in NYCHA facilities. In August 2022, the NYPA Board of Trustees awarded manufacturers Gradient and Midea a combined \$70 million in CH4A prize funding to commercialize and pilot the 30,000 units.²⁸ NYCHA beta tested Gradient WHP units in 12 apartments at Woodside Houses in Queens between December 2023 and September 2024.

NYSERDA selected Gradient as the focus of this case study because the Authority funded Gradient under both the NextGen Building Innovation Challenge (WHP prototype development) and the Clean Heat for All Challenge (WHP commercialization and deployment).²⁹ This case study evaluates the impact of NYCHA's Gradient WHP beta test in terms of energy benefits (avoided gas use and net energy use), fiscal benefits (energy and maintenance cost savings), environmental benefits (GHG emission reductions), comfort benefits (improved thermal comfort), and product design improvements.

Summary of Report Findings

Selected key findings for the Gradient Window Heat Pump Case Study include:³⁰

- Switching to WHPs in the 12 pilot apartments reduced NYCHA's annual natural gas consumption by 812 MMBtu (68 MMBtu per apartment) and lowered net energy consumption by 483 MMBtu (40 MMBtu per apartment).
- NYCHA's annual energy costs increased by only \$937 (\$78 per apartment), suggesting that energy efficiency improvements from switching to WHPs helped balance the impact of the 3x gas-electricity price differential.
- NYCHA avoided 24 MTCO_{2e} in emissions (2 MTCO_{2e} per apartment) at a net cost of \$39 per ton (in increased electricity expenditures).
- 92% of tenants confirmed the new WHP units kept them warm in the winter and cool in the summer, and nearly 80% were satisfied with their units overall.
- Installing WHPs in all 1,357 apartments at Woodside Houses could decrease annual energy consumption by 54,600 MMBtu at a cost to NYCHA of \$106,000 per year in increased electricity bills. Annually, 2,700 MTCO_{2e} could be avoided at a value of \$436,000.

- NYCHA’s cost to maintain steam heating infrastructure is significant and may attenuate or even outweigh the increase in energy costs from switching to WHPs.
- Gradient is proactively addressing observations identified by NYCHA staff related to condensation performance. While NYCHA and Gradient complete this evaluation, large-scale deployment of the Gradient window heat pump units at NYCHA has been slowed, but the existing 10,000-unit contract remains in effect. Gradient’s window heat pump is fully commercialized and is being sold and installed for customers nationwide.

Endnotes

- 1 Order Authorizing the Clean Energy Fund Framework, issued and effective January 21, 2016. [\[LINK\]](#)
- 2 Order Approving Clean Energy Fund Modifications, issued and effective September 9, 2021. [\[LINK\]](#)
- 3 <http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?Mattercaseno=18-M-0084> [NYS Department of Public Service Commission Files]
- 4 Governor Hochul announces new framework to achieve nation-leading energy storage target (6GW by 2030), which can be referenced in the PSC filing of the Energy Storage Roadmap
<https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={7D4753BA-916B-483E-9E35-6749B20384A6}>
- 5 <https://greenbank.ny.gov/Resources/Public-Filings> [NY Green Bank Public Filings]
- 6 US EPA. 2004. Emission Inventory Improvement Program. Estimating Ammonia Emissions from Anthropogenic Sources, Draft Final Report. Prepared by E.H. Pechan and Associates, Inc.; III-1
- 7 US EPA. 1996. Compilation of Air Pollutant Emission Factors, 5th Edition, AP-42, Volume I: Stationary Point and Area Sources.
- 8 McDonald, R. 2009. Evaluation of Gas, Oil, and Wood Pellet Fueled Residential Heating System Emission Characteristics. Brookhaven National Laboratory.
- 9 For purposes of reporting, funding and associated benefits for Low-to-Moderate Income programs for years 2016-2019 are considered pre-Statewide Low-and-Moderate-Income Portfolio Implementation Plan (Statewide LMI Plan). All funding thereafter will be associated with the Statewide LMI Plan.
- 10 For purposes of reporting, funding and associated benefits for Low-to-Moderate Income programs for years 2016-2019 are considered pre-Statewide Low-and-Moderate-Income Portfolio Implementation Plan (Statewide LMI Plan). All funding thereafter will be associated with the Statewide LMI Plan
- 11 If solicitations with upcoming due dates were factored into the total NYSERDA commitments in the Market Development Budgets and Spending table, an additional \$ 25,513,996 (reflecting 100.5% of the total approved budget to date), would be included with total NYSERDA commitments.
- 12 The Market Characterization and Design initiative includes funds to support overarching, non-initiative-specific evaluation studies.
- 13 Initiative commitments that are in excess of their total budgets are in anticipation of program attrition. No initiative will have total expenditures in excess of that initiative's total budget at the close of the program.
- 14 If solicitations with upcoming due dates were factored into the total NYSERDA commitments in the Innovation and Research Budget and Spending table, an additional \$15,800,444 (reflecting 100.4% of the total approved budget to date) would be included with total NYSERDA commitments. NYSERDA anticipates attrition over time.
- 15 The Market Characterization and Design initiative includes funds to support overarching, non-initiative-specific evaluation studies.
- 16 A modification on September 9, 2022, to the Renewables Optimization Investment Plan expanded the activities and budget of the Energy Storage Technology and Product Development initiative to focus on solutions providing 10 to 100+ hours of storage for various grid applications to enable the transition away from natural gas infrastructure. In a subsequent filing on November 1, 2022, this new portion of the initiative was renamed to Long Duration Energy Storage as its own initiative the Gas Innovation focus area.
- 17 Order Approving NY-Sun Program Modifications, issued and effective April 24, 2025. [\[LINK\]](#)
- 18 The final study will be posted Q1 2026.
- 19 The final case study will be posted Q1 2026.
- 20 This case study relies on the most recent publicly available NYSERDA heat pump data, input from Dandelion, and historical technology growth rates from the academic literature to provide an indication of market expansion. This case study is *not* an in-depth GSHP market potential study, as that type of new analysis is beyond the scope of this work.
- 21 The final case study will be posted Q1 2026.

- ²² The final case study will be posted Q1 2026.
- ²³ 6 NYCRR Part 222, Distributed Generation Sources, 2020, https://extapps.dec.ny.gov/docs/air_pdf/siprev222.pdf.
- ²⁴ NYSERDA has supported Orange & Rockland’s grid modernization work through multiple awards. However, this case study focuses on two: the smart grid pilot project and distribution automation work.
- ²⁵ The final case study will be posted Q1 2026.
- ²⁶ See the U.S. Department of Energy’s NYCHA Better Buildings Profile found here: <https://betterbuildingssolutioncenter.energy.gov/partners/new-york-city-housing-authority-nycha> and 2022 Challenges and Solutions Electrifying NYCHA presentation found here: https://betterbuildingssolutioncenter.energy.gov/sites/default/files/2022Summit-Electrification_in_Existing_Multifamily_Buildings-Slides.pdf
- ²⁷ Interview with Jordan Bonomo, NYCHA Senior Project Manager (April 2024).
- ²⁸ Gradient and Midea were announced as winners of the \$70 million CH4A investment in August 2022.
- ²⁹ Midea is also piloting precommercialized WHP units in 12 tenant apartments at Woodside Houses under the CH4A contract. However, Midea was not a recipient of NYSERDA funding for WHP prototype development under the NextGen Building Innovation Challenge.
- ³⁰ The final case study will be posted Q1 2026.

NYSERDA, a public benefit corporation, offers objective information and analysis, innovative programs, technical expertise, and support to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce reliance on fossil fuels. NYSERDA professionals work to protect the environment and create clean-energy jobs. NYSERDA has been developing partnerships to advance innovative energy solutions in New York State since 1975.

To learn more about NYSERDA's programs and funding opportunities, visit nyserda.ny.gov or follow us on X, Facebook, YouTube, or Instagram.

**New York State
Energy Research and
Development Authority**

17 Columbia Circle
Albany, NY 12203-6399

toll free: 866-NYSERDA
local: 518-862-1090
fax: 518-862-1091

info@nyserda.ny.gov
nyserda.ny.gov



NYSERDA
New York State Energy Research
and Development Authority

State of New York

Kathy Hochul, Governor

New York State Energy Research and Development Authority

Charles Bell, Acting Chair | Doreen M. Harris, President and CEO