

Clean Energy Fund Quarterly Performance Report through June 2025

Final Report | August 2025



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 June 30, 2025

Revision Date	Description of Changes	Revision on Page(s)
August 29, 2025	Original Issue	

Clean Energy Fund Quarterly Performance Report through June 30, 2025

Final Report

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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

With these goals, New York State is undertaking one of the most aggressive clean energy agendas in the nation. 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 June 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

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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 June 30, 2025, and nets out overlap across portfolios where it is known to occur. Plans depicted throughout this report reflect the April 30, 2025 Compiled Investment Plan (CIP) filing made by NYSERDA and later approved by DPS June 11, 2025.

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.

Figure 1. Clean Energy Fund Portfolio Expected Investment Versus Targets

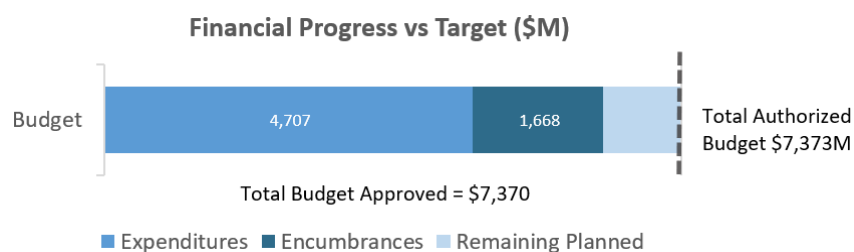


Figure 1 Supporting data		Total Authorized Budget	Budget Approved		Expended Funds		Encumbered Funds		Remaining Planned		Funding Not Yet Approved
			Current Total	% of Authorized	Current Total	% of Authorized	Current Total	% of Authorized	Total Balance	% of Authorized	
Market Development (MD)	Program Funds	\$ 2,399.7 M	\$ 2,370.9 M	100%	\$ 1,540.2 M	65%	\$ 630.4 M	26%	\$ 200.3 M	9%	\$ 0.9 M
	NYS Cost Recovery Fee		\$ 28.0 M		\$ 18.3 M		\$ 0.0 M		\$ 9.7 M		
Innovation & Research (IR)	Program Funds	\$ 631.7 M	\$ 623.0 M	100%	\$ 341.1 M	55%	\$ 195.6 M	31%	\$ 86.2 M	14%	\$ 1.9 M
	NYS Cost Recovery Fee		\$ 6.8 M		\$ 3.6 M		\$ 0.0 M		\$ 3.2 M		
MD and IR combined	Administration	\$ 274.4 M	\$ 274.4 M	100%	\$ 231.4 M	84%	\$ 0.0 M	0%	\$ 43.0 M	16%	\$ 0.0 M
	Evaluation	\$ 124.2 M	\$ 124.2 M	100%	\$ 52.9 M	43%	\$ 19.6 M	16%	\$ 51.7 M	42%	\$ 0.0 M
	MD and IR Total	\$ 3,430.0 M	\$ 3,427.2 M	100%	\$ 2,187.4 M	64%	\$ 845.6 M	25%	\$ 394.2 M	12%	\$ 2.8 M
NY-Sun	Program Funds	\$ 2,904.8 M	\$ 2,904.8 M	100%	\$ 1,526.3 M	53%	\$ 822.5 M	28%	\$ 556.0 M	19%	\$ 0.0 M
	NYS Cost Recovery Fee	\$ 28.8 M	\$ 28.8 M	100%	\$ 13.9 M	48%	\$ 0.0 M	0%	\$ 14.9 M	52%	\$ 0.0 M
	Administration	\$ 58.8 M	\$ 58.8 M	100%	\$ 30.1 M	51%	\$ 0.0 M	0%	\$ 28.6 M	49%	\$ 0.0 M
	Evaluation	\$ 3.5 M	\$ 3.5 M	100%	\$ 1.8 M	51%	\$ 0.3 M	7%	\$ 1.5 M	42%	\$ 0.0 M
	NY-Sun Total	\$ 2,995.8 M	\$ 2,995.8 M	100%	\$ 1,572.1 M	52%	\$ 822.8 M	27%	\$ 600.9 M	20%	\$ 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%	\$ 4,706.6 M	64%	\$ 1,668.4 M	23%	\$ 995.1 M	13%	\$ 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 \$404 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 Q2 2025, measurement and verification activities have resulted in an adjustment to direct gross total energy savings by approximately -2.7 TBtu. Indirect benefits from market transformation are included in acquired totals where they have been quantified through evaluation, now adding approximately 6.6 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

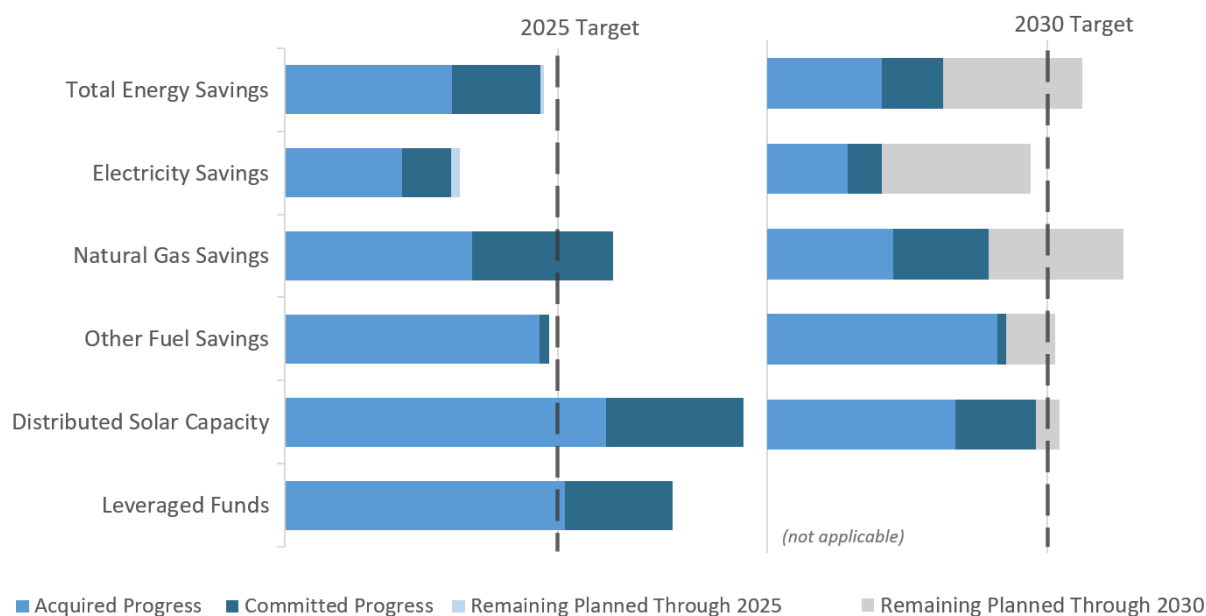


Figure 2 Supporting Data	Acquired Progress	Committed Progress	Remaining Planned Through 2025	Total Expected Through 2025	2025 Order Target	Remaining Planned Through 2030	Total Expected Through 2030	2030 Order Target
Total Energy Savings (MMBtu equivalent, millions)	32.4	17.2	0.7	50.3	53.0	39.2	88.8	79.0
Electricity Savings (MWh, millions)	2.9	1.2	0.2	5.2	6.7	5.3	9.4	10.0
Natural Gas Savings (MMBtu, millions)	17.1	12.9	-	26.8	25.0	18.3	48.3	38.0
Other Fuels Savings (MMBtu, millions)	14.0	0.5	-	14.4	15.0	3.0	17.5	17.0
Distributed Solar Capacity (Renewable MW)	7,051	3,008	-	10,059	6,000	894	10,953	10,500
Leveraged Funds (\$ millions)	\$20,481	\$7,840	-	\$28,321	\$20,000	-	\$28,321	n/a

Benefits Metrics Progress as Percent of Totals	Acquired + Committed (values summed from above)		Acquired + Committed as a Percentage of the Expectations / Targets			
			Total Expected Through 2025	2025 Order Target	Total Expected Through 2030	2030 Order Target
Total Energy Savings (MMBtu equivalent, millions)	49.6	→	99%	94%	56%	63%
Electricity Savings (MWh, millions)	4.1		79%	61%	43%	41%
Natural Gas Savings (MMBtu, millions)	30.0		112%	120%	62%	79%
Other Fuels Savings (MMBtu, millions)	14.5		100%	97%	83%	85%
Distributed Solar Capacity (Renewable MW)	10,059		100%	168%	92%	96%
Leveraged Funds (\$ millions)	\$28,321		100%	142%	100%	n/a

Accompanying Notes:

- 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 1,471 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 NYSEDA funding. Committed project data is maintained by NYSEDA 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 NYSEDA 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 NYSEDA funded solar projects of \$2,044 million acquired and \$90 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, NYSEDA 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:

- Over nine years into the ten-year CEF commitment timeline, every metric with the exception of 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.
- Near-term projections for 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 NYSEDA maintains confidence in the ability of the CEF portfolio to deliver the overall impact outlined by CEF 2030 Targets through the combination of direct benefits related to projects and indirect market impacts influenced by programs broadly.
- Projects delivering electricity savings remain behind the pace of 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 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. Reporting requirements outlined by DPS are generally aligned with a broader statewide effort, where NYSERDA has worked with other State agencies and stakeholders, including the Climate Justice Working Group and the Department of Environmental Conservation, to establish a statewide benefits metrics framework and reporting system for the Climate Act disadvantaged community mandate. This annual statewide report will include place-based investments across all funds, not just CEF.

Additionally, NYSERDA is required to track and report other reference metrics outlined in appendix C of the CEF Order. Carbon emissions reductions and bill saving metrics are presented below for the combined CEF portfolios.

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 (CO2e Metric Tons, millions)	7.4	3.3	10.7	9.0	14.0
Participant Bill Savings (\$ millions)	\$1,334	\$709	\$2,043	n/a	n/a

- These metrics reflect all the same inclusions/exclusions and assumptions, including overlap—where known or perceived—between the four CEF portfolios and their reported benefits, as is applied to Figures 1 and 2 above.

2 Market Development and Innovation & Research Performance

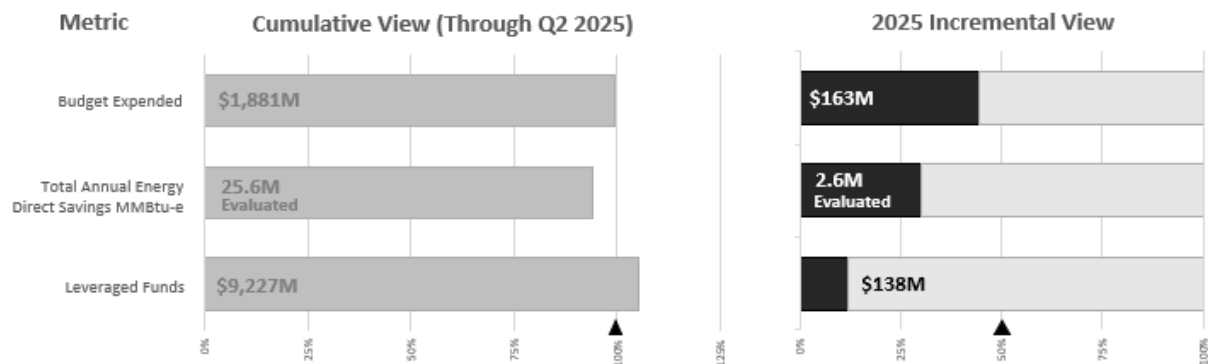
On May 20, 2022, NYSERDA filed a comprehensive update to all MD and IR portfolio plans in the first edition of the Compiled Investment Plans (CIP), as prescribed in the CEF Order. These plans convey expected funding and benefit progress for each initiative, which are used to gauge progress over time 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. 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 Plan⁶ 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 Q2 2025⁷. Key points to understand the data presented in Figure 3 include:

- The Cumulative View (Through Q2 2025) represents years 2016–2024 and two quarters of 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 Q2 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. Progress to date shows that NYSERDA has surpassed the cumulative leveraged funding goal through year-end 2025 (as well as the 2025 Order Target for all CEF), in large part due to the reporting of follow-on funding for Innovation & Research projects in Q4 2024. NYSERDA is also forecasting the largest single-year of energy savings acquired since launch, acknowledging some lag to an assumed linear plan through the second quarter with progress discussed in greater detail for the Top 15 Energy Savings Impact initiatives in Table 2 that follows.

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 53 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.

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

Cumulative progress to plan is measured on a prorated basis through Q2 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 acquired plan. Benefits analysis represents verified gross direct savings where evaluated through studies and gross savings only where evaluation results are not applicable.

MMBtu Impact Rank	Initiative	Cumulative Progress (% Performance To Plan)			Progress Narrative
		Budget %	Savings Type	Energy %	
1	Energy Management Technology	99%	Evaluated:	35%	Expenditures are trending favorably, though energy benefits still lag plan. An evaluation of verified gross savings completed in 2021 significantly reduced energy savings from the gross values reported. A notable amount of this reduction was due to delayed installation of capital improvement measures, (observed across several NYSERDA initiatives) and a longer-than-anticipated timeline for measure installations, which created a delay in acquiring savings. A second evaluation concluded in 2023 showing improved realization rates. A third round of evaluation is nearing completion; commercial direct impacts have been applied in this Q2 report and the Q3 2025 report will provide a wholesale summary of all direct and indirect impacts for commercial and multifamily. Commercial direct impacts show a similar realization rate from the last evaluation for electricity (62%) and an improved realization rate for natural gas (66%). Direct savings realization rates were based on vendor service reports to NYSERDA that identified recommended and installed energy conservation measures. However, given the nature of an RTEM system and services, many optimization measures are implemented either through automation or by the human operator, without noting such action in the service report provided to NYSERDA. Further, vendor service reports varied in terms of their consistency and quality. The Evaluators used AI data gathering tools and interviews with facility managers and vendors/providers along with annualized utility consumption data, where available, to identify and verify savings where possible. This evaluation should be viewed alongside the upcoming evaluation of indirect benefits, which will capture the installation of additional (beyond the recommended) measures at participant facilities.
2	Technical Services	108%	Evaluated:	121%	Progress of budget expenditures and benefits remains strong, and all funds are expected to be fully committed by end of 2025. An impact evaluation for the Technical Services portfolio is underway and future reports will detail results.
3	Product and Appliance Standards	100%		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; future quarterly reports will summarize findings.

Table 2 continued

MMBtu Impact Rank	Initiative	Cumulative Progress (% Performance To Plan)			Progress Narrative
		Budget %	Savings Type	Energy %	
4	Market Challenges	90%	Gross:	37%	There are 28 active Carbon Challenge projects in various stages of implementation, with 3 anticipated to acquire savings by the end of 2025. Active projects have continually experienced delays due to supply chain and labor lead times impacting energy savings acquired. The program is monitoring projects for potential impacts on equipment delivery related to federal action on tariffs. Empire Building Challenge has 10 demonstration projects in different stages of design and implementation, with the first project now completed and reporting savings in Q1 2025. More savings will be reported as measures are installed per the phased implementation plans of these large demonstrations. The third round of Empire Building Challenge projects will be announced in Q3 2025. An evaluation is anticipated to begin in the second half of 2025 and future quarterly reports will summarize findings.
5	Building Operations and Maintenance Partnerships	101%	Evaluated:	95%	The program will be accepting applications through October 31, 2025, and is on track to commit the remaining CEF funds. Five new projects were contracted in Q2. A follow-up study to the impact and market evaluation completed in Q1 2025 is underway now and is anticipated to be complete Q1 2026.
6	Electric Vehicles – Rebate	100%	Evaluated:	100%	Inactive. CEF funding for this initiative has been fully committed and all rebates were paid out as of Q1 2021. A verified gross savings analysis reduced energy performance from the gross values reported. This reduction is attributed to lower vehicle miles traveled as compared to the program assumptions. An initial assessment of indirect benefits was completed on EV Rebates. However, given the ongoing presence of rebates through RGGI funding, and no identified sales increase beyond incentives that could be linked to program funding, no indirect savings were estimated as part of this study. NYSERDA removed these indirect forecasts in the April 2025 CIP filing.
7	LMI Multifamily	114%	Evaluated:	98%	Owner's Representative for Multifamily Buildings is a new offering launched early Q2 2025; funding is expected to be fully committed by end of Q4 2025. Small Affordable Multifamily Energy Study (SAMÉS) was also launched in early 2025 under LMI Technical Assistance and focuses on small multifamily buildings. Multifamily Performance Program continues to closeout remaining projects in its pipeline and will be fully expended by end of Q4 2025. Both Multifamily Performance Program and LMI Technical Assistance are currently undergoing impact evaluations with results due in Q3 2025 and Q2 2026, respectively. Affordable housing partnership (Direct Injection) program expenditures are trending favorably. Additional HCR retrofit projects representing \$5M shall be awarded in Q3 2025. Evaluation activities were officially kicked off for Direct Injection and Phase 1 of the study is anticipated to be complete by Q1 2026. Future quarterly reports will summarize findings.

Table 2 continued

MMBtu Impact	Initiative	Cumulative Progress (% Performance To Plan)			Progress Narrative
		Rank	Budget %	Savings Type	
8	Industrial Transition	100%	Evaluated:	98%	Inactive. One open project remains to formally close out this initiative. A final Impact evaluation will be completed in Q3 2025.
9	Energy Management Practices	100%	Evaluated:	103%	Total progress of energy benefits continues to trend in a positive direction, with strong realization rates applied from the 2024 Impact Evaluation. Progress of remaining budget expenditures are on track; Strategic Energy Management is fully committed.
10	Codes and Standards for Carbon Neutral Buildings	91%		n/a	NYS successfully adopted a new energy code in July 2025, making New York the first state to require zero emissions new construction in the code and the first state to officially adopt the 2024 model I-Codes. This work represents the successful culmination of a 5-year development, advancement, and regulatory process for the NYSERDA team. Core work for code training and resources to support code updates is moving forward. This initiative forecasts all impacts as indirect savings. An evaluation was completed in Q1 2025. As presented in this study, NYSERDA 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 has delivered 3.7 TBtu of savings (all funding sources).
11	New Construction – Market Rate	101%	Evaluated:	88%	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 also remains open and contributing toward progress to date. The 2025 Round of BCCC was launched in Q2 2025 and will close in Q3 2025 with awards coming in Q4 2025. Round 6 of BOE was launched in Q2 2025 with awards expected 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 completed in Q4 2025. New Construction initiatives are similar across both the market rate and LMI sectors.
12	Clean Energy Communities	103%	Evaluated:	253%	NYSERDA’s Clean Energy Communities (CEC) Program has been successful, garnering participation from approximately 61% of local governments across the state, each who receive funding to help implement high impact energy efficiency, renewable energy, and sustainable development projects in their communities. Strong demand required NYSERDA to suspend the application process in November 2024 with funding fully allocated. Following confirmation through an independent third-party evaluator review, NYSERDA shifted its forecasted benefits for years 2019-2023 to indirect benefits. An updated evaluation is underway to properly characterize and report indirect benefits across those years, anticipated to be complete Q3 2025. This study will also include an assessment of grant offerings and leveraged funds.

Table 2 continued

MMBtu Impact	Initiative	Cumulative Progress (% Performance To Plan)			Progress Narrative
		Rank	Budget %	Savings Type	
13	New Construction LMI	97%	Evaluated:	101%	The initiative continues to perform well on both budget and energy benefits, with significant expenditures also 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 also remains open and contributing toward progress to date. Round 6 of BOE was launched in Q2 2025 with awards expected in Q4 2025. An updated impact and market evaluation are underway and anticipated to be completed in Q4 2025. New Construction initiatives are similar across both the market rate and LMI sectors.
14	Clean Green Campuses	108%	Evaluated:	112%	Initiative progress is in good standing and all funding is now fully committed. As projects are completed, excess funding will be recommitted to complete a College Decarbonization Playbook underway and provide continued outreach support to the sector.
15	P-12 Schools	115%	Gross:	64%	Program incentives are fully committed. Progress of budget expenditures continues to be strong. Acquired savings are slightly lagging due to two large projects being delayed and the impact evaluation being postponed allowing for project completions. The acquired savings will continue to increase as more Clean Green Schools Initiative technical assistance projects are completed. An indirect market evaluation is slated to begin Q3 2025 and an updated impact evaluation in Q3 2025 as part of a larger Technical Services impact evaluation.

2.0 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 gross savings by approximately 2.7 TBtu through Q2 2025.

Annual Benefits Metrics	Evaluated Totals (verified gross where evaluated; gross where not)								
	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	2,597,185	25,587,396	17,165,598	42,752,994	31,504,850	136%	46,171,234	93%
Electricity Savings (MWh)	720,265	133,444	2,485,286	1,201,388	3,686,674	3,017,313	122%	3,873,767	95%
Total Fuel Savings (MMBtu)	6,431,241	2,433,320	27,717,738	13,415,310	41,133,048	31,496,593	131%	43,631,794	94%
Natural Gas Fuel Savings (MMBtu)	6,001,365	1,730,061	13,702,681	12,874,938	26,577,619	17,876,508	149%	28,786,854	92%
Other Fuel Savings (MMBtu)	429,875	703,259	14,015,057	540,373	14,555,429	13,620,085	107%	14,844,939	98%
Renewable Energy Generation (MWh)	14,093	8,988	298,791	55,890	354,681	170,575	208%	172,255	206%
Renewable Energy Capacity (MW)	1	6	438	12	450	184	245%	184	244%
Total Leveraged Funds (\$M)	\$1,162	\$138	\$9,227	\$4,050	\$13,277	\$9,357	142%	\$12,713	104%

- Verified savings as a percent of total reported direct savings varies by metric and includes electricity (59% verified), natural gas (61%), and other fuels (12%). 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.

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)	6,607,290	-	6,607,290	21,391,646	31%	48,912,467	14%
Electricity Savings (MWh)	735,524	-	735,524	2,476,581	30%	5,865,073	13%
Total Fuel Savings (MMBtu)	4,475,744	-	4,475,744	14,103,904	32%	31,088,595	14%
Natural Gas Fuel Savings (MMBtu)	3,437,264	-	3,437,264	8,876,468	39%	19,523,904	18%
Other Fuel Savings (MMBtu)	1,038,480	-	1,038,480	5,227,436	20%	11,564,691	9%
Renewable Energy Generation (MWh)	478,683	-	478,683	785,183	61%	1,157,877	41%
Renewable Energy Capacity (MW)	58	-	58	369	16%	516	11%

- 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, -110,803 MWh is netted in the Total Energy Savings calculation.
- Indirect leveraged funding will be captured with future assessments.

2.1 Quarterly Budgets Progress Versus Plan

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

See endnote section for more information.^{8,9,10}

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	\$102,265	\$903,920	\$56,427,085	\$56,102,697	101%	\$56,502,537	100%
Heat Pumps Phase 2 (2020)	\$4,240,868	\$2,467,020	\$20,175,349	\$61,888,367	\$43,477,697	142%	\$62,168,595	100%
Renewable Heat NY - Clean and Efficient Biomass Heating	\$115,703	\$39,610	\$35,203	\$13,410,575	\$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	\$2,608,896	\$21,114,472	\$132,013,540	\$113,278,482	117%	\$132,369,221	100%
Codes and Standards, & Other Multisector Initiatives								
Codes and Standards for Carbon Neutral Buildings	\$8,837,592	\$2,115,059	\$10,801,729	\$34,861,507	\$30,782,311	113%	\$50,500,000	69%
Information Products and Brokering	\$750,000	\$257,619	\$1,597,293	\$4,195,718	\$3,281,162	128%	\$4,299,998	98%
Market Characterization & Design Market Development	\$1,868,916	\$361,130	\$2,527,381	\$22,797,991	\$21,778,397	105%	\$24,574,225	93%
Product and Appliance Standards	\$3,879,143	\$2,033,511	\$7,433,507	\$16,985,746	\$11,449,094	148%	\$17,199,002	99%
NYGridConnect	\$1,484,735	\$513,624	\$2,179,474	\$10,654,666	\$9,129,296	117%	\$13,000,000	82%
Codes and Standards, & Other Multisector Initiatives Total	\$16,820,386	\$5,280,942	\$24,539,385	\$89,495,629	\$76,420,259	117%	\$109,573,225	82%
Commercial / Industrial / Agriculture								
Advancing Agricultural Energy Technologies	\$1,084,399	-	\$1,283,400	\$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	\$1,578,547	\$4,015,673	\$21,587,352	\$17,358,472	124%	\$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	\$1,474,220	\$3,711,350	\$25,360,087	\$23,295,753	109%	\$26,476,777	96%
Energy Management Technology	\$11,806,692	\$4,319,348	\$33,233,894	\$100,465,770	\$73,146,793	137%	\$108,298,861	93%
Greenhouse Lighting and Systems Engineering	\$729,513	\$186,873	\$592,640	\$5,000,000	\$4,950,000	101%	\$5,000,000	100%
Industrial Transition	\$168,404	\$7,893	\$153,516	\$45,194,090	\$45,196,736	100%	\$45,196,736	100%
Market Challenges	\$21,832,030	\$4,311,943	\$71,625,406	\$114,175,488	\$60,070,169	190%	\$148,132,457	77%
P-12 Schools	\$3,620,000	\$3,861,490	\$40,358,868	\$57,520,000	\$16,735,306	344%	\$57,600,000	100%
Pay for Performance	-	-	\$79,417	\$1,779,034	\$1,699,616	105%	\$1,699,616	105%
Real Estate Tenant	\$1,200,116	\$244,137	\$1,091,020	\$15,754,177	\$15,398,346	102%	\$15,798,390	100%
Technical Services	\$15,786,103	\$13,215,382	\$39,899,277	\$105,216,576	\$67,888,020	155%	\$122,927,780	86%
Commercial / Industrial / Agriculture Total	\$61,548,492	\$29,373,037	\$196,044,462	\$510,175,874	\$343,866,876	148%	\$570,908,285	89%
Communities								
Clean Energy Communities	\$10,598,056	\$4,342,649	\$20,052,889	\$65,294,787	\$49,363,723	132%	\$66,271,963	99%
Community Energy Engagement	-	-	-	\$4,388,546	\$4,388,546	100%	\$4,388,546	100%
Communities Total	\$10,598,056	\$4,342,649	\$20,052,889	\$69,683,334	\$53,752,270	130%	\$70,660,509	99%

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	-	-	\$32,865	\$212,147	\$179,282	118%	\$179,282	118%
Heat Pumps Phase 2 (2020)	\$4,034,206	\$1,000,552	\$9,475,403	\$19,174,100	\$12,732,352	151%	\$28,000,000	68%
LMI Multifamily	\$31,529,880	\$12,108,963	\$81,947,253	\$163,459,117	\$87,488,496	187%	\$179,529,592	91%
LMI Outreach & Engagement	\$2,921,022	\$844,196	\$2,269,620	\$7,074,829	\$7,015,918	101%	\$8,467,401	84%
LMI Pilots	-	-	-	\$852,665	\$852,665	100%	\$852,665	100%
Low Rise New Construction Transition - LMI	\$232,000	\$58,499	\$379,211	\$7,926,284	\$7,728,133	103%	\$7,920,376	100%
Multifamily New Construction Transition - LMI	\$610,000	\$228,260	\$787,362	\$7,800,631	\$7,340,693	106%	\$7,970,981	98%
New Construction - LMI	\$16,479,608	\$5,794,732	\$57,141,113	\$125,429,050	\$78,972,813	159%	\$131,806,255	95%
NYS Healthy Homes Value Based Payment Pilot	\$997,750	\$676,343	\$234,996	\$4,074,115	\$4,255,016	96%	\$4,255,016	96%
Regional Clean Energy Hubs	\$20,344,958	\$4,673,209	\$25,808,211	\$42,441,365	\$35,155,803	121%	\$47,000,000	90%
RetrofitNY - LMI	\$2,011,698	\$484,318	\$1,054,643	\$8,704,672	\$8,005,928	109%	\$8,717,439	100%
REVitalize	-	-	-	\$291,424	\$291,424	100%	\$291,424	100%
Single Family - Low Income	\$33,829,378	\$21,004,277	\$268,064	\$269,298,673	\$281,855,709	96%	\$281,855,709	96%
Single Family - Moderate Income	\$2,560,548	\$1,707,692	\$468,929	\$102,751,323	\$102,716,289	100%	\$102,751,836	100%
Solar for All	\$1,300,000	\$233,266	\$5,352,555	\$12,206,929	\$8,189,120	149%	\$12,839,585	95%
Low-to-Moderate Income Total	\$116,851,048	\$48,814,307	\$185,220,225	\$771,697,324	\$642,779,641	120%	\$822,437,561	94%
Multifamily Residential								
Energy Management Technology	\$2,224,891	\$336,777	\$5,670,902	\$13,884,225	\$10,101,438	137%	\$14,056,041	99%
Market Challenges	\$2,503,544	\$138,380	\$5,856,361	\$12,879,590	\$7,477,145	172%	\$13,300,000	97%
Multifamily Low Carbon Pathways	\$1,670,074	\$902,192	\$10,992,481	\$15,154,997	\$5,498,156	276%	\$19,670,380	77%
Multifamily Market Rate Transition	-	-	-	\$156,214	\$156,214	100%	\$156,214	100%
Technical Services	\$5,702,460	\$2,945,401	\$9,677,174	\$27,074,682	\$19,720,955	137%	\$30,717,634	88%
Multifamily Residential Total	\$12,100,969	\$4,322,750	\$32,196,917	\$69,149,707	\$42,953,907	161%	\$77,900,268	89%
New Construction								
Commercial New Construction Transition	\$1,055,000	\$629,995	\$1,652,797	\$12,377,779	\$11,211,782	110%	\$12,645,983	98%
Low Rise New Construction Transition - Market Rate	\$61,200	\$10,989	\$69,487	\$4,381,292	\$4,363,224	100%	\$4,381,285	100%
Multifamily New Construction Transition - Market Rate	\$162,248	\$14,348	\$175,174	\$1,626,873	\$1,614,346	101%	\$1,626,873	100%
New Construction - Market Rate	\$11,170,827	\$5,990,983	\$86,755,100	\$124,760,528	\$43,185,273	289%	\$157,975,614	79%
New Construction Total	\$12,449,275	\$6,646,315	\$88,652,558	\$143,146,473	\$60,374,625	237%	\$176,629,755	81%

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	\$549,979	\$6,036,333	\$13,414,066	\$12,593,213	107%	\$13,245,671	101%
Clean Energy Siting and Soft Cost Reduction	\$1,439,353	\$267,589	\$2,893,059	\$6,660,229	\$4,991,535	133%	\$8,795,000	76%
Combined Heat & Power Transition	\$5,397,027	\$3,585,121	\$1,267,962	\$50,956,055	\$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	\$94,419	\$1,353,244	\$4,304,117	\$3,413,346	126%	\$4,176,546	103%
Reducing Barriers to Distributed Deployment	\$3,241,160	\$1,056,231	\$4,161,432	\$15,326,623	\$14,639,708	105%	\$15,450,000	99%
Small Wind Transition	-	-	-	\$3,323,673	\$3,323,673	100%	\$3,323,673	100%
Solar Plus Energy Storage	\$2,272,609	\$1,668,661	(244161)	\$34,449,989	\$35,298,116	98%	\$35,298,116	98%
Renewables / Distributed Energy Resources (DER) Total	\$14,586,978	\$7,221,999	\$15,552,569	\$147,806,079	\$145,301,578	102%	\$151,330,992	98%
Single Family Residential								
Consumer Awareness	-	-	-	\$2,251,671	\$2,251,671	100%	\$2,251,671	100%
Heat Pumps Phase 2 (2020)	\$4,825,000	\$843,327	\$4,165,024	\$10,320,251	\$10,136,900	102%	\$14,337,698	72%
Pay for Performance	-	-	-	\$885,684	\$885,684	100%	\$885,684	100%
Residential	\$13,986,659	\$2,471,829	\$5,511,107	\$49,450,310	\$53,158,531	93%	\$56,998,862	87%
Single Family Market Rate Transition	-	-	-	\$23,528,344	\$23,528,344	100%	\$23,528,344	100%
Single Family Residential Total	\$18,811,659	\$3,315,156	\$9,676,131	\$86,436,259	\$89,961,130	96%	\$98,002,260	88%
Transportation								
Electric Vehicles - Rebate	\$64,000	-	-	\$39,406,074	\$39,486,074	100%	\$39,498,889	100%
EV Charging and Engagement	\$1,500,000	\$3,808,210	\$383,544	\$4,504,089	\$2,200,001	205%	\$7,184,091	63%
Transportation Total	\$1,564,000	\$3,808,210	\$383,544	\$43,910,163	\$41,686,075	105%	\$46,682,980	94%
Workforce Development								
Building Operations and Maintenance Partnerships	\$4,278,752	\$2,240,638	\$8,776,891	\$30,298,357	\$23,559,580	129%	\$31,365,551	97%
Talent Pipeline	\$10,609,141	\$5,370,426	\$28,159,030	\$76,769,546	\$53,849,230	143%	\$83,000,000	92%
Workforce Development Total	\$14,887,893	\$7,611,065	\$36,935,921	\$107,067,904	\$77,408,810	138%	\$114,365,551	94%
NYS Cost Recovery Fee Market Development	\$3,217,757	\$1,000,864	-	\$18,301,169	\$20,518,062	89%	\$27,978,633	65%
Total Market Development	\$288,460,262	\$124,346,190	\$630,369,072	\$2,188,883,453	\$1,708,301,715	128%	\$2,398,839,240	91%

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

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

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	\$5,964,685	\$980,840	\$9,995,525	\$6,850,000	146%	\$10,000,000	100%
NextGen Buildings	\$7,587,395	\$4,731,875	\$34,742,849	\$58,156,141	\$25,817,664	225%	\$65,000,000	89%
Buildings Innovation Chapter Total	\$11,137,395	\$10,696,560	\$35,723,689	\$68,151,666	\$32,667,664	209%	\$75,000,000	91%
Clean Transportation Innovation								
Electric Vehicle Innovation	\$9,192,445	\$953,370	\$18,025,074	\$31,308,587	\$20,762,520	151%	\$31,850,000	98%
Public Transportation and Mobility	\$3,200,000	\$646,253	\$12,118,179	\$20,846,160	\$11,621,052	179%	\$22,500,000	93%
Clean Transportation Innovation Total	\$12,392,445	\$1,599,623	\$30,143,253	\$52,154,746	\$32,383,572	161%	\$54,350,000	96%
Climate Resilience Innovation								
Grid ClimateTech Ready Capital	-	-	-	-	-	0%	\$12,000,000	0%
Hydrogen Innovation	\$1,310,836	\$71,441	\$4,466,529	\$4,620,216	\$1,392,029	332%	\$7,000,000	66%
Market Characterization & Design Innovation & Research	\$190,506	\$13,562	\$313,902	\$1,750,653	\$1,601,546	109%	\$1,750,653	100%
Climate Resilience Innovation Total	\$1,501,342	\$85,003	\$4,780,432	\$6,370,869	\$2,993,575	213%	\$20,750,653	31%
Energy Focused Environmental Research								
Energy-Related Environmental Research	\$5,800,000	\$1,626,889	\$8,938,261	\$44,051,022	\$40,303,952	109%	\$47,800,000	92%
Energy Focused Environmental Research Total	\$5,800,000	\$1,626,889	\$8,938,261	\$44,051,022	\$40,303,952	109%	\$47,800,000	92%
Gas Innovation								
Hydrogen Innovation	\$4,163,540	\$2,642,808	\$14,308,662	\$19,251,598	\$5,704,786	337%	\$24,800,000	78%
Long Duration Energy Storage	\$3,430,000	\$1,511,661	\$14,755,938	\$16,999,999	\$5,276,678	322%	\$17,000,000	100%
Utility Thermal Network Technical Support	\$500,000	\$68,595	\$657,434	\$1,047,802	\$955,516	110%	\$3,000,000	35%
Gas Innovation Total	\$8,093,540	\$4,223,063	\$29,722,034	\$37,299,400	\$11,936,981	312%	\$44,800,000	83%
Grid Modernization								
Future Grid Performance Challenge	\$7,885,157	\$4,239,141	\$19,467,264	\$41,720,541	\$25,308,795	165%	\$58,063,066	72%
Grid ClimateTech Ready Capital	\$2,425,000	\$2,454,887	\$8,086,579	\$11,166,339	\$3,124,013	357%	\$22,000,000	51%
High Performing Electric Grid	\$5,708,237	\$716,087	\$13,712,926	\$59,576,878	\$50,856,102	117%	\$64,800,000	92%
Power Electronics Manufacturing Consortium	-	-	-	\$16,694,490	\$16,694,490	100%	\$16,694,490	100%
Grid Modernization Chapter Total	\$16,018,394	\$7,410,114	\$41,266,769	\$129,158,248	\$95,983,401	135%	\$161,557,556	80%
Negative Emissions Technologies								
CarbonTech Development	\$1,627,083	\$1,560,417	\$303,979	\$5,113,980	\$4,837,500	106%	\$5,113,980	100%
Natural Carbon Solutions	\$4,444,587	\$2,219,215	\$8,973,254	\$12,222,285	\$5,798,501	211%	\$20,486,020	60%
Negative Emissions Technologies Total	\$6,071,670	\$3,779,632	\$9,277,233	\$17,336,265	\$10,636,001	163%	\$25,600,000	68%
Renewables Optimization								
Energy Storage Technology and Product Development	\$4,168,000	\$1,655,744	\$12,421,784	\$28,719,859	\$18,808,330	153%	\$39,500,000	73%
National Offshore Wind Research & Development Consortium	\$2,442,556	\$882,675	\$1,807,049	\$22,454,838	\$21,828,185	103%	\$22,500,000	100%
Renewables Optimization Total	\$6,610,556	\$2,538,419	\$14,228,833	\$51,174,697	\$40,636,515	126%	\$62,000,000	83%
Technology to Market								
CarbonTech Development	\$4,382,083	\$2,965,579	\$1,773,752	\$14,278,309	\$13,842,985	103%	\$14,362,020	99%
Catalytic Capital for ClimateTech	\$461,740	\$122,288	\$1,083,574	\$19,361,115	\$18,513,186	105%	\$19,360,229	100%
ClimateTech Commercialization Support	\$7,647,777	\$2,262,423	\$9,478,035	\$54,932,388	\$51,056,915	108%	\$54,927,913	100%
ClimateTech Expertise & Talent	\$1,620,947	\$889,811	\$2,928,971	\$12,049,277	\$9,852,249	122%	\$12,049,276	100%
Manufacturing Corps	\$1,442,500	\$285,000	\$2,355,386	\$17,058,959	\$15,723,575	108%	\$17,058,959	100%
Novel Business Models and Offerings	\$664,558	\$1,563,596	\$3,944,209	\$13,384,141	\$13,383,394	100%	\$13,383,394	100%
Technology to Market Total	\$16,219,605	\$8,088,698	\$21,563,928	\$131,064,190	\$122,372,303	107%	\$131,141,791	100%
NYS Cost Recovery Fee Innovation & Research	\$945,836	\$255,569	-	\$3,560,269	\$4,250,538	84%	\$6,780,273	53%
Total Innovation and Research	\$84,790,782	\$40,303,571	\$195,644,432	\$540,321,371	\$394,164,501	137%	\$629,780,273	86%

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 Q2 2025, there are 7,051 MW of distributed solar completed in the state.
- New York's national leadership in community solar continued, with 860 MW completed in 2024 and 384 MW completed in the first half of 2025.
- There are nearly 3,000 MW of solar in development with NYSERDA awards. These projects are at an advanced stage of development and will contribute to the 10 GW by 2030 target.
- On April 24, 2025, the Public Service Commission issued an *Order Approving NY-Sun Program Modifications*.¹⁴ 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 expected surplus funding. 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 7, 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.

Annual Benefits		Evaluated Totals (verified gross where evaluated; gross where not)						
NY-Sun ** Includes SEEF and 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
Distributed Solar Energy Capacity (MW)	Commercial/Industrial (Competitive)	117.6	-	117.6	-	117.6	117.6	100%
	Upstate - Residential	554.5	29.7	584.2	25.5	609.7	527.0	116%
	Upstate - Nonresidential	168.3	7.5	175.8	31.8	207.5	279.0	74%
	Upstate - Commercial/Industrial	2,951.9	434.9	3,386.8	2,737.5	6,124.3	6,613.0	93%
	Con Ed - Residential	403.2	33.2	436.3	18.9	455.3	441.0	103%
	Con Ed - Nonresidential	213.3	34.8	248.2	156.4	404.5	835.0	48%
	Capacity Total	4,408.8	540.1	4,948.8	2,970.1	7,918.9	8,812.6	90%
Distributed Solar Energy Production (MWh)	Commercial/Industrial (Competitive)	136,193	-	136,193	-	136,193	n/a	
	Upstate - Residential	564,378	28,104	592,483	24,404	616,887		
	Upstate - Nonresidential	186,441	7,144	193,585	34,970	228,554		
	Upstate - Commercial/Industrial	3,764,442	648,463	4,412,905	3,669,710	8,082,615		
	Con Ed - Residential	416,389	32,677	449,066	19,034	468,100		
	Con Ed - Nonresidential	257,963	51,360	309,323	187,684	497,007		
	Production Total	5,325,807	767,748	6,093,555	3,935,801	10,029,356		

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.

Annual Benefits		Evaluated Totals (verified gross where evaluated; gross where not)				
NY-Sun ** Solar Energy Equity Framework ONLY **		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
Distributed Solar Energy Capacity (MW)	Upstate - Residential	9.0	2.5	11.5	2.5	14.0
	Upstate - Nonresidential	2.2	0.4	2.6	1.0	3.6
	Upstate - Commercial/Industrial	172.6	62.5	235.1	457.7	692.8
	Con Ed - Residential	9.9	4.4	14.3	2.0	16.3
	Con Ed - Nonresidential	33.0	8.9	41.9	25.1	67.0
	Capacity Total	226.6	78.9	305.5	488.3	793.7
Distributed Solar Energy Production (MWh)	Upstate - Residential	9,328	2,429	11,758	2,259	14,016
	Upstate - Nonresidential	2,160	415	2,576	1,069	3,645
	Upstate - Commercial/Industrial	297,567	116,510	414,077	630,756	1,044,833
	Con Ed - Residential	10,365	4,556	14,921	2,154	17,075
	Con Ed - Nonresidential	43,592	15,025	58,617	29,107	87,724
	Production Total	363,014	138,935	501,949	665,345	1,167,293

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 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.

Annual Benefits		Evaluated Totals (verified gross where evaluated; gross where not)				
Other Solar Installations		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
Distributed Solar Energy Capacity (MW)	NYSERDA (non-CEF) Installations	614.2	17.0	631.2	38.2	669.5
	Non-NYSERDA Statewide Installations			1,470.5		1,470.5
	Capacity Total	614.2	17.0	2,101.7	38.2	2,139.9
Distributed Solar Energy Production (MWh)	NYSERDA (non-CEF) Installations	673,111	14,604	687,715	-	687,715
	Non-NYSERDA Statewide Installations			1,309,685		1,309,685
	Production Total	673,111	14,604	1,997,400	-	1,997,400

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	
Upstate - Residential	\$235,868,900	\$5,271,026	\$241,139,927	\$4,343,594	\$245,483,521		
Upstate - Nonresidential	\$71,562,815	\$2,461,425	\$74,024,240	\$9,531,573	\$83,555,813		
Upstate - Commercial/Industrial	\$720,127,270	\$105,880,086	\$826,007,356	\$442,283,818	\$1,268,291,174		
Con Ed - Residential	\$115,794,759	\$5,768,075	\$121,562,834	\$3,325,416	\$124,888,251		
Con Ed - Nonresidential	\$125,410,589	\$22,525,989	\$147,936,578	\$112,073,056	\$260,009,633		
MW Block Subtotal	\$1,317,380,598	\$141,906,602	\$1,459,287,200	\$571,856,800	\$2,031,144,000		\$2,227,201,000
Solar Energy Equity Framework (SEEF) Adder	\$31,357,588	\$12,778,207	\$44,135,795	\$79,420,779	\$123,556,574	\$399,764,000	31%
Funds to Assist Transition to Prevailing Wage	\$0	\$506,895	\$506,895	\$166,722,463	\$167,229,358	\$238,725,000	70%
Consumer Education	\$1,603,540	\$115,776	\$1,719,316	\$1,780,684	\$3,500,000	\$6,500,000	54%
Implementation and Quality Assurance	\$19,445,417	\$1,178,163	\$20,623,580	\$2,750,897	\$23,374,477	\$32,600,000	72%
Administration	\$28,252,331	\$1,878,758	\$30,131,089	\$0	\$30,131,089	\$58,756,000	51%
Evaluation	\$1,620,397	\$155,961	\$1,776,359	\$258,948	\$2,035,307	\$3,500,000	58%
NYS Cost Recovery	\$12,838,258	\$1,095,802	\$13,934,059	\$0	\$13,934,059	\$28,800,000	48%
NY-Sun Total	\$1,412,498,130	\$159,616,163	\$1,572,114,293	\$822,790,571	\$2,394,904,865	\$2,995,846,000	80%

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 10 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	\$5,055,266	\$3,270,264	\$1,706,577	\$456,690	\$6,761,842	\$3,726,955	\$10,488,797
Upstate - Nonresidential	\$1,319,233	\$821,432	\$770,467	\$287,563	\$2,089,701	\$1,108,994	\$3,198,695
Upstate - Commercial/Industrial	\$9,368,402	\$48,171,999	\$49,093,350	\$105,659,176	\$58,461,751	\$153,831,175	\$212,292,926
Con Ed - Residential	\$8,020,198	\$2,714,331	\$1,491,359	\$427,066	\$9,511,557	\$3,141,397	\$12,652,954
Con Ed - Nonresidential	\$14,494,487	\$21,791,241	\$22,433,830	\$16,411,992	\$36,928,318	\$38,203,233	\$75,131,551
Technical Assistance and Implementation	\$5,878,209	\$0	\$3,925,196	\$0	\$9,803,405	\$0	\$9,803,405
Total	\$44,135,795	\$76,769,266	\$79,420,779	\$123,242,487	\$123,556,574	\$200,011,754	\$323,568,328

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	\$5,011,289	\$404,477,646	\$32,690,737	\$437,168,383

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 Q2 2025 reporting period, two 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 Q2 2025

Evaluated Program	Evaluation type	Evaluated program year(s)
Comfort Home	Impact and Process	Q1 2020 – Q2 2023
Solar Photovoltaic Program Performance Persistence	Impact	Q1 2012 – Q4 2021

The latest Compiled Investment Plans:

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

Clean Energy Fund Reports:

<https://www.nyserderda.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 Comfort Home Impact and Process Evaluation (PY Q1 2020 – Q2 2023)

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

Key findings and associated recommendations from the Comfort Home Impact and Process Evaluation include:¹⁵

Finding 1: During the evaluation period, the Comfort Home Program achieved total first year energy savings of 20,660 MMBtu including natural gas and electric. Natural gas savings account for approximately 95% of these electric and natural gas program savings. These results represent deep energy savings and reduced baseline heating consumption by up to 20%, depending on which program package was chosen. Across all fuels, natural gas and electricity represent approximately 68% and 5% of all savings, respectively; ongoing evaluation studies will capture the impact related to the remaining delivered fuels savings.¹⁶

- **Recommendation 1a:** Revisit the program’s incentive structure to ensure incentives are aligned with the energy savings potential of measures. In particular, incremental incentives for installing windows in Package C may be misaligned with their savings potential.
 - **NYSERDA Response to Recommendation 1a:** Implemented. Package C has been renamed to “Windows Add-on” and the available incentive has been reduced to a lower value than the other two Package offerings.
- **Recommendation 1b:** To facilitate access to the necessary data required for future impact evaluations, NYSERDA should continue to enforce the requirement that contractors collect and submit consent forms. The evaluation team understands that NYSERDA’s efforts with recent Comfort Home projects have a high consent form compliance rate (95% in 2024). Use a consistent file naming format (such as Last name <Space> First name) to make it easier to locate already collected consent forms.
 - **NYSERDA Response to Recommendation 1b:** Pending. NYSERDA will consider implementing a required file naming convention for contractors uploading customer consent forms.

Finding 2: The realization rate of natural gas savings was 66%, indicating room for improvement in the accuracy of program-estimated savings.¹⁷ Sub-group analysis suggests the program energy savings modeling algorithms are more reliable for inefficient homes and tend to overstate savings for more efficient homes.

- **Recommendation 2:** Review and improve program algorithms to enhance program-estimated savings estimates for more efficient homes.¹⁸
 - **NYSERDA Response to Recommendation 2:** Implemented. NYSERDA has transitioned from the NY Technical Resource Manual Custom Measure Category 5 to Custom Measure Category 6 to model estimated savings. This updated savings methodology requires more inputs and is expected to result in more accurate energy savings predictions.

Finding 3: The Process Evaluation revealed that Comfort Home contractors were highly satisfied with the Comfort Home program’s simplicity, including its streamlined processes, minimal paperwork, and user-friendly workflow platform. While these aspects currently set it apart from other incentive programs, contractors expressed concern that upcoming changes to workflows would introduce inefficiencies to the processes and undermine the strengths of the program. Additionally, while contractors receive initial onboarding training, there was a lack of ongoing training, particularly on customer education. This results in wide variability in how heat pumps are presented, potentially leading to missed opportunities for customer education and heat pump adoption.

- **Recommendation 3a:** Maintain the program’s streamlined workflow and minimal paperwork requirements. If changes are needed, gather contractor input and provide clear training and support to avoid added complexity or confusion.
 - **NYSERDA Response to Recommendation 3a:** Implemented. NYSERDA intends to maintain Comfort Home’s streamlined processes.
- **Recommendation 3b:** NYSERDA, in coordination with NYS Clean Heat and other stakeholders, should determine what, if any, heat pump communication should take place through Comfort Home. If contractors will be expected to deliver or support heat pump messaging, materials and training should be made available. This could include creating or leveraging existing training modules on the long-term benefits of heat pumps and customer engagement strategies or leave-behind materials contractors can give to customers after the upgrades are complete.

- **NYSERDA Response to Recommendation 3b:** Pending. NYSERDA will consider the extent of heat pump communication Comfort Home contractors will be expected to provide to customers in line with broader electrification efforts statewide.

Finding 4: Most customers who participated in Comfort Home reported improved home comfort and lower energy bills, particularly among those who installed heat pumps. Adoption of heat pumps was driven largely by environmental motivations and was more common among higher-income households, those using delivered fuels, or those with solar PV. However, the high upfront cost remains a barrier for many, especially middle-income households who may not qualify for low-income support but still find current heat pump incentives inadequate.

- **Recommendation 4:** Provide learnings and recommendations to NYS Clean Heat program administrators as well as NYS Joint Utility program administrators who are designing regional market-rate weatherization programs to enhance incentives for households earning under \$200,000. Even if heat pump incentives fall outside of Comfort Home’s future program structure, learnings from the program could inform the design of more effective incentive structures and support improved heat pump affordability and adoption.
 - **NYSERDA Response to Recommendation 4:** Implemented. NYSERDA is providing learnings and recommendations to NYS Clean Heat program administrators and NYS Joint Utilities market-rate weatherization programs.

4.1 Solar Photovoltaic Program Performance Persistence Study (PY Q1 2021 – Q4 2021)

Summary of Report Findings, Recommendations and NYSERDA Response to Recommendations

Key findings and associated recommendations from the Solar PV Persistence Study include:¹⁹

Finding 1: Performance loss rates estimated in this study represent the performance loss of operating and communicating systems, approximately over the first four to seven years of life. Temporary outages of systems or communications could contribute to additional production loss across the NYS solar fleet. The frequency of such disruptions across the data and time span studied is quite low and does not suggest the need to consider temporary disruptions as an additional loss factor over this time horizon.

- **Recommendation 1:** Consider a study to investigate the proportions of incentivized systems that are still in operation at different ages while considering technical features (e.g., whether they are monocrystalline vs. polycrystalline or tracked vs. fixed systems). Such a study could include working with the system managers to identify rates of data loss and reasons.
 - **NYSERDA Response to Recommendation 1: Pending.** NYSERDA will consider this study as part of future performance analyses.

Finding 2: Overall performance loss rates are estimated at 0.83% per year across projects in New York State. This rate is statistically significantly higher than the benchmark of 0.64% generally used by the contractor for project pool assessments on behalf of developers. If the current loss rate was to persist through the system lifetimes, New York could still achieve approximately 80% of the expected annual energy production by 2050 from the 10 GW of solar capacity planned for installation by 2030 under the Climate Act Scoping Plan²⁰ and the Distributed Solar Roadmap.²¹

The estimated loss rate varies substantially across regions, with lower loss rates in Long Island and higher rates in Upstate New York. These regional differences may be related to differences in weather conditions that may cause damage to equipment or differences in snow accumulations.

- **Recommendation 2:** Take estimated performance loss rates by region into account when projecting future production of NYS solar systems as a whole.
 - **NYSERDA Response to Recommendation 2: Pending.** NYSERDA will consider the estimated performance loss rates when projecting future production of NYS solar systems as a whole.

Finding 3: Both purchased systems and, to a lesser extent, PPA systems have higher PLR than leased systems. This result is expected for purchased systems, where maintenance routines may be less robust due to less active monitoring. PPA and leased systems are typically maintained by third parties who are responsible for the performance of the systems.

- **Recommendation 3: Consider offerings that could support improved maintenance for purchased systems.**
 - **NYSERDA Response to Recommendation 3: Pending.** NYSERDA will consider this based on continued NYSERDA program funding,

Finding 4: Monocrystalline modules are associated with lower performance loss rates than polycrystalline. These empirical findings are consistent with expectations for these technologies. Newer systems are more likely to be monocrystalline, which have a higher persistence in production over the life of the system.

- **Recommendation 4:** No recommendation, given that most new installations will be monocrystalline.
 - **NYSERDA Response to Recommendation 4:** N/A.

Finding 5: Microinverter systems have higher performance loss rates than those with optimizers or string systems, even controlling for other characteristics. A possible explanation is that failures of individual microinverters within a system go undetected and unaddressed resulting in higher performance loss rates. In contrast, a string system failure would result in zero production and could be more likely to be recognized and repaired.

- **Recommendation 5:** Consider offerings that would support system owners identifying and addressing reduced performance that may be related to microinverter failures. One option could be to encourage continued sharing of production data with NYSERDA, in exchange for NYSERDA sending alerts for indications of maintenance needs. Such an approach could provide NYSERDA with an expanded data series for future persistence studies.
 - **NYSERDA Response to Recommendation 5: Rejected.** NYSERDA does not have the ability to implement this recommendation.

Finding 6: Controlling for other characteristics, systems in DAC locations have higher PLR than those in non-DAC areas.

- **Recommendation 6:** Consider additional research to determine factors associated with greater PLR in DAC areas, for both third-party operators and homeowners with purchased systems.
 - **NYSERDA Response to Recommendation 6: Pending.** NYSERDA will consider completing additional research to determine which factors are most closely associated with a greater PLR in DAC areas.

Finding 7: Most projects analyzed in this study had five or fewer years of production data. Only a handful had more than seven years. As a result, the performance loss rates developed in this study may not be indicative of loss rates after 10 or more years.

- **Recommendation 7:** Continue to collect production data for the NY-Sun sample included in this study, to establish a larger data set of longer production records that can be used for further study. Explore processes that could be used to collect later production data for the supplemental data sets included.
 - **NYSERDA Response to Recommendation 7: Pending.** NYSERDA will consider this study as part of future performance analyses and/or leverage studies completed by other independent third parties.

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 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.
- 7 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
- 8 If solicitations with upcoming due dates were factored into the total NYSERDA commitments in the Market Development Budgets and Spending table, an additional \$18,941,280 (reflecting 92% of the total approved budget to date), would be included with total NYSERDA commitments.
- 9 The Market Characterization and Design initiative includes funds to support overarching, non-initiative-specific evaluation studies.
- 10 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.
- 11 If solicitations with upcoming due dates were factored into the total NYSERDA commitments in the Innovation and Research Budget and Spending table, an additional \$10,500,000 (reflecting 88% of the total approved budget to date) would be included with total NYSERDA commitments. NYSERDA anticipates attrition over time.
- 12 The Market Characterization and Design initiative includes funds to support overarching, non-initiative-specific evaluation studies.
- 13 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.
- 14 Order Approving NY-Sun Program Modifications, issued and effective April 24, 2025. [\[LINK\]](#)
- 15 The final study will be posted Q3 2025.
- 16 A study evaluating delivered fuels is anticipated to be complete Q4 2025.
- 17 In this study, the term “program-estimated savings” refers to modeled savings provided by the program team as part of the program tracking dataset.
- 18 Per comments received from NYSERDA staff, the program is transitioning the savings estimation algorithm from Custom Measure Category 5 in the New York TRM to Custom Measure Category 6. This new estimation model requires more inputs and may improve the accuracy of program estimation of savings.
- 19 The final report will be posted Q3 2025.
- 20 <https://climate.ny.gov/-/media/project/climate/files/nys-climate-action-council-final-scoping-plan-2022.pdf>
- 21 <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7b4C42AAFF-0EB9-4890-AA0D-21C70B088F4B%7d>

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.

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