New York State Regional Greenhouse Gas Initiative-Funded Programs

Semiannual Status Report through June 30, 2025

Final Report | December 2025

NEW YORK STATE | NYSERDA

NYSERDA's Promise to New Yorkers:

NYSERDA provides resources, expertise, and objective information so New Yorkers can make confident, informed energy decisions.

Our Vision:

New York is a global climate leader building a healthier future with thriving communities; homes and businesses powered by clean energy; and economic opportunities accessible to all New Yorkers.

Our Mission:

Advance clean energy innovation and investments to combat climate change, improving the health, resiliency, and prosperity of New Yorkers and delivering benefits equitably to all.

NYSERDA Record of Revision

Document Title
New York State Regional Greenhouse Gas Initiative-Funded Programs Semiannual Status Report through June 30th, 2025 Final Report December 2025

Revision Date	Description of Changes	Revision on Page(s)
December 2025	Original publication	

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Semiannual Status Report through June 30, 2025

Final Report

Prepared by:

New York State Energy Research and Development Authority

December 2025

Table of Contents

List of Tables

Acronyms and Abbreviations

AHPwES	Assisted Home Performance with ENERGY STAR®
DEC	NYS Department of Environmental Conservation
CBO	constituency-based organization
CGC	Cleaner, Greener Communities
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
EEPS	Energy Efficiency Portfolio Standard
EFC	New York State Environmental Facilities Corporation
EPA	United States Environmental Protection Agency
ERP	Energy Reduction Plan
GHG	greenhouse gas
GJGNY	Green Jobs - Green New York
HPwES	Home Performance with ENERGY STAR®
kW	kilowatt
kWh	kilowatt-hour
LIPA	Long Island Power Authority
MMBtu	million British thermal units
MOU	memorandum of understanding
MPP	Multifamily Performance Program
MW	megawatt
MWh	megawatt-hour
NYPA	New York Power Authority
DOL	New York State Department of Labor
OBR	On-Bill Recovery Financing Program
PON	Program Opportunity Notice
PV	photovoltaic (also known as solar electric)
RFP	request for proposals
RGGI	Regional Greenhouse Gas Initiative
RPS	Renewable Portfolio Standard
SBC	System Benefits Charge
ST	solar thermal
WFD	Workforce Training and Development

1 Introduction

In New York State, the Regional Greenhouse Gas Initiative (RGGI) program has been implemented through two complementary regulations: The New York State Department of Environmental Conservation (DEC) established the State's Carbon Dioxide (CO_2) Budget Trading Program (6 NYCRR Part 242, 6 NYCRR Part 200, General Provisions) and the New York State Energy Research and Development Authority (NYSERDA) established the CO_2 Allowance Auction Program (21 NYCRR Part 507). This report is prepared pursuant to the State's RGGI Investment Plan (2025 Operating Plan) and provides an update on the progress of programs through the quarter ending June 30, 2025. It contains an accounting of program spending; an estimate of program benefits; and a summary description of program activities, implementation, and evaluation. An amendment providing updated program descriptions and funding levels for the 2024 version of the Operating Plan was approved by NYSERDA's Board in January 2025.

The State invests RGGI proceeds to support comprehensive strategies that best achieve the RGGI CO_2 emission reduction goals. These strategies aim to reduce global climate change and pollution through energy efficiency, renewable energy, and carbon abatement technology. Deploying commercially available renewable energy and energy efficiency technologies help to reduce greenhouse gas (GHG) emissions from both electricity and other energy sources in the short term. To move the State toward the goals enacted by the Climate Leadership and Community Protection Act (Climate Act) and a more sustainable future, RGGI funds are used to empower communities to make decisions that prompt the use of cleaner and more energy-efficient technologies that lead to both lower carbon emissions as well as economic and societal co-benefits. RGGI helps to build capacity for long-term carbon reduction by training workers and partnering with industry. Using innovative financing, RGGI supports the pursuit of cleaner, more efficient energy systems and encourages investment to stimulate entrepreneurial growth of clean energy companies. All these activities use funds in ways that accelerate the uptake of low- to zero-emitting technologies.

2 Summary of Portfolio and Program Benefits

This section provides an overview of the expected quantifiable benefits related to carbon dioxide equivalent (CO_2e) reductions, energy savings, and participant energy bill savings with expended and encumbered funds through Q2 2025.[1] For more information on the methodology used to calculate CO_2e reductions and energy bill savings, see Appendix A. For a list of former program names, reference Appendix B. Appendix C shows the detailed benefit results.

NYSERDA begins tracking program benefits once project installation is complete and provides estimated benefits for projects under contract that are not yet operational (pipeline benefits). Expected lifetime total savings are based on the effective useful life of installed and pipeline savings. The metrics presented in this section are estimates and not adjusted based on evaluation, measurement and verification unless otherwise noted. Future evaluation and status reports will present the results as they are available. Program benefits may be reported prior to the financial reporting of funds spent, as fund transfers may lag behind the installation date. At this time, the program benefits include some projects that are jointly supported by other non-RGGI funding sources administered by NYSERDA.

The estimated cumulative annual and expected lifetime benefits as of June 30, 2025, at the portfolio and program levels are shown in Table 1 and Table 2, respectively.[2] Since the portfolio's inception, RGGI-funded programs have saved approximately 2.2 million metric tons of CO2-equivalent annually from projects installed through June 30, 2025. These savings equate to removing over 467,000 cars from the road every year.

Section 4 of this report previously provided descriptions and updates for each RGGI-funded program. These details are now provided on the RGGI website.[3]

Table 1. Summary of Expected Cumulative Portfolio Benefits through June 30, 2025

Benefits through June 30, 2025[a]	Net Greenhouse Gas Emission Savings[b] (Tons CO_2e[c])	Total Net Fuel Savings (MMBtu)	Net Efficiency Electricity Savings (MWh)	Net Renewable Energy Generation (MWh)	Total Net Electricity Savings/Generation (MWh)	Energy Bill Savings to Participating Customers ($ Million)
Cumulative Annual Installed Savings[d]	2,202,548	18,413,401	1,062,619	656,451	1,719,070	$772.53
Cumulative Annual Pipeline Savings[e]	246,784	3,076,384	109,212	54,235	163,447	$39.41
Cumulative Annual Committed Savings[f]	2,449,332	21,489,785	1,171,831	710,686	1,882,517	$811.94
Expected Lifetime Total Savings[g]	39,382,213	299,220,957	25,142,014	14,758,319	39,900,333	$11,775.68

[a] Cross-program overlap for projects that received any combination of a Green Jobs - Green New York (GJGNY) assessment, a GJGNY loan, or a RGGI-funded incentive through the Home Performance with ENERGY STAR® Program, NY-Sun Program or Renewable Heat NY Program has been removed.

[b] These emission reductions are associated with both electric and fossil-fuel saving measures. Under a cap-and-trade system, the total number of emission allowances is determined by regulation. Regulated entities can purchase allowances and collectively emit up to the cap that is currently in place. Therefore, in the near term, electric efficiency projects may not decrease the overall amount of emissions going into the atmosphere. However, electric efficiency projects will reduce end users' responsibility or footprint associated with emissions from electricity production.

[c] CO_2e stands for carbon dioxide equivalent and describes the amount of CO_2 that would have the same global warming potential as a given mixture of gases based on factors published by the Intergovernmental Panel on Climate Change.

[d] Inclusive of savings from all currently operational projects installed since program inception.

[e] Inclusive of savings from all projects under a signed contract and projects with an application received that are not yet operational.

[f] The sum of savings from Installed Savings and Pipeline Savings.

[g] The expected benefits over the lifetime of all operational projects, projects under a signed contract, and projects with an application received that are not yet operational. See Table A-4 in appendix A for the measure-life assumptions.

Table 2. Summary of Expected Cumulative Annual Program Benefits through June 30, 2025

Program	Costs (millions of dollars)		Net Energy Savings (Annual MMBtu)			Net Electricity Savings or Renewable Energy Generation (Annual MWh)			Net Greenhouse Gas Emission Savings[a] (Annual Tons CO_2e[b])			Cost Benefit Ratio ($/Ton CO_2e)	
	Total Incentives[c]	Total Associated Costs[d]	Installed Savings[e]	Pipeline Savings[f]	Total Committed Savings[g]	Installed Savings[e]	Pipeline Savings[f]	Total Committed Savings[g]	Installed Savings[e]	Pipeline Savings[f]	Total Committed Savings[g]	$/Ton CO2e Savings[h]	$/CO2e EXPECTED LIFETIME Savings[i]
Renewable Energy													
NY-Sun Statewide Customer Incentives	$48.2	$0.0	-	-	-	34,728	39,394	74,122	17,376	19,709	37,085	1,301	111
NY-Sun Long Island SEEF Incentives	$8.1	$0.9	-	-	-	18,295	1,680	19,975	9,153	840	9,993	897	39
NY-Sun Long Island Incentives	$53.8	$0.6	-	-	-	221,397	242	221,639	113,002	121	113,123	481	19
Renewable Heat New York	$8.8	$1.2	4,384	1,924	6,308	1,328	259	1,587	2,477	232	2,709	3,710	-
NYSERDA PV Incentives	$5.2	$0.1	-	-	-	96,542	-	96,542	50,795	-	50,795	105	4
Energy Efficiency													
LIPA Energy Efficiency and Renewable Energy Initiative	$329.6	$0.0	35,035	-	35,035	1,385,777	-	1,385,777	695,724	-	695,724	474	26
EmPower Plus	$132.0	$8.2	796,695	-	796,695	8,804	-	8,804	56,760	-	56,760	2,469	102
Disadvantaged Communities Schools / Buildings	$70.2	$1.7	4,965	1,744,274	1,749,239	1,482	11,820	13,302	1,058	98,641	99,699	721	4,529
Community Thermal Energy Networks	$5.3	$0.0	2,909	173,004	175,913	1,098	16,301	17,399	704	17,353	18,057	291	498
Building Retrofit and New Construction Challenges	$37.7	$0.2	-	723	723	-	302	302	-	189	189	200,493	-
Multifamily Performance Program	$12.7	$2.1	477,253	-	477,253	20,987	-	20,987	41,753	-	41,753	354	24
Multifamily Carbon Emissions Reduction Program[j]	$5.7	$0.2	-	-	-	-	-	-	45,151	-	45,151	129	10
Multifamily LCCP / Pathways	$11.8	$0.0	-	35,483	35,483	-	682	682	-	2,227	2,227	5,293	-
Comfort Home	$5.8	$0.2	27,225	-	27,225	666	-	666	1,900	-	1,900	3,133	135
Technical Services	$0.4	$0.0	-	38,825	38,825	-	5,221	5,221	-	4,676	4,676	90	-
Solar Hot Water (Thermal) Program	$4.1	$0.1	14,217	-	14,217	22	-	22	959	-	959	4,408	-
Green Residential Building Program	$2.5	$0.3	45,462	-	45,462	1,573	-	1,573	3,348	-	3,348	820	-
Innovative GHG Abatement Strategies													
Electric Vehicle/Charge NY[k]	$159.9	$7.0	10,914,769	94,051	11,008,820	-733,854	-5,335	-739,189	415,080	3,874	418,954	398	40
Community Clean Energy													
Regional Economic Development & GHG Reduction[l]	$0.8	$9.4	-76,947	-	-76,947	3,688	-	3,688	34,017	-	34,017	301	-
Clean Energy Communities[m]	$18.4	$0.0	1,421,677	-	1,421,677	258,595	-	258,595	210,296	-	210,296	-	6
Energy to Lead	$2.3	$0.0	-	1,431	1,431	-	193	193	-	172	172	13,456	-
Renewable/Net-Zero Energy Demonstrations	$5.4	$0.0	-	14,723	14,723	-	5,135	5,135	-	3,352	3,352	1,613	-
Directed													
Clean Energy Fund[n]	$128.8	$50.8	1,375,135	916,435	2,291,571	190,598	78,761	269,360	196,824	87,584	284,408	632	64
Green Jobs - Green New York[o]	$229.3	$94.7	4,225,607	70,376	4,295,983	303,582	11,228	314,810	411,797	10,021	421,818	768	38
Cross-Program Overlap[p]	N/A	N/A	-854,986	-14,866	-869,852	-96,237	-2,436	-98,673	-105,626	-2,208	-107,834	N/A	N/A
											-	-	-
TOTAL Annual Cumulative Benefits[q]	**$1,286.7**	**$183.6**	**18,413,400**	**3,076,384**	**21,489,784**	**1,719,071**	**163,446**	**1,882,517**	**2,202,548**	**246,784**	**2,449,332**	**600**	**N/A**
TOTAL Expected Lifetime Cumulative Benefits[q]	**$1,286.7**	**$183.6**	**252,429,408**	**46,791,549**	**299,220,957**	**37,052,391**	**2,847,942**	**39,900,333**	**35,447,336**	**3,934,875**	**39,382,211**	**N/A**	**55**

Table notes are on the next page.

Table 2 continued

[a] These emission reductions are associated with both electric and fossil-fuel saving measures. Under a cap-and-trade system, the total number of emission allowances is determined by regulation. Regulated entities can purchase allowances and collectively emit up to the cap that is currently in place. Therefore, in the near term, electric efficiency projects may not decrease the overall amount of emissions going into the atmosphere. However, electric efficiency projects will reduce end users' responsibility or footprint associated with emissions from electricity production.

[b] CO_2e stands for carbon dioxide equivalent and describes the amount of CO_2 that would have the same global warming potential as a given mixture of gases based on factors published by the Intergovernmental Panel on Climate Change.

[c] Inclusive of incentive dollars for expenditures, encumbrances, and contract pre-encumbrances.

[d] Inclusive of all non-incentive expenditures.

[e] Inclusive of savings from all currently operational projects installed since program inception.

[f] Inclusive of savings from all projects under a signed contract and projects with an application received that are not yet operational.

[g] The sum of savings from columns Installed Savings and Pipeline Savings.

[h] The sum of figures in columns Total Incentives and Total Associated Costs divided by the columns Total Committed Savings.

[I] The sum of figures in columns Total Incentives and Total Associated Costs divided by the expected lifetime committed savings. Inclusive of cross-program overlap.

[j] The Multifamily Carbon Emissions Reduction Program is a fuel-switching program and does not claim any energy or bill savings.

[k] Net Energy Savings values represent MMBtu savings from the use of electric vehicles; the electricity required to charge the vehicles is removed from this table as this induced electricity consumption is the result of beneficial electrification. Expected emission reductions and customer bill savings are net, including both MMBtu that add to the benefits and the electricity required to charge the electric vehicles that subtract from the benefits.

[l] The Regional Economic Development and GHG Reduction program consists of 15 unique projects. The costs for all 15 projects are included in this table although only a subset of these projects actually report quantifiable energy benefits. The negative MMBtu savings are due to a manufacturing project that switched from burning #6 residual oil to natural gas and a transportation project that switched from burning diesel fuel to compressed natural gas (CNG). CNG is slightly less efficient than diesel from an energy perspective but results in carbon emission reductions.

[m] The Clean Energy Communities program is operated statewide with funding from multiple sources, namely RGGI and CEF, and the benefits reported here are associated with RGGI funding only. Historically, benefits have been attributed and reported in proportion to the funding contributed by each source, which has reflected an approximate 50-50 split. For reference, the (annual) benefits reported for RGGI through the close of 2018 were 127,945 MWh, 298,783 MMBtu, and 93,032 CO2e. Late in 2019 NYSERDA introduced a modification to the CEF Clean Energy Communities program, significantly increasing the investment (from $14.2M to $81.3M) and fundamentally shifting the proportion between RGGI and CEF funding sources. As such, beginning with Q3 2019 reporting, NYSERDA has simplified the approach to benefits attribution by utilizing geographic data (e.g., the actual location of High Impact Actions and grant payments) to attribute all benefits for this program. Projects reported in LIPA/NYPA territories will be attributed to RGGI in order to align with the funding that supports these projects, while all other reported benefits in SBC territory will be attributed to CEF. This line includes only the portion of projects in NYPA territory.

[n] These figures represent a proportional allocation of benefits relative to the percent of RGGI contributions to the total approved CEF budget.

[o] These figures represent the total savings from all Green Jobs – Green New York programs funded by RGGI. For more information on specific programs, refer to the GJGNY Annual Report

[p] Cross-program overlap accounts for projects that received any combination of a GJGNY assessment, a GJGNY loan, or a RGGI-funded incentive through the Home Performance with ENERGY STAR® Program, NY-Sun Program or Renewable Heat NY Program.

[q] Totals may not sum exactly due to rounding.

3 Funds

3.1 Proceeds

As of June 30, 2025, New York State sold more than 506 million CO_2 allowances and received more than $2,883 million in auction proceeds. In addition, more than $89 million in interest was earned on the RGGI portfolio and more than $9 million in interest was earned on the Green Jobs–- Green New York (GJGNY) program. All RGGI interest earnings were allocated to the RGGI portfolio and more than $2.6 million in interest earnings were allocated to the GJGNY program. The allocated interest earnings are reinvested for program implementation and distributed across various RGGI programs. Detailed auction proceeds and total funds for NYS RGGI are presented in Appendix D and Appendix E, respectively. Total NYS RGGI funds are listed in Table 3, and detailed auction proceeds for NYS RGGI are visually displayed in Figure 1.

Table 3. New York State's RGGI Auction Results and Funds through June 30, 2025

Source: RGGI, Inc. and NYSERDA

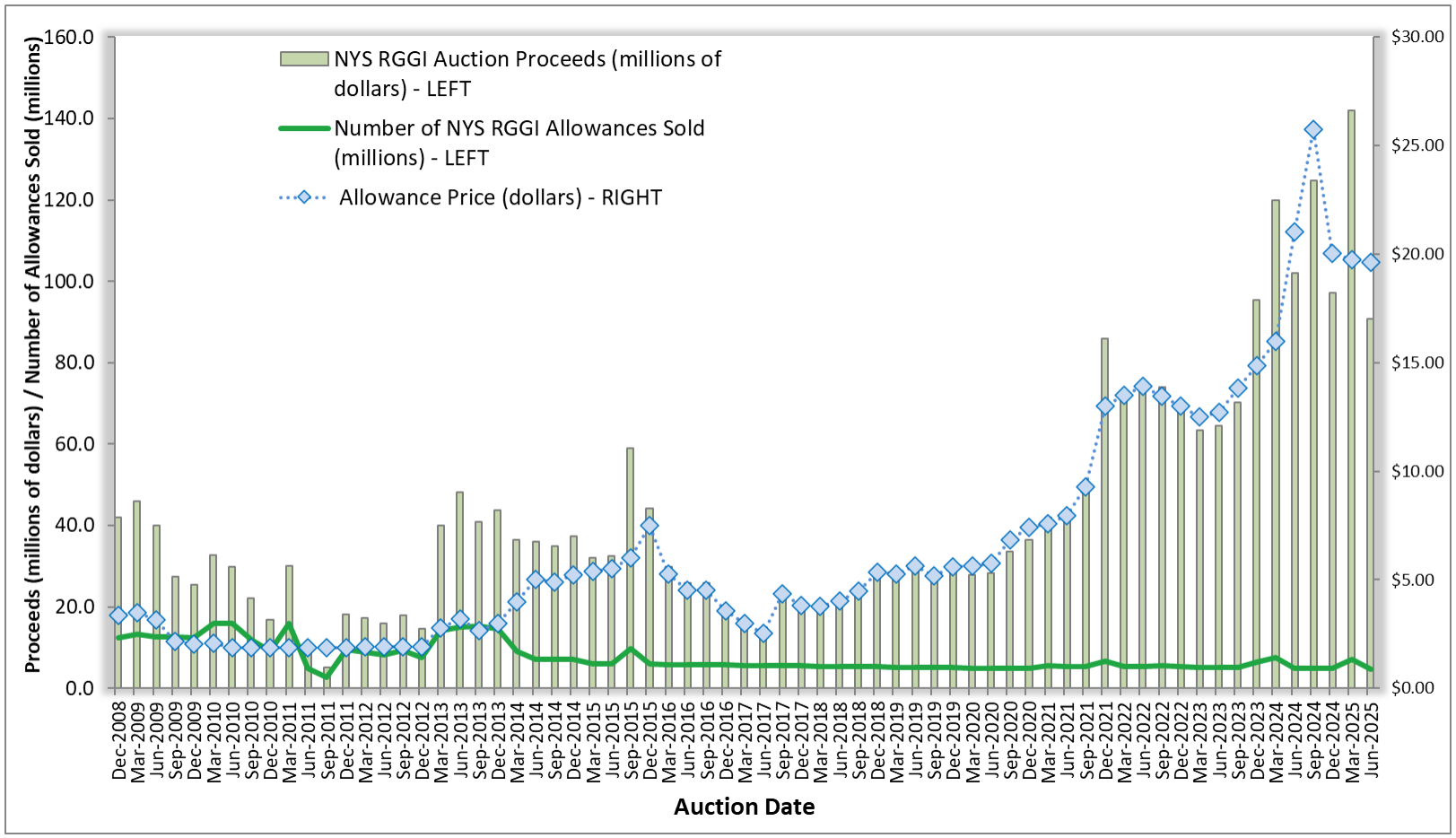
Fund Category	NYS Allowances Sold	Cumulative Funds
First Control Period Total	144,305,904	$336,282,535
Second Control Period Total	128,764,643	$391,950,232
Third Control Period Total	72,401,365	$345,078,005
Fourth Control Period Total	61,594,969	$332,217,018
Fifth Control Period Total	65,832,052	$801,513,958
Sixth Control Period Total	33,829,731	$676,307,932
RGGI Auction Proceeds	**506,728,664**	**$2,883,349,680**
RGGI Portfolio Interest Earnings		$89,112,297
GJGNY Program Interest Earnings		$9,364,761
TOTAL Funds		**$2,981,826,738**

[a] The first control period for fossil fuel-fired electric generators took effect on January 1, 2009 and concluded on December 31, 2011. The second control period took effect on January 1, 2012 and concluded on December 31, 2014. The third control period took effect on January 1, 2015 and concluded on December 31, 2017. The fourth control period took effect on January 1, 2018 and concluded on June 30, 2021. The fifth auction control period took effect on June 1, 2021 and concluded on December 31, 2023. The sixth auction control period took effect on January 1, 2024.

[b] RGGI program budgets have been increased based on anticipated auction revenues from the approved FY 2023–2024 Operating Plan. These amounts have been allocated but have not been received due to the timing of receipt of the proceeds.

Figure 1. New York State's RGGI Auction Results through June 30, 2025

Source: RGGI, Inc.



3.2 Budget

Financial status for the approved RGGI programs through June 30, 2025 is presented in Table 4, including the current expended, encumbered, and committed funds for each program and reflects how the more than $2,848.5 million of approved funds are distributed across the seven major program areas and other costs:

- Renewable Energy
- Energy Efficiency
- Innovation GHG Abatement Strategies
- Community Clean Energy
- GJGNY
- Clean Energy Fund
- Clean Energy Standard

Previous versions of this report presented financial details on GJGNY programs, which are now available in the Green Jobs – Green New York Annual Report.[4]

Table 4. Available Funding and Financial Status through June 30, 2025 (Millions of Dollars)

Source: NYSERDA

	Budgeted Funds [a]	Expended Funds [b]	Open Encumbrances [c]	Pre-Encumbrances [d]	Committed Funds [e]	Remaining Balance [f]
Renewable Energy						
NY-Sun Statewide Customer Incentives	57.0	16.0	30.5	1.5	48.0	9.0
NY-Sun Long Island SEEF Incentives	12.5	8.2	0.5	0.2	8.9	3.6
NY-Sun Long Island Incentives	55.0	53.5	0.8	0.0	54.3	0.7
Residential PV Plus Storage	9.0	-	-	-	-	9.0
Renewable Heat NY	10.3	9.8	0.2	-	10.1	0.2
Agrivoltaics	17.0	0.0	0.4	11.3	11.8	5.2
Advanced Renewable Energy	2.8	2.8	-	-	2.8	-
NYS Generation Attributes Tracking System	0.8	0.7	0.1	-	0.8	0.0
NYSERDA PV Incentives	5.3	5.3	-	-	5.3	-
Total Renewable Energy	**169.7**	**96.3**	**32.6**	**13.1**	**142.0**	**27.7**
Energy Efficiency / Building Electrification						
Clean Energy Workforce Opportunity Program	15.0	15.0	-	-	15.0	-
LIPA Energy Efficiency and Renewable Energy	329.6	314.6	15.0	-	329.6	-
Energy Storage (LIPA territory)	12.9	3.6	8.7	-	12.4	0.6
EmPower Plus	177.7	138.2	13.0	0.0	151.3	26.5
Pilot Projects with Municipal Utilities	4.0	0.7	1.7	-	2.4	1.6
Disadvantaged Communities Schools/Buildings	125.4	10.3	33.0	32.1	75.4	50.0
Multifamily Low Carbon Capital Planning / Pathway Projects	28.5	0.2	11.7	-	11.9	16.6
Community Thermal Energy Networks	19.7	2.6	1.7	1.0	5.3	14.4
Building Retrofit and New Construction Challenges	85.0	0.5	4.6	24.5	29.6	55.4
Climate Resiliency Implementation Planning	15.0	0.2	1.0	0.1	1.3	13.7
Multifamily Performance Program	15.0	14.8	0.3	-	15.0	0.0
Multifamily Carbon Emissions Reduction	5.8	5.8	-	-	5.8	-
Solar Thermal Incentive	4.2	4.2	-	-	4.2	-
Municipal Water/Wastewater	1.2	1.2	(0.1)	-	1.2	0.1
Green Residential Buildings	2.7	2.7	-	-	2.7	-
Comfort Home	6.5	5.9	0.6	-	6.5	0.0
Technical Services	15.0	-	0.3	0.3	0.6	14.4
Total Energy Efficiency	**863.4**	**520.6**	**91.7**	**57.9**	**670.2**	**193.2**
Innovative GHG Abatement Strategies						
Southern Tier Competition (76 West)	11.0	10.7	-	-	10.7	0.3
Brookhaven National Lab Ion Collider	25.0	25.0	-	-	25.0	0.0
Electric Vehicle/Charge NY	282.3	156.2	5.7	0.7	162.5	119.8
Advanced Buildings & Industrial Innovations	13.3	11.0	-	-	11.0	2.3
Climate Research & Analysis	8.7	8.7	-	-	8.7	0.1
Competitive Greenhouse Gas Reduction Pilot	1.0	1.0	-	-	1.0	-
Clean Energy Business Development	15.3	6.6	0.2	0.3	7.1	8.2
Transportation Research	3.8	3.7	-	-	3.7	0.1
Natural Carbon Solutions	9.0	0.3	0.9	-	1.2	7.8
Equity and Climate Transformation Research	3.6	0.8	0.1	-	0.9	2.7
Climate Mitigation and Resilience Research	1.5	1.0	-	-	1.0	0.5
Scoping Plan Implementation Research	21.7	7.8	1.7	0.4	10.0	11.7
Hydrogen Hubs	5.0	3.4	1.2	-	4.6	0.4
PV Manufacturing Consortium	8.5	8.5	-	-	8.5	-
Carbon Sequestration	1.0	1.0	-	-	1.0	-
Total Innovative GHG Abatement Strategies	**410.7**	**245.7**	**9.8**	**1.5**	**256.9**	**153.8**
Community Clean Energy						
Cleaner Greener Communities	93.2	81.6	10.4	1.1	93.1	0.1
Clean Energy Communities	18.3	3.8	12.7	2.4	19.0	(0.7)
Climate Smart Communities	7.7	6.9	0.8	-	7.7	-
Community Energy Engagement	1.4	1.4	-	-	1.4	0.0
Economic Development Growth Extension	5.8	5.7	0.0	-	5.7	0.1
Energy to Lead	3.0	1.5	0.8	-	2.3	0.7
Renewable/Net-Zero Energy Demonstrations	7.5	5.2	0.2	-	5.4	2.1
Healthy New Home Design & Construction Challenge	10.1	0.1	0.3	0.0	0.4	9.6
Clean Energy Workforce Development	39.0	10.6	4.3	0.0	14.9	24.1
Clean Energy Hubs	23.2	5.0	8.5	0.2	13.6	9.6
Climate Action Consumer Awareness & Education	17.0	6.4	4.8	-	11.2	5.8
Air Monitoring	8.0	8.0	-	-	8.0	-
Regional Economic Development & GHG Reduction	10.2	10.2	-	-	10.2	0.0
Total Community Clean Energy	**244.4**	**146.3**	**42.9**	**3.8**	**193.0**	**51.4**

Continued next page.

Table 4 continued

	Budgeted Funds [a]	Expended Funds [b]	Open Encumbrances [c]	Pre-Encumbrances [d]	Committed Funds [e]	Remaining Balance [f]
Directed						
NYS Environmental Tax Credits	179.0	179.0	-	-	179.0	-
NYS Environmental Protection Fund	30.0	25.0	-	-	25.0	5.0
Electric Generation Facility Cessation Mitigation [g]	59.8	47.9	1.0	0.3	49.3	10.6
Green Jobs - Green New York [h]	327.5	327.5	-	-	327.5	-
Clean Energy Standard	0.7	0.7	-	-	0.7	-
NYS Budget Transfer [i]	90.0	90.0	-	-	90.0	-
Clean Energy Fund	235.2	235.2	-	-	235.2	-
Federal Program Match Opportunities	52.5	0.9	0.9	1.4	3.2	49.3
Total Directed	**974.8**	**906.3**	**1.9**	**1.7**	**909.9**	**64.9**
Administration and Other Non-Program[j]						
Program Administration [k]	132.4	89.2	0.1	-	89.2	43.2
Program Evaluations	16.2	7.6	0.2	1.3	9.1	7.1
Con Edison Smart Grid Program [l]	21.9	21.9	-	-	21.9	-
RGGI Inc. Costs [m]	1.6	1.6	-	-	1.6	-
New York State Cost Recovery Fee	13.3	11.6	-	-	11.6	1.8
Unallocated Interest Earnings	-	-	-	-	-	-
Total Administration and Other Non-Program	**185.4**	**131.8**	**0.2**	**1.3**	**133.3**	**52.1**
TOTAL [n]	**2,848.5**	**2,046.9**	**179.2**	**79.2**	**2,305.3**	**543.1**

[a] Includes auction proceeds and allocated interest on the RGGI and GJGNY portfolios. The allocation is consistent with the budget presented in the RGGI Operating Plan.

[b] Invoices processed for payment by NYSERDA.

[c] Remaining funding obligated under a contract, purchase order, or incentive award.

[d] Planned funding for contracts awarded and under negotiation; and planned funding under active development through open solicitations with upcoming proposal due dates, adjusted so that the sum of the project commitments does not exceed the figures in the Budgeted Funds column. NYSERDA's annual audited financial statements may reflect project commitments in excess of the figures in Budgeted Funds. These commitments are expected to decrease over time due to project attrition and differences in estimated versus actual costs.

[e] The sum of figures in columns Expended, Encumbered, and Pre-Encumbered funds.

[f] The difference between figures in columns Budgeted Funds and Committed Funds.

[g] The Electric Generation Facility Cessation Mitigation Program was enacted in the 2015–2016 New York State Budget and is designed to support communities that are transitioning local economies that have been reliant on fossil fuel power plants as a source of financial support. See the Final 2016 RGGI Operating Plan Amendment at: https://www.nyserda.ny.gov/Researchers-and-Policymakers/Regional-Greenhouse-Gas-Initiative/Useful-Documents for more information.

[h] Funds transferred from the RGGI to the Green Jobs - Green New York portfolio. For more information on the use of these funds, please refer to the GJGNY Annual Report https://www.nyserda.ny.gov/About/Publications/Program-Planning-Status-Reports/GJGNY-Advisory-Council-Reports

[i] On December 4, 2009, NYS enacted numerous deficit reduction measures that included the transfer of $90 million in RGGI auction proceeds to the General Fund following the global financial crisis.

[j] Includes NYSERDA's upfront administrative expenses related to the development and implementation of the CO_2 Budget Trading Program, the CO_2 Allowance Auction program, and the RGGI Operating Plan.

[k] The values for figures in rows Program Administration, Metrics and Evaluation, and the NYS Cost Recovery Fee represent aggregate funds and commitments for RGGI-funded activities, NOT including GJGNY. For information on GJGNY finances, refer to the GJGNY Annual Report https://www.nyserda.ny.gov/About/Publications/Program-Planning-Status-Reports/GJGNY-Advisory-Council-Reports

[l] On December 22, 2009, NYSERDA's Board approved a proposed consent decree that resolves the legal challenge to the State's RGGI program. In October 2010, State Supreme Court Judge Thomas J. McNamara signed a Stipulation and Order of Discontinuance signed by all the parties, thereby formally ending the litigation. The parties to the consent decree presently estimate that the total commensurate benefit for the calendar years 2009–2017 is $20.8 million and agreed to dedicate such funds for the development of smart grid technologies in the Con Edison territory. The budget reflects allocations that are intended to fund NYSERDA's estimated liability for each calendar year control period consistent with the timing of estimated cash payments due to Con Edison. NYSERDA is also responsible for certain additional costs that may be incurred through 2017. NYSERDA's annual audited financial statements show an amount expended of $18 million to reflect these additional estimated costs

that were required to be recorded. The litigation period ended December 31, 2016. This Plan Amendment notes that total paid by NYSERDA is $21,900,366.

[m] The first-year budget includes RGGI Inc. start-up costs and the State's share of ongoing RGGI Inc. expenses. RGGI Inc. is a nonprofit corporation created to support development and implementation of the CO_2 Budget Trading Program.

[n] Totals may not sum exactly due to rounding.

4 Program Evaluation

Several RGGI evaluation studies are underway or in the planning stages as of the second quarter of 2025. The study objectives and timing are discussed in the following sections. Other study plans are also in development and will be detailed in future quarterly reports. The following types of evaluation activities are being performed:

- **Impact Evaluation** measures the outcomes and benefits of a program, calculates the cost-effectiveness of the program, and compares the outcomes to the program goals.
- **Market Evaluation** develops an understanding of markets and market actors, provides information to support program design and delivery, and tracks changes in markets over time.
- **Process Evaluation** reviews oversight and operations, gauges customer satisfaction, and recommends process and efficiency improvements.
- **Logic Models** inform evaluation work by documenting the relationships between program activities; activity outputs; and the short-, medium-, and long-term outcomes the program intends to induce.
- **Evaluation Readiness Reviews**[5] help identify whether a program has various factors in place that will ensure an evaluation is justified, feasible, and likely to provide useful information.

In addition, building and facility stock studies receiving support from RGGI evaluation funds are described in sections 4.8.1 and 4.8.2.

4.1 Evaluation of Energy Efficiency and Other Deployment Programs

NY Green Bank Financial Market Evaluation: An update to the NY Green Bank (NYGB) financial market transformation assessment is underway. This market transformation evaluation builds upon the market assessment completed in 2023 and is designed to assess the progress NY Green Bank has made in delivering on its mission. The update will focus on the period from April 2022 to 2024. This update seeks to measure observed changes in target financing markets, provide insights into NY Green Bank's market transformation impacts, and inform recommendations for NY Green Bank to further scale its impact in New York's clean energy sector. Results of this evaluation are anticipated in Q4 2025.

EmPower + Impact and Process evaluation: Due to the similarity of program operations and offerings, which differed only in the income brackets targeted and the levels of incentive offered, in 2023 NYSERDA merged EmPower New York and Assisted Home Performance into a combined program called EmPower+. An impact and process evaluation, referred to as the Single Family LMI Retrofit Programs Impact and Process Evaluation, is underway. This evaluation will cover EmPower and Assisted

Home Performance projects from April 1, 2022, to March 31, 2023. The evaluation includes a rigorous billing analysis with electric and natural gas utility and delivered fuel data, a survey of participants to understand energy use behaviors and their experience of the program, and a contractor survey to understand the decisions they make and their experience of the program. Results of the electric and natural gas billing analysis are anticipated to be complete Q3 2025. The balance of evaluation results, including delivered fuel billing analysis, is anticipated Q4 2025.

4.1 Evaluation of Renewable Energy Programs

A solar photovoltaic (PV) persistence study was completed Q2 2025. Key findings from the study include:

- Overall performance loss rates (PLRs) 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. PLRs vary by a number of different factors as described below.
    - 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.
    - 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.
    - 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.
    - 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.

    - Controlling for other characteristics, systems in DAC locations have higher PLR than those in non-DAC areas.
- 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. In addition, PLRs estimated in this study represent the performance loss of operating and communication 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, but 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.

The final report can be found here: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/NYSERDA/2025-09-Solar-PV-Persistence-Study.pdf
The final report can be found here: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/NYSERDA/2025-09-Solar-PV-Persistence-Study.pdf

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4.2 Building and Industrial Facility Stock Studies

NYSERDA has undertaken major building stock studies to assess residential, commercial and industrial sector buildings across a broad range of customer segments and energy measures. The goals of these studies have been to (1) better understand building/facility stock and associated energy use, including saturations of energy-consuming measures, penetrations of energy-efficient and electrification equipment, building characteristics and energy management practices and (2) use this information to estimate the technical, economic, and achievable energy efficiency opportunities in New York State. These studies have been supported by PSC-authorized ratepayer funds and RGGI funds; RGGI funds have supplemented the budget to allow for robust data collection on fuel measures. Updates by sector are presented below.

Multifamily

The Statewide Multifamily Building Study (SMBS) encompasses three components: a building stock study to profile and baseline multifamily buildings and equipment; a market assessment to baseline industry practices, market drivers, and barriers in the State multifamily market; and an image analysis that

used machine learning to analyze aerial imagery to estimate externally visible characteristics of every multifamily building in the State.

The building stock and market assessment components were completed in Q1 2025. Data was collected between June 2022 and January 2023 from more than 2,400 multifamily properties through online phone surveys and site visits. The study also identified motivations and barriers to energy efficiency and electrification upgrades in multifamily buildings, which will be used to inform program planning and setting baselines for energy savings calculations.

Key findings from the building stock and market assessment components include:

- A total number of 129,611 multifamily buildings exist in NYS
- Newer buildings use more energy than old buildings; buildings built after 2006 have a higher total building energy use intensity (EUI) than older buildings as described below:
    - 2007 – present: 78.6 kBtu/sqft
    - 1979-2006: 55.6 kBtu/sqft
    - 1940-1978: 73.9 kBtu/sqft
    - Pre-1940: 63.4 kBtu/sqft
- Natural Gas metering type depends on building size
    - Low and mid-size buildings tend to have direct natural gas meters for tenants, while most high-rise buildings have building level meters.
    - About two-thirds of low- and mid-rise buildings have individual natural gas meters for tenants. This relationship is reversed for high-rise buildings, where less than one-third have individual meters.
    - Low-rise buildings tend to have the largest dwelling units, then mid- and high-rise buildings.
- Property Managers and Owners (PMOs) who manage high-rise buildings are more likely to need financial and planning assistance to prepare their multifamily properties for future energy upgrades. PMOs of all building sizes will be looking to contractors, design professionals, and asset managers for decision-making guidance.

- According to PMOs, project costs are the most common barrier to high efficiency building shell improvements. Contractors and architects also cited cost as one of the barriers to the adoption of HVAC and DHW equipment.

- Energy efficiency program incentives and other financial assistance, such as loans or grant money, could alleviate financial barriers to participation for PMOs and encourage them to make energy upgrades in the near future.

- PMOs have knowledge barriers, while energy consultants, design professionals, and contractors face technical barriers. Knowledge and technical barriers must be addressed to increase adoption of high efficiency equipment and improvements.

The final Building Stock study can be found here: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/building-stock-potential-studies/Multifamily-Market-Assessment-Report.pdf.

The final Market Assessment report can be found here: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/building-stock-potential-studies/Multifamily-Market-Assessment-Appendix.pdf.

The image analysis is anticipated to be complete Q4 2025. Future reports will detail findings.

Residential

In Q2 2025, NYSERDA released RFP 4994 to procure a contractor or team of contractors to implement an update to the New York State Single Family Residential Building Stock Assessment (RBSA). The overall objective of this RBSA is to understand the current residential building stock of one- to four- unit homes and associated energy use as compared to the 2015 Residential Statewide Baseline Study of New York State (2015 RSBS) and 2019 Residential Building Stock Assessment (2019 RBSA). The assessment will include the prevalence of energy-consuming equipment based on fuel type, adoption of energy-efficient equipment, utilization of renewable energy sources, and information related to building characteristics, electrification, and energy management decision making, behaviors and practices. In addition to updating the metrics from the 2019 RBSA, enhancements to the data collected in this study will inform building-related climate resilience, building electrification, and further assess the development of the clean heating and cooling market.

Commercial

A request for proposals to update the New York State Commercial Statewide Baseline Study will be issued in Q3 2025 with proposals due Q4 2025. .

Appendix A. Savings Calculations Methodology

This appendix describes the general methods and assumptions used to calculate the energy savings, emission reductions, bill savings, and cost-effectiveness metrics presented in this report.

A.1 Energy Savings

Annual energy savings values are based on the past performance of publicly funded energy efficiency programs and information obtained from various sources of technical literature.

A.2 CO_2 Reductions

Emission factors translate the energy savings data into annual GHG emission reduction values. The GHG evaluated in the report include carbon dioxide, methane, and nitrous oxide. Because each of these gases has a different global warming potential,[6] emissions for gases other than carbon dioxide are converted into carbon dioxide equivalent units (CO_2e) through multiplication with their appropriate Intergovernmental Panel on Climate Change (IPCC) global warming potential value,[7] shown in Table A-1.

Table A-1. Global Warming Potentials

These values represent a 100-year time horizon.

Source: Intergovernmental Panel on Climate Change, 1995. Second Assessment: Climate Change.

Gas	Global Warming Potential
Carbon dioxide (CO_2)	1
Methane (CH_4)	25
Nitrous Oxide (N_2O)	298

NYSERDA uses the emission factors shown in Table A-2 to calculate emissions from on-site fuel combustion derived from the U.S. Environmental Protection Agency (EPA) emission coefficients. The CO_2e values represent aggregate CO_2, CH_4, and N_2O emissions. If a program covers more than one sector, then the estimated reduction is based on a calculated average emission factor for the affected sectors.

Table A-2. Fuel Combustion Emission Factors by Sector

	Transport (lbs: CO_2e/MMBtu)	Residential (lbs: CO_2e/MMBtu)	Commercial (lbs: CO_2e/MMBtu)	Industrial (lbs: CO_2e/MMBtu)
Coal	N/A	224.8	211.4	203.7
Natural Gas	117.2	117.2	117.2	114.5
#2 Oil/Distillate/ Diesel	163.0	162.9	162.9	162.9
#6 Oil/Residual	N/A	N/A	166.0	166.0
Kerosene	N/A	161.2	161.2	161.2
Propane	136.1	136.1	136.1	136.1
Gasoline	158.0	N/A	N/A	N/A
Aviation Fuel	159.2	N/A	N/A	N/A
Wood	N/A	18.2	18.2	4.1
Steam	N/A	106.1	106.1	N/A

For projects installed prior to 2016, a marginal emission factor of 1,160 pounds of CO_2e/MWh is used to estimate emission reductions associated with electricity reductions for all sectors.[8 9] When a project is installed and committed from 2016 onward, a marginal emission factor of 1,103 pounds of CO_2e/MWh is applied to estimate emission reductions associated with electricity use reductions for all sectors. Although electricity savings may not lead to near-term emission reductions under the RGGI CO_2 cap, savings will potentially reduce imports of electricity to NYS. The demand for CO_2 allowances, which could lead to a possible future reduction in the cap as well as reduce the carbon footprint of end users—as users will be responsible for a smaller percent of the emissions associated with electricity production.

A.3 Bill Savings

Annual bill savings values for each program are estimated by multiplying the energy savings by sector specific fuel price data.

Table A-3 shows fuel prices by sector. Electricity and natural gas prices represent average values for six service territories weighted by the percentage of RGGI projects located in each utility area, excluding basic service charges.

Table A-3. Fuel Prices by Sector[a]

Sector	Electricity ($/kWh)	Natural Gas ($/MMBtu)	Fuel Oil/ Distillate ($/MMBtu)	Propane ($/MMBtu)
Residential	0.18	8.57	27.54	37.01
Commercial	0.16	5.09	21.77	25.07
Industrial	0.12	5.09	22.74	31.04
Transportation	0.05	N/A	26.93	N/A
C&I	0.14	5.09	22.23	28.06

Sector	Residual ($/MMBtu)	Kerosene ($/MMBtu)	Wood ($/Cord)	Coal ($/MMBtu)	Gasoline ($/MMBtu)
Residential	N/A	29.84	7.83	N/A	N/A
Commercial	14.75	29.84	N/A	5.78	N/A
Industrial	14.75	24.64	N/A	4.24	N/A
Transportation	N/A	N/A	N/A	N/A	28.36
C&I	14.75	27.24	N/A	5.01	28.36

[a] For electricity and natural gas, prices are an average of July 2012 and January 2013 prices as reported by the NYS Department of Public Service billing data. http://www3.dps.ny.gov/W/PSCWeb.nsf/All/C56A606DB183531F852576A50069A75D?OpenDocument For all other fuel types, prices reflect 2014 retail prices as reported in NYSERDA's Patterns and Trends- NYS Energy Profiles: 1997–2014 (NYSERDA 2016).

Table A-4. Program Measure Life Assumptions

Average savings-weighted measure life, shown by program, is used to calculate expected lifetime benefits.

Program	Electricity Measure Life	Fuels Measure Life
GJGNY—Single-Family Residential Assessment Component	18	24
GJGNY—Single-Family Residential Loan Component	19	23
GJGNY—Multifamily Residential Assessment Component	13	15
GJGNY—Small Commercial Loan Component	13	21
RGGI—Multifamily Performance Program	13	15
RGGI—Multifamily Carbon Emissions Reduction Program	N/A	13
RGGI—EmPower New York	N/A	24
RGGI—Home Performance with ENERGY STAR	18	24
RGGI—Green Residential Building Program	18	24
RGGI—Solar Thermal Incentive Program	N/A	20
RGGI—Low-Rise Residential New Construction Program	18	24
RGGI—NYSERDA Solar Photovoltaic Initiative	25	N/A
RGGI—Cleaner, Greener Communities	15	15
RHNY—Boilers	20	20
RHNY—Pellet Stoves	20	20
LIPA Efficiency	18	NA
LIPA Photovoltaic and Efficiency Initiative	25	N/A
Regional Economic Development and GHG Reduction	18	18
Charge NY	10	10

Appendix B. Former Program Names

Table B-1. Former Program Names

Current Program Name	Formerly Known As
Residential Efficiency Services	Residential Space and Water Heating
Municipal Water and Wastewater	Water and Wastewater Efficiency; Water and Wastewater Energy Efficiency
Industrial Innovations	Industrial Process Improvements; Advanced Building Systems and Industrial Process Improvements
Transportation Research	Advanced Transportation Development
Clean Energy Business Development	Clean Technology and Industrial Development
Power Systems	Advanced Power Technology Program (APTP)

Appendix C. Summary of Portfolio Benefits

Table C-1. Summary of Portfolio Benefits

Visit: https://data.ny.gov/Economic-Development/Summary-of-Portfolio-Benefits-from-RGGI-funded-Pro/euip-iahh on OpenNY.

Table C-2. Summary of Fuel Savings by Type

Visit: https://data.ny.gov/Energy-Environment/Fuel-Savings-by-Type-from-RGGI-Funded-Projects/3dbk-8jiw on OpenNY.

Appendix D. NYS RGGI Auction Proceeds

Table D-1. NYS RGGI Auction Proceeds

Visit: https://data.ny.gov/Energy-Environment/New-York-State-RGGI-Auction-Proceeds/vxtc-b4mv on OpenNY.

Appendix E. Total NYS RGGI Funds

Table E-1. NYS RGGI Funds

Visit: https://data.ny.gov/Energy-Environment/New-York-State-RGGI-Funds/bkzt-72yv on OpenNY.

Appendix F. RGGI-Funded Completed Evaluations

F.1 Completed Evaluations

Published Year	Program	Evaluation Study Title	Link to Report
2013	Green Jobs – Green New York	Green Jobs - Green New York Jobs Quantification Study	Phase 1: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/EERP/GJGNY/Evaluation-Reports/2013-gjgny-phase1.pdf Phase 2: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/EERP/GJGNY/Evaluation-Reports/2013-gjgny-phase2.pdf
2014	Multifamily Performance Program	Multifamily Performance Program Process/Market Evaluation	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2014ContractorReports/2014-MPP-Process-Evaluation.pdf
2015	Multifamily Performance Program	Multifamily Performance Program Impact Evaluation	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2015ContractorReports/2015-MPP-Impact-Eval.pdf
2015	Economic Development Growth Extension	Economic Development Growth Extension Process Evaluation	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2015ContractorReports/2015-economic-development-growth-extension-process-evaluation.pdf
2015	Multifamily Carbon Emission Reduction Program	Multifamily Carbon Emission Reduction Program	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2015ContractorReports/RGGI-Multifamily-Carbon-Emissions-Impact-Eval.pdf
2015	Green Jobs – Green New York	GJGNY Small Commercial Energy Efficiency Program	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2015ContractorReports/2015-Small-Comm-Impact-Evaluation-July-2010-December-2013.pdf
2016	Cleaner Greener Communities	Cleaner Greener Communities Program	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2016ContractorReports/2016-Cleane-Greener-Communities-Market-Evaluation-Wave2.pdf
2016	Green Jobs – Green New York	GJGNY Constituency-Based Organization Program	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2016ContractorReports/GJGNY-CBO-Outreach-Program-Process-Evaluation.pdf

2015	Home Performance with ENERGY STAR	Home Performance with ENERGY STAR Program	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2015ContractorReports/2012-2013-HPwES-Process-Evaluation-Market-Characterization-Assessment-FinalReport.pdf Unregulated Fuels Impact Evaluation: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2016ContractorReports/HPwES-unregulated-fuels-impact-evaluation.pdf
2016	Green Jobs – Green New York	Green Jobs - Green New York Jobs Quantification Study	Phase 1 Update (2016): https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2016ContractorReports/GJGNY-Jobs-Analysis-Phase-I.pdf Phase 2 Update (2016): https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2016ContractorReports/GJGNY-Jobs-Analysis-Phase-II.pdf
2015	Transportation	Advanced Transportation Research Program	Logic Model: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2015ContractorReports/2015-Transportation-LM-Report.pdf Case Study: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2016ContractorReports/Saab-Sensis-Advanced-Airport-Departure-Manager-Transportation-cs.PDF Case Study: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2016ContractorReports/Adaptive-Control-Decision-Support-System-Traffic-Management-Transportation-cs.pdf Case Study: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2016ContractorReports/Alstom-Transportation-cs.pdf Case Study: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2016ContractorReports/2016-transportation-case-study-electric-refrigeration.pdf Case Study: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2016ContractorReports/2016-Transportation-Case-Study-Buffalo-Niagara-Medical-Campus.pdf Case Study: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-

			Evaluation/2017ContractorReports/Transportation-Case-Study-Report-Leviton.pdf
2015	Community Solar	Community Solar NY Program	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2015ContractorReports/2015-Community-Solar-NY-Final-Initiative-Level-Logic-Model-Report.pdf
2017	Single Family Residential	Residential Non-Energy Impact Study	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2017ContractorReports/SmallResidential-NEI-PhaseI.pdf
2017	Wastewater Energy Efficiency	Wastewater Energy Efficiency Program	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2017ContractorReports/WWEP-Impact-Evaluation-Final-Report.pdf
2015	Transportation	Transportation Program	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2015ContractorReports/2015-Transportation-LM-Report.pdf
2017	Transportation	Advanced Transportation Research	Volume 1 - Executive Summary: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2017ContractorReports/Clean-Transportation-Market-Characterization-Study-Vol1.pdf Volume 2 - New York State Transportation Market: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2017ContractorReports/Clean-Transportation-Market-Characterization-Study-Vol2.pdf Volume 3 - Electric Vehicles Market Characterization and Baseline Assessment: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2017ContractorReports/Clean-Transportation-Market-Characterization-Study-Vol3.pdf Volume 4 - Transportation Demand Management Market Characterization and Baseline Assessment: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2017ContractorReports/Clean-Transportation-Market-Characterization-Study-Vol4.pdf Volume 5 – Appendices: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2017ContractorReports/Clean-Transportation-Market-Characterization-Study-Vol5.pdf
2017	Technology and Market Development	Clean Energy Business Development	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2017ContractorReports/ICBD-MCA-Final-Report.pdf

2017	Technology and Market Development	Power Systems Program	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2017ContractorReports/2017-05-CleanPowerTechnologyInnovationImpactEvaluationReport.pdf
2019	Green Jobs – Green New York	GJGNY On-Bill Recovery	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/HPwES-On-Bill-Recovery-Evaluation-2014-2016.pdf
2019	Residential	Residential Building Stock Assessment	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/building-stock-potential-studies/2019-residential-building-stock-assessment-report.pdf
2020	Green Jobs – Green New York, Residential	GJGNY Audit-Only Measure Adoption Rate Study	https://www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2016-2018-GJGNY-Audit-Only-MAR-Impact-Evaluation-Report.pdf
2020	Renewable Heat NY	Renewable Heat NY	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2020-Renewable-Heat-NY-Market-Evaluation-Report-Final.pdf
2020	Residential	Home Performance with ENERGY STAR and EmPower New York Impact Evaluation (Billing Analysis, 2012–2016)	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2020-Retrofit-Billing-Analysis-Final-Report.pdf
2020	NY-Sun	NY-Sun Solar Photovoltaic Program Impact Evaluation	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/NYSERDA-Solar-PV-Program-Impact-Evaluation-Final.pdf
2019	Clean Energy Communities	Clean Energy Communities Market Evaluation	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2019-03-NYSERDA-Clean-Energy-Communities-Market-Evaluation-Report.pdf
2020	Commercial	Commercial Baseline Study	https://www.nyserda.ny.gov/About/Publications/Evaluation-Reports/Building-Stock-and-Potential-Studies/Commercial-Statewide-Baseline-Study
2021	Clean Energy Communities	Clean Energy Communities Impact Evaluation (2016–2018)	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/2021-NYSERDA-Clean-Energy-Communities-Impact-Evaluation-Report.pdf
2022	Residential	Clean Energy Engagement	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-

		Market Evaluation (2020)	Evaluation/2023-03-Matter-No-16-02180-NYSERDA-CleanEnergyCommunities-Report.pdf
2022	Residential	NYSERDA Residential Retrofit Impact Evaluation (2017–Q1 2019)	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/Matter-No1602180NYSERDA-Retrofit-Impact-CEF-Report-FinalOctober2022.pdf
2022	Residential	Home Performance and EmPower New York Impact Evaluation	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/Matter-No1602180NYSERDA-Retrofit-Impact-CEF-Report-FinalOctober2022.pdf
2022	Transportation	Charge NY / Drive Clean Rebate Market and Impact Evaluation (2021)	Market: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/Transportation/2022-12-Matter-No-16-02180-NYSERDA-CleanTransportation-EV-RebateMarketReport.pdf Impact: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/Transportation/2022-12-Matter-No-16-02180-NYSERDA-CleanTransportation-EV-RebateImpactReport.pdf
2023	Financing	NY Green Bank Financial Market Evaluation (2019 -2022)	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/NYGB_MT-Evaluation-2019-22_Final-Study_October-2023.pdf
2023	Industrial	New York State Industrial Facilities Stock Study: Phase One	https://www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/Matter-No-1602180NYSERDAIndustrial-Facilities-Stock-Study-Phase-One-Report-March-2023.pdf ,
2024	Industrial	New York State Industrial Facilities Stock Study: Phase Two	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/Program-Evaluation/Matter-No1602180NYSERDA-Industrial-Facilities-Stock-Study-Phase-Two-Report-September-2024.pdf
2024	Renewables/Distributed Energy Resources (DER)	NY-Sun Solar Photovoltaic Program Impact Evaluation for Systems Installed April 1, 2018 through March 31, 2021	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/NYSERDA/NYSERDA-2024-Impact-Eval_Solar-PV-System-Performance_FINAL.pdf

2024	Renewables/Distributed Energy Resources (DER)	Energy Storage System Performance Impact Evaluation	https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/PPSER/NYSERDA/NYSERDA-2024-Impact-Eval-Energy-Storage-System-Performance_FINAL.pdf

Endnotes

[1] These metrics represent the benefits that can be discretely counted at this time and typically associated with traditional deployment programs. These programs include Green Jobs - Green New York, Residential Efficiency Services, NY-Sun, Renewable Heat NY, and LIPA Efficiency and Renewable Energy. These metrics do not reflect emission reductions, participant bill savings, and other possible benefits resulting from non-deployment programs such as Transportation Research and Clean Energy Communities. Therefore, the benefits associated with the overall RGGI portfolio are anticipated to be greater than the subset of programs represented here.

[2] Cumulative annual benefits are reflective of the annual impacts from all currently operational projects installed, projects under a signed contract and projects with an application received that are not yet operational since program inception. Expected lifetime benefits are reflective of the total impacts over the entire effective useful lifetime of the measures associated with all currently operational projects installed, projects under a signed contract and projects with an application received that are not yet operational since program inception. Please see Table A-4 in appendix A for the measure-life assumptions.

[3] Regional Greenhouse Gas Initiative-Funded Programs https://www.nyserda.ny.gov/About/Funding/Regional-Greenhouse-Gas-Initiative/Regional-Greenhouse-Gas-Initiative-Funded-Programs

[4] Green Jobs-Green New York Annual Report https://www.nyserda.ny.gov/About/Publications/Program-Planning-Status-Reports/GJGNY-Advisory-Council-Reports

[5] Formerly known as Evaluability Assessment.

[6] A global warming potential is a measure that estimates how much a given mass of a GHG contributes to global warming. Calculations span over a specific time interval, which is 100 years for the IPCC Second Assessment Report values.

[7] IPCC, 2007. Fourth Assessment: Climate Change 2007. This inventory uses potentials from the IPCC Fourth Assessment Report, rather than values from more current assessments. The Fifth Assessment Report was released in 2014–15. New York DEC regulation Part 242 1.2 (49) uses the Third Assessment values, while the EPA GHG Reporting Rule and the NY GHG Inventory and Forecast use the Fourth Assessment. Reconciliation between methodologies will be investigated as part of the program implementation and evaluation process.

[8] Per the Clean Energy Advisory Council (CEAC) Metrics, Tracking and Performance Assessment (MTPA) Working Group, NYSERDA has adopted a marginal electricity grid emission factor of 1,103 pounds CO2e/MWh for projects completed after 2015 (http://documents.dps.ny.gov/public/MatterManagement/MatterFilingItem.aspx?FilingSeq=190731&MatterSeq=50399). Projects completed prior to 2016 will maintain the 1,160 pounds CO2e/MWh previously used, based on analysis of grid emissions at that time. Carbon emissions reductions are now expressed in terms of metric tons. Reports published prior to August 2020 represented carbon emissions in short tons.

[9] Beginning with Q4 2016, NYSERDA updated emission factors for natural gas, #2 oil, #6 oil, kerosene, propane, wood and steam to be consistent with emission factors used in the updated NYS Greenhouse Gas Inventory (https://www.nyserda.ny.gov/About/Publications/EA-Reports-and-Studies/Energy-Statistics). These factors are derived from EPA's February 2016 State Inventory Tool release (https://www.epa.gov/statelocalclimate/state-inventory-and-projection-tool). Steam emission factors have been updated to be consistent with New York City's updated Greenhouse Gas Inventory http://www1.nyc.gov/assets/sustainability/downloads/pdf/publications/NYC_GHG_Inventory_2014.pdf

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RGGI-2025-H1-r-1-v1 12/5/2025