



NEW YORK'S RGGI-FUNDED PROGRAMS

**STATUS REPORT
QUARTER ENDING JUNE 30, 2011**

SEPTEMBER 2011

**NEW YORK STATE
ENERGY RESEARCH AND
DEVELOPMENT AUTHORITY**

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1 Introduction

To implement the Regional Greenhouse Gas Initiative (RGGI), New York State established its Carbon Dioxide (CO₂) Budget Trading Program through regulations promulgated by the Department of Environmental Conservation (DEC) and the CO₂ Allowance Auction Program through regulations promulgated by the New York State Energy Research and Development Authority (NYSERDA).¹ This report is prepared pursuant to the “Operating Plan for Investments in New York under the CO₂ Budget Trading Program and the CO₂ Allowance Auction Program” (Operating Plan),² and provides an update on the progress of programs through the quarter ending June 30, 2011. It contains an accounting of program spending, an estimate of program benefits, and a summary description of program activities and implementation. An amendment providing updated program descriptions and funding levels for the 2011 version of the plan was approved by NYSERDA’s Board of Directors on June 20, 2011.³

1.1 New York’s RGGI Funds⁴

As of June 30, 2011, New York sold nearly 137 million CO₂ allowances and received approximately \$322 million in auction proceeds. An additional \$1,034,063 in interest earnings also were realized on RGGI proceeds. These funds are reinvested for program implementation and are allocated to various RGGI programs. Detailed auction results are presented in Table 1-1, while total RGGI funds are shown in Table 1-2.

¹ For the DEC adopted regulations, see 6 NYCRR Part 242: CO₂ Budget Trading Program Regulations; for the NYSERDA adopted regulations, see 21 NYCRR Part 507: CO₂ Allowance Auction Program Regulations.

² On June 21, 2010, NYSERDA published an Operating Plan that provides the budgets and descriptions for the programs that would be funded by the RGGI auction proceeds. Please refer to [RGGI Use of Auction Proceeds](#) for ongoing developments.

³ Please refer to the [2011 RGGI Operating Plan Amendment](#) for details.

⁴ RGGI funds include both auction proceeds and interest earned from those proceeds. See [NY Proceeds by Auction](#) for more details on auction results.

Table 1-1. New York State's RGGI Auction Results⁵

Auction Date	Control Period	Clearing Price	New York State Allowances Sold	New York State Auction Proceeds
12/17/08	Current	\$3.38	12,422,161	\$41,986,904
3/18/09	Current	\$3.51	12,422,161	\$43,601,785
	Future	\$3.05	776,385	\$2,367,974
6/17/09	Current	\$3.23	11,861,849	\$38,313,772
	Future	\$2.06	776,385	\$1,599,353
9/09/09	Current	\$2.19	11,861,849	\$25,977,449
	Future	\$1.87	776,385	\$1,451,840
12/02/09	Current	\$2.05	11,861,850	\$24,316,793
	Future	\$1.86	571,423	\$1,062,847
3/10/10	Current	\$2.07	15,136,022	\$31,331,56
	Future	\$1.86	740,167	\$1,376,711
6/9/10	Current	\$1.88	15,136,022	\$28,455,721
	Future	\$1.86	756,801	\$1,407,650
9/8/10	Current	\$1.86	11,421,736	\$21,244,429
	Future	\$1.86	464,418	\$863,817
12/1/10	Current	\$1.86	8,678,724	\$16,142,427
	Future	\$1.86	414,863	\$771,645
3/9/11	Current	\$1.89	15,153,524	\$28,640,160
	Future	\$1.89	757,676	\$1,432,008
6/8/11	Current	\$1.89	4,519,648	\$8,542,135
	Future	\$1.89	383,114	\$724,085
Current Control Period Total			130,475,546	\$308,553,141
Future Control Period Total			6,417,617	\$13,057,930
TOTAL			136,893,163	\$321,611,071

Source: RGGI Inc.

Table 1-2. New York State's RGGI Funds through June 30, 2011

Fund Category	Cumulative Funds
RGGI Auction Proceeds	\$321,611,071
Allocated Interest	\$1,034,063
TOTAL	\$322,645,134

⁵ New York did not offer allowances for sale in the RGGI auction held on September 25, 2008, where the clearing price for 2009 vintage allowances was \$3.07.

2 *Budget and Spending Status*

This section presents financial data for the approved RGGI programs through June 30, 2011. Table 2-1 reflects how the \$322.6 million of current funds are allocated across the five major program areas:

- Residential/Commercial/Industrial/Municipal
- Transportation
- Power Supply and Delivery
- Sustainable Agriculture and Bioenergy
- Multi-Sector

Table 2-1 also presents the current contract commitments and spending levels for each program.

Table 2-1. Anticipated Available Funding and Financial Status through June 30, 2011
(\$ million)

	Allocation of Cumulative Funds ^a	Contract Commitments ^b	Funds Spent
Residential/Commercial/Industrial/Municipal			
Green Jobs/Green NY	96.7	96.7	6.6
Residential Space and Water Heating Efficiency	26.2	7.4	4.1
Commercial, Industrial, Municipal and Institutional	3.5	1.5	0.9
Cleaner Greener Communities	10.5	-	-
Climate Smart Communities	2.3	-	-
Advanced Building Systems and Industrial Process Improvements	5.7	1.4	<0.1
Total Residential/Commercial/Industrial/Municipal	144.9	107.0	11.6
Transportation			
Transportation Efficiency (and Electrified Rail Efficiency)	-	-	-
Advanced Transportation Development	2.0	1.1	0.3
Total Transportation	2.0	1.1	0.3
Power Supply and Delivery			
Statewide Photovoltaic Initiative	11.7	11.7	10.9
Advanced Power Technology	4.5	2.7	1.0
Total Electric Power Supply and Delivery	16.2	14.4	11.9
Sustainable Agriculture and Bioenergy			
Sustainable Agriculture and Bioenergy Program	-	-	-
Total Sustainable Agriculture and Bioenergy	-	-	-
Multi-Sector			
Clean Technology and Industrial Development	12.8	4.5	0.1
Climate Research and Analysis	8.6	1.8	1.1
Total Multi-Sector	21.4	6.3	1.2
PROGRAM AREA TOTAL	184.4	128.7	25.0
Other Costs ^c			
Deficit Reduction Plan (DRP) Transfer ^d	90.0	90.0	90.0
Con Edison Smart Grid Program ^e	12.3	12.3	12.3
Program Administration ^f	16.3	12.5	6.9
Metrics and Evaluation	11.6	5.9	0.2
RGGI Inc. Costs ^g	4.1	3.0	2.9
New York State Cost Recovery Fee	4.0	2.7	0.9
OTHER COSTS TOTAL	138.2	126.3	113.3
TOTAL	322.6	255.1	138.2

^a Includes auction proceeds and allocated interest. The allocation is consistent with the three-year budget presented in the Operating Plan.

^b Represents total cumulative encumbrances, i.e. funds that have been spent or legally obligated. In addition, contract commitments for Green Jobs/Green NY include funds set aside in a dedicated account that are not otherwise spent or legally obligated to particular contracts.

^c The values for Program Administration, Metrics and Evaluation, and the New York State Cost Recovery Fee represent aggregate funds and commitments for all RGGI-funded activities, including GJGNY.

^d On December 4, 2009, New York State enacted numerous deficit reduction measures that included the transfer of \$90 million in RGGI auction proceeds to the General Fund.

^e On December 22, 2009, NYSERDA's Board approved a proposed consent decree that resolves the legal challenge to the state's RGGI program. The parties to the consent decree estimate that the total commensurate benefit for years 2009 - 2011 is \$7,658,707 and agreed to dedicate such funds for the development of smart grid technologies in the Con Edison territory. 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.

^f Includes NYSERDA's upfront administrative expenses related to the development and implementation of the CO₂ Budget Trading Program, the CO₂ Allowance Auction program, and the Operating Plan.

^g The first-year budget includes RGGI Inc. start-up costs and New York State's share of ongoing RGGI Inc. expenses. RGGI Inc. is a non-profit corporation created to support development and implementation of the CO₂ Budget Trading Program.

Totals may not sum exactly due to rounding.

Source: NYSERDA

3 Summary of Portfolio and Program Benefits

Table 3-1 and Table 3-2 show the estimated cumulative annual benefits as of June 30, 2011 at the portfolio and program levels, respectively.⁶ These metrics are estimates made by program implementation staff and have not been evaluated. When evaluation results are available, they will be presented in subsequent Annual Evaluation and Status Reports, which also will include these metrics along with macroeconomic indicators such as job creation resulting from program activity. NYSERDA begins tracking program benefits once projects have been installed. The reporting of fund transfers may lag behind the installation date such that program benefits are reported prior to the financial reporting of funds spent. At this time, the program benefits include some projects that also are supported by other non-RGGI funding sources administered by NYSERDA.

Table 3-1. Summary of Cumulative Portfolio Benefits

Benefits	Results through June 30, 2011
Net Greenhouse Gas Emission Savings ¹ (Annual Tons CO ₂ e ²)	15,553
Net Electricity Savings (Annual MWh)	5,233
Renewable Energy Generation (Annual MWh)	3,992
Net Natural Gas Savings (Annual MMBtu)	20,481
Net Fuel Oil Savings (Annual MMBtu)	118,963
Net Propane Savings (Annual MMBtu)	2,272
Net Steam Savings (Annual MMBtu)	10,557
Net Wood Savings (Annual MMBtu)	201
Net Kerosene Savings (Annual MMBtu)	27
Net Gasoline Savings (Annual MMBtu)	---
Net Diesel Savings (Annual MMBtu)	---
Annual Energy Bill Savings to Participating Customers (\$ Million) ³	4.0

¹ 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. Nevertheless, electric efficiency projects will reduce end-users' responsibility or footprint associated with emissions from electricity production.

² CO₂e stands for carbon dioxide equivalent and describes the amount of CO₂ 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.

³ This total excludes bill savings associated with steam for the Multifamily Performance Program.

Source: NYSERDA

⁶ Cumulative annual benefits are reflective of the annual impacts from all currently operational projects installed since program inception.

Table 3-2. Summary of Cumulative Program Benefits

Program	Net Electricity Savings or Renewable Energy Generation (Annual MWh)	Net Energy Savings (Annual MMBtu)	Net Greenhouse Gas Emission Savings¹ (Annual Tons CO₂e²)
<i>Residential, Commercial, Industrial & Municipal Sectors</i>			
<i>Green Jobs - Green New York</i>			
GJGNY - Single-Family Residential Audit Component ³	582	29,580	2,071
GJGNY - Single-Family Residential Loan Component ³	334	19,058	1,363
GJGNY - Multifamily Residential Audit Component ³	1,713	6,111	1,153
<i>Residential Space & Water Heating Efficiency</i>			
Multifamily Performance Program	2,520	99,152	9,393
EmPower New York SM	0	3,280	256
Home Performance with ENERGY STAR [®]	0.6	1,033	86
Green Residential Building Program ³	251	5,561	430
Solar Thermal Incentive & Outreach Program	0	412	27
<i>Power Supply & Delivery</i>			
Statewide Photovoltaic Program	3,992	0	1,649
Cross-Program Overlap ⁴	167	11,687	874
TOTAL	9,225	152,501	15,553

¹ 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. Nevertheless, electric efficiency projects will reduce end-users' responsibility or footprint associated with emissions from electricity production.

² CO₂e stands for carbon dioxide equivalent and describes the amount of CO₂ 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.

³ At this time, the benefits for this program include some projects that also have been supported by other non-RGGI NYSERDA funding sources.

⁴ Cross-program overlap accounts for projects that received any combination of a GJGNY audit, a GJGNY loan, or a RGGI-funded incentive through the Home Performance with ENERGY STAR Program or the Multifamily Performance Program.

Source: NYSERDA

4 Program Activities and Implementation⁷

4.1 Residential, Commercial, Industrial, and Municipal Sectors

4.1.1 Green Jobs – Green New York (GJGNY)

GJGNY is a statewide program to promote energy efficiency and the installation of clean technologies to reduce energy costs and greenhouse gas emissions. GJGNY will provide subsidized energy audits to single family, multifamily, small business, and not-for-profit building owners as well as financing options for completing the energy efficiency services. GJGNY also is designed to support sustainable community development and create opportunities for green jobs. The GJGNY Annual Report was submitted to the New York State Legislature in October 2010.⁸

The GJGNY Evaluation Operating Plan was approved by NYSERDA's Officers during the third quarter of 2010,⁹ and NYSERDA is beginning to engage third-party contractors to develop more detailed evaluation plans for GJGNY programs. Some projects that receive GJGNY funding also may receive incentives through the System Benefits Charge (SBC), Energy Efficiency Portfolio Standard (EEPS), and/or utility programs, such that the projects' energy savings may not all be attributable solely to GJGNY. Nevertheless, all of the energy savings associated with those projects are included in this report.

NYSERDA staff and the evaluation contractors continued discussions of GJGNY program objectives and anticipated evaluation needs. The discussions identified the need for initial work to focus on Process and Market Characterization and Assessment efforts. The work plans for these initiatives are final and the survey instruments and interview guides are in the initial stages of development. NYSERDA staff anticipates initiating the data collection for this effort in late summer with an estimated final report to be available by March 2012.

A Request For Proposals (RFP) for a Green Jobs - Green New York Master Loan Servicer (RFP 2198) was issued on February 17, with proposals due by March 21, 2011. A technical evaluation panel was held on April 14 to review the submissions, and contract negotiations are currently underway with the selected proposer. Once a contract has been executed with the Master Loan Servicer, a Program Opportunity Notice (PON) will be issued seeking Participating Lenders to originate GJGNY residential energy loans, with collection services being provided by the Master Loan Servicer.

Additionally, a competitive solicitation was released on March 11, 2011, which requested proposals from US Department of Energy (DOE) formula ineligible small municipalities in nine economic development regions to serve as a host community for NYSERDA's Revolving Loan Fund or to administer an energy efficiency loan fund of their own. Eleven proposals were received, representing eight of the nine

⁷ The metrics presented in this section are estimates made by program implementation staff and are not validated; evaluation results will be presented in the Annual Evaluation and Status Report.

⁸ For more information, see the [Green Jobs – Green New York Annual Report](#).

⁹ For more information, see the [Green Jobs – Green New York Operating Plan for Program Evaluation](#).

economic development regions. On June 30, 2011, NYSERDA awarded funding for 8 of the 11 proposals. Seven awards went to municipalities that will serve as host communities for NYSERDA's Revolving Loan Fund and one municipality will administer its own energy efficiency loan fund. One economic development region did not submit a proposal in response to the solicitation; however, a neighboring economic development region was offered the opportunity to serve as host for this region. This award will make available \$689,214 for outreach/administration and \$6,202,922 for energy efficiency loans in the nine economic development regions.

The NYS Legislature presented an additional opportunity to the GJGNY financing program, as both houses passed On-Bill Recovery legislation in June that is currently awaiting Governor Cuomo's signature. Once signed into law, a 300-day program design and implementation period will begin, after which the New York State Public Service Commission (PSC) shall require each participating utility to offer On-Bill Recovery to eligible New Yorkers. Participation will initially be limited to 0.5% of each utility company's customers, but NYSERDA can petition to increase the limit provided the PSC finds On-Bill Recovery has not harmed the company or its ratepayers. Once signed into law, the maximum loan amounts for the GJGNY program will be amended to \$25,000 for residential 1-to-4-family homeowners and \$50,000 for small business/not-for-profit building owners for projects with paybacks of 15 years or less.

Single-Family Residential. The single-family residential free/reduced cost audit and financing components of GJGNY were launched on November 15, 2010, with services delivered through the Home Performance with ENERGY STAR[®] Program. As of June 30, there were 10,024 applications for free and reduced cost audits. Of these audits, 9,392 were approved and 5,442 are completed. A total of 1,037 energy efficiency projects identified by the audits were completed through the end of the second quarter and are anticipated to save 582,353 kWh and 29,580 MMBtu annually.

Participants that meet the GJGNY eligibility criteria can obtain GJGNY loans from \$3,000 (or from \$1,500 for a household receiving Assisted Home Performance with ENERGY STAR subsidies) to \$13,000, with repayment terms of 5, 10, or 15 years. The current interest rate is 3.99% with monthly repayment by check, or 3.49% for borrowers who opt for automated monthly repayments. GJGNY loans are funded from a \$51 million revolving loan fund (RLF), half of which is targeted at the residential sector. The RLF initially will be capitalized with a portion of New York's RGGI proceeds.

This financing component of the GJGNY program is being well received. Since January 2011, there have been a total of 1,598 financing applications submitted, of which 847 have been approved with others still being processed. During the second quarter of 2011, 218 loans closed, bringing the total number of GJGNY residential loans that are closed to 369. These loans represent a total of nearly \$3 million in financing for energy efficiency projects that are anticipated to save 333,673 kWh and 19,058 MMBtu per year.

The Tier 1 approval rate for fully processed applications is 77%. Applicants denied under Tier 1 criteria have the opportunity to reapply for the less stringent criteria of Tier 2 financing. Tier 2 criteria for the GJGNY residential loans allows a prospective borrower with a FICO score of less than 640 to qualify, if they have demonstrated a good payment history on energy bills and their mortgage. Of the applicants that were denied financing under Tier 1, approximately 14% were eligible to be reviewed under the alternate Tier 2 standards. [The most significant reason for loan denial (~45%) is a Debt to Income Ratio, which is not to exceed 50% under Tier 1 or 55% for Tier 2, including the requested loan amount.] Of the applications denied for Tier 1 and reapplying for Tier 2 consideration, the approval rate for fully processed applications is 60%. NYSERDA is evaluating alternative underwriting standards to increase the availability of financing to additional New York State homeowners.

Multifamily Residential. GJGNY provides funding for Multifamily Performance Program (MPP) audits and financing. Through June 30, 2011, the MPP GJGNY audit program received 74 audit applications and completed 40 audits. Six energy efficiency projects identified by the audits have been fully completed and are expected to save a total of 3,580 MMBtu and 1,607,134 kWh per year. An additional ongoing project has installed measures anticipated to save 2,532 MMBtu and 105,406 kWh annually.

The multifamily financing component of GJGNY was launched in June of 2011 and received a funding allocation of \$11.4M, which will be delivered through the Multifamily Performance Program. NYSERDA staff spent much of the year working internally, and with external stakeholders, to develop a successful loan mechanism that will be supported by this funding. NYSERDA's request for lenders for the MPP financing program was noticed in the New York State Contract Reporter in June, and information on the financing program has been posted on NYSERDA's web site.¹⁰ NYSERDA will host an orientation webinar for interested lenders on July 21, 2011 to familiarize the lending community with the new loan fund and will solicit interested lenders to list their organizations' availability as potential financial sources on NYSERDA's website.

Small Business and Not-for-Profit. The FlexTech Audit Program was expanded in support of the GJGNY legislation. Energy audits are offered statewide at no charge to small businesses and not-for-profits that have an average electric demand of up to 100kW and employ up to ten staff members. For participants ineligible for GJGNY audit funding, FlexTech also uses American Recovery and Reinvestment Act (ARRA) funding to provide free energy audits to any small business or not-for-profit with an average electric demand of 100 kW or less. As of June 30, 2011, 268 GJGNY audits and 93 ARRA audits were completed through the FlexTech Audit Program.

The GJGNY Small Business/Not-for-Profit Energy Efficiency Financing Program¹¹ was launched in June 2011. Under the program, small businesses and not-for-profits that have qualified energy audits from NYSERDA or their utility service provider and that meet other eligibility requirements may receive low-interest GJGNY energy project financing. NYSERDA will work with lenders statewide to provide 50% of the principal of an eligible GJGNY loan, up to \$26,000, at a 0% interest rate. The lender will provide the remainder of the principal at market rate. The lender will collect all loan payments and will remit to NYSERDA its share of the loan payment. Through participation in the loan program, lenders will be able to offer blended interest rates at approximately half the market rate. NYSERDA will hold a webinar for lenders in July 2011 and is coordinating with utilities and others to incorporate the financing opportunity into marketing and outreach materials.

Workforce Development. NYSERDA workforce development efforts funded under GJGNY are aligned with program strategies that promote the widespread implementation of energy efficiency and clean energy measures. The program is designed to help provide meaningful employment opportunities for displaced workers, the long-term unemployed, and new workforce entrants. Workforce training initiatives are underway to assist people with the processes of career planning, training, certification, and identifying energy employment opportunities. Subsequent steps include job placement, mentoring, and other on-the-job training (OJT) to ensure workers are prepared to provide quality work based on sound principles and to provide maximum energy savings through the proper installation of energy efficiency measures. The training equipment, video conferencing, training/simulation houses, hands-on diagnostics, and other training approaches needed to master skills and pass certification exams also are provided, enabling businesses to find and employ workers that are trained to deliver quality work. In addition, NYSERDA is

¹⁰ See the [Green Jobs – Green New York Multifamily Building Energy Efficiency Financing Program](#) web page for more information.

¹¹ See the [Green Jobs – Green New York Small Business/Not-for-Profit Energy Efficiency Financing Program](#) web page for more information.

using video conferencing to communicate to GJGNY stakeholders and provide training through Department of Labor One-Stop Centers.

As of June 30, 2011, the following GJGNY Workforce Development-related activities were open for enrollment or had contracting underway:

- **PON 1816 -Workforce Development Training Partnerships for Energy Efficiency Version 3.0** (\$5,462,410; \$1,650,000 of RGGI/GJGNY funds and \$3,812,410 of EEPS funds): The goal of this PON is to significantly strengthen the energy efficiency infrastructure that serves the needs of the portfolio of programs funded through the EEPS and GJGNY Programs and to increase the number of credentialed individuals and contractors supporting these programs. Proposals for this PON are due by December 2011. To date, five Training Partnership Agreements for GJGNY Worker Readiness training are executed and an additional two are in negotiations, and the funding category has been exhausted. NYSERDA also reviewed proposals and conducted interviews for Training and Field Testing Lab Houses and anticipates funding four projects under that category.
- **PON 1817 - Energy Efficiency Career Pathways Training and Technical Training** (\$1,850,000; \$600,000 of RGGI/GJGNY funds and \$1,250,000 of EEPS funds): The objective of this PON is to develop Small Commercial Energy Audit Training and Oil Heat Training under GJGNY and to develop EEPS Career Pathways and Technical Training. Proposals for this solicitation were due on August 3, 2010. Ten projects are being funded as a result of this solicitation. Three contracts, two for Small Commercial Energy Audit and one for Oil Heat Training, are to be funded by GJGNY. These three projects are undergoing final contract review.
- **RFP 2032 - Technical Workshops/Expand BPI Field Exam Capacity/Certification Standards** (\$1,480,000 of RGGI/GJGNY funds): This solicitation will seek proposals to develop technical workshops, to fund training centers to expand BPI field exam capabilities, to fund third parties to recognize/approve and accredit technical curriculum and technical certification, and to develop certification standards. As of June 30, 2011, technical reviewer comments were received, and NYSERDA was currently reviewing the standards and certification sections. It is anticipated a solicitation will be issued in late summer 2011.
- **RFP 2033- Internships/Apprenticeships/On-the-Job Training** (\$2,625,000 of RGGI/GJGNY funds): This solicitation will provide for the recruitment of entry-level workers, funding to support businesses hiring Green Jobs Work Readiness graduates, and enhancement of standards for the NYS Registered Apprenticeship Programs and building trades programs to include weatherization and energy efficiency certified workers for GJGNY. This solicitation was released on June 8, 2011. As of the end of the second quarter, five applications for OJT funds had been approved by NYSERDA and forwarded to the NYS Department of Labor's Business Services.

The following GJGNY Workforce Development-related activities completed contracting as of the end of the second quarter:

- **PON 2011 - Solar Thermal (ST) Training** (\$300,000 of RGGI/GJGNY funds): The objective of this opportunity is to develop ST training or an ST module to integrate with existing energy efficiency training, including curriculum development, equipment, code official training, and assistance to apply for Institute for Sustainable Power (ISP) accreditation. NYSERDA executed contracts with Monroe Community College, Ulster County BOCES, Sullivan County BOCES, and the Research Foundation of SUNY.

- **RFP 2014 - Workforce Homeowner/Community Outreach Curriculum and Contractor Exchange Workshops** (\$300,000 of RGGI/GJGNY funds): The objective of this PON was to create standardized curriculum to educate those responsible for outreach, field work, and related services for GJGNY and/or to hold Contractor Exchange Workshops. The PON closed on September 21, 2010, and the first contractor exchange workshop was held June 21 – 22, 2011 in Rochester. A second workshop was held in Albany on June 23 – 24, 2011. Three more workshops will be held later this year.
- **RFP 2034 - Green Jobs Green New York: Curriculum Inventory, Assessment, and Curriculum Updates** (\$475,000 of RGGI/GJGNY funds): The objective of this PON is to conduct a curriculum inventory, contractor needs assessment, and curriculum updates. The PON closed on August 31, 2010. The contract was awarded to Pace University for \$275,000, and research efforts are currently underway.
- **Purchase Order 19822 – Survey to Past Center for Energy Efficiency and Building Science (CEEBS) Trainees** (\$25,000 of RGGI/GJGNY funds): The objective of this survey is to contact nearly 1,800 CEEBS training participants who took Building Analyst I training from 2008 to 2010 in order to identify the challenges and barriers to achieving BPI certification and participation in Home Performance with ENERGY STAR. More than 180 respondents completed the survey in mid-April. The challenges/barriers identified include the lag in time between the training and taking the test, the test questions not aligning with the training curriculum, and a lack of preparedness or access to field equipment and hands-on practice. RFP 2034 is designed to address some of these issues.

Outreach and Marketing. In May, the GJGNY Marketing Group competitively selected 14 constituency-based organizations (CBOs) through the GJGNY Community Outreach Program (RFP 2038). Contracting negotiations with the organizations are underway.

A second solicitation for the Green Jobs – Green New York Outreach Program (RFP 2327) was released on June 8, 2011 in an effort to fill the few remaining geographic and programmatic gaps unfilled by the CBOs selected under RFP 2038. Proposals were due on July 12, 2011.

The GJGNY Marketing Group developed Residential and Small Business/Not-for-Profit focus groups to engage in discussions regarding GJGNY marketing approaches. The goal of these groups is to better understand the needs and behaviors related to energy efficiency improvements and identify perceived benefits and the appeal of certain features and enhancements included in the GJGNY programs. The groups also will discuss marketing delivery mechanisms and potential barriers to participation.

4.1.2 Residential Space and Water Heating Efficiency

NYSERDA currently offers a suite of programs that provide comprehensive energy services for single and multifamily existing buildings and new construction, including low-income households. In addition to energy savings, these programs provide significant health and safety benefits through comprehensive testing and verification, improved air quality, and improved comfort. Historically, NYSERDA has been able to use limited funds for gas efficiency measures, primarily for low-income consumers, in select gas utility service territories.

The addition of the Residential Space and Water Heating Efficiency programs allows NYSERDA to use RGGI funds for fossil-fuel based measures and renewable energy measures not eligible for SBC and EEPS incentives. Coordination of these funding sources expands the number of households served and ensures that opportunities for carbon reduction measures are not lost. The Residential Space and Water

Heating Efficiency programs seeks to address environmental justice issues by directly targeting outreach to environmental justice communities and by referring CBOs that address environmental justice issues to appropriate programs.

Multifamily Performance Program. The Multifamily Performance Program (MPP) serves residential buildings with five or more units. RGGI funds are used to supplement the program's current SBC and EEPS funding streams. Specifically, these funds are targeted at reducing oil and propane energy use in the multi-unit residential buildings and increasing the efficiency and performance of space and domestic water heating systems, ventilation systems, and building enclosures through system replacement and optimization.

All buildings receive program support for energy audits to determine what measures are cost effective, expected energy savings, and the costs to install them. Projects also receive implementation incentives. Sixty percent of the program funds are targeted to low-income and affordable housing. NYSERDA will coordinate closely with the Weatherization Assistance Program (WAP) to ensure the most effective use of RGGI funds.

Through June 30, 2011, RGGI funds supported 14 completed energy efficiency projects that are expected to save a total of 75,645 MMBtu and 2,442,166 kWh per year. An additional eight ongoing projects have installed measures that are anticipated to save 23,507 MMBtu and 77,366 kWh annually.

Multifamily Carbon Emission Reduction Program. The Multifamily Carbon Emissions Reduction Program (MCERP) will provide financial assistance and technical support to owners of multifamily buildings currently burning #6 fuel oil to convert their heating systems to use less carbon-intensive fuels. Less carbon-intensive fuels include #2 fuel oil, biodiesel and biodiesel blends, natural gas, and renewables (geothermal, solar thermal). This program is positioned to help encourage early adoption of the City of New York's phase-out of #6 fuel oil and early compliance with city-level legislation (Int. 194-2010), which requires all buildings that burn fuel oil to burn biofuel blends. Converting #6 fuel oil heated buildings to cleaner fuels will reduce carbon emissions, improve air quality, and produce positive public health benefits.

MCERP launched on April 4, 2011. As of June 30, nearly \$6 million in RGGI funding was allocated to 176 ongoing projects that are anticipated to serve 29,717 units in 370 buildings. This program is available to the entire state, but only five applications came from areas outside of the five boroughs of New York City (four from Westchester County and one from Nassau County).

EmPower New YorkSM. EmPower New YorkSM (EmPower) provides cost-effective energy reduction services to households with incomes at or below 60% of the State Median Income. RGGI funding will permit cost-effective oil and propane efficiency measures such as insulation, blower-door assisted air sealing, and heating systems repair and replacements. All households meeting the income eligibility requirements, regardless of electric service provider, will be eligible to apply for heating efficiency assistance. NYSERDA will continue to coordinate closely with the WAP to ensure effective use of RGGI funds.

Through June 30, 2011, 141 energy efficiency projects were completed and are projected to save a total of 3,280 MMBtu per year. An additional 120 projects are currently in progress.

Home Performance with ENERGY STAR[®]. Home Performance with ENERGY STAR[®] (HPwES) is a comprehensive energy efficiency services program for existing one-to-four family homes. The program uses a network of service providers accredited by the Building Performance Institute (BPI) to perform

diagnostic testing on the home, recommend improvements, determine the payback period for those improvements, and install improvements selected by the homeowner.

The HPwES Program uses RGGI funds for cost-effective oil and propane efficiency measures, such as replacing inefficient oil and propane heating equipment and other measures that have a direct impact on reducing oil and propane consumption. Through June 30, 2011, 23 energy efficiency projects were completed, which are projected to save approximately 1,116 MMBtu and 625 kWh per year.

Green Residential Building Program. The Green Residential Building Program (GRBP)¹² is a market transformation initiative designed to change the building practices of the residential construction industry for single-family homes and multifamily homes with up to 11 units. The GRBP offers incentives to building owners for certifying buildings to meet or exceed Leadership in Energy and Environmental Design (LEED) or National Green Building Standard guidelines, as well as other program-specific energy efficiency and health and safety requirements. The program is designed to reduce energy use and greenhouse gas production, preserve natural resources, use sustainable building materials, reduce waste, improve indoor air quality, and reduce indoor and outdoor pollution. The GRBP provides an innovative approach to program design and is the first statewide program in the country to offer direct incentives to building owners for certified green residential buildings.

Through the end of the second quarter, the GRBP received 95 applications and approved 78 incentives for payment since program inception in September 2010.¹³ Most projects that receive GRBP funding also receive incentives funded through NYSERDA's New York ENERGY STAR Homes Program, such that the projects' energy savings may not be solely attributable to the GRBP. It should be noted that the GRBP incentives increased the effectiveness of the delivery of SBC/EEPS programs, and helped effectuate approximately 5,561 MMBtu and 251,100 kWh of energy savings through June 30, 2011.

Integral to the market transformation approach is the need to increase the awareness of, and demand for, comprehensive building performance services while simultaneously building an infrastructure of trained, certified technicians and accredited contractors. Outreach to NYSERDA residential program partners to raise awareness of the GRBP is ongoing. Through June 30, 2011, 33 technicians were approved for program participation to certify GRBP building eligibility.

Solar Thermal Incentive & Outreach Program. RGGI funds will support incentives for the installation of solar thermal systems to replace fossil-fuel domestic hot water systems. Incentives will be available for new and existing multifamily and single-family buildings. Incentives also will be fully coordinated with the Multifamily Performance Program, Home Performance with ENERGY STAR, the New York ENERGY STAR Homes Program, and the new solar thermal program under the Renewable Portfolio Standard. RGGI funds may be used to support the installation of residential solar thermal systems through outreach efforts targeted at increasing the market and demand for solar thermal.

The Program Opportunity Notice for the Solar Thermal Program (PON 2149) was released on December 10, 2010. Currently there are 54 approved installers. NYSERDA received 47 incentive applications totaling \$331,351 for RGGI-funded projects. As of June 30, 2011, 20 solar thermal projects were installed and are anticipated to save a total of 412 MMBtu annually. PON 2149 has a total of \$456,486 available for funding incentives. This amount increased from the previous total of \$240,000 due to an additional \$216,486 in unspent funding for PV projects becoming available. This funding will be used for solar

¹² Public Authorities Law Section 1872(4) directs NYSERDA to create and administer a green residential building program in New York.

¹³ Energy savings associated with these incentives and projects are currently captured in the System Benefits Charge and Energy Efficiency Portfolio Standard progress reports and are not represented within this report.

thermal units that can displace between 50% and 80% of the fossil fuels used to produce domestic hot water.

4.1.3 Commercial, Industrial, Municipal, and Institutional (CIMI) Programs

The purpose of CIMI programs is to reduce energy use through energy efficiency measures and improved maintenance practices. CIMI programs offer a set of coordinated initiatives designed to achieve cost-effective CO₂ reductions by providing technical support and implementation assistance to existing facilities and new construction projects.

The Wastewater Energy Efficiency Program (WWEP) provides a unique opportunity to coordinate RGGI climate change goals and funding with US Environmental Protection Agency (USEPA) goals and funding while installing infrastructure that will improve the environment and keep New York waters clean and healthy. New York State has secured Green Project Reserve Funds offered by the USEPA that will bolster efforts to finance a new generation of water and wastewater infrastructure via the Clean Water State Revolving Fund (SRF) Program. Plants financed with State Revolving Fund monies will be constructed to high energy efficient standards, thus minimizing carbon emissions and improving their economic and environmental performance.

This program is co-managed by the New York State Environmental Facilities Corporation (EFC) and NYSERDA. WWEP reviews projects on the SRF Intended Use Plan, including likely recipients of Green Project Reserve Funds, and identifies candidates for energy efficiency and carbon abatement opportunities. Selected projects receive technical analysis to identify costs and savings associated with energy efficiency, process improvements, and carbon abatement opportunities, as well as grants to cost share plant upgrades. WWEP was selected as one of five national recipients of the States Stepping Forward Program Award for excellence by the American Council for an Energy-Efficient Economy.

Through June, NYSERDA and EFC continued to initiate outreach to municipalities in order to discuss the WWEP and the benefits of participation in the program. Cumulatively, RGGI funds supported the technical energy analyses of 29 municipal wastewater treatment plants. Once installed, the measures recommended by the analyses are projected to save a total of 17,655 MWh and 52,932 MMBtu annually. Thirty additional technical energy analyses are ongoing, 16 of which are in the draft stage and currently are being reviewed by NYSERDA and EFC.

4.1.4 Cleaner Greener Communities

This program was announced by Governor Cuomo in his 2011 State of the State address. It will build on the Climate Smart Communities program, providing enhanced support for development and implementation of regional sustainability plans to help ensure that the State's ongoing and substantial investments in infrastructure help to move communities, and New York as a whole, toward a more environmentally sustainable future. The program will encourage communities to use public-private partnerships and develop regional sustainable growth strategies in areas such as emissions control, energy efficiency, renewable energy, low-carbon transportation, and other carbon reductions. The program will emphasize activities such as revitalizing urban areas through smart growth, creating green jobs, building green infrastructure, and strengthening environmental justice and protection.

The program will have two primary components: (1) development of, and updating to, regional sustainable growth plans; and (2) implementation of the sustainability plans. At least 10 region-specific plans will be competitively selected, one for each of the 10 Regional Economic Development Council regions. Support for additional plans will be considered for unique regions within, or that span multiple, Regional Economic Development Council regions (e.g., the Adirondacks). For each regional plan, the

corresponding Regional Economic Development Council(s) will provide an advisory role to assist in coordination of the municipalities contained within the region. Approximately 90% of the budget will be used to support the implementation component of the program.

Implementation of the regional sustainable growth plans also will be a competitive program. Support will be provided for project proposals that address specific items within the regions' sustainability plan. Projects that have garnered community buy-in, as well as those that include public-private partnerships, will be encouraged. Consideration will be given to support implementation projects in multiple types of communities (*i.e.*, rural, suburban, and urban communities). RGGI proceeds can be used for the implementation of plan elements that fall within the scope of the permissible use of RGGI proceeds (energy efficiency, renewable energy, and innovative carbon reduction programs).

Outreach and community support for the overall Cleaner, Greener Communities initiative will be provided in part through Climate Smart Communities and Energy Smart Communities.

Climate Smart Communities. The Climate Smart Communities (CSC) Program was established in 2009 by the state departments of Environmental Conservation (DEC) and State (DOS), the Public Service Commission (PSC), and NYSERDA. It operates under the joint management of DEC and NYSERDA. The CSC Program was designed to strengthen and enhance the participating agencies' outreach to local governments (counties, towns, villages, and cities). Contractors selected under NYSERDA's Request for Proposals (RFP) 2141 will engage local communities in climate action planning, greenhouse gas emissions inventories, energy conservation, use and encouragement of low-carbon energy, improved waste management, reduction of transportation emissions, and adaptation to climate change through land-use and other planning. During the second quarter, NYSERDA reviewed proposals submitted to RFP 2141. It is anticipated awards will be made by the end of July 2011, pending coordination with the Governor's Cleaner Greener Communities initiative.

4.1.5 Advanced Building Systems and Industrial Process Improvements Program

The Advance Building Systems and Industrial Process Improvements program is a longer-term initiative that will support development and demonstration of technologies with substantial greenhouse gas (GHG) reduction potential and technologies that are relevant to New York manufacturing industries and building systems. Funded projects will focus mainly on innovations that reduce the use of fossil fuels; have high replication potential for New York's manufacturing base; are likely to be cost effective; and are presently not supported under SBC programs. For Advanced Building Systems, projects will focus on technical innovations that collectively enable net-zero-energy buildings and that involve strategies that focus on absolute reduction of building energy loads and increases in systems efficiency prior to introduction of renewable energy sources, such as photovoltaic and solar thermal systems. For Industrial Process Improvements, projects will focus on technical innovations including thermal efficiency improvements for fossil fuel-based processes and alternative processes that eliminate the use of fossil fuels directly and indirectly for technologies that bring about thermal destruction of byproducts. Projects also may include changes in material inputs and development of advanced controls provided they directly bring about GHG reductions.

NYSERDA completed a competitive PON for Ultraviolet Light and Electron Beam Process Innovation and Market Transformation (PON 1641) and selected projects for RGGI funding. Twelve proposals were received and RGGI funding was approved for four projects that requested a total of \$888,610. While project contracting is ongoing, one proposer has retracted its project. Consequently, NYSERDA is proceeding with contracts in the amount of \$549,568.

NYSERDA also completed a competitive PON for the Next Generation of Technologies for End Use Efficiency (PON 1772). PON 1772 sought proposals to develop and demonstrate emerging and innovative technologies or systems that increase the efficiency of end-use energy consumption in buildings, reduce GHG emissions in buildings, reduce energy demand in New York State, or are of strategic importance to the state's energy and environmental future. Nineteen proposals were received, and RGGI funding was approved for four projects that requested a total of \$1,042,381. Project contracting is ongoing.

4.2 Transportation

4.2.1 Advanced Transportation and Development

The goal of the Advanced Transportation Development Program is to commercialize technologies, products, systems, and services that provide superior GHG reduction performance and cost-per-ton values. Activities include product development, field testing, performance validation, policy development, and business assistance associated with emerging products that provide verified GHG benefits.

RGGI funding was approved for nine projects that requested a total of \$1,456,600 under a competitive PON for Advanced Transportation Technology (PON 1520).¹⁴ As of June 30, 2011, contracting for seven projects was completed and negotiations for the remaining projects were underway. Projects include electric vehicle charging infrastructure, development of products for the management of aircraft departures and taxiing for fuel reduction, biofuels, traffic light control, and fuel reduction in commercial fleets.

4.3 Power Supply and Delivery (PSD)

The objective of the two PSD programs is to help reduce greenhouse gas (GHG) emissions from the electric power sector in New York. The initiative has both near-term and long-term components that will support a portfolio of diverse projects relating to electric power generation, transmission, and distribution systems. These projects will reduce GHG emissions throughout the sector, including implementation of an integrated strategy enabling smart-grid functionality and maintenance of a diverse portfolio of efficient generation resources. The PSD programs are designed to simultaneously maintain system reliability, safety, and security.

4.3.1 Statewide Photovoltaic Program¹⁵

The Statewide Photovoltaic Program focuses on reducing GHG emissions in the short term by helping establish a sustainable market for solar energy throughout New York that includes targeted financial incentives. The program supports end-use solar installations for commercial, industrial, and residential customers as well as electric utility applications to improve the performance of distribution circuits and reduce peak electric load in critical load pockets.

¹⁴ Since last quarter, a single project that received approval for \$598,289 in funding under PON 1520 is no longer planning to participate in the program.

¹⁵ The number of installed systems, installed kW, and MWh of generation for the Statewide Photovoltaic Program has decreased since last quarter due to a reclassification of project status for some incomplete projects.

Through June 30, 2011, the Statewide Photovoltaic Program supported the installation of 354 solar photovoltaic systems with a total capacity of approximately 3,179 kW. It is estimated these systems will produce 3,992 MWh of electricity annually. An additional 24 projects are approved.

4.3.2 Advanced Power Technology Program

The Advanced Power Technology Program (AFTP) is designed to reduce GHG emissions in the long term. The program will focus on three primary areas — advanced renewable energy; advanced power delivery; and carbon capture, recycling, and sequestration — and will provide support activities to yield substantial GHG reductions. Other advanced power generation systems and technologies may be explored in the future.

Advanced Renewable Energy. The Advanced Renewable Energy component of the AFTP supports projects that foster the market introduction of a broad range of promising renewable energy technologies in New York, including advanced biomass, tidal, and off-shore wind technologies. Seven renewable power generation technology projects were selected for funding under a PON for Environmentally Preferred Power Systems (PON 1670). RGGI funding was approved to support the projects, which include solar, advanced wind, hydropower, and waste heat-to-energy technologies. Project contracting for four of the projects is complete, representing a total of \$2.2 million in RGGI funding. Negotiations for the remaining three agreements are underway, representing a total of \$800,000 in RGGI funding. No additional solicitations currently are open or planned.

In addition, a series of technical analyses that characterize and establish, on a preliminary basis, the suitability of an ocean site area for a wind energy project were conducted on behalf of a collaboration among the New York Power Authority, the Long Island Power Authority, and Con Edison to procure energy from a 350-700 MW offshore wind farm located in the New York City-Long Island harbor-bay area (also known as the NY Bight). These studies are intended to establish a baseline of knowledge of geophysical features, meteorology, climatology, and natural resources/biota in the affected ocean tract and will provide some basis for supporting future leasing applications and project siting and development activities.

Advanced Power Delivery. The Advanced Power Delivery initiative of the AFTP will focus on applied demonstrations of advanced technologies that promote statewide interconnection of renewable resources, smart-grid capability, advanced meters, energy storage systems, innovative demand-side management strategies, and high efficiency power delivery technologies.

Three competitive solicitations are planned under a Program Opportunity Notice for the Electric Power Transmission and Distribution Smart Grid Program (PON 1913), which is limited to \$15.5 million for demonstration projects and \$1 million for engineering studies. During the first round, NYSERDA received 17 proposals for a combined funding request of approximately \$14.6 million. The program is expected to support demonstration projects and engineering studies that ensure grid reliability, efficiency, power quality, safety, and security as the delivery network accommodates low-carbon technologies such as renewable power generation, plug-in hybrid electric vehicles, and efficient combined heat and power distributed generation systems. First round proposals are being evaluated for technical merit, and NYSERDA expects to announce awards in November.

Carbon Capture, Recycling, and Sequestration. The Carbon Capture, Recycling, and Sequestration component of the AFTP will focus on assessing and demonstrating carbon capture, reuse, compression, and transport technologies; characterizing and testing the state's geological sequestration potential; and supporting the development of carbon capture and sequestration demonstration projects in New York.

The TriCarb Consortium for Carbon Sequestration continued project work to identify potential sequestration targets in Rockland County. The project, which is also supported by the U.S. Department of Energy (USDOE), will complete detailed geological analysis of Rockland County's Newark Basin bedrock. Phase II continued with the completion of the seismic surveys along Interstate 87 and the New Jersey Turnpike.

4.4 Multi-Sector Programs

4.4.1 Clean Technology Industrial Development

The Clean Technology Industrial Development Program seeks to create, attract, and grow industries in New York that can exploit emerging business opportunities in clean energy and environmental technologies while supporting the goal of carbon mitigation. Key elements of the program include advanced industrial research and development of innovative technologies, providing risk capital and business assistance, and development of advanced research centers.

NYSERDA made awards to four companies through the Renewable, Clean Energy and Energy Efficiency Product Manufacturing Incentive Program (PON 1176). Each project is receiving \$1.5 million, with the majority of funding tied to manufacturing the defined products in New York State. An additional project was selected in the final round of the competitive solicitation, and contract negotiations should be completed before the next quarter. The \$6 million in RGGI funds already awarded attracted private investment of over \$17.7 million.

4.4.2 Climate Research and Analysis

The Climate Research and Analysis Program supports research studies, demonstrations, policy research and analyses, and outreach and education efforts. Through these activities, the Program addresses critical climate change-related problems facing the state and the region, including the needs of environmental justice communities.

Current efforts for the Climate Research and Analysis Program continue to include the completion of the state's Climate Action Plan, as called for by Executive Order 24. This Order established a goal to reduce greenhouse gas emissions in New York State to 80 % below levels emitted in 1990 by the year 2050, and included a directive to assess how all economic sectors can adapt to climate change. During the first half of 2010, the program completed an extensive stakeholder process that resulted in the identification of policies and strategies that could assist New York State in meeting its greenhouse gas emissions reduction goal. During the fourth quarter of 2010, the program focused on completing the first phase of the Climate Action Plan, which was published on November 9, 2010.¹⁶ Work continues on additional components of the Climate Action Plan. New initiatives will focus on addressing research needs identified in the plan.

¹⁶ For more information, see the [New York State Climate Action Plan Interim Report](#).

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New York's RGGI-Funded Programs

Status Report Quarter Ending June 30, 2011
September 2011

State of New York
Andrew M. Cuomo, Governor

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