New York State Energy Research and Development Authority

# New York's RGGI-Funded Programs Status Report

Quarter Ending December 31, 2012





# NYSERDA's Promise to New Yorkers: New Yorkers can count on NYSERDA for objective, reliable, energy-related solutions delivered by accessible, dedicated professionals.

Our Mission:	Advance innovative energy solutions in ways that improve New York's economy and environment.
Our Vision:	Serve as a catalyst—advancing energy innovation and technology, transforming New York's economy, and empowering people to choose clean and efficient energy as part of their everyday lives.
Our Core Values:	Objectivity, integrity, public service, and innovation.

# **Our Portfolios**

NYSERDA programs are organized into five portfolios, each representing a complementary group of offerings with common areas of energy-related focus and objectives.

#### **Energy Efficiency and Renewable Programs**

Helping New York to achieve its aggressive clean energy goals – including programs for consumers (commercial, municipal, institutional, industrial, residential, and transportation), renewable power suppliers, and programs designed to support market transformation.

#### **Energy Technology Innovation and Business Development**

Helping to stimulate a vibrant innovation ecosystem and a clean energy economy in New York – including programs to support product research, development, and demonstrations, clean-energy business development, and the knowledge-based community at the Saratoga Technology + Energy Park<sup>®</sup>.

#### **Energy Education and Workforce Development**

Helping to build a generation of New Yorkers ready to lead and work in a clean energy economy – including consumer behavior, youth education, and workforce development and training programs for existing and emerging technologies.

#### **Energy and the Environment**

Helping to assess and mitigate the environmental impacts of energy production and use – including environmental research and development, regional initiatives to improve environmental sustainability, and West Valley Site Management.

#### **Energy Data, Planning and Policy**

Helping to ensure that policy-makers and consumers have objective and reliable information to make informed energy decisions – including State Energy Planning, policy analysis to support the Regional Greenhouse Gas Initiative, and other energy initiatives; and a range of energy data reporting including *Patterns and Trends*.

#### NYSERDA RECORD OF REVISION

#### **Document Title**

New York's RGGI Funded Programs Status Report

Quarter Ending December 31, 2012

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# **1** Introduction

To implement the Regional Greenhouse Gas Initiative (RGGI), New York State established its Carbon Dioxide (CO<sub>2</sub>) Budget Trading Program through regulations promulgated by the Department of Environmental Conservation (DEC) and the CO<sub>2</sub> Allowance Auction Program through regulations promulgated by the New York State Energy Research and Development Authority (NYSERDA).<sup>1</sup> This report is prepared pursuant to the "Operating Plan for Investments in New York under the CO<sub>2</sub> Budget Trading Program and the CO<sub>2</sub> Allowance Auction Program" (Operating Plan),<sup>2</sup> and provides an update on the progress of programs through the quarter ending December 31, 2012. 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 2012 version of the Plan was approved by NYSERDA's Board of Directors on June 18, 2012.<sup>3</sup>

## 1.1 New York's RGGI Funds<sup>4</sup>

As of December 31, 2012, New York State sold nearly 183.2 million CO<sub>2</sub> allowances and received approximately \$410.6 million in auction proceeds. In addition, nearly \$3.0 million in interest earnings were allocated on the RGGI portfolio and nearly \$0.8 million in interest earnings were allocated on the Green Jobs – Green New York (GJGNY) program. 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.

<sup>&</sup>lt;sup>1</sup> For the DEC adopted regulations, see 6 NYCRR Part 242: CO<sub>2</sub> Allowance Auction Program Regulations.

<sup>&</sup>lt;sup>2</sup> On June 21, 2010, NYSERDA Part 242: CO<sub>2</sub> Budget Trading Program Regulations; for the NYSERDA adopted regulations, see 21 NYCRR Part 507 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 <u>RGGI Use of Auction Proceeds</u> for ongoing developments. <sup>3</sup> Please refer to the <u>2012 RGGI Operating Plan Amendment</u> for details.

<sup>&</sup>lt;sup>4</sup> RGGI funds include both auction proceeds and interest earned from those proceeds. See <u>NY Proceeds by Auction</u> for more details on auction results.

Auction Date	<b>Control Period</b>	Clearing Price	New York State Allowances Sold	New York State Auction Proceeds
12/17/08	First	\$3.38	12,422,161	\$41,986,904
2/18/00	First	\$3.51	12,422,161	\$43,601,785
5/18/09	Second	\$3.05	776,385	\$2,367,974
6/17/00	First	\$3.23	11,861,849	\$38,313,772
0/17/09	Second	\$2.06	776,385	\$1,599,353
0/00/00	First	\$2.19	11,861,849	\$25,977,449
9/09/09	Second	\$1.87	776,385	\$1,451,840
	First	\$2.05	11,861,850	\$24,316,793
12/02/09	Second	\$1.86	571,423	\$1,062,847
	First	\$2.07	15,136,022	\$31,331,56
3/10/10	Second	\$1.86	740,167	\$1,376,711
6/0/10	First	\$1.88	15,136,022	\$28,455,721
0/9/10	Second	\$1.86	756,801	\$1,407,650
9/8/10	First	\$1.86	11,421,736	\$21,244,429
9/8/10	Second	\$1.86	464,418	\$863,817
12/1/10	First	\$1.86	8,678,724	\$16,142,427
12/1/10	Second	\$1.86	414,863	\$771,645
3/9/11	First	\$1.89	15,153,524	\$28,640,160
5/ 5/ 11	Second	\$1.89	757,676	\$1,432,008
6/8/11	First	\$1.89	4,519,648	\$8,542,135
0/0/11	Second	\$1.89	383,114	\$724,085
9/7/11	First	\$1.89	2,689,151	\$5,082,495
5///11	Second	n/a	-	-
12/7/11	First	\$1.89	9,621,954	\$18,185,493
12/7/11	Second	n/a	-	-
3/14/12	Second	\$1.93	8,895,733	\$17,168,765
6/6/12	Second	\$1.93	8,265,426	\$15,952,272
9/5/12	Second	\$1.93	9,315,659	\$17,979,222
12/5/12	Second	\$1.93	7,568,550	\$14,607,302
Firs	st Control Period	Total	142,786,651	\$331,821,129
Seco	nd Control Period	l Total	40,462,985	\$78,765,491
	TOTAL		183,249,636	\$410,586,620

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

Source: RGGI Inc.

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<sup>&</sup>lt;sup>5</sup> New York did not offer allowances for sale in the RGGI auction held on December 25, 2008, where the clearing price for 2009 vintage allowances was \$3.07. 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 extends through December 31, 2014.

Fund Category	Cumulative Funds
RGGI Auction Proceeds	\$410,586,620
Interest Allocated to the RGGI Portfolio	\$3,026,525
Interest Allocated to the GJGNY Program	\$770,000
TOTAL	\$414,383,145

Table 1-2 New York State's RGGI Funds through December 31, 2012

# **2** Budget and Spending Status

This section presents financial data for the approved RGGI programs through December 31, 2012. Table 2-1 reflects how the nearly \$414.4 million of current funds are allocated across the four major program areas:

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

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

	Allocation of					
	Cumulative	Contract				
	Funds <sup>a</sup>	Commitments <sup>b</sup>	Funds Spent			
Residential/Commercial/Indu	Residential/Commercial/Industrial/Municipal					
Residential Efficiency Services	31.4	24.3	14.0			
Municipal Water and Wastewater	1.9	1.6	1.1			
Industrial Process Improvement	8.2	4.3	0.9			
Total Residential/Commercial/Industrial/Municipal	41.5	30.2	16.0			
Transportation	1					
Transportation Research	2.0	1.5	1.1			
Total Transportation	2.0	1.5	1.1			
Power Supply and D	elivery					
Statewide Photovoltaic Initiative	22.3	11.3	11.3			
Advanced Power Technology	3.9	3.9	3.5			
Competitive Greenhouse Gas Reduction Pilot	11.5	-	-			
Total Electric Power Supply and Delivery	37.7	15.2	14.7			
Multi-Sector	•	•				
Clean Technology and Industrial Development	16.2	10.4	4.5			
Climate Research and Analysis	6.7	3.4	2.1			
Regional Economic Development and GHG Reduction	12.0	-	-			
Cleaner Greener Communities	49.1	12.6	3.6			
Total Multi-Sector	84.0	26.5	10.2			
Other Costs <sup>c</sup>	I					
Deficit Reduction Plan (DRP) Transfer <sup>d</sup>	90.0	90.0	90.0			
Con Edison Smart Grid Program <sup>e</sup>	13.2	13.2	13.2			
Program Administration <sup>f</sup>	15.7	7.6	7.6			
M etrics and Evaluation	9.5	2.1	0.3			
RGGI Inc. Costs <sup>g</sup>	4.3	4.1	3.9			
New York State Cost Recovery Fee	3.6	1.5	1.5			
OTHER COSTS TOTAL	136.4	118.6	116.6			
SUBTOTAL	301.6	192.0	158.7			
Green Jobs - Green NY						
Green Jobs - Green NY	112.8	62.6	49.6			
TOTAL	414.4	254.6	208.3			

Table 2-1. Available Funding and Financial Status through December 31, 2012 (\$ million)

<sup>a</sup> Includes auction proceeds and allocated interest on the RGGI portfolio. The allocation is consistent with the three-year budget presented in the Operating Plan.

<sup>b</sup>Represents funds that have been spent or legally obligated through signed contracts.

<sup>c</sup> The values for Program Administration, Metrics and Evaluation, and the New York State Cost Recovery Fee represent aggregate funds and

commitments for RGGI-funded activities, NOT including GJGNY. For information on GJGNY finances, please refer to Table 4.1. <sup>d</sup> On December 4, 2009, New York State enacted numerous deficit reduction measures that included the transfer of \$90 million in RGGI auction

"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.

<sup>6</sup> 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 - 2014 is \$12.3 million 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.

<sup>f</sup> Includes NYSERDA's upfront administrative expenses related to the development and implementation of the CO<sub>2</sub> Budget Trading Program, the CO<sub>2</sub> Allowance Auction program, and the Operating Plan.

<sup>g</sup> 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  $CO_2$  Budget Trading Program.

Totals may not sum exactly due to rounding.

Source: NYSERDA

As stated in the Operating Plan, geographic equity of expenditures will be pursued across the portfolio of RGGI programs. Figure 2-1 shows the distribution of over \$47.5 million in spent RGGI program funding across the state for projects or activities that can be associated with a specific geographic area. Additional funds, not depicted in this figure, have been spent on activities that have statewide benefits, such as climate research and workforce development.



Figure 2-1 Geographic Distribution of RGGI Program Funds Spent

Table 3-1 and Table 3-2 show the estimated cumulative annual benefits as of December 31, 2012 at the portfolio and program levels, respectively.<sup>6</sup> 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 are also supported by other non-RGGI funding sources administered by NYSERDA.

Benefits	Results through December 31, 2012
Net Greenhouse Gas Emission Savings $^{1}$ (Annual Tons CO <sub>2</sub> e $^{2}$ )	56,764
Net Electricity Savings (Annual MWh)	16,895
Renewable Energy Generation (Annual MWh)	4,345
Net Natural Gas Savings (Annual MMBtu)	203,118
Net Fuel Oil Savings (Annual MMBtu)	337,096
Net Propane Savings (Annual MMBtu)	16,593
Net Steam Savings (Annual MMBtu)	15,969
Net Wood Savings (Annual MMBtu)	3,079
Net Kerosene Savings (Annual MMBtu)	1,026
Net Gasoline Savings (Annual MMBtu)	-
Net Residual Oil Savings (Annual MMBtu)	144
Net Diesel Savings (Annual MMBtu)	-
Total Fuel Savings (Annual MMBtu) <sup>3</sup>	577,024
Annual Energy Bill Savings to Participating Customers (\$ Million) <sup>4</sup>	12.0

Table 3-1. Summary of Cumulative Portfolio Benefits through December 31, 2012

<sup>1</sup> 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.

 $^{2}$  CO<sub>2</sub>e stands for carbon dioxide equivalent and describes the amount of CO<sub>2</sub> that would have the same global.

<sup>4</sup>This total excludes bill savings associated with steam for the Multifamily Performance Program, and bill savings associated with the Multifamily Carbon Emission Reduction Program. The Multifamily Carbon Emissions Reduction Program is a fuel-switching program and does not claim any energy or bill savings.

Source: NYSERDA

<sup>&</sup>lt;sup>3</sup> This total excludes fuel savings and new fuel usage associated with the Multifamily Carbon Emission Reduction Program. The Multifamily Carbon Emissions Reduction Program is a fuel-switching program and does not claim any energy or bill savings.

<sup>&</sup>lt;sup>6</sup> Cumulative annual benefits are reflective of the annual impacts from all currently operational projects installed since program inception.

	Net Electricity Savings or Renewable Energy Generation	Net Energy Savings	Net Greenhouse Gas Emission Savings <sup>1</sup>	
Program	(Annual MWh)	(Annual MMBtu)	(Annual Tons CO <sub>2</sub> e <sup>2</sup> )	
Residential, Commercial, Industrial & Municipal Sect	ors			
Green Jobs - Green New York				
GJGNY - Single-Family Residential Audit Component <sup>3</sup>	3,154	241,651	17,222	
GJGNY - Single-Family Residential Loan Component <sup>3</sup>	1,958	130,903	9,458	
GJGNY - Multifamily Residential Audit Component <sup>3,4</sup>	8,889	114,208	11,641	
Residential Efficiency Services				
Multifamily Performance Program <sup>5</sup>	3,692	171,334	15,445	
Multifamily Carbon Emissions Reduction Program <sup>6</sup>	-	-	6,124	
EmPower New York <sup>SM</sup>	-	14,903	1,166	
Home Performance with ENERGY STAR®	263	49,356	4,444	
Green Residential Building Program <sup>3</sup>	618	12,085	975	
Solar Thermal Incentive Program	-	1,973	140	
Power Supply & Delivery				
Statewide Photovoltaic Program	4,345	-	1,794	
Cross-Program Overlap <sup>7</sup>	1,680	159,389	11,646	
TOTAL	21,240	577,024	56,764	

Table 3-2 Summary of Cumulative Program Benefits through December 31, 2012

<sup>1</sup> 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.

 $^{2}$  CO<sub>2</sub>e stands for carbon dioxide equivalent and describes the amount of CO<sub>2</sub> 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.

<sup>3</sup> The benefits for this program include some projects that also have been supported by other non-RGGI NYSERDA funding sources.

<sup>4</sup>Net Energy Savings (Annual MMBtu) went down from last quarter due to the installation of some new measures that resulted in an increase in natural gas usage.

<sup>5</sup> The reduction in annual MMBtu and emission savings from the previous quarter are due to the reprogramming of funds.

<sup>6</sup> The Multifamily Carbon Emissions Reduction Program is a fuel-switching program and does not claim any energy or bill savings.

<sup>7</sup> 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<sup>®</sup> Program.

Source: NYSERDA

## 4.1 Residential, Commercial, Industrial, and Municipal Sectors

#### 4.1.1 Green Jobs – Green New York (GJGNY)

GJGNY is a statewide program created to promote energy efficiency, the installation of clean technologies, to reduce energy costs, and reduce greenhouse gas emissions. GJGNY provides free and reduced cost energy audits to single family, multifamily, small business, and not-for-profit building owners as well as reduced cost financing options for completing the energy efficiency services. GJGNY is also designed to support sustainable community development and create opportunities for green jobs. The GJGNY Annual Report was issued on September 30, 2012<sup>8</sup>. Table 4-1 presents financial data for the approved GJGNY programs through December 31, 2012.

<sup>&</sup>lt;sup>7</sup> The metrics presented in this section are estimates made by program implementation staff and are not validated; evaluation results will be presented, as they are available, in the Annual Evaluation and Status Reports.

<sup>&</sup>lt;sup>8</sup> For more information, see the <u>Green Jobs-Green New York Annual Report</u>

	Allocation of	Contract			
	Cumulative Funds *	Commitments <sup>b</sup>	Funds Spent		
Workforce Development, Outreach and Marketing					
Workforce Development	8.0	4.5	1.9		
Outreach and Marketing	10.5	10.0	4.8		
Total Workforce Development, Outreach and Marketing	18.5	14.5	6.6		
Residentia	al				
Energy Audit Incentive	11.6	7.2	7.2		
Implementation Costs	1.0	0.5	0.4		
Financing: Loans	-	23.7	23.7		
Financing: Loan Repayments	-	(2.3)	(2.3)		
Financing: Implementation Costs	-	1.8	1.4		
Total Financing	26.7	23.2	22.8		
Total Residential	39.2	30.9	30.5		
Multifami	ly	-			
Energy Audits	3.3	1.8	1.1		
Implementation Costs	1.6	1.6	1.4		
Financing: Loans	-	1.5	1.5		
Financing: Loan Repayments	-	(0.1)	(0.1)		
Financing: Implementation Costs	-	0.1	0.1		
Total Financing	11.1	1.5	1.5		
Total Multifamily	16.0	4.9	4.1		
Small Commo	ercial				
Energy Audits	5.6	3.9	2.1		
Implementation Costs	4.8	0.2	0.2		
Total Financing	13.3	0.5	0.2		
Total Small Commercial	23.7	4.6	2.5		
SUBTOTAL	97.4	54.9	43.7		
Other Costs					
Program Administration	7.8	4.4	4.4		
Program Evaluation	5.6	2.6	0.8		
New York State Cost Recovery Fee	1.9	0.7	0.7		
OTHER COSTS TOTAL	15.3	7.7	5.9		
TOTAL	112.8	62.6	49.6		

#### Table 4-1. Green Jobs – Green New York Available Funding and Financial Status through December 31, 2012 (\$ million)

<sup>a</sup> Includes auction proceeds and allocated interest on the Green Jobs-Green New York (GJGNY) funds. The allocation is consistent with the threeyear budget presented in the Operating Plan. <sup>b</sup> Represents funds that have been spent or legally obligated through signed contracts.

Financing: Single-Family Residential. Effective January 1, 2013, all new On-Bill Recovery (OBR) applications will be processed at 3.49%; this modest increase from 2.99% will provide rate parity between the OBR and the Unsecured Loans, and recognizes that NYSERDA is not currently recouping all costs for origination, servicing, and financing of OBR Loans. Additionally, the name of the Unsecured Loan was changed to Smart Energy Loan.

NYSERDA continues to work with its financial advisor and rating agencies in preparation for the first bond issuance. The federally-funded Qualified Energy Conservation Bond (QECB) will be used to raise additional capital to sustain the residential Revolving Loan Fund. To allow time to explore a new opportunity, the target date for the bond issuance has been moved to early 2013.

GJGNY financing, a vital component of the GJGNY program, continues to expand and offer additional services to participants. Through December 31, 2012, a total of 2,536 Residential loans have been closed. These loans provided \$23.7 million in funding enabling the completion of NYS GJGNY energy efficiency projects that, without financing, may never have been started. The financed energy-efficiency projects are anticipated to save 1,958 MWh and 130,903 MMBtu per year.

*Financing: Multifamily Residential.* GJGNY Multifamily Residential Financing Program has three loans in place that total over \$1 million. A fourth loan is being processed. Interest in this financing program is growing with both building owners and financial institutions.

*Financing: Small Business and Not-for-Profit.* In June 2011, NYSERDA launched the Participation Loan product to small business and not-for-profit customers. Through the Participation Loan, NYSERDA provides 50% of the loan principal, up to \$50,000, at 0% interest and the participating lender provides the remaining loan principal at the market interest rate. Since the Program launch, NYSERDA has held webinars and conducted in-person trainings for lenders and NYSERDA's Constituency Based Organizations (CBOs), Energy \$mart Community Coordinators, and Energy Assessment Firms. NYSERDA also presented the program to public and investor-owned utilities (IOUs), the New York Power Authority (NYPA), the Long Island Power Authority (LIPA), the Small Business Development Center (SBDC) and Department of Public Service (DPS) Staff to increase coordination between programs and to support customer implementation of energy efficiency projects.

In June 2012, the Small Business and Not-for-Profit Energy Efficiency Program made OBR Financing available to eligible small businesses and not-for-profits that have a utility account with one of the following participating utilities: Central Hudson, Con Edison, Long Island Power Authority, National Grid (upstate NY customers only), New York State Electric and Gas Corporation, Orange & Rockland, and Rochester Gas and Electric Corporation. Customers who take advantage of OBR Financing can receive a NYSERDA loan of up to \$50,000 at 2.5% interest to pay for energy efficiency improvements. Customers can then repay their loan through a charge on their utility bill. When NYSERDA made OBR Financing available to eligible small business and not-for-profit customers, the eleven lenders who had originally expressed interest in offering Participation Loans were asked to sign agreements with NYSERDA indicating whether they would offer Participation Loans and/or OBR Loans.

As of December 31, 2012, 10 customer applications have been received. Customer applications are assessed for both Participation Loan and OBR Loan eligibility prior to approval. Nine applications have been approved for Participation Loans and five have been approved for OBR Financing. As of December 31, 2012, three Participation Loans have been closed and six lenders have agreed to offer both Participation Loans.

*Single-Family Residential.* Through December 31, 2012, 39,507 free/reduced-cost comprehensive home assessment applications were received and 27,967 audits were completed. The conversion rate from audit to energy retrofit remains strong at 34%. The average cycle time between audit completion to project completion is 110 days.

GJGNY audits have lead to 6,743 GJGNY Home Performance with ENERGY STAR<sup>®</sup> project completions through December 31, 2012. These projects are anticipated to save 3,154 MWh and 241,651 MMBtu annually.

*Multifamily Residential.* The Multifamily audit process is being streamlined to allow more small, 50 units or less, buildings to access the MPP program. GJGNY provides funding for Multifamily Performance Program (MPP) audits and financing. Through December 31, 2012, the MPP GJGNY audit program completed 121 audits. Forty-two projects are under contract to have measures installed. Energy savings associated with measures installed through December 31, 2012 total 8,889 MWh and 114,208 MMBtu per year.

*Small Business and Not-for-Profit.* GJGNY energy assessments are offered statewide at no charge to small businesses and not-for-profits with an average electric demand of 100 kW or less and ten employees or less. As of December 31, 2012, 1,378 GJGNY assessments have been completed.

*Workforce Development*. NYSERDA signed on-the-job training agreements with 33 businesses seeking to hire new employees or advance incumbent workers. Through December 31, 2012, 96 people had been hired from New York State Department of Labor's One-Stop Lists; eight workers have been advanced, with approximately \$920,000 in wage and training subsidies having been awarded.

*GJGNY Outreach and Marketing.* The numbers of retrofits resulting from the CBO Outreach effort steadily increased during 2012. CBO are spending more upfront time with customers to prescreen for audit participation. This strategy has been successful and the Outreach effort is experiencing a trend where customers having audits are more likely to move forward with the retrofit. The Outreach effort is experiencing a steady increase in the number of retrofits performed since the program's inception. As of December 31, 2012, CBOs were responsible for 1,262 audits and 190 unit retrofits.

CBOs appear to be reaching a different group of customers in regard to GJGNY and OBR Financing. At the end of December 2012, approximately 41% of CBO-attributed projects took advantage of program financing, compared to approximately 30% program wide. Average loan amounts for CBO customers are lower than program averages, indicating that the CBOs may be reaching larger percentages of customers that qualify for the Assisted Home Performance subsidies. Additionally, lower loan amounts could indicate that even when eligible, many customers are less comfortable taking on larger amounts of debt.

CBOs are responsible for Increased Retrofit Activity in the Downstate Area. CBOs are getting traction in areas that historically, have not had a significant amount of Home Performance work, particularly in the downstate market (5 boroughs). Even though current retrofit numbers are low, CBOs in the downstate market are responsible for between 14% and 33% of all the retrofits conducted by the Home Performance Program to date.

CBOs are generating awareness of the Home Performance Program. According to information from the Residential Audit application, CBOs are as effective as NYSERDA's general marketing strategies in generating Home Performance audits. While marketing is needed to generate a general awareness of the services available for NYSERDA, CBO outreach is based on an innate understanding of their target population. CBOs are trusted resources, communicating the availability of energy efficiency services, and educating potential beneficiaries about the eligibility requirements and how to enroll.

CBOs are providing other value-added services including:

- Reaching multilingual markets for recruitment into Home Performance and Workforce Development
- Leveraging other funds (Land Trust, FEMA) to get Home Performance work complete
- Replacing the services that the NYS Energy Smart Coordinators used to perform, but no longer address through the new effort, which is called the Economic Development Growth Extension (EDGE) Program.
- Developing a network of successful partnerships.
- Winning the approval of local government and community leaders. These "endorsements" validate the program at the community level.
- Attending local events like home shows and street fairs to spread the word to new populations. This commitment to personal interaction, coupled with creative social media strategies, has helped forge strong connections with local community and environmental groups.

The Aggregation pilots are bringing new ways of recruiting customers into the Home Performance program while enhancing community benefits through hiring practices and wage standards. Additionally, CBOs are breaking new ground in Aggregation – developing models for handling new housing structures like condominiums.

NYSERDA continues to provide ongoing CBO training through monthly webinars, and has updated the CBO SharePoint site to provide more streamlined ways for NYSERDA staff to provide oversight of the Outreach program.

The GJGNY marketing program enhanced the core tools for marketing the Outreach program including new Financing Fact sheets that educate consumers on the available financing options, case studies that highlight customers accessing programs and financing options, print ads that create awareness of the Outreach effort, and regional workforce brochures that highlight the continuum of local training programs in the community and provides a list of facilities that offer programs.

*Evaluation*. During the December 2012 Advisory Council meeting, the NYSERDA Evaluation staff and consultants presented the details of the job impacts assessment work plan. The evaluation, as planned, will assess job impacts resulting from GJGNY-related efforts and will leverage existing internal and external evaluation efforts as well as new primary research for the purpose of assessing jobs. The presentation included an overview of the two-phased approach that is scheduled to commence in late-January 2013. NYSERDA will work toward having preliminary results of the job impact assessment in late 2013, pending start up of data collection and analysis in the near term.

Evaluation staff continues to coordinate GJGNY evaluation work and activities with existing evaluation efforts of the Small Business/Not for Profit, Residential, and Multifamily Performance Programs. In addition, discussions to inform the evaluation of CBOs are underway and an evaluation work plan is being developed.

#### 4.1.2 Residential Efficiency Services

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 Efficiency Services programs allows NYSERDA to use RGGI funds for fossil-fuel based measures and renewable energy measures not eligible for System Benefits Charge (SBC) and Energy Efficiency Portfolio Standard (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 Efficiency Services program 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, non-firm natural gas, steam, and propane energy use in 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 December 31, 2012, RGGI funds supported 31 completed energy-efficiency projects that are expected to save a total of 3,692 MWh and 171,334 MMBtu per year.

*Multifamily Carbon Emission Reduction Program.* The Multifamily Carbon Emissions Reduction Program (MCERP) is currently providing financial assistance and technical support to owners of multifamily buildings converting their heating systems from #6 fuel oil to cleaner fuel alternatives. Less carbon-intensive fuels include #2 fuel oil, biodiesel and biodiesel blends, natural gas and renewables (geothermal and solar thermal). This program was 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), that requires all buildings that burn #6 fuel oil to switch to #4 oil or a cleaner equivalent (based on particulate parts per million). 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. By June 30, 2011 nearly all of the total \$6.5 million in RGGI funding was allocated to 190 conversion projects. This funding is anticipated to serve over 30,000 multifamily units in over 300 buildings. This program was 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.

Through December 31, 2012, MCERP provided \$1,644,027 to 37 projects that completed their conversion processes. These funds helped to offset the 61,245 tons of CO<sub>2</sub> that otherwise would have been emitted over a 10-year period if these buildings had not switched from #6 oil to a cleaner burning alternative.

*EmPower New York*<sup>sm</sup>. EmPower New York<sup>SM</sup> (EmPower) provides cost-effective energy reduction services to households with incomes at or below 60 percent of the State Median Income. RGGI funding permits 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 will be eligible to apply for heating efficiency assistance. NYSERDA will continue to coordinate closely with the Weatherization Assistance Program (WAP) to ensure effective use of RGGI funds.

Through December 31, 2012, 584 energy efficiency projects were completed and are projected to save a total of 14,903 MMBtu per year.

*Home Performance with ENERGY STAR*<sup>®</sup>. Home Performance with ENERGY STAR<sup>®</sup> (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 December 31, 2012, 1,686 energy efficiency projects were completed, which are projected to save approximately 49,356 MMBtu and 263 MWh per year.

*Green Residential Building Program.* The Green Residential Building Program (GRBP)<sup>9</sup> 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 eleven dwelling units. The GRBP offers incentives to building owners who build and obtain certification that their newly constructed residences meet or exceed Leadership in Energy and Environmental Design (LEED) or National Green Building Standard guidelines, as well as other GRBP program-specific energy efficiency and health and safety requirements. Buildings meeting GRBP requirements will help to reduce energy use and greenhouse gas emissions, save water and other natural resources, use sustainable building materials, reduce waste, and improve indoor air quality. The GRBP provides an innovative approach to program design and is the second statewide program in the country to offer direct financial incentives to building owners for certified green residential buildings.

Through December 31, 2012, the GRBP has paid incentives to193 residential buildings with RGGI funds.<sup>10</sup> Most projects that receive GRBP funding also receive incentives through NYSERDA's New York ENERGY STAR<sup>®</sup> Homes Program, such that the projects' energy savings may not be solely attributable to the GRBP. The GRBP is an important addition to NYSERDA's suite of residential programs, and has helped effectuate energy savings of approximately 618 MWh of electricity, 10,912 MMBtu of natural gas, and 1,172 MMBtu of propane per year.

<sup>&</sup>lt;sup>9</sup> Public Authorities Law Section 1872(4) directs NYSERDA to create and administer a green residential building program in New York.

<sup>&</sup>lt;sup>10</sup> 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.

Integral to the GRBP's market transformation approach is the need to increase the awareness of, and demand for, comprehensive building performance services while simultaneously building a network of trained, certified Technicians (building performance evaluators). Through December 31, 2012, 19 Technicians have been approved for program participation to verify GRBP building eligibility.

*Solar Thermal Incentive 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 MPP, HPwES, the New York ENERGY STAR<sup>®</sup> Homes Program, and the Solar Thermal Incentive Program funded by the Renewable Portfolio Standard.

The Program Opportunity Notice for the Solar Thermal Program (PON 2149) was released on December 10, 2010. Currently there are 88 approved installers. The Solar Thermal Program has received a total of 100 project applications, six of which have since been cancelled. The remaining 94 projects represent RGGI-funded incentives totaling almost \$775,000. The current PON 2149 incentive budget is over \$860,000, all of which has been committed to Solar Thermal projects. The PON 2149 budget is an increase from the previous total of almost \$781,000 due to the addition of over \$79,000 in unspent funding for PV projects being transferred to PON 2149. This funding will be used for solar thermal systems that can displace between 50% and 80% of the fossil fuels used to produce domestic hot water.

As of December 31, 2012, 77 of the 94 solar thermal projects had been installed and are anticipated to save a total of 1,973 MMBtu annually.

#### 4.1.3 Municipal Water and Wastewater Program

The purpose of the Municipal Water and Wastewater program is to reduce energy use through energyefficiency and process improvement measures. The Municipal Water and Wastewater program offers coordinated assistance designed to achieve cost-effective CO<sub>2</sub> reductions by providing technical support and implementation assistance to existing facilities and new construction projects.

*Wastewater Energy Efficiency Program*. The Wastewater Energy Efficiency Program (WWEP) provides a unique opportunity to coordinate RGGI climate change goals and funding with US Environmental Protection Agency (EPA) goals as well as funding while installing infrastructure that will improve the environment and keep New York State waters clean and healthy. This program is co-managed by the New York State Environmental Facilities Corporation (EFC) and NYSERDA. EFC has secured Green Project Reserve Funds offered by the EPA that will bolster efforts to finance water and wastewater infrastructure via the Clean Water State Revolving Fund (SRF) Program. Plants financed with Green Project Reserve monies will be constructed energy efficiently, thus minimizing carbon emissions and improving their economic and environmental performance.

WWEP reviews likely Green Project Reserve projects on the SRF Intended Use Plan, and identifies candidates for energy-efficiency and carbon abatement opportunities. Selected projects receive RGGI-funded technical analysis to identify costs and savings associated with energy efficiency, process improvement, and carbon abatement opportunities, as well as Green Project Reserve 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 December 31, 2012, 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 54 municipal wastewater treatment plants. Once installed, the measures currently recommended by the analyses are projected to save a total of 39,823 MWh and 54,355 MMBtu annually. Five technical energy analyses are ongoing.

#### 4.1.4 Industrial Process Improvement Program

The Industrial Process Improvement 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 State 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 State's manufacturing base, are likely to be cost effective, and are presently not supported under SBC programs. 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 input 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 three projects that requested a total of \$888,610. While project contracting was ongoing, two proposers retracted their projects. Consequently, NYSERDA has contracted with the remaining project in the amount of \$547,487.

NYSERDA completed a competitive solicitation (RFP 2413, issued in January of 2012) using a newlyrefined strategy for Accelerating the Commercialization of Industrial Technologies (ACIT) focusing specifically on innovative technologies that have high replication potential for New York's manufacturing base. The program is funded at a \$5 million level, \$3.04 million of which is RGGI funded. Several NYSERDA Research and Development contractors' technologies have been successfully demonstrated, and have existing business and marketing plans, but are not yet accepted by the marketing place. RFP 2413 invited these contractors to conduct multiple full-scale demonstrations of their proposals, with the intention of helping that technology establish a fleet of installations to get its "initial toe hold" in the marketplace, while capturing important lessons learned that will help encourage further replication. To maximize potential benefits to NYS, contractors' technologies are selected competitively based on a range of factors, including, but not limited to: energy and CO<sub>2</sub> reduction potential, technical integrity, economic potential, and replicability. The program requires each industrial demonstration site to involve a NYS engineering consultant, who will serve as a "commissioning agent," involved with the demonstration from start to finish. This requirement is expected to increase project success rate and enhance education and replication opportunities. All commissioning agents and demonstration site staff associated with a specific technology will meet regularly to share lessons learned and develop a "best practices" guidebook to accelerate transition of the technology to NYSERDA deployment programs and direct market uptake. The fleet of demonstrations for a given technology will have staggered starts, thus providing critical opportunity for knowledge to pass from demonstration to demonstration and into the wider marketplace. Aggressive technology transfer that includes testimonials from site personnel and commissioning agents will help establish credibility, minimize risk, and encourage the industrialcustomer base to adopt innovative technologies. Four proposals were received and RGGI funding has been contracted for one project that requested and has been awarded \$1,848,637.

NYSERDA completed both rounds of a competitive solicitation (PON 2414, issued in March 2012, with due dates May 9 and September 26, 2012) for Innovation in the Manufacturing of Clean Energy Technologies (IMCET) focusing specifically on developing improvements to manufacturing processes that are used to mass-produce clean energy products. IMCET is a strategic companion to NYSERDA's vast efforts to improve performance of clean energy products because it improves their manufacturability in order to produce them in the most efficient manner and thereby lower the cost of goods sold, which improves their market acceptance. The program was initially funded at a \$2.5 million level, and a supplemental fund, consisting of \$1,013,760 of RGGI funds has been added to support meritorious projects from the first round (projects selected in the second round received funds other than RGGI funds).Twenty proposals were received for the first round, eight of which were approved for funding, including three that were approved to receive RGGI funds. Approval is based on their associated reductions in GHG emissions, either at the factory where the clean energy product is made, or due to the project's influence on increasing the availability and affordability of the clean energy product and the resultant benefits that accrue when that product is used by customers.

Under the competitive PON 1772, Next Generation of Emerging Technologies for End-use Efficiency, NYSERDA funded four projects with \$1,042,381 in RGGI funding. The projects funded included the demonstration of a Smart Grid Ready AC residential Solar System, development of energy efficient power distribution system for Data Centers, a solid state disk based energy-efficient storage system for servers, and the demonstration of performance of fisonic devices for steam customers. All four projects were contracted. The AC residential solar system project successfully demonstrated the reduced cost of a PV solar system using AC micro-inverters, a novel racking system, and non-traditional installers (roofers). The project to develop an energy-efficient power distribution system for Data Centers using cryogenic cooling was terminated because the project was unable to demonstrate near-term technical and economic feasibility. Performance testing of the fisonic devices is nearly complete, and the final report is expected to be completed by the second quarter of 2013. The final report on solid state disk storage for servers is expected to be completed by the third quarter of 2013.

### 4.2 Transportation

#### 4.2.1 Transportation Research

The goal of the Transportation Research 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 used for 10 contracts in the transportation arena. These projects range from electric vehicle infrastructure, vehicle components and new fuels, as well as transportation optimization systems for both roadways and airports. Anti-idling systems for NYC ferry boats are also under development. During the third quarter of 2012, the Federal Highway Administration selected a NYSERDA funded data terminal as part of a Connected Vehicle Safety Pilot Program. The data terminal will be used in commercial vehicles to communicate vehicle status and road condition to and from other vehicles and enabled infrastructure. A pilot project is now underway. In other projects, six plug-in vehicles are now available in rental agencies around the New York City Metro area. Details of vehicle utilization will be collected for further reporting. NYSERDA has contracted a combined \$1.5 million toward these efforts. One \$500,000 contract, which explores the use of pneumatic hybrid system on refuse trucks to supplement accessory power, is still under negotiation. In addition, \$10,000 was contracted in the commercialization program for a railroad wheel inspection system.

### 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 State. 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 and include the 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 Program

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 State 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.

Through December 31, 2012, the Statewide Photovoltaic Program supported the installation of 367 solar photovoltaic systems with a total capacity of approximately 3,480 kW. It is estimated these systems will produce 4,345 MWh of electricity annually.

Recognizing the continued benefit of investing in PV in the Long Island region, an additional \$11 million was allocated to support the continuation of LIPA's Solar Pioneer program during this timeframe, and another \$3.6 million is planned to be allocated through June 2013.

#### 4.3.2 Advanced Power Technology Program

The Advanced Power Technology Program (APTP) is designed to reduce GHG emissions in the long term. The program has two RGGI-funded focus areas: (1) advanced renewable energy, and (2) carbon capture, recycling, and sequestration. Other advanced power generation systems and technologies may be explored in the future.

*Advanced Renewable Energy*. The Advanced Renewable Energy component of the APTP supports projects that foster the market introduction of a broad range of promising renewable energy technologies in New York State, including advanced biomass, tidal and off-shore wind technologies.

Five contracts are assessing renewable power generation technologies, including anti-reflective coatings and nano-conductors for photovoltaic sources and energy storage devices. This are also includes solar thermal generation, and a commercial wind plant analyzer. Another \$50,000 has been added to the effort to commercialize graphene, a nanostructured material, for use in energy storage devices. A completed study has taken stock of small scale hydro sites for NYS with recommendations for further development. All of the \$1.7 million allocated to APTP has been invoiced.

Five million dollars of additional funding was approved in June for a new Photovoltaic Manufacturing Consortium (PVMC). Although no funds have yet been invoiced, a kick off meeting and two technical meetings have already occurred. 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.

*Carbon Capture, Recycling, and Sequestration.* The Carbon Capture, Recycling, and Sequestration component of the APTP 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 State.

The TriCarb Consortium for Carbon Sequestration project continued work to identify potential sequestration targets in Rockland County. The project, which is also supported by the U.S. Department of Energy (USDOE), is performing a detailed geological analysis of Rockland County's Newark Basin bedrock. Analysis of data and cores taken from the borehole drilling is ongoing, including thin-section analysis, geochemical reaction experiments, and fluid analyses.

## 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 State 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 contracted with four companies for awards through the Renewable, Clean Energy and Energy-Efficiency Product Manufacturing Incentive Program (PON 1176). The program provided a total of \$6.0 million, with the majority of funding tied to manufacturing the defined products in New York State. In addition, NYSERDA selected nine companies to receive targeted business development funds, a total of \$750,000, to support activities such as business plan development, go-to-market strategy, freedom-to-operate analysis, capital raising, supply chain development, quality management system development, or channel development. Also, a small project was contracted to provide linkages between the global investment community and early-stage clean energy technology companies in New York State.

### 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.

In the fourth quarter of 2012 the NYSERDA project titled, "Responding to Climate Change in New York State" (aka ClimAID<sup>11</sup>) was again cited numerous times in relation to the devastating impacts from Superstorm Sandy. ClimAID served as an important document that helped inform the reports of the

<sup>&</sup>lt;sup>11</sup> The full ClimAID report can be found at <u>http://www.nyserda.ny.gov/climaid</u>

Sandy Commissions. NYSERDA staff has continued climate change adaptation outreach activities in the state including a briefing to the NYS Department of Public Service and a very well-attended webinar for local governments.

A new solicitation was released to support the design, development, implementation, management and maintenance of a web-based New York Climate Change Science Clearinghouse (NYCCSC). The NYCCSC will access the extensive knowledge base of New York State's public and private academic institutions and provide user-friendly, web-based public access to data and literature related to climate change science that is relevant to New York State. A competitive solicitation targeting research needs related to greenhouse gas reduction strategies is planned to be issued in 2013.

Climate-related research also continues in support of the New York State Energy Plan, and the State's Climate Action Plan.<sup>12</sup>

#### 4.4.3 Regional Economic Development and Greenhouse Gas Reductions

The Regional Economic Development and Greenhouse Gas Reductions (REDGHG) program is designed to support the Governor's transformative plan to improve New York's business climate and stimulate economic growth. To do this, 10 Regional Economic Development Councils (REDCs) were established in 2011. Through a performance based, community-driven approach, each REDC has designed and approved a strategic economic development plan for its region. To facilitate the delivery of State support, a Consolidated Funding Application (CFA) was created as the primary mechanism for eligible applicants to submit projects that advance the vision of each strategic plan. Within each of the REDC plans, clean energy strategies and opportunities have been identified as priority needs.

The REDGHG program supports projects that are identified as priority initiatives consistent with a Regional Economic Development Council Strategic Plan and that are not otherwise provided financial support by other authority programs or initiatives. REDGHG provides cost-share funding for energy efficiency, clean and renewable energy, and/or innovative carbon abatement projects that address the regional priorities of the REDCs, results in strategic investments, and builds the capacity within the region to participate in the State's clean energy economy. Projects selected are capable of moving forward in the near term, while positioning the region for long term economic growth. REDGHG complements other funding available through NYSERDA, but does not duplicate funds which are otherwise available from NYSERDA programs. Project funds can be used for implementation of measures and equipment including project design and engineering costs, infrastructure investments, and for demonstrations of new and emerging technologies and approaches. Given the focus on near-term benefits, funds were not made available for research and development projects or for product development. Eligible sectors include businesses, agri-businesses, municipalities (counties, towns, cities, or villages), local development corporations, business or municipal improvement districts, public and private institutions (e.g. universities, colleges, hospitals, schools), and not-for-profits, REDGHG focuses on several end-uses including: Transportation, Manufacturing and Industrial Process, Buildings, Agriculture, Municipal process, Renewable Electric Generation, and District Energy.

Through December 31, 2012, REDGHG has awarded \$12 million for 17 projects (out of 94 eligible projects submitted) as the result of a competitive solicitation conducted in 2012 through the Consolidated Funding Application. Projects are located in nine of the 10 REDC regions.

<sup>&</sup>lt;sup>12</sup> For more information, see the <u>New York State Climate Action Plan Interim Report</u>.

#### 4.4.4 Cleaner Greener Communities

The Cleaner Greener Communities Program was announced by Governor Cuomo in his 2011 State of the State address. It builds on the Climate Smart Communities Program, which provides enhanced support for development and implementation of regional sustainability plans. This ensures that the State's ongoing and substantial investments in infrastructure help to move New York State as a whole, toward a more environmentally sustainable future. The program encourages 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 emphasizes activities such as revitalizing urban areas through smart growth, creating green jobs, building green infrastructure, and strengthening environmental justice and protection.

The program has two primary components: (1) development of, and updating to, regional sustainable growth plans; and (2) implementation of the sustainability plans. Ten region-specific planning teams have been competitively selected to develop Regional Sustainability Plans, one for each of the ten Regional Economic Development Council regions. Seven regions received awards in the first round of planning grant funding in December 2011 and the remaining three regions received awards in the second round of funding in May 2012. All ten of the plans are expected to be completed by the end of April 2013. Each team is working closely with their corresponding Regional Economic Development Council(s) to ensure that the region's sustainability goals are coordinated with their Regional Economic Development Plans.

The implementation component of the program is currently being designed and is expected to launch in 2013 after the regional plans have been completed. Support will be provided for competitively selected 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 (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). Approximately 90 percent of the incentive budget will be used to support the implementation component of the program.

Outreach and community support for the overall Cleaner Greener Communities initiative will be provided in part through Climate Smart Communities and Energy Smart Communities. To date, all 10 regions have been awarded grants for the development of, and updating to, regional sustainability plans.

*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). NYSERDA has six firms under contract to provide technical assistance services through the CSC Regional Coordinators Pilot Program. These firms 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. Regional greenhouse gas inventories were completed in the fourth quarter of 2012. In-person consultations with individual communities have been ongoing since the last quarter of 2012. The technical assistance services that that result from consultations will continue for the duration of the program. These services are providing direct support to communities, helping them respond to climate change and become more resilient to its effects, while also creating capacity for communities to do more on their own going forward.

*Energy \$mart Communities.* The Energy \$mart Communities (E\$C) Program, facilitated by E\$C Coordinators, perform outreach, education, and promotion of NYSERDA program opportunities to residents, businesses, institutions and local governments across the state. The E\$C network has been successful in educating New Yorkers about the role that energy efficiency and renewable power can play in reducing energy costs and providing clean, reliable energy for homes, schools and workplaces. Through December 31, 2012, the E\$C network has facilitated over 2,000 meetings, referrals or projects; created 226 partnerships; and participated in 779 community events that have resulted in increased awareness and participation. E\$C is supported jointly with RGGI and SBC funds. In 2013, the E\$C Program will become the Economic Development Growth Extension (EDGE) Program and will be redesigned to include support for Governor Andrew M. Cuomo's Regional Economic Development Council initiative by aligning the program territories geographically and providing direct support to advance the strategic priorities and regionally significant projects identified in each region. Through this new alignment with the Regional Councils, NYSERDA can provide a greater level of education and adoption of energy-efficiency practices at the community level.

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

To learn more about NYSERDA programs and funding opportunities visit nyserda.ny.gov

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State of New York Andrew M. Cuomo, Governor

# New York's RGGI-Funded Programs Status Report

Quarter Ending December 31, 2012

**New York State Energy Research and Development Authority** Francis J. Murray, Jr., President and CEO