



# **NEW YORK'S RGGI-FUNDED PROGRAMS**

**STATUS REPORT  
QUARTER ENDING SEPTEMBER 30, 2010**

**DECEMBER 2010**

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

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# 1 Introduction

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To implement the Regional Greenhouse Gas Initiative (RGGI), New York State has established its 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 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 September 30, 2010. It contains an accounting of program spending, an estimate of program benefits, and a summary description of program activities and implementation.

## 1.1 New York’s RGGI Funds<sup>3</sup>

As of September 30, 2010, New York had sold nearly 107 million CO<sub>2</sub> allowances and received approximately \$265 million in auction proceeds, which had accrued \$940,276 in interest. Detailed auction results are presented in Table 1-1, while total RGGI funds are shown in Table 1-2.

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<sup>1</sup> For the DEC adopted regulations, see 6 NYCRR Part 242: CO<sub>2</sub> Budget Trading Program Regulations; for the NYSERDA adopted regulations, see 21 NYCRR Part 507: CO<sub>2</sub> Allowance Auction Program Regulations.

<sup>2</sup> 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.

<sup>3</sup> 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 Results<sup>4</sup>**

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
<b>TOTAL</b>			<b>106,985,614</b>	<b>\$265,358,611</b>

Source: RGGI Inc.

**Table 1-2. New York State's RGGI Funds through September 30, 2010**

Funds Category	Cumulative Funds
RGGI Auction Proceeds	\$265,358,611
Interest Earned	\$940,276
<b>TOTAL</b>	<b>\$266,298,887</b>

<sup>4</sup> 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*

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This section presents financial data for the approved programs through September 30, 2010. Table 2-1 reflects how the \$266.3 million of current funds have been allocated across the five major program areas:

- Residential/Commercial/Industrial/Municipal;
- Transportation;
- Power Supply and Delivery;
- Sustainable Agriculture and Bioenergy; and
- 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 September 30, 2010 (\$ million)**

	Allocation of Cumulative Funds <sup>a</sup>	Contract Commitments <sup>b</sup>	Funds Spent
<b>Residential/Commercial/Industrial/Municipal</b>			
Residential Space and Water Heating Efficiency	9.2	2.3	0.4
Green Jobs/Green NY	96.7	96.7	0.4
Commercial, Industrial, Municipal and Institutional	3.5	1.3	0.6
Climate Smart Communities	1.0	-	-
Advanced Building Systems and Industrial Process Improvements	2.0	<0.1	<0.1
<b>Total Residential/Commercial/Industrial/Municipal</b>	<b>112.3</b>	<b>100.2</b>	<b>1.3</b>
<b>Transportation</b>			
Transportation Efficiency (and Electrified Rail Efficiency)	-	-	-
Advanced Transportation Development	2.0	0.5	-
<b>Total Transportation</b>	<b>2.0</b>	<b>0.5</b>	<b>-</b>
<b>Power Supply and Delivery</b>			
Statewide Photovoltaic Initiative	12.0	12.0	9.1
Advanced Power Technology	4.5	1.4	0.2
<b>Total Electric Power Supply and Delivery</b>	<b>16.5</b>	<b>13.4</b>	<b>9.3</b>
<b>Sustainable Agriculture and Bioenergy</b>			
Sustainable Agriculture and Bioenergy Program	-	-	-
<b>Total Sustainable Agriculture and Bioenergy</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Multi-Sector</b>			
Clean Technology and Industrial Development	7.8	1.5	-
Climate Research and Analysis	3.0	1.3	0.5
<b>Total Multi-Sector</b>	<b>10.8</b>	<b>2.8</b>	<b>0.5</b>
<b>PROGRAM AREA TOTAL</b>	<b>141.6</b>	<b>116.8</b>	<b>11.1</b>
<b>Other Costs <sup>c</sup></b>			
Deficit Reduction Plan (DRP) Transfer <sup>d</sup>	90.0	90.0	90.0
Con Edison Smart Grid Program <sup>e</sup>	7.7	7.7	7.7
Program Administration <sup>f</sup>	12.3	11.3	4.2
Metrics and Evaluation	8.8	5.6	<0.1
RGGI Inc. Costs <sup>g</sup>	3.0	3.0	2.4
New York State Cost Recovery Fee	3.0	2.2	0.3
<b>OTHER COSTS TOTAL</b>	<b>124.7</b>	<b>119.8</b>	<b>104.6</b>
<b>TOTAL</b>	<b>266.3</b>	<b>236.6</b>	<b>115.8</b>

<sup>a</sup> Includes auction proceeds and interest earned to date. The allocation is consistent with the 3-year budget presented in the Operating Plan.

<sup>b</sup> 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.

<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 all RGGI-funded activities, including GJ/GNY.

<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 proceeds to the General Fund.

<sup>e</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 - 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.

<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 on-going RGGI Inc. expenses. RGGI Inc. is a non-profit corporation created to support development and implementation of the CO<sub>2</sub> Budget Trading Program.

Totals may not sum exactly due to rounding.

Source: NYSERDA

### 3 Summary of Program Benefits

Table 3-1 shows the estimated cumulative annual program benefits as of September 30, 2010.<sup>5</sup> These metrics are estimates made by program implementation staff and have not been validated. When evaluation results are available, they will be presented in the Annual Evaluation and Status Report, which will also include these metrics along with macroeconomic indicators, such as job creation, and the geographic distribution of program funding and benefits across the state. 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 report of funds spent.

**Table 3-1. Summary of Cumulative Program Benefits**

Benefits	Results through September 30, 2010
Net Greenhouse Gas Emission Savings <sup>1</sup> (Annual Tons CO <sub>2</sub> e <sup>2</sup> )	5,630
Net Electricity Savings from Energy Efficiency and On-Site Generation (Annual MWh)	4,371
Renewable Energy Generation (Annual MWh)	---
Net Natural Gas Savings (Annual MMBtu)	---
Net Fuel Oil Savings (Annual MMBtu)	47,332
Net Propane Savings (Annual MMBtu)	---
Net Gasoline Savings (Annual MMBtu)	---
Net Diesel Savings (Annual MMBtu)	---
Annual Energy Bill Savings to Participating Customers (\$ Million)	1.2

Source: NYSERDA

<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.

<sup>2</sup> 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>5</sup> Cumulative annual benefits are reflective of the annual impacts from all currently operational projects installed since program inception.



# 4 Program Activities and Implementation<sup>6</sup>

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## 4.1 Residential, Commercial, Industrial and Municipal Sectors

### 4.1.1 Residential Space and Water Heating Efficiency

NYSERDA currently offers a suite of programs providing comprehensive energy efficiency 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 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 Space and Water Heating Efficiency programs seeks to address environmental justice issues by directly targeting outreach to environmental justice communities, and working with community-based organizations that address environmental justice issues by referring them 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 System Benefits Charge (SBC) and Energy Efficiency Portfolio Standard (EEPS) funding streams. Specifically, RGGI funds are used to reduce oil and propane energy use in the multi-unit residential buildings by 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, their 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. NYSERDA will consider providing gas efficiency services through RGGI funds once EEPS funding targeting gas measures has been exhausted.

Through September 30, 2010, RGGI funds supported four completed energy efficiency projects, saving a total of 43,300 MMBtu per year, or the equivalent of approximately 289,000 gallons of fuel oil annually. An additional 28 projects are currently in-progress.

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<sup>6</sup> The metrics presented in this section are estimates made by program implementation staff and have not been validated; evaluation results will be presented in the Annual Evaluation and Status Report.

*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 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 September 30, 2010, thirty energy efficiency projects have been completed, saving a total of 560 MMBtu per year or the equivalent of 4,032 gallons of fuel oil annually. An additional 29 projects are currently in-progress.

*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.

*Green Residential Building Program*. Public Authorities Law (PAL) 1872 directs NYSERDA to create and administer a green residential building program in New York. The Green Residential Building Program (GRBP) is a market transformation initiative designed to change the building practices of the residential construction industry for single-family and multifamily homes up to 12 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. Green buildings will reduce energy and greenhouse gas production and preserve natural resources. Other benefits are the use of sustainable building materials, reduced waste, improved indoor air quality, and reduced indoor and outdoor pollution. The GRBP is the first statewide program in the country to offer direct incentives to building owners for certified green residential buildings.

NYSERDA launched the Green Residential Building Program on September 23, 2010, culminating a two-year process that began in September 2008 when the Legislature directed NYSERDA to create and run the GRBP. There is a high level of interest in the program in the building and design community, and it is anticipated that the GRBP will jumpstart the green building market in New York State. Four complete applications have been received to date and these incentives are being paid promptly as required.

*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 will also be fully coordinated with the Multifamily Performance Program, Home Performance with ENERGY STAR<sup>®</sup>, the New York ENERGY STAR<sup>®</sup> 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 is currently being structured and a program opportunity notice (PON) for the Solar Thermal Program (PON 2149) is expected to be available in the fourth quarter of 2010.

#### **4.1.2 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 is also designed to support sustainable community development and create opportunities for green jobs. The GJGNY Annual Report was submitted to the Legislature in October 2010.<sup>7</sup>

The GJGNY Evaluation Operating Plan was approved by NYSERDA's Officers during the third quarter,<sup>8</sup> and NYSERDA is beginning to engage third-party contractors to develop more detailed evaluation plans for GJGNY programs.

*Residential.* In the third quarter of 2010, NYSERDA launched the subsidized audit portion of GJGNY for the Multifamily sector in September. During the fourth quarter of 2010, NYSERDA plans to launch the 1-4 family residential sector portion of the GJGNY program. This includes free and reduced costs audits and low-interest financing to assist in energy efficiency retrofit projects. During the fourth quarter, approximately \$11-12 million will be made available for audits and approximately \$25 million will be made available for financing through the RGGI funded GJGNY program.

NYSERDA and National Grid are partnering to offer an On-Bill Recovery (OBR) pilot program in the upstate National Grid territory that will allow residential and small commercial customers to repay the cost of the energy efficiency improvements through their utility bills. Representatives of NYSERDA and National Grid met with Department of Public Service Commission staff in September to provide an update on the pilot and received guidance that the agreement to offer OBR will be subject to Commission approval.

Additionally, several solicitations were released and requests for proposals (RFPs) submitted during this period:

- **PON 2011 - Solar Thermal (ST) Training (\$300,000):** 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 development, equipment, code official training, and assistance to apply for ISP accreditation. Four proposals were approved for funding.
- **PON 1817 - Energy Efficiency Career Pathways Training and Technical Training (\$1,850,000; \$600,000 through GJGNY and \$1,250,000 through EEPS):** The objective of this opportunity is to develop Small Commercial Energy Audit Training and Oil Heat Training under GJGNY, and also to develop EEPS Career Pathways and Tech Training. Twenty proposals were received and reviewed, and recommendations will be presented to NYSERDA's management during the fourth quarter.
- **RFP 2034 - Green Jobs Green New York: Curriculum Inventory, Assessment, and Curriculum Updates (\$300,000):** The objective of the proposals is to conduct a curriculum inventory, contractor needs assessment, and curriculum updates. Nine proposals were received and reviewed, and recommendations will be presented to NYSERDA's management during the fourth quarter.

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<sup>7</sup> For more information, see the [Green Jobs – Green New York Annual Report](#).

<sup>8</sup> For more information, see the [Green Jobs – Green New York Operating Plan for Program Evaluation](#).

- **RFP 2014 - Workforce Homeowner/Community Outreach Curriculum and Contractor Exchange Workshops (\$300,000):** The objective of the proposals is the creation of standardized curriculum to educate those responsible for the outreach, field work, and related services for GJGNY and/or to hold three Contractor Exchange Workshops. Two proposals were received and will be reviewed next quarter.
- **RFP 2080 - GJGNY Training & Implementation Contractor (\$500,000):** The objective of the proposals is to assist with the effective roll out and implementation of GJGNY Outreach services provided by CBOs, including trainings and coordination. Proposals are due in October.
- **Marketing Solicitation (\$3,500,000) –** This solicitation was released to 11 competitively selected full service marketing firms. Proposals are due in October.

*Commercial.* During the third quarter of 2010, the operating plan for the small business/not-for-profit sectors was modified to address how audits for these sectors will be delivered and subsidized. It is anticipated that the program will launch by the end of the year.

#### **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 CO<sub>2</sub> reductions by providing technical support and implementation assistance to existing facilities and new construction projects.

The Water and Wastewater Efficiency Program (WWEP) provides an opportunity to initiate integration and coordination of climate change goals, capture federal economic-stimulus funds, and install infrastructure that will help to improve the environment and keep New York waters clean and healthy. New York State has secured federal economic stimulus funds that will bolster efforts to finance a new generation of water and wastewater infrastructure via the Clean Water State Revolving Fund (SRF) Program. Selected plants financed with SRF monies will be constructed to high energy-efficiency standards, thus minimizing carbon emissions and improving economic and environmental performance.

This program is co-managed by the New York State Environmental Facilities Corporation (EFC) and NYSERDA. WWEP reviews selected projects on the SRF Intended Use Plan, including likely recipients of Green Project Reserve funds, and identifies candidates for technical analysis to identify costs and savings associated with energy efficiency, process improvements, and carbon-abatement opportunities, as well as cost share for 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.

During the third quarter, NYSERDA reviewed and evaluated the impact of the USEPA's 2010 guidelines for potential projects and, in conjunction with EFC, continued to initiate outreach to municipalities to discuss the benefits of participation in the WWEP. Technical energy analysis of 15 municipal wastewater treatment plant upgrade projects also commenced during the third quarter.

#### **4.1.4 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 GHG reduction potential, and 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 not at present supported under SBC programs. For Advanced Building Systems, projects will focus on technical innovations that collectively enable net-zero-energy buildings, and 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 that include 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 may also include changes in material inputs and development of advanced controls provided they directly bring about GHG reductions.

NYSERDA completed a competitive Program Opportunity Notice (PON) for Ultraviolet Light and Electron Beam Process Innovation and Market Transformation (PON 11641) 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. Project contracting is currently underway.

During the third quarter of 2010, NYSERDA completed a competitive Program Opportunity Notice 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 greenhouse gas (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 currently underway.

## **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 Program Opportunity Notice (PON) for Advanced Transportation Technology (PON 1520). Project contracting for these projects is currently underway.

## **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 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 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.

The Statewide Photovoltaic Program supported the installation of 383 solar photovoltaic systems with a total capacity of approximately 3,710 kW. It is estimated that these systems will produce 4,371 MWh of electricity annually.

### **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 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 APTP will support site-specific, pre-development activities that will 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 has been approved to support the projects, which include advanced wind, solar, and hydropower technologies. Project contracting for these projects is currently underway. 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 have been conducted on behalf of a collaboration between 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 as well as project siting and development activities.

*Advanced Power Delivery.* The Advanced Power Delivery initiative of the APTP 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.

*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, characterization and testing the state's geological sequestration potential, as well as support 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 USDOE, will complete detailed geological analysis of Rockland County's Newark Basin bedrock. During this quarter the TriCarb team and members of the Lamont Doherty Earth Observatory of Columbia University identified a number of identified potential study sites. In addition, the USDOE accepted a proposal for increased funding. The new funds will allow an expansion of the research effort to include more geological analysis at Lamont Doherty Earth Observatory of Columbia University.

## **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 has received seven proposals in response to a competitive solicitation for the Renewable, Clean Energy and Energy Efficiency Product Manufacturing Incentive Program (PON 1176). Up to \$4,500,000 in RGGI funds are available for eligible projects, with a maximum award of \$1,500,000 per project.

### **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 development of the state's Climate Action Plan, as called for by Governor Paterson's 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 third quarter, the project focused on completing the first phase of the Climate Action Plan, scheduled for submittal to Governor Paterson on November 8, 2010. Additional components of the Climate Action Plan will be completed in the first half of 2011.

For information on other  
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## New York's RGGI-Funded Programs

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Status Report Quarter Ending September 30, 2010  
December 2010

State of New York  
David A. Paterson, Governor

New York State Energy Research and Development Authority  
Vincent A. DeIorio, Esq., Chairman  
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