

New York State Energy Research and Development Authority

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# Green Jobs — Green New York

## 2013 Annual Report

Reporting Period Ending June 30, 2013

Final Report  
October 2013



# NYSERDA's Promise to New Yorkers:

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

**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, empowering people to choose clean and efficient energy as part of their everyday lives.

**Our Core Values:** Objectivity, integrity, public service, partnership, 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 Energy Deployment

Helping New York State to achieve its aggressive energy efficiency and renewable energy goals – including programs to motivate increased efficiency in energy consumption by consumers (residential, commercial, municipal, institutional, industrial, and transportation), to increase production by renewable power suppliers, to support market transformation, and to provide financing.

### Energy Technology Innovation and Business Development

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

### 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, 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 in New York State— 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 New York State policymakers 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, emergency preparedness, and a range of energy data reporting.

**Green Jobs-Green New York  
2013 Annual Report  
Reporting Period Ending June 30, 2013**

Prepared by:

**New York State Energy Research and Development Authority**

Albany, NY

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# Summary

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Ramping up the rate of participation in energy-efficiency projects is recognized as a means to boost New York State's economy by reducing household and business energy bills and by creating job opportunities. Both of these objectives are particularly important in distressed communities. Additionally, energy efficiency is recognized as one of the most cost-effective means to reduce greenhouse gas emissions, which benefits the environment.

On October 9, 2009, the Green Jobs-Green New York Act of 2009 ("the Act,") was signed into law. The Act directs NYSERDA to:

- Establish a revolving loan fund to provide loans to finance the cost of approved qualified energy-efficiency services for residential, multifamily, and non-residential structures.
- Pursue the feasibility of other innovative financing mechanisms.
- Issue one or more competitive opportunities to solicit applications from partnerships or consortia composed of constituency-based organizations (CBOs) that can connect community members to Green Jobs-Green New York (GJGNY).
- Target communities in areas where energy costs are particularly high in relation to a measure of median household income, as determined by NYSERDA, or that have been designated as a nonattainment area for one or more pollutants pursuant to Section 107 of the federal Clean Air Act.
- Give preference in awards to applicants that include significant participation by minority- and women-owned business enterprises and/or to applications intended to serve economically distressed communities.
- Establish standards for energy audits based on building type and other relevant considerations.
- Establish a schedule of fees for energy audits, including a sliding scale by which audit fees shall be waived for residential applicants based on median county income.
- Enter into contracts to provide employment and training services to support GJGNY.
- Establish an Advisory Council.
- Provide annual reports to the Governor, Senate, and Assembly.

On August 4, 2011, Governor Andrew Cuomo signed the Power NY Act of 2011, which established an on-bill recovery (OBR) financing mechanism for GJGNY project financing and increased the maximum loan limits for residential and small business/not-for-profit GJGNY loans, subject to certain project payback criteria. Although the original legislation called for the OBR Loans to be available by May 2012, working with the utilities and Department of Public Service staff, NYSERDA was able to implement OBR Loans for residential consumers commencing January 30, 2012. In April 2012, an amendment to the GJGNY law (Public Authorities Law § 1896(5)) made additional changes to improve the OBR financing mechanism.

This report is prepared pursuant to Section 1899 of the Act and provides an update on the progress and achievements of GJGNY through July 31, 2012. This report is the fourth Annual Report submitted for GJGNY.

## **S.1 Stakeholder Input**

NYSERDA meets with stakeholders through the Advisory Council on a quarterly basis and provides monthly written reports to Advisory Council members, as well as ad hoc reports as needed. The general public is able to participate in Advisory Council meetings and also has access to the GJGNY website for materials and videos of Advisory Council meetings, monthly reports, and ad hoc reports.

NYSERDA works with utility representatives, Department of Public Service staff, and program implementation contractors to support the implementation of OBR financing. In addition, NYSERDA meets regularly with stakeholders in the residential energy efficiency sector, participating in the Creating and Industry Working Group, to discuss program challenges and opportunities. Solutions identified by the group have been successfully implemented and have had immediate positive impacts on program delivery and participation.

## **S.2 Funding and Accomplishments to Date**

The Act allocates \$112 million in funding from New York State's share of the Regional Greenhouse Gas Initiative (RGGI) to support GJGNY. Improvements identified through audits, when implemented, will reduce electricity consumption and on-site emissions due to the burning of fossil fuels. NYSERDA has further allocated the funding, which now also includes interest earnings, as shown in Table S.1.

**Table S.1. GJGNY Budget Summary, as of June 30, 2013.**

<b>Program Area</b>	<b>Budget</b>	<b>Expended<sup>a</sup></b>	<b>Encumbered<sup>b</sup></b>	<b>Committed<sup>c</sup></b>	<b>Balance</b>
Workforce Development	\$8,000,000	\$3,043,828	\$3,038,582	\$355,820	\$1,561,770
Outreach and Marketing	15,510,000	6,965,254	3,231,291	5,200,000	113,454
One- to Four-Family Residential Buildings	42,248,533	42,230,353*	696,103	6,605,349	(7,283,272)
Multifamily Performance	13,492,550	4,713,100*	1,321,115	240,908	7,217,418
Small Commercial Energy Efficiency	18,174,917	3,105,233*	1,758,176	6,057,453	7,254,055
Program Evaluation	5,600,000	1,200,349	1,617,480	0	2,782,170
Program Administration	7,840,000	5,131,853	0	0	2,708,147
NYS Cost Recovery Fee	1,904,000	936,538	0	0	967,462
Unallocated Interest Earnings	711,506				711,506
<b>TOTAL</b>	<b>\$113,481,506</b>	<b>\$67,326,509</b>	<b>\$11,662,747</b>	<b>\$18,459,530</b>	<b>\$16,032,710</b>
<p>* Expended amount is net of loan repayments made through reporting period, for One- to Four-Family Residential Buildings, Multifamily Performance, and Small Commercial Energy Efficiency.</p> <p><sup>a</sup> Expended: Contractor Invoices and loans processed for payment by NYSERDA.</p> <p><sup>b</sup> Encumbered: Remaining funding obligated under a contract, purchase order, incentive award, or loan.</p> <p><sup>c</sup> Committed: Planned funding for contracts awarded and under negotiation; loans approved; and planned funding under active development through open solicitations with upcoming proposal due dates.</p>					

In addition to the RGGI funds, NYSERDA received a U.S. Department of Energy (DOE) Better Buildings grant in the amount of \$40 million, of which \$18.6 million will be used to support GJGNY financing or outreach. Additional details regarding funding status can be found within Sections 3 to 9 of this report.

Table S.2 provides a summary of program performance metrics. Although specific goals have been established for the number of audits and projects completed, it is important to note that there are many other indicators of program success that are not captured in these statistics regarding projects. Some of these additional indicators include the growth of participation in the programs in underserved communities, the creation of good jobs within those same communities, growth in participation of minority- and women-owned businesses in the energy efficiency industry, and improved access to financing.

In support of these indicators, the GJGNY Program facilitates community-centered outreach efforts that increase the reach of GJGNY among disadvantaged populations and households not traditionally participating in energy-efficiency programs. Workforce training and development funding support career pathway development within economically-challenged communities, while multilingual marketing and curriculum materials assist in expanding opportunities for green building training. Complementary

workforce training outreach efforts target areas with high populations of minorities, low-income individuals, and populations with barriers to employment. GJGNY Aggregation Pilot contractor participants agree to provide community benefits such as hiring local workers and providing living wages. In addition, NYSEERDA has modified loan underwriting standards in the one- to four-family sector in an effort to improve the accessibility of financing to consumers who would not qualify using traditional underwriting standards, allowing homeowners in lower-income communities the opportunity to reduce energy bills through energy-efficiency improvements.

The impact of program activities targeting these objectives are currently under evaluation, and initial progress is discussed in other sections of this report.

**Table S.2 GJGNY Summary Performance Metrics**

<b>Metric</b>	<b>One- to Four-Family Residential Buildings</b>	<b>Multifamily Performance</b>	<b>Small Commercial Energy Efficiency</b>	<b>Total</b>
Audit Applications (number)	51,000	239	1,915	53,154
Audits Completed (number)	38,041	187	1,661	39,889
1st Year Net KWh Savings*	4,910,284	61,231,067	2,237,002	68,378,353
1st Year Net MMBtu Savings*	366,246	967,573	80,299	1,414,118
Estimated Annual Bill Savings*	\$7,916,785	\$23,487,512	\$672,289	\$32,076,586
Loans Issued/Closed (number)	3,593	9	6	3,608
Value of Loans	\$34,288,321	\$7,557,989	\$232,172	\$42,078,482
* Energy and bill savings represents installed to date saving for the 1-4 Sector, projected savings upon project completion for the Multifamily sector, and an estimated 20% project installation rate, based on historical performance for the Small Commercial sector.				

## **S.3 Workforce Training and Development**

NYSERDA has issued a total of seven Program Opportunity Notices (PON) and Requests for Proposals (RFP) designed to advance the workforce development goals of GJGNY. Projects support the training objectives of the Act, including, but not limited to: 1) incremental occupational training to unemployed workers; 2) work readiness and entry-level technical training; 3) apprenticeship and labor-management certification training; 4) skills development for incumbent workers; 5) skills development for new workers to support advancement and improve employee retention; and 6) inventory of curriculum related to the objectives of GJGNY; and 7) qualitative research designed to assess skill gaps as identified by employers.

GJGNY workforce development activities are expanding New York State's capacity to deliver training services by working with community-based training organizations and existing training centers, providing much-needed training equipment and tools and minimizing barriers to delivering field testing and certification exams. The initiative also provides direct entry, on-the-job, apprenticeship, and internship incentives to help defray costs of bringing on new hires.

As a result of the solicitations, 35 contracts have been awarded for infrastructure, curriculum, and certification/accreditation development and technical support, representing \$3.7 million in contract funding. Forty-five contracts, totaling in excess of \$2.2 million, have been awarded to support apprenticeships and internships. In addition, more than \$87,000 has been provided to individuals and companies to help offset costs of certification, contractor accreditation, and equipment purchases.

Work under this initiative is closely coordinated with the New York State Department of Labor (DOL), New York State Division of Homes and Community Renewal (HCR), New York State Office of Temporary and Disability Assistance (OTDA) and others, leveraging State, federal and local funds where possible.

## **S.4 Outreach, Education, and Marketing**

GJGNY is designed to deliver services in targeted communities through CBOs that target residents, small businesses, not-for-profit organizations (NFP), multifamily building owners, and potential workforce participants in designated communities. CBOs encourage participation in energy-efficiency programs, facilitate awareness of workforce training opportunities, and assist with enrollment in those efforts. Eighteen CBOs were selected through competitive solicitations to support GJGNY outreach, education, and marketing (OEM.)

Two CBOs are implementing aggregation pilots as part of their initiative. Aggregation is the process of identifying a group of homeowners who agree in advance to have the same contractor or contractor team

perform their audits and any resulting work. Aggregation is expected to result in more efficient use of contractor resources and reduced need for contractor marketing. Participating contractors agree to provide certain community benefits, which may include living wages and benefits for workers, local hiring, and preferential pricing.

NYSERDA's competitively selected marketing contractor, Brand Cool, continues to develop messaging and materials for the various sectors. In particular, Brand Cool obtained input from CBOs on their marketing needs, developing specific materials and placing strategic advertising oriented toward CBOs performing local outreach.

Numerous case studies have been produced to highlight successful home-performance businesses, supporting additional contractor recruitment, individuals who have been trained and employed through workforce development activities, and homeowners and businesses that successfully participated in GJGNY.

Media coverage of GJGNY, prompted by press releases, has been generally positive.

## **S.5 Energy Retrofits and Financing**

GJGNY audits and unsecured financing for the residential sector were launched in November 2010 through NYSERDA's Home Performance with ENERGY STAR® (HPwES®) program, with more than 38,000 audits completed through June 2013. Nearly 35 percent of the homeowners who complete an audit move forward with completing energy efficiency work through GJGNY. OBR became available in January 2012, with customer billing first appearing on utility bills starting in June 2012. OBR has quickly become the financing mechanism of choice for the residential sector, regularly surpassing unsecured financing in applications per month. In summary, 929 OBR Loans, totaling \$9.8 million, have been issued through June 30, 2013. In addition, NYSERDA has developed alternative screening criteria for loan qualifications, enabling more households to participate. Applications approved based on the alternative criteria make up approximately 10 percent of the total approved applications since November 2010. In recent months, more than 35 percent of all HPwES projects have taken advantage of program financing.

GJGNY audits have been available in the multifamily sector since September 2010, while financing through participation loans was launched in June 2011. Access to the GJGNY audits and financing for this sector is available through NYSEERDA's Multifamily Performance Program, a comprehensive program that serves market-rate and low- to moderate-income projects using a common process and relying on a network of participating energy service contractors. As of June 2013, 187 audits have been completed, and work is underway for 116 projects. Nine loans have been issued at a value of \$7,557,988. In addition to audits and financing, participants have access to incentives through the suite of programs offered by NYSEERDA or utilities. Work being accomplished in conjunction with a utility rebate program may be eligible for GJGNY Multifamily Financing if a building audit has been completed that meets NYSEERDA standards. The multifamily component of On-Bill Recovery is in the final stages of development.

NYSEERDA offers eligible small business and not-for-profit customers Qualified Energy Assessments from competitively selected Qualified Energy Consultants. In accordance with the GJGNY Act of 2009, NYSEERDA uses GJGNY funding to provide free energy assessments statewide for small businesses and not-for-profits with 10 employees or fewer. NYSEERDA also secured a limited amount of federal American Recovery and Reinvestment Act (ARRA) funds to provide free energy assessments to small businesses and not-for-profits across New York State with more than 10 employees and an average electric demand of 100 kilowatts (kW) or less. In June 2011, the Small Commercial Energy Efficiency Program (formerly known as the Small Business/ Not-for-Profit Energy-Efficiency Financing Program) began offering Participation Loans to small businesses with 100 employees or fewer and not-for-profits, with any number of employees, that participate in Qualified Energy Assessments. In June 2012, GJGNY also began offering OBR Loans to small businesses and not-for-profits that meet GJGNY eligibility requirements. Financing may also be available to small business or not-for-profits who receive an audit from a utility, if the audit meets NYSEERDA's standards.

In February 2012, NYSEERDA launched a project expeditor pilot to provide assistance to small business and not-for-profit customers that had obtained energy assessments through GJGNY to encourage implementation of energy assessment recommendations. In addition to the audits and financing, participants may have access to incentives through programs offered by NYSEERDA or utilities.

As of June 2013, 2,427 Qualified Energy Assessments have been completed, of which 1661 are funded with GJGNY funds, while 776 are funded with ARRA funds. Four participation loans have been issued at a value of \$207,578. The Small Commercial Energy Efficiency Program is increasing outreach to lenders to raise awareness of and increase lender participation in GJGNY energy efficiency financing. Details regarding program activity are included in Sections 3, 6, 7, and 8.

## **S.6 Program Evaluation**

Since the introduction of GJGNY, NYSERDA has engaged its third-party evaluation contractors to develop and implement evaluation plans for GJGNY programs. Each evaluation activity is designed to assess the effectiveness, progress, and outcomes related to each of the GJGNY program initiatives and to provide useful feedback to program staff that can be implemented to improve program performance.

Because not all GJGNY programs were implemented concurrently, early discussions between evaluation staff, program staff, and the evaluation contractors identified the need for initial work to focus on Residential One- to Four-Family Homes. As GJGNY matured, NYSERDA and its evaluation contractors monitored the program progress and engaged staffs to identify future evaluation needs and research objectives. In addition, evaluation staff received input from the Advisory Council on evaluation plans. In particular, a subgroup of the Advisory Council provided input on the plan and approach for the jobs impact assessment currently underway.

A combined process and market evaluation addressing GJGNY activities for One- to Four-Family Residential Buildings and the financing, outreach, and marketing efforts delivered through the New York HPwES program was completed in 2012. Three major evaluation projects are currently underway: a jobs impacts assessment, a market/process evaluation of the CBO initiative, and a market/process evaluation of the Small Commercial initiative. Planning is also underway for evaluations to be conducted starting in late 2013. Additional information on evaluation activities can be found in Section 9.

## **S.7 Conclusion**

Various aspects of GJGNY have been underway for one to three years, and some notable accomplishments have been made:

- On-bill recovery financing was popular among homeowners right from the start, outpacing the unsecured Smart Energy Loan in applications, on average.
- Participation in the Assisted Home Performance with ENERGY STAR<sup>®</sup> program has increased, meaning that households whose income is no more than 80 percent of the State or area median income are able to reduce their energy bills.
- More than 10 percent of the households qualifying for financing are doing so based on GJGNY's Tier 2 alternative qualification criteria, responsibly expanding the reach of GJGNY to households that likely would not have been able to participate otherwise.

- Many small businesses, not-for-profits, and multifamily building owners are learning about opportunities for reducing their energy bills.
- Many contractors, trainers, auditors, and other businesses have hired new employees, and retained and promoted existing employees, as a result of GJGNY.
- Two Aggregation Pilots are demonstrating the concept of community benefits in coordination with local contractors in underserved neighborhoods.
- Training for home performance contractors and building operators is being delivered in multiple languages, more effectively serving disadvantaged communities.

However, some aspects of GJGNY are seeing more success than others:

- While free and reduced-cost audits and use of CBOs for outreach have shown to improve the reach of programs into underserved populations, program growth has been slow.
- Conversion rates from audit to contracted work is very good compared to historic performance of free audit programs nationally; however, not all of the work being accomplished as a result of audits is being done through NYSERDA programs. Improvements in data collection and follow-up are needed to ensure audit funding is not wasted.
- CBOs took necessary time at contract initiation to hire staff and ramp up outreach services and are now showing significant progress in bringing work to GJGNY across all sectors; however, success has been better in some regions and sectors than others.
- New financing approaches have given access to many homeowners who otherwise may not have been able to obtain financing, but financing denial rates are still relatively high in some regions, preventing work from going forward. In addition, use of financing in the multifamily, small business, and not-for-profit sectors has been slow to start.

A priority for the coming year will be evaluation and analysis of the programs and systems that are now solidly in place to determine how to make them more effective and successful. Although funding for financing will be replenished through revolving loans and bond sales, funding for other aspects of GJGNY, such as workforce development, outreach and marketing, and free audits, will be fully expended within the next one to two years. Decisions will need to be made on which aspects of GJGNY should be continued and how to fund them.

# 1 Introduction

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Ramping up the rate of participation in energy-efficiency projects is recognized as a means to boost New York State's economy by reducing household and business energy bills and by creating job opportunities. Both of these objectives are particularly important in distressed communities, where so much energy-efficiency work is needed. Additionally, energy efficiency is recognized as one of the most cost-effective means to reduce greenhouse gas emissions, a benefit to the health of the environment. To successfully grow the energy-efficiency services industry, there need be investments on many fronts – homeowner and building-owner investments in their property, business investments in cost-effective process improvements, public and private investments in creating the service delivery infrastructure in addition to public and private investments in educating consumers on the benefits of energy efficiency and program opportunities. Public investments in the form of improving access to financing, workforce development and training, and offering incentives to encourage private investment are also important as the market grows. Significant public investment is occurring in New York State through resources such as the System Benefits Charge (SBC), Energy Efficiency Portfolio Standard (EEPS), and Regional Greenhouse Gas Initiative (RGGI); and federal resources such as the Weatherization Assistance Program (WAP). Simultaneously, New York State residents and businesses are making significant investments in energy efficiency, sometimes paying as much as 90 to 100 percent of the cost of work or products supported by public programs. The level of investment is commendable and necessary to overcome energy challenges and to attain the State's aggressive energy and environmental goals.

On October 9, 2009, the Green Jobs-Green New York Act of 2009 ("the Act," A.8901/S.5888 and chapter amendment A.9031/S.6032) was signed into law. The Act directs NYSERDA to:

- Establish a revolving loan fund to provide loans to finance the cost of approved qualified energy-efficiency services for residential, multifamily, and non-residential structures.
- Pursue the feasibility of other innovative financing mechanism.,
- Issue one or more competitive opportunities to solicit applications from partnerships or consortia composed of constituency-based organizations (CBOs) that can connect community members to GJGNY.
- Target communities in areas where energy costs are particularly high in relation to a measure of median household income, as determined by NYSERDA, or that have been designated as a nonattainment area for one or more pollutants pursuant to Section 107 of the federal Clean Air Act.
- Give preference in awards to applicants that include significant participation by minority- and women-owned business enterprises and/or to applications intended serve economically distressed communities.
- Establish standards for energy audits based on building type and other relevant considerations.
- Establish a schedule of fees for energy audits, including a sliding scale by which audit fees shall be waived for residential applicants based on median county income.
- Enter into contracts to provide employment and training services to support the Green Jobs-Green New York Program (GJGNY).
- Establish an Advisory Council.
- Provide annual reports to the Governor, Senate, and Assembly.

In May 2010, NYSERDA was also awarded federal funds through the competitive Better Buildings initiative to support the revolving loan fund established through GJGNY. The status of that initiative is described in Section 3.

On August 4, 2011, Governor Andrew Cuomo signed the Power NY Act of 2011 into law. A component of the Power NY Act authorized an on-bill recovery (OBR) financing mechanism for GJGNY project financing and increased the maximum loan limits for GJGNY. Although the original legislation called for OBR Loans to be made available by May 2012, working with the involved utilities and staff from the Department of Public Service, NYSERDA was able to launch OBR loans for residential consumers commencing January 30, 2012. In April 2012, an amendment to the GJGNY law (Public Authorities Law § 1896(5)) made additional changes to improve the OBR financing mechanism by replacing the filing of a mortgage with the filing of a declaration pursuant to Article 9 of the Real Property Law, serving as notification of the existence of the OBR loan. Full text of the Act is provided on NYSERDA's website at [http://www.nysERDA.ny.gov/BusinessAreas/Energy-Efficiency-and-Renewable-Programs/-/media/Files/EDPPP/Planning/GJGNY/Green%20Jobs%20GreenNY%20Legislation/gjgnylaw\\_palsection1890-1899-A.ashx](http://www.nysERDA.ny.gov/BusinessAreas/Energy-Efficiency-and-Renewable-Programs/-/media/Files/EDPPP/Planning/GJGNY/Green%20Jobs%20GreenNY%20Legislation/gjgnylaw_palsection1890-1899-A.ashx).

This report is prepared pursuant to Section 1899 of the Act and provides an update on the progress and achievements of GJGNY through June 30, 2013. This report is the fourth Annual Report submitted for GJGNY.

## 2 Advisory Council and Public Input

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NYSERDA's initial planning process for GJGNY involved significant input from the general public, various interested parties, and program stakeholders. During the initial nine-month planning phase of the program, the GJGNY Advisory Council held meetings every three to four weeks. As the GJGNY program began its deployment phases, meetings of the Advisory Council changed to a quarterly schedule and monthly written reports were added to ensure Advisory Council members have current information on important milestones, achievements, or issues. Advisory Council meetings are open to the public, and documentation of the meetings is posted on NYSERDA's website at <http://www.nyserd.ny.gov/Governor-Initiatives/Green-Jobs-Green-New-York/Advisory-Council/Meetings.aspx>

During the 2013 Annual Report reporting period, the Advisory Council met on September 13, 2012; December 12, 2012; March 9, 2013; and June 13, 2013. In addition, the Advisory Council held a special meeting regarding the concerns of constituency-based organizations (CBOs) on February 13, 2013. Agendas for the Advisory Council Meetings are provided in Appendix B.

The Advisory Council consists of 10 Ex-Officio Members and 26 Appointed Members who represent: constituency-based community groups; consumer advocates on utility and housing issues; community-based workforce development groups; unions, including building trades and property services; home performance contractors; large-scale construction contractors; and investment market experts. Members of the Advisory Council are listed in Table 2-1.

**Table 2-1. GJGNY Advisory Council Members.**

Name	Title	Term Expires
John B. Rhodes	President and CEO, NYSERDA (Chair)	n/a
Francis J. Murray, Jr.	President and CEO, NYSERDA (Chair)	9/15/2013
Kenneth Adams	Commissioner, New York State Department of Economic Development	n/a
Kristin Proud	Acting Commissioner, New York State Office of Temporary and Disability Assistance	n/a
Garry A. Brown	Chairman, New York State Department of Public Service	n/a
Michael D. Hervey	Chief Operating Officer and CEO, Long Island Power Authority	n/a
Joseph Martens	Commissioner, New York State Department of Environmental Conservation	n/a
Cesar A. Perales	Secretary of State	n/a
Gil C. Quiniones	President and CEO, New York State Power Authority	n/a
Peter M. Rivera	Commissioner, New York State Department of Labor	n/a
Darryl C. Towns	Commissioner and CEO, New York State Homes and Community Renewal	n/a
James Barry	Service Employees International Union - 32BJ	12/31/2013
Chuck Bell	Consumers Union	12/31/2012*
Les Bluestone	Blue Sea Construction	12/31/2012*
Judy Butler	Butler Building Performance	12/31/2012*
Tria Case	City University of New York	12/31/2013
Richard Cherry	Community Environmental Center	12/31/2013
Sammy Chu	Suffolk County Department of Labor	12/31/2013
Donna De Costanzo	Natural Resources Defense Council	12/31/2013
Dr. Charles S. Dedrick	Capital Region BOCES	12/31/2012*
Kate Fish	Adirondack North Country Association Program	12/31/2013
Dave Hepinstall	Association for Energy Affordability	12/31/2012*
Alan Hipps	Housing Assistance Program of Essex County	12/31/2012*

**Table 2-1 (continued)**

Name	Title	Term Expires
David Johnson	Laborers International Union of North America	12/31/2012*
William Johnson	Green America Public Private Partnership	12/31/2012*
Dan Kartzman	Powersmith	12/31/2013
Jennifer Keida	Standard Insulation Co. Inc.	12/31/2012*
Dick Kornbluth	Building Performance Contractors Association	12/31/2013
Dr. Andrew Matonak	Hudson Valley Community College	12/31/2012*
Jackson Morris	Pace Climate and Energy Center	12/31/2012*
Ed Murphy	Workforce Development Institute	12/31/2013
Anthony Ng	Center for Working Families	12/31/2013
Kevin Rooney	Oil Heat Institute of Long Island	12/31/2013
Hugo Salinas	New York Energy Conservation	12/31/2013
Kate Shackford	Bronx Overall Economic Development Corporation	12/31/2012*
Eric Walker	PUSH Buffalo	12/31/2013
Michael Weisberg	Hudson Valley Commercial Bank	12/31/2013
* Advisory Council member serving under expired term		

## 2.1 Creating an Industry Working Group

NYSERDA is part of the Creating an Industry Working Group, a collaborative group established by the trade organization for home performance contractors Efficiency First and including NYSERDA, the Long Island Power Authority, National Grid, constituency-based organizations, and NYSERDA’s program implementation contractors. The group discusses opportunities, challenges, and mitigation strategies related to delivering GJGNY in the one- to four-family sector. Members of the group also review documents and program tools in addition to preparing training and information for other program participants. Through the work of this group, and in collaboration with other stakeholders, NYSERDA has been able to provide significant streamlining and improvements to program delivery in the residential sector. During the current reporting cycle, the group focused on issues related to application approval timelines and provided feedback to NYSERDA regarding development of a web-based program interface for contractors, customers, program staff, and implementation contractors. This Web-based tool is expected to improve tracking and approval of documents and to provide improved transparency to all parties of a project as to its status.

## **2.2 Website**

To ensure transparency and to keep members of the public current about GJGNY, a section of NYSERDA's website is dedicated to GJGNY, including a direct link from its home page. The site can be viewed at <http://www.nyserda.ny.gov/grenny>. All GJGNY related documents, including Advisory Council meeting materials and videos, Operating Plans, monthly updates, and annual reports are posted to the website. Recent modifications to the GJGNY Web pages have improved navigability and ease of use.

## 3 Financing

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This section provides information related to various financing activities being undertaken that aide owners of one- to four-family residential buildings, multifamily buildings, and buildings occupied by small businesses and not-for-profit organizations to invest in energy efficiency improvements.

### 3.1 U.S. Department of Energy Grant Award

In May 2010, NYSERDA received a competitive award from the U.S. Department Energy (DOE) Better Buildings Program Energy Efficiency Conservation Block Grant (EECBG) to leverage new and existing energy-efficiency retrofit and finance programs to create large-scale sustainable approaches to financing energy efficiency across the State. From the total award of \$40 million, New York City received a sub-award of \$21.4 million to support financing for commercial customers. An additional \$5 million was sub-granted to a coalition of Long Island towns, through Community Development Center of Long Island, to support energy efficiency outreach programs that encourage energy efficiency retrofits, with financing provided through GJGNY. Of that sub-grant money, \$2 million is being used for loan loss reserve for loans issued. NYSERDA's \$13.6 million portion of the grant is being used to support energy efficiency financing through the GJGNY program and to leverage private capital.

The DOE grant requires no less than 60 percent of the NYSERDA/State funding of \$13,600,000 (equaling \$8.16 million) to be sub-granted to small municipalities not eligible for EECBG funding. The Bedford/Westchester Consortium Pilot Financing Program, partners in the proposal to DOE, will use \$1,267,864 of the award to administer their own pilot financing program through GJGNY. To meet DOE's grant requirements, a competitive solicitation was released in March 2011 for \$6,892,135. The solicitation resulted in eight awards: seven to municipalities that will serve as host communities for the GJGNY Revolving Loan Fund, and one to Oswego County for \$744,825 to administer their own small commercial loan fund. The municipalities awarded as GJGNY host communities will use approximately \$614,730 for outreach and marketing efforts in their regions, and they have re-granted approximately \$5.5 million to NYSERDA: \$5,032,581 to GJGNY Revolving Loan Fund loan loss reserves and \$500,000 for system upgrades to support OBR financing.

NYSERDA has allocated \$8,512,581 of its grant funding approved by the DOE for loan loss and debt service reserves to fund a Collateral Reserve Account, associated with a Guarantee provided by the New York State Environmental Facilities Corporation (EFC) through the State Revolving Fund (SRF) program used to provide financing for water and wastewater facilities, of NYSERDA's \$24,300,000 Residential Energy Efficiency Financing Revenue Bonds (Series 2013A), used to finance and refinance loans issued through the GJGNY program. The Collateral Reserve Account will be used to reimburse the EFC for any

draws upon its Guarantee and was instrumental in obtaining the Guarantee from EFC and ensuring that the SRF program was not jeopardized through the use of the Guarantee.

NYSERDA also entered into a Letter of Credit Agreement with the Energy Improvement Corporation (EIC), a local development corporation located in Bedford Hills, New York, funded with \$500,000 from the DOE grant funding, to support the Energize NY Benefit Financing Program. This program will offer financing for energy efficiency improvements and renewable energy system installations in commercial buildings repaid through a charge collected on property tax bills from participating municipalities, commonly referred to as Property Assessed Clean Energy (PACE) financing. Once EIC aggregates sufficient loans to allow them to be financed through secondary markets, NYSERDA's funding will be matched with funding provided by EIC to fund loan loss reserves and debt service reserve funding to cover any shortfalls in the collections of financing repayment charges by the participating municipalities.

A breakdown of the entire budget for this grant funding is provided in Table 3-1.

**Table 3-1. U.S. DOE Grant Funding Budget.**

Grants	New York City	Long Island Consortium	NYSERDA		Total
			Direct	Small Municipalities	
New York City Financing to Commercial Customers	\$21,400,000				\$21,400,000
Long Island Towns Outreach		3,000,000			3,000,000
Town of Bedford/Westchester Consortium Pilot Financing Program				1,267,864	1,267,864
Oswego County (Small Commercial Energy-Efficiency Loan Fund)				744,825	744,825
Outreach by local government host communities				614,730	614,730
Reserve used to fund Collateral Reserve Account to secure Guarantee from NYS Environmental Facilities Corporation for NYSERDA Residential Energy Efficiency Revenue Bonds (Series 2013A)		2,000,000	1,980,000	5,032,581	8,512,581

**Table 3-1 (Continued)**

Grants	New York City	Long Island Consortium	NYSERDA		Total
			Direct	Small Municipalities	
Loan loss and debt service reserve with Energy Improvement Corporation to support Energize NY Benefit Financing Program			500,000		500,000
GJGNY small business energy audit subsidies			1,700,000		1,700,000
Upgrades to support on-bill recovery financing			400,000	500,000	900,000
Sub-totals	21,400,000	5,000,000	4,080,000	8,160,000	38,640,000
NYSERDA administration				1,360,000	1,360,000
<b>TOTAL</b>	<b>\$21,400,000</b>	<b>\$5,000,000</b>		<b>\$13,600,000</b>	<b>\$40,000,000</b>

### 3.2 Revolving Loan Fund

NYSERDA has established a Revolving Loan Fund to support energy efficiency financing for owners of one- to four-family residential buildings, multifamily buildings, and buildings occupied by small businesses and not-for-profit organizations. The GJGNY Act requires the initial balance of the residential account to be at least 50 percent of the total balance. NYSERDA has initially allocated the financing across sectors as represented in Table 3-2.

**Table 3-2. Revolving Loan Fund Budget by Sector.**

<b>Program Area</b>	<b>Budget</b>	<b>Loans Issued and Implementation Expenses</b>	<b>Loan Repayments</b>	<b>Encumbered</b>	<b>Committed</b>	<b>Balance*</b>
One- to Four-Family Residential Buildings	\$26,652,533	\$36,342,155	\$4,209,358	\$391,147	\$4,954,100	(\$10,825,511)
Multifamily Performance	8,073,630	1,936,222	144,881	411,817	0	5,870,473
Small Commercial Energy Efficiency	7,774,917	285,919	15,117	250,060	0	7,254,055
<b>TOTAL</b>	<b>\$42,501,080</b>	<b>\$38,564,296</b>	<b>\$4,369,356</b>	<b>\$1,053,024</b>	<b>\$4,954,100</b>	<b>\$2,299,017</b>
<p>* NYSERDA has temporarily used a portion of the revolving loan fund budget allocated for Small Commercial/Not-for-Profit and Multifamily buildings to finance GJGNY residential energy efficiency loans issued to date. On August 13, 2013, NYSERDA issued \$24,300,000 Residential Energy Efficiency Revenue Bonds (Series 2013A) which were secured by a pledge of loan payments from certain Tier 1 residential energy efficiency loans issued or to be issued totaling an outstanding principal amount of approximately \$29.2 million. The \$24.3 million in proceeds from the bonds will be used to replenish the revolving loan fund and support issuance and financing of additional residential loans.</p>						

Pursuant to the GJGNY Act, loans were initially limited to not more than \$13,000 per applicant for one- to four-family residential structures and \$26,000 per applicant for small business and not-for-profit structures. The Power NY Act of 2011 raises the maximum loan amount to \$25,000 for residential structures and \$50,000 for small business and not-for-profit structures, provided that the project payback is 15 years or less. NYSERDA has established programmatic limits for multifamily structures, not to exceed \$5,000 per unit and \$500,000 per building.

To pursue financing through the Revolving Loan Fund, a customer must have a qualified energy audit that identifies energy efficiency services to be undertaken. Subject to the loan caps, the amount eligible for financing will be the total project cost minus any NYSERDA utility or other incentives or rebates that are available. The total cost of the project may include the removal of equipment or systems to be replaced, the purchase and installation of new systems or equipment, the purchase and installation of any required ancillary equipment and related services, including health and safety, and the customer's expense for an energy audit.

### **3.2.1 One- to Four-Family Homes Energy-Efficiency Financing**

GJGNY offers two types of loans for one- to four-family residential energy efficiency improvements. An unsecured consumer loan financing product was launched on November 15, 2010. This loan requires the consumer to make monthly loan payments directly to NYSERDA's master loan servicer, Concord

Servicing Corporation. On January 30, 2012, NYSERDA launched OBR Loans, as authorized by the Power NY Act of 2011. This product was implemented four months prior to the May 30, 2012 implementation required by the statute. The OBR loan allows consumers to repay through an installment charge on a bill from one of the involved electric or gas utilities (Central Hudson, Con Edison, Long Island Power Authority, National Grid-upstate, New York State Electric and Gas Corporation, Rochester Gas and Electric Corporation, or Orange and Rockland Utilities). The utilities then remit repayments to NYSERDA's master loan servicer, who coordinates data communications with each utility.

The residential loans are originated statewide through Energy Finance Solutions (EFS), a not-for-profit energy efficiency lending organization competitively selected by NYSERDA to provide residential financing services for the Home Performance with Energy Star (HPwES) program. EFS reviews loan applications and originates loans pursuant to loan underwriting criteria established by NYSERDA. EFS closes on the loan, disburses loan proceeds to the contractor, and submits the loan to NYSERDA's master loan servicer, Concord Servicing Corporation. Then, NYSERDA reimburses EFS for the loan disbursement from the Revolving Loan Fund. Concord Servicing Corporation is responsible for borrower billing and collections on the loan portfolio and also monitors the origination processes on a sample basis to ensure conformance to standards.

Further details of the financing available to this sector are found in Section 6.

### **3.2.2 Multifamily Building Energy-Efficiency Financing**

Through a participation loan, launched in June 2011, a participating lender issues a loan for a qualifying energy efficiency project. NYSERDA participates in the funding of 50 percent of the loan (up to a maximum of \$5,000 per unit or \$500,000 per building) at zero percent interest, with the lender setting the interest rate on its share of the loan. The lender is responsible for collecting loan repayments and remitting to NYSERDA its proportionate share, and NYSERDA and the lender share pro-rata on any loan defaults. NYSERDA is also developing OBR Loans for multifamily buildings to create a program that complements the participation loan.

Further details of the financing available to this sector are found in Section 7.

### **3.2.3 Small Commercial Energy-Efficiency Financing**

GJGNY offers two types of loans for energy efficiency improvements in small business and not-for-profit structures. Through a participation loan, launched in June 2011, a participating lender issues a loan for a qualifying energy efficiency project. NYSERDA participates in the funding of 50 percent of the loan (up to a maximum of \$50,000) at zero percent interest, with the lender setting the interest rate on its share of the

loan. The lender is responsible for collecting loan repayments and remitting to NYSERDA its proportionate share. The participating lender is responsible for loan underwriting pursuant to its standards, and NYSERDA and the lender share in a pro-rata basis on any loan defaults. In July 2012, NYSERDA launched On-Bill Recovery (OBR) Loans. This approach allows the same participating lenders to originate an OBR Loan on NYSERDA's behalf, using NYSERDA loan underwriting standards. The loans are issued at an interest rate of 2.5 percent for a maximum loan amount of \$50,000. The loan is repaid to NYSERDA through an installment charge on the participating electric/gas utility bill, remitted to NYSERDA's master loan servicer.

Further details of the financing available to this sector are found in Section 8.

### **3.2.4 Qualified Energy Conservation Bonds**

NYSERDA was designated as New York State's administrator for the allocation of federally authorized Qualified Energy Conservation Bonds (QECB), which are tax-subsidy bonds that may be issued for certain qualifying purposes. The State received a total QECB bond volume cap authorization of \$202.2 million, of which approximately \$182.1 million was sub-allocated on a per capita basis to 39 large local government counties, cities, and towns (with a population in excess of 100,000), resulting in approximately \$20.1 million available for State Government purposes. As of June 30, 2013, the initial State Government purposes allocation grew to about \$24.4 million with QECB allocations to municipalities that were waived and reverted to the State.

The State Government purposes allocation will be used to support bonds issued to finance GJGNY both Unsecured and OBR residential energy efficiency loans issued and initially funded through the Revolving Loan Fund. NYSERDA will use \$24,300,000 of its QECB allocation for the issuance of the Residential Energy Efficiency Financing Revenue Bonds (Series 2013A) scheduled to close in August 2013. These tax-subsidy bonds offer a lower financing cost, allowing the residential energy efficiency loans to be offered at a lower interest rate to borrowers. The initial interest rate set on residential loans (3.99 percent or 3.49 percent for Unsecured Loans, and 2.99 percent for OBR Loans) was based on financing these loans through tax-subsidy QECB bonds. Once this bond allocation is exhausted, the loan interest rate will be raised and NYSERDA projects interest rates will be approximately 5 to 6 percent.

### **3.3 Financing Contracts Entered Into**

In 2009, NYSERDA competitively selected EFS to provide residential energy-efficiency financing through its HPwES program, and the contract was amended to provide for origination services for loans issued through the GJGNY program upon passage of the legislation. A competitive solicitation issued in March 2011 resulted in the selection of Concord Servicing Corporation to provide master loan servicing. NYSERDA entered into an interim contract with NY Title Research Corporation, Zodiac Title Services, and Advantage Title Agency to perform property searches and to file mortgage/declaration documents to support OBR Loans. A competitive solicitation issued in April 2013 awarded contracts on a regional basis to provide these services.

NYSERDA competitively retained a financial advisor, Lamont Financial Services, to provide services for program design and to provide advice on financial structures. NYSERDA also competitively selected Hawkins, Delafield and Wood as its bond counsel to provide legal advice on financial matters, legislation, program design, and structures for financing. Additionally, NYSERDA entered into a contract with the Energy Programs Consortium to support development of a multistate financing structure for unsecured energy efficiency financing that will facilitate the securitization of such loans in which it may participate. Funding amounts for these contracts are detailed in Table 3-3.

### **3.4 On-Bill Recovery Financing**

The Power Act of 2011 requires additional reporting regarding OBR Financing. Additional information regarding OBR Financing as of June 30, 2013 is provided as Appendix A.

**Table 3-3 Financing Contracts Entered Into<sup>a</sup>**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed</b>
15518	Wisconsin Energy Conservation Corporation (Energy Finance Solutions)	Loan Origination Services	N/A	\$793,824	\$0	\$0
21769	Concord Servicing Corporation	Interim Loan Servicing for GJGNY	N/A	0	0	0
21769	Concord Servicing Corporation	Master Loan Servicer for GJGNY	N/A	265,123	388,614	0
27533	NY Title Research Corporation	Property searches and document filing to support On-Bill Recovery Loans	61,800	59,860	1,940	0
31684	Zodiac Title Services		100,000	100,000	0	0
31684-1	Zodiac Title Services		50,000	5,374	44,627	0
33527	Advantage Title Agency, Inc		50,000	27,525	22,475	0
ET- RFP-2712	Title Company for Support of On-Bill Recovery Loan	RFP to select one or more Title Companies to provide Last Owner Searches and Declaration Recording Services in support of On-Bill Recovery	0	0	0	650,000
18591	Hawkins Delafield & Wood	Legal financial advisory services for GJGNY	380,000	368,162	11,838	0
19923	Lamont Financial Services Corporation	Financial Advisor Services for GJGNY	301,680	290,968	10,712	0

**Table 3-3 Continued**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed</b>
20662	Energy Programs Consortium	Energy Programs Consortium - Phase I	25,000	12,500	12,500	0
26143	Equifax Credit Marketing Services	Annual Subscription to CreditForecast.com 2011-12	20,000	20,000	0	0
33119	NetRoadshow, Inc.	Establishment of portal communication between NYSERDA and bond rating agency	23,750	5,000	18,750	0
ST10743-1	Harris Beach PLLC	Bond Counsel	125,000	120,509	4,491	0
30985	Fitch Ratings, Inc.	Issuance of NYSERDA 2012 GJGNY Energy Efficiency Bonds	300,000	20,000	280,000	0
N/A	Citigroup Global Markets, Inc.; Jeffries & Company, Inc.; and Samuel A. Ramirez & Co., Inc.2	Bond underwriting services	0	0	0	0
<b>TOTAL</b>			<b>\$1,487,230</b>	<b>\$1,487,230</b>	<b>\$802,540</b>	<b>\$650,000</b>
<sup>a</sup> Contract funding amounts listed in Table 4.4 are total amounts. Due to the fact that these services are provided across the One-to-Four-Family Homes, Multifamily, and Small Commercial sectors, the prorated share of these contracts is also provided in the Contracts Entered Into tables in Sections 6, 7, and 8.						

## 4 Workforce Training and Development

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The Workforce Training and Development (WFD) initiative builds on existing NYSERDA and New York State Department of Labor (NYSDOL) programs targeted at preparing individuals for energy efficiency and solar thermal careers in New York State. Specifically, WFD efforts under GJGNY seek to expand energy-specific content in New York State Registered Apprenticeship and third-party accredited building trades programs, to increase access to technical training workshops for skills enhancement and certification, and to bridge the gap between training and employment through on-the-job training incentives for businesses seeking to hire and train new workers. Implementation of the approved GJGNY WFD Operating Plan began in mid-2010 and was initially presented in the 2010 GJGNY Annual Report.

### 4.1 Workforce Training and Development Solicitations

Since the inception of the GJGNY WFD initiative, NYSERDA has issued a total of seven Program Opportunity Notices (PONs) and Requests for Proposals (RFPs) designed to support the Operating Plan and the workforce training objectives of the Green Jobs – Green New York Act.

GJGNY workforce development and training activities are expanding New York State's capacity to deliver training services through working with community-based training organizations, expanding existing training centers, providing much-needed training equipment and tools, and minimizing barriers to delivering field testing and certification examinations. The initiative is also providing direct-entry, on-the-job, and apprenticeship incentives to help defray the costs associated with bringing on new hires.

NYSERDA WFD efforts funded under GJGNY are aligned with program strategies that promote the widespread implementation of energy efficiency measures and provide meaningful employment opportunities for job seekers. Access to technical training, equipment, and opportunities for hands-on experiential learning opportunities is needed to master skills, pass certification exams, and enable businesses to employ newly trained workers that must deliver a quality work product.

The following sections provide an overview and status update on GJGNY Workforce Development solicitations and resulting contracts.

#### **4.1.1 PON 1816: Workforce Development and Training Partnerships for Energy Efficiency and Lab Houses for Field Testing**

PON 1816, an open enrollment solicitation issued December 2010, included several funding components: career pathways for engaging disadvantaged communities, technical training, certification reimbursement, and internships and apprenticeship support. GJGNY funds totaling \$1.65 million were added to the existing Energy-Efficiency Portfolio Standard (EEPS)-funded PON 1816, which built on existing career pathways (GJGNY Worker Readiness) efforts.

GJGNY Worker Readiness training partnerships under PON 1816 included the Syracuse University Southside Innovation Center, Solar One, and Northern Manhattan Improvement Corporation. All training partners have completed contracted activity and continue to monitor the retention of students placed in employment opportunities.

Also under PON 1816, NYSERDA signed four contracts for lab/training houses, located at The Champlain Valley Technical School (CV-TEC) in Plattsburgh, NY; Northeast Parent Child and Society (NEPCS) of Schenectady; The Kelder House, SUNY Ulster Campus; and Green Jobs Training Center (GJTC) in Howard Beach, NY. These lab houses include numerous energy efficiency features designed to create hands-on training opportunities for practitioners. These labs will also expand New York State's capacity for hands-on training and field testing of skills for BPI Professional Certifications.

**The Champlain Valley Technical School (CV-TEC)** is building a new modular home on campus. CV-TEC will use students enrolled in the school's Construction Technology Programs to perform the construction work under the supervision of their instructors. CV-TEC recently submitted their revised timeline and finalized blueprints to committee members, the New York State Education Department's Office of Facilities Planning, and their engineering firm. Their engineering contractor continues to work on plans related to the house's heating system and expects to have those NYSED-approved in the near future.

**Northeast Parent Child and Society (NEPCS)** is retrofitting an existing building in the city of Schenectady. The City of Schenectady Code Enforcement Officer recently conducted a thorough inspection of the facilities' electrical and plumbing capabilities and recommended changes that have resulted in project completion delays. A vendor is assisting NEPCS to install the windows and to secure an environmentally friendly product to replace the flooring in the foyer and one of the kitchens. The project completion date is scheduled for September 2013.

**The Kelder House** is located at SUNY Ulster Community College in Stone Ridge. The lab is a completely renovated campus building. Renovations are complete and the building is being commissioned. A ribbon cutting ceremony is planned for September 2013.

**Green Jobs Training Center (GJTC)** has completed the construction of their lab house in Howard Beach, NY. Due to impacts from Super Storm Sandy, the entire building sustained damage, and renovations are being completed. GJTC is currently offering energy efficiency trainings and continues as a Building Performance Institute testing facility. GJTC has held 33 training sessions with more than 232 participants to date. Renovations will be completed in fall 2013 and the lab house will be in operation as a regional energy efficiency training hub.

#### **4.1.2 PON 1817: Energy Efficiency Technical Training**

PON 1817, a competitively bid solicitation issued June 2010, included \$600,000 in GJGNY funds to support the development of Oil Heat Efficiency training and Small Commercial Energy Auditing training. As a result, one contract for Oil Heat Efficiency and two contracts for Small Commercial Energy Auditing curriculum development and training were issued.

**Oil Heat Technician Training:** Community Power Network (CPN) was funded under PON 1817 to incorporate BPI specific guidelines into the existing oil heat technician training, with an emphasis on whole building science and energy efficiency, combustion efficiency, advanced oil tank installation, and combustion and air venting. To date, CPN has trained 531 individuals in National Oilheat Research Alliance (NORA) Bronze Certification; NORA Silver Certification; NORA Gold Certification; NORA Tank Certification; and Combustion Air, Venting, Efficiency and Carbon Monoxide.

**Small Commercial Energy Auditing Training:** The City University of New York (CUNY) Building Performance Lab has developed skill enhancement training for auditors conducting small commercial assessments. The 15 training modules will include classroom activity as well as assignments designed apply skills in the field. Participants will work individually as well as in small groups to complete hands-on training sessions and presentations. CUNY conducted a dissemination event to share the curriculum with stakeholders on August 1, 2013.

Under a separate PON 1817 contract, the State University of New York (SUNY) Stony Brook is developing specialized Small Commercial Audit training, in cooperation with the United States Green Buildings Council (USGBC), specific to building stock in New York City. Small Commercial Energy Auditing training developed under this initiative is based on existing American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) standards for Level 1 and Level 2 auditing. Stony Brook conducted a pilot training session in July 2013 and received more than 100 applications for 15 available openings in the classroom.

### **4.1.3 PON 2011: Solar Thermal Training**

PON 2011, issued in May 2010, offered \$300,000 in GJGNY funds to develop Solar Thermal Training or Solar Thermal modules to integrate with existing energy efficiency training, including curriculum development, equipment, code official training, and assistance to apply for the Interstate Renewable Energy Council Institute for Sustainable Power Quality (IREC ISPQ) accreditation. A total of four contracts were executed: Ulster County BOCES, Sullivan County BOCES, Monroe Community College, and SUNY Canton.

The performance on three of the four projects has been less than satisfactory for a number of reasons, despite initial success which included installation of labs. Monroe Community College has performed well and has a good solar thermal training program in progress. Examples of classes being offered at the school include Solar Thermal Basics and Solar Thermal Installer Training. The contract with Sullivan County BOCES has been terminated at the request of the contractor (July 2013). The school had staff changes in the middle of the project that resulted in lack of progress on the contract tasks. In addition, they had low enrollment for the solar thermal classes that they offered. Ulster BOCES also has had issues related to staff changes. They are trying to get their project back on track and are still offering solar classes based on demand. SUNY Canton is working on getting their project back on schedule after a long delay and is offering a variety of solar thermal classes. SUNY Canton is also applying for Interstate Renewable Energy Council Institute for Sustainable Power Quality (IREC ISPQ) accreditation for their program.

### **4.1.4 RFP 2014: Contractor Exchange Workshops**

RFP 2014, issued August 2010, offered \$150,000 to develop and implement Contractor Exchange Workshops across the state. The goal of these workshops was to address business development and management skills for new and existing home performance contractors. The intent was to help improve their profitability and to better prepare them to become participating Home Performance Contractors. The primary Contractor, the Building Performance Institute (BPI), held a total of five Contractor Exchange Workshops in Rochester, Albany, Tarrytown, Buffalo, and Long Island. These workshops were held between June 2011 and May 2012, and in total more than 300 contractors attended. The short-term outcome was to educate contractors and give them new marketing and business skills to increase Home Performance project productivity. The long-term outcome of these Contract Exchange Workshops was to retain and increase Home Performance contractor participation and increase the number of Home Performance projects. Feedback from these sessions has been informative in program development.

#### **4.1.5 PON 2032: Technical Workshops/Expand BPI Field Exam Capacity/Certification Standards**

PON 2032, released in March 2012, included \$1.48 million for three funding categories: a) Hands-on Technical Workshops, b) Expanding BPI Exam Capacity, and c) Oil and Gas Furnace Installation Certification Standards.

The PON closed in December 2012. In total, seven proposals were funded under Category A, Hands-on Technical Workshops, resulting in contracts with the following training partners: Solar One, New York State Weatherization Directors Association, Institute for Building Technology and Safety, Building Performance Contractor's Association (2), Northeast Parent and Child Society, and SUNY Ulster. The purpose of these contracts is to deliver energy efficiency and solar thermal training ranging from entry level building science and energy modeling software as well as solar thermal installation through more advanced skill enhancement training like infrared thermography. Training providers are under contract to train a total of 2,341 individuals, of which 318 (13.6 percent of the total goal) have been trained to date. Trainings under PON 2032 will continue through summer 2014.

Under Category B, Expanding BPI Exam Capacity, two contracts were awarded. Solar One and SUNY Ulster were awarded funds to expand their network of BPI Proctors so that field exam testing capacity could be expanded.

Under Category C, a competitive component seeking proposals for Oil and Gas Furnace Installation Certification Standards, a number of proposals were received but none were fundable. After reviewing the proposals received and discussing further, NYSERDA reached out to DOE and other Program Administrators to determine interest in supporting the development of a new technical standard for the installation of oil-fired and gas-fired furnaces that would better combine building science health and safety principles into the ACCA QI standard. As a result, it was determined that there is no interest in developing a new standard as originally envisioned in the solicitation, at this time.

#### **4.1.6 PON 2033: Internships/Apprenticeships/On-the-Job Training**

PON 2033, originally released in June 2011, provided \$2.625 million to recruit entry-level workers, support businesses hiring Green Jobs Work Readiness graduates, and enhance standards for the NYS Registered Apprenticeship Programs and building trades programs, including weatherization and certified energy-efficiency technicians for GJGNY.

Through June 2013, NYSERDA made several modifications to PON 2033 to streamline the PON and add new opportunities. Category A, curriculum development funds for NYS Registered Apprenticeships and third-party accredited building trades programs, is fully expended and has been closed. As a result, the

PON was renamed On-the-Job Training for Clean Energy (OJT). Through the most recent modification of the PON, \$250,000 in GJGNY funds and \$500,000 in Systems Benefit Charge (SBC) funds were added, and the solicitation due date was extended from December 31, 2013 to December 31, 2014. With the addition of System Benefits Charge (SBC) funds, NYSERDA can offer OJT support to clean energy contractors doing business under EEPS and SBC programs. GJNY and SBC activities under PON 2033 are tracked separately.

Under Category A, NYSERDA contracted with a total of five training providers (LaGuardia Community College, The Urban League of Rochester, Local 32 BJ, Urban Green Council, and Solar One) to develop and deliver energy efficiency training ranging from basic weatherization and construction through more advanced training such as Green Professional (GPRO) for union plumbers. Training providers are under contract to train a total of 765 individuals, of which 159 (21 percent of the total goal) have been trained to date. Training providers will continue offering classes through summer 2014.

Under Category B, NYSERDA has executed on-the-job training agreements with 39 businesses seeking to hire new employees or advance incumbent workers under GJGNY. As of June 30, 2013, 143 people have been hired from NYSDOL's Career Center lists, and 12 incumbent workers have been advanced due to training. Approximately \$1.2 million in wage and training subsidies have been awarded. The average wage of workers hired is \$16.35 per hour.

Under the OJT incentive, businesses can receive reimbursement for 50 percent of the wages that they pay the employee during training, with a maximum award per trainee of \$15,000 and a maximum award per business of \$150,000. Businesses are also eligible for \$4,000 per trainee for off-site classroom training, up to a total of \$30,000. Additional information on the success of this initiative is provided in Section 4.

#### **4.1.7 RFP 2034: Green Jobs-Green New York: Curriculum Inventory, Assessment, and Curriculum Updates**

RFP 2034, issued in July 2010, offered \$475,000 to conduct a curriculum inventory, contractor needs assessment, and curriculum updates. The curriculum inventory and contractor needs assessment were awarded to Pace University, which has now completed a final draft report to be issued in fall 2013. Under the competitive solicitation, there were no fundable proposals for the curriculum update component. It was decided that the curriculum inventory and contractor needs assessment report would be utilized, over the long term, to inform future curriculum development needs as they arise under GJGNY or SBC-funded workforce development initiatives.

According to the draft Pace report, employers working in the GJGNY Program report difficulty finding adequately trained workers. The addresses employer needs, as well as the gaps that exist between employer needs and worker training. Through research, data analysis, new surveys and focus groups, the research team determined that employers seek workers with both general and green-job-specific skills. Employers prefer on-the-job training—an instructional method infrequently used across training providers surveyed. Pace also conducted an employer needs assessment to determine what skills, occupations, and training are required by employers throughout the state. Through focus groups and a telephone survey with industry, educational professionals and stakeholders, including trade unions and constituency-based organizations, additional information was gathered about employer needs as they relate to GJGNY.

## **4.2 Coordination with New York State Department of Labor (NYSDOL)**

### **4.2.1 NY Youth Works**

Under the 2012 Consolidated Funding Application (CFA), NYSERDA provided \$455,700 in GJGNY funds to support NYSDOL training and job placement initiatives that support the goals of the GJGNY Act.

- The Urban League of Rochester was awarded \$204,700 for its YouthBuild hands-on construction and green-building training, building science, and pre-apprenticeship certificate training developed by the Home Builders Institute. As of June 30, 2013, 60 individuals have been trained, and 23 of those individuals have been placed in a paid internship.
- Northeast Parent and Child Society was awarded \$108,000 for its Green Energy Sales and Education and Energy Efficiency, Building and Air Sealing, Energy Auditor, Building Analyst trainings. As of June 30, 2013, 7 individuals have been trained.
- Henkels & McCoy, Inc. was awarded \$143,000 in support of their green construction training entitled “Your Role in the Green Environment” incorporating National Center for Construction Education and Research Certificates, and LEED rating system. As of June 30, 2013, 84 individuals have been trained.

### **4.2.2 Other Coordination with NYSDOL**

NYSDOL continues to work with Pace University to review GJGNY report findings and to provide additional quantifiable data when it is required. NYSDOL representatives have reviewed the final draft report and have vetted data from focus groups and telephone surveys. The final Pace skills gap analysis report will supplement the NYSDOL Green Jobs report issued in 2011.

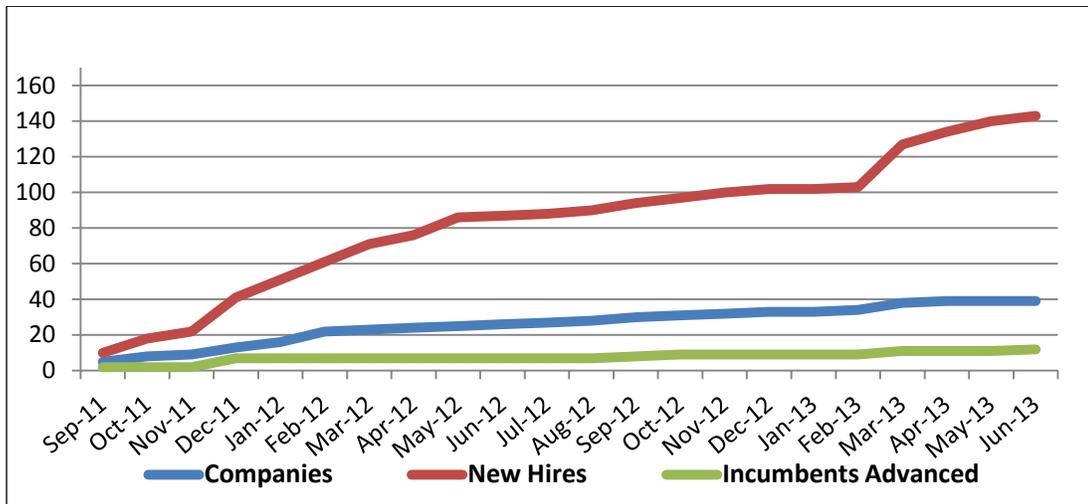
NYSERDA staff continues to work with NYSDOL to administer the highly successful PON 2033 OJT incentive program and to look for innovative ways to support contractors participating in GJGNY. NYSDOL Business Services Representatives work with businesses to determine hiring needs, collect business information and draft OJT plans, and to conduct site visits to ensure that hires are doing the work described in the OJT plan.

## 4.3 On-the-Job Training Impacts

### 4.3.1 Overview

Under the GJGNY Operating Plan, the WFD program is directed to advance the skills of new workers, provide job-related experience, and help connect new workers to the marketplace. Nowhere has the connectivity between trained individuals and employers seeking to hire been clearer than under PON 2033, On-the-Job Training for Clean Energy (OJT). Since its release in June 2011, participation has been steady and OJT continues to gain traction. The program has been well received by businesses that otherwise would not have hired and trained new staff. An example of the direct impact of OJT is demonstrated in Appendix C. The incentive has allowed NYS businesses to grow and advance in a challenging economy. Working with 39 businesses as of June 30, 2013, PON 2033 has facilitated the hire and training of 143 new energy efficiency and solar thermal workers and the advancement of 12 incumbent workers. Figure 4-1 provides a frequency distribution of OJT hires.

**Figure 4-1. PON 2033 OJT Hires, as of June 30, 2013.**

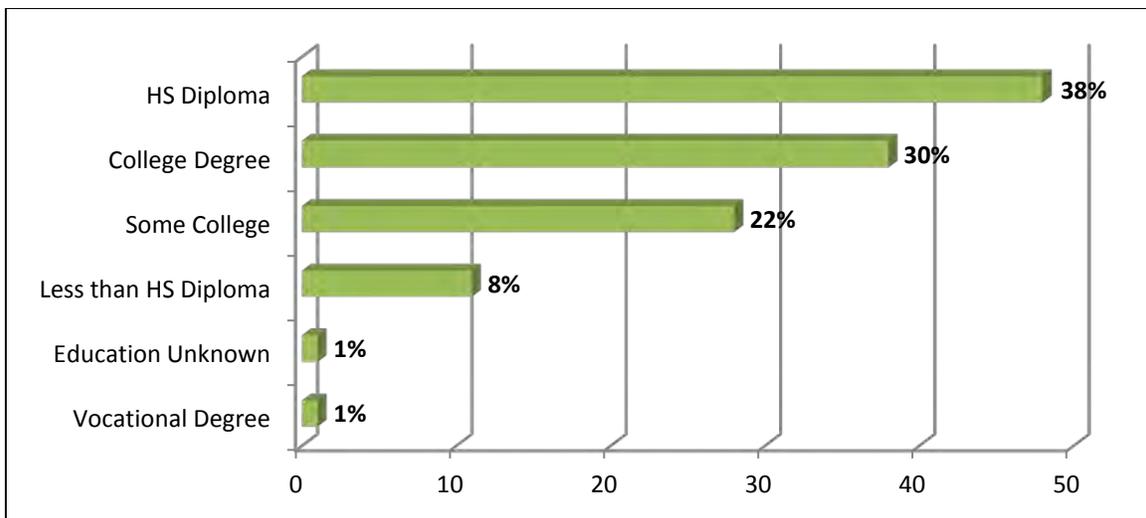


### 4.3.2 OJT Demographics

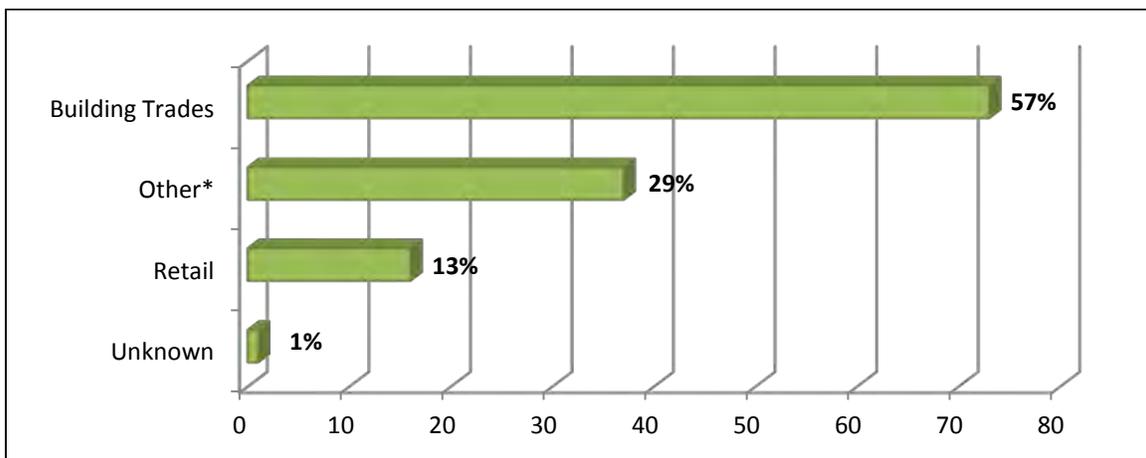
Among workers hired through the incentive program, 68 percent do not have a college degree. The energy efficiency and solar thermal industries present an opportunity for entry level workers, often with little or no formal training, to begin a career in which they can grow and advance professionally. Thirty percent of those hired reported that they have earned an Associate's Degree or higher. Many new hires, particularly those working in technical sales positions, are able to apply skills learned through formal education.

In looking at the prior work experience of PON 2033 hires, more than one-third of participants have experience in the construction trades. Often, employers rely more heavily on prior work experience than the education level of new hires. Familiarity with construction technologies allows workers in the fields of energy efficiency and solar thermal installation to hit the ground running with limited on-the-job training or classroom training required to begin functioning independently and effectively in their new position. Interestingly, 22 percent of those hired reported prior experience in retail and sales. Employers report that hires with retail experience are good at communicating with customers and can be trained in energy-specific sales. Figure 4-2 distinguishes OJT hire demographics by educational level, and Figure 4-3 distinguishes OJT hire demographics by prior work experience.

**Figure 4-2. PON 2033 OJT Hire Demographic, by Education Level.**



**Figure 4-3. PON 2033 Hire Demographic, by Prior Work Experience.**



\*Other experience includes: Healthcare, trucking, cable installation, maintenance, counseling, manufacturing, clerical, and food service.

## **4.4 Clean Energy Workforce Development and Education Conference**

The fifth national Clean Energy Workforce Education Conference was held November 13-15, 2012 in Albany, NY. NYSERDA was the primary sponsor of the conference, and provided \$130,000 in funding.

The conference, which attracted more than 300 attendees, consisted of two days of sessions and a pre-conference day of technical workshops. A series of side meetings and events also took place. The conference included three plenary sessions and 21 breakout sessions. There were five workshops, 20 exhibitors, and three media partners.

Conference sessions covered topics such as strategies for training, the value of consortia and partnerships, community-focused training, workforce for the smart grid, and clean energy job forecasts and myths. Single-topic sessions included discussions on policy impacts on the workforce, building industry standards, planning for the future renewable energy market, creating a benchmark for quality, and green career lattices.

Over the three days of the conference, more than 80 presenters shared the latest instructional strategies and practices in clean energy education. Pre-conference workshops covered photovoltaic codes, solar heating, energy management and training, and third-party assessment. NYSERDA staff who participated and attended garnered valuable input for workforce training program planning and made connections with experts from across the country in the clean energy training field.

## **4.5 Workforce Training and Development Budget**

Table 4-1 provides the Workforce Development budget.

**Table 4-1. Workforce Development Budget.**

<b>Component</b>	<b>Budget</b>	<b>Expended<sup>a</sup></b>	<b>Encumbered<sup>b</sup></b>	<b>Committed<sup>c</sup></b>	<b>Balance</b>
Equipment and Training Infrastructure					
Contracts	\$1,905,730	\$589,651	\$965,684	\$258,589	\$91,806
Incentives	500,000	18,022	0	0	481,978
Certifications and Company Accreditation					
Contracts	500,000	119,352	130,647	0	250,001
Incentives	400,000	87,593	0	0	312,407
Apprenticeships/Internships	2,639,250	1,174,049	1,056,609	97,231	311,361
Curriculum	1,775,000	831,496	829,307	0	114,197
Conferences and Technical	280,020	223,665	56,335	0	20
<b>TOTAL</b>	<b>\$8,000,000</b>	<b>\$3,043,828</b>	<b>\$3,038,582</b>	<b>\$355,820</b>	<b>\$1,561,770</b>
<sup>a</sup>	Expended: Contractor Invoices and loans processed for payment by NYSERDA.				
<sup>b</sup>	Encumbered: Remaining funding obligated under a contract, purchase order, incentive award, or loan.				
<sup>c</sup>	Committed: Planned funding for contracts awarded and under negotiation; loans approved; and planned funding under active development through open solicitations with upcoming proposal due dates.				

## 4.6 Workforce Training and Development Contracts Entered Into

External contracts related to the implementation of the GJGNY Program are detailed in Table 4-2.

**Table 4-2. Workforce Training and Development Contracts Entered Into.**

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
<b>Apprenticeships/Internships</b>						
25493	ASI Renovation	PON 2033 OJT Incentive	\$49,071	\$37,223	\$11,848	\$0
25168	Coler Natural Insulations	PON 2033 OJT Incentive	7,280	7,280	0	0
25249	True Energy Solutions	PON 2033 OJT Incentive	45,344	43,653	1,691	0
25250	Classic Cozy	PON 2033 OJT Incentive	12,387	12,387	0	0
25251	Energy Savers, Inc.	PON 2033 OJT Incentive	6,700	6,700	0	0
25251-1	Energy Savers, Inc.	PON 2033 OJT Incentive	7,800	0	7,800	0
25258	The Radiant Store	PON 2033 OJT Incentive	36,780	25,636	11,144	0
25423	Prospect Development & Construction	PON 2033 OJT Incentive	20,000	20,000	0	0
25845	K&L Green Operations, LLC	PON 2033 OJT Incentive	130,448	84,797	45,651	15,600
26200	CNY Solar, Inc.	PON 2033 OJT Incentive	7,280	7,280	0	0
25906	Apex Engineering	PON 2033 OJT Incentive	49,302	22,376	26,926	0
26078	Home Energy Consultants	PON 2033 OJT Incentive	6,500	5,277	1,223	0
26371	CNC COATIN-001	PON 2033 OJT Incentive	10,000	10,000	0	0
26642	Radiant Drywall & Insulation Corp.	PON 2033 OJT Incentive	39,400	34,808	4,592	0
27524	Mirabito Holdings	PON 2033 OJT Incentive	7,020	0	7,020	0

**Table 4-2 (continued)**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed</b>
27904	Urban League of Rochester	PON 2033 Cat. A Curriculum Development	100,000	43,947	56,053	0
27523	Dundon Insulation	PON 2033 OJT Incentive	9,240	5,077	4,164	2,240
27518	Dunn Electric Supply Corporation	PON 2033 OJT Incentive	7,139	0	7,139	0
27519	Halco Renewable Energy	PON 2033 OJT Incentive	59,000	51,341	7,659	0
27520	Kalex Energy Company	PON 2033 OJT Incentive	10,056	2,813	7,243	0
27521	NY Homeowners Construction Co.	PON 2033 OJT Incentive	15,840	3,899	11,941	0
27974	New Buffalo Impact, Inc.	PON 2033 OJT Incentive	46,228	30,733	15,495	0
27971	Opportunities for Otsego	PON 2033 OJT Incentive	5,507	5,507	0	0
28270	All Star Energy	PON 2033 OJT Incentive	9,930	9,814	116	0
28407	Foam-It Insulation	PON 2033 OJT Incentive	32,004	32,004	0	18,287
28269	Standard Insulating Company, Inc.	PON 2033 OJT Incentive	30,288	13,149	17,138	0
29403	Local 32BJ	PON 2033 Cat. A Curriculum Development	289,245	77,403	211,842	0
29437	Tech Home Electric	PON 2033 OJT Incentive	13,425	5,894	7,531	0
29684	Home Performance Technologies, Inc.	PON 2033 OJT Incentive	66,143	30,457	35,686	0

**Table 4-2 (continued)**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed</b>
29904	Integral Building & Design, Inc.	PON 2033 OJT Incentive	53,774	49,016	4,758	0
29903	Ecologic Home	PON 2033 OJT Incentive	10,400	10,400	0	0
30809	JERRITT-001	PON 2033 OJT Incentive	15,440	9,889	5,551	0
30810	Ivy Lea Construction	PON 2033 OJT Incentive	46,866	29,866	17,000	0
30999	Energy Management Solutions, LLC	PON 2033 OJT Incentive	106,840	74,845	31,995	0
32119	Buffalo Energy, Inc.	PON 2033 OJT Incentive	31,200	23,400	7,800	0
32725	New York State Foam Energy	PON 2033 OJT Incentive	28,405	6,901	21,504	0
32171	New York Energy Consultants	PON 2033 OJT Incentive	9,100	4,642	4,458	0
33911	LaGuardia Community College	PON 2033 Cat. A Curriculum Development	124,970	0	124,970	0
33364	Northeast Parent and Child Society	PON 2033 OJT Incentive	37,457	0	37,457	0
33384	Pennbrook Energy	PON 2033 OJT Incentive	16,700	6,000	10,700	0
34356	Global Dwelling	PON 2033 OJT Incentive	15,000	4,913	10,087	0
34262	J Synergy Green INC	PON 2033 OJT Incentive	15,000	0	15,000	48,504
28501	Solar One	PON 2033 Cat. A Curriculum Development	122,125	105,150	16,975	0
28791	Cleantech Rocks	Work for Hire Activity- Survey	14,250	14,250	0	0

Table 4-2 (continued)

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
32594	NYS Department of Labor	NYSDOL NY Youth Works Program	455,700	207,250	248,450	12,600
Vouchers	NA	Certification and Accreditation (funds reclassified)	0	-1,925	0	0
<b>TOTAL APPRENTICESHIPS/INTERNSHIPS</b>			<b>\$2,232,582</b>	<b>\$1,174,049</b>	<b>\$1,056,609</b>	<b>\$97,231</b>
<b>Certification and Company Accreditation</b>						
18165	North American Board	Clean Energy Technology Training	200,000	69,353	130,647	0
19844	NABCEP	PO for company accreditation	49,999	49,999	0	0
Vouchers	NA	Certification and Company Accreditation	0	87,593	0	0
<b>TOTAL CERTIFICATION AND COMPANY ACCREDITATION</b>			<b>\$249,999</b>	<b>\$206,945</b>	<b>\$130,647</b>	<b>\$0</b>
<b>Conferences and Technical</b>						
22983	Building Performance Contractors Association (BPCA)	Contractor Exchange Workshops	150,020	150,000	0	0
ST9991-7	IREC	TWOP 7	130,000	73,665	56,335	0
<b>TOTAL CONFERENCES AND TECHNICAL</b>			<b>\$280,020</b>	<b>\$223,665</b>	<b>\$56,335</b>	<b>\$0</b>

**Table 4-2 (continued)**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed</b>
<b>Curriculum</b>						
25095	Community Power Network	PON 1816 Open Enrollment	290,173	194,787	95,386	0
24793	Green Light NY	PON 1816 Open Enrollment	10,875	10,875	0	0
25687	RESEARCH F-003	PON 1816 Open Enrollment	159,313	10,259	149,054	0
24917	RESEA-001	PON 1816 Open Enrollment	102,865	0	102,865	0
32692	Building Performance Contractors Association (BPCA)	PON 2032 Technical Training	50,601	1,582	49,020	0
22987	SUNY Canton	PON 2011 Solar Thermal Training	125,000	25,370	99,630	0
22937	Northern Manhattan Improvement Corp.	PON 1816 Open Enrollment	50,000	50,000	0	0
22989	Solar One	PON 1816 Open Enrollment	75,574	75,574	0	0
23883	The Outsource Center	PON 1816 Open Enrollment	40,567	40,567	0	0
26392	Syracuse University	PON 1816 Open Enrollment	24,047	24,047	0	0
22504	Sullivan County BOCES	PON 2011 Solar Thermal Training	48,000	649	47,352	0
22486	Ulster County BOCES	PON 2011 Solar Thermal Training	52,000	0	52,000	0

Table 4-2 (continued)

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
23182	Monroe Community College	PON 2011 Solar Thermal Training	75,000	60,846	14,154	0
24981	Pace Energy and Climate Center	PON 2034 GJGNY Needs Assessment	275,000	155,577	119,423	0
33907	ARTHUR C-001	Curriculum Gap Assessment	24,000	0	24,000	0
31203-1	Solar One	PON 2032 Technical Training	149,464	73,041	76,423	0
24317	CONSERVATI-001	GJGNY Training and Implementation	108,324	108,324	0	0
<b>TOTAL CURRICULUM</b>			<b>\$1,660,803</b>	<b>\$831,496</b>	<b>\$829,307</b>	<b>\$0</b>
<b>Equipment and Training Infrastructure</b>						
31339	Institute for Building Technology and Safety	PON 2032 Technical Training	336,548	32,450	304,098	0
32584	Northeast Parent and Child Society	PON 2032 Technical Training	147,355	8,877	138,478	0
32404	NYS Weatherization Director's Association	PON 2032 Technical Training	179,934	18,503	161,431	139,718
32692	Building Performance Contractors Association (BPCA)	PON 2032 Technical Training	99,385	3,106	96,278	

**Table 4-2 (continued)**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed</b>
TBD	Building Performance Contractors Association (BPCA)	PON 2032 Technical Training	0	0	0	118,871
25685	NYS DEPART-010	Smart Board Equipment and Training	46,000	46,000	0	0
25339	Meeting Industry Experts (MIE)	Meeting Planning Services	13,610	160	13,450	0
29503	Clinton Community College	PON 1816 GJGNY Lab Houses	134,045	0	134,045	0
30034	GREEN JOBS-001	PON 1816 GJGNY Lab Houses	109,185	69,215	39,971	0
29067	NORTHEAST-008	PON 1816 GJGNY Lab Houses	143,117	86,863	56,254	0
29533	INTEGRAL B-002	PON 1816 GJGNY Lab Houses	285,088	269,549	15,539	0
26589	AUDIO-001	Smart Board Equipment and Training	23,136	23,136	0	0
31203-1	Solar One	PON 2032 Technical Training	12,005	5,867	6,138	0

**Table 4-2 (continued)**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed</b>
19822	Building Performance Contractors Association (BPCA)	Survey to past HPwES participants	25,000	25,000	0	0
Vouchers	NA	Equipment Incentive	0	18,022	0	0
SPOs	Watts and Water	Tandberg System	896	896	0	0
SPOs	Photo Video Productions Inc.	Video Duplication	31	31	0	0
			<b>\$1,554,408</b>	<b>\$607,674</b>	<b>\$965,683</b>	<b>\$258,589</b>
<b>Summary</b>						
<b>GRAND TOTAL</b>			<b>\$5,977,813</b>	<b>\$3,043,828</b>	<b>\$3,038,582</b>	<b>\$355,820</b>

## 5 Outreach and Marketing

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GJGNY provides for community-based outreach, enabling one-to-one assistance with the process of participating in the program. This community-based approach, combined with statewide marketing, is expected to increase the reach of the program, particularly among disadvantaged populations and those not traditionally participating in energy-efficiency programs. Although one-to-one assistance can be a more expensive form of marketing, reaching households with limited incomes who otherwise might not participate and enabling them to permanently reduce their energy bills, as well as improve health effects, comfort and home safety, provides both personal and societal benefits.

### 5.1 Outreach through Constituency-based Organizations (CBO)

The GJGNY program provides outreach services in targeted communities through CBOs, which locate residents, businesses, not-for-profits (NFP), multifamily building owners, and potential workforce participants. CBOs encourage participation in energy efficiency programs, facilitate awareness of workforce training opportunities available through the GJGNY program, and assist with enrollment in those efforts. Eighteen CBOs were selected to implement the program. Table 5-1 lists CBOs working in the program, along with the sectors targeted and an indication of whether they have a workforce component or an aggregation pilot.

**Table 5-1. CBOs Selected through RFP 2038 and RFP 2327.**

Target Region	CBO Name	Outreach Activity				Aggregation
		One- to Four-Family Residential Buildings	Multifamily Performance	Small Commercial Energy Efficiency	Workforce Training and Development	
<b>Downstate</b>						
Bronx	Northwest Bronx Community and Clergy Coalition (NBCCC)				X	
	Bronx Overall Economic Development Corporation (BOEDC)	X	X	X		

**Table 5-1 (Continued)**

Target Region	CBO Name	Outreach Activity				Aggregation
		One- to Four-Family Residential Buildings	Multifamily Performance	Small Commercial Energy Efficiency	Workforce Training and Development	
Kings and Richmond	Neighborhood Housing Services of Staten Island (NHS –Staten Island)	X			X	
	El Puente	X	X	X		
	Make the Road	X	X		X	
New York	Downtown Manhattan Community Development Corporation (DMCDC)		X		X	
	Civic Association Serving Harlem (CASH)	X	X			
Queens	Asian Americans for Equality Community Development Fund (AAECDF)	X			X	
	Neighborhood Housing Services of Jamaica (NHS- Jamaica)	X				

**Table 5-1 (Continued)**

Target Region	CBO Name	Outreach Activity				Aggregation
		One- to Four-Family Residential Buildings	Multifamily Performance	Small Commercial Energy Efficiency	Workforce Training and Development	
<b>Upstate</b>						
Capital	Northeast Parent and Child Society (NPCS)				X	
	Affordable Housing Partnership of the Capital Region (AHP-Capital Region)	X				
Central	Public Policy and Education Fund of Central New York (PPEF-Central NY)	X		X	X	
Finger Lakes	Pathstone	X		X	X	
Long Island	Long Island Progressive Coalition (LIPC)	X				X
Mid-Hudson and Westchester	Rural Ulster Preservation Company (RUPC)	X		X	X	
North Country	Adirondack North Country Association (ANCA)	X	X	X	X	

**Table 5-1 (Continued)**

Target Region	CBO Name	Outreach Activity				Aggregation
		One- to Four-Family Residential Buildings	Multifamily Performance			
Southern Tier	Public Policy and Education Fund of the Southern Tier (PPEF-Southern Tier)	X		X	X	
Western	People United for Sustainable Housing (PUSH)	X	X		X	X

General highlights from the Outreach program include:

- CBOs are reaching multilingual markets for recruitment into Home Performance and workforce development. Downtown Manhattan Community Development Corporation (DMCDC) has translated the Material Procurement Training and Building Operator Training curriculum into Mandarin and Simplified Chinese. In June 2013, DMCDC delivered both English and Chinese Building Performance Institute Green Building Operator training.
- CBOs are leveraging other state, federal, and local funds (Land Trust, FEMA) to complete Home Performance work.
- Aggregation pilots are bringing new ways of reaching customers into the program while enhancing community benefits through hiring practices and wage standards.
- CBOs are providing area-specific, NYSERDA-approved contractor lists to facilitate the homeowner’s contractor selection process.
- CBOs are attending local events such as 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.
- GJGNY loans are used for 47 percent of CBO-initiated projects, compared to 40 percent program wide. Tier 2 loans account for 7 percent of CBO projects, compared to 11 percent program wide.
- CBOs are developing a network of successful partnerships.
  - Neighborhood Housing Services of Staten Island (NHS-SI) is working with a core group of Home Performance contractors on Staten Island to address homes impacted by Hurricane Sandy.
  - Long Island Progressive Coalition (LIPV) is working with Suffolk County Veteran's Association (SCVA) and Clubhouse of Suffolk County (CSC) to retrofit NFP-owned dwelling units occupied by Assisted HPwES eligible residents.

- CBOs are winning the approval of local government and community leaders. These endorsements validate the program at the community level. Examples of this type of coordination include:
  - People United for Sustainable Housing (PUSH) has partnered with Buffalo City Councilman Michael LoCurto to raise awareness of Home Performance with a targeted letter writing initiative. A similar constituent mailing campaign with New York State Assemblyman Sean Ryan is being planned as well.
  - Affordable Housing Partnership of the Capital Region (AHP) has worked with the Mayor's Office of Energy and Sustainability to distribute energy efficiency informational inserts along with water bills distributed to residents of the City of Albany.

### **5.1.1 Training and Implementation Contractor**

Conservation Services Group (CSG) was selected as the GJGNY Training and Implementation Contractor (TIC). The TIC provides structured training and support for the CBOs. In addition, the TIC provides geographic coordination and support of CBO Outreach programs, enabling effective communication across all regions. CSG tracks CBO goals in order to assess and fulfill CBO needs. While tracing progress of referrals made to GJGNY, the CSG gathers data and provides regular reporting of program activities and results to NYSERDA. Over the last year, CSG assisted with the following tasks:

- Ongoing training of CBOs participating in the program. Training occurs via monthly webinar/conference calls, monthly downstate meetings, and various training programs/webinars to assist CBOs with program updates and changes.
- Assisting NYSERDA with the execution and tracking of the CBO Outreach Program.
- Hosting and maintaining the CBO SharePoint Portal.
- Continual reinforcement of Outreach program procedures and protocols.
- Oversight and guidance to the active aggregation pilots in Western and Long Island regions.
- Ongoing assistance to CBOs with the CBO SharePoint Portal, NYSERDA's Comprehensive Residential Information system (CRIS), and dissemination of NYSERDA program information and changes.

### **5.1.2 SharePoint Portal**

To support the CBO outreach effort, a SharePoint Portal was developed that serves as a central communication tool and reporting mechanism for participating organizations. The site is password protected and accessible to NYSERDA staff, CSG, CBOs, and NYSERDA's marketing contractor (Brand Cool).

The SharePoint Portal enables CBOs to access and download program information and materials, to upload information such as reports and leads, and to converse about the program and its deployment. The site is a critical tool for the implementation of the GJGNY Outreach Program. CSG worked with NYSERDA to ensure the information gathered from CBOs on the site integrates with the Comprehensive Residential Information System (CRIS) programmatic database system. CBOs are required to report and track leads, audits, and retrofits in the CRIS system.

The CBO SharePoint Portal is being used as a central communication area to support participating CBOs, allowing program staff and CBOs to do the following:

- Use the Document Library to share documents such as materials and presentation slides from the training sessions, recorded webinars, aggregation documents, reporting and invoicing templates, and approved marketing language and logos.
- Download files to be saved to a local computer.
- Upload new documents such as press releases, web copy, and marketing materials for review with appropriate permissions.
- Participate in a real time, public group discussion board created to provide a venue for online discussions and to promote an open dialogue among CBOs.
- Post internal announcements such as training classes, upcoming webinars, programmatic updates, and multimedia resources available to assist CBOs in their outreach efforts.
- Post categorized links to a variety of online resources such as NYSERDA documents and programmatic information.

In early 2013, a new SharePoint feature, the CBO Concern Tracker, was made available. Rather than email or call a representative from NYSERDA or the TIC (CSG or Pratt), CBOs are encouraged to log online any constituent program issues such as questions relating to HPwES workscopes or Comprehensive Home Assessment reports.

Appropriate TIC and NYSERDA staff members are automatically notified of the issues so that they can receive immediate follow-up attention from the appropriate CSG or NYSERDA staff member.

In most cases, CSG or NYSERDA intervene only to provide guidance or advice to the CBO; however, the CBO Concern Tracker allows the TIC to maintain a log in a central location of all new, open, and closed issues raised. Relevant concerns requiring HPwES program involvement are discussed at the CSG HPwES weekly customer concern meetings.

### **5.1.3 CBO Training and Monthly Webinars**

NYSERDA provides monthly training to CBOs via a series of webinars that provide CBOs with regular program updates, information on best practices, and other necessary information. During the reporting period, Outreach and Marketing conducted 12 webinars. Details about webinar topics can be found in Appendix D. All training presentations and materials are available on the CBO SharePoint Portal for review and as a refresher for staff, as necessary.

## 5.1.4 Aggregation

Aggregation is the process of unifying a collection of eligible homeowners, brought to the GJGNY program by a CBO under contract with NYSERDA to perform customer outreach services, who have agreed in advance to use the same contractor or contractor team to perform audits and retrofit work. Aggregation provides benefits to the homeowner, such as lower costs through standardized pricing and a simplified participation process. Aggregation also provides benefits to contractors by reducing costs associated with travel and marketing, allowing more efficient use of crews and bulk material purchases and providing a ready audience of potential leads. This process benefits the targeted community by creating employment for local residents. Additionally, aggregation complements ongoing market transformation efforts by expanding awareness, increasing education, and reaching populations not currently responding to programs.

Each CBO participating in the Aggregation Pilot has created a plan identifying the neighborhoods to target, minimum number of households to be included in the aggregation, strategies to provide pricing economies of scale, processes for assigning aggregations to participating Home Performance contractors, timelines for contractors to complete work, and fulfilling other aspects of the pilot. Contractors interested in providing services to an aggregated group of households and benefiting from receiving a list of pre-screened customers located within a small area must also agree to provide community benefits, such as local hiring, employee training, or providing living wages, in exchange for participating. The nature of the community benefits is unique to each region and is developed by the CBOs in coordination with regional contractors.

Aggregation pilots are being implemented by two of the 18 participating CBOs, People United for Sustainable Housing (PUSH) and Long Island Progressive Coalition (LIPC). One other CBO, Public Policy and Education Fund (PPEF)-Central NY, initiated a pilot but ceased implementation after several months to devote their effort to general outreach. NYSERDA began processing GJGNY Audit Applications for aggregation projects on May 14, 2012 in preparation for the official launch of the Aggregation Pilot in Erie County and Long Island.

CSG, the training and implementation contractor, assists NYSERDA with general oversight of the CBO aggregation program and works with NYSERDA to track how aggregation is being deployed and managed by participating CBOs throughout the state. CSG also monitors participating CBO protocols and procedures for aggregation implementation, providing NYSERDA updates on how the protocols and procedures are working in the field, in addition to assisting them with this process by providing training and support.

As of June 30, 2013, the following HPwES contractors are active in the GJGNY Aggregation Pilot program:

- Long Island Region - Long Island Progressive Coalition (LIPC):
  - Best Built Contracting, Ltd.
  - Community Environmental Center, Inc.
  - Home Performance Technologies.
  - K and L Green Operations LLC dba Powersmith.
- Western Region - People for Sustainable Housing (PUSH):
  - Acumen Insulation and Coatings.
  - Buffalo Energy.
  - Cortese Brothers Construction, Inc.
  - EcoLogic Home.
  - Frank's Dr. Energy Saver.
  - Ivy Lea Construction, Inc.
  - New Buffalo Impact, Inc.
  - Warm and Fuzzy Home Heating and Cooling.

LIPC's aggregation pilot was launched officially on July 9, 2012 after months of planning and establishing relationships with their aggregation contractors. As of June 30, 2013, there are 82 customers within 15 aggregation clusters. Of these clients, 49 have completed their comprehensive home energy assessments, and there are 24 Home Performance Work Approved projects.

PUSH is marketing their aggregation program, which is called the PUSH Green Friends and Neighbors Program (PUSH Green). PUSH Green held their contractor lottery on June 11, 2012 and assigned the first three aggregation bundles. As of June 2013, 220 customers were assigned aggregation IDs in 23 separate clusters. Approximately two thirds of these customers (141 individuals) have since completed audits on their homes. Of these projects, 38 have received program approval and are considered retrofits.

NYSERDA worked with two other CBOs, RUPCO in the Mid-Hudson/Westchester region and Pathstone in the Finger Lakes Region, to explore the deployment of an aggregation pilot. However, given the timing of the current contracts, which will expire by December 2013 and March 2014 respectively, both decided to focus their efforts on general outreach. It is intended that the two projects currently underway be used to inform other CBOs of the opportunities and challenges associated with aggregation, as well as the degree of success being achieved, so that other CBOs can decide whether to pursue this option. In addition, NYSERDA will analyze the results of the pilots to determine to what degree the original goals for customer benefits, contractor benefits, and community development are being achieved.

### **5.1.5 Workforce Development**

CBOs facilitate awareness of the various GJGNY training programs, partners, and initiatives, connect students and workers to appropriate training opportunities including on-the-job training, and assist with educating trainees about career steps and opportunities for employment and advancement. The CBO Workforce Training outreach effort targets areas with high populations of minorities, low-income

individuals, and populations with barriers to employment. When possible, CBOs coordinate with New York State Department of Labor (NYSDOL) Career Centers to leverage other federal and state training resources and to identify employment opportunities.

CBOs also support the continued growth of a strong foundation of accredited contractors, including minority and women-owned business enterprises, and encourage workers to leverage training opportunities currently in place. CBOs provide specific program information including: types of workforce training opportunities, names of organizations or other entities providing training, contractors and trade organizations providing on-the-job training opportunities, dates and other schedules, contacts, and processes for enrollment or participation.

Several of the CBOs have had significant successes with their workforce development activities.

Downtown Manhattan Community Development Corporation (DMCDC) delivered both English and Chinese Building Performance Institute (BPI) Green Building Operator training in June 2013. The initial two-week sessions were focused on basic building science and operation, building envelope, lighting, and heat transfer process. The remaining sessions will be delivered in July 2013, focusing on heating systems. DMCDC recruited 12 students for the English session and 10 students for the Chinese session. Northeast Parent and Child Society (NEPC) has reported that 93 workers have completed training. An additional 22 trainees are still enrolled in courses. NEPC reported 86 of the workers that have completed training have been connected to contractors.

Adirondack North Country Association (ANCA) is working with the Workforce Development Institute (WDI) in the North Country. Workforce Development Institute (WDI), in conjunction with State University of New York (SUNY)-Canton, Institute for Building Technology and Safety (IBTS), and the Building Performance Contractors Association of NY (BPCA), have been working together to raise awareness of GJGNY. These organizations have been reaching out to contractors in the North Country and informing them of the HPwES program while also encouraging the firms to become accredited with the Building Performance Institute (BPI). Several BPI training dates were established at SUNY Canton. Additional workforce development outreach opportunities were also conducted. For example, the CBO provided support to IBTS, which participated in a daylong event at the Fort Drum military base. The event illustrated to veterans and soldiers planning their retirement from the military the benefits of the home performance field and becoming BPI-certified.

Long Island Progressive Coalition (LIPC) is working with United Way YouthBuild to educate graduates on career opportunities in the HPwES program by conducting presentations with a local Long Island solar provider. Additionally, the CBO helped facilitate a partnership between the solar company and the alumni coordinator at United Way for a list of qualified candidates. Contractors have continued to alert LIPC of

job openings prior to posting on job listing websites, which has further bolstered the CBO's workforce development efforts.

### 5.1.6 Summary of CBO Program Statistics

Table 5-2 provides a summary of HPwES program activities by CBO for the one- to four-family sector as of June 30, 2013.

**Table 5-2. HPwES Activity Summary by CBO.**

<b>CBO Name</b>	<b>HP Applications Received</b>	<b>HP Audits Completed</b>	<b>HP Work Approved (number of jobs)</b>	<b>HP Completed Retrofits</b>	<b>Conversion Rate</b>
<b>Downstate</b>					
NBCCC	Workforce development activities only				
BOEDC	119	79	9	6	15%
NHS - Staten Island	132	90	11	6	20%
EI Puente	19	13	3	1	60%
Make the Road	6	5	0	0	0%
Downtown Manhattan CDC	Multifamily activities only				
CASH	1	1	0	0	0%
AAECDF	41	28	5	5	45%
NHS - Jamaica	149	78	14	11	32%
<b>Upstate</b>					
NPCS	Workforce development activities only				
AHP - Capital Region	387	182	59	45	49%
PPEF - Central NY	310	182	13	9	13%
Pathstone	156	102	26	21	36%
LIPC	323	204	88	78	57%
RUPC	720	481	90	73	32%
ANCA	175	105	22	15	42%
PPEF - Southern Tier	973	652	109	98	27%
PUSH	508	278	78	51	54%
<b>TOTAL</b>	<b>4151</b>	<b>2535</b>	<b>527</b>	<b>419</b>	<b>35%</b>

Figure 5-1 illustrates the location of Home Performance with Energy Star audit completions and approvals resulting from GJGNY CBO outreach activity by New York State county.

**Figure 5-1. HPwES Audit Completions and Approvals by County, as of June 30, 2013.**

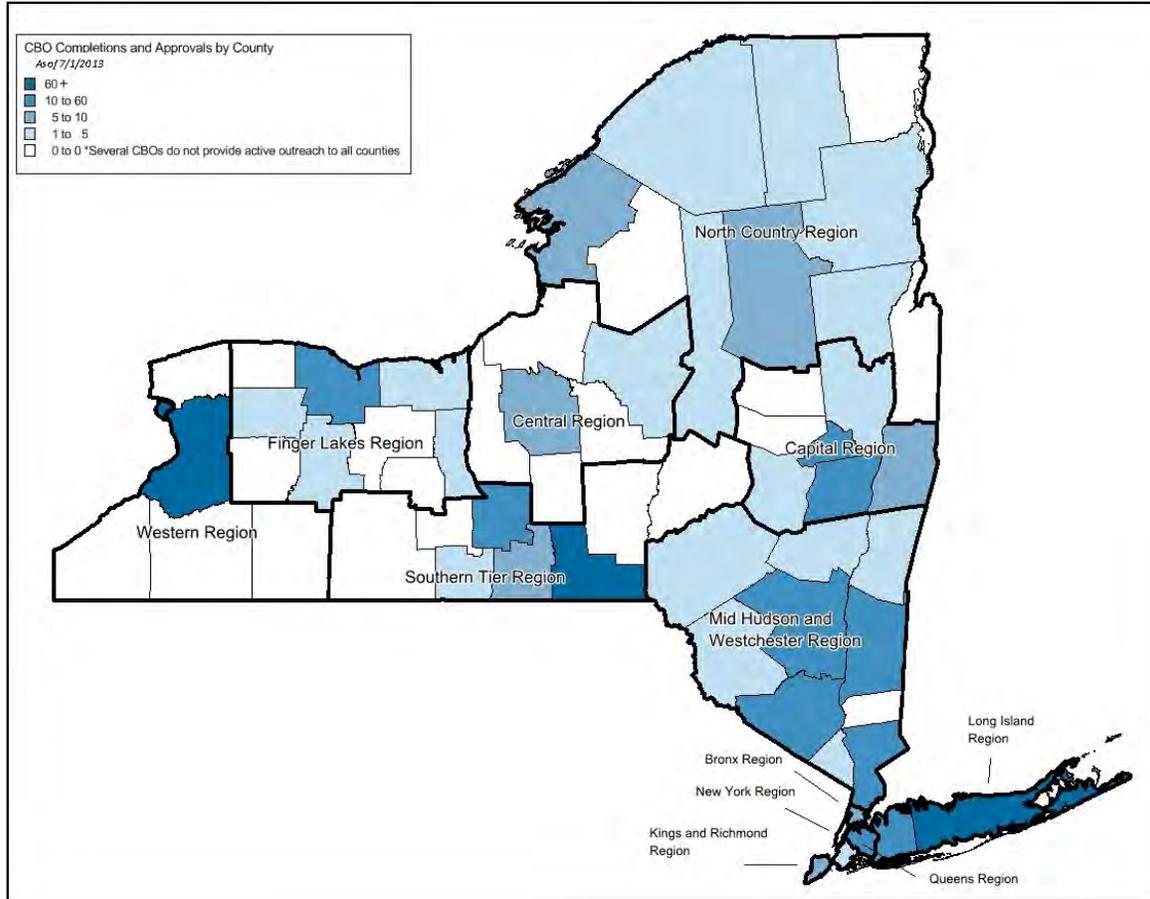


Table 5-3 and Table 5-4 provide a summary of outreach activities for the multifamily and small commercial sectors through June 30, 2013. Table 5-5 provides a summary of outreach activities supporting workforce development initiatives, such as recruiting new trainees or encouraging contractors to participate in the on-the-job training opportunities, through June 30, 2013.

**Table 5-3. Multifamily Performance Program Activity Summary by CBO.**

<b>CBO Name</b>	<b>SharePoint Leads*</b>	<b>Completed Energy Reduction Plans ( Number of buildings)</b>	<b>Energy Reduction Plans in Progress**</b>
ANCA	1	0	0
BOEDC	0	0	0
DMCDC	79	25	11
El Puente	52	0	0
PathStone	1	0	0
PUSH	0	0	0
RUPCO	41	0	0
Make the Road	278	0	0
<b>TOTAL</b>	<b>452</b>	<b>25</b>	<b>11</b>
<p>* SharePoint Leads are individuals who have received information on NYSERDA programs through CBO outreach activities.</p> <p>** Confirmed by CBO through a follow-up visit/call to the customer.</p>			

**Table 5-4. Small Commercial Energy Efficiency Activity Summary by CBO.**

<b>CBO Name</b>	<b>SharePoint Leads*</b>	<b>Completed Audits</b>	<b>Completed Retrofit</b>	
			<b>NYSERDA Financing/ On-Bill Recovery</b>	<b>Eligible Measures Installed Without Claiming Incentives or Financing**</b>
AHP	1	0	0	0
ANCA	48	27	0	3
BOEDC	28	6	0	0
El Puente	26	0	0	0
PathStone	238	8	0	0
PPEF Central	498	3	0	0
PPEF Southern Tier	13	0	0	0
PUSH	86	0	0	0
RUPCO	71	3	0	0
<b>TOTAL</b>	<b>1009</b>	<b>47</b>	<b>0</b>	<b>3</b>
<p>* SharePoint Leads are individuals who have received information on NYSERDA programs through CBO outreach activities.</p> <p>** Confirmed by CBO through a follow-up visit/call to the customer.</p>				

**Table 5-5. Workforce Training and Development Activity Summary.**

<b>CBO Leads</b>	<b>SharePoint Enrolled in Training*</b>	<b>SharePoint Completed Training*</b>	<b>SharePoint Workers Connected to Employers*</b>	<b>SharePoint Workers Employed*</b>
1,586	253	179	77	60
* <i>Self-Reported from SharePoint</i>				

Table 5-6 provides a summary of CBO event statistics. Self-reported statistics are submitted by each CBO. Events took place during the period of July 1, 2012 through June 30, 2013.

**Table 5-6. CBO Event Totals - July 1, 2012 through June 30, 2013.**

<b>CBO Name</b>	<b>Total Events</b>	<b>Total Attendance</b>
ANCA	50	4,190
AHP – Capital Region	65	1,329
AAECDF	15	499
BOEDC	18	5,528
CASH	0	0
Downtown Manhattan CDC	4	7,840
El Puente	20	1,776
LIPC	56	949
Make the Road	0	0
NHS - Jamaica	0	0
NHS - Staten Island	40	225
NCPS	5	66
NBCCC	0	0
PathStone	44	7,789
PUSH	92	825
PPEF - Central	61	4,521
PPEF - Southern Tier	9	665
RUPC	94	16,930
<b>TOTAL</b>	<b>573</b>	<b>53,132</b>

## 5.2 Marketing

Marketing is used to build awareness and participation statewide, to support the face-to-face grassroots activities necessary to effectively penetrate communities and populations that are challenging to reach, and to deliver the education and support necessary to secure audits and conversion to retrofits. NYSERDA competitively procured a marketing contractor, Brand Cool, to develop and execute a statewide integrated marketing and communication program to support GJGNY. As part of an integrated marketing plan developed in consultation with Brand Cool, the following materials have been developed across the various program components.

GJGNY residential marketing materials include:

- GJGNY overview brochure, available in English, Spanish, and Chinese, highlighting all of the GJGNY-related programs and services.
- Program fact sheets, available in English, Spanish, and Chinese, outlining energy assessment availability, and loan products.
- A new CBO webpage landing page with lead-nurturing capabilities (<http://www.nyserda.ny.gov/mycbo>)
- Lead-nurturing emails and post cards that are used by the CBOs for distribution to their internal database of clients and other customers.
- CBO website copy for inclusion on CBO websites.
- Homeowner case studies that highlight success stories within the CBO communities.
- Print ads for placement in community newspapers, per CBO recommendation.
- Social media content for use in CBO social media venues.
- Pre-screening materials and tools for the CBOs to enable the targeting of likely program participants.
- Homeowner and contractor scripts to recruit potential program participants and Home Performance contractors for teaming arrangements.
- Residential financing ads for NYSERDA placement in regional media.

GJGNY small business and not-for-profit marketing materials included a direct mail campaign that targeted specific customer sectors and regions, a website banner for use on the NYSERDA website, program and financing fact sheets, and case studies.

Contractor recruitment materials include case studies, a “Home Performance Program as a Business Model” brochure, a “Market is Changing” brochure, and a mailing to inactive Home Performance contractors and potential new residential contractors encouraging them to consider the Home Performance industry.

Several workforce development materials were created, including a general overview brochure that was tailored by region. The brochure gives highlights of the workforce development continuum and where to access training.

A collection of the GJGNY marketing materials developed can be found in Appendix E. NYSERDA continues to pursue all relevant public relations opportunities.

### 5.3 Outreach and Marketing Budget

Table 5-7 provides the Outreach and Marketing budget.

**Table 5-7. Outreach and Marketing Budget.**

<b>Component</b>	<b>Budget</b>	<b>Expended<sup>a</sup></b>	<b>Encumbered<sup>b</sup></b>	<b>Committed<sup>c</sup></b>	<b>Balance</b>
Delivered through CBOs	\$10,460,000	\$4,170,489	\$1,784,378	\$4,500,080	\$5,053
General Statewide Marketing	3,066,880	1,971,084	1,095,856	0	(60)
Training and Implementation Contractor	1,983,120	823,681	351,057	699,920	108,462
<b>TOTAL</b>	<b>\$15,510,000</b>	<b>\$6,965,254</b>	<b>\$3,231,291</b>	<b>\$5,200,000</b>	<b>\$113,454</b>
<p>a Expended: Contractor Invoices and loans processed for payment by NYSERDA.  b Encumbered: Remaining funding obligated under a contract, purchase order, incentive award, or loan.  c Committed: Planned funding for contracts awarded and under negotiation; loans approved; and planned funding under active development through open solicitations with upcoming proposal due dates.</p>					

### 5.4 Outreach and Marketing Contracts Entered Into

External contracts related to the implementation of the GJGNY Program are detailed in Table 5-8.

**Table 5-8. Outreach and Marketing Contracts Entered Into.**

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed <sup>a</sup>
24317	Conservation Services Group	Training and Implementation Contractor	\$1,174,738	\$823,681	\$351,057	\$0
22502	Brand   Cool Marketing	GJGNY Marketing	3,015,740	1,944,634	1,071,106	0
22725	Cision Public Relations	Services (Marketing)	1,700	1,700	0	0
31919	CEC	EcoHouse	49,500	24,750	24,750	0
25984	Public Policy and Education Fund of New York - Central	RFP 2038 - Green Jobs Green New York Outreach Program	385,422	276,792	108,630	0
25987	Public Policy and Education Fund of New York - Southern Tier	RFP 2038 - Green Jobs Green New York Outreach Program	279,363	204,014	75,349	0
26094	Adirondack North Country Association	RFP 2038 - Green Jobs Green New York Outreach Program	292,752	194,631	98,121	0
26202	RUPCO	RFP 2038 - Green Jobs Green New York Outreach Program	606,022	505,604	100,418	0
26396	Northeast Parent and Child Society, Inc.	RFP 2038 - Green Jobs Green New York Outreach Program	44,770	43,993	777	0

**Table 5-8 (continued)**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed<sup>a</sup></b>
26397	Pathstone	RFP 2038 and RFP 2327 -Green Jobs Green New York Outreach Program	521,605	329,513	192,092	0
26400	Affordable Housing Partnership	RFP 2038 - Green Jobs Green New York Outreach Program	338,920	250,234	88,686	0
26644	DMCDC	RFP 2038 - Green Jobs Green New York Outreach Program	487,000	377,595	109,405	0
27024	El Puente	RFP 2038 - Green Jobs Green New York Outreach Program	150,000	115,154	34,846	0
27230	PUSH Buffalo	RFP 2038 - Green Jobs Green New York Outreach Program	502,358	373,563	128,795	0
27328	Bronx Overall Development Corp.	RFP 2038 - Green Jobs Green New York Outreach Program	511,460	383,595	127,865	0
27522	Neighborhood Housing Services of Staten Island	RFP 2038 - Green Jobs Green New York Outreach Program	308,071	193,167	114,904	0
27586	Long Island Progressive Coalition	RFP 2038 - Green Jobs Green New York Outreach Program	371,975	282,808	89,167	0

**Table 5-8 (continued)**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed<sup>a</sup></b>
27829	AAFE Community Development Fund	RFP 2038 - Green Jobs Green New York Outreach Program	410,000	262,629	147,371	0
29418	Make the Road New York	RFP 2327 - Green Jobs Green New York Outreach Program	350,000	156,875	193,125	0
29419	Northwest Bronx Community and Clergy Coalition	RFP 2327 - Green Jobs Green New York Outreach Program	85,000	52,619	32,381	0
29983	Civic Association Serving Harlem	RFP 2327 - Green Jobs Green New York Outreach Program	175,000	74,630	100,370	0
30598	Neighborhood Housing Services of Jamaica	RFP 2327 - Green Jobs Green New York Outreach Program	135,149	93,073	42,076	0
<b>TOTAL</b>			<b>\$10,196,545</b>	<b>\$6,965,254</b>	<b>\$3,231,291</b>	<b>\$0</b>
<sup>a</sup> Committed funds of \$5,200,000 for two current solicitations included in the total Outreach and Marketing budget are not represented in this table: RFP 2773 - CBO Outreach Round 2 in the amount of \$4,500,000, and RFP 2832 - Training and Implementation Contractor in the amount of \$700,000.						

## 6 One- to Four-Family Residential Buildings Program

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Implementation of the approved GJGNY One- to Four-Family Operating Plan<sup>1</sup> began in the fourth quarter of 2010.

### 6.1 Target Audience

Services to the residential sector are delivered through the successful existing program, Home Performance with ENERGY STAR (HPwES.) HPwES is a market transformation program that uses building science and a whole-house approach to energy efficiency. The program is designed to reduce the energy use in existing one- to four-family homes and low-rise multi-unit residential buildings. The need for improvements in building shells and heating systems typically results in significant cost-effective fuel savings. Energy-efficiency improvements through this program include building shell measures, high-efficiency heating and cooling measures, and ENERGY STAR appliances and lighting.

The GJGNY Act defines a residential structure as a residential building that has four or fewer dwelling units. The target audience for the sector is owners of these buildings who have incomes above 60 percent of state median income. Those with lower incomes may be eligible for NYSERDA's EmPower New York program or the federally-funded Weatherization Assistance Program, which both provide services at no cost to the household, and those owners should therefore not be targeted with this program, although they will not be turned away if they choose to participate. Building owners whose incomes are equal to or less than 80 percent of the State or area median income (S/AMI) may be eligible for a grant of 50 percent of the cost of the work to be performed, up to \$5,000 (or up to \$10,000 for buildings with two to four units), from NYSERDA<sup>2</sup>. These owners are a particular target of interest for GJGNY. Communities in areas where energy costs are high in relation to AMI, or those in non-attainment for one or more designated pollutants under the Federal Clean Air Act, are also targeted by the eighteen constituency-based organizations (CBOs) conducting outreach in selected communities across the State.

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<sup>1</sup> The GJGNY One- to Four-Family Operating Plan was presented to the Advisory Council for comment and subsequently approved by NYSERDA's Senior Management in November 2010.

<sup>2</sup> These incentives are provided through an EEPS-, SBC-, or RGGI-funded HPwES program.

## 6.2 Implementation Strategies

HPwES partners with Building Performance Institute (BPI)-accredited contracting firms to install comprehensive energy-efficient improvements. The program is complemented by an aggressive workforce development initiative that strengthens program delivery infrastructure through the training and certification of technicians. Additional information on workforce development activities can be found in Section 4.

Participating contractors complete comprehensive home assessments (energy audits) for all homes enrolled in the program by taking an inventory of the current home energy systems and energy-related health and safety conditions, including diagnostic testing of combustion appliances, and blower-door testing for air-infiltration rates, and developing a work scope for proposed improvements, including a cost and energy-savings estimate. The comprehensive home assessment is provided to the homeowner within 14 calendar days of the completion of the assessment and allows the contractor to recommend improvements that are comprehensive, maximizing the energy savings achieved in every home. In addition to the cost-effective energy savings offered, the HPwES program also addresses residential health and safety issues pertaining to indoor air pollutants, focusing on carbon monoxide and other pollutants associated with combustion appliances, ventilation, and moisture control. This effort increases the long-term durability of New York's housing stock by addressing such problems as ice-damming, mold, and mildew.

The contractor also tests the house when work is complete to ensure a safe and healthy environment after installation of energy-efficiency measures. The program offers low-interest financing and homeowner cash-back incentives to encourage comprehensive work scopes, including a higher incentive level for those households qualifying for the "Assisted" component of the program. Participating households typically reduce their total energy use by 25 to 30 percent after a participating contractor has completed work on the home.

In response to recent damaging storms throughout New York State, HPwES adapted program rules to help facilitate the submittal of storm relief projects and to provide assistance to those who sustained property damage as a result of storms. The HPwES program will soon adopt permanent rules that address property damage as a result of increasingly frequent severe weather events.

The GJGNY supported free/reduced-cost energy audits and low-interest financing components of HPwES were launched on November 15, 2010. Owners of residential buildings seeking services from the program can participate through one of two ways: as an individual owner or as a participant in a CBO-organized aggregation.

## **6.2.1 Individual Owner Approach**

Owners of residential buildings with four units or less interested in receiving a free or reduced cost audit can download an HPwES Residential Audit Application from [nyserda.ny.gov](http://nyserda.ny.gov) or call 1-866-NYSERDA to request an audit application be mailed or to obtain an audit application from a participating contractor or CBO. Applicants may also complete an online audit application, which can be submitted to the application processing center through NYSERDA's website, by mail, fax, or scanned email file. The application must be accompanied by a copy of a recent utility bill with a minimum of 12 months of usage history. Where the primary heating fuel is from a non-utility provider, a 12 to 24 month billing history for the heating fuel is required.

An applicant who is eligible for a free or reduced-cost audit will receive a reservation number from the application processing center with an estimated level of audit subsidy that will be paid by NYSERDA to the contractor for a completed audit. The final amount to be paid to the contractor will be based on verification by the contractor of the number of units or square footage of the residence. The reservation number will be valid for a single audit to be completed within 90 days of issuance of the reservation. If the reservation is not used within that period, it will be eligible for reissuance if audit funds remain available.

## **6.2.2 Aggregation Approach**

Aggregation is the process of unifying a collection of eligible homeowners, brought to the GJGNY Program by a CBO under contract with NYSERDA to perform customer outreach services, who have agreed in advance to use the same contractor or contractor team to perform audits and retrofit work. Aggregation pilots are being implemented by two of the 18 participating CBOs: People United for Sustainable Housing (PUSH), and Long Island Progressive Coalition (LIPC). One other CBO, PPEF-Central, initiated a pilot but ceased implementation after several months to devote their efforts to general outreach.

Each participating CBO created a plan that identifies the neighborhoods where that CBO would focus aggregation, minimum number of households to be included in an aggregation, strategies to provide pricing economies of scale, process for assigning aggregations to participating contractors, timelines for contractors to complete work, and other aspects of the pilot. Contractors interested in providing services to an aggregated group of households, and benefiting from receiving a list of ready customers located within a small area, must also agree to provide community benefits, such as local hiring, employee training, or living wages, in exchange for those advantages. The nature of the community benefits is unique to each region and was developed by the CBOs in coordination with regional contractors.

CBOs are tasked with recruiting Home Performance Contractors into the pilot, and each contractor must sign an Aggregation Addendum to its program participation agreement. The Aggregation Addendum exists as a contract between the participating Home Performance Contractors and NYSERDA documenting the rules of the particular aggregation pilot, including the community benefits to be provided by contractors, such as wage rates, employee benefits, and training.

More information on the CBOs' role in aggregation can be found in Section 5.1.4.

### **6.3 Standards for Energy Audits and Development of Workscopes**

Energy audits and energy services for GJGNY are delivered by participating HPwES contractors possessing Participation Agreements with NYSERDA. The HPwES Participation Agreement is posted on NYSERDA's website.

Contractors delivering audits and performing services must be accredited by the Building Performance Institute (BPI) in accordance with NYSERDA's Partnership Agreement. BPI accreditation includes a review of certain business standards and practices in addition to technical certification requirements.

To qualify for HPwES program incentives and financing, eligible measures must meet the program minimum efficiency and cost effectiveness requirements. In response to the record low natural gas prices, the cost effectiveness standard was adjusted in mid-2012 for Smart Energy loans and provided market rate natural gas heating customers with the ability to finance improvements when the estimated energy savings over the anticipated life of the improvements are at least 80 percent of the total loan payments.

Alternatively, a project for which at least 85 percent of the cost is designated for pre-qualified measures is eligible for the Smart Energy loan and incentives. Contractors can elect to remove 15 percent of the project cost, up to \$2,000, related to associated health and safety measures and qualified accessories to meet the cost effectiveness requirements for the Smart Energy Loans. For OBR Loans, the monthly loan installment payment may not exceed one-twelfth of the estimated annual energy savings from the improvements over the term of the loan. Appendix F provides additional details.

NYSERDA performs quality assurance inspections on approximately 15 percent of projects to ensure contractor work meets program standards. In addition, BPI performs quality assurance inspections to ensure work meets BPI technical standards. If projects fail to meet standards, BPI and/or NYSERDA follow up with the contractor to ensure remediation takes place. Failure to meet BPI and program standards may result in probation, suspension, loss of accreditation and/or removal from the HPwES program, in accordance with BPI and NYSERDA processes.

## 6.4 Energy Audit Fees

The GJGNY legislation requires the program to make energy audits available to residential buildings with one to four units. The fee for energy audits must be waived for New York State households that have a demonstrated income that is 200 percent of the median county household income or less. In households with income from 201 to 400 percent of the median county household income, the applicant shall pay a pro rata percentage of the audit fees. Only those households that have a county median income above 400 percent pay the full fees. HPwES has integrated the free and sliding-scale audits into the current structure by making payments directly to participating contractors.

Table 6-1 outlines audit fees for single-unit residential buildings with less than 3,500 square feet of above-grade conditioned space.

**Table 6-1. Audit Fee for Single Unit Buildings Under 3,500 Square Feet.**

<b>Single Unit HPwES Audit Fees (less than 3,500 square feet of above grade conditioned space)</b>		
<b>Household Income</b>	<b>Cost to Customer</b>	<b>NYSERDA Payment to Contractor</b>
≤200% Average Median Income (AMI)	\$0	\$250
201 – 250% AMI	\$50	\$200
251 – 300% AMI	\$100	\$150
301 – 350% AMI	\$150	\$100
351 – 400% AMI	\$200	\$50

Table 6-2 outlines audit fees for residential buildings with two to four dwelling units and single units over 3,500 square feet of above-grade conditioned space.

**Table 6-2. Audit Fee for 2-4 Units and Single Unit Buildings Over 3,500 Square Feet**

<b>HPwES Audit Fees for 2-4 Units and Single Units                      (more than 3,500 square feet of above-grade conditioned space)</b>		
<b>Household Income</b>	<b>Cost to Customer</b>	<b>NYSERDA Payment to Contractor</b>
≤200% Average Median Income (AMI)	\$0	\$400
201 – 250% AMI	\$80	\$320
251 – 300% AMI	\$160	\$240
301 – 350% AMI	\$240	\$160
351 – 400% AMI	\$320	\$80
≥401% AMI	Market Rate	\$0

## 6.5 Audit Completions and Conversion to Project Completions

The GJGNY free or reduced-cost energy audit has proven to be very popular with consumers and contractors. Through June 30, 2013, there have been a total of 51,000 applications with more than 47,746 approved—an average of more than 1,600 per month. Contractors are using the audit as very effective sales and marketing tool. More than 38,000 audits have been completed, resulting in 10,671 contracts for HPwES energy upgrades. Of those contracts, 10,077 projects are complete. It is important to note that the average time lag from audit completion to completed work is 110 days. After accounting for the lag between completion of the audit and completion of work, the conversion rate from audit to work through the HPwES program is more than 33.5 percent. A 2012 evaluation indicated some of the recommended work proceeds outside the program – some with the benefit of utility rebates and some by the homeowner on their own. Among those audit-approved and audit-completed participants surveyed in the evaluation, nearly two-fifths (38 percent) of respondents reported that they installed program eligible energy efficient measures outside of the program.<sup>3</sup>

<sup>3</sup> NYSERDA. 2012. “Process Evaluation and Market Characterization and Assessment: Green Jobs – Green New York Residential Program,” <http://www.nyserdera.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2012ContractorReports/2012-GJGNY-MCA-Report.pdf>

The success of this effort is attributed in large part to the experience and knowledge of the Home Performance contractors. NYSERDA's HPwES program is the largest and longest-running program of its kind in the United States, and participating contractors have developed effective approaches to completing sales.

From July 2012 through June 2013, there were 4,781 project completions attributable to GJGNY audits or financing. This figure is an 18 percent increase over the previous 12-month period. Nonetheless, current performance is below earlier projections. The warmer than average winters, much lower natural gas prices, and still weak economy have combined to make this time very challenging for energy-efficiency work.

Despite these challenges, a good volume of work is proceeding, supported by the GJGNY financing options. More than 38 percent of projects completed in the three months ending on June 30, 2013 included a GJGNY loan. Additionally, the OBR Loan was introduced January 30, 2012 and now represents the majority of GJGNY loan applications in the program, on average per month. However, due to the more restrictive cost-effectiveness requirements of the OBR Loan, some customers who would have preferred to use the OBR Loan have had to utilize the Smart Energy Loan instead. Therefore the Smart Energy Loan represents the majority of loans closed on average per month.

NYSERDA continues to work closely with Home Performance Contractors, the implementation contractor and loan originator, to streamline program processes, including project approvals and financing. As indicated in Section 2, NYSERDA program staff meet regularly with contractors, program administrators, and other stakeholders to identify opportunities, challenges, and mitigation strategies. With input from the Creating an Industry Working Group, NYSERDA is developing web-based interface that will improve the process of reviewing and approving applications and work scopes, providing information to all parties regarding the status of any application or project. This platform will also use a standard data transfer protocol that will provide contractors with more options for auditing software. These developments are expected to improve program throughout and increase participation rates.

NYSERDA also communicates regularly with participating contractors to provide program information and training. Four contractor webinars have been held on wide range of subjects:

- July 13, 2012: Efficiency First update, new credit application and Assisted Home Performance subsidy application with streamlined approach to documentation, revised cost-effectiveness standards for unsecured loans that offer consumers choice.
- November 14, 2012: Fall Consumer Marketing Campaign.
- December 8, 2012: ASHRAE 62.2 Training.
- May 31, 2013: Assisted Home Performance / EmPower New York Coordination Guidelines.

## 6.6 Financing

An unsecured consumer loan financing product for energy-efficiency improvements for one- to-four-family buildings was launched on November 15, 2010. Loan terms are offered for five, 10, and 15 years. The amount of the loan cannot be in excess of \$13,000. (The Power NY Act of 2011 increased this amount to \$25,000 for projects that meet higher cost-effectiveness standards.) Effective January 8, 2013 the name “Unsecured Loan” was changed to “Smart Energy Loan” based upon feedback from participating contractors using survey results of their preferred replacement name. The OBR Loan was launched in January 2012, four months ahead of the launch date required by the Power NY Act of 2011. Effective January 1, 2013 OBR loan applications are processed at an interest rate of 3.49 percent, which is a modest increase from the original rate of 2.99 percent. The rate increase provides rate parity between the OBR and Smart Energy loans and enables NYSERDA to more fully recoup the costs for origination, servicing, and financing of OBR Loans.

Figure 6-1 and Figure 6-2 illustrate the rapid growth in OBR Financing applications and loans issued since its introduction.

**Figure 6-1. Unsecured and OBR Financing Applications.**

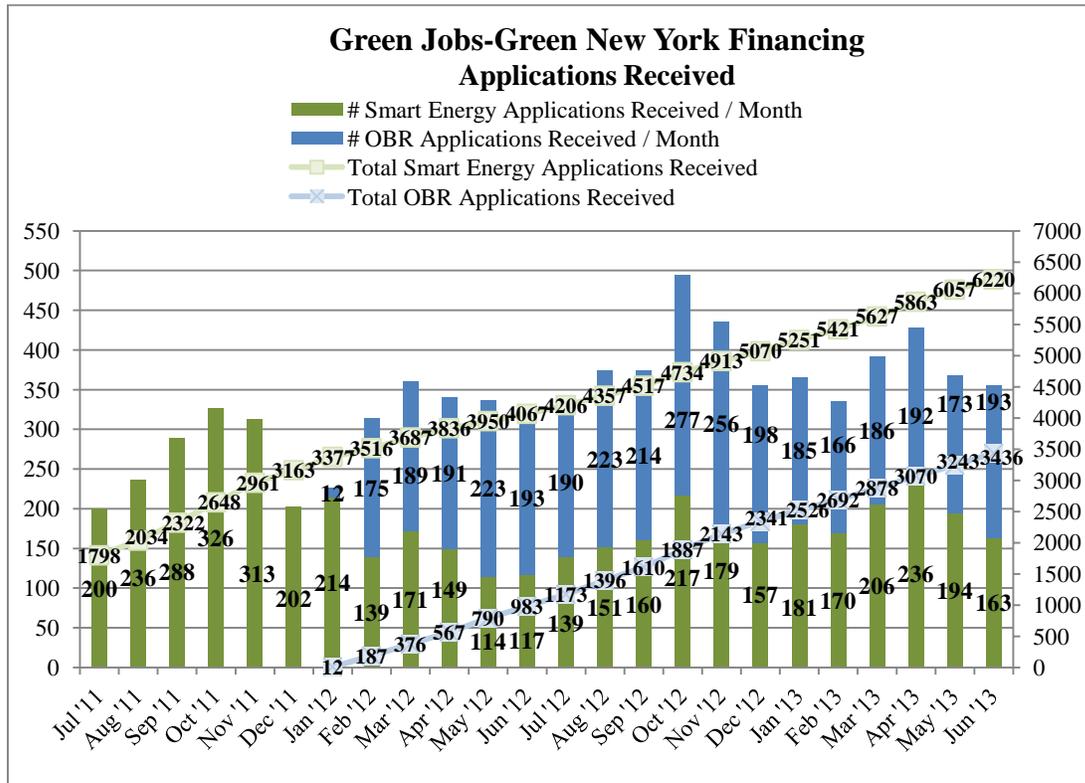


Figure 6-2. Unsecured and OBR Loans Issued.

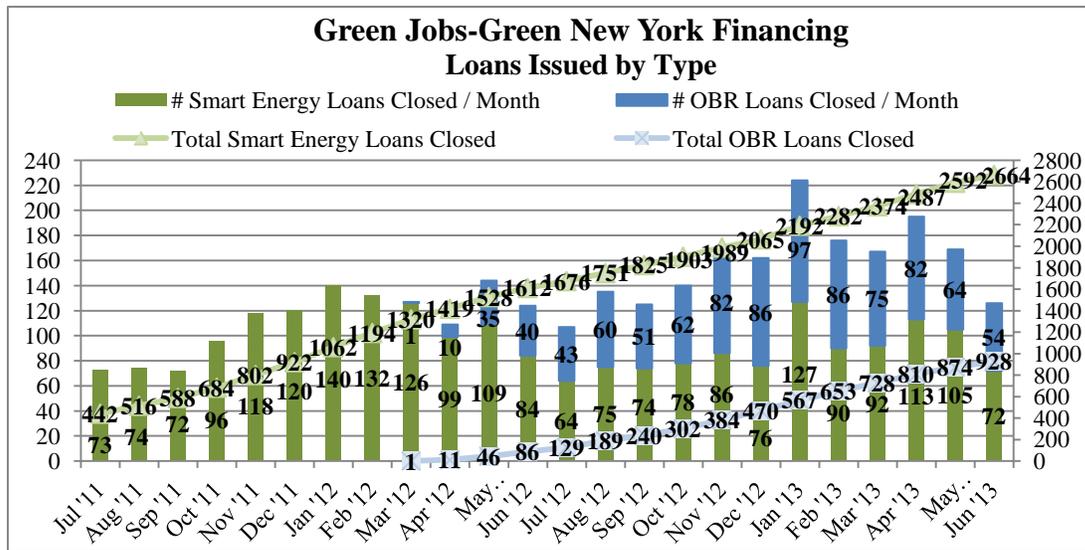


Table 6-3 summarizes loan underwriting standards used for both the Smart Energy and OBR Loans. NYSERDA has modified loan underwriting standards five times since the launch of the program in an effort to address loan application denials and to responsibly improve the penetration of financing to consumers who would not qualify using traditional underwriting standards.

The Tier 1 loans use standard underwriting criteria relying primarily on FICO scores and debt-to-income ratios. Tier 2 is an attempt to expand the number of people who can qualify by eliminating credit score as a qualifying factor and substituting satisfactory energy bill and mortgage payment history. In addition, Tier 2 provides more flexibility in meeting reasonable debt-to-income ratio requirements, as this requirement is currently the most common cause of loan denials.

**Table 6-3. GJGNY Loan Underwriting Standards as of June 30, 2013.**

<b>LOAN UNDERWRITING STANDARDS</b>		
<b>Standard</b>	<b>Tier 1 Loans</b>	<b>Tier 2 Loans</b>
Minimum FICO or alternate	640 (680 if self-employed for 2yrs+) (720 if self-employed < 2yrs)	None, however a minimum score may apply based on the customer's debt-to-income ratio.
Utility and mortgage payment history	None	<p>Must meet each of the following criteria if applicable:</p> <p>Current on all electric utility bills and natural gas utility bills (if applicable) associated with the installation property for at least 2 consecutive billing periods during each of the last 2 years. If unable to meet this standard, customers may document that their electric and natural gas utility account (if applicable), has been current for 9 of the last 12 months, or equivalent of at least 75% of the utility payments due over the last 12 months.</p> <p>Customers who heat with oil/propane must document 2 years of timely bill payment history or have maintained a positive business relationship with a supplier for the installation property for at least 2 years. They must also be current on their payments on the oil/propane account for the installation property. No payment history is required for loan applicants who heat with oil/propane and are cash-on-delivery customers, receive service from different suppliers, or for applicants who heat with wood. Customers who heat with oil/propane and are cash on delivery customers, or receive service from multiple suppliers, must submit a copy of the Energy Usage Waiver Form.</p> <p>Current on all mortgage payments (which shall include any home equity line of credit or second mortgage with a balance in excess of \$25,000, if any, for the last year (minimum of 12 months of history required). If there is no mortgage payment history appearing on the credit report of the applicant(s), this requirement can be satisfied by alternatively demonstrating electric and fuel bill payment history that was current for 9 of the past 12 months. Customers who have only 1-11 months of mortgage payment history shall not be considered for a Tier 2 loan approval.</p> <p>For properties with tenant-paid energy bills, the owner shall be current on any and all energy bills associated with their home address, for at least 2 consecutive billing periods during each of the last 2 years (alternatively, may document that the account has been current for 9 of the past 12 months).</p>

**Table 6-3 (continued)**

Standard	Tier 1 Loans	Tier 2 Loans
		No energy/mortgage payments more than 60 days late for the last 2 years. If the applicant qualifies based on 9 of the past 12 months being current, the applicant may have energy bill payments that are more than 60 days past due, so long as such delinquency was not within the 12 month period that was reviewed.
		A new homeowner may satisfy these requirements by providing history from a prior home. If an applicant was a tenant for some portion of the past 24 months and the applicant's utility payments were included in the rent payment, the applicant must provide a copy of the lease agreement citing utilities were included in the rent AND provide either a letter from the landlord citing rent was paid on time, or provide supporting documentation evidencing the same.
Max Debt-to-Income Ratio	Up to 50%	Up to 55% Up to 70% if FICO score of 680+ Up to 100% for applicants who qualify for Assisted Home Performance with ENERGY STAR Subsidy (up to 50%/up to \$5,000/\$10,000 of cost)
Bankruptcy	No bankruptcy, foreclosure, or repossession within last 7 years	No bankruptcy, foreclosure, or repossession within last 5 years
Judgments	No combined outstanding collections, judgments or tax liens > \$2,500	

Figure 6-3 illustrates the impact of modifying the Tier 2 standards, enabling more individuals to qualify for financing. Tier 2 loans now consistently make up 10 percent of loans issued on a monthly basis.

Figure 6-3. GJGNV Loans Issued by Tier.

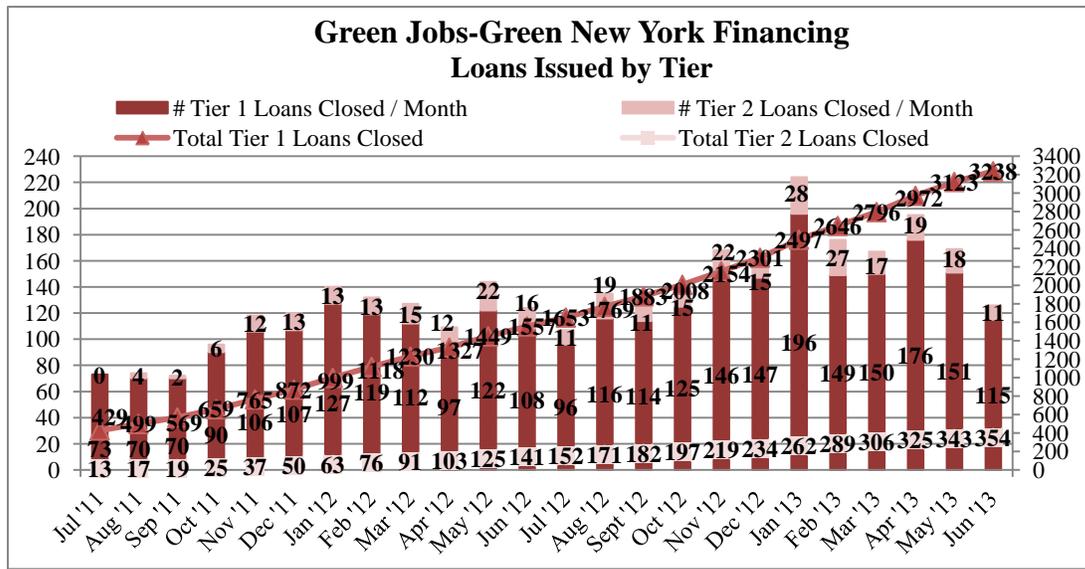


Table 6-4 summarizes metrics surrounding loan applications and loans closed through June 30, 2013.

**Table 6-4. GJGNY Residential Financing Summary as of June 30, 2013.**

Smart Energy		FINANCING SUMMARY	On-Bill Recovery	
Tier 1	Tier 2		Tier 1	Tier 2
5,796	424	Applications Received	3,157	279
3,622	363	Applications Approved	1,866	194
2,397	267	Loans Closed*	842	87
\$21,913,928	\$2,568,654	Value**	\$8,966,945	\$832,524
\$9,142	\$9,620	Average Loan**	\$10,650	\$9,569
12.0 Years	13.3 Years	Average Term**	14.5 Years	14.3 Years
N/A	N/A	2.99%**	88.70%	94.30%
81.40%	77.90%	3.49%**	11.30%	5.70%
18.60%	22.10%	3.99%**	N/A	N/A
69.20%		Approval Rate***	69.00%	
22.80%		Denial Rate***	26.00%	
8.00%		Denied Tier 1, didn't pursue Tier 2***	5.00%	
*The amount shown here is the total value of loans closed as of 6/30/13, which included loans not yet invoiced as of 6/30/13. ** Refers to closed loans only. *** Does not include applications pending review or withdrawn.				
Reasons for Denial by Percentage				
Smart Energy		Reason for Denial	On-Bill Recovery	
37.20%		Debt Ratio	35.60%	
27.70%		Credit Score	35.80%	
80%		Bankruptcy/Foreclosure/Repo	12.70%	

Table 6-4 (continued)

Smart Energy		FINANCING SUMMARY		On-Bill Recovery			
Tier 1	Tier 2			Tier 1	Tier 2		
17.20%		Collections/Judgments/Charge-offs		15.20%			
2.00%		Other		0.60%			
100%		Total		100%			
Smart Energy		120+ Days Past Due		On-Bill Recovery			
Tier 1	Tier 2			Tier 1	Tier 2		
10	\$64,798	2	\$21,349	4	\$40,376	0	\$0
-							
On-Bill Recovery Utility		Applications Received	Total Loans Closed		Total Loans in Process		Utility Progress towards Initial Cap (.5%)
Central Hudson Gas & Electric		264	76	\$830,868	150	\$1,576,898	9.80%
Consolidated Edison		329	109	\$1,366,091	185	\$2,153,365	1.10%
Long Island Power Authority		912	242	\$2,722,803	482	\$5,156,572	8.60%
National Grid		1067	256	\$2,352,445	413	\$3,783,348	4.90%
New York State Electric & Gas Corp.		616	177	\$1,878,497	282	\$2,822,024	6.00%
Orange & Rockland Utilities		127	48	\$496,745	80	\$806,853	7.10%
Rochester Gas & Electric		112	21	\$158,289	38	\$309,462	1.90%
<b>TOTAL</b>		<b>3,427</b>	<b>929</b>	<b>\$9,805,739</b>	<b>1,630</b>	<b>\$16,608,521</b>	<b>4.00%</b>

## 6.7 Additional Incentives

NYSERDA offers a consumer incentive to eligible households equal to 10 percent of the cost of eligible measures. Availability of the incentive is subject to funding availability from the Energy Efficiency Portfolio Standard (EEPS) for pre-qualified electric and gas measures and from the Regional Greenhouse Gas Initiative (RGGI) for oil and propane measures. NYSERDA provides participating contractors with updates on funding availability and household eligibility as necessary.

In addition, building owners with incomes equal to or less than 80 percent of the State or area median income may be eligible for a grant of 50 percent of the cost of eligible measures, up to \$5,000 (or up to \$10,000 for buildings with two to four units) through Assisted HPwES. Homeowners with incomes at or below 60 percent of the State or area median income are eligible to be served by both EmPower New York and Assisted HPwES. Coordination guidelines have been created to aid contractors in determining how to best coordinate services between the two programs for households who meet the eligibility criteria for both programs.

An advanced modeling incentive is available to contractors equal to five percent of the approved measures, up to \$500. Availability of the incentive is subject to funding availability from the EEPS for pre-qualified electric and gas measures and from RGGI for oil and propane measures. NYSERDA provides participating contractors with updates on funding availability as necessary.

NYSERDA continues to work with other program administrators, including investor-owned and municipal gas and electric utilities and the Long Island Power Authority (LIPA), to address coordination and minimize confusion where multiple incentive opportunities are available to residential customers.

Provided that the work performed to participate in a utility rebate program meets NYSERDA's HPwES requirements and is completed by a participating Home Performance Contractor, the GJGNY loan may be used in coordination with the utility rebate, just as the GJGNY loan may be used in coordination with the NYSERDA incentives. Although GJGNY loans may be combined with either the NYSERDA or the utility incentives, NYSERDA and utility incentives cannot be combined with each other on the same measure. Table 6-5 presents an example of a work scope that includes measures eligible for utility incentives and GJGNY financing. The GJGNY loan amount is determined by netting out all applicable utility or NYSERDA incentives at the measure level from the total cost of the work.

**Table 6-5. Example Eligible Work Scope for GJGNY Financing.**

<b>GJGNY Financing Work Scope</b>			
<b>Measure</b>	<b>Cost</b>	<b>Incentive</b>	<b>Source</b>
Gas Heating Equipment	\$4,500	\$500	Utility
Central AC	\$3,000	\$400	Utility
Air Sealing	\$750	\$75	NYSERDA
Insulation	\$3,500	\$350	NYSERDA
Total Project Cost/Incentives	\$11,750	\$1,325	
<b>Net Cost Eligible for Financing</b>	<b>\$10,425</b>		

## 6.8 Budget, Goals, and Metrics

Table 6-6 and 6-7 describe the One- to Four-Family Residential Buildings budget and goals and metrics, respectively.

**Table 6-6. One- to Four-Family Residential Buildings Budget.**

<b>Component</b>	<b>Budget</b>	<b>Expended<sup>a</sup></b>	<b>Encumbered<sup>b</sup></b>	<b>Committed<sup>c</sup></b>	<b>Balance</b>
Energy Audits	\$14,596,000	\$9,507,700	\$0	\$1,651,249	\$3,437,051
Audit Implementation and Quality Assurance	1,000,000	589,856	304,956	0	105,188
Financing					
Loans	26,652,533	30,058,975*	0	4,304,100	(\$10,825,511)**
Implementation		2,073,822	391,147	650,000	
<b>TOTAL</b>	<b>\$42,248,533</b>	<b>\$42,230,353</b>	<b>\$696,103</b>	<b>\$6,605,349</b>	<b>(\$7,283,272)</b>
<p>* Loan Expended amount is net of loan repayments made through reporting period.</p> <p>** NYSERDA has temporarily used a portion of the revolving loan fund budget allocated for Small Commercial/Not-for-Profit and Multifamily buildings to finance GJGNY residential energy efficiency loans issued to date. On August 13, 2013, NYSERDA issued \$24,300,000 Residential Energy Efficiency Revenue Bonds (Series 2013A) which were secured by a pledge of loan payments from certain Tier 1 residential energy efficiency loans issued or to be issued totaling an outstanding principal amount of approximately \$29.2 million. The \$24,300,000 proceeds from the bonds will be used to replenish the revolving loan fund and support issuance and financing of additional residential loans.</p> <p><sup>a</sup> Expended: Contractor Invoices and loans processed for payment by NYSERDA.</p> <p><sup>b</sup> Encumbered: Remaining funding obligated under a contract, purchase order, incentive award, or loan.</p> <p><sup>c</sup> Committed: Planned funding for contracts awarded and under negotiation; loans approved; and planned funding under active development through open solicitations with upcoming proposal due dates.</p>					

**Table 6-7. One- to Four-Family Residential Buildings Goals and Metrics.**

<b>Metric</b>	<b>Market Rate</b>	<b>Affordable</b>	<b>Total</b>	<b>Goals</b>	<b>Progress Toward Goals</b>
Audit Applications (number)			51,000		
Audits Complete (number)			38,041	46,000	83%
Projects Contracted (units)			11,210		
Projects Completed (units)	7,262	3,109	10,371	15,000	69%
1st Year Net KWh Savings (installed)	3,127,187	1,783,097	4,910,284		
1st Year Net MMBtu Savings (installed)	255,347	110,899	366,246		
Estimated Annual Bill Savings (installed)	\$5,611,491	\$2,305,294	\$7,916,785		
Estimated Annual KWh Savings/unit (installed) <sup>1</sup>	431	574	473	688	69%
Estimated Annual MMBtu Savings/unit (installed) <sup>a</sup>	35	36	35	31	114%
Estimated Annual Dollar Savings/unit (installed) <sup>1</sup>	\$773	\$741	\$763	\$675	113%
Loans Issued/Closed (Number)	2,610	983	3,593		
Value of Loans <sup>b</sup>	\$27,097,921	\$7,190,400	\$34,288,321		
Potential lifetime savings of audit projects and loan projects	\$125,588,093	\$50,924,133	\$176,512,171		
Estimated lifetime savings of loan projects only	\$66,365,939	\$21,415,684	\$87,781,623		
<sup>a</sup> Projects that receive GJGNY-supported audits and/or financing may also receive incentives through Energy Efficiency Portfolio Standard (EEPS) and/or utility programs, such that projects' energy savings may not all be attributable solely to GJGNY. <sup>b</sup> The amount shown here is the total value of loans closed as of June 30, 2013 which includes loans not yet invoiced as of June 30, 2013.					

The 10,371 completed units since program launch associated with a GJGNY audit or loan represent 10,077 projects. An additional 4,913 projects eligible for GJGNY were completed during this period without the GJGNY audit or loan. This figure is due, at least in part, to the length of the project cycle between the audit, contract, and completion of work. The figure represents primarily projects that were initiated prior to November 2010. Since September 2011, 84 percent of the completed projects originated from a GJGNY audit.

Figure 6-4 illustrates the level of program baseline activity across the state in the calendar year prior to the launch of the audit component of GJGNY. In the year prior to November 15, 2010, 6,228 projects were completed across the State of New York. Figure 6-5 illustrates activity since the launch of GJGNY and shows the dramatic increase in activity in the downstate region, with better coverage in the lower Hudson Valley as well as the Southern Tier. It also illustrates the increase in Assisted HPwES projects, with recent activity resulting in a ten percent increase in Assisted HPwES projects as a percentage of all HPwES projects. A comparison of project completions, by region, is presented in Figure 6-6. This information will be useful in adjusting marketing and outreach to ensure target regions are participating in the program.

**Figure 6-4. HPwES Project Locations in Year Prior to GJGNY Implementation (Baseline).**

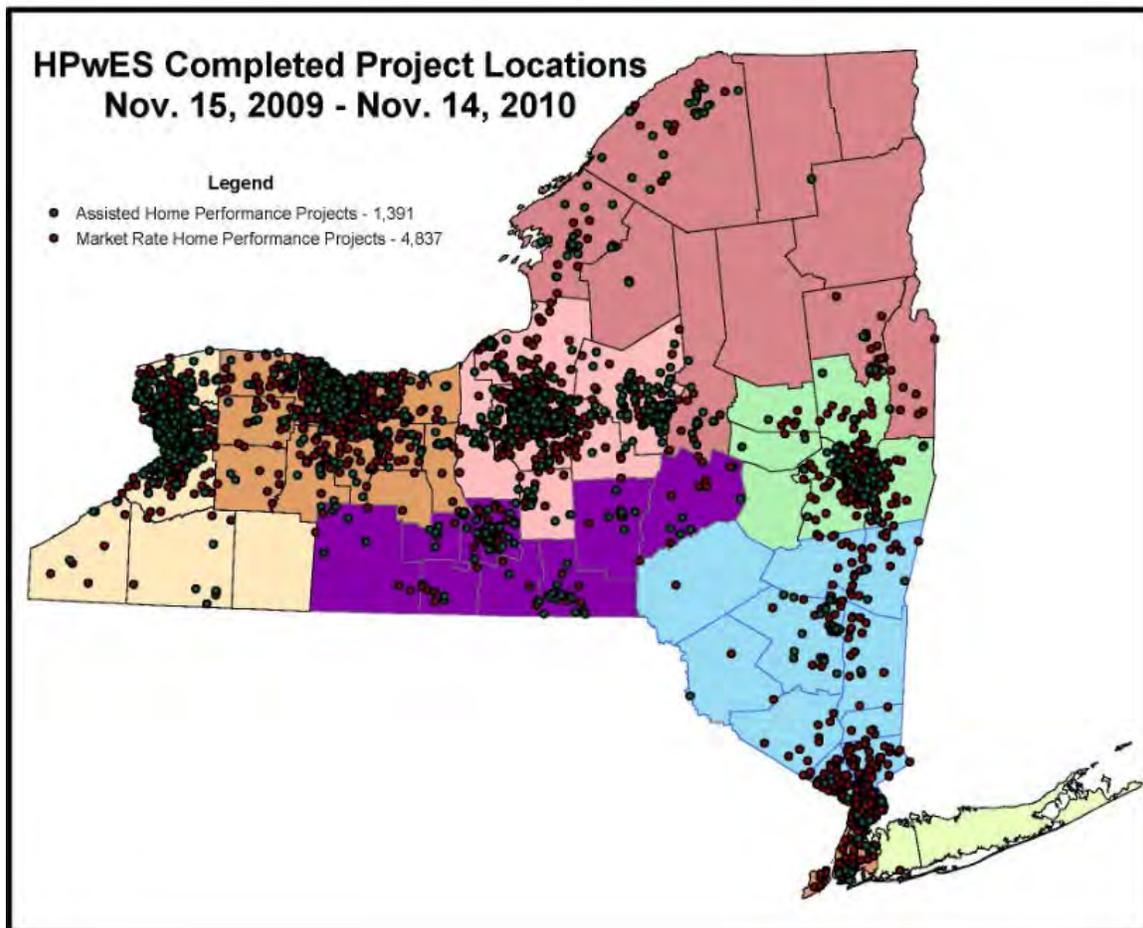
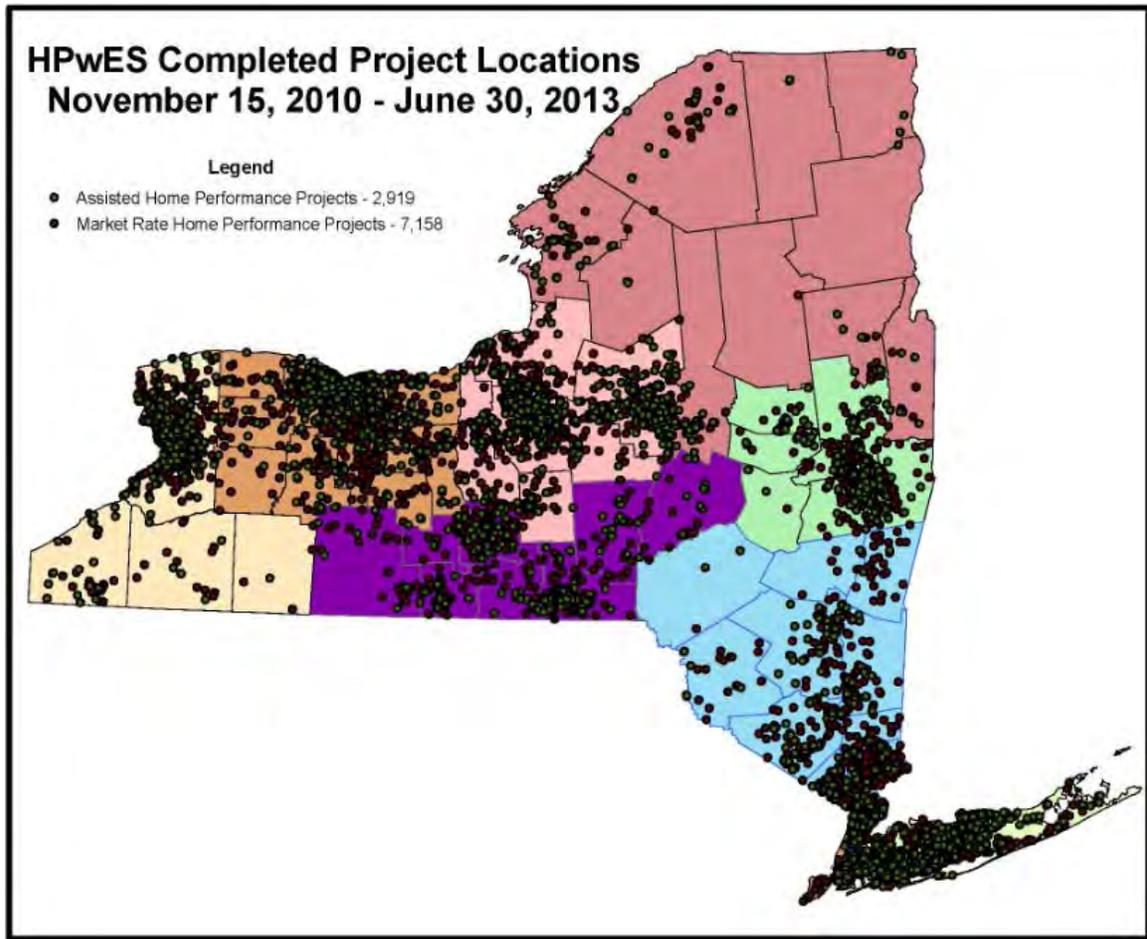


Figure 6-5. GJGNY HPwES Project Completions.



**Figure 6-6. Project Completions by Region.**

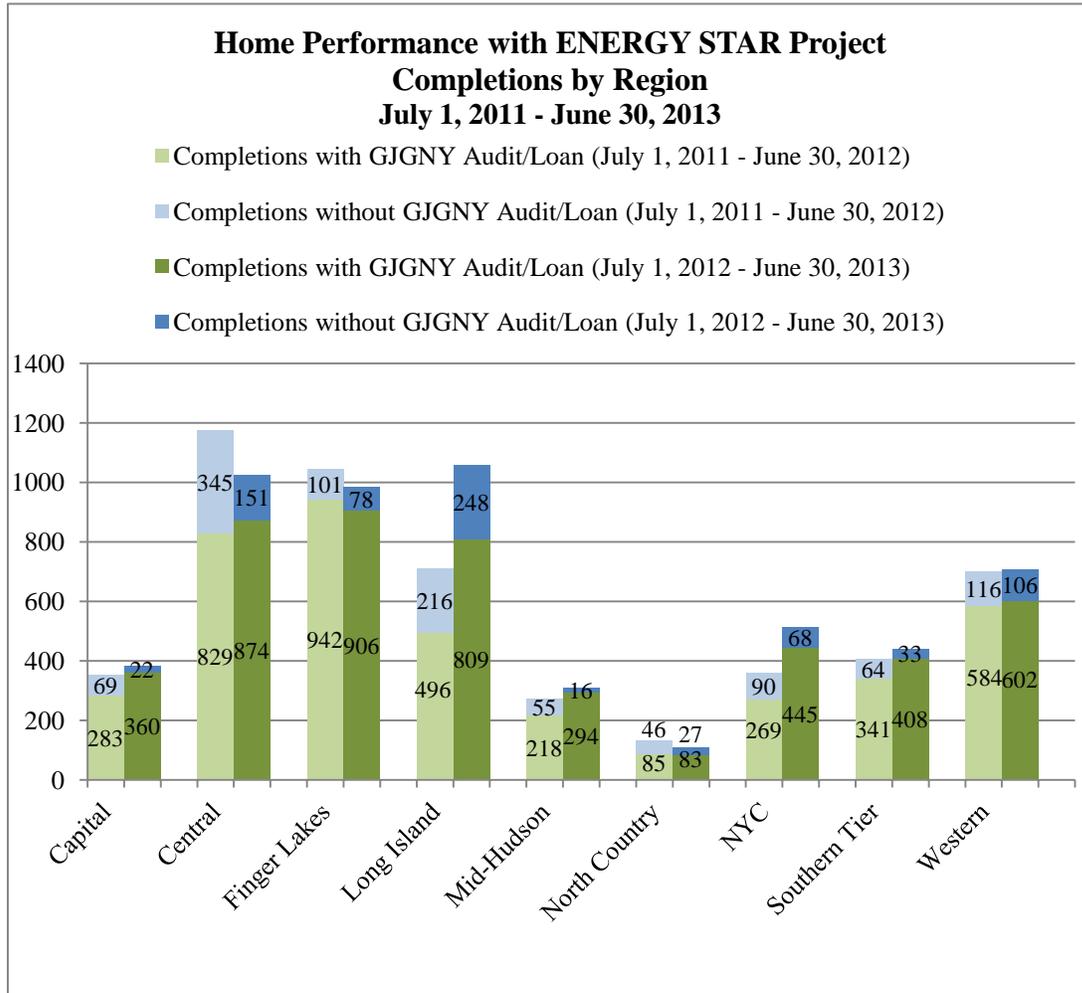
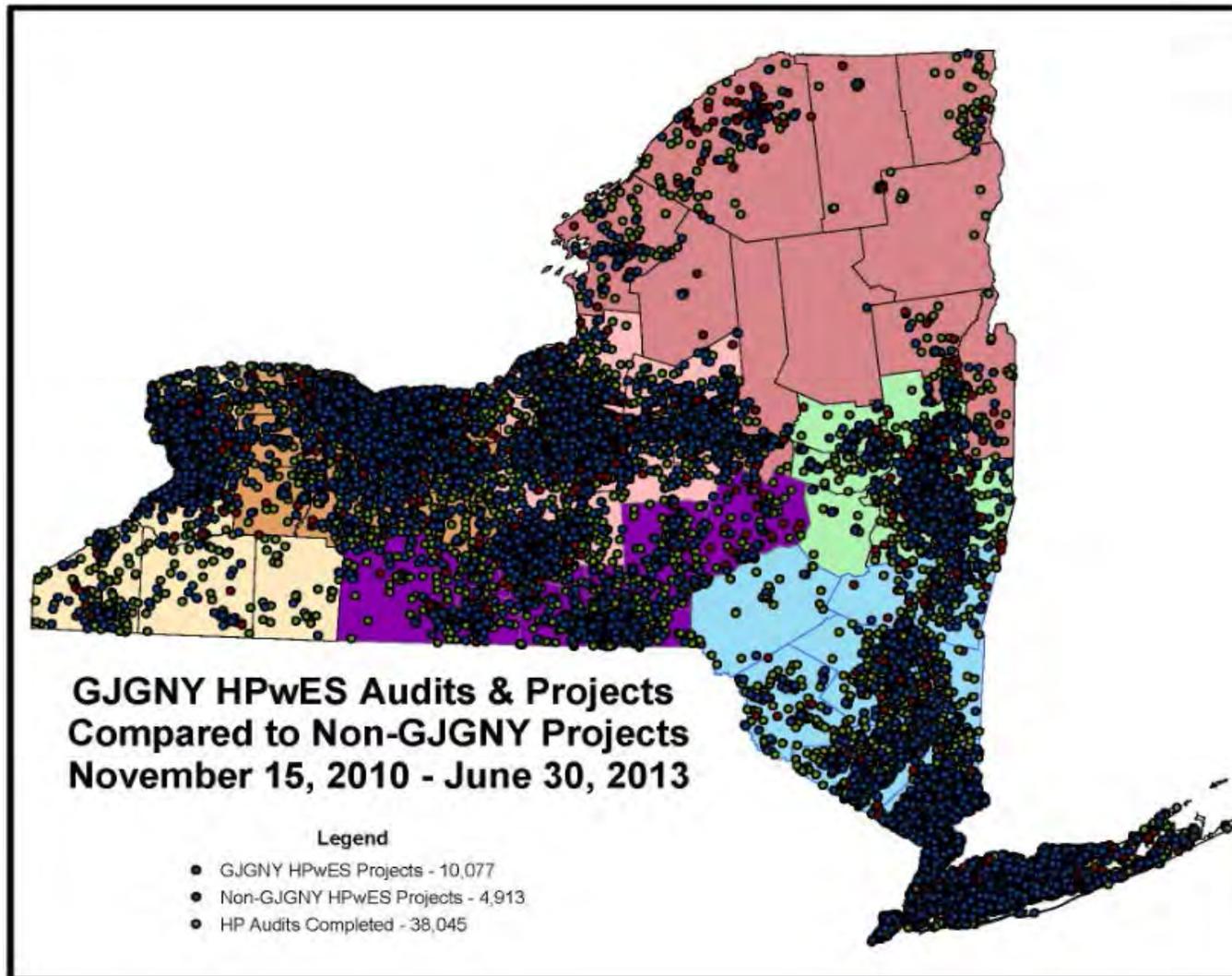


Figure 6-7 shows audit activity throughout the State, as compared to completed projects. It also demonstrates the expanded reach of the program as compared to the baseline, illustrating the potential additional work that could result from audits. Finally, Figure 6-7 illustrates the expansion of the GJGNY program, as compared to work taking place without the benefit of the GJGNY audits or financing. Additional GIS maps will be developed with the input of the GIS Working Group to support program impact analysis.

Figure 6-7. GJGNY HPwES Audit and Project Completions.



## 6.9 One- to Four-Family Residential Buildings Contracts Entered Into

External contracts related to the implementation of the GJGNY Program are detailed in Table 6.8.

**Table 6-8. One- to Four-Family Residential Buildings Contracts Entered Into.**

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
<b>Energy Audits</b>						
<b>AGGREGATED ENERGY AUDITS</b>			<b>N/A</b>	<b>\$9,507,700</b>		<b>\$1,651,249</b>
Audit Implementation and Quality Assurance						
ST9802-1	Conservation Services Group	Energy Audit Implementation	483,117	483,117	0	0
32323	Conservation Services Group	Energy Audit Implementation	396,402	101,446	294,956	0
ST9940-1	Honeywell International Inc	Quality Assurance	5,293	5,293	0	0
ST10743-1	Harris Beach PLLC	Bond Counsel	10,000	0	10,000	0
<b>TOTAL AUDIT IMPLEMENTATION AND QUALITY ASSURANCE</b>			<b>\$894,812</b>	<b>\$589,856</b>	<b>\$304,956</b>	<b>\$0</b>
<b>Loan Activity</b>						
Aggregated Loans Issued	Various	Loans issued	N/A	34,268,333		4,304,100
Aggregated Loan Repayments	Various	Loan repayments	N/A	(4,209,358)		
<b>NET AGGREGATED LOAN ACTIVITY</b>			<b>N/A</b>	<b>\$30,058,975</b>	<b>\$0</b>	<b>\$4,304,100</b>

Table 6-8 (continued)

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
<b>Financing Implementation</b>						
21769	Concord Servicing Corporation	RES Master Loan Servicer for GJGNY		263,737	0	0
15518	Energy Finance Solutions	Origination Fees		704,525	0	0
		LIPA Fees		1,300	0	0
		Ramp-up / Development costs for GJGNY & OBR programs	N/A	87,999	0	0
		Central Hudson Gas & Electric		15,227	0	0
OBR Billing Agreements, no PO#	Consolidated Edison	Utility Fees for OBR Loans		22,318	0	0
	LIPA			45,822	0	0
	Niagara Mohawk dba National Grid			47,013	0	0
	NYSEG			33,057	0	0
	Orange & Rockland Utilities			9,421	0	0
	Rochester Gas & Electric			3,683	0	0
	27533	NY Title Research Corp.	OBR Last Owner Searches	61,800	59,860	1,940
31684	Zodiac Title Services	OBR Last Owner Searches	100,000	100,000	0	0

**Table 6-8 (continued)**

<b>Identification number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed</b>
31684-1	Zodiac Title Services	OBR Last Owner Searches	50,000	5,374	44,627	0
33527	Advantage Title Agency, Inc	Advantage Title - OBR Title Co	50,000	27,525	22,475	0
Title Company pass through fees, no PO#	NY Title Research Corp.	OBR Last Owner Searches	N/A	8,563	0	0
	Zodiac Title Services	OBR Last Owner Searches		43,774	0	0
	Advantage Title Agency, Inc	OBR Last Owner Searches		28,429	0	0
ET - RFP-2712	Title Company for Support of On-Bill Recovery Loan	RFP to select one or more Title Companies to provide Last Owner Searches and Declaration Recording Services in support of On-Bill Recovery	0	0	0	650,000
20662	Energy Programs Consortium	Phase I	12,500	6,250	6,250	0
18591	Hawkins Delafield & Wood	Legal financial advisory services for GJGNY	190,000	184,081	5,919	0
19923	Lamont Financial Services Corporation	Financial Advisor Services	217,050	210,355	6,695	0
26143	Equifax Credit Marketing Services	Annual Subscription to CreditForecast.com 2011-12	20,000	20,000	0	0

**Table 6-8 (continued)**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed</b>
30985	Fitch Ratings, Inc.	Issuance of NYSERDA 2012 GJGNY Energy Efficiency Bonds	300,000	20,000	280,000	0
ST10743-1	Harris Beach PLLC	Bond Counsel	125,000	120,509	4,491	0
33119	NetRoadshow, Inc.	Establishment of portal communication between NYSERDA and bond rating agency	23,750	5,000	18,750	0
<b>TOTAL FINANCING IMPLEMENTATION</b>			<b>\$1,150,100</b>	<b>\$2,073,822</b>	<b>\$391,147</b>	<b>\$650,000</b>
<b>GRAND TOTAL</b>				<b>\$42,230,353</b>	<b>\$696,103</b>	<b>\$6,605,349</b>

# 7 Multifamily Performance Program

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Implementation of the approved GJGNY Multifamily Buildings Operating Plan<sup>4</sup> began in the third quarter of 2010.

## 7.1 Target Audience

According to the GJGNY Act, a multifamily structure is defined as a multi-unit residential building with five or more dwelling units. A multifamily project may include a single multifamily structure or a group of multifamily structures.

The needs of the multifamily sector are addressed by working with developers, building owners, and their representatives to improve the energy efficiency, health, safety, and security of multifamily residential buildings. The program identifies and targets those potential participants<sup>5</sup> who are committed to the implementation of energy-related improvements. As part of the GJGNY marketing and outreach efforts, provisions have been made to encourage referrals from constituency-based organizations (CBO).

## 7.2 Implementation Strategy

GJGNY provides financing and co-funding for comprehensive energy audits and the development of an Energy Reduction Plan (ERP)<sup>6</sup> through NYSERDA's Multifamily Performance Program (MPP). The availability of GJGNY co-funded audits began in September 2010, and GJGNY financing in the multifamily sector was launched in June 2011. MPP is a comprehensive program that serves market-rate and low- to moderate-income projects using a common process and relies on a network of energy service contractors who have demonstrated their ability to provide building performance services to multifamily buildings. These contractors are identified as MPP Partners and must be employed by MPP participants to complete specific building performance services.

NYSERDA manages GJGNY funded services as a seamless part of the MPP process, regardless of whether participants intend to access MPP implementation incentives, utility program rebates, or other financial assistance, or whether participants simply intend to fund a portion or all of the energy-related

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<sup>4</sup> The GJGNY Multifamily Buildings Operating Plan was presented to the Advisory Council for comment and subsequently approved by NYSERDA's Senior Management in April 2010.

<sup>5</sup> Eligibility to apply and participate is limited to building owners and entities authorized by owners to contract for the provision of qualified energy efficiency services. Singular-dwelling unit residents or owners are not eligible to separately participate.

<sup>6</sup> An Energy Reduction Plan (ERP) identifies the set of cost-effective energy related improvements to be installed and provides information necessary to guide installation of those measures. The ERP includes a detailed description of the proposed work scope with the associated costs, projected energy saving, and an outline for how costs will be financed. This plan includes a proposed schedule for construction.

improvements through GJGNY financing. To promote participation within the multifamily sector, NYSERDA uses a number of marketing and educational tools. For example, morning presentations, or "Power Breakfasts," were offered Statewide to promote and educate the public about the suite of multifamily programs offered through NYSERDA's Multifamily Energy Performance Portfolio.

The NYSERDA GJGNY Team continues to look for areas of improvement for programs. Within the next year, the GJGNY Multifamily Team will look to expedite the contracting process at NYSERDA to eliminate processing times and promote customer service.

### 7.3 Audit Fees

Co-funding of the energy audit(s) and development of ERPs is offered in two tiers. The tiers are based on household income, with a higher level of funding available to buildings that satisfy NYSERDA's affordable housing criteria. To be eligible as an affordable housing project, the applicant must document that at least 25 percent of the residential dwelling units are occupied by families earning no more than 80 percent of the State or area median income, whichever is higher. NYSERDA allows reliance upon certain proxies to document compliance with this definition. Those proxies are specified in MPP program documentation. Current proxies include previously completed household income verification by housing regulators such as NYS Homes and Community Renewal, New York City's Housing Preservation and Development (HPD), the NYS Housing Finance Agency, and the U.S. Department of Housing and Urban Development (HUD).

One ERP is developed per project. However, a single project may include multiple buildings. The co-funding amount is dependent on project size. To be eligible to receive this co-funding, the participant must use an MPP Partner to complete the audit and ERP. The co-funding amount offered for completion of the audits and ERPs are listed in Table 7-1 and are specified in the MPP program documentation.

**Table 7-1. GJGNY Multifamily Audit Co-funding.**

Affordable		Market Rate	
Firm Gas*	Non-Firm Gas	Firm Gas*	Non-Firm Gas
(per unit)	(per unit)	(per unit)	(per unit)
\$75.00	\$60.00	\$52.50	\$37.50
* A firm gas project is defined as a project in which all buildings within a project pay into the System Benefits Charge fund through a firm gas heating rate as defined by the participant's utility for their primary space heating fuel.			

## 7.4 Additional NYSERDA Incentives

NYSERDA offers additional incentives to install eligible measures outlined within the ERP. Each incentive is subject to funding availability from the Energy Efficiency Portfolio Standard (EEPS) or Regional Green House Gas Initiative (RGGI). Through NYSERDA's Multifamily Performance Program, per unit incentives are available for projects predicted to achieve the 15 percent energy reduction threshold. Additional Performance Payments may apply in the case of eligible projects predicting and achieving savings above the 15 percent energy reduction threshold.

Incentives are paid at specified stages of the project's completion. Incentive amounts are detailed in Table 7-2.

**Table 7-2. Multifamily Performance Program Incentive Schedule.**

Affordable		Market Rate	
Firm Gas*	Non-Firm Gas	Firm Gas*	Non-Firm Gas
(per unit)	(per unit)	(per unit)	(per unit)
\$925.00	\$740.00	\$647.50	\$462.50
* A firm gas project is defined as a project in which all buildings within a project pay into the System Benefits Charge fund through a firm gas heating rate as defined by the participant's utility for their primary space heating fuel.			
Performance Payment (per unit) <sup>a</sup>			
Tier	Estimated Energy Reduction <sup>b</sup>		Applicable Performance Payment
1	20%-22%		\$150.00
2	23%-25%		\$200.00
3	26%-28%		\$250.00
4	29%+		\$300.00
<sup>a</sup> The Performance Payment applies in the case of eligible projects predicting and achieving savings above the 15% program threshold. NOTE: A project's incentive may be reduced based on the cost and/or cost-effectiveness of the recommended upgrades.			
<sup>b</sup> MPP energy reduction is based on source energy.			

The Multifamily Energy Performance Portfolio also offers incentives through the Advanced Submetering Program (ASP). ASP serves master metered rental buildings, cooperatives, and condominiums across the State, providing incentives for the installation of advanced submeters and master meters as well as energy efficient refrigerators and in-unit lighting. Building owners of rental properties participating in this program, including rented co-op and condo units, are required to offer new ENERGY STAR<sup>®</sup> refrigerators as replacements for refrigerators that are 10 years old or older, at no cost to the tenants.

## **7.5 Financing**

NYSERDA launched the GJGNY Multifamily Financing Program in June 2011. GJGNY financing is available to multifamily building owners with an approved NYSERDA audit. Building owners may work with a commercial lender of their choice. NYSERDA contracts directly with the lender. NYSERDA provides 50 percent of the principal of the loan made to support the installation of the improvements contained in the pre-approval document at zero percent interest, up to \$5,000 per apartment or \$500,000 per building. The lender provides the remaining principal of the loan at market rate. The lender collects all loan payments and remits to NYSERDA its share of the loan. NYSERDA uses these funds to continue further lending activities. By participating in the loan program, New York State lenders are able to offer blended interest rates at approximately half the market rate. Nine loans totaling \$2,012,368.50 have been issued as of June 30, 2013.

NYSERDA is currently developing an additional GJGNY financing program for the multifamily building market. The new program is called the On-Bill Recovery Multifamily Financing Program. As in the GJGNY Multifamily Financing Program, multifamily building owners wishing to participate in the On-Bill Recovery program may borrow funds for energy-efficiency projects that result from a NYSERDA approved audit. The loans are paid back as part of the building owner's utility bill and are structured so that projected energy savings meet or exceed monthly loan payments. Should the building be sold during the repayment period, the loan can stay attached to the utility account, and the new building owner will simply continue loan payments as part of the building's utility bill.

## **7.6 Coordination with Other Program Administrators**

NYSERDA coordinates with the NYS Homes and Community Renewal's Weatherization Assistance Program (WAP), NYC Housing Preservation and Development (HPD), the U.S. Department of Housing and Urban Development (HUD), and others to leverage additional funding, as appropriate.

NYSERDA continues to work with utility program administrators to address coordination issues and minimize confusion when multiple incentive opportunities are available to customers. If the multifamily building owner chooses not to participate in NYSERDA's MPP, the owner may elect to participate in a utility rebate program. In this case, the GJGNY loan may be used in coordination with the utility rebate(s), provided a building audit has been completed that meets MPP standards. Although GJGNY loans may be combined with either the NYSERDA or the utility incentives, NYSERDA and utility incentives cannot be combined with each other on the same measure. The GJGNY loan amount is determined by netting out all applicable utility or NYSERDA incentives at the measure level from the total cost of the work.

## 7.7 Budget, Goals, and Metrics

Table 7.3 and 7.4 describe the Multifamily Performance budget and goals and metrics, respectively.

**Table 7-3. Multifamily Performance Budget.**

Component	Budget	Expended <sup>a</sup>	Encumbered <sup>b</sup>	Committed <sup>c</sup>	Balance
Energy Audits	\$3,782,415	\$1,509,128	\$904,355	\$240,908	\$1,128,025
Implementation and Quality Assurance	1,636,505	1,412,642	4,943	0	218,920
Financing					
Loans	7,796,210	1,661,339*	254,398	0	5,880,473
Implementation	277,420	130,001	157,419	0	(10,000)
<b>TOTAL</b>	<b>\$13,492,550</b>	<b>\$4,713,110</b>	<b>\$1,321,115</b>	<b>\$240,908</b>	<b>\$7,217,418</b>
* a b c	Loan Expended amount is net of loan repayments made through reporting period. Expended: Contractor Invoices and loans processed for payment by NYSERDA. Encumbered: Remaining funding obligated under a contract, purchase order, incentive award, or loan. Committed: Planned funding for contracts awarded and under negotiation; loans approved; and planned funding under active development through open solicitations with upcoming proposal due dates.				

**Table 7-4. Multifamily Performance Goals and Metrics.**

<b>Metric</b>	<b>Market Rate</b>	<b>Affordable</b>	<b>Total</b>	<b>Goals</b>	<b>Progress Toward Goals</b>
Audit Applications (number)	110	129	239	500	47.80%
Audits Complete (number)	95	92	187	400	46.75%
Projects Contracted (units)	13,074	10,531	23605		
1st Year Net KWh Savings (committed) *	21,348,357.3	39,882,709.2	61,231,066.5		
1st Year Net MMBtu Savings (committed) *	445,039.0	422,533.8	867,572.8		
Estimated Annual Bill Savings (committed) *	\$10,301,939.00	\$13,185,573.24	\$23,487,512.24		
Projects with Installed measures (units)	5,084	5,878	10,962		
1st Year Net KWh Savings (installed) *	997,115.6	9,521,628.1	10,518,743.7		
1st Year Net MMBtu Savings (installed) *	75,596.7	106,692.5	182,289.2		
Estimated Annual Bill Savings (installed) *	\$3,584,657.65	\$1,127,680.33	\$4,712,337.98		
Estimated Annual KWh Savings/unit (installed)	0.096789119	0.722124695	0.447844094		
Estimated Annual MMBtu Savings/unit (installed)	0.0073381	0.008091609	0.00776111		
Estimated Annual Dollar Savings/unit (installed)	\$0.35	\$0.09	0.200631635		
Loans Issued (number)	3	6	9		
Value of Loans	\$1,764,548.50	\$5,793,440.00	\$7,557,988.50		
Lifetime savings (committed) *	\$70,323,167.00	\$69,381,326.90	\$139,704,493.90		
Lifetime savings (installed) *	\$6,444,116.51	\$23,623,874.10	\$30,067,990.61		

\* Projects that receive GJGNY-supported audits and/or financing may also receive incentives through Energy Efficiency Portfolio Standard (EEPS), Regional Green House Gas Initiative (RGGI) and/or utility programs, such that projects' energy savings may not all be attributable solely to GJGNY.

## 7.8 Multifamily Performance Contracts Entered Into

External contracts related to the implementation of the GJGNY Program are detailed in Table 7-5.

**Table 7-5. Multifamily Performance Contracts Entered Into.**

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
<b>Energy Audits</b>						
<b>AGGREGATED ENERGY AUDITS</b>			<b>N/A</b>	<b>\$1,509,128</b>	<b>\$904,355</b>	<b>\$240,908</b>
<b>Audit Implementation and Quality Assurance</b>						
29436	Brand/Cool Marketing	MPP mod 4 TWO 4	17,585	17,585	0	0
ST9941	Taitem Engineering P.C.	QA Multifamily Building Performance Program	166,486	166,486	0	0
ST9941/ 18649	TRC Engineers Inc.	Program Implementer for Multifamily Building Performance Program	1,233,514	1,228,571	4,943	0
<b>TOTAL AUDIT IMPLEMENTATION AND QUALITY ASSURANCE</b>			<b>\$1,417,585</b>	<b>\$1,412,642</b>	<b>\$4,943</b>	<b>\$0</b>
<b>Loan Activity</b>						
Aggregated Loans Issued	Various	Loans issued	N/A	1,806,221	254,398	0
Aggregated Loan Repayments	Various	Loan repayments	N/A	(\$144,881)		
<b>NET AGGREGATED LOAN ACTIVITY</b>			<b>N/A</b>	<b>\$1,661,340</b>	<b>\$254,398</b>	

Table 7-5 (continued)

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
<b>Financing Implementation</b>						
25909	Concord Servicing Corporation	MF Master Loan Servicer for GJGNY	150,000	127	149,873	0
20662	Energy Programs Consortium	Energy Programs Consortium- Phase I	5,000	2,500	2,500	0
18591	Hawkins Delafield & Wood	Legal financial advisory services for GJGNY 5	76,000	73,632	2,368	0
19923	Lamont Financial Services Corporation	Legal financial advisory services for GJGNY 3	56,420	53,742	2,678	0
<b>TOTAL FINANCING IMPLEMENTATION</b>			<b>\$287,420</b>	<b>\$130,001</b>	<b>\$157,419</b>	<b>\$0</b>
<b>GRAND TOTAL</b>			<b>\$1,705,005</b>	<b>\$4,713,110</b>	<b>\$1,321,115</b>	<b>\$240,908</b>

## 8 Small Commercial Energy Efficiency Program

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Implementation of the approved GJGNY Small Business/Not-for-Profit Operating Plan<sup>7</sup> began in the first quarter of 2011.

### 8.1 Target Audience

In June 2011, the Small Commercial Energy Efficiency Program (formerly known as the Small Business/Not-for-Profit Energy-Efficiency Financing Program) began offering Participation Loans to small businesses with 100 employees or fewer and to not-for-profits with any number of employees, which have Qualified Energy Assessments.<sup>8</sup> Small businesses and not-for-profits must own, lease, or manage the building that their organization uses or occupies and must have the authority to contract for the provision of Qualified Energy-Efficiency Services<sup>9</sup> to the building. If the small business or not-for-profit leases or manages all or part of a building, it must obtain permission from the building owner to seek energy-efficiency financing through the Program.

In June 2012, the Program began offering On-Bill Recovery (OBR) Loans to small businesses and not-for-profits that meet GJGNY eligibility requirements; meet NYSERDA's underwriting criteria; and have utility accounts with one of the following participating utilities: Central Hudson, Con Edison, Long Island Power Authority, National Grid (Upstate New York customers only), New York State Electric and Gas Corporation, Orange & Rockland, Rochester Gas and Electric.

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<sup>7</sup> The GJGNY Small Business/Not-for-Profit Operating Plan was presented to the Advisory Council for comment and subsequently approved by NYSERDA's Senior Management in October 2010.

<sup>8</sup> Qualified Energy Assessments include either 1) a Full Walkthrough Energy Audit that provides customers with energy use information, a set of recommendations for Qualified Energy Efficiency Services, installation cost estimates, and associated energy and cost savings estimates; or 2) a Technology or Equipment Specific Commercial Audit that provides energy use information, recommendations on one or more specific building systems, equipment replacement or upgrade opportunities, and associated energy and cost savings estimates. Qualified Energy Assessments must be provided by Qualified Energy Consultants and must meet NYSERDA's standards for small commercial energy assessments.

<sup>9</sup> Qualified Energy Efficiency Services are modifications to non-residential structures based upon recommendations contained in a Qualified Energy Audit performed under a NYSERDA program, by a utility program, or by a Qualified Energy Auditor. Qualified Energy Efficiency Services may include prequalified and custom measures or services including but not limited to: heating, ventilation, air conditioning (HVAC), lighting, controls, building envelope, domestic or service hot water, solar thermal heat or hot water, or business processes (e.g. kitchens, laundries, air compression, etc.)

## 8.2 Implementation Strategy

NYSERDA offers eligible small business and not-for-profit customers Qualified Energy Assessments from competitively selected Qualified Energy Consultants.<sup>10</sup> GJGNY currently allows small business and not-for-profit customers to use Qualified Energy Assessments provided by NYSERDA, utility service providers, or Qualified Energy Consultants as the basis of an application for financing, provided the energy assessment meets NYSERDA's standards for small commercial energy assessments found in the NYSERDA Small Commercial Energy Efficiency Program Energy Assessment and Request for Financing Package.<sup>11</sup> NYSERDA enters into agreements with lenders to provide small businesses and not-for-profits with access to low-interest energy-efficiency financing through either the Participation or OBR Loan product.

In February 2012, NYSERDA launched a project expeditor pilot to provide assistance to small business and not-for-profit customers who had obtained energy assessments through GJGNY to encourage implementation of energy assessment recommendations. The project expeditors follow up with customers who have received energy assessments to determine if customers are eligible for financial incentives or energy-efficiency financing, to help customers apply for available incentives and financing, to verify that the technologies and services included in energy project proposals are consistent with technologies recommended in Qualified Energy Assessments, and to provide additional technical assistance as necessary.

Expeditor Pilot results demonstrate that small business and not-for-profit customers benefit from dedicated project implementation assistance, including assistance identifying and accessing financial incentives and low-interest energy efficiency financing, to help lower the cost of implementing energy efficiency improvements recommended on Qualified Energy Assessments. As a result, NYSERDA is adding dedicated implementation assistance to the Small Commercial Energy Efficiency Program. Qualified Energy Consultants selected through RFP 2621, Component 4, will provide energy assessments to small business and not-for-profit customers, explain energy assessment recommendations and the business case for energy efficiency to customers, and will identify and help customers apply for any available financial incentives or low-interest energy efficiency financing available through NYSERDA programs. NYSERDA anticipates that providing energy assessments integrated with dedicated implementation assistance will help

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<sup>10</sup> The definition of a Qualified Energy Consultant can be found in the NYSERDA Small Commercial Energy Efficiency Program Energy Assessment and Request for Financing Package:  
<http://www.nysерda.ny.gov/-/media/Files/EERP/GJGNY/Small-Business/Energy-Assessment-Standards.pdf>

<sup>11</sup> NYSERDA's Standards for Small Commercial Energy Assessments can be found in the NYSERDA Small Commercial Energy Efficiency Program Energy Assessment and Request for Financing Package:  
<http://www.nysерda.ny.gov/-/media/Files/EERP/GJGNY/Small-Business/Energy-Assessment-Standards.pdf>

more small business and not-for-profit customers implement energy efficiency improvements in their buildings.

### **8.3 Audit Fees**

In accordance with the GJGNY Act, NYSERDA uses GJGNY funding to provide free energy assessments statewide for small businesses and not-for-profits with 10 employees or fewer. NYSERDA also secured a limited amount of federal American Recovery and Reinvestment Act (ARRA) funds to provide free energy assessments to small businesses and not-for-profits across New York State with more than 10 employees and an average electric demand of 100 kW or less. By securing ARRA funding for this purpose, NYSERDA was able to make low- or no-cost energy assessments available to small business and not-for-profit customers who are eligible for low-interest energy efficiency financing made available through GJGNY, but who are not eligible for low- or no-cost energy assessments through GJGNY because they have more than 10 employees. ARRA funding filled a gap in GJGNY offering, as the GJGNY Act requires that a small business or not-for-profit customer obtain a Qualified Energy Assessment prior to applying for financing. GJGNY's ARRA funding will sunset on September 30, 2013. Unless alternate funding sources are secured or GJGNY eligibility rules for energy assessments are made consistent with GJGNY financing eligibility criteria, NYSERDA will have available only resources to offer free energy assessments to small business and not-for-profit customers with less than 10 employees. GJGNY is investigating alternate funding sources at this time.

Should funding and program eligibility criteria remain the same, small business and not-for-profit customers who are eligible for GJGNY financing but who are not eligible for a low- or no-cost energy assessment will have the option to obtain a cost-shared energy study through NYSEDA's FlexTech Program. It is anticipated that FlexTech energy studies would cost small business and not-for-profit customers up to several thousand dollars in cost-share per study. In addition, FlexTech studies are not available statewide. Customers must pay into the Systems Benefit Charge in order to be eligible. Unfortunately, the cost-share requirement may preclude small business and not-for-profit customers from pursuing an energy study and consequently make it difficult for small business and not-for-profit customers with more than 10 employees to access low-interest GJGNY financing.

Small business and not-for-profit customers may also obtain an energy assessment through a utility service provider program or through another Qualified Energy Consultant, provided the energy assessment meets NYSERDA's energy assessment standards.

## **8.4 Financing**

NYSERDA enters into agreements with lenders who wish to partner with NYSERDA to provide low-interest energy efficiency financing to small business and not-for-profit customers through Participation Loans and OBR Loans.

### **8.4.1 Participation Loans**

NYSERDA provides 50 percent of the principal of the loan, up to \$50,000, at zero percent interest. The lender provides the remaining principal of the loan at market rate. Participating lenders collect loan payments from the customer and remit to NYSERDA its share of the loan. NYSERDA will use these funds to continue further lending activities. By participating in the program, lenders can offer energy efficiency financing to small business and not-for-profit customers at a reduced interest rate.

### **8.4.2 On-Bill Recovery Loans**

Participating lenders can also originate OBR Loans on NYSERDA's behalf. Through this loan product, NYSERDA offers eligible small business and not-for-profit customers up to \$50,000 at 2.5 percent interest to finance the cost of their energy-efficiency projects. Customers repay their OBR Loan through an installment charge on their utility bill. Lenders will earn a \$300 origination fee for each OBR Loan they originate on NYSERDA's behalf.

## **8.5 Additional NYSERDA Incentives**

NYSERDA also offers SBC-eligible small business and not-for-profit customers incentives to reduce the cost of eligible Qualified Energy Efficiency Services. These services may include prequalified and custom measures or services, including but not limited to: heating, ventilation, and air conditioning (HVAC), lighting, and building envelope or business processes (i.e. kitchens, laundries, air compression, etc.). The availability of incentives is subject to funding and performance requirements established in the Energy Efficiency Portfolio Standard (EEPS).

## **8.6 Program Outreach Efforts**

### **8.6.1 Coordination with Other Program Administrators**

NYSERDA's Small Commercial Energy Efficiency Program currently allows small business and not-for-profit customers to use Qualified Energy Assessments provided by NYSERDA, utilities, or a Qualified Energy Consultant of their choice as the basis of an application for low-interest energy efficiency financing made available through GJGNY, provided the energy assessment meets NYSERDA's standards for small commercial energy assessments found in the NYSERDA Small Commercial Energy Efficiency Program

Energy Assessment and Request for Financing Package. By taking advantage of available financing, small businesses and not-for-profits can access the initial capital necessary to cover the cost of implementing approved energy efficiency improvements that are not covered by estimated utility and NYSERDA incentives.

NYSERDA is coordinating with utilities and LIPA to make them aware of the Program and will continue this effort by hosting a training webinar for utilities and other Qualified Energy Consultants interested in connecting their small business and not-for-profit customers with low-interest energy efficiency financing.

### **8.6.2 Outreach Efforts to Lenders**

The Small Commercial Energy Efficiency Program is increasing outreach to lenders to raise awareness of and increase lender participation in GJGNY energy efficiency financing. Regional events are being held for lenders to present Program information and to communicate the added value lenders can provide to their customers by working with NYSERDA to offer energy efficiency financing at a reduced interest rate.

The Small Commercial Energy Efficiency Program is also engaged with NYSERDA's outreach contractors, including Regional Outreach Contractors (ROCs) working in the State's Regional Economic Development Councils through NYSERDA's Economic Development Growth Extension (EDGE) Program, constituency-based organizations (CBOs), and Commercial Outreach contractors. NYSERDA holds program training presentations and provides program updates for outreach contractors so that they can better connect small business and not-for-profit organizations with Small Commercial Energy Efficiency Program opportunities, including energy assessments and low-interest energy efficiency financing made available through GJGNY.

## **8.7 Budget, Goals, and Metrics**

Tables 8-1 and 8-2 describe the Small Commercial Energy Efficiency budget and goals and metrics, respectively.

**Table 8-1. Small Commercial Energy Efficiency Budget.**

<b>Component</b>	<b>Budget</b>	<b>Expended<sup>a</sup></b>	<b>Encumbered<sup>b</sup></b>	<b>Committed<sup>c</sup></b>	<b>Balance</b>
Energy Assessments	\$8,078,770	\$2,568,021	\$1,317,669	\$3,908,183	\$0
Implementation and Quality Assurance	2,321,230	266,410	190,447	2,149,270	0
Financing					
Loans	7,288,787	74,732*	0	0	7,214,055
Implementation	486,130	196,070	250,060	0	40,000
<b>TOTAL</b>	<b>\$18,174,917</b>	<b>\$3,105,233</b>	<b>\$1,758,176</b>	<b>\$6,057,453</b>	<b>\$7,254,055</b>
<p>Note: Actual funds towards the Solicitation for the contracting of implementation, quality assurance and energy assessments contractors total \$6,969,031. This total reflects additional funding from sources that include new funds, transfers, and funds disencumbered from current energy assessment contracts.</p> <p>* Loan Expended amount is net of loan repayments made through reporting period.</p> <p><sup>a</sup> Expended: Contractor Invoices and loans processed for payment by NYSERDA.</p> <p><sup>b</sup> Encumbered: Remaining funding obligated under a contract, purchase order, incentive award, or loan.</p> <p><sup>c</sup> Committed: Planned funding for contracts awarded and under negotiation; loans approved; and planned funding under active development through open solicitations with upcoming proposal due dates.</p>					

**Table 8-2. Small Commercial Energy Efficiency Goals and Metrics.**

<b>Metric</b>	<b>Performance To-Date</b>	<b>Goals</b>
Audit Applications (number)	1,915	
Audits Complete (number)	1,661	2100
Estimated Projects Completed <sup>a,c</sup> (number)	332	1296
1st Year Net KWh Savings (audit recommended) <sup>b</sup>	11,185,008	
1st Year Net KWh Savings (estimated installed) <sup>c</sup>	2,237,002	
1st Year Net MMBtu Savings (audit recommended)	80,299	
1st Year Net MMBtu Savings (estimated installed) <sup>c</sup>	16,060	
Estimated Annual Bill Savings (audit recommended)	\$3,361,446	
Estimated Annual Bill Savings (estimated installed) <sup>c</sup>	\$672,289	
Estimated Annual KWh Savings/project	2,245	18,000 kWh per year/ completed project
Estimated Annual MMBtu Savings/project	16	160 mmBtu per year/ completed project
Estimated Annual Dollar Savings/project	\$675	\$5,200 per year/ completed project
Loans Issued (number)	6	1000
Value of Loans <sup>d</sup>	\$232,172	
<p><sup>a</sup> Projects that receive GJGNY-supported audits and/or financing may also receive incentives through Energy Efficiency Portfolio Standard (EEPS) and/or utility.</p> <p><sup>b</sup> Audit recommended savings represent the total potential energy and energy bill savings that could be achieved if all measures recommended in the audit are implemented.</p> <p><sup>c</sup> Based on preliminary findings from NYSERDA's expeditor pilot, staff have found that approximately 20 percent of projects that receive energy audits are implemented. Estimated installed metrics reflects the total energy and energy bill savings expected based on a projected implementation rate of 20 percent.</p> <p><sup>d</sup> The total loan value represents the total value of the loan issued by the lender to the borrower. The total loan value may include financing for non-energy efficiency projects. NYSERDA's share of the total loan value represents 50% of the total energy efficiency project cost or \$50,000, whichever is less.</p>		

## 8.8 Small Commercial Energy Efficiency Contracts Entered Into

External contracts related to the implementation of the GJGNY Program are detailed in Table 8-3.

**Table 8-3. Small Commercial Energy Efficiency Program Contracts.**

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
<b>Energy Audits</b>						
ST9848-1	CJ Brown Energy	Energy Assessment Provider	\$692,653	\$269,796	\$122,857	\$0
ST9849-1	L&S Energy Services	Energy Assessment Provider	1,003,510	541,285	207,225	0
ST9850-1	Daylight Savings Company	Energy Assessment Provider	1,459,451	1,414,390	82,981	0
ST9851-1	EME Group	Energy Assessment Provider	692,157	342,550	166,986	0
RFP-2621		Preencumberance for RFP 2621 Component 4			737,621	3,858,182
ST9850-1	Daylight Savings Company	Pending modification	0	0	0	50,000
<b>TOTAL ENERGY AUDITS</b>			<b>\$3,847,770</b>	<b>\$2,568,021</b>	<b>\$1,317,669</b>	<b>\$3,908,182</b>
<b>Audit Implementation and Quality Assurance</b>						
32825	Taitem Engineering	Expeditor Pilot	75,000	23,394	51,606	0
32865	Aramark	Program Support Services	65,000	18,177	46,823	0
24210	DNV Kema	Program Support Services	49,857	49,857	0	0
27052	Novus Engineering	Expeditor Pilot	50,000	40,053	9,947	0
27726	Taitem Engineering	Expeditor Pilot	50,000	50,000	0	0
27661	Nexant	Expeditor Pilot	50,000	43,407	6,593	0
30679	DNV Kema	Program Support Services	50,000	41,522	8,478	0
33565	LaBella	QA Services	19,000	0	5,871	0

**Table 8-3 (continued)**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended</b>	<b>Encumbered</b>	<b>Committed</b>
33570	TRC	QA Services	48,000	0	6,622	0
ET - RFP-2621		Preencumberance for RFP 2621 Component 4			54,507	2,149,270
<b>TOTAL AUDIT IMPLEMENTATION AND QUALITY ASSURANCE</b>			<b>\$456,857</b>	<b>\$266,410</b>	<b>\$190,477</b>	<b>\$2,149,270</b>
<b>Loan Activity</b>						
Aggregated Loans Issued	Various	Loans issued	N/A	\$89,849	\$0	\$0
Aggregated Loan Repayments	Various	Loan repayments	N/A	(\$15,117)	\$0	\$0
<b>NET AGGREGATED LOAN ACTIVITY</b>			<b>N/A</b>	<b>\$74,732</b>	<b>\$0</b>	<b>\$0</b>
<b>Financing Implementation</b>						
18591	Hawkins Delafield Wood	legal/program des	114,000	110,449	3,551	0
19923	Lamont Financial Services	fin/program des	84,630	80,613	4,017	0
20662	Energy Program Consortium	program des	7,500	3,750	3,750	0
25910	Concord Servicing	loan servicer	240,000	1,259	238,741	0
<b>TOTAL FINANCING IMPLEMENTATION</b>			<b>\$446,130</b>	<b>\$196,071</b>	<b>\$250,059</b>	<b>\$0</b>
<b>GRAND TOTAL</b>			<b>\$4,750,757</b>	<b>\$3,105,234</b>	<b>\$1,758,175</b>	<b>\$6,057,452</b>
<p>Note: Actual funds towards the Solicitation for the contracting of implementation, quality assurance and energy assessments contractors total \$6,969,031. This total reflects additional funding from sources that include new funds, transfers, and funds disencumbered from current energy assessment contracts.</p>						

## 8.9 Recommendations for Improvements

The GJGNY Act provides that NYSERDA may allocate GJGNY funds for the provision of energy assessments in non-residential properties that are used or occupied by a small business or not-for-profit corporation, but only if such entity has 10 or fewer employees. This requirement differs from financing eligibility criteria established by the GJGNY Act that permit NYSERDA to use GJGNY funds to provide low-interest energy efficiency financing to small businesses with fewer than 100 employees and not-for-profit organizations of any size. As a result, NYSERDA cannot provide all small business and not-for-profit customers who are eligible for GJGNY financing with access to GJGNY energy assessments.

As customers must obtain a Qualified Energy Assessment prior to applying for financing, NYSERDA leveraged a portion of its American Recovery and Reinvestment Act (ARRA) grant to provide energy assessments to small business and not-for-profit customers with more than 10 employees. This funding sunsets on September 30, 2013. After September 30, 2013, NYSERDA will be unable to provide low- or no-cost energy assessments to small businesses or not-for-profit corporations with more than 10 employees unless alternate funding sources are secured or GJGNY eligibility rules for energy assessments are made consistent with GJGNY eligibility rules for financing.

In addition, the GJGNY Act provides that NYSERDA may offer energy-efficiency financing to eligible small business or not-for-profit applicants, which are defined as small business and not-for-profit organizations that own, lease, or manage a non-residential building and have the authority to contract for the provision of Qualified Energy Efficiency Services to the building. This requirement constrains NYSERDA's ability to make low-interest energy-efficiency financing available to small businesses and not-for-profits that lease space within a non-residential building but do not lease an entire building for their business or organization.

Furthermore, the GJGNY Act caps the amount of financing available at \$50,000 per building owner, lessee, or manager, as opposed to per eligible project. As a result, a building owner would forfeit some or all of the claim to the available \$50,000 in energy efficiency financing if he or she allowed one or more eligible small business or not-for-profit tenants to seek financing through the Program. Moreover, each eligible small business or not-for-profit that leases space within a non-residential building would have to compete to finance energy efficiency projects out of the \$50,000 in GJGNY financing available to the building owner, lessee, or manager through the Program. Applying the financing cap on a per project basis, as opposed to a per applicant basis, would alleviate an obstacle faced by lessees of space within non-residential buildings when they attempt to access energy efficiency financing. Examples of organizations that would benefit from this change could include a dry cleaner that operates in a strip mall or a small grocery store located in a large commercial building in New York City.

Finally, preliminary program experience indicates that small business and not-for-profit customers seek financing when making retrofits to major building systems, including but not limited to lighting, building envelope, and heating and cooling systems. As a result, the \$50,000 cap on energy efficiency financing available to each applicant may be insufficient financing for the scale of small business and not-for-profit energy efficiency projects.

NYSERDA recommends that consideration be given to addressing these challenges and obstacles in order to effectively meet the needs and opportunities in this sector.

## 9 Evaluation

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Since the introduction of GJGNY, NYSERDA has engaged its third-party evaluation contractors to develop and implement evaluation plans for GJGNY programs. Each evaluation activity is designed to assess the effectiveness, progress, and outcomes related to each of the GJGNY program initiatives.

Because not all GJGNY programs were implemented concurrently, early discussions between evaluation staff, program staff, and evaluation contractors identified the need for initial work to focus on Residential One- to Four-Family Buildings. As the programs matured, NYSERDA and its evaluation contractors monitored the program progress and engaged staffs to identify future evaluation needs and research objectives.

This section describes evaluation activities that are currently completed, underway, and planned. Future Annual Reports will provide updates to these activities and evaluation contractor reports will be posted on NYSERDA's website for public use once completed.

### 9.1 Completed Evaluation Activities

#### 9.1.1 Residential Single-Family Buildings

Early discussions between evaluation staff, program staff, and the evaluation contractors identified the need for initial work to focus on Residential One- to Four-Family Buildings. A combined process and market evaluation addressing GJGNY activities for residential one- to four-family buildings and the financing, outreach, and marketing efforts delivered through the New York Home Performance with Energy Star (HPwES) program was completed in 2012. This is the first process evaluation and market evaluation of GJGNY for the New York HPwES One to Four-Family Buildings Program and focused on project activity occurring since November 2010.

The overall objectives of the process and market evaluation were to document the experience of early changes to the program, provide input on the effectiveness of the program during summer/fall 2011, and assess the degree to which program activities were in alignment with program goals. The evaluation specifically assessed barriers to achievement of program goals, influences of program activities on program perceptions, and processes for each program component. The evaluation also assessed baseline conditions for energy audits, HPwES projects, financing of HPwES projects, and CBO outreach activities.

The evaluation results were presented to the GJGNY Advisory Council in September 2012 and are available at:

<http://www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2012ContractorReports/2012-GJGNY-MCA-Report.pdf>

## **9.2 Evaluation Activities Currently Underway**

Three major evaluation projects are currently underway: a jobs impacts assessment, a market/process evaluation of the CBO initiative, and a market/process evaluation of the Small Commercial initiative. The status of each project is described in this section, including interim results where available.

### **9.2.1 Jobs Impacts Assessment**

The primary purpose of this evaluation effort was to assess GJGNY's impact on jobs and other key economic indicators. The project was conducted in two phases. NMR Group, Inc. (NMR) conducted the Phase 1 primary and secondary research to estimate the number of jobs, in full time equivalents (FTEs), generated as a result of GJGNY-funded program activities and assessed other job-related impacts such as wage levels and worker skills. In addition, NMR estimated the FTEs created in disadvantaged communities in the State. In Phase 2, ICF Consulting used the detailed results derived from NMR's research as inputs to a macroeconomic, input-output analysis which estimated the total (direct, indirect and induced) job impact, economic output, labor income, and gross state product impacts from the GJGNY Program.

NYSERDA expects to have final results of the job impact assessment in late 2013. This section describes Phases 1 and 2 of this evaluation effort and interim findings in more detail.

Although state-of-the-art methods were used, it is important to note that this type of analysis has certain challenges and limitations along with key points of context within which to interpret the results. These limits are:

- Due to the close linkage of GJGNY program offerings with ratepayer funded program offerings, survey research conducted in Phase 1 to determine job, wage and skill level impacts from the GJGNY program carefully addressed issues of attribution. The attribution analysis attempted to isolate and claim only the GJGNY impacts and not other energy program impacts.
- This study is not a net analysis. A net analysis would model and subtract out the economic impacts of alternative spending of the GJGNY program funds. The analysis presented here only modeled the impact of the program expending the GJGNY funds.

- The jobs reported here are a point-in-time estimate of the number of FTEs attributable to the GJGNY Program when the survey inquiry was made and based on using the survey data in economic modeling. Per the survey responses, FTEs reported for 2013 existed in the first quarter of that year and resulted since the inception of the GJGNY Program. These 2013 FTEs are assumed to continue to the extent that the GJGNY funding continues. FTEs for 2015 were also estimated from the survey and include 2013 FTEs which are assumed to continue through 2015, plus an estimate by survey respondents of the number of additional new FTEs attributable to GJGNY between 2013 and 2015. For the 2015 FTEs, the survey questions asked respondents to assume that GJGNY funding continues at its current level.
- Due to differences in the analytical approaches, results from this GJGNY jobs study cannot be added to the results from jobs studies on other NYSERDA programs or portfolios.

### **9.2.1.1 Phase 1: Participant Research**

The key focus of this study was to estimate the number of 2013 and 2015 Direct FTEs<sup>12,13</sup> generated as a result of GJGNY-funded program activities and determine other FTE-related impacts, particularly on hourly wage levels and worker skills. In addition, NMR estimated the FTEs created in disadvantaged communities in the State.<sup>14</sup>

To assess the FTE-related impacts of the GJGNY Program, NMR drew upon both primary and secondary data sources. Primary data collection consisted of in-depth interviews and surveys of several groups associated with GJGNY activities that were likely to have had an impact on the workforce. These activities included program partners associated with NYSERDA programs that received GJGNY funding, trade ally groups that provided services for such programs, and firms and organizations involved in the other GJGNY-related activities (e.g., marketing, training, and financing). In total, 205 surveys were completed, the majority of which were with HPwES contractors, Multifamily Performance Program participants and partners, Workforce Development training partners and constituency-based organizations (CBOs). Secondary data sources included program records provided by NYSERDA, the New York State Department of Labor (DOL) and CBOs.

Through these interviews and surveys, NMR collected information from each of the respondents regarding job impacts of the GJGNY Program within their company or jobs that resulted from GJGNY-funded training.

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<sup>12</sup> An FTE equals the total hours worked in a job divided by the number of hours in a full-time schedule. For example, one full time position is equal to one FTE, and one part time position working 10 hours of a 40 hour full-time weeks is equal to 0.25 FTEs.

<sup>13</sup> Direct FTEs for 2013 are equal to 2013 New FTEs plus 2013 Retained FTEs. Direct FTEs for 2015 are equal to 2013 Direct FTEs plus the respondent's estimate of full time new equivalent positions that will be added because of GJGNY activities by 2015.

<sup>14</sup> NMR determined disadvantaged community status by comparing the county unemployment rate with the state average. Cities and towns in counties with unemployment rates higher than that of the state average were classified as disadvantaged. County unemployment levels were determined based on data from the New York State Department of Labor (<http://labor.ny.gov/stats/LSLAUS.shtm>).

As the GJGNY program components have been integrated into NYSERDA programs that receive funding from other sources as well, a crucial element of this research was to determine the job impacts of these programs that can be attributed to GJGNY. Accordingly, NMR developed a methodology to attribute job impacts to GJGNY versus other program funding sources.

The jobs and wages data was organized into two reporting templates used by ICF as input to the Phase 2 macroeconomic analysis. All job and wages results were organized by North American Industry Classification System (NAICS) code.

### Interim Findings: Phase 1

Direct FTEs for 2013 include 2013 New FTEs and 2013 Retained FTEs. As of the first quarter of 2013, the total number of reported Direct FTEs (new and retained) across the entire GJGNY Program was 905.83 FTEs. The region with the greatest number of 2013 Direct FTEs was the Finger Lakes with 222.58 FTEs, or 24.6 percent. Of the total 905.83 FTEs that represented 2013 Direct FTEs for the GJGNY Program, 17.2 percent, or 155.55 FTEs, were in disadvantaged communities. The region with the greatest number of 2013 Direct FTEs in disadvantaged communities was the Southern Tier with 55.71 FTEs.

NMR collected and aggregated 2013 New FTEs and related hourly wage information across 31 reported NAICS code categories. As of the first quarter of 2013, GJGNY funding for NYSERDA program initiatives resulted in the addition of 558.8 total new FTEs. Average hourly wage level across all NAICS code categories was \$25.23. Engineering Services added the most new FTEs with 151.8 total FTEs and an average hourly wage level of \$19.85.<sup>15</sup>

NMR collected and aggregated 2013 Retained FTEs and related hourly wage information across 27 reported NAICS code categories. As of the first quarter of 2013, GJGNY funding for NYSERDA program initiatives resulted in a total of 347.03 retained FTEs. The average hourly wage level across all of these positions was \$28.68. Engineering Services had the largest number of retained FTEs with 173.61 FTEs at an average hourly wage level of \$24.06.

NMR collected and aggregated counts of 2013 up-skilled and up-waged FTEs across 26 reported NAICS code categories. As of the first quarter of 2013, GJGNY funding for NYSERDA program initiatives resulted in a total of 282.15 FTEs of existing staff positions that were up-skilled and received an increase in hourly wages. Prior to their involvement with GJGNY activities, the average hourly wage level for this group was \$22.45. The average hourly wage increase that this group experienced due to the GJGNY

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<sup>15</sup> Note that Engineering Services companies may be wide-ranging, including engineers as well as building auditors. Visit the NAICS Association website ([www.naics.com](http://www.naics.com)) for more information.

Program was \$5.12, which resulted in an average hourly wage level for all of these FTEs combined of \$27.58.

Engineering Services saw the greatest number of 2013 up-skilled and up-waged FTEs with 142.05 total FTEs. The average hourly wage level for this NAICS code category prior to the hourly wage increase was \$17.26, and the average hourly wage level after the hourly wage increase was \$20.85. GJGNY funding for NYSERDA program initiatives also resulted in a total of 258.7 FTEs of existing staff positions that were up-skilled but did not receive an increase in hourly wage levels.

Direct FTEs for 2015 was calculated for each NAICS code category by combining 2013 New FTEs, 2013 Retained FTEs, and a respondent-reported estimate of how many more new FTEs will be added by 2015. NMR collected and aggregated 2015 Direct FTEs across all reported NAICS code categories. By 2015, the GJGNY Program is projected to have total FTE-related impacts of 2,545.6 FTEs. Of that total, 498.5 FTEs, or 19.6 percent of 2015 Direct Jobs, are projected to be in disadvantaged communities.

#### *Program Initiative-Level Findings<sup>16</sup>*

The initiative with the most 2013 Direct FTE impacts was the Home Performance with ENERGY STAR Program (HPwES) with 495.92 FTEs, or 54.75 percent of total 2013 Direct FTEs. The HPwES Program includes HPwES contractors as well as the HPwES Program Implementers.

The initiative with the second most 2013 Direct FTEs was the Workforce Development and Training Initiative with 213.59 FTEs, or 23.58 percent of 2013 Direct FTEs. The Workforce Development and Training Initiative includes Workforce Development Training Partners and Workforce Development Trainees.

The Outreach and Marketing Initiative had a total of 160.58 FTEs, or 17.73 percent 2013 Direct FTEs. Outreach and Marketing includes staff from several different respondent groups, including constituency-based-organization (CBO) staff, CBO Trainees, Marketing Contractor, CBO Implementer, and other CBO activities.

The Multifamily Performance Program (MPP) had a total of 28.74 2013 Direct FTEs. The Multifamily Performance Program includes staff from the MPP Partners, MPP Participants, and the MPP Implementers. Finally, the Small Commercial Energy Efficiency Program ) had a total of 7.0 2013 Direct FTEs. Small Commercial includes staff from small business and not-for-profit Audit Contractors and small business and not-for-profit Expeditors.

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<sup>16</sup> Program level findings include FTEs from installation contractors, training partners, CBO efforts, and marketing and implementation contractors.

## *Key Respondent Group Findings<sup>17</sup>*

HPwES contractors had the most FTEs with 495.54 FTEs, or 54.71 percent of all 2013 Direct FTEs across the GJGNY Program. Workforce Development Trainees had the second most FTEs with 173.95 FTEs, or 19.2 percent of all 2013 Direct FTEs across the GJGNY Program. CBO Trainees<sup>18</sup> saw the third most FTEs with 104.4 FTEs, or 11.53 percent of all 2013 Direct FTEs across the GJGNY Program. Combined, these three groups accounted for a total of 773.89 FTEs, or 85.4 percent of all 2013 Direct FTEs across the GJGNY Program.

### **9.2.1.2 Phase 2: Economic Impacts of the GJGNY Program**

A second phase of the evaluation to assess total (direct, indirect and induced) job impacts is being conducted by ICF using the data collected by NMR Group, Inc. in Phase 1, as direct inputs.

The specific objectives of the Phase 2 economic impact analysis include:

- Using direct job estimates and associated wage information provided by NMR Group, estimate the total indirect and induced jobs generated for 2013 and 2015 as a result of GJGNY-funded program activities.
- Determine other economic impacts, such as overall economic activity in terms of labor income, Gross State Product (GSP) and economic output.
- Estimate the jobs and other economic impacts in economically disadvantaged communities<sup>19</sup> in the State targeted by the Program.
- Conduct post-model wage comparison of direct GJGNY-funded jobs to publically-available industry wage averages.

ICF used IMPLAN, an input-output model, to conduct the economic impact analysis. The modeling includes one single modeling region, which is the State of New York. Based on direction from NYSERDA, the analysis focused on the total macroeconomic effects, as opposed to net impacts, and it does not address the energy savings impact or other co-benefits of the program activities funded by GJGNY.

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<sup>17</sup> Respondent group findings include FTEs from installation contractors and do not factor in FTEs from implementation contractor services.

<sup>18</sup> CBO trainees are trainees who were recruited by CBO staff to participate in workforce development training. One of the roles of CBOs was to facilitate awareness of workforce training opportunities and to assist with enrollment in those efforts, although not all CBOs participated in this effort. During in-depth interviews with the CBOs, NMR asked respondents about the number of trainees who have completed workforce development training because of their recruitment efforts and were subsequently hired into green jobs-related positions.

<sup>19</sup> ICF will use the same definition of economically disadvantaged communities as NMR.

## Interim Findings Phase 2

The preliminary results of Phase 2 indicate the employment impact of the GJGNY Program in 2013 was 1,585 jobs. GJGNY not only directly creates employment opportunities, it also generates employment opportunities in industries that sell to and buy from these sectors (i.e., indirect effects) as well as in consumer goods and service industries (i.e., induced effects). Because of the indirect and induced impacts (i.e., multiplier effect), industries that are directly engaged in GJGNY are not the only ones that benefit from the program. GJGNY program jobs and wages effectively create new job opportunities across the economy. The GJGNY-related employment accounts for 1.8 percent of employment in the state, which includes direct, indirect, and induced impacts.

### **9.2.2 Small Commercial Energy Efficiency**

The GJGNY Small Commercial Energy Efficiency Program provides audits and financing (Participation Loans available as of June 2011, OBR Loans available as of June 2012) to the eligible non-residential customer segment in order to identify energy efficiency opportunities and encourage the installation of energy efficient measures identified in the audit.

The process and market evaluation objectives include addressing the following research questions:

1. Why are so few customers taking advantage of the financing offered by the Program?
2. What are the primary market barriers and opportunities, and what program and/or outreach features can address them?
3. What is the size of the market – is the specific definition of the market provided in the legislation the best way to serve the small commercial/not-for-profit market?

This study will be completed in two phases. Each phase, issues to be addressed, and key questions of interest, are described in this section.

#### **9.2.2.1 Phase 1: Financial Aspect of the Program**

Phase 1 is primarily focused on addressing research questions related to the limited uptake of financing options. In light of the Green Bank program announced in the Governor's State of the State address, there is a strong interest in better understanding why GJGNY financing is not being used by the small business sector. Through September 2012, the Program completed 1,224 audits and closed on two loans. While research to understand this issue has been planned for 2013 and 2014, program and evaluation staffs identified the need that more timely information be collected to inform this issue. Therefore, the evaluation team is conducting primary data collection with participants and interviews with financial lenders, program staff, and expeditors in Phase 1 to gather timely information on this topic. These are fast tracked activities

to provide more expedient information exploring lending and customer borrowing trends, barriers, and opportunities.

Phase 1 will also begin assessing market issues and how program features that address those issues (research question 2) through the activities discussed above and two additional activities. First, Phase 1 will include a benchmarking review. This review will characterize other small- to mid-sized commercial and nonprofit offerings offered by utilities in New York State and throughout the country. The benchmarking information will allow NYSERDA to understand how its program offerings compare to other offerings and how NYSERDA's niche intersects with other offerings in New York State. In addition to characterizing service offerings, the benchmarking research will also assess how small commercial customers are defined in other jurisdictions.

Second, evaluation staff will conduct interviews with participating program auditors and contractors. These interviews will be used to assess market, program delivery, and opportunities from the perspectives of these stakeholders.

#### Phase 1 Interim Findings:

As a part of the larger Phase 1 evaluation of the GJGNY Small Commercial Energy Efficiency program, in-depth interviews with five of the six participating lenders were conducted. The preliminary results of this qualitative analysis of lender interviews identified:

The very small businesses targeted by the GJGNY audit component of the program, those with 10 or fewer employees, face significant financial barriers and as a result are less likely to be able to secure financing even in the program. Based on discussions with lenders, mid-small businesses may be more likely to take advantage of financing opportunities.

Most of the lenders interviewed had a solid understanding of the small business and not-for profit markets and had at least several years of experience lending to these customers. Although these lenders all report extensive experience with lending to this segment, they may not have all of the knowledge needed to fully understand lending for energy efficient projects. The findings suggest that the lender's understanding of energy efficiency and being able to explain payback periods and operating costs with customers can be a key conversation in determining whether a customer is willing and/or able to take out a loan to pay for energy efficient improvements. Ongoing and future activities of this program evaluation will explore whether this is an area which NYSERDA can provide additional support to lenders.

The lenders interviewed report the biggest barrier in lending to small businesses and not-for-profits is the long term planning challenges these businesses face; the most important barrier is that so many lease their

facilities. The split-incentive barrier is a significant challenge that faces many energy efficiency programs who serve populations that rent space, both residentially and commercially. Tenants may have motivation to install energy efficient equipment because they pay the utility bills, but may need landlord permission to upgrade or retrofit the facility. Conversely, the landlord often does not pay the utility bill and therefore has limited motivation to invest in energy efficient technology. Additionally, renting also adds a long-term planning challenge for tenants when considering improvements to their facilities. Capital improvements, on their own, let alone the installation of more costly energy efficient upgrades, are inherently a long-term investment.

Small businesses and not-for-profits, especially those that are newly established, may not know how long they will be in the same facility and may be unwilling to make a long-term commitment to building improvements. The evaluation team will explore this split-incentive topic in the participant customer surveys and peer benchmarking evaluation activities.

Most of the lenders interviewed felt there were additional opportunities to market the program. They most frequently recommended in-person interactions such as business events and outreach through the local chambers of commerce as the best ways to reach the program's target market.

The lenders noted that the lending organizations with the best fit for the program have community ties, such as credit unions and community development organizations. Most of the lenders reported it is difficult, if not impossible, for small businesses and not-for-profits to secure financing through traditional channels.

The remaining Phase 1 evaluation efforts are underway. Surveys of participating audit customers are complete and data analysis has begun. Data collection instruments for participating auditors are near final and expected to commence in September 2013. Secondary research to characterize the small commercial and not-for-profit programs offered in New York and other jurisdictions continues.

#### **9.2.2.2 Phase 2: Assessing the Small Business/Not-for-Profit Market in New York**

The scope of Phase 2 is under development and is planned to include research with non-participating small commercial and not-for-profit organizations, lenders, and loan originators.

Phase 2 will focus nearly entirely on characterizing and defining the market in the context of the participation rules established by the GJGNY Act of 2009 (research question 3). The market characterization is a critical piece of this market study and the scope is currently being finalized. The evaluation team anticipates that Phase 2 will consist of primary research with non-participants in order to understand the small business and not-for-profit market in New York. This non-participant research will provide additional market intelligence to help NYSERDA understand the limitations resulting from the

Small Commercial Energy Assessment eligibility rules, the portion of the total market NYSERDA can serve within the GJGNY legislation guidelines, and potential impact of the funding ceiling defined at an applicant, rather than project, level. This research will also include interviews with nonparticipating financial institutions and lenders to understand the market and barriers to participation from their perspective.

This research will also provide insight to NYSERDA in identifying those organizations who are most likely to implement audit recommendations and will provide information on the overall characteristics of this segment, including those both currently eligible and ineligible to participate in GJGNY. Lastly, the primary research in Phase 2 will identify the market barriers and opportunities for this segment and strategies to reach customers who are likely to implement energy-saving measures.

### **9.2.3 CBO Initiative**

The process evaluation of the CBO initiatives will document the experience of the CBO organizations during project ramp up including preparing their proposals and negotiating their scopes of work, the value of training and tools provided, and the outreach support services they have received. Although CBO goals include residential, small commercial, and multifamily efficiency, as well as workforce development goals, most CBO resources are allocated to residential efficiency outreach, particularly through the HPwES program. Consistent with this focus, the evaluation is designed to look primarily at CBO residential efficiency activities, although interviews include questions about all of the elements comprised in the CBO contracts.

The CBO initiative evaluation is using case studies and in-depth interviews of the CBOs to explore various program objectives and understand the success and barriers experienced by CBOs. The interviews commenced in late April 2013 and continued through June 2013. NYSERDA will work toward having preliminary results in late September 2013. In addition to the case studies and in-depth interviews currently underway, CBO-related activities will also be evaluated as a part of the HPwES process evaluation planned for later in 2013. Data collection through the HPwES evaluation will allow CBOs additional time to generate retrofit projects and will limit the survey burden on HPwES participants and contractors.

This evaluation includes two deliverables: an Interim Report focused on the results of in-depth interviews with representatives from each CBO and key program contacts and a Final Report that builds on the results of interim findings and includes surveys with audit recipients and those with completed HPwES retrofits as well as contractors affiliated with CBO initiative efforts, to be completed by January 2014.

## **9.3 Evaluation Activities Planned**

### **9.3.1 Residential Single-Family Homes**

Leveraging existing evaluation efforts for the HPwES program, NYSERDA is planning to update the already existing GJGNY residential one- to four-family process/market study completed in September 2012. The activities associated with the residential single family buildings program will be evaluated as a part of the HPwES process and market characterization evaluation activities are planned for later in 2013. Data collection through the HPwES evaluation leverage evaluation efforts and limit the survey burden on HPwES participants and contractors.

#### **9.3.1.1 *Multifamily***

The evaluation needs identified in the program logic model and identified in discussions with program staff will be addressed in future evaluation studies. NYSERDA plans to undertake a full evaluation of its SBC-funded Multifamily Performance Program in late 2013, and GJGNY evaluation inquiries will be closely coordinated with this study effort to maximize efficiency and cost-effectiveness.

#### **9.3.1.2 *Workforce Development***

A detailed evaluation of the Workforce Development initiative was not conducted within this reporting period. The evaluation needs identified in the program logic model and identified in discussions with program staff will be addressed in future evaluation studies. Plans are currently being developed with NYSERDA's evaluation contractors.

#### **9.3.1.3 *On-Bill Recovery Financing***

On-Bill Recovery (OBR) Financing, launched in January 2012, is a way to obtain loans for energy efficiency improvements through NYSERDA and to repay these through a charge on the customer's electric and/or gas utility bill. Although longer term plans exist to more fully evaluate OBR activities, NYSERDA will likely undertake an interim assessment of the energy savings and loan repayment beginning in late 2013 or early 2014 to ensure the effectiveness of this new financing mechanism.

## 9.4 Budget

Table 9-1 provides the Evaluation budget.

**Table 9-1. Evaluation Budget.**

Component	Budget	Expended <sup>a</sup>	Encumbered <sup>b</sup>	Committed <sup>c</sup>	Balance
Internal Cost	\$5,600,000	\$412,775	\$0	\$0	\$2,782,170
Evaluation Consultants		787,574	1,617,480	0	
<b>TOTAL</b>	<b>\$5,600,000</b>	<b>\$1,200,349</b>	<b>\$1,617,480</b>	<b>\$0</b>	<b>\$2,782,170</b>
<sup>a</sup> Expended: Contractor Invoices and loans processed for payment by NYSERDA. <sup>b</sup> Encumbered: Remaining funding obligated under a contract, purchase order, incentive award, or loan. <sup>c</sup> Committed: Planned funding for contracts awarded and under negotiation; loans approved; and planned funding under active development through open solicitations with upcoming proposal due dates.					

## 9.5 Evaluation Contracts Entered Into

External contracts related to the implementation of the GJGNY Program are detailed in Table 9-2.

**Table 9-2. Evaluation Contracts Entered Into.**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended<sup>a</sup></b>	<b>Encumbered</b>	<b>Committed</b>
19112	Navigant Consulting Inc.	Market Characterization and Assessment Evaluation, Cost Modification	\$189,757	\$189,757	\$0	\$0
24594	NMR Group Inc.	General Evaluation Assistance Contractor	119,985	39,190	80,795	0
28232	ICF Resources LLC	Economic and Environmental Impacts Evaluation Contractor, Planning	15,610	15,371	239	0
28232	ICF Resources LLC	Economic and Environmental Impacts Evaluation Contractor, Mod 1 to TWO #1 Line 3	8,497	0	8,497	0
29131	Research Into Action Inc.	Process and market evaluation contractor	850,002	264,406	585,595	0
29725	Abt SRBI Inc.	Survey data collection contractor for evaluation of NYSERDA Programs	326,480	66,452	260,028	0
30146	Energy & Resource Solutions Inc.	Impact Evaluation of NYSERDA Programs	500,000	0	500,000	0
34368	ICF Resources LLC	Economic and Environmental Impacts Evaluation Contractor, GJGNY	111,191	18,659	92,532	0
28232-1	ICF Resources LLC	Economic and Environmental Impacts Evaluation Contractor, Mod 1 to TWO #1 Line 3	8,497	5,703	2,794	0

**Table 9-2 (continued)**

<b>Identification Number</b>	<b>Contractor</b>	<b>Description</b>	<b>Contract Amount</b>	<b>Expended<sup>a</sup></b>	<b>Encumbered</b>	<b>Committed</b>
ST9835-1	Research Into Action Inc.	Process Assessment and Evaluation Management for the Energy Smart Program, Modification No. 4	50,042	46,583	3,459	0
ST9835-1	Research Into Action Inc.	Process Assessment and Evaluation Management for the Energy Smart Program, Modification No. 5	30,000	6,458	23,542	0
ST9836-1	Megdal & Associates	New York Energy Smart Impact Assessment	50,000	0	50,000	0
ST9836-1	Megdal & Associates	Impact Assessment for the NY Energy Smart Program, Modification 3	10,000	0	10,000	0
ST9942-1	Apprise Incorporated	Survey Data Collection, Modification 5	114,995	114,995	0	0
ST9942-1	Apprise Incorporated	Survey Data Collection, Cost Modification 6	20,000	20,000	0	0
<b>TOTAL</b>			<b>\$2,405,055</b>	<b>\$787,574</b>	<b>\$1,617,480</b>	<b>\$0</b>
<sup>a</sup> Expended funds of \$412,775 for internal costs are not represented in this table.						

# Appendix A: Annual On-Bill Recovery Report

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## On-Bill Recovery Annual Report

All OBR loans, energy savings, and expenditures reported in this Appendix are included in the GJGNY annual totals reported in the body of the report. Expenditures are pro-rated based on the percentage of OBR loans compared to the total GJGNY portfolio.

Reporting period - January 30, 2012 through June 30, 2013		Residential		Small Commercial		Multifamily	
		Customers	Dollars	Customers	Dollars	Customers	Dollars
Utility Account Arrears > 60 Days	Central Hudson Gas and Electric	14	\$266	0	\$0	0	\$0
	Consolidated Edison	0	\$0	0	\$0	0	\$0
	Long Island Power Authority	12	\$3,554	0	\$0	0	\$0
	National Grid	27	\$19,156	0	\$0	0	\$0
	New York State Electric and Gas Corporation	3	\$1,070	0	\$0	0	\$0
	Orange and Rockland Utilities <sup>a</sup>	0	\$0	0	\$0	0	\$0
	Rochester Gas & Electric	0	\$0	0	\$0	0	\$0
	<b>Total</b>	<b>56</b>	<b>\$24,045</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>
On-Bill Recovery Payment Arrears > 60 Days	Central Hudson Gas and Electric	0	\$247	0	\$0	0	\$0
	Consolidated Edison	0	\$0	0	\$0	0	\$0
	Long Island Power Authority	14	\$1,661	0	\$0	0	\$0
	National Grid	52	\$7,364	0	\$0	0	\$0
	New York State Electric and Gas Corporation	3	\$139	0	\$0	0	\$0
	Orange and Rockland Utilities <sup>a</sup>	0	\$0	0	\$0	0	\$0
	Rochester Gas & Electric	1	\$104	0	\$0	0	\$0
	<b>Total</b>	<b>70</b>	<b>\$2,152</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>
Utility Service Terminated	Central Hudson Gas and Electric	0	\$0	0	\$0	0	\$0
	Consolidated Edison	0	\$0	0	\$0	0	\$0
	Long Island Power Authority	0	\$0	0	\$0	0	\$0
	National Grid	0	\$0	0	\$0	0	\$0
	New York State Electric and Gas Corporation	2	\$328	0	\$0	0	\$0
	Orange and Rockland Utilities <sup>a</sup>	0	\$0	0	\$0	0	\$0
	Rochester Gas & Electric	0	\$0	0	\$0	0	\$0
	<b>Total</b>	<b>2</b>	<b>\$328</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>

<sup>a</sup> Orange and Rockland Utility metrics reflect data through March 31,

Reporting period - January 30, 2012 through June 30, 2013		Residential		Small Commercial		Multifamily	
		Units	Dollars	Units	Dollars	Units	Dollars
1st Year Energy Savings	Estimate of kWh savings	734,870	\$103,066	-	\$0	-	\$0
	Estimate of oil MMBtu savings	35,730	\$996,183	-	\$0	-	\$0
	Estimate of propane MMBtu savings	1,353	\$43,905	-	\$0	-	\$0
	Estimate of natural gas MMBtu savings	8,028	\$91,042	-	\$0	-	\$0
	Estimate of other MMBtu savings	1,774	\$19,176	-	\$0	-	\$0
	<b>Total Dollar Savings</b>		<b>\$1,253,373</b>		<b>\$0</b>		<b>\$0</b>
Lifetime Energy Savings	Estimate of kWh savings	13,338,460	\$1,836,542	-	\$0	-	\$0
	Estimate of oil MMBtu savings	837,598	\$23,373,903	-	\$0	-	\$0
	Estimate of propane MMBtu savings	29,842	\$966,770	-	\$0	-	\$0
	Estimate of natural gas MMBtu savings	188,661	\$2,114,177	-	\$0	-	\$0
	Estimate of other MMBtu savings	41,004	\$442,222	-	\$0	-	\$0
	<b>Total Dollar Savings</b>		<b>\$28,733,615</b>		<b>\$0</b>		<b>\$0</b>

OBR Expenditures through June 30, 2013		
Program Area	Expended	
Administrative/General <sup>b</sup>	\$897,690	
Marketing	\$1,711,881	
Evaluation	\$227,493	
Audit Incentive	\$2,506,594	
Payment to Utilities (\$100/loan and 1% of loan amount)	\$176,542	
OBR Loans	Residential	\$9,805,739
	Small Commercial	\$0
	Multifamily	\$0
	<b>Total</b>	<b>\$9,805,739</b>
Implementation/Services	Residential	\$684,250
	Small Commercial	\$0
	Multifamily	\$0
	<b>Total</b>	<b>\$684,250</b>
<b>Total Expended</b>	<b>\$16,010,189</b>	

<sup>b</sup> Includes New York State Cost Recovery Fee

## Appendix B: GJGNY Advisory Council Meeting Agendas

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**Green Jobs Green New York (GJGNY)  
Advisory Council Meeting Agenda  
September 13, 2012  
1:00 pm**

Meeting will be held at NYSERDA's Albany, New York City and Buffalo Offices as well as by conference call.

Call in number 1-866-394-2346, Conference Code 5819671375

Welcome and Introductions	Frank Murray
Budget Adjustment	Karen Hamilton
On-Bill Recovery Financing Update	Jeff Pitkin
Jobs and Workforce Development –	
- On-the-Job Training/Job Placement initiatives	Adele Ferranti
- Case Studies	Rebecca Sterling
- Discussion on Tracking and Counting Jobs	Jennifer Meissner
Evaluation- Presentation of Residential Process	Jennifer Meissner and
Evaluation and Market Characterization	Carley Murray
Comments on Draft Annual Report	Karen Hamilton
Public Input	Frank Murray
Closing Remarks and Next Steps	Frank Murray

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**Green Jobs Green New York (GJGNY)  
Advisory Council Meeting Agenda  
December 12, 2012  
1:00 pm**

Meeting will be held at NYSERDA's Albany, New York City and Buffalo  
Offices as well as by conference call.

Call in number 1-866-394-2346, Conference Code 5819671375

Welcome and Introductions	Frank Murray
Evaluation of Job Creation	Carley Murray
Small Business/ Not-for-Profit Update	Marilyn Dare
New Marketing Campaign – <i>“Irreconcilable Temperatures”</i>	Susan Moyer and Ann Mantha
Public Input	Frank Murray
Closing Remarks and Next Steps	Frank Murray

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**Green Jobs Green New York (GJGNY)  
Special Advisory Council Meeting  
February 13, 2013  
2:00 PM**

Meeting will be held at NYSERDA's Albany, New York City, and Buffalo Offices as well as by conference call.

Call in number is 1-866-394-2346, conference code 5819671375

**To review program budget and CBO status through December 2013**

Welcome and Introductions

Review of Overall Budget: Commitments and Expenditures to Date and Audit Budget Adjustment Karen Hamilton

Status of CBO Outreach Initiative Sue Andrews

Letter from CBOs Frank Murray

Discussion Frank Murray

Public Input Frank Murray

Closing Remarks and Next Steps Frank Murray

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**Green Jobs Green New York (GJGNY)  
Advisory Council Meeting Agenda  
March 19, 2013  
1:00 PM**

Meeting will be held at NYSERDA's Albany, New York City and Buffalo Offices as well as by conference call.

Call in number is 1-866-394-2346, conference code 5819671375

Welcome and Introductions	Frank Murray
Follow-up on CBO Contract Status and Budget	Frank Murray, Karen Hamilton
Small Business/Not-for-Profit Program and Financing Status	Pete Savio/Marilyn Dare
Multifamily GJGNY Program and Financing Program	Lee Butler/ Michael Colgrove
One-to-Four Family Program and Financing Status	Karen Hamilton
Public Input	Frank Murray
Closing Remarks and Next Steps	Frank Murray

**New York State Energy Research and Development Authority**

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**Green Jobs Green New York (GJGNY)  
Advisory Council Meeting Agenda  
June 13, 2013  
1:00 PM**

Meeting will be held at NYSERDA's Albany, New York City and Buffalo Offices as well as by conference call.

Call in number is 1-866-394-2346, conference code 5819671375

Welcome and Introductions	Frank Murray
Small Commercial/Not-For-Profit Program Update	Kathryn Fantauzzi
Review of CBO Letter	Karen Hamilton
Marketing & Outreach Update	Susan Andrews
Workforce Development Update	Rebecca Sterling Mario Musolino, NYSDOL
One- to Four-Family Program Update	John Ahearn
Multifamily Program Update	Caroline Reuss
Financing Update	Jeff Pitkin
2013 Annual Report Schedule	Mishel Filisha
Public Input	Frank Murray
Closing Remarks and Next Steps	Frank Murray

Upcoming GJGNY Advisory Council Meetings:  
*Thursday, September 12, 2013, 1:00pm*  
*Wednesday, December 4, 2013, 1:00pm*

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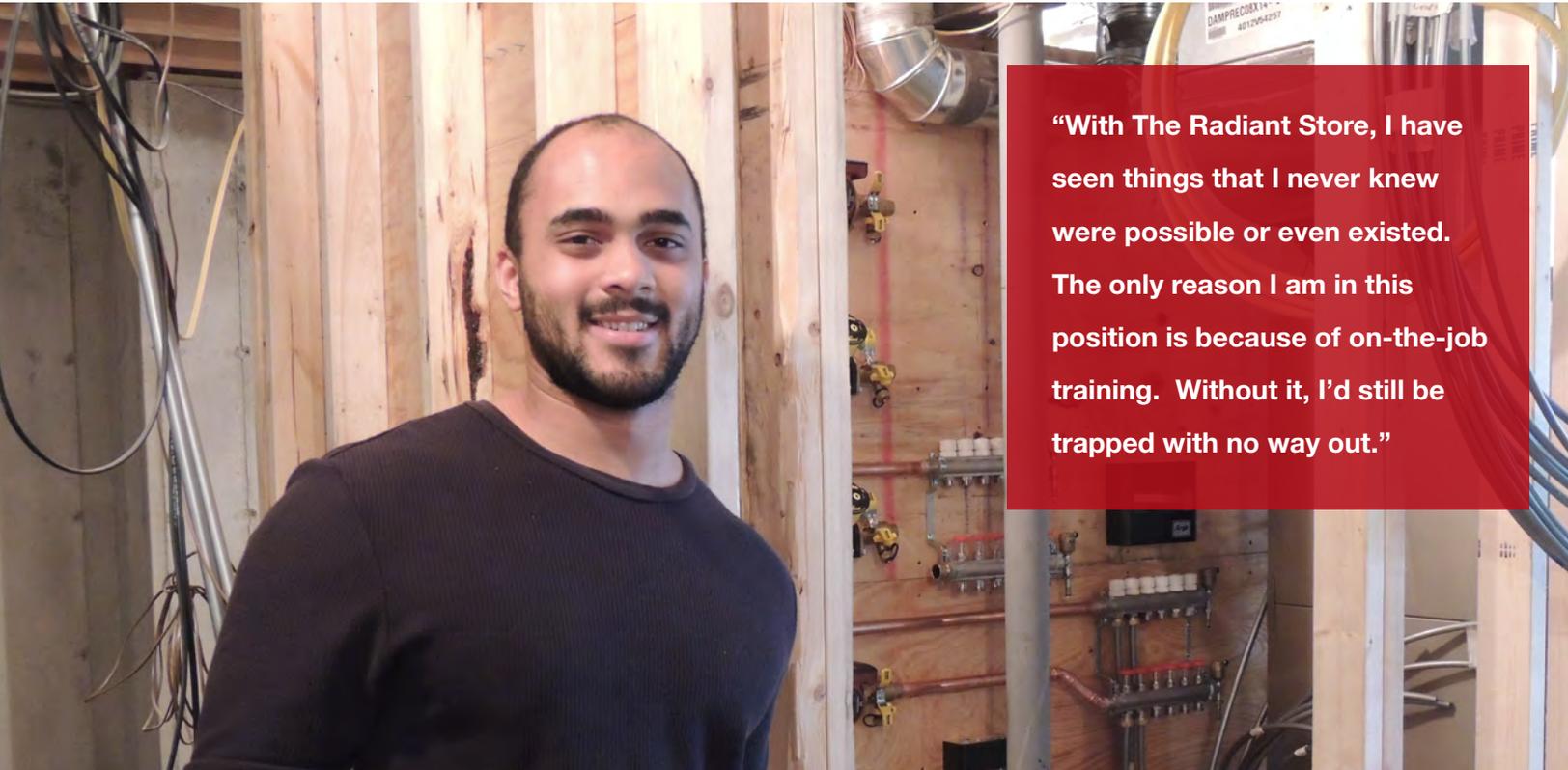
(F) (716) 942-9961

Appendix C:  
On The Job Training Case Study - The Radiant Store

---

# Partnerships provide a real win-win solution for employer and employee

**Joe Adeigbo**  
Technician  
The Radiant Store



**“With The Radiant Store, I have seen things that I never knew were possible or even existed. The only reason I am in this position is because of on-the-job training. Without it, I’d still be trapped with no way out.”**

Working a low paying job without any foreseeable opportunity for advancement, Joe Adeigbo felt stifled in his career. He knew he needed to further his education in order to find work that was more rewarding, both financially and personally. During his search for training opportunities, he realized college or trade school tuition would not be affordable.

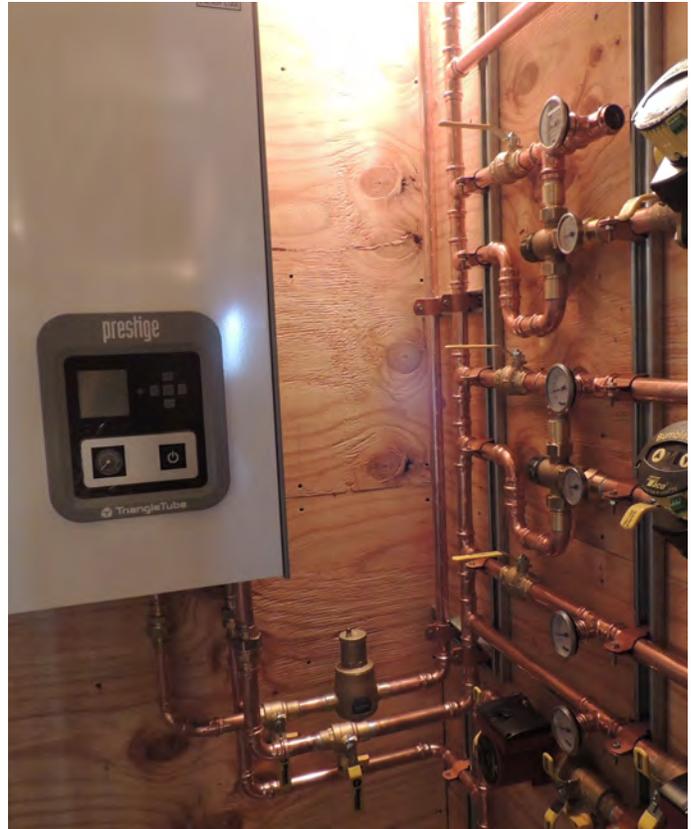
Close by in North Greenbush, Terry Moag, the owner of a solar thermal company called The Radiant Store was searching for ways to meet the needs of his growing business while providing employment opportunities to residents in his community. Terry learned of NYSERDA’s On-the-Job Training Incentive Program (Program Opportunity Notice 2033). NYSERDA’s program allows businesses to connect with qualified workers through the New York State Department of Labor One-Stop Career Centers and provides funding to support six months of hands-on training for new employees to learn necessary career skills. The on-the-job training program fosters business development because companies are better able to hire and train workers and those employees are better equipped with valuable expertise that can help them to develop a strong career pathway in clean energy.

1-866-NYSERDA



Through the program, eligible businesses can apply for funds to support 50 percent of the new hire's salary, as well as funding for off-site training as needed. Terry submitted an application and, as a contractor in good standing with NYSERDA, The Radiant Store was awarded \$25,000 in incentives.

Joe's persistent search to advance his education and Terry's motivation to achieve his business goals brought the two men together. Terry introduced Joe to the company's on-the-job solar thermal training program, which provided Joe with an opportunity to rapidly learn new skills and gain job-related experience, making him an asset to the company. Terry attests to the fact that well-trained workers mean higher quality installations; spending time and resources for training is well worth it. The Radiant Store, which now employs ten people, was awarded NYSERDA's Outstanding Achievement Award in 2012 and has exceeded \$7 million in revenues over the last five years.



Thanks to on-the-job training, Joe has a bright future ahead of him. He is now making \$25 an hour as a full-time employee at The Radiant Store and is planning to purchase his own home in the near future. A hard worker, Joe is using his new skills, something he would have never previously had the opportunity to do.

---

**ARE YOU READY FOR TRAINING IN ENERGY EFFICIENCY OR RENEWABLE ENERGY?** Call **1-866-NYSERDA** or visit [nyserdera.ny.gov/workforce](http://nyserdera.ny.gov/workforce) today and take the first step toward making a positive change for our economy, our environment and our world.

Photos courtesy of The Radiant Store

RES-WFD-adeigbo-cs-1-v1  
1/13



Appendix D:  
Outreach and Marketing - CBO Training Webinar Details

---

**Outreach and Marketing**  
CBO Training Webinar Details  
July 1, 2012-June 30, 2013

NYSERDA provides monthly training to CBOs via a series of webinars that provide CBOs with regular program updates, information on best practices, and other necessary information. During the reporting period, webinars addressed the following topics:

July 2012: Working with Home Performance contractors and other outreach innovations; the contractor's perspective on converting customers to retrofits; overview of the new GJGNY loan application and assisted subsidy application changes; program updates including creating and sorting reports from CRIS, summary of how to work with NYSERDA's Events group, and updates to the SharePoint Portal as a result of the CBO training program offered on June 29, 2012.

August 2012: CSG's Multiple Listing Service (MLS) Energy Efficiency Project, which bundles energy efficiency into the real estate notification; PUSH Buffalo presentation on barriers encountered during customer outreach; and a follow up on Home Performance webinars provided by NYSERDA's Home Performance Program staff.

September 2102: Community Environmental Center's (CEC) Overview of the Eco House and opportunities available for downstate CBOs; a report on personal experience with NYSERDA's Workforce and Renewable Programs by a participant of PON 2033 (NYS Registered Apprenticeship and Building Trades Training and On-the-Job Training); overview of web-based and social media marketing outreach opportunities by Rural Ulster Preservation Company (RUPCO); changes to cost effectiveness standards for unsecured loans; and customizing community advertising.

October 2012: NYSERDA's residential fall marketing campaign, Irreconcilable Differences; proposed CBO multifamily partnership opportunities for outreach by TRC Solutions, the Multifamily Program Implementation contractor; RUPCO and Neighborhood Housing Services of Staten Island's (NHS-SI) presentation on dealing with stalled customers; program updates including: follow-up guide and program processes diagram, and setting SharePoint Alerts function.

November 2012: Brand Cool sales training presentation on the "Art of the Ask" (part 1 of 2); HPWES financing and the assisted subsidy changes; partnering with the community land trust and community financing programs by Affordable Housing Program (AHP); and alternative community financing options.

December 2012: Brand Cool sales training presentation on extending sales networks (part 2 of 2); a demonstration of the Long Island Progressive Coalition's PowerUp Communities referral system program; overview of innovative workforce development strategies by PUSH Buffalo; overview of NYSERDA's contractor incentives and how this can help in the contractor recruitment process; program updates including : reminder about PON 2033 workforce webinar, available social media resources on the SharePoint Portal; On-Bill Recovery rate change reminder; and general SharePoint Portal maintenance issues.

January 2013: Renewable energy opportunities presented by Solar One; market transformation in the workforce sector by Baltimore Center for Green Careers; changing energy behavior in the United States by SmartPower; and program updates including CBO performance payment updates, federal energy efficiency tax Incentives, Assisted HPwES Owner/Tenant Agreement; new NYSERDA CBO web pages, Brand Cool public relations support reminder, and available social media resources on the SharePoint Portal.

February 2013: Overview of lead generation emails and the new NYSERDA CBO web pages by Brand Cool; program updates including: CBO program metrics, case studies, HPwES fuel conversion projects (RGGI/EEPS), Home Performance eligible measures overview, and the new customer concern tracker system on the SharePoint Portal.

March 2013: Demonstration of the project approval process by CSG, including how to read a residential audit report and understand work scope measures; update on new RGGI funding; and the new EmPower referral incentive program for CBOs.

April 2013: EDGE: Economic Development Growth Extension Program; NYSERDA EmPower Assisted HPwES coordination; workforce development programs and opportunities at Rising Sun Energy Center; small commercial outreach overview by Adirondack North Country Association (ANCA); program updates including: outreach program metrics, the lead nurturing campaign, marketing toolkit on the SharePoint Portal, and case studies.

May 2013: NYSERDA low-rise program guidelines; HPwES work scope approval process by CSG implementation staff; program updates including: program metrics, and new social media content on the SharePoint Portal.

June 2013: Sales training continuation; program updates including: the large-scale reconciliation project that matches CBO leads to records in the CRIS database, event and marketing policies, discussion of utility rebates offered throughout the state, information on the upcoming HPwES Program Portal training, and metrics achieved by the statewide network of CBOs showing the month-to-month growth of HPwES program participants.

Appendix E:  
NYSERDA GJGNY Marketing Materials Overview

---

# NYSERDA Marketing Materials

## Green Jobs - Green New York

For information only.  
Not for customer distribution.



# Overview

This booklet provides an overview of the marketing materials available to support the Green Jobs–Green New York (GJGNY) Program and outreach efforts.

The Marketing effort builds awareness of the program and targets small businesses, not-for-profit organizations (NFPs) and residential and multifamily building owners across New York State. Program awareness building initiatives make the program broadly accessible through Constituency-Based organizations (CBOs), NYSERDA's hotline, website, participating contractors, and defined delivery channels.

Research was conducted to understand audience motivators and drivers; to determine the most effective messages; and to determine the challenges, opportunities, and barriers associated with accomplishing GJGNY objectives. Resulting Outreach and Marketing activities support the continued growth of a strong foundation of accredited contractors, including Minority- and Women-Owned Businesses (MWBE), and encourage workers to leverage training opportunities currently in place. Marketing messages target contractors not currently BPI Accredited and will encourage additional companies to become accredited. Materials are made available to CBOs for local community promotion. Elements available for customization by CBOs are indicated as such with a symbol.

The GJGNY Outreach and Marketing effort is designed to complement other Outreach and Marketing initiatives and aligned NYSERDA Program Marketing efforts.

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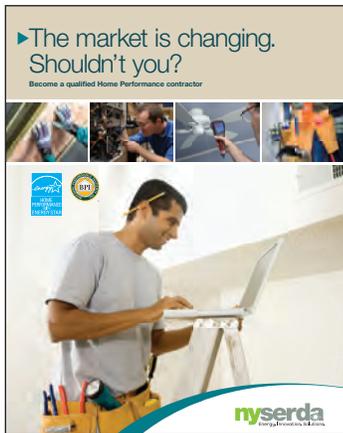
# Contractor Recruitment

## General, Direct Mail and Email

**Audience:** Potential Contractors for the HPwES Program

**Purpose:** Contractor Recruitment

**Who Should Use:** CBOs, NYSERDA



GJGNY-CON-rec-br-1-v1  
Contractor Recruitment Brochure



GJGNY-CON-recruitment-em-1-v1



GJGNY-CON-enablement-em-1-v1



GJGNY-CON-recruitment-dm-1-v1



GJGNY-CON-enablement-dm-1-v1

# Contractor Recruitment Contractors

## Case Studies

**Audience:** Potential Contractors for the HPwES Program  
**Purpose:** Contractor Recruitment  
**Who Should Use:** CBOs, NYSERDA

Case Study | Powersmith | BPI Accredited Contractor

### Powersmith Home Energy Solutions Starting fresh with energy efficiency



Quitting an executive-level job and moving from San Francisco to Long Island, New York, during the height of a recession might seem risky. But for Dan Kartman, the chance to fix the hole left by a downturn in new construction, while doing something good for the environment, provided the catalyst for a fresh start.

Since launching Powersmith™ Home Energy Solutions in 2010, Kartman has been able to not only build a rapidly growing business but also serve the community—helping homeowners save on energy bills, creating new jobs, and spurring the local economy.

"Energy prices will only continue to rise, so helping people in the Long Island community become more energy efficient is a passion worth committing to," he explained. That passion is paying off: Powersmith has been able to grow from 10 employees in only 18 months, and now employs 25 employees in building services.



GJGNY-CON-ps-cs-1-v2  
Powersmith Case Study

Case Study | Isaac | BPI Accredited Contractor

### Isaac Heating & Air Conditioning Crisis prevention approach fuels business expansion



Like many heating and cooling contractors, Isaac Heating & Air Conditioning has always had an "integrity room" business model. Customers call when there's a crisis (such as a broken furnace in 10-degree weather), and Isaac technicians leap into action. That motto tells the story: "When you need us, we'll be there."

In 2009, Isaac opened a CBA focused on energy efficiency so that instead of reacting to a crisis situation, the company can now help customers take a proactive approach to their energy needs. Isaac Home Energy Performance technicians start with a comprehensive home energy assessment that identifies opportunities to improve home performance. If a new furnace is called for, it can be installed at a time that's convenient for the homeowner—and for Isaac technicians.

This new approach has increased the services that Isaac can provide to its customers. Customers are more loyal and that has led to business growth. The new company started in 2009 with two trained technicians for energy efficiency, and today has 11 employees providing home performance services.



GJGNY-CON-ISAAC-cs-1-v1  
ISSAC Case Study

Case Study | Murtha | BPI Accredited Contractor

### Murtha Construction Diversifying with energy efficiency



Having all of your business eggs in one basket isn't generally a good idea, especially when your business relies heavily on the health of the economy. Murtha Construction, a successful remodeler of homes on Long Island, had the piece of business wisdom top-of-mind as the leadership team plotted ways to deal with a recession and a softening demand for kitchen overhauls and home additions.

"It just made sense for us to explore the green movement as a way to diversify our business," said Stephen Mikros, director of building efficiency at Murtha Construction. "With training in building science and technology, we could offer customers a 'whole house' approach to energy efficiency to complement the remodeling projects our customers wanted to invest in."

By shifting its business model, and becoming accredited by the Building Performance Institute (BPI) as a Home Performance contractor, Murtha Construction has been able to take advantage of New York State and local incentives in order to stay afloat in its service expansion. The focus has paid off.

Today energy efficiency services contribute 50 percent of the company's revenue.



GJGNY-CON-murtha-cs-1-v1  
Murtha Case Study

Case Study | Halco | BPI Accredited Contractor

### Home Energy Performance by Halco Halco's expanding business creates greener homes, and green jobs for displaced workers



Hal Smith and his wife Terry started their heating and plumbing business, Halco, back in 1984, when energy prices—and unemployment figures—were relatively low. Today, things are quite different. Homeowners are struggling to reduce energy costs and more workers need jobs. But because of good business foresight and wise investments, Halco is an in-demand company serving 23 counties across upstate New York.

Smith's heating business includes a Home Energy Performance division that is hiring and training displaced workers and adding to a green workforce, helping New Yorkers do more energy efficient and contributing to the economic vitality of the state.

Halco's technicians leverage their training on diagnostic equipment to educate customers about energy upgrades to their whole house. Customers receive a Home Performance with ENERGY STAR® report for energy upgrades, with rebates for which payback can be expected for each option.



GJGNY-CON-halco-cs-1-v1  
Halco Case Study

# CBOs

**C** = Customizable

## Brochures

**Audience:** Homeowners, Small Businesses, Not-for-profits, Multifamily Building Owners & Management Companies  
**Purpose:** Awareness of the GJGNY Program  
**Who Should Use:** CBOs



GJGNY-CBO-ahp-br-1-v1 **C**



GJGNY-CBO-hpwte-br-1-v1 **C**



GJGNY-CBO-wfaafe-br-1-v1 **C**

Additional versions:

- GJGNY-CBO-anca-br-1-v1
- GJGNY-CBO-boedc-br-1-v1
- GJGNY-CBO-cash-br-1-v1
- GJGNY-CBO-dmcdc-br-1-v1
- GJGNY-CBO-elpuente-br-1-v1
- GJGNY-CBO-lipc-br-1-v1
- GJGNY-CBO-mtrny-br-1-v1
- GJGNY-CBO-nhs-br-1-v1
- GJGNY-CBO-nwbccc-br-1-v1
- GJGNY-CBO-nwbccc-br-2-v1
- GJGNY-CBO-ov-br-1-v1
- GJGNY-CBO-ovsimchi-br-1-v1
- GJGNY-CBO-ovspa-br-1-v1
- GJGNY-CBO-ovtrachi-br-1-v1
- GJGNY-CBO-pathstone-br-1-v1
- GJGNY-CBO-ppefbing-br-1-v1
- GJGNY-CBO-ppefsyr-br-1-v1
- GJGNY-CBO-pushgreen-br-1-v1
- GJGNY-CBO-rupco-br-1-v1

Additional versions:

- GJGNY-CBO-ov-br-1-v1
- GJGNY-CBO-hpwteanca-br-1-v1
- GJGNY-CBO-hpwteboedc-br-1-v1
- GJGNY-CBO-hpwtenepc-br-1-v1

Additional versions:

- GJGNY-CBO-wfanca-br-1-v1
- GJGNY-CBO-wfnepc-br-1-v1
- GJGNY-CBO-wfnhsi-br-1-v1
- GJGNY-CBO-wfpathstone-br-1-v1
- GJGNY-CBO-wfppets-br-1-v1
- GJGNY-CBO-nycli-br-1-v1
- GJGNY-CBO-western-br-1-v1
- GJGNY-CBO-mhud-br-1-v1
- GJGNY-CBO-cncntry-br-1-v1

## Landing Pages

**Audience:** Potential program participants visiting nyserdera.ny.gov

**Purpose:** To describe the CBO Outreach effort and to introduce the local CBO to the customer seeking assistance

**Who Should Use:** NYSERDA



GJGNY-CBO-locator-lp-1-v1



GJGNY-CBO-unavail-lp-1-v1



GJGNY-CBO-best-lp-1-v1



GJGNY-CBO-list-lp-1-v1

**C** = Customizable

## Ads, Frames and Banners

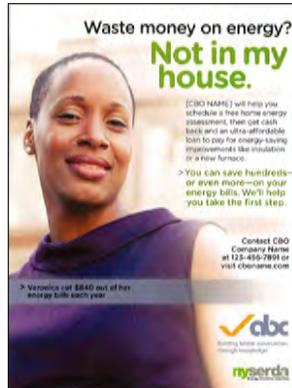
**Audience:** Potential customers to the HPwES Program

**Purpose:** Encourage program participation

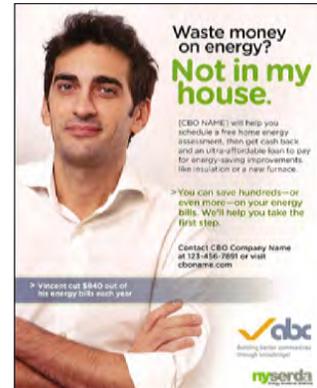
**Who Should Use:** CBO (for placement)



**C**



**C**



**C**



**C**



**C**



**C**

Frames:



GJGNY-CBO-ppefny-ad-3-v1 **C**



**C**

Banners:



**C**

# CBOs

**C** = Customizable

## Case Studies

**Audience:** Potential HPwES customers, potential Workforce Development participants, potential HPwES contractors  
**Purpose:** Provide real-time information on program participation  
**Who Should Use:** CBOs, NYSERDA, hotline

**Contractor partners with local CBO everyone wins**

At a time when many contractors are struggling to stay afloat, the customer often doesn't understand the energy savings, can't get financing, or doesn't have the expertise to complete a project.

Typically, we get partners a comprehensive home energy assessment and a customer's home and their needs, recommendations for energy efficiency upgrades, which will enable the customer to save energy, lower utility bills, and offer a customer who can be a great lead for the CBO.

At times, the RUPCO business model, which can lead to RUPCO membership, provides a way for the business to connect with the customer and offer a comprehensive energy assessment.

RUPCO is a local energy efficiency program that provides a comprehensive energy assessment and a customer's home and their needs, recommendations for energy efficiency upgrades, which will enable the customer to save energy, lower utility bills, and offer a customer who can be a great lead for the CBO.

**nyserda**

GJGNY-CBO-rupco-cs-1-v1 **C**

**Veteran finds new career in energy efficiency**

After his service in the U.S. Army, a veteran was offered the opportunity to work for a local business. He was trained in energy efficiency and found a new career path.

After his service in the U.S. Army, a veteran was offered the opportunity to work for a local business. He was trained in energy efficiency and found a new career path.

**POWER UP COMMUNITIES**

**nyserda**

GJGNY-CBO-puc-cs-1-v1 **C**

**my home, made better**

It's not just about the money, it's about the peace of mind that comes with knowing your home is safe and energy efficient.

It's not just about the money, it's about the peace of mind that comes with knowing your home is safe and energy efficient.

**POWER UP COMMUNITIES**

**nyserda**

GJGNY-CBO-lipc-cs-2-v1 **C**

**my home, made better**

It's not just about the money, it's about the peace of mind that comes with knowing your home is safe and energy efficient.

It's not just about the money, it's about the peace of mind that comes with knowing your home is safe and energy efficient.

**POWER UP COMMUNITIES**

**nyserda**

GJGNY-CBO-lipc-cs-1-v1 **C**

**my home, made better**

It's not just about the money, it's about the peace of mind that comes with knowing your home is safe and energy efficient.

It's not just about the money, it's about the peace of mind that comes with knowing your home is safe and energy efficient.

**POWER UP COMMUNITIES**

**nyserda**

GJGNY-CBO-puc-cs-2-v1 **C**

## Post Cards

**Audience:** Potential HPwES customers  
**Purpose:** To motivate and encourage customers through the HPwES process  
**Who Should Use:** CBOs

**You can take charge of your energy bills and save**

CBO (NAME) can help you take advantage of programs that make it easy for you to stop energy waste at home.

**abc**

**nyserda**

GJGNY-CBO-homeowner-pc-1-v1 **C**

C = Customizable

## Lead Generation Emails

**Audience:** Residential, Small Businesses, Not-for-profit customers

**Purpose:** Generate interest in NYSERDA's GJGNY programs

**Who Should Use:** CBOs



GJGNY-CBO-leadgen-em-1-v1 C



GJGNY-CBO-leadgen-em-2-v1 C



GJGNY-CBO-leadgen-em-3-v1 C



GJGNY-CBO-leadgen-em-4-v1 C



GJGNY-CBO-leadgen-em-5-v1 C



GJGNY-CBO-leadgen6-em-1-v1 C



GJGNY-CBO-leadgen6-em-2-v1 C



GJGNY-CBO-leadgen6-em-3-v1 C



GJGNY-CBO-leadgen6-em-4-v1 C

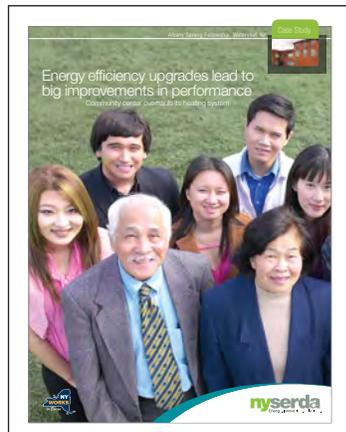
# Small Business

## Case Studies

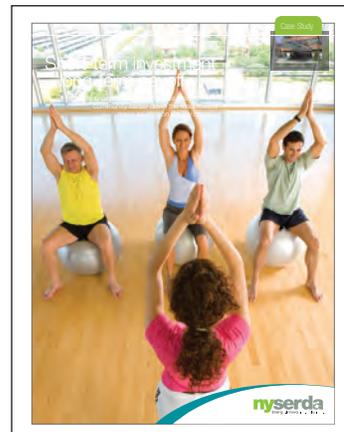
**Audience:** Potential Small Business and Not-for-profit customers

**Purpose:** Provide real-time information on program participation

**Who Should Use:** Hotline, NYSERDA, Small Business contractors



GJGNY-SB-asf-cs-1-v1



GJGNY-SB-ymwha-cs-1-v1

## Fact Sheets

**Audience:** Potential Small Business and Not-for-profit customers

**Purpose:** Provide information on program offerings

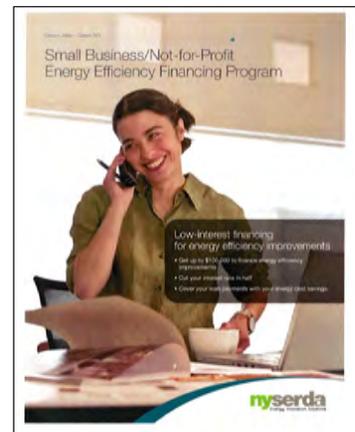
**Who Should Use:** Hotline, NYSERDA, Small Business contractors



GJGNY-SB-assess-fs-1-v1



GJGNY-SB-fin-fs-2-v1



GJGNY-SB-fin-fs-1-v1

# Small Business

## Postcards

**Audience:** Potential Small Business and Not-for-profit customers

**Purpose:** Encourage program participation

**Who Should Use:** Mailed to purchased list by NYSERDA



GJGNY-SB-gen-pc-2-v1



GJGNY-SB-gen-pc-1-v1



GJGNY-SB-eeconli-pc-1-v1

## Web Banners

**Audience:** Potential Small Business and Not-for-profit customers

**Purpose:** Encourage program participation

**Who Should Use:** NYSERDA placement



GJGNY-SB-gen-wban-2-v1

## Emails and Landing Pages

**Audience:** Potential Small Business and Not-for-profit customers

**Purpose:** Encourage program participation

**Who Should Use:** Emailed to list of customers by NYSERDA



GJGNY-SB-em-1-v1



GJGNY-SB-em-nfp-1-v1



GJGNY-SB-lp-1-v1



GJGNY-SB-lp-nfp-1-v1

# Residential Contractors Web Banners

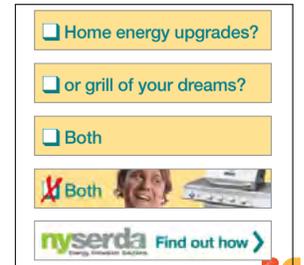
**Audience:** Potential HPwES customers  
**Purpose:** Encourage program participation  
**Who Should Use:** NYSERDA placement



GJGNY-RES-fin-wban-2-v1



GJGNY-RES-fin-wban-3-v1



GJGNY-RES-fin-wban-4-v1

# Fact Sheets

**Audience:** Potential HPwES customers  
**Purpose:** Encourage program participation  
**Who Should Use:** Hotline, NYSERDA, CBOs



GJGNY-RES-finance-fs-1-v1



GJGNY-RES-fin-fs-1-v1

## Ads

**Audience:** Potential HPwES customers  
**Purpose:** Encourage program participation  
**Who Should Use:** NYSERDA placement



GJGNY-RES-findiorama-1-v1



GJGNY-RES-finonesheet-1-v1



GJGNY-RES-onbill-ad-1-v16



GJGNY-RES-finwallscape-1-v1



Appendix F:  
New York Home Performance with ENERGY STAR®  
Eligible Measures and Accessories

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## NY Home Performance with ENERGY STAR<sup>®</sup> Eligible Measures and Accessories

This is a general guide to eligible incentives and financing options available through NYSEERDA's Home Performance with ENERGY STAR (HPwES) Program. Please remember that eligibility may vary based on the energy efficiency requirements for each upgrade type, results of the comprehensive home assessment, fuel type, and your utility. Before you move forward with your energy efficiency project, check with your participating BPI accredited Home Performance contractor to ensure the upgrades you plan to make qualify for HPwES and the financing you choose, if any. For complete program terms and conditions, please visit [nyserda.ny.gov/home-performance](http://nyserda.ny.gov/home-performance).

Subject to the terms described on pages 2 and 3, the upgrades marked with an "✓" below on the "Prequalified List" are eligible for either a 10% cash-back incentive or, for income eligible households, the 50% Assisted Subsidy. NYSEERDA also offers three low-interest financing options: a Smart Energy Loan, On-Bill Recovery Loan, and an Assisted Loan. A Smart Energy or Assisted Loan for a project that includes only the upgrades on the "Prequalified List" below requires no additional cost-effectiveness screening. If the project includes additional eligible upgrades below that are not on the Prequalified List, the loan is subject to cost-effectiveness standards as described on page 3. For additional information about projects using Program Financing, visit [nyserda.ny.gov/residential-financing](http://nyserda.ny.gov/residential-financing).

**Table 1. Eligible Upgrades and Prequalified List**

Eligible Energy Efficiency Upgrades		<b>Prequalified List</b> (for 10% cash-back, Assisted Subsidy, Smart Energy Loan, and Assisted Loan)
<b>Primary Heating and Cooling System<sup>1</sup></b>	Furnace – Natural Gas	✓
	Furnace – LP	✓
	Furnace – Fuel Oil	✓
	Boiler - Condensing	✓
	Boiler – Hot Water	✓
	Boiler – Steam	✓
	Boiler Reset Controls	✓
	Air Source Heat Pump (electric split systems)	
	Ground Source Heat Pump	
	Wood/or Solid Fuel Pellet Stove	
	Distribution Improvements in Natural Gas or Electrically Heated Homes <sup>3</sup>	
	Distribution Improvements in Oil or Propane Heated Homes	✓
	Duct Sealing	✓
	Pipe Insulation	✓
	Central Air Conditioner (split system) <sup>2,3,4</sup>	✓
Programmable Thermostat	✓	
<b>Building Shell</b>	Insulation (attic, wall, floor, band joist, basement, crawl space) <sup>2</sup>	✓
	Air Sealing	✓
	Replacement Windows	
	Storm Windows and Storm Doors	
	Movable Window Insulation	
<b>Water Heater</b>	Exterior Doors	
	Natural Gas	
	Propane or Oil	✓
	Electric	
	Indirect-Fired Tank	✓
	Heat Pump Water Heaters <sup>2</sup>	✓
	Solar Thermal	
	Pipe Insulation	✓
Hot Water Tank Insulation - Natural Gas or Electric		
Hot Water Tank Insulation – Oil or Propane	✓	

Eligible Energy Efficiency Upgrades		<b>Prequalified List (for 10% cash-back, Assisted Subsidy, Smart Energy Loan, and Assisted Loan)</b>
Conservation	Faucet Aerator	✓
	Low Flow Showerhead	✓
Appliances & Lighting <sup>4</sup>	Refrigerator <sup>4</sup>	✓
	Freezer <sup>4</sup>	✓
	Dishwasher	
	Clothes washer	
	Dehumidifier <sup>4</sup>	✓
	Room Air Conditioner <sup>4</sup>	✓
	CFLs	✓
	LEDs	✓
	Light Fixtures	

1 Defined as the primary heating system for the space being conditioned. Addition/replacement of secondary heating systems is not eligible. The new unit must be the primary heat for the space being served.

2 May require site-specific Total Resource Cost test analysis to determine incentive eligibility.

3 Ineligible under Assisted HPwES.

4 Only eligible for incentive when there is a replacement of an existing appliance or existing cooling system. Maximum Assisted Subsidy for each appliance is: \$300 for refrigerators and freezers; \$75 for dehumidifiers; and \$50 for room air conditioners. Only the base price of the appliance plus applicable tax is eligible; delivery, set-up, warranties or appliance accessories, and any associated taxes on these items are not eligible for incentives.

#### **Eligible Health & Safety Measures and Accessories**

Up to 15%, not to exceed \$2,000, in non-prequalified upgrades listed in Table 1 and eligible Health & Safety Measures and Accessories in Table 2 may be included in a Smart Energy Loan without additional cost-effectiveness screening. Non-prequalified upgrades and Health & Safety Measures and Accessories are not eligible for the 10% HEMI, the 50% Assisted Subsidy, or the Assisted Loan. These costs are eligible for inclusion in the On-Bill Recovery Loan subject to cost-effectiveness requirements.

**Table 2. Eligible Health & Safety Measures and Accessories**

Health and Safety	Asbestos abatement	Ventilation Fans (Whole house fans or similar attic exhaust fans are not eligible)
	Electrical service upgrade necessary when installing a new heating/cooling unit	Repairs/upgrades to heating and/or DHW systems (including power venting kits) to correct spillage, inadequate draft, carbon monoxide failures
	Upgrade of knob and tube wiring in order to install insulation	Measures to provide sufficient combustion air and prevent Combustion Appliance Zone (CAZ) depressurization, spillage or inadequate draft
	Radon and lead abatement work	Gas leak repair
	Cost of removing an oil tank or replacing a faulty oil tank when done in connection with a heating system replacement	Dry vent repair
	Repairs to the home due to water damage, molds and mildew, ice dams or other symptoms of poor building performance, as long as the cause(s) of building performance-related damage are addressed	Heat/Energy Recovery Ventilator
Qualified Accessories	Grates/Grills	Oil burner replacement
	Diffusers	Additional thermostats
	Chimney liners and caps	Moisture barriers
	Air cleaners	Attic venting
	Furnace humidifier	Fuel conversion accessory items

### **Incentive Eligibility**

The 10% cash-back incentive, 50% Assisted Subsidy, and the Assisted Loan are available for natural gas or electric efficiency measures to customers in the following utility territories: Central Hudson, Con Edison, National Fuel, National Grid (NYC and Upstate), NYSEG, Orange & Rockland, and Rochester Gas and Electric. Customers of National Grid (Long Island) are eligible for the cash-back incentive or the Assisted Subsidy for natural gas efficiency measures only. The 10% cash-back incentive and the 50% Assisted Subsidy may not be combined with any other utility incentive.

The cash-back incentive and Assisted Subsidy for eligible oil and propane efficiency measures are available statewide regardless of utility territory.

### **Financing Options**

Program Financing is available statewide for all eligible measures that meet the cost-effectiveness standards of the loan product.

The maximum loan amount for the Smart Energy and On-Bill Recovery Loans is \$13,000 per applicant; up to \$25,000 if the payback period is 15 years or less. The minimum loan is \$3,000 (\$1,500 for consumers who qualify for the Assisted Subsidy).

The calculation of cost-effectiveness for the Smart Energy and On-Bill Recovery Loans is based on the amount borrowed by the consumer, net of any incentives, including the 10% cash-back, 50% Assisted Subsidy or utility incentives. Financing charges are included in the cost-effectiveness calculation. Customers have the option to “buy down” the project cost so that the financed amount meets the cost-effectiveness criteria. The loan terms are 5, 10, or 15 years, but the term may not exceed the useful life of the financed measures.

### **Smart Energy Loan**

The Smart Energy Loan is available at 3.99%, or 3.49% with automatic (ACH) payment, and is repaid in installments to NYSERDA’s loan servicer.

Up to 15%, not to exceed \$2,000, in non-prequalified upgrades listed in Table 1 and eligible Health & Safety Measures and Accessories in Table 2 may be included in a Smart Energy Loan without additional cost-effectiveness screening. For those projects where more than 15% of the cost is for items other than those on the Prequalified List, the estimated energy cost savings over the anticipated life of all eligible energy efficiency improvements must be at least 80% of the total principal and interest to be paid back on the loan.

### **On-Bill Recovery Loan**

The On-Bill Recovery Loan, available at 3.49%, is repaid through an installment charge on the customer’s utility bill. Eligible upgrades in Table 1 and Table 2 may be included in the loan, however the monthly loan installment payment may not exceed 1/12<sup>th</sup> of the estimated annual energy cost savings from the improvements over the loan term.

### **Assisted Loan**

The Assisted Loan provides an interest rate reduction of up to 4.0% less than a Participating Residential Loan Fund Lender’s normal interest rate on loans up to \$20,000, for a term of up to 10 years. The Assisted Loan is offered in limited areas and may not be combined with the 10% cash-back incentive. Only those upgrades on the Prequalified List may be included in an Assisted Loan, and no further cost-effectiveness screening is required.

Interest rates and loans terms are subject to change. Full details about Program Financing are available at <http://www.nyserdera.ny.gov/residential-financing>.

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.

*Visit [nyserderda.ny.gov](http://nyserderda.ny.gov) to learn more about NYSERDA programs and funding opportunities.*

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**State of New York**  
Andrew M. Cuomo, Governor

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