

New York State Energy Research and Development Authority

Green Jobs - Green New York 2014 Annual Report

Reporting Period Ending June 30, 2014

Final Report
September 2014



NYSERDA's Promise to New Yorkers:

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

Mission Statement:

Advance innovative energy solutions in ways that improve New York's economy and environment.

Vision Statement:

Serve as a catalyst – advancing energy innovation, technology, and investment; transforming New York's economy; and empowering people to choose clean and efficient energy as part of their everyday lives.

Core Values:

Objectivity, integrity, public service, partnership, and innovation.

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
2014 Annual Report

Final Report

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Summary

Ramping up the rate of participation in energy-efficiency projects is recognized as a means to boost New York State's economy by reducing energy bills and creating job opportunities. Both of these objectives are particularly important in economically distressed communities. 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.

On October 9, 2009, the Green Jobs - Green New York Act of 2009 (the Act) was signed into law. Pursuant to Title 9-A of New York State Public Authorities Law Section 1890 "The Green Jobs - Green New York Program" 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 nonresidential structures.
- Offer On-Bill Recovery loans as a means for financing projects.
- 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.

In May 2010, NYSERDA was 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.

This fifth Annual Report submitted for GJGNY was prepared pursuant to Section 1899 of the Act, and provides an update on the progress and achievements of GJGNY through June 30, 2014. Prior Annual Reports can be found online at <http://www.nyserda.ny.gov/Publications/Program-Planning-Status-and-Evaluation-Reports/GJGNY-Reports-and-Operating-Plans.aspx>.

S.1 Stakeholder Input

NYSERDA meets with stakeholders through the Advisory Council on no less than a biannual basis and provides monthly written reports to Advisory Council members, in addition to ad hoc reports as needed. The general public can 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 an 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 States' share of the Regional Greenhouse Gas Initiative (RGGI) to support GJGNY. Improvements identified through audits, also referred to as energy assessments, when implemented, reduce electricity consumption and on-site emissions due to the burning of fossil fuels. NYSERDA has further allocated the funding, which also includes interest earnings.

In August 2013, NYSERDA issued \$24,300,000 in Residential Energy Efficiency Financing Revenue Bonds (Series 2013A). The Bonds were secured by pledged loan payments from certain residential energy efficiency loans issued through the program (totaling approximately \$29.2 million in aggregate principal) and available monies in the GJGNY revolving loan fund. The transaction was a success, with 34 percent of the bonds sold to funds with social responsibility mandates. The deal went on to be named the 2013 Small Issuer Deal of the Year by *The Bond Buyer* newspaper and offers a replicable model to be considered by other states.

Table S-1 provides a summary of the GJGNY budget as of June 30, 2014

Program Area	Budget	Expended*	Encumbered	Committed	Balance
Workforce Development	\$8,000,000	\$4,715,009	\$1,521,610	\$250,000	\$1,513,381
Outreach and Marketing	15,510,000	9,256,175	3,134,727	1,308,597	1,810,501
One- to Four-Family Residential Buildings	47,048,533	43,978,282	681,212	7,071,086	(4,682,047)
Multifamily Energy Performance	12,692,550	5,818,196	1,808,886	471,180	4,594,288
Small Commercial Energy Efficiency	14,174,917	4,340,557	6,100,175	0	3,734,185
Program Evaluation	5,600,000	1,876,890	1,687,661	744,998	1,290,452
Program Administration	7,840,000	6,564,554	2,654	0	1,272,792
NYS Cost Recovery Fee	1,904,000	1,299,118	0	0	604,882
Unallocated Interest Earnings	949,195				949,195
TOTAL	\$113,719,195	\$77,848,781	\$14,936,925	\$9,845,861	\$11,087,630
<p>* Expended amount is net of loan repayments made through reporting period for One- to Four-Family, Multifamily and Small Commercial sectors, and includes bond proceeds, less bond issuance cost.</p> <p>Expended: Contractor Invoices and loans processed for payment by NYSERDA.</p> <p>Encumbered: Remaining funding obligated under a contract, purchase order, incentive award, or loan.</p> <p>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 in 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 assessments and projects completed, it is important to note that there are many other indicators of program success that are not captured in the 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, and improved access to financing. Other indicators of program success are seen in new, up-skilled, and higher waged employment opportunities resulting from the GJGNY program. For example, as of the first quarter of 2013, GJGNY funding for Workforce Development initiatives resulted in 213 new and retained full-time equivalent work opportunities with associated hourly wages ranging from \$12.50 to \$50.¹ Of those 213 full-time equivalent work opportunities, 45 were developed in disadvantaged communities, representing approximately

¹ NYSERDA. 2013. "Assessment of Job Impacts of the Green Jobs Green New York Program," Prepared by NMR Group, Inc. <http://www.nyserdera.ny.gov/-/media/Files/EERP/GJGNY/Evaluation-Reports/2013-gjgny-phase1.pdf>.

21 percent of the overall opportunities. By 2015, GJGNY is projected to result in a total of 1,069 new and retained employment opportunities, of which 171 full-time equivalent employment opportunities are projected to be located in disadvantaged communities.²

In support of both the project and employment indicators previously referenced, 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 supports 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 further 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.

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

Metric	One- to Four-Family Residential Buildings	Multifamily Energy Performance	Small Commercial Energy Efficiency	Total
Assessment Applications Received (number)	72,237	336	2,346	74,919
Assessments Completed (number)	55,312	296	2,100	57,708
1st Year Net KWh Savings*	6,935,063	16,344,664	3,002,543	26,282,270
1st Year Net MMBtu Savings*	546,374	324,626	27,673	898,673
Estimated Annual Bill Savings*	12,263,016	9,044,542	912,993	22,220,551
Loans Issued/Closed (number)	5,580	14	11	5,605
Total Value of Loans	\$54,164,407	\$9,243,689	\$577,225	\$63,985,331
* Energy and bill savings represents installed to date saving for the One- to Four-Family sector, projected savings upon project completion for the Multifamily sector, and an estimated 20 percent project installation rate, based on historical performance for the Small Commercial sector.				

² Ibid.

S.3 Workforce Training and Development

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.

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

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.

As a result of the solicitations, 20 contracts have been awarded for curriculum and certification/accreditation development, representing approximately \$2 million in contract funding. Forty-eight contracts, totaling in excess of \$2.2 million, have been awarded to support apprenticeships and internships. In addition, 16 contracts have been awarded to support equipment and training infrastructure, totaling \$1.9 million.

Additional information on workforce development and training activities can be found in Section 4.

S.4 Outreach, Education, and Marketing

GJGNY is designed to deliver services in targeted communities through constituency-based organizations (CBOs) that target residents, small businesses, not-for-profit organizations, 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. As of June 30, 2014, twelve competitively solicited CBOs are currently under contract to assist with program.

Two CBOs are implementing aggregation 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 assessments and any resulting work. Aggregation results 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. Brand Cool continues to facilitate CBOs marketing needs by 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.

Additional information on outreach and marketing activities can be found in Section 8.

S.5 Energy Retrofits and Financing

GJGNY assessments 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 55,000 assessments completed through June 2014. Nearly 32 percent of the homeowners who complete an assessment 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, 1,674 OBR Loans, totaling \$18 million, have been issued through June 30, 2014. In recent months, more than 32 percent of all HPwES projects have taken advantage of program financing. On February 3, 2014, NYSERDA launched GJGNY financing for residential solar electric (also known as photovoltaic or PV). Customers of Renewable Portfolio Standard-participating utilities can finance stand-alone solar electric projects, or combine solar electric with efficiency up grades through HPwES. As an addendum to financing offerings, NYSERDA extended GJGNY financing for residential solar electric to customers served by PSEG Long Island who previously could not participate in GJGNY residential financing.

GJGNY assessments have been available in the multifamily sector since September 2010, while financing through participation loans was launched in June 2011. Access to the GJGNY assessments and financing for this sector is available through NYSERDA's Multifamily Energy 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 2014, 296 assessments have been completed, and work has been

completed on 19,381 projects. Fourteen loans have been issued at a value of \$9,243,688. In addition to assessments and financing, participants have access to incentives through the suite of programs offered by NYSERDA or utilities. Work being accomplished in conjunction with a utility rebate program may be eligible for GJGNY Multifamily Financing if a building assessment has been completed that meets NYSERDA standards.

NYSERDA 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, 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 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 that receive an assessment from a utility, if the assessment meets NYSERDA's standards.

In February 2012, NYSERDA 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, some participants have access to incentives through programs offered by NYSERDA or utilities. Assistance provided through the Small Commercial Expeditor Program can so far be attributed to 28 NYSERDA-approved participation loans and 18 NYSERDA-approved On-Bill Recovery financing loans. Of these, eight participation loans were closed at an aggregate of \$492,405 in financing, and two On-Bill Recovery financing loans closed, totaling of \$63,320. Further results of the expeditor pilot will be determined over time.

As of June 2014, 2,947 Qualified Energy Assessments have been completed, of which 2,098 are funded with GJGNY funds, while 849 were funded with American Recovery and Reinvestment Act funds. Overall, eleven participation loans have been closed at a value of \$513,905, while two OBR Loans have been closed at a value of \$63,320, bringing the total value of Small Commercial loans to \$577,225. 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, 5, 6, and 7.

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 staff to identify future evaluation needs and research objectives. In addition, evaluation staff received input from the Advisory Council on evaluation plans.

A jobs impacts assessment and an evaluation of the financing approach of the Small Commercial Energy Efficiency program were both completed in September 2013. In addition, a process evaluation of the CBO initiative was finalized in March 2014. Three evaluation activities are currently underway: a measure adoption rate assessment of the Small Commercial Energy Efficiency program, a market/process evaluation of the CBO initiative, and a market/process evaluation of the Multifamily Energy Performance Program. Planning is also underway for evaluations to be conducted starting in late 2014.

Additional information on evaluation activities can be found in Section 9.

S.6 Improvements to Program Offerings

NYSERDA recently worked with stakeholders to undertake a targeted effort to improve the customer and contractor's experience using the HPwES program. Improvements include updates to the website and consumer marketing materials, enhanced contractor profiles, a streamlined assessment application process, faster project approvals, and changes to the financing products that make them more accessible to customers. These developments are expected to improve the program throughput and increase participation rates.

S.7 Conclusion

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

- OBR financing continues to outpace the unsecured Smart Energy Loan in applications, on average. However, due to stricter cost-effectiveness requirements of OBR, most of the loans actually closed are Smart Energy Loans.

- Participation in the Assisted Home Performance with ENERGY STAR[®] program continues to encompass a significant percentage of participants in the HPwES program, 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, assessors, and other businesses have hired new employees, and retained and promoted existing employees, as a result of GJGNY.
- Two Aggregation Pilots have demonstrated the concept of community benefits in coordination with local contractors in underserved neighborhoods.
- Training for HPwES 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:

- Although free and reduced-cost assessments 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 assessments to contracted work is very good compared to historic performance of free assessment programs nationally; however, not all of the work being accomplished as a result of assessments is being done through NYSERDA programs. Improvements in data collection and follow-up are needed to ensure assessment 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. The latest changes in qualification criteria implemented through recent improvements to program offerings are showing early indications of improved acceptance rates in the residential sector, but use of financing in the multifamily, small business, and not-for-profit sectors has been slow.

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 assessments, will be fully expended within the next year. Decisions will need to be made on which aspects of GJGNY should be continued and how to fund them.

1 Introduction

Ramping up the rate of participation in energy-efficiency projects is recognized as a means to boost New York State's economy by reducing energy bills and by creating job opportunities. Both of these objectives are particularly important in economically 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 property, commercial 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 related program opportunities. Public investments in the form of improving access to financing and workforce development and training are also important as the market grows. Significant public investment in energy efficiency 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 through federal resources such as the Weatherization Assistance Program (WAP). Simultaneously, New York State residents and commercial industries 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) was signed into law. Pursuant to Title 9-A of New York State Public Authorities Law Section 1890 "The Green Jobs - Green New York Program" 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 nonresidential structures.
- Offer On-Bill Recovery loans as a means for financing projects.
- 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.
- Establish an Advisory Council.
- Provide annual reports to the Governor, Senate, and Assembly.

In May 2010, NYSERDA was 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.

This fifth Annual Report submitted for GJGNY was prepared pursuant to Section 1899 of the Act, and provides an update on the progress and achievements of GJGNY through June 30, 2014.

2 Advisory Council and Public Input

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. During the current reporting cycle, NYSERDA proposed a change to the regular Advisory Council meeting schedule whereby the Council will meet twice a year as opposed to quarterly. Additional special meetings will be arranged to discuss significant program changes or in response to Advisory Council requests on topics that should not wait for the next scheduled meeting. Advisory Council meetings are open to the public, and documentation of the meetings is posted on NYSERDA's website at <http://www.nyserderda.ny.gov/Governor-Initiatives/Green-Jobs - Green-New-York/Advisory-Council/Meetings.aspx>.

The Advisory Council consists of 10 Ex-Officio Members and 22 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.

During the 2014 Annual Report reporting period, the Advisory Council met on September 12, 2013; December 4, 2013; and May 14, 2014. Agendas for the Advisory Council meetings are provided in Appendix A.

Table 2-1. GJGNY Advisory Council Members

Name	Title	Term Expires
John B. Rhodes	President and CEO, NYSERDA (Chair)	n/a
Kenneth Adams	Commissioner, New York State Department of Economic Development	n/a
Kristin Proud	Commissioner, New York State Office of Temporary and Disability Assistance	n/a
Audrey Zibelman	Chair, New York State Department of Public Service	n/a
John D. McMahon	Chief Operating Officer, 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	12/31/2016
Chuck Bell	Consumers Union	12/31/2015
Les Bluestone	Blue Sea Construction	12/31/2015
Tria Case	City University of New York	12/31/2016
Richard Cherry	Community Environmental Center	12/31/2016
Sammy Chu	Suffolk County Department of Labor	12/31/2016
Kate Fish	Adirondack North Country Association Program	12/31/2016
Clark Gocker	People United for Sustainable Housing - Buffalo	12/31/2016
Dave Hepinstall	Association for Energy Affordability	12/31/2015
Alan Hipps	Housing Assistance Program of Essex County	12/31/2015
David Johnson	Laborers International Union of North America	12/31/2015
William Johnson	Green America Public Private Partnership	12/31/2015
Dan Kartzman	Powersmith	12/31/2016
Jennifer Keida	Standard Insulation Co. Inc.	12/31/2015
Conrad Metcalf	Building Performance Contractors Association	12/31/2016
Jackson Morris	National Resources Defense Council	12/31/2015
Paul Shatsoff	Workforce Development Institute	12/31/2016
Stephen Edel	Center for Working Families	12/31/2016
Kevin Rooney	Oil Heat Institute of Long Island	12/31/2016
Hal Smith	Halco	12/31/2015
Lisa Tyson	Long Island Progressive Coalition	12/31/2016
Michael Weisberg	Hudson Valley Commercial Bank	12/31/2016

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 provided continual feedback for improvements to NYSERDA's HPwES Program Portal, a Web-based program interface for contractors, customers, program staff, and implementation contractors launched in August 2013 to improve tracking and approval of documents and to provide improved transparency to all parties of a project's status. The Creating an Industry Working Group continues to support NYSERDA in the effort to make additional modeling software tools available for use in the program. These software tools, using the Home Performance XML protocol, will provide contractors with choice based upon their preferences and ease of use. In the upcoming months, NYSERDA will rely on the Creating an Industry Working Group to evaluate new software modeling tools as they become approved for program use.

Recently, NYSERDA launched the Net Promoter Score (NPS) pilot, which surveys HPwES program participants on how likely they would be to recommend the program and their contractor to a friend or family member following the assessment and project completion stages of the program. NYSERDA will continue to work with the Creating an Industry Working Group and other stakeholders to see how this NPS data can benefit the program and its contractor base.

2.2 Website

To ensure transparency and to keep members of the public up-to-date about GJGNY, a section of NYSERDA's website is dedicated to GJGNY. Information about GJGNY can be found online at <http://www.nyserda.ny.gov/Governor-Initiatives/Green-Jobs - Green-New-York.aspx>. All GJGNY related documents, including Advisory Council meeting materials and videos, operating plans, monthly updates, and annual reports are posted to the website.

3 Financing

This section provides information related to various financing activities being undertaken that aid 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, is using \$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 its State Revolving Fund (SRF) program of NYSERDA's \$24,300,000 Residential Energy Efficiency Financing Revenue Bonds (Series 2013A) issued in August 2013, which is used to finance certain 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 (allowing the bonds to achieve a AAA-rating) and protecting the SRF program from shortfalls in pledged loan repayments.

NYSERDA and the NY Green Bank 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 offers 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. NYSERDA's funding is 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
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
TOTAL	\$21,400,000	\$5,000,000		\$13,600,000	\$40,000,000

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

Program Area	Budget	Loans Issued and Implementation Expenses	Loan Repayments and Bond Proceeds	Encumbered	Committed	Balance*
One- to Four-Family Residential Buildings	\$26,652,553	\$57,575,436	\$28,522,843**	\$636,609	\$5,199,400	(\$8,236,049)
Multifamily Performance	7,273,630	2,942,091	391,193	163,936	463275	\$4,095,521
Small Commercial Energy Efficiency	3,174,917	515,553	42,823	284,891	0	\$2,417,296
TOTAL	\$37,101,100	\$61,033,080	\$28,956,859	\$1,085,436	\$5,662,675	(\$1,723,232)
<p>* To support continued issuance and financing of residential loans NYSERDA has temporarily used a portion of the revolving loan fund budget allocated for Small Commercial buildings, Multifamily buildings and energy assessment incentives to finance GJGNY residential energy efficiency loans issued to date. NYSERDA expects to receive additional short-term financing to replenish the revolving loan fund in September 2014.</p> <p>** Bond proceeds are reported less bond issuance cost.</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 assessment 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 assessment.

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 5.

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.

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

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 participating lenders, known as originators, 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 7.

3.2.4 Bond Financing

In August 2013, NYSERDA issued \$24,300,000 in Residential Energy Efficiency Financing Revenue Bonds (Series 2013A). The bonds were secured by pledged loan payments from certain residential energy efficiency loans issued through the program (totaling approximately \$29.2 million in aggregate principal) and available monies in the GJGNY revolving loan fund. Approximately 65 percent of the pledged loan pool were unsecured Smart Energy Loans and the remaining 35 percent were OBR Loans. The bonds require NYSERDA to maintain future loan repayments and other pledged revenues of not less than 110 percent of the annual bond principal and interest due in each year.

As a second source of security, the New York State Environmental Facilities Corporation (EFC) provided a guarantee of the principal and interest on the bonds through its State Revolving Fund (SRF) program. EFC's SRF program provides access to AAA-rated financing for clean water and drinking water projects. EFC received concurrence from the U.S. Environmental Protection Agency to qualify the financing of the residential energy efficiency loans as an eligible SRF project. Due to the guarantee, the bonds received AAA rating by Moody's Investors Service and Standard and Poor's Ratings Services. As discussed in Section 3.1, NYSERDA funded a Collateral Reserve Account pledged to EFC.

The bonds were sold as Qualified Energy Conservation Bonds, using a portion of the State's bond volume cap authorization, which provided a substantial interest subsidy from the U.S. Treasury. The bonds were structured with serial maturities with a weighted average term of about 6.9 years and a weighted average interest rate of about 3.2 percent. The net interest rate on the bonds, net of anticipated QECCB interest subsidies, is anticipated to be about 0.5 percent.

The transaction was a success, with 34 percent of the bonds sold to funds with social responsibility mandates. The deal was also named the 2013 Small Issuer Deal of the Year by *The Bond Buyer* newspaper and offers a replicable model to be considered by other states.

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 On-Bill Recovery financing. Additional information regarding On-Bill Recovery financing as of June 30, 2014, is provided as Appendix B.

Table 3-3. Financing Contracts Entered Into

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
One- to Four-Family Residential Buildings						
15518	Wisconsin Energy Conservation Corporation (Energy Finance Solutions)	Loan Origination Services	N/A	\$1,182,250	\$0	\$0
21769	Concord Servicing Corporation	Master Loan Servicer for GJGNY	N/A	612,053	0	0
35421	First Associates Loan Servicing	Backup Loan Servicer for GJGNY Loan Program	116,500	16,500	100,000	0
27533	NY Title Research Corp.	OBR Last Owner Searches	61,800	59,860	1,940	0
31684	Zodiac Title Services	OBR Last Owner Searches & Recording Services	100,000	100,000	0	0
31684-1	Zodiac Title Services	OBR Last Owner Searches & Recording Services	50,000	26,670	23,331	0
33527	Advantage Title Agency, Inc	OBR Last Owner Searches & Recording Services	75,000	75,000	0	0
36864	Advantage Title Agency, Inc	OBR Last Owner Searches & Recording Services	200,000	119,782	80,219	0
38299	Frontier Abstract & Research Services	OBR Last Owner Searches & Recording Services	199,999	25,671	174,328	0
37723	Stewart Title Insurance Company	OBR Last Owner Searches & Recording Services	199,999	34,373	165,626	0
40738	Energy Improvement Corporation	Energize New York Program Support	50,000	29,840	20,160	0
20662	Energy Programs Consortium	Phase I	12,500	6,250	6,250	0
18591	Hawkins Delafield & Wood	Legal financial advisory services for GJGNY	210,000	204,645	5,355	0
19923	Lamont Financial Services Corporation	Financial Advisor Services	337,050	277,650	59,400	0
26143	Equifax Credit Marketing Services	Annual Subscription to CreditForecast.com 2011-12	20,000	20,000	0	0
30985	Fitch Ratings, Inc.	Issuance of NYSERDA 2012 GJGNY Energy Efficiency Bonds	45,000	45,000	0	0

Table 3-3 continued

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
ST10743-1	Harris Beach PLLC	Bond Counsel	125,000	125,000	0	0
33119	NetRoadshow, Inc.	Establishment of portal communication between NYSERDA and bond rating agency	5,000	5,000	0	0
Multifamily Energy Performance						
PO-18591	Hawkins Delafield & Wood	Legal financial services	84,000	81,858	2,142	0
PO-19923	Lamont Financial Services	Financial advisor services	56,420	56,420	0	0
PO-20662	Energy Program Consortium	Unknown	5,000	2,500	2,500	0
PO-25909	Concord Servicing Corp.	MF master loan servicer	150,000	664	149,336	0
PO-38299	Frontier Abstract & Research Services	On-bill recovery program title	3,333	0	3,333	0
PO-36864	Advantage Title Agency	On-bill recovery title search	3,333	0	3,333	0
PO-37723	Stewart Title Insurance Company	On-bill recovery title search	3,333	42	3,292	0
Small Commercial Energy Efficiency						
PO-37428	Blue Springs Energy, LLC	Lender Outreach	50,000	50,000	0	0
PO-18591	Hawkins Delafield & Wood	Legal/program design	126,000	122,787	3,213	0
PO-19923	Lamont Financial Services Corp	Legal/program design	84,630	84,630	0	0
PO-20662	Earthspouse, LLC	PV deployment	7,500	3,750	3,750	0
PO-25910	Concord Servicing Corp	Loan servicer	120,000	1,620	118,380	0
PO-25910	Concord Servicing Corp	Loan servicer	120,000	35	119,965	0

Table 3-3 continued

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
PO-38299	Frontier Abstract and Research Services	Legal- title	13,333	0	13,333	0
PO-36864	Advantage Title Agency, Inc	Legal- title	13,333	250	13,083	0
PO-37723	Stewart Title Insurance Co.	Legal- title	13,333	166	13,167	0
VC-298768	LIPA	Utility remittance	N/A	233	0	0
VC-343904	Niagara Mohawk	Utility remittance	N/A	600	0	0
VC-339219	Pathstone Enterprise Center, Inc.	Origination fee	N/A	300	0	0
VC-294790	Community Development Corp.	Origination fee	N/A	300	0	0
TOTAL			\$2,544,898	\$3,371,661	\$965,472	\$0
NOTE: Contract funding amounts listed in Table 3-3 are total amounts. Due to the fact that these services are provided across the One-to-Four-Family Residential, Multifamily, and Small Commercial sectors, the prorated share of these contracts is also provided in the Contracts Entered Into tables in sections 5, 6, and 7.						

4 Workforce Training and Development

The Workforce Training and Development (WFD) initiative was designed to build on existing NYSERDA and New York State Department of Labor (DOL) programs targeted at preparing individuals for energy efficiency and solar thermal careers in New York State. Specifically, WFD efforts under GJGNY were designed 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 Plan³ began in mid-2010 and was initially presented in the 2010 GJGNY Annual Report.

Under the GJGNY Act, a significantly increased demand for skilled labor based on consumer demand for products and services was anticipated, and WFD programs were designed around that anticipated demand and in coordination with the Workforce Development Working Group. However, demand for energy retrofits in the single-family, multifamily, and small commercial sectors was less than anticipated. As a result, the large number of new jobs GJGNY training partners were preparing people for did not materialize. Some training providers, primarily those located in areas with high population density, were able to train a significant number of individuals and to facilitate connections to employers seeking to hire. Others have been challenged to fill classrooms and to meet enrollment projections. The on-the-job training program was designed to help bridge the gap between training and job placement and, of the 320 individuals hired to date, 166 were supported with GJGNY funding.

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 for businesses associated with bringing on new hires.

³ The GJGNY Workforce Development Operating Plan is available online at <http://www.nyserda.ny.gov/-/media/Files/EERP/GJGNY/gjgny-workforce-development-operating-plan.pdf>.

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.

4.1.1 Workforce Development and Training Partnerships for Energy Efficiency and Lab Houses for Field Testing

The Workforce Development and Training Partnerships for Energy Efficiency and Lab Houses for Field Testing opportunity (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-funded PON 1816, which built on existing career pathways efforts.

GJGNY 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 sought proposals to establish four Lab houses, also known as pressure houses, for use in connection with classroom instruction, field activities, and field testing for green job worker certifications. A “pressure house” is a small house or house-like lab facility used to teach duct testing, blower door testing, combustion appliance zone pressure testing, combustion appliance testing, and other services for the residential and small commercial market. An increased number of pressure houses throughout New York State provides greater local access to hands on field training and field testing facilities that prepare clean energy workers with certifications in support of GJGNY. NYSERDA lab houses were developed in coordination with NYS Homes and Community Renewal (HCR), which sponsored two additional training houses under the American Recovery and Reinvestment Act (ARRA). HCR houses are located at Hudson Valley Community College and Erie Community College

Northeast Parent and Child Society (NEPCS) completed construction of their pressure house in Schenectady, NY, received their certificate of occupancy and has been hosting energy efficiency trainings and exams since June 2014. Training is targeted to at-risk and low- to moderate-income young adults between the ages of 18 and 24 in addition to college students. A grand opening ceremony is scheduled for September 2014.

Green Jobs Training Center (GJTC) completed construction of their lab house located in Howard Beach on Long Island in October 2013. To date, GJTC has trained 256 individuals in the following areas: Building Performance Institute (BPI) trainings for Building Analyst, Envelope Professional, Heating Professional, Multifamily Building Analyst, and Whole House Air Leakage Controller Installer; Occupational Safety and Health Administration 10-hour training; Environmental Protection Agency Renovation, Repair, and Painting training; and 608 certification. In addition, GJTC is becoming a destination for practitioners seeking skills enhancement.

Champlain Valley-Technical Education Center (CV-TEC) of Plattsburgh, NY, continues to communicate with Earth Science Engineering (ESE)/Zebra-Tech as they complete project blueprints on a pro-bono basis. ESE/Zebra-Tech has submitted the pressure house blueprints to the New York State Education Department's Office of Facilities Planning for initial review.

SUNY Ulster's Kelder House pressure house construction was completed August 2013; with a ribbon cutting ceremony on November 20, 2013. To date, SUNY Ulster has trained 280 individuals in clean energy technologies.

4.1.2 Energy Efficiency Technical Training

The Energy Efficiency Technical Training opportunity (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 Assessment training. As a result, one contract for Oil Heat Efficiency and two contracts for Small Commercial Energy Assessment 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 745 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. Recently, CPN developed and piloted a new course incorporating the use of an American Reinvestment and Recovery Act-funded equipment trailer. This course provides oil heat technicians with the opportunity for hands-on instruction and practice in boiler installation and troubleshooting.

Small Commercial Energy Assessment Training: The City University of New York (CUNY) Building Performance Lab has developed skill enhancement training for assessors conducting small commercial assessments. The 15 training modules include classroom activity as well as assignments designed to apply skills in the field. Participants will work individually as well as in small groups to complete hands-on training sessions and presentations. In July 2014, the curriculum was updated to include content on building envelope as well as data

entry through the Department of Energy's Portfolio Manager tool. The CUNY team also developed separate video resources on instrumentation including, but not limited to, light meters, data loggers, and thermal imaging. CUNY was funded only for content development and does not have any training metrics to report at this time. A potential partnership between CUNY and Envirolution to deliver the training in New York City is under consideration.

Under a separate PON 1817 contract, the State University of New York at Stony Brook has developed specialized Small Commercial Assessment training, in cooperation with the United States Green Buildings Council, specific to building stock in New York City. Small Commercial Energy Assessment 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 assessments. Stony Brook conducted three pilot training sessions in Long Island, Syracuse, and Buffalo, receiving more than 181 applications for 75 available openings in the classroom. A total of 63 individuals completed the training. The curriculum was well-received and is being adapted based upon the feedback from the group.

4.1.3 Solar Thermal Training

The Solar Thermal Training opportunity (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, Monroe Community College, and SUNY Canton in addition to Sullivan County BOCES, which was later cancelled due to inactivity resulting from staff changes and low enrollment. SUNY Canton has achieved IREC ISPQ accreditation for its Solar Heating Installer Program. As of June 30, 2014, 248 individuals have been trained under NYSERDA solar thermal training partnerships. Solar thermal training programs were established and continue to operate as demand for the training dictates

4.1.4 Contractor Exchange Workshops

In August 2010, NYSERDA awarded the Building Performance Institute \$150,000 to develop and implement five 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. More than 300 people attended these workshops, which not only helped educate home performance contractors, but also provided valuable feedback to program staff regarding the program's benefits and challenges.

4.1.5 Technical Workshops/Expanding BPI Field Exam Capacity/Certification Standards

The Technical Workshops/Expanding BPI Field Exam Capacity/Certification Standards opportunity (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 resulting in contracts with the following training partners: Solar One, New York State Weatherization Directors Association, Institute for Building Technology and Safety (IBTS), two with the Building Performance Contractor's Association (BPCA), Northeast Parent and Child Society, and SUNY Ulster. Energy efficiency and solar thermal training delivered includes: entry-level building science, energy modeling software, solar thermal installation, and advanced skill enhancement training such as infrared thermography. Training providers are under contract to train a total of 2,366 individuals, of which 877 (37 percent of the total goal) have been trained to date. A number of the training programs, including BPCA and IBTS, have struggled to meet enrollment goals despite NYSERDA tuition subsidies that buy down the cost of tuition to enrollees. They cite the lack of industry demand for skilled workers as a barrier to achieving enrollment goals. Trainings under PON 2032 will continue through 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 Air Conditioning Contractor's of America Quality Installation 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 Internships/Apprenticeships/On-the-Job Training

The Internships/Apprenticeships/On-the-Job Training opportunity (PON 2033), originally released in June 2011, provided \$2.625 million to recruit entry-level workers, support businesses hiring graduates from career pathways training programs, and enhance standards for the NYS Registered Apprenticeship Programs and building trades programs, including weatherization and certified energy-efficiency technicians for GJGNY.

Under PON 2033, NYSERDA contracted with a total of five training providers (LaGuardia Community College, the Urban League of Rochester, Service Employees International Union 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 421 (55 percent of the total goal) have been trained to date. LaGuardia Community College is under contract to translate United States Green Buildings Council GPRO training to Spanish-speaking trainees and will deliver training to 120 New Yorkers beginning in September 2014. Training providers will continue offering classes through 2014.

In addition, NYSERDA has executed on-the-job training (OJT) agreements with 42 businesses seeking to hire new employees or advance incumbent workers under GJGNY. As of June 30, 2014, 159 people have been hired from NYS Department of Labor's (DOL) New York State Career Centers (formerly DOL One Stop Centers) lists, and 13 incumbent workers have been advanced due to training. Approximately \$1.33 million in wage and training subsidies has been awarded. The average wage of workers hired under the program is \$16.39 per hour. An example of the direct impact of OJT is demonstrated in Appendix C.

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 for the first \$150,000 in NYSERDA incentives and 25 percent of the wages that they pay the employee for training, up to \$7,500, thereafter.

4.1.7 Green Jobs - Green New York: Curriculum Inventory, Assessment, and Curriculum Updates

The Green Jobs - Green New York: Curriculum Inventory Assessment, and Curriculum Updates opportunity (RFP 2034), issued in July 2010, offered \$475,000 to conduct a curriculum inventory, contractor needs assessment, and curriculum updates. Under the competitive solicitation, there were no fundable proposals for the curriculum update component. The curriculum inventory and contractor needs assessment were awarded to Pace University, with a final report issued in August 2013. 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 System Benefit Charge-funded workforce development initiatives.

Key findings of the study, titled “Making the Right Connections: Ways to Improve Workforce Training to Better Meet Employer Needs in the Green Jobs- Green New York Program,”⁴ focus on the need to better connect employers and training providers. Recommendations include: the formation of a more integrated network of employers and training providers; continued financial support for New Yorker’s for whom cost of training is a barrier; and the need to strengthen apprenticeships and on-the-job training programs that can serve as a bridge between training and employment.

4.2 Coordination with New York State Department of Labor

4.2.1 NY Youth Works Program

Governor Andrew M. Cuomo signed the NY Youth Works Program into law on December 9, 2011, to encourage businesses to hire unemployed, disadvantaged youth. In May 2012, NYSERDA provided GJGNY funding to leverage New York State Department of Labor (DOL) solicitations for training and job placement partnerships. NYSERDA funds were used to support four contracts administered by the New York State Department of Labor.

- The Urban League of Rochester was funded to deliver hands-on construction and green building training, building science, and pre-apprenticeship certificate training developed by the Home Builders Institute. With use of the funds, 71 individuals were trained and 20 were placed in green jobs.⁵ The Urban League of Rochester operated two separate contracts within their project.
- Northeast Parent and Child Society was funded to deliver courses in green energy sales and education, energy efficiency, air sealing, energy assessments, and BPI Building Analyst. With use of the funds, 22 individuals were trained, and six were placed in green jobs.
- Henkels and McCoy, Inc., including partnerships with STRIVE International - Columbia University, was funded to deliver training in green construction, Roots of Success: Your Role in the Green Environment, National Center for Construction Education coursework, and USGBC Leadership in Energy and Environmental Design training. With use of the funds, 78 individuals were trained and one placed in green jobs.

4.2.2 Other Coordination with DOL

The Clean Energy OJT Program is administered with the support of the NYSDOL and its Regional Business Service Teams (RBSTs). The RBSTs bring a wealth of experience and job placement expertise to the administration of the OJT program and have coordinated leveraging of tax credits including the “VOW Hire Heroes Act of 2011,” which

⁴ NYSERDA. 2013. “Making the Right Connections: Ways to Improve Workforce Training to Better Meet Employer Needs in the Green Jobs Green New York Program,” NYSERDA Report 13-17. Prepared by Pace Energy and Climate Center. <http://www.nyserda.ny.gov/-/media/Files/EERP/GJGNY/Evaluation-Reports/making-the-right-connections-report.pdf>

⁵ DOL defines green jobs as those that produce goods or deliver services that increase energy efficiency or generate renewable energy.

incentivizes businesses to hire veterans, and the “National Emergency Grant (NEG),” which provides additional funds to businesses that hire and train dislocated workers. Another unique aspect of this partnership is the use of DOL’s Case Management System which makes it possible for NYSERDA to obtain valuable demographic information on job seekers and track their job placement.

4.3 Workforce Training and Development Budget

Table 4-1 provides the Workforce Development budget.

Table 4-1. Workforce Development Budget

Component	Budget	Expended	Encumbered	Committed	Balance
Equipment and Training Infrastructure					
Contracts	\$1,905,730	\$1,139,340	\$717,461	\$0	\$48,929
Incentives	500,000	18,948	0	0	481,052
Certifications and Company Accreditation					
Contracts	500,000	203,358	45,891	94,950	155,801
Incentives	400,000	99,631	0	0	300,369
Apprenticeships/Internships	2,639,250	1,637,557	463,589	155,050	383,054
Curriculum	1,775,000	1,338,857	291,987	0	144,156
Conferences and Technical	280,020	277,318	2,682	0	20
TOTAL	\$8,000,000	\$4,715,009	\$1,521,610	\$250,000	\$1,513,381
<p>Expended: Contractor Invoices and loans processed for payment by NYSERDA</p> <p>Encumbered: Remaining funding obligated under a contract, purchase order, incentive award, or loan.</p> <p>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>					

4.4 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
Apprenticeships/Internships						
25493	ASI Renovation	PON 2033 OJT Incentive	\$37,223	\$37,223	\$0	\$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	45,344	0	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	4,939	4,939	0	0
25258	The Radiant Store	PON 2033 OJT Incentive	36,780	36,780	0	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	153,048	144,597	8,451	0
26200	CNY Solar, Inc.	PON 2033 OJT Incentive	7,280	7,280	0	0
25906	Apex Engineering	PON 2033 OJT Incentive	22,376	22,376	0	0
26078	Home Energy Consultants	PON 2033 OJT Incentive	5,277	5,277	0	0
26371	CNC COATIN-001	PON 2033 OJT Incentive	10,000	10,000	0	0
26642	Radiant Drywall & Insulation Corp.	PON 2033 OJT Incentive	34,808	34,808	0	0
27904	Urban League of Rochester	PON 2033 Cat. A Curriculum Development	100,000	79,275	20,725	0
27523	Dundon Insulation	PON 2033 OJT Incentive	11,261	11,261	0	0
27519	Halco Renewable Energy	PON 2033 OJT Incentive	59,000	59,000	0	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	11,185	4,655	0
27974	New Buffalo Impact, Inc.	PON 2033 OJT Incentive	30,733	30,733	0	0
27971	Opportunities for Otsego	PON 2033 OJT Incentive	5,507	5,507	0	0
28270	All Star Energy	PON 2033 OJT Incentive	9,814	9,814	0	0

Table 4-2 continued

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
28407	Foam-It Insulation	PON 2033 OJT Incentive	50,291	47,142	3,149	0
28269	Standard Insulating Company, Inc.	PON 2033 OJT Incentive	13,149	13,149	0	0
29403	Local 32BJ	PON 2033 Cat. A Curriculum Development	289,245	167,826	121,419	0
29437	Tech Home Electric	PON 2033 OJT Incentive	5,894	5,894	0	0
29684	Home Performance Technologies, Inc.	PON 2033 OJT Incentive	81,171	49,558	31,613	0
29904	Integral Building & Design, Inc.	PON 2033 OJT Incentive	49,016	49,016	0	0
29903	Ecologic Home	PON 2033 OJT Incentive	10,400	10,400	0	0
30809	Jerritt Gluck	PON 2033 OJT Incentive	70,409	14,167	56,242	0
30810	Ivy Lea Construction	PON 2033 OJT Incentive	46,866	34,431	12,435	0
30999	Energy Management Solutions, LLC	PON 2033 OJT Incentive	85,836	85,836	0	0
32119	Buffalo Energy, Inc.	PON 2033 OJT Incentive	28,181	28,181	0	0
32725	New York State Foam Energy	PON 2033 OJT Incentive	28,405	20,877	7,528	0
32171	New York Energy Consultants	PON 2033 OJT Incentive	4,642	4,642	0	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	17,400	17,400	0	0
33384	Pennbrook Energy	PON 2033 OJT Incentive	40,261	17,931	22,330	0
34356	Global Dwelling	PON 2033 OJT Incentive	15,000	15,000	0	0
34262	J Synergy Green INC	PON 2033 OJT Incentive	29,300	26,550	2,750	0
28501	Solar One	PON 2033 Cat. A Curriculum Development	122,125	114,378	7,747	0
35209	U.S. Green Building Council	PON 2033 OJT Incentive	48,504	42,810	5,694	0

Table 4-2 continued

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
33385	Solar Energy Haus	PON 2033 OJT Incentive	19,190	9,595	9,595	0
34852	Association for Energy Affordability	PON 2033 OJT Incentive	10,080	1,680	8,400	0
36669	You Save Green Inc	PON 2033 OJT Incentive	19,670	11,028	8,642	0
28791	Cleantech Rocks	Work for Hire Activity- Survey	14,250	14,250	0	0
32594	NYS Department of Labor	NYSDOL NY Youth Works Program	233,167	233,167	0	0
39247	Meister Consultants Group, Inc.	NY-SUN PV Balance Of System Training and Education Services (Long Island)	155,050	0	0	155,050
Vouchers	NA	Certification and Accreditation (funds reclassified)	-1,925	-1,925	0	0
TOTAL APPRENTICESHIPS AND INTERNSHIPS			\$2,256,195	\$1,637,557	\$463,588	\$155,050
Certification and Accreditation						
18165	N. American Board of Certified Energy Practitioners (NABCEP)	Clean Energy Technology Training	200,000	154,109	45,891	0
19844	N. American Board of Certified Energy Practitioners (NABCEP)	PO for company accreditation	49,999	49,999	0	0
39247	Meister Consultants Group, Inc.	NY-SUN PV Balance Of System Training and Education Services (Long Island)	94,950	0	0	94,950
Vouchers	NA	Certification and Company Accreditation	98,881	98,881	0	0
TOTAL CERTIFICATION AND COMPANY ACCREDITATION			\$443,830	\$302,989	\$45,891	\$94,950

Table 4-2 continued

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
Conferences and Technical						
22983	Building Performance Contractors Association (BPCA)	Contractor Exchange Workshops	150,000	150,000	0	0
ST9991-7	Interstate Renewable Energy Council (IREC)	TWOP 7 (workforce conference)	130,000	127,318	2,682	0
TOTAL CONFERENCES AND TECHNICAL			\$280,000	\$277,318	\$2,682	\$0
Curriculum						
25095	Community Power Network	PON 1816 Open Enrollment	296,368	265,461	30,907	0
24793	Green Light NY	PON 1816 Open Enrollment	10,875	10,875	0	0
25687	Research Foundation of SUNY	PON 1816 Open Enrollment	183,313	94,789	88,524	0
24917	Research Foundation of CUNY	PON 1816 Open Enrollment	122,145	95,092	27,053	0
32692	Building Performance Contractors Association (BPCA)	PON 2032 Technical Training	50,602	11,228	39,374	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	648	648	0	0
22486	Ulster County BOCES	PON 2011 Solar Thermal Training	19,917	19,917	0	0
23182	Monroe Community College	PON 2011 Solar Thermal Training	75,000	68,528	6,472	0
24981	Pace Energy and Climate Center	PON 2034 GJGNY Needs Assessment	275,000	275,000	0	0
33907	Arthur C. Pakatar	Curriculum Gap Assessment	24,000	24,000	0	0
31203-1	Solar One	PON 2032 Technical Training	149,464	149,436	28	0
24317	Conservation Services Group, Inc.	GJGNY Training and Implementation	108,324	108,324	0	0
TOTAL CURRICULUM			\$1,630,844	\$1,338,856	\$291,988	\$0

Table 4-2 continued

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
Equipment and Training Infrastructure						
31339	Institute for Building Technology and Safety	PON 2032 Technical Training	336,548	222,125	114,423	0
32584	Northeast Parent and Child Society	PON 2032 Technical Training	147,355	98,142	49,213	0
32404	NYS Weatherization Director's Association	PON 2032 Technical Training	179,934	41,338	138,596	0
32692	Building Performance Contractors Association (BPCA)	PON 2032 Technical Training	99,385	22,052	77,333	
25685	NYS Department of Labor	Smart Board Equipment & Training	46,000	46,000	0	0
25339	Meeting Industry Experts (MIE)	Meeting Planning Services	13,610	3,600	10,010	0
29503	Clinton Community College	PON 1816 GJGNY Lab Houses	134,045	0	134,045	0
30034	Green Jobs Training Center	PON 1816 GJGNY Lab Houses	109,185	105,364	3,821	0
29067	Northeast Parent and Child Society	PON 1816 GJGNY Lab Houses	143,117	117,517	25,600	0
29533	Integral Building & Design, Inc.	PON 1816 GJGNY Lab Houses	285,088	285,088	0	0
26589	Audio Video Corporation	Smart Board Equipment & Training	23,136	23,136	0	0
31203-1	Solar One	PON 2032 Technical Training	12,005	12,003	2	0
19822	Building Performance Contractors Association (BPCA)	Survey to past HPwES participants	25,000	25,000	0	0
25095	Community Power Network	career pathways tech training solicitation	43,805	31,234	12,571	0
35184	SUNY Ulster	GJGNY Technical Certifications	139,717	52,640	87,077	0
35211	Building Performance Contractors Association (BPCA)	GJGNY Technical Certifications	118,871	54,101	64,770	0
Vouchers	NA	Equipment Incentive	18,948	18,948	0	0
TOTAL EQUIPMENT AND TRAINING INFRASTRUCTURE			\$1,875,749	\$1,158,288	\$717,461	\$0
GRAND TOTAL			\$6,486,618	\$4,715,008	\$1,521,610	\$250,000

5 One- to Four-Family Residential Buildings Program

NYSERDA's Home Performance with ENERGY STAR (HPwES) program offers homeowners in New York State a comprehensive, whole-house approach to improving energy efficiency and home comfort while saving money. Participating HPwES contractors accredited by the Building Performance Institute (BPI) to conduct energy assessments and upgrades. Income-qualified homeowners are eligible for additional incentives to make energy improvements. Implementation of the approved GJGNY One- to Four-Family Operating Plan⁶ began in the fourth quarter of 2010.

5.1 Target Audience

Services to the residential sector are delivered through the successful existing program. 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 target audience for the sector is owners of residential⁷ buildings who have incomes above 60 percent of State median income. Residents with lower incomes may be eligible for NYSERDA's EmPower New York program or the federally-funded Weatherization Assistance Program, both of which provide services at no cost to the household. Those owners should therefore not be targeted with GJGNY, 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 may be eligible for a discount 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.⁸ These owners are a particular target of interest for GJGNY. Communities in areas where energy costs are high in relation to area median income or those in non-attainment for one or more designated pollutants under the Federal Clean Air Act are also targeted by the 11 constituency-based organizations (CBOs) conducting outreach in selected communities across the State. Additional information about CBO activities can be found in Section 8.

⁶ 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. It can be found online at <http://www.nyserra.ny.gov/-/media/Files/EERP/GJGNY/gjgny-1-4-operating-plan.pdf>.

⁷ The GJGNY Act defines a residential structure as a residential building that has four or fewer dwelling units.

⁸ These incentives are provided through an Energy Efficiency Portfolio Standard, System Benefit Charge, or Regional Greenhouse Gas Initiative-funded HPwES program.

5.2 Implementation Strategies

HPwES partners with BPI GoldStar 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 energy assessments for all homes enrolled in the HPwES program. The energy assessments include taking an inventory of the current home energy systems and energy-related health and safety conditions, diagnostic testing of combustion appliances, blower-door testing for air-infiltration rates, and developing a work scope for proposed improvements and a cost and energy-savings estimate. The report for the energy assessment is provided to the homeowner and allows the contractor to recommend comprehensive improvements that maximize energy savings in every home. In addition to the cost-effective energy savings offered, the HPwES program 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 discounts to encourage comprehensive work scopes, including a higher incentive level for those households qualifying for the Assisted component of the HPwES program. Participating households typically reduce their total energy use by 20 to 25 percent after a participating contractor has completed work on the home.

The GJGNY supported free or reduced-cost energy assessments 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.

5.2.1 Individual Owner Approach

Owners of residential buildings with four units or less interested in receiving a free or reduced cost home energy assessment can apply online at www.nyserda.ny.gov/home-performance, or download an application. Alternatively, they can call 1-855-838-7818 to request an assessment application be mailed or to obtain an assessment application from a participating contractor or CBO.

An applicant who is eligible for a free or reduced-cost assessment will receive a reservation number from the application processing center with an estimated level of assessment subsidy that will be paid by NYSERDA to the contractor for a completed assessment. 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 associated with an assessment is valid for a single assessment 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 assessment funds remain available.

5.2.2 Aggregation Approach

Aggregation is the process of identifying a group of homeowners who agree in advance to have the same contractor or contractor team perform their assessments and any resulting work. Aggregation results 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. 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. More information on aggregation and CBOs' role in aggregation can be found in Section 8.1.4.

5.3 Standards for Energy Assessments and Development of Workscopes

Energy assessments and energy services for GJGNY are delivered by participating HPwES contractors possessing Participation Agreements⁹ with NYSERDA.

Contractors delivering assessments and performing services must be a BPI GoldStar contractor in accordance with NYSERDA's Partnership Agreement. The BPI GoldStar designation 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. In addition, 15 percent of the project cost,

⁹ The 2014-2015 HPwES contractor Participation Agreement is available on the NYSERDA website at <https://www.nyserda.ny.gov/-/media/Files/EERP/Residential/Programs/Existing-Home-Renovations/Join-Program/hpwes-contractor-participation-agreement.pdf>.

up to \$2,000, related to associated health and safety measures and qualified accessories can be ignored in the cost effectiveness screening for the Smart Energy Loans. Alternatively, a project for which at least 85 percent of the cost is designated for prequalified measures is automatically eligible for the Smart Energy loan and incentives and does not go through cost effectiveness screening. 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 and BPI standards. If projects fail to meet standards, NYSERDA follows up with the contractor to ensure remediation takes place. Failure to meet BPI and program standards may result in probation, suspension, loss of the BPI GoldStar designation and/or removal from the HPwES program, in accordance with BPI and NYSERDA procedures.

5.4 Energy Assessment Fees

The Act requires the program to make energy assessments available to residential buildings with one to four units. The fee for energy assessments are waived for households with income that is 200 percent of the median county household income or less. In households with income greater than 200 percent up to 400 percent of the median county household income, the applicant pays a pro rata percentage of the assessment fees. Only those households that have a county median income above 400 percent pay the full fees. HPwES makes payments directly to participating contractors.

Table 5-1 outlines assessment fees for residential buildings with single dwelling units under 3,500 square feet of above-grade conditioned space.

Table 5-1. Assessment Fee for Single Unit Buildings Under 3,500 Square Feet

Single Unit HPwES Audit Fees (under 3,500 square feet of above grade conditioned space)		
Household Income	Cost to Customer	NYSERDA Payment to Contractor
≤200% Average Median Income (AMI)	\$0	\$250
>200 – 250% AMI	\$50	\$200
>250 – 300% AMI	\$100	\$150
>300 – 350% AMI	\$150	\$100
>350 – 400% AMI	\$200	\$50
>400% AMI	Market Rate	\$0

Table 5-2 outlines assessment fees for residential buildings with two to four dwelling units and single units over 3,500 square feet of above-grade conditioned space.

Table 5-2. Assessment Fee for 2-4 Units and Single Unit Buildings Over 3,500 Square Feet

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

5.5 Assessment Completions and Conversion to Project Completions

The GJGNY free or reduced-cost energy assessment has proven to be very popular with consumers and contractors. Through June 30, 2014, there have been a total of 72,237 applications with 68,564 approved, which corresponds to an average of more than 1,575 per month. Contractors are using the assessment as very effective sales and marketing tool. More than 55,300 assessments have been completed, resulting in 16,631 contracts for HPwES energy upgrades. Of those contracts, 15,520 projects are complete. The average time lag from assessment completion to completed work is 110 days. After accounting for the lag between completion of the assessment and completion of work, the conversion rate from assessment to work through the HPwES program is more than 31 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 assessment-approved and assessment-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.¹⁰ The success of this effort is attributed in large part to the experience and knowledge of the HPwES 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.

¹⁰ NYSERDA. 2012. “Process Evaluation and Market Characterization and Assessment: Green Jobs – Green New York Residential Program,” <http://www.nysERDA.ny.gov/BusinessAreas/Energy-Data-and-Prices-Planning-and-Policy/Program-Evaluation/NYERDA-Evaluation-Contractor-Reports/2012-Reports/-/media/Files/EDPPP/Program%20Evaluation/2012ContractorReports/2012%20GJGNY%20Process%20MCA%20Final%20Report.pdf>.

A significant volume of work is supported by the GJGNY financing options. More than 35 percent of projects completed in the 12 months ending on June 30, 2014, 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 use 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 HPwES 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.

In July 2014, NYSERDA launched a Web-based program management tool that has improved 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 also uses a standard data transfer protocol that will provide contractors with more options for modeling software, which will be available within the next year.

NYSERDA recently worked with stakeholders to undertake a targeted effort to improve the customer and contractor's experience using the HPwES program. Improvements include updates to the website and consumer marketing materials, enhanced contractor profiles, a streamlined assessment application process, faster project approvals, and changes to the financing products that make them more accessible to customers. These developments are expected to improve the program throughput and increase participation rates.

5.6 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.

An additional amendment to the GJGNY Act of 2009 was signed into law on October 22, 2013, which extended the availability of GJGNY financing to residential solar electric installations. Effective February 3, 2014, in addition to the federal and State income tax credits and existing NYSERDA incentives through the NY-Sun Solar Electric Incentive Program (Program Opportunity Notice 2112), NYSERDA was able to offer the two low-interest financing options through GJGNY.

Figure 5-1 and Figure 5-2 illustrate the rapid growth in OBR Financing applications and loans issued since its introduction.

Figure 5-1. Unsecured (Smart Energy Loans) and OBR Financing Applications

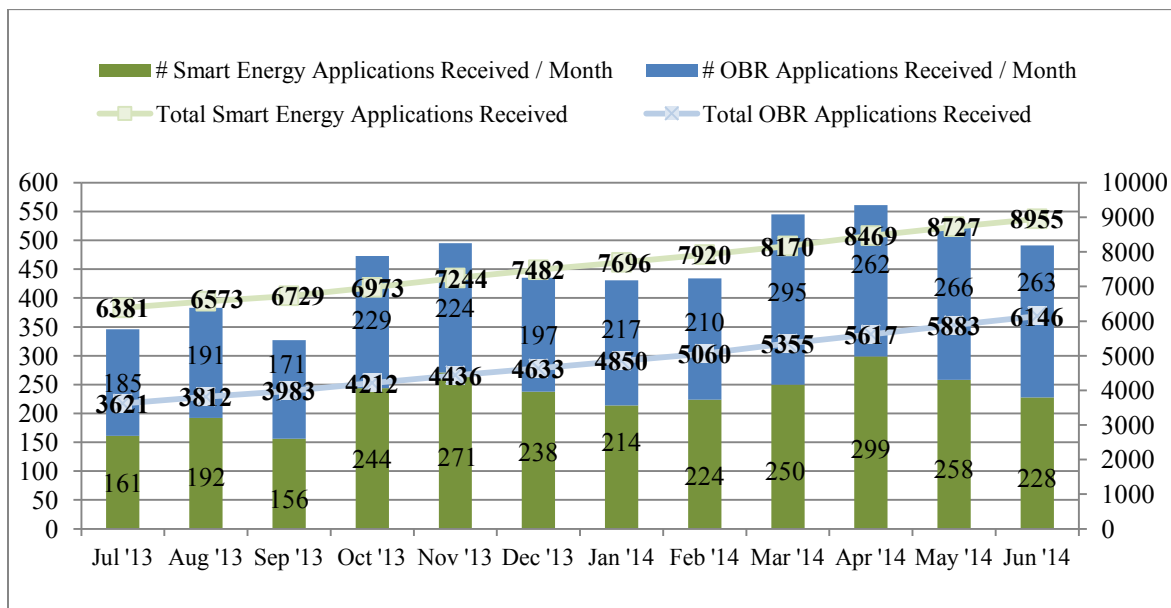


Figure 5-2. Unsecured (Smart Energy Loans) and OBR Loans Issued by Financing Type

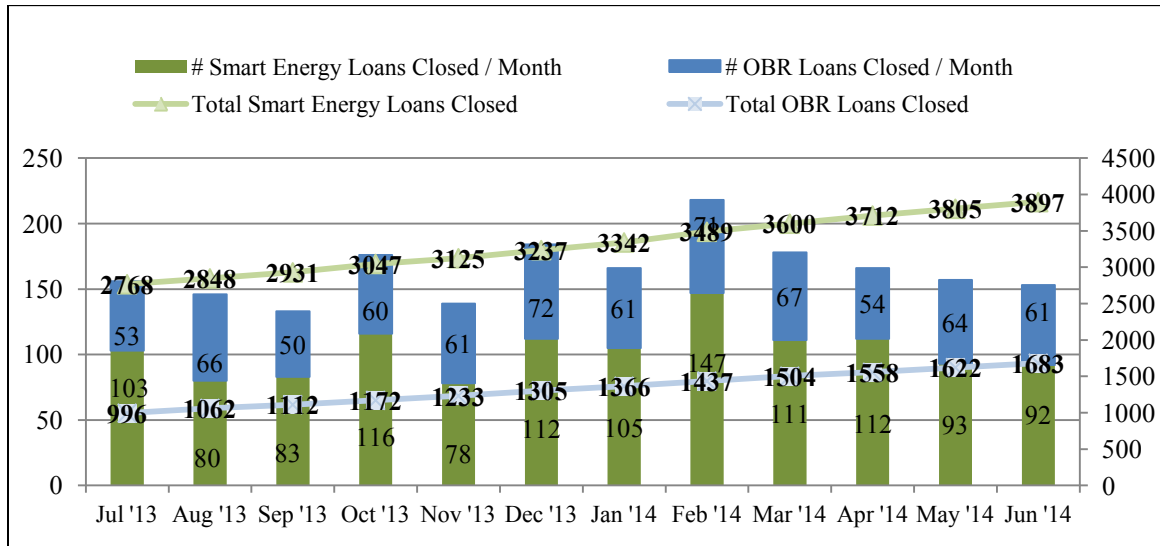


Table 5-3 summarizes loan underwriting standards used for both the Smart Energy and OBR Loans. NYSERDA has modified loan underwriting standards five times since the launch of the program in an effort to address loan application denials and to responsibly improve the penetration of financing to consumers 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 substituting satisfactory energy bill and mortgage payment history for FICO score as a primary qualifier. 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.

Figure 5-3 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. Table 5-4 summarizes metrics surrounding loan applications and loans closed through June 30, 2014.

Table 5-3. GJGN Y Loan Underwriting Standards as of June 30, 2013

LOAN UNDERWRITING STANDARDS		
Standard	Tier 1 Loans	Tier 2 Loans
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	Must meet each of the following criteria if applicable:
		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.
		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.
		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.
		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).

LOAN UNDERWRITING STANDARDS		
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 5-3. GJGN Loans Issued by Tier

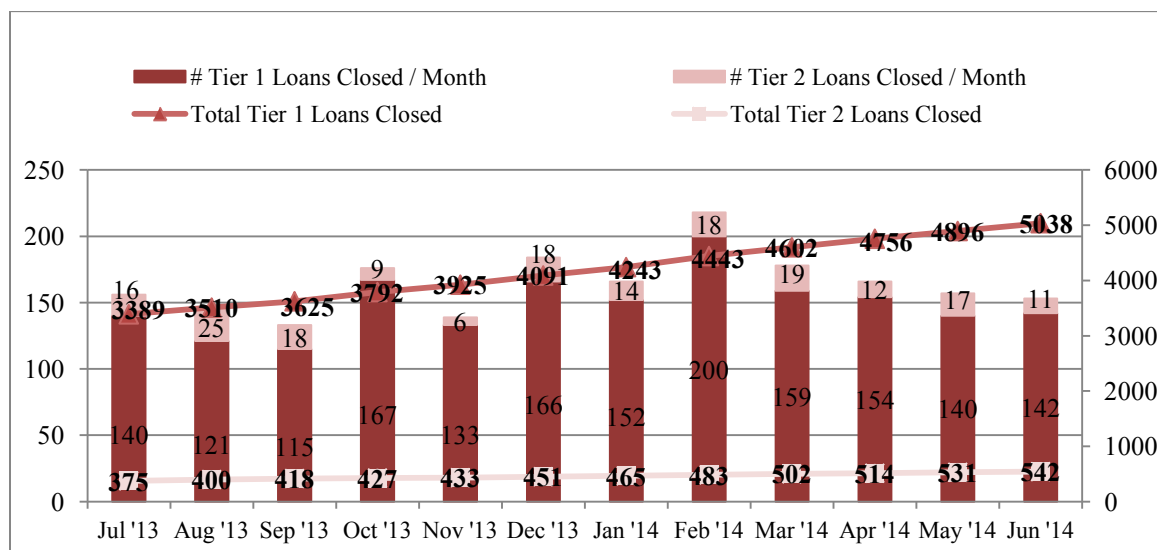


Table 5-4. GJGNY Residential Financing Summary as of June 30, 2014

Summary of Loans by Type						
GJGNY Loan Type	Applications Received (Number)	Applications Approved (Number)	Loans Closed (Number)	Loans Closed (Dollar Value)	Loans Awaiting Closing (Number)	Loans Awaiting Closing (Dollar Value)
EE Smart Energy Loan	8,706	5,838	3,892	\$36,079,500	314	\$3,042,325
EE On-Bill Recovery Loan	5,878	3,438	1,673	\$17,998,113	235	\$2,916,925
TOTAL	14,584	9,276	5,565	\$54,077,613	549	\$5,959,250
PV Smart Energy Loan	222	184	5	\$88,683	35	\$667,491
PV On-Bill Recovery Loan	197	138	1	\$15,820	16	\$252,874
TOTAL	419	322	6	\$104,503	51	\$920,364
EE & PV Smart Energy Loan	27	21	0	\$0	3	\$25,520
EE & PV On-Bill Recovery Loan	71	39	0	\$0	5	\$58,160
TOTAL	98	60	0	\$0	8	\$83,680
GRAND TOTAL	15,101	9,658	5,571	\$54,182,116	608	\$6,963,294

Table 5-4 continued

Summary of Smart Energy and On-Bill Recovery Tiers				
Smart Energy			On-Bill Recovery	
Tier 1	Tier 2		Tier 1	Tier 2
3,517	380	Loans Closed*	1,514	160
\$32,632,699	\$3,535,217	Value*	\$16,445,227	\$1,568,706
\$9,276	\$9,303	Average Loan*	\$10,862	\$9,804
12.5 Years	13.6 Years	Average Term*	14.5 Years	14.4 Years
N/A	N/A	2.99%*	56.80%	55.00%
82.40%	80.00%	3.49%*	43.20%	45.00%
17.60%	20.00%	3.99%*	N/A	N/A
72.38%		Approval Rate**	67.89%	
20.23%		Denial Rate**	25.28%	
7.39%		Denied Tier 1, didn't pursue Tier 2**	6.84%	
<p>* The amount shown here is the total value of loans closed as of 6/30/14, which included loans not yet invoiced as of 6/30/14; Refers to loans originated and closed by Energy Finance Solutions.</p> <p>** Does not include applications pending review or withdrawn.</p>				
Reasons for Denial by Percentage				
Smart Energy	Reason for Denial		On-Bill Recovery	
37.16%	Debt Ratio		37.60%	
27.97%	Credit Score		32.40%	
15.09%	Bankruptcy/Foreclosure/Repo		12.34%	
18.00%	Collections/Judgments/Charge-offs		16.84%	
1.78%	Other		0.82%	
100%	Total		100%	

Table 5-4 continued

Default Analysis						
Smart Energy			120+ Days Past Due		On-Bill Recovery	
Tier 1	Tier 2				Tier 1	Tier 2
25	\$225,181	9	\$91,689	9	\$130,489	1 \$4,739
On-Bill Recovery Utilities						
On-Bill Recovery Utility	Applications Received	Total Loans Closed***		Total Loans in Process		Utility Progress towards Initial Cap (.5%)
Central Hudson Gas & Electric	544	168	\$1,883,958	289	\$3,212,413	19.0%
Consolidated Edison	639	176	\$2,252,943	317	\$3,899,641	1.9%
PSEG Long Island	1,713	564	\$6,550,938	884	\$10,252,137	15.8%
National Grid	1,750	375	\$3,375,336	628	\$6,068,386	7.5%
New York State Electric & Gas Corp.	1,027	280	\$2,779,050	425	\$4,284,956	9.1%
Orange & Rockland Utilities	268	88	\$914,166	140	\$1,509,124	12.5%
Rochester Gas & Electric	186	32	\$252,655	61	\$553,741	3.0%
TOTAL	6,127	1,683	\$18,009,046	2,744	\$29,780,398	6.8%
*** The number and value of OBR Loans varies from the Financing Summary due to the inclusion of 9 OBR successor loans.						

5.7 Additional Incentives

NYSERDA offers a consumer discount to eligible households equal to 10 percent of the cost of eligible measures. Availability of the discount is subject to funding availability from the Energy Efficiency Portfolio Standard for prequalified electric and natural gas measures and from the Regional Greenhouse Gas Initiative for non-electric and non-gas 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 discount 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 natural gas measures and from RGGI for non-electric and non-gas 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 PSEG Long Island 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 HPwES 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 5-5 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 5-5. Example Eligible Work Scope for GJGNY Financing

GJGNY Financing Work Scope			
Measure	Cost	Incentive	Source
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	
Net Cost Eligible for Financing	\$10,425		

5.8 Budget, Goals, and Metrics

Table 5-6 describes the One- to Four-Family Residential Buildings budget, and Table 5-7 describes its goals and metrics, respectively.

Table 5-6. One- to Four-Family Residential Buildings Budget

Component	Budget	Expended	Encumbered	Committed	Balance
Energy Assessments	\$19,396,000	\$14,075,480	\$0	\$1,766,498	\$3,554,022
Assessment Implementation and Quality Assurance	1,000,000	850,209	44,603	105,188	0
Financing					
Loans	26,652,533	25,641,548*	0	5,199,400	(8,236,069)**
Implementation		3,411,046	636,609	0	
TOTAL	\$47,048,533	\$43,978,282	\$681,212	\$7,071,086	(\$4,682,047)
<p>* Loan Expended amount is net of loan repayments made through reporting period and includes bond proceeds, less bond issuance cost.</p> <p>** To support continued issuance and financing of residential loans NYSERDA has temporarily used a portion of the revolving loan fund budget allocated for Small Commercial buildings, Multifamily buildings and energy assessment incentives to finance GJGNY residential energy efficiency loans issued to date. NYSERDA expects to receive additional short-term financing to replenish the revolving loan fund in September 2014.</p> <p>Expended: Contractor Invoices and loans processed for payment by NYSERDA.</p> <p>Encumbered: Remaining funding obligated under a contract, purchase order, incentive award, or loan.</p> <p>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 5-7. One- to Four-Family Residential Buildings Goals and Metrics.

Metric	Market Rate	Affordable	Total	Goals	Progress Toward Goals
Assessment Applications Received (number)			72,237		
Assessment Complete (number)			55,312	77,500	71%
Projects Contracted (units)			16,631		
Projects Completed (units)	10,523	4,997	15,520	25,000	62%
1st Year Net KWh Savings (installed)	4,368,596	2,566,467	6,935,063		
1st Year Net MMBtu Savings (installed)	372,404	173,970	546,374		
Estimated Annual Bill Savings (installed)	\$8,480,585	\$3,782,431	\$12,263,016		
Estimated Annual KWh Savings/unit (installed)*	415	514	447	688	65%
Estimated Annual MMBtu Savings/unit (installed)*	35	35	35	31	114%
Estimated Annual Dollar Savings/unit (installed)*	\$806	\$757	\$790	\$675	117%
Loans Issued/Closed (number)	4,006	1,574	5,580		
Value of Loans**	\$42,355,476	\$11,818,434	\$54,173,910		
Potential lifetime savings of audit projects and loan projects	\$193,357,338	\$84,348,211	\$269,786,352		
Estimated lifetime savings of loan projects only	\$103,187,957	\$35,543,552	\$138,731,509		
<p>* Projects that receive GJGNY-supported audits and/or financing may also receive incentives through Energy Efficiency Portfolio Standard and/or utility programs, such that projects' energy savings may not all be attributable solely to GJGNY.</p> <p>** The amount shown here is the total value of loans closed as of June 30, 2014 which includes loans not yet invoiced as of June 30, 2014.</p>					

The 15,520 completed units since program launch associated with a GJGNY assessment or loan represent 15,091 projects. An additional 5,681 projects eligible for GJGNY were completed during this period without the GJGNY assessment or loan. This number is due, in part, to households who are not eligible for a free or reduced-cost assessment and choose not to use program financing. The number also represents projects that were initiated prior to November 2010. Since September 2011, 80 percent of the completed projects originated from a GJGNY assessment. Figure 5-4 illustrates the level of program baseline activity across the state in the calendar year prior to the launch of the assessment component of GJGNY. In the year prior to November 15, 2010, 6,228 projects were completed across New York State.

Figure 5-5 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 10 percent increase in Assisted HPwES projects as a percentage of all HPwES projects. A comparison of project completions, by region, is presented in Figure 5-6. This information will be useful in adjusting marketing and outreach to ensure target regions are participating.

Figure 5-4. HPwES Project Locations in Year Prior to GJGNY Implementation (Baseline)

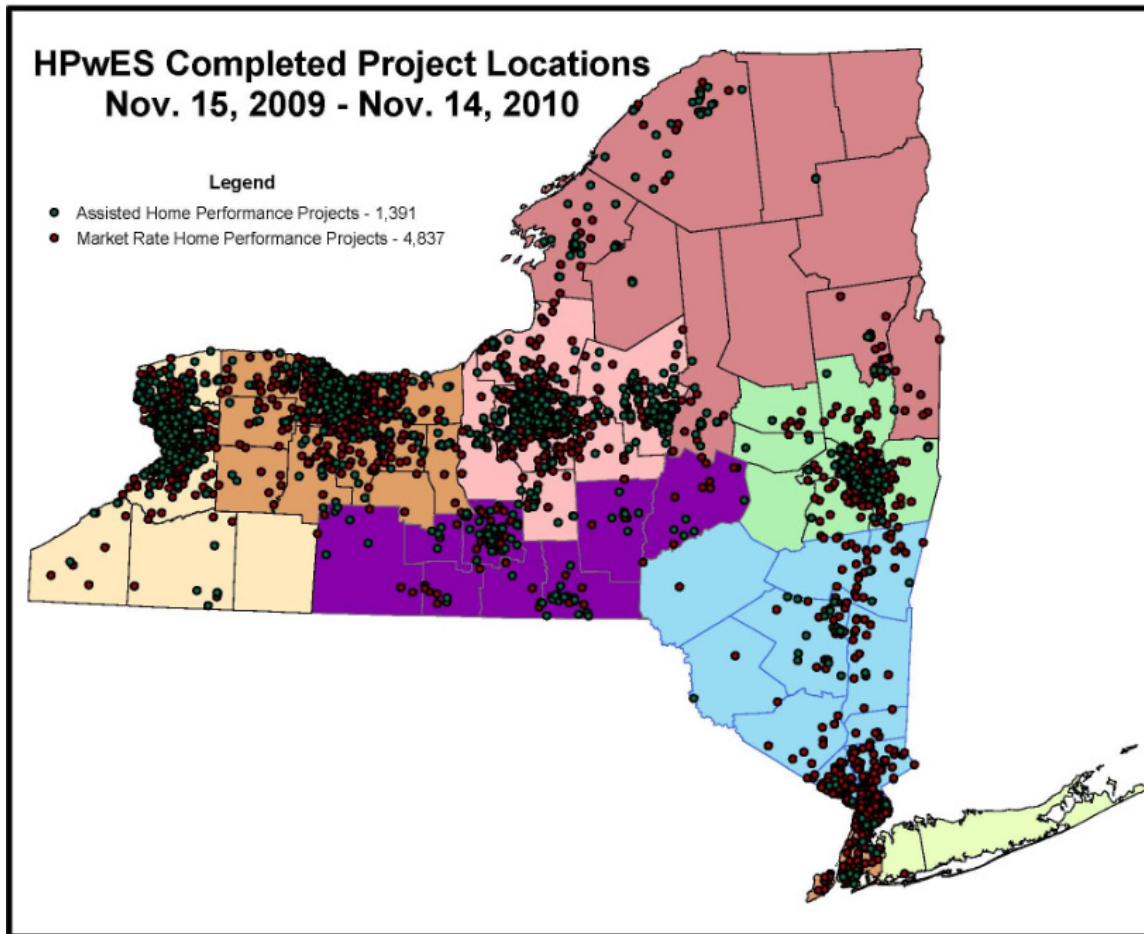


Figure 5-5. GJGNY HPwES Project Completions

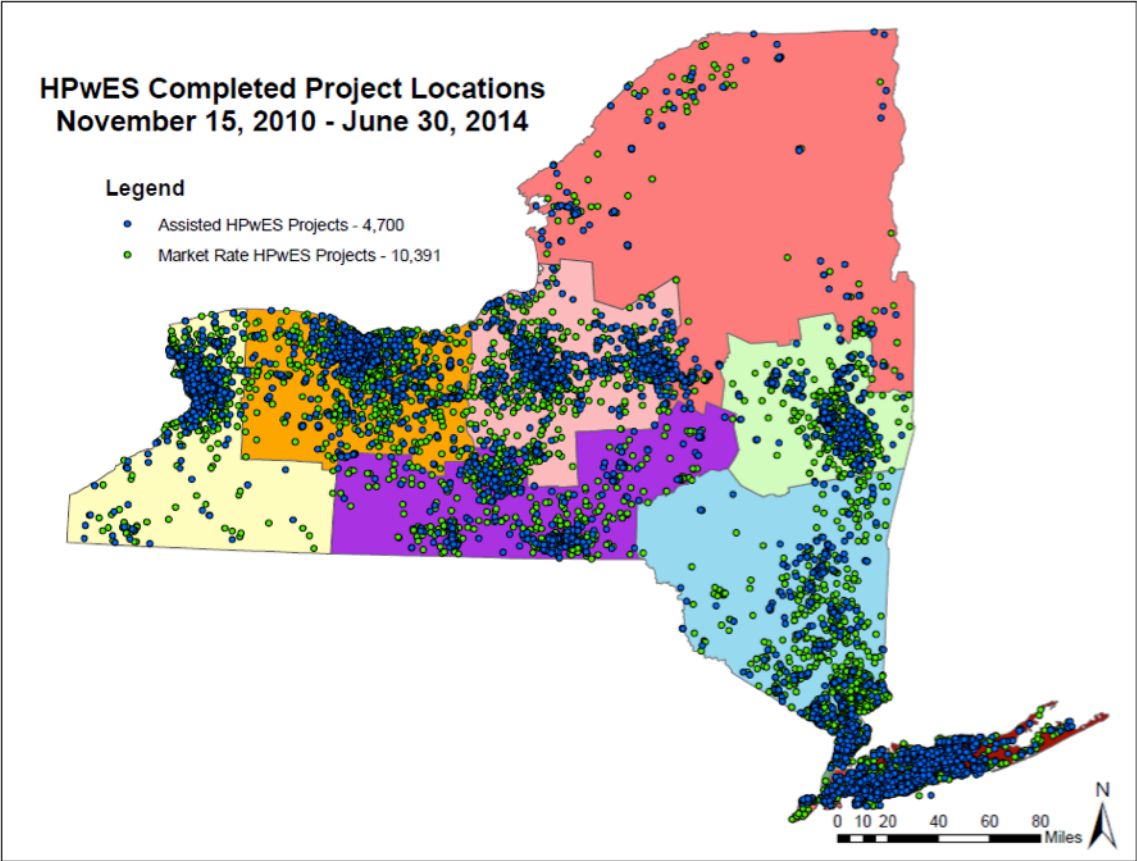


Figure 5-6. HPwES Project Completions by Region

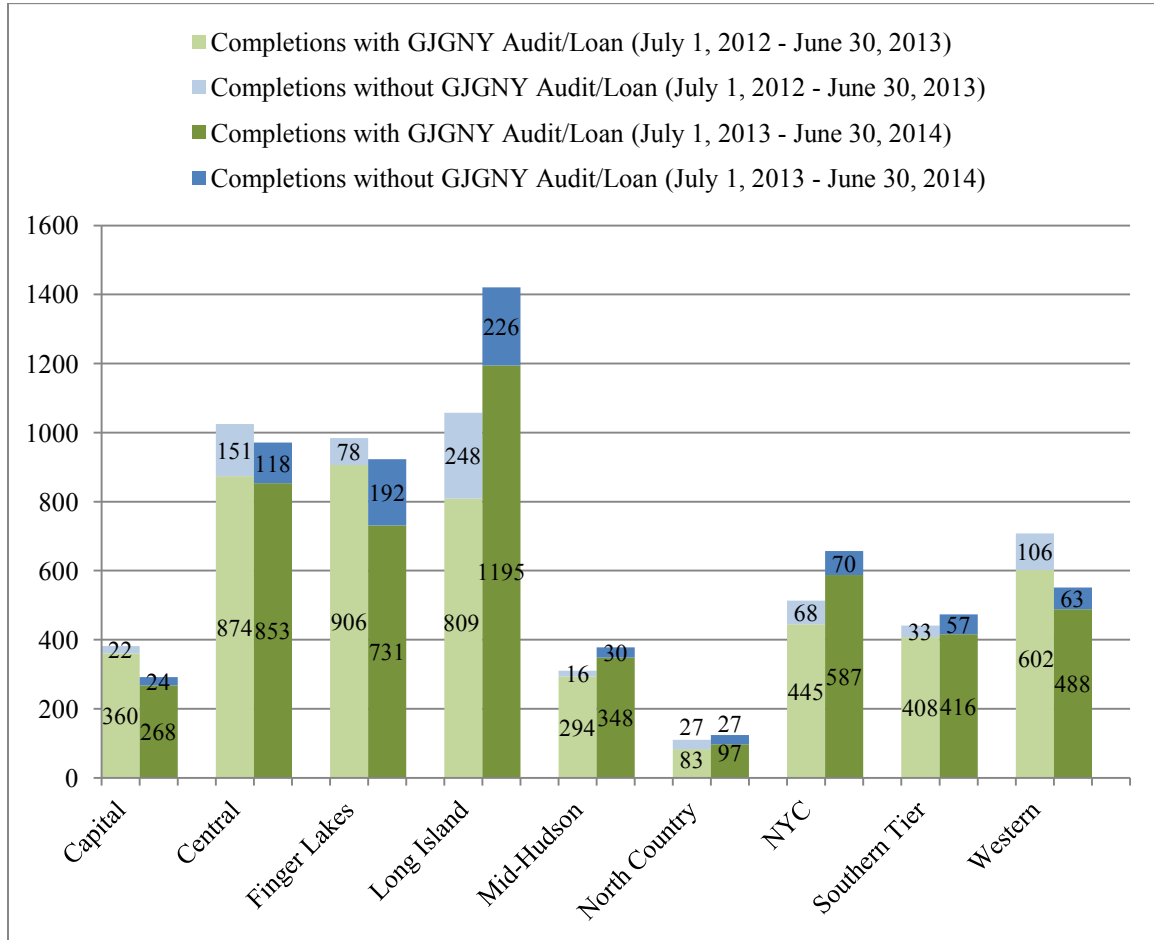
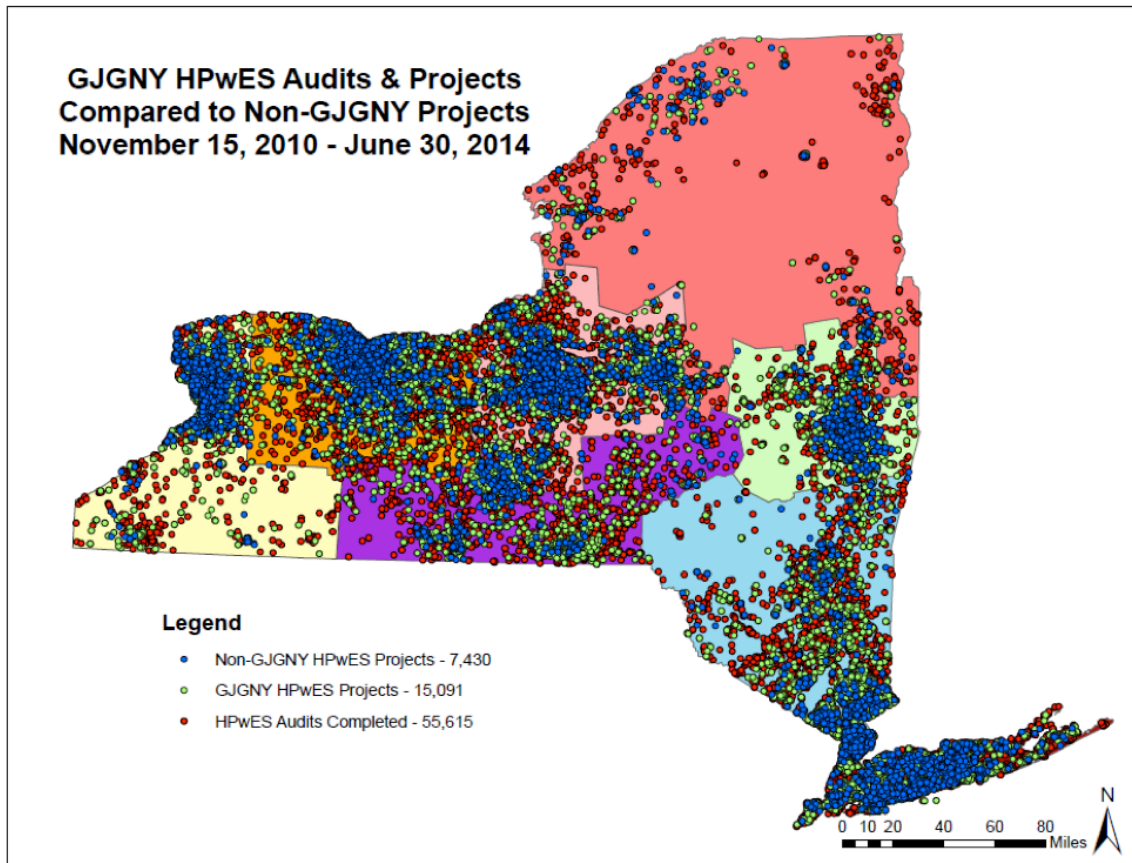


Figure 5-7 shows assessment activity throughout the State, as compared to completed projects. It also demonstrates the expanded reach of the program as compared to the baseline, illustrating the potential additional work that could result from assessments. Finally, Figure 5-7 illustrates the expansion of the GJGNY program, as compared to work taking place without the benefit of the GJGNY assessments or financing. Additional GIS maps will be developed with the input of the GIS Working Group to support program impact analysis.

Figure 5-7. GJGNY HPwES Assessment and Project Completions



5.9 One- to Four-Family Residential Buildings Contracts Entered Into

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

Table 5-8. One- to Four-Family Residential Buildings Contracts Entered Into

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
Energy Assessments						
AGGREGATED ENERGY ASSESSMENTS			N/A	\$14,075,480	0	\$1,766,498
Assessment Implementation and Quality Assurance						
32323	Conservation Services Group	Energy Audit Implementation	317,746	317,746	0	0
32323-1	Conservation Services Group	Energy Audit Implementation	78,656	43,262	35,394	105,188
ST9802-1	Conservation Services Group	Energy Audit Implementation	483,117	483,117	0	0
ST10743-1	Harris Beach PPLC	Bond Counsel	10,000	791	9,209	0
ST9940-1	Honeywell International Inc	Quality Assurance	5,293	5,293	0	0
TOTAL ASSESSMENT IMPLEMENTATION AND QUALITY ASSURANCE			\$894,812	\$850,209	\$44,603	\$105,188
Loan Activity						
Aggregated Loans Issued	Various	Loans issued	N/A	54,164,407	0	5,199,400
Aggregated Loan Repayments	Various	Loan repayments	N/A	(28,522,859)*	0	0
NET AGGREGATED LOAN ACTIVITY			N/A	\$25,641,548	\$0	\$5,199,400

Table 5-8 continued

Financing Implementation						
21769	Concord Servicing Corporation	RES Master Loan Servicer for GJGNY		612,053	0	0
15518	Energy Finance Solutions	Origination Fees		1,088,750	0	0
		LIPA Fees		5,500	0	0
		Ramp-up / Development costs for GJGNY & OBR programs		87,999	0	0
OBR Billing Agreements, no PO#	Central Hudson Gas & Electric	Utility Fees for OBR Loans	N/A	33,745	0	0
	Consolidated Edison			38,486	0	0
	LIPA			116,812	0	0
	Niagara Mohawk dba National Grid			68,056	0	0
	NYSEG			54,185	0	0
	Orange & Rockland Utilities			16,625	0	0
	Rochester Gas & Electric			5,590	0	0
35421	First Associates Loan Servicing	Backup Loan Servicer for GJGNY Loan Program	116,500	16,500	100,000	0
27533	NY Title Research Corp.	OBR Last Owner Searches	61,800	59,860	1,940	0
31684	Zodiac Title Services	OBR Last Owner Searches & Recording Services	100,000	100,000	0	0

Table 5-8 continued

Financing Implementation						
31684-1	Zodiac Title Services	OBR Last Owner Searches & Recording Services	50,000	26,670	23,331	0
33527	Advantage Title Agency, Inc	OBR Last Owner Searches & Recording Services	75,000	75,000	0	0
36864	Advantage Title Agency, Inc	OBR Last Owner Searches & Recording Services	200,000	119,782	80,219	0
38299	Frontier Abstract & Research Services	OBR Last Owner Searches & Recording Services	199,999	25,671	174,328	0
37723	Stewart Title Insurance Company	OBR Last Owner Searches & Recording Services	199,999	34,373	165,626	0
Title Company pass through fees, no PO#	NY Title Research Corp.	OBR Last Owner Searches & Recording Services	N/A	8,563	0	0
	Zodiac Title Services	OBR Last Owner Searches & Recording Services		56,383	0	0
	Advantage Title Agency, Inc	OBR Last Owner Searches & Recording Services		47,059	0	0
40738	Energy Improvement Corporation	Energize New York Program Support	50,000	29,840	20,160	0
20662	Energy Programs Consortium	Phase I	12,500	6,250	6,250	0
18591	Hawkins Delafield & Wood	Legal financial advisory services for GJGNY	210,000	204,645	5,355	0

Table 5-8 continued

Financing Implementation						
19923	Lamont Financial Services Corporation	Financial Advisor Services	337,050	277,650	59,400	0
26143	Equifax Credit Marketing Services	Annual Subscription to CreditForecast.com 2011-12	20,000	20,000	0	0
30985	Fitch Ratings, Inc.	Issuance of NYSERDA 2012 GJGNY Energy Efficiency Bonds	45,000	45,000	0	0
ST10743-1	Harris Beach PLLC	Bond Counsel	125,000	125,000	0	0
33119	NetRoadshow, Inc.	Establishment of portal communication between NYSERDA and bond rating agency	5,000	5,000	0	0
TOTAL FINANCING IMPLEMENTATION			\$1,807,849	\$3,411,045	\$636,609	\$0
GRAND TOTAL			\$2,702,661	\$43,978,282	\$681,212	\$7,071,086
<p>*Aggregated Loan Repayment Expended amount is net of loan repayments made through reporting period and includes bond proceeds, less bond issuance cost.</p> <p>NOTE: Financing implementation contract funding amounts listed in Table 5-8 represent the prorated share of costs for the One- to Four-Family sector. GJGNY program-wide contract funding amounts are provided in Table 3-3.</p>						

6 Multifamily Energy Performance Portfolio

NYSERDA offers a portfolio of programs and incentives for owners, facility managers, developers, and condo/co-op boards of multifamily buildings with five or more units in New York State. NYSERDA's programs make it easier to assess, fund, implement, and measure energy efficiency upgrades that improve building performance and save money. Implementation of the approved GJGNY Multifamily Buildings Operating Plan¹¹ began in the third quarter of 2010.

6.1 Target Audience

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 multifamily¹² residential buildings. The program identifies and targets those potential participants¹³ 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.

6.2 Implementation Strategy

Through NYSERDA's Multifamily Energy Performance Portfolio (MEPP), GJGNY provides financing and co-funding for comprehensive energy assessments and the development of an Energy Reduction Plan (ERP).¹⁴ The availability of GJGNY co-funded assessments began in September 2010, and GJGNY financing in the multifamily sector was launched in June 2011. MEPP 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 MEPP Partners and must be employed by MEPP participants to complete specific building performance services, such as those outlined in the ERP.

¹¹ 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. It is available online at <http://www.nyserda.ny.gov/-/media/Files/EERP/GJGNY/gjgny-multifamily-operating-plan.pdf>.

¹² 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.

¹³ 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.

¹⁴ 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.

NYSERDA manages GJGNY-funded services as a seamless part of the MEPP process, regardless of whether participants intend to access MEPP implementation incentives, utility program rebates, or other financial assistance, or whether participants simply intend to fund a portion or all of the energy-related 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,” are offered statewide to promote and educate the public about the suite of multifamily programs offered through NYSERDA’s Multifamily Energy Performance Portfolio.

NYSERDA continues to look for areas of improvement for programs. As noted in last year’s annual report, the GJGNY Multifamily Team looked to expedite the contracting process at NYSERDA to eliminate processing times and promote customer service. The team continues to work on similar intervention strategies to eliminate consumer confusion and streamline participation.

6.3 Assessment Fees

Co-funding of the energy assessment(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 MEPP 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, the NYS Housing Finance Agency, and the U.S. Department of Housing and Urban Development.

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 MEPP Partner to complete the assessment and ERP. The co-funding amounts offered for completion of the assessments and ERPs are listed in Table 6-1 and specified in the MEPP program documentation.

Table 6-1. GJGNY Multifamily Energy Performance Assessment 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.			

6.4 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 or Regional Green House Gas Initiative. Through MEPP, 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 a project's completion. Incentive amounts are detailed in Table 6-2.

Table 6-2. Multifamily Energy Performance 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) ¹			
Tier	Estimated Energy Reduction ²	Applicable Performance Payment	
1	20%-22%	\$150.00	
2	23%-25%	\$200.00	
3	26%-28%	\$250.00	
4	29%+	\$300.00	
¹ The Performance Payment applies in the case of eligible projects predicting and achieving savings above the 15 percent program threshold. NOTE: A project's incentive may be reduced based on the cost and/or cost-effectiveness of the recommended upgrades. ² MPP energy reduction is based on source energy.			

MEPP 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 certified refrigerators as replacements for refrigerators that are 10 years old or older, at no cost to the tenants.

6.5 Financing

NYSERDA launched the GJGNY Multifamily Financing Program in June 2011. GJGNY financing is available to multifamily building owners with an approved NYSERDA assessment. 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 the 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 below market rate. Fourteen loans totaling \$9,243,688 have been issued as of June 30, 2014.

6.6 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 MEPP, 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 assessment has been completed that meets MEPP standards. Although GJGNY loans may be combined with either the NYSERDA or utility incentives, NYSERDA and utility incentives cannot be combined with each other to cover 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.

6.7 Budget, Goals, and Metrics

Table 6-3 and Table 6-4 describe the Multifamily Energy Performance budget and goals and metrics, respectively.

Table 6-3. Multifamily Energy Performance Budget

Component	Budget	Expended	Encumbered	Committed	Balance
Energy Assessments	\$3,800,000	\$1,868,565	\$1,643,683	\$7,905	\$279,848
Implementation and Quality Assurance	1,618,920	1,398,733	1,267	0	218,920
Financing					
Loans	6,996,210	2,409,415*	0	463,275	4,123,520
Implementation	277,420	141,483	163,936	0	(28,000)
TOTAL	\$12,692,550	\$5,818,196	\$1,808,886	\$471,180	\$4,594,288
<p>* 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.</p>					

Table 6-4. Multifamily Energy Performance Goals and Metrics

Metric	Market Rate	Affordable	Total	Goals	Progress Toward Goals
Assessment Applications Received (number)	141	195	336	500	
Assessments Complete (number)	132	164	296	400	
Projects Contracted (units)	141	195	336	500	
1st Year Net KWh Savings (committed) *	35,548,778	24,226,064	59,774,842		
1st Year Net MMBtu Savings (committed) *	261,617	196,004	457621.4		
Estimated Annual Bill Savings (committed) *	\$11,064,017	\$10,426,054	\$21,490,071		
Projects with Installed measures (units)	7,861	11,520	19381		
1st Year Net KWh Savings (installed) *	2,510,975	13,833,689	16,344,663.8 1		
1st Year Net MMBtu Savings (installed) *	124,851	199,775	324,625.56		
Estimated Annual Bill Savings (installed) *	\$2,970,865	\$6,073,677	\$9,044,542		
Estimated Annual KWh Savings/unit (installed)	319	1201	1,520		
Estimated Annual MMBtu Savings/unit (installed)	16	17	33		
Estimated Annual Dollar Savings/unit (installed)	378	527	905		
Loans Issued (number)				14	
Value of Loans				\$9,243,689	
Lifetime savings (committed) *	\$154,896,238	\$145,964,756	\$300,860,994		
Lifetime savings (installed) *	\$41,592,110	\$85,031,481	\$126,623,591		
* Projects that receive GJGNY-supported audits and/or financing may also receive incentives through Energy Efficiency Portfolio Standard (EES), Regional Green House Gas Initiative and/or utility programs, such that projects' energy savings may not all be attributable solely to GJGNY.					

6.8 Multifamily Energy Performance Contracts Entered Into

External contracts related to the implementation of the GJGNY Program are detailed in Table 6-5.

Table 6-5. Multifamily Energy Performance Contracts Entered Into

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
Energy Assessments						
Aggregated Energy Assessments			N/A	\$1,868,565	\$1,643,683	\$7,905
Assessment Implementation and Quality Assurance						
PO-18649	TRC	Implementation	1,233,514	1,232,247	1,267	0
PO-ST9941	Taitem	Quality Assurance	152,551	152,551	0	0
PO-ST9941-1	Taitem	Quality Assurance	13,935	13,935	0	0
Total Assessment Implementation And Quality Assurance			\$1,400,000	\$1,398,733	\$1,267	\$0
Loan Activity						
Aggregated Loans Issued	Multiple	Loans Issues	N/A	2,800,608	0	463,275
Aggregated Loan Repayments	Multiple	Loan Repayments	N/A	(391,193)	0	0
Net Aggregated Loan Activity			N/A	\$2,409,415	\$0	\$463,275
Financing Implementation						
PO-18591	Hawkins Delafield & Wood	Legal financial services	84,000	81,858	2,142	0
PO-19923	Lamont Financial Services	Financial advisor services	56,420	56,420	0	0
PO-20662	Energy Program Consortium	Unknown	5,000	2,500	2,500	0
PO-25909	Concord Servicing Corp.	MF master loan servicer	150,000	664	149,336	0
PO-38299	Frontier Abstract & Research Services	On-bill recovery program title	3,333	0	3,333	0
PO-36864	Advantage Title Agency	On-bill recovery title search	3,333	0	3,333	0
PO-37723	Stewart Title Insurance Company	On-bill recovery title search	3,333	42	3,292	0
TOTAL FINANCING IMPLMENTATION			\$305,420	\$141,483	\$163,936	\$0
GRAND TOTAL			\$1,705,420	\$5,818,196	\$1,808,886	\$471,180
NOTE: Financing implementation contract funding amounts listed in Table 6-5 represent the prorated share of costs for the Multifamily sector. GJGNY program-wide contract funding amounts are provided in Table 3-3.						

7 Small Commercial Energy Efficiency Program

NYSERDA's Small Commercial Energy Efficiency Program offers financial and technical assistance to help small businesses and not-for-profit organizations improve their energy efficiency and reduce their energy costs. This program offers free assessments to help identify economically viable improvements, (e.g. lighting, motors or thermostats) that may yield substantial annual energy savings and two low-interest loan options to finance energy efficiency projects. The first one is On-Bill Recovery Financing, which makes it possible for small businesses and not-for-profit organizations to use the savings on their energy bills to pay for their energy efficiency upgrades. The second one is the Participation Loan, where NYSERDA partners with lenders across New York State to help small businesses and not-for-profits access low-interest financing for energy efficiency improvements. Implementation of the approved GJGNY Small Business/Not-for-Profit Operating Plan¹⁵ began in the first quarter of 2011.

7.1 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.¹⁶ Small businesses and not-for-profits must own, lease, or manage the building that the organization uses or occupies and must have the authority to contract for the provision of Qualified Energy-Efficiency Services¹⁷ 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.

¹⁵ 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. It is available online at <http://www.nyserda.ny.gov/-/media/Files/EERP/GJGNY/gjgny-small-business-nfp-operating-plan.pdf>.

¹⁶ Qualified Energy Assessments include either 1) a Full Walkthrough Energy Assessment 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 Assessment 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.

¹⁷ Qualified Energy Efficiency Services are modifications to non-residential structures based upon recommendations contained in a Qualified Energy Assessment performed under a NYSERDA program, by a utility program, or by a Qualified Energy Assessor. Qualified Energy Efficiency Services may include prequalified and custom measures or services including but not limited to: heating, ventilation, air conditioning; 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.).

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 and Rockland, or Rochester Gas and Electric.

7.2 Implementation Strategy

NYSERDA offers eligible small business and not-for-profit customers Qualified Energy Assessments from competitively selected Qualified Energy Consultants.¹⁸ 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.¹⁹ 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 Loan or OBR Loan.

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 added dedicated implementation assistance to the Small Commercial Energy Efficiency Program. Qualified Energy Consultants, selected through Technical Review and Program Support Contractors Request for Proposals (RFP 2621), provide energy assessments to small business and

¹⁸ 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.nyserda.ny.gov/-/media/Files/EERP/GJGNY/Small-Business/Energy-Assessment-Standards.pdf>.

¹⁹ 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.nyserda.ny.gov/-/media/Files/EERP/GJGNY/Small-Business/Energy-Assessment-Standards.pdf>.

not-for-profit customers, explain energy assessment recommendations and the business case for implementing energy efficiency measures to customers, and 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 more small business and not-for-profit customers implement energy efficiency improvements in their buildings.

Assistance provided through the Small Commercial Expeditor Program can be attributed to 28 NYSERDA-approved participation loans and 18 NYSERDA-approved On-Bill Recovery financing loans. Of these, eight participation loans were closed at an aggregate of \$492,405 in financing, and two On-Bill Recovery financing loans closed, totaling of \$63,320. Further results of the expeditor pilot will be determined over time.

7.3 Assessment 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 may be 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 concluded on September 30, 2013. With the ARRA funds expended, NYSERDA has only resources available to offer free energy assessments to small business and not-for-profit customers with less than 10 employees.

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, have the option to obtain a cost-shared energy assessment through NYSERDA's FlexTech Program, which can cost 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.

7.4 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.

7.4.1 Participation Loans

NYSERDA provides 50 percent of the principal of the loan, up to \$50,000, at zero percent interest for up to 10 years. 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 approximately one-half of the market interest rate. The Participation Loan Program is currently open to banks, credit unions, local development corporations, and community development financial institutions. To increase market penetration, the Program will be opened to any lending entity that is authorized to conduct business in New York State and that is licensed by the New York State Banking Department. Eligible small businesses and not-for-profits are also allowed to finance the purchase of solar electric systems under 200 kW, as approved under NYSERDA's NY-Sun Incentive Program through participating lenders.

7.4.2 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 for a maximum 10 years to finance the cost of their energy-efficiency projects. Customers repay their OBR Loan through an installment charge on their utility bill. Lenders earn a \$300 origination fee for each OBR Loan they originate on NYSERDA's behalf. Due to minimal loan volume and lender participation, it is anticipated that the OBR Program will apply a one lender business model, rather than promoting the program through multiple lenders, with the selected lending entity responsible for marketing the program to generate awareness. Further, reflecting the change in market interest rates, it is anticipated that the interest rate will increase to three percent.

7.5 Additional NYSERDA Incentives

NYSERDA also offers System Benefits Charge-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; 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.

7.6 Program Outreach Efforts

7.6.1 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. The energy assessment, however, must meet NYSERDA's standards for small commercial energy assessments found in the NYSERDA Small Commercial Energy Efficiency Program Energy Assessment and Request for Financing Package²⁰. 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 constituency-based organizations (CBOs) to raise awareness of the Program by hosting a monthly training webinar for CBOs interested in connecting their local small business and not-for-profit customers with low-interest energy efficiency financing. NYSERDA also hosted a training webinar for solar electric contractors participating in the NY-Sun Incentive Program (Program Opportunity Notice [PON] 2112) to inform them of the availability of Participation Loans and On-Bill Recovery Loans to finance the purchase and installation of solar electric systems up to 200 kW by small businesses and not-for-profit customers.

7.6.2 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 have been 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 working in the State's Regional Economic Development Councils through NYSERDA's Economic Development Growth Extension Program, 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.

²⁰ NYSERDA Small Commercial Energy Efficiency Program Energy Assessment and Request for Financing Package: <http://www.nyserdera.ny.gov/-/media/Files/EERP/GJGNY/Small-Business/Energy-Assessment-Standards.pdf>

7.7 Budget, Goals, and Metrics

Table 7-1 describes the Small Commercial Energy Efficiency budget, and Table 7-2 describes the goals and metrics, respectively.

Table 7-1. Small Commercial Energy Efficiency Budget

Component	Budget	Expended	Encumbered	Committed	Balance
Energy Assessments	\$8,690,980	\$3,400,274	\$5,222,817	\$0	\$67,889
Implementation and Quality Assurance	2,309,020	467,553	592,467	0	1,249,000
Financing					
Loans	2,894,917	258,060*	0	0	2,636,857
Implementation	280,000	214,670	284,891	0	-219,561
TOTAL	\$14,174,917	\$4,340,557	\$6,100,175	\$0	\$3,734,185
<p>* 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.</p>					

Table 7-2. Small Commercial Energy Efficiency Goals and Metrics

Metric	Performance To-Date	Goals
Assessment Applications Received (number)	2,346	
Assessments Complete (number)	2,100	2100
Estimated Projects Completed (number) ^{a,c}	420	1296
1st Year Net KWh Savings (audit recommended) ^b	15,012,713	
1st Year Net KWh Savings (estimated installed) ^c	3,002,543	
1st Year Net MMBtu Savings (audit recommended)	138,364	
1st Year Net MMBtu Savings (estimated installed) ^c	27,673	
Estimated Annual Bill Savings (audit recommended)	\$4,564,961	
Estimated Annual Bill Savings (estimated installed) ^c	\$912,992	
Estimated Annual KWh Savings/project	1,787	18,000 kWh per year / completed project
Estimated Annual MMBtu Savings/project	16	160 MMBtu per year/ completed project
Estimated Annual Dollar Savings/project	\$543	\$5,200 per year / completed project
Loans Issued (number)	11	1000
Value of Loans ^d	\$577,225	
<p>^a Projects that receive GJGNY-supported audits and/or financing may also receive incentives through Energy Efficiency Portfolio Standard (EEPS) and/or utility.</p> <p>^b 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>^c 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>^d 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 percent of the total energy efficiency project cost or \$50,000, whichever is less.</p>		

7.8 Small Commercial Energy Efficiency Contracts Entered Into

External contracts related to the implementation of the GJGNY Program are detailed in Table 7-3.

Table 7-3. Small Commercial Energy Efficiency Program Contracts

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
Energy Assessments						
PO-ST9848-1	C.J. Brown Energy, PC	Energy Assessment Provider	\$692,653	\$360,941	\$0	\$0
PO-ST9849-1	L&S Energy Services, Inc	Energy Assessment Provider	1,003,510	672,710	0	0
PO-ST9850-1	Daylight Savings Co	Energy Assessment Provider	1,509,451	1,538,405	0	0
PO-ST9851-1	EME Consulting Engineering Group, LLC	Energy Assessment Provider	692,157	518,675	0	0
PO-40830	L&S Energy Services, Inc	Energy Assessment Provider	1,293,593	139,290	1,154,303	0
PO-40827	Daylight Savings Co	Energy Assessment Provider	1,293,593	71,066	1,222,527	0
PO-40829	GDS Associates, Inc	Energy Assessment Provider	1,293,593	72,623	1,220,971	0
PO-41849	TRC Energy Services	Energy Assessment Provider	1,651,579	26,563	1,625,016	0
TOTAL ENERGY ASSESSMENTS			\$9,430,129	\$3,400,274	\$5,222,817	0
Assessment Implementation and Quality Assurance						
PO-24210	Kema Services, Inc.	Program support services	49,857	49,857	0	0
PO-27052	Novus Engineering, PC	Expeditor pilot	50,000	49,176	824	0
PO-27726	Taitum Engineering, PC	Expeditor pilot	50,000	50,000	0	0
PO-27661	Nexant, Inc	Expeditor pilot	50,000	44,593	5,407	0
PO-30679	Kema Services, Inc.	Program support services	50,000	47,642	2,358	0
PO-33565	LaBella Assoc	QA services	19,000	1,737	17,263	0
PO-33570	TRC Companies	QA services	48,000	2,699	45,301	0
PO-32825	Taitum Engineering, PC	Expeditor pilot	75,000	74,331	669	0
PO-32865	Aramark Management Service Ltd Partnership	Program support services	65,000	65,000	0	0
PO-40830	L&S Energy Services, Inc	Expeditor services	138,532	14,917	123,616	0
PO-40827	Daylight Savings Co	Expeditor services	138,532	7,611	130,922	0
PO-40829	GDS Associates, Inc	Expeditor services	138,532	7,777	130,755	0
PO-41849	TRC Energy Services	Expeditor services	137,566	2,213	135,353	0
TOTAL ASSESSMENT IMPLEMENTATION AND QUALITY ASSURANCE			\$1,010,019	\$417,553	\$592,467	\$0

Table 7-3 continued

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
Loan Activity						
Aggregated Loans Issued	Various	Loans issued	N/A	300,883	0	0
Aggregated Loan Repayments	Various	Loans payments	N/A	(42,823)	0	0
NET AGGREGATED TOTAL LOAN ACTIVITY			N/A	\$258,060	\$0	\$0
Financing Implementation						
PO-37428	Blue Springs Energy, LLC	Lender Outreach	50,000	50,000	0	0
PO-18591	Hawkins Delafield & Wood	Legal/program design	126,000	122,787	3,213	0
PO-19923	Lamont Financial Services Corp	Legal/program design	84,630	84,630	0	0
PO-20662	Earthspouse, LLC	PV deployment	7,500	3,750	3,750	0
PO-25910	Concord Servicing Corp	Loan servicer	120,000	1,620	118,380	0
PO-25910	Concord Servicing Corp	Loan servicer	120,000	35	119,965	0
PO-38299	Frontier Abstract and Research Services	Legal- title	13,333	0	13,333	0
PO-36864	Advantage Title Agency, Inc	Legal- title	13,333	250	13,083	0
PO-37723	Stewart Title Insurance Co.	Legal- title	13,333	166	13,167	0
VC-298768	LIPA	Utility remittance		233		0
VC-343904	Niagara Mohawk	Utility remittance		600		0
VC-339219	Pathstone Enterprise Center, Inc.	Origination fee		300		0
VC-294790	Community Development Corp.	Origination fee		300		0
TOTAL FINANCING IMPLEMENTATION			\$548,129	\$264,670	\$284,891	\$0
GRAND TOTAL			\$10,988,277	\$4,340,557	\$6,100,175	\$0

NOTE: Financing implementation contract funding amounts listed in Table 7-3 represent the prorated share of costs for the Small Commercial sector. GJGNY program-wide contract funding amounts are provided in Table 3-3.

8 Outreach and Marketing

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 environmental benefits.

8.1 Outreach through Constituency-Based Organizations

The GJGNY program provides outreach services in targeted communities through CBOs, which locate residents, businesses, not-for-profits, 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. As of June 30, 2014, twelve competitively solicited CBOs are currently under contract to assist with program. Table 8-1 lists CBOs that have worked in or are currently working in the program, along with the sectors targeted and an indication of whether they also have a workforce or aggregation component.

Table 8-1. CBOs Selected through Requests for Proposals

Target Region	CBO Name	Outreach Activity				Aggregation
		One- to Four- Family Residential Buildings	Multifamily Energy Performance	Small Commercial Energy Efficiency	Workforce Training and Development	
CBOs Selected through a First Round of Requests for Proposals						
Downstate						
Bronx	Northwest Bronx Community and Clergy Coalition (NWBCCC)				X	
	Bronx Overall Economic Development Corporation (BOEDC)	X	X	X		
Kings and Richmond	Neighborhood Housing Services of Staten Island (NHSSI)	X			X	
	El Puente	X	X	X		
	Make the Road New York (MRNY)	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 (AAFE)	X			X	
	Neighborhood Housing Services of Jamaica (NHSJ)*	X				

Table 8-1 continued

Target Region	CBO Name	Outreach Activity				Aggregation
		One- to Four-Family Residential Buildings	Multifamily Energy Performance	Small Commercial Energy Efficiency	Workforce Training and Development	
Upstate						
Capital	Northeast Parent and Child Society (NEPC)				X	
	Affordable Housing Partnership of the Capital Region (AHP)	X				
Central	Public Policy and Education Fund of Central New York (PPEF-Central)	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 (RUPCO)	X		X	X	
North Country	Adirondack North Country Association (ANCA)	X	X	X	X	
Southern Tier	Public Policy and Education Fund of the Southern Tier (PPEF-ST)	X		X	X	
Western	People United for Sustainable Housing (PUSH)	X	X		X	X
CBOs Selected through a Second Round of Requests for Proposals						
Downstate						
Bronx	Sustainable South Bronx (SSBx)*	X	X	X	X	

Table 8-1 continued

Target Region	CBO Name	Outreach Activity				Aggregation
		One- to Four-Family Residential Buildings	Multifamily Energy Performance	Small Commercial Energy Efficiency	Workforce Training and Development	
Kings	Neighborhood Housing Services of Staten Island (NHSSI)*	X			X	
Richmond	El Puente*	X	X	X	X	X
Queens	Neighborhood Housing Services of Jamaica (NHSJ)*	X				
Upstate						
Capital	Affordable Housing Partnership of the Capital Region (AHP)*	X				
Finger Lakes	PathStone*	X				
Nassau & Suffolk	Long Island Progressive Coalition (LIPC)*	X		X	X	X
Mid-Hudson and Westchester	Rural Ulster Preservation Corporation (RUPCO)*	X	X	X	X	X
North Country	Adirondack North Country Association (ANCA)*	X	X	X	X	
Southern Tier	Public Policy and Education Fund of the Southern Tier (PPEF-ST)*	X	X	X		
Western	People United for Sustainable Housing (PUSH)*	X		X	X	X
* CBOs that are currently under contract are indicated with an asterisk.						

CBOs are successfully penetrating the consumer segment the program intends to target— those who are eligible to receive Assisted HPwES subsidies. As of June 30, 2014, GJGNY CBO completed retrofits consist of 46 percent assisted subsidy projects and 54 percent market rate projects, compared to program wide GJGNY completed retrofits at 31 percent assisted subsidy projects and 69 percent market rate projects. CBOs are also leveraging other State, federal, and local funds to complete Home Performance work.

CBOs are reaching multifamily and small commercial markets in addition to their residential outreach while developing a network of productive partnerships. Area-specific, NYSERDA-approved contractor lists are being distributed to facilitate the homeowner’s contractor selection process. Aggregation is bringing with it new ways of reaching customers while enhancing community benefits through local hiring practices and wage standards.

Attendance at local events such as home shows and street fairs assists in communicating with new populations. This commitment to personal interaction, coupled with creative social media strategies, has helped forge strong connections with local community and environmental groups and has resulted in CBOs winning the approval of local government and community leaders, serving to validate the program at the community level.

Outreach staff has initiated the downstate Energy Champions Referral Program. Under the Energy Champions Referral Program, the four NYC-based CBOs (El Puente, Neighborhood Housing Services of Jamaica, Neighborhood Housing Services of Staten Island, and Sustainable South Bronx) will allow individuals to become “Energy Champions” and not-for-profits to become “Energy Champion Partner Organizations” when they refer homeowners into the HPwES program. Energy Champions as well as Partner Organizations will receive monetary as well as nonmonetary benefits from the Home Performance contractor for successfully recruiting homeowners who complete a retrofit. NYSERDA has received positive responses from the downstate Home Performance contractors reached to date. Staff will be engaging Building Performance Contractors Association and Efficiency First to help fully develop the initiative. Cooperative advertising funds will be available to Home Performance contractors interested in participating in the pilot program.

Other successful endeavors of CBOs resulting from the GJGNY Outreach program include:

- Make the Road New York assisted Mutual Housing Association of New York in achieving 47 retrofits, which exceeded their residential and multifamily goals.
- El Puente successfully pursued projects within 12 multifamily buildings. Seven buildings have their Energy Reduction Plan approved and are ready to proceed.
- Downtown Manhattan Community Development Corporation successfully pursued projects within 27 multifamily buildings. Eleven buildings having their Energy Reduction Plan approved and are ready to proceed.

- Public Policy and Education Fund of the Southern Tier has had great success in building contractor relationships. One of their partnering HPwES contractors, Foam It Insulation, doubled their business in the past two years, due largely to Public Policy and Education Fund efforts. Foam It Insulation's gross revenue for 2013 exceeded gross revenue for 2012 by 60 percent. Foam It Insulation has presented on a number of CBO webinars highlighting this relationship and sent a letter to NYSERDA's senior leadership.
- Rural Ulster Preservation Company (RUPCO) established a number of partnerships, including partnerships with Central Hudson Gas and Electric, Energize NY, Mid-Hudson Economic Development Growth Extension Program Coordinator, HPwES contractors, and municipalities who provide customer referral sources on almost a daily basis. Additionally, RUPCO partnered with Central Hudson to combine NYSERDA funding with Central Hudson incentives for oil to natural gas conversions.
- People United for Sustainable Housing (PUSH) developed the PUSH Green Ambassador program to strategically leverage institutional and organizational participation from key community stakeholders and enhance marketing efforts. PUSH has partnered with Buffalo City Councilman Michael LoCurto, New York State Assemblyman Sean Ryan, and New York State Assemblyman Mickey Kearns to raise awareness of the HPwES program, with targeted letter writing initiatives, posters displayed in area businesses, and a Green Forum community event with other local elected officials, in addition to other initiatives.

8.1.1 Training and Implementation Contractor

Conservation Services Group (CSG) was competitively selected as the GJGNY Training and Implementation Contractor (TIC) during the first contract period and again under the second contract. 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, and assess and fulfills CBO needs. While tracing progress of referrals made to GJGNY, CSG gathers data and provides regular reporting of program activities and results to NYSERDA.

In May 2014, CSG assisted with the successful implementation of a Kick-Off Launch Event for second round selected CBOs. They facilitate ongoing monthly webinar trainings for participating CBOs on program updates and changes, providing continual reinforcement of Outreach program procedures and protocols. CSG hosts and maintains the CBO SharePoint Portal online communication tool, providing assistance to CBOs with the tool while also providing assistance to CBOs in using NYSERDA's Comprehensive Residential Information System database and the NY HP Portal web-based communication tool. In addition, CSG provides oversight and guidance to the active aggregation programs in Western New York and the Long Island Regions.

8.1.2 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 and its subcontractor Pratt Center for Community Development, 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, assessments, and retrofits in the CRIS system.

The CBO SharePoint Portal is being used as a central communication tool to support participating CBOs, allowing program staff and CBOs to share information efficiently. Program staff and CBOs use the Portal to post announcements about training classes, notices of upcoming webinars, programmatic updates, and multimedia resources. CBOs can use the same tool to access files such as presentation slides from training sessions, recorded webinars, aggregation documents, reporting and invoicing templates, and approved marketing language and logos. Press releases, web copy, and marketing materials can be conveniently uploaded for program administrator review. The Portal can be used to assign Aggregation Group ID numbers so that the neighborhood clusters of HPwES participants are properly associated, thereby ensuring community-scale pricing and other benefits are delivered. By providing all new, open, and closed issues raised for tracking and reporting purposes in a centralized location, administrative burden is elevated and tracking and reporting accuracy is ensured. In addition, users of the Portal can participate in a real-time, public group discussion board created to provide a venue for dialogue and to promote best practices among CBOs.

In early 2014, a new SharePoint feature allowing for CBO metric reporting was made available. The metric reporting site facilitates a single location for NYSERDA and CBOs to view and track performance and confirm program verified, credited retrofits. Although NYSERDA can view statistics on all CBOs, the individual CBO groups have access to only their own organization's metrics.

8.1.3 CBO Training and Webinars

NYSERDA provides regular 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 14 webinars. All training presentations and materials are available on the CBO SharePoint Portal for review and as a refresher for staff, as necessary. Details about webinar topics can be found in Appendix D.

8.1.4 Aggregation

Aggregation is the process of unifying a collection of eligible homeowners who have agreed in advance to use the same contractor or contractor team to perform assessments and retrofit work, and who are brought to the GJGNY program by a CBO under contract with NYSERDA to perform customer outreach services. Aggregation provides benefits to the homeowner such as lower costs through standardized pricing and a simplified participation process. Aggregation 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. In addition, 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 Aggregation 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 program. 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. The nature of the community benefits is unique to each region and is developed by the CBOs in coordination with regional contractors.

Aggregation is being implemented by two of the 11 participating CBOs: Long Island Progressive Coalition and People United for Sustainable Housing (PUSH). NYSERDA began processing GJGNY assessment applications for aggregation projects on May 14, 2012, in preparation for the official launch of the Aggregation Pilot in Erie County and Long Island. With the second round of funding, PUSH has expanded their outreach initiative to Niagara and Chautauqua counties. Also with the second round of funding, aggregation components were proposed by two additional CBOs, El Puente and Rural Ulster Preservation Company (RUPCO). El Puente aimed to have their pilot implemented in the second year of their contract. However, due to the departure of their Outreach Coordinator in May 2014, the aggregation plans have been put on hold. RUPCO has been operating under the interim aggregation arrangement and formally plans to reengage their aggregation model under the second round of funding.

As of June 30, 2014, the following HPwES contractors are active in the GJGNY Aggregation Pilot program:

- Long Island Region - Long Island Progressive Coalition (LIPC):
 - Green Audit USA
 - Home Performance Technologies
 - K and L Green Operations LLC dba Powersmith
- Western Region - People for Sustainable Housing (PUSH):
 - Buffalo Energy
 - Home Performance Professionals
 - Ivy Lea Construction, Inc.
 - New Buffalo Impact, Inc.
 - Zenner and Ritter

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 2014, LIPC has facilitated 92 customers within 22 aggregation clusters. Of these clients, 70 have completed their comprehensive home energy assessments, and there are 41 HPwES-approved projects.

People United for Sustainable Housing (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 2014, PUSH has facilitated 347 customers within 44 aggregation clusters. Over two thirds of these customers (240 individuals) have since completed assessments on their homes. Of these projects, 75 have received program approval for advancing to retrofits. Though Green and Healthy Home Initiative matching grant funds were exhausted in the fall of 2013, PUSH has continued with great success in their aggregation program coupled with the Assisted HPwES subsidy and continues to look for replenishment funds.

Under the first contract funding period, NYSERDA worked with two other CBOs, PathStone in the Finger Lakes Region and Rural Ulster Preservation Company (RUPCO) in the Mid-Hudson/Westchester region, to explore the deployment of an aggregation pilot. However, given the timing of the current contracts, which expired by March 2014 and December 2013, respectively, both decided to focus their efforts on general outreach. RUPCO worked closely with NYSERDA and the outreach and development implementation contractor to develop a new, innovative delivery model for aggregation to low-rise developments. RUPCO will use this experience to inform a future aggregation program.

It is intended that the two programs currently underway be used to inform other CBOs of the opportunities and challenges associated with aggregation, in addition to the degree of success being achieved, so that other CBOs can decide whether to pursue this option. Due to the initial success, the aggregation program is no longer viewed as a pilot. In addition, NYSERDA will analyze the results of aggregation to determine to what degree the original goals for customer benefits, contractor benefits, and community development are being achieved.

Conservation Services Group (CSG), the Outreach and Marketing 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 with training and support.

8.1.5 Outreach to Support 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 (NYS DOL) 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, contacts, and processes for enrollment or participation.

Several CBOs have had significant successes with their workforce development activities. Under the first contract, Adirondack North Country Association (ANCA) worked with a subcontractor, the Workforce Development Institute (WDI), in the North Country. WDI, in conjunction with State University of New York at Canton, Institute for Building Technology and Safety (IBTS), and the Building Performance Contractors Association of New York, worked together to raise awareness of GJGNY. These organizations reached out to contractors in the North Country and informed them of the HPwES Program while also encouraging the firms to become accredited by the Building Performance Institute (BPI). Several BPI training dates were established at SUNY Canton. Additional workforce

development outreach opportunities were also pursued. ANCA continues relationships with WDI, IBTS and the New York State Department of Labor (NYSDOL) One Stop Centers. For example, as a result of ANCA's efforts, one contractor enrolled in the HPwES Program and two additional training class members are employed at participating contractor companies. This addition is a great opportunity for the North Country, which is limited in participating contractors relative to the size of the region.

Long Island Progressive Coalition (LIPC) is working with United Way YouthBuild to educate graduates on career opportunities in the HPwES Program by conducting presentations. Additionally, the CBO helped facilitate a partnership by referring interested participants to United Way and the NYSDOL, both of which serve as training hosts. 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. LIPC was successful in training new workers, cooperating with the Laborers' International Union of North America Local 10 on providing two thirty-day Weatherization Training Programs. This training helped prepare workers for energy efficiency work and resulted in trainees having over 10 new certifications in the field. LIPC's outreach in low-income minority communities aided to find potential trainees and assisted them in applying for the training. After the training, LIPC worked with some of the trainees to develop their resumes and to assist them in finding jobs.

8.1.6 Summary of CBO Program Statistics

Table 8-2 provides a summary of HPwES program activities by CBO for the one- to four-family sector through June 30, 2014.

Table 8-2. HPwES Activity Summary by CBO

CBO Name	HP Applications Received	HP Audits Completed	HP Work Approved (number of jobs)	HP Completed Retrofits	Conversion Rate
Downstate					
Northwest Bronx Community and Clergy Coalition (NWBCCC)	Workforce Development Activities Only				
Sustainable South Bronx (SSBx)	130	87	12	10	14%
Neighborhood Housing Services of Staten Island (NHSSI)	175	115	24	18	22%
El Puente	27	17	6	3	35%
Make the Road New York (MRNY)	23	18	50	2	45%
Downtown Manhattan Community Development Corporation (DMCDC)	Multifamily Activities Only				
Civic Association Serving Harlem (CASH)	5	1	1	1	100%
Asian Americans for Equality Community Development Fund (AAFE)	61	46	14	12	33%
Neighborhood Housing Services of Jamaica (NHSJ)	218	119	34	29	33%

Table 8-2 continued

CBO Name	HP Applications Received	HP Audits Completed	HP Work Approved (number of jobs)	HP Completed Retrofits	Conversion Rate
Upstate					
Northeast Parent and Child Society (NEPC)	Workforce Development Activities Only				
Affordable Housing Partnership of the Capital Region (AHP)	526	279	113	99	45%
Public Policy and Education Fund of Central New York (PPEF-Central)	317	203	24	21	12%
PathStone	315	231	42	36	21%
Long Island Progressive Coalition (LIPC)	371	237	119	110	52%
Rural Ulster Preservation Corporation (RUPCO)	1,248	857	209	189	29%
Adirondack North Country Association (ANCA)	253	167	39	34	27%
Public Policy and Education Fund of the Southern Tier (PPEF-ST)	1,227	898	184	176	23%
People United for Sustainable Housing (PUSH)	833	502	223	184	45%
TOTAL	5,729	3,777	1,094	924	32%
NOTE: Consult Table 8-1 to interpret CBO acronyms.					

Table 8-3 and Table 8-4 provide summaries of outreach activities for the multifamily and small commercial sectors through June 30, 2014.

Table 8-3. Multifamily Performance Program Activity Summary by CBO

CBO Name	SharePoint Leads*	Completed Energy Reduction Plans (# of buildings)	Energy Reduction Plans in Progress**
SSBx	3	0	0
DMCDC	93	25	11
El Puente	57	5	5
MRNY	298	1	1
PathStone	1	0	0
RUPCO	41	0	0
ANCA	1	0	0
PPEF - ST	0	0	0
PUSH	0	0	0
TOTAL	494	31	17
<p>* SharePoint Leads are individuals who have received information on NYSERDA programs through CBO outreach activities.</p> <p>** Confirmed by CSG through NYSERDA's Multi-Family CRIS system.</p> <p>NOTE: Consult Table 8-1 to interpret CBO acronyms.</p>			

Table 8-4. Small Commercial Energy Efficiency Activity Summary by CBO

CBO Name	SharePoint Leads*	Completed Audits
AHP	1	0
ANCA	48	16
El Puente	46	0
LIPC	0	0
PathStone	220	7
PPEF - Central	498	4
PPEF - ST	14	0
PUSH	241	38
RUPCO	84	0
SSBx (BOEDC under RFP 2038)	29	0
TOTAL	1,181	65
<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> <p>NOTE: Consult Table 8-1 to interpret CBO acronyms.</p>		

Table 8-5 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, 2014.

Table 8-5. Workforce Training and Development Activity Summary

CBO Leads	SharePoint Enrolled in Training*	SharePoint Completed Training*	SharePoint Workers Connected to Employers*	SharePoint Workers Employed*
1,944	340	223	87	72
* Self-Reported from SharePoint				

Table 8-6 provides a summary of CBO event statistics through June 30, 2014. Self-reported statistics are submitted by each CBO.

Table 8-6. CBO Event Totals

CBO Name	Total Events	Total Attendance
ANCA	57	4,591
AHP	78	1,909
AAFE	22	607
CASH	0	0
DMCDC	4	7,840
El Puente	27	1,828
LIPC	66	1,684
MRNY	37	1,951
NEPC	5	66
NHSJ	14	3,661
NHSSI	45	327
NWBCCC	4	42
PathStone	60	24,345
PPEF - Central	63	4,688
PPEF - ST	22	691
PUSH	135	1,470
RUPCO	105	10,288
SSBx	30	5,876
TOTAL	774	71,864
NOTE: Consult Table 8-1 to interpret CBO acronyms.		

8.2 Marketing

Marketing is used to build awareness and participation statewide and to support the face-to-face grassroots activities necessary to effectively penetrate communities and populations who are challenging to reach, while delivering the education and support necessary to secure assessments 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 the marketing plan developed in consultation with Brand Cool, the following materials have been developed across the various program components since the inception of the program.

GJGNY residential marketing materials include:

- GJGNY overview brochure highlighting all of the GJGNY-related programs and services, available in English, Spanish, and Chinese.
- Program fact sheets outlining energy assessment availability, and loan products. available in English, Spanish, and Chinese.
- Lead nurturing driven webpage that enables leads to be sorted out to individual CBOs (<http://nyserdagreeny.org/cbo-locator>).
- Lead-nurturing emails and postcards that are used by the CBOs for distribution to their internal database of clients and customers.
- CBO website content for inclusion on individual CBO websites.
- Homeowner case studies that highlight success stories within the CBO communities.
- CBO case studies that highlight the benefit of establishing a partnership with a contractor to promote energy efficiency.
- Customizable print ads for placement in community newspapers, per CBO recommendation.
- Customizable online banners for CBO placement on local web platforms.
- Social media content for use in CBO social media venues.
- Prescreening materials and tools for the CBOs to enable the targeting of likely program participants.
- Homeowner and contractor call scripts to recruit potential program participants and Home Performance contractors for teaming arrangements.
- CBO Local Official Engagement Letter to encourage ambassadors to promote the GJGNY program to constituents.
- Customized CBO “What to Expect” fact sheet that outlines the process of improving home comfort and energy efficiency to share with homeowners.
- Residential financing print ads for NYSERDA placement in regional media and public transit.
- Residential financing online banners for NYSERDA placement on local news sites and mobile ad networks.
- Toolkit instructions that outline how to use NYSERDA/CBO co-branded marketing materials.

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.²¹ NYSERDA continues to pursue all relevant public relations opportunities.

8.3 Outreach and Marketing Budget

Table 8-7 provides the Outreach and Marketing budget.

Table 8-7. Outreach and Marketing Budget

Component	Budget	Expended	Encumbered	Committed	Balance
Delivered through CBOs	\$10,460,000	\$5,850,470	\$2,733,119	\$608,744	\$1,267,667
General Statewide Marketing	3,066,880	2,665,166	400,529	0	1,185
Training and Implementation Contractor	1,983,120	740,539	1,079	699,853	541,649
TOTAL	\$15,510,000	\$9,256,175	\$3,134,727	\$1,308,597	\$1,810,501
<p>Expended: Contractor Invoices and loans processed for payment by NYSERDA.</p> <p>Encumbered: Remaining funding obligated under a contract, purchase order, incentive award, or loan.</p> <p>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>					

8.4 Outreach and Marketing Contracts Entered Into

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

²¹ Appendix E is a compilation of the marketing materials created by NYSERDA through the GJGNY marketing program. Please note that not all of this material is still in circulation. Currently active CBOs engage in limited marketing toward workforce development, small commercial, and multifamily outreach.

Table 8-8. Outreach and Marketing Contracts Entered Into

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
10984	Getty Images	Photography	\$455	\$455	\$0	\$0
31919	CEC	Eco House	49,500	49,500	0	0
34279	Dowd-Witbeck	GJGNY Marketing	673	673	0	0
22502	Brand Cool	GJGNY Marketing	2,815,673	2,416,291	399,449	0
22725	Cision	PR Subscription	1,700	1,700	0	0
24317	Conservation Services Group	Training and Implementation Contractor	1,174,738	1,172,580	2,159	0
37334	Conservation Services Group	Training and Implementation Contractor Round 2	699,853		0	699,853
25984	Public Policy and Education Fund - Central (PPEF-C)	GJGNY Services and Support Contract	295,056	295,056	0	0
25987	Public Policy and Education Fund - Southern Tier (PPEF-ST)	GJGNY Services and Support Contract	231,010	231,010	0	0
26094	Adirondack North Country Association (ANCA)	GJGNY Services and Support Contract	256,158	256,158	0	0
26202	Rural Ulster Preservation Company (RUPCO)	GJGNY Services and Support Contract	568,146	568,146	0	0
26396	Northeast Parent and Child (NEPAC)	GJGNY Services and Support Contract	44,770	44,770	0	0
26397	PathStone	GJGNY Services and Support Contract	423,804	423,804	0	0
26400	Affordable Housing Partnership (AHP)	GJGNY Services and Support Contract	296,555	296,555	0	0
26644	Downtown Manhattan Community Development Corporation (DMCDC)	GJGNY Services and Support Contract	426,126	426,126	0	0

Table 8-8 continued

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
27024	El Puente	GJGNY Services and Support Contract	131,181	131,181	0	0
27230	People United for Sustainable Housing (PUSH)	GJGNY Services and Support Contract	470,960	470,960	0	0
27328	Bronx Overall Economic Development Council (BOEDC)	GJGNY Services and Support Contract	383,595	383,595	0	0
27522	Neighborhood Housing Services of Staten Island (NHSSI)	GJGNY Services and Support Contract	233,205	233,205	0	0
27586	Long Island Progressive Coalition (LIPC)	GJGNY Services and Support Contract	304,408	304,408	0	0
27829	Asian Americans for Affordable Equality (AAFE)	GJGNY Services and Support Contract	355,060	355,060	0	0
29418	Make the Road New York (MRNY)	GJGNY Services and Support Contract	350,000	328,584	21,416	0
29419	Northwest Bronx Community Clergy Coalition (NWBCCC)	GJGNY Services and Support Contract	85,000	85,000		0
29983	Civic Association Serving Harlem (CASH)	GJGNY Services and Support Contract	175,000	131,250	43,750	0
30598	Neighborhood Housing Services of Jamaica (NHSJ)	GJGNY Services and Support Contract	135,149	109,293	25,856	0
36979	Neighborhood Housing Services of Jamaica (NHSJ)	GJGNY Services and Support Contract	0	0	0	456,500
39325	Long Island Progressive Coalition (LIPC)	GJGNY Services and Support Contract	720,899	103,517	617,382	0
39326	Adirondack North Country Association (ANCA)	GJGNY Services and Support Contract	166,703	43,644	123,059	0

Table 8-8 continued

Identification Number	Contractor	Description	Contract Amount	Expended	Encumbered	Committed
39353	Public Policy and Education Fund - Southern Tier (PPEF-ST)	GJGNY Services and Support Contract	183,193	37,126	146,067	27,479
39780	Rural Ulster Preservation Company (RUPCO)	GJGNY Services and Support Contract	562,350	138,792	423,558	40,413
39827	Sustainable South Bronx (SSBx)	GJGNY Services and Support Contract	206,000	55,596	150,404	84,353
40732	Affordable Housing Partnership (AHP)	GJGNY Services and Support Contract	269,418	49,870	219,548	0
41521	El Puente	GJGNY Services and Support Contract	200,000	19,898	180,102	0
42719	People United for Sustainable Housing (PUSH)	GJGNY Services and Support Contract	415,029	92,375	322,654	0
43058	Neighborhood Housing Services of Staten Island (NHSSI)	GJGNY Services and Support Contract	117,724	0	117,724	0
43774	PathStone	GJGNY Services and Support Contract	341,599	0	341,599	0
TOTAL			\$13,090,082	\$9,256,175	\$3,134,727	\$1,308,597

9 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.

This section describes evaluation activities that are currently completed, underway, and planned. Evaluation contractor reports will be posted on NYSERDA's website for public use once completed.

9.1 Completed Evaluation Activities

9.1.1 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. Phase 1 included 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, this evaluation estimated the FTEs created in disadvantaged communities in the State. In Phase 2, the evaluators used the detailed results derived from Phase 1 research as inputs to a macroeconomic input-output analysis that estimated the total (direct, indirect and induced) job impact, economic output, labor income, and gross state product impacts from the GJGNY Program.

NYSERDA presented the preliminary results of Phases 1 and 2 of the job impact assessment to the GJGNY Advisory Council in September 2013. Feedback received during the presentation was considered when finalizing the reports. The Phase 1 and 2 job impact assessment reports were finalized in November 2013 and are available on NYSERDA's website at <http://www.nyserda.ny.gov/Publications/Program-Planning-Status-and-Evaluation-Reports/NYES-Evaluation-Contractor-Reports/2013-Reports/NMR-Group.aspx>.

9.1.2 Small Commercial Energy Efficiency

Evaluation of the Small Commercial Energy Efficiency program was implemented using a phased approach. The primary focus of Phase 1 was to explore the limited uptake of financing options by small businesses and the not-for-profit sector. In Phase 1, the evaluation team collected primary data through surveys with participants and interviews with financial lenders, program staff, auditors, and expeditors. The results of the lender survey were presented to the GJGNY Advisory Council in September 2013.

The results of Phase 1 provided information on lending and customer borrowing trends and will be used to assess market, program delivery, and opportunities from the perspectives of these stakeholders. This report is available on NYSERDA's website at <http://www.nysERDA.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2014ContractorReports/2014-EMEP-Small-Commercial.pdf>.

9.1.3 Constituency-Based Organization Initiative

The process evaluation of the CBO initiative included documenting 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 was designed to look primarily at CBO residential efficiency activities, although interviews included questions about all of the elements comprised in the CBO contracts. This evaluation includes the results of in-depth interviews with representatives from each CBO and key program contacts and surveys with assessment recipients, those with completed HPwES retrofits, and contractors affiliated with CBO initiative efforts.

In addition to this research effort, CBO-related activities will also be evaluated as a part of the HPwES process evaluation planned for 2014. 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.

The report was finalized in March 2014 and available on the NYSERDA website at <http://www.nysERDA.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2014ContractorReports/2014-EMEP-GJGNY-Outreach.PDF>.

9.1.4 Single-Family Residential Buildings

Early discussions between evaluation staff, program staff, and the evaluation contractors identified the need for initial work to focus on the One- to Four-Family Residential Buildings Program. 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 NYSERDA's Home Performance with ENERGY STAR (HPwES) program was completed in 2012.

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 2011 through fall 2011, and to 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 assessments, 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 on the NYSERDA website at <http://www.nysesda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2012ContractorReports/2012-GJGNY-MCA-Report.pdf>.

9.2 Evaluation Activities Currently Underway

Three evaluation projects are currently underway: a measure adoption rate assessment of the Small Commercial Energy Efficiency program, a market/process evaluation of the CBO initiative, and a market/process evaluation of the Multifamily Energy Performance Program. The status of each project is described in the following subsections.

9.2.1 Small Commercial Energy Efficiency

NYSERDA is planning an impact evaluation of the Small Commercial Energy Efficiency Program that will focus on quantifying the measure adoption rate over time, the degree of program influence on the participant decision making, and the proportion of installed measures for which customers accessed other NYSERDA funding. This evaluation effort is in the planning stage and is expected to commence in August 2014.

9.2.2 CBO Initiative, Phase 2

Building upon the results of the recently completed evaluation of CBO-related activities, this initiative will be evaluated as a part of the HPwES process evaluation currently underway. Data collection through the HPwES evaluation will limit the survey burden on HPwES participants and contractors.

9.2.3 Multifamily Energy Performance

A process evaluation and market characterization assessment of the Multifamily Energy Performance Program is currently underway and nearing completion. Because a portion of funding received by projects being evaluated has come from GJGNY, this evaluation effort is being leveraged to collect data to inform GJGNY. To gather this information, additional questions were asked during interviews with participating owners, managers, and developers regarding knowledge of GJGNY financing options and decision making regarding the application of GJGNY funding. The Multifamily Energy Performance Program process evaluation and market characterization assessment evaluation data collection effort is complete and analysis is underway. NYSERDA will work toward having preliminary results of this evaluation in August 2014.

9.3 Evaluation Activities Planned

9.3.1 Single-Family Residential Buildings

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 2014. Data collection through the HPwES evaluation leverage evaluation efforts and limit the survey burden on HPwES participants and contractors.

9.3.2 CBO Initiative, Phase 3

The evaluation of the CBO initiative is occurring in a phased approach. The first phase was completed in 2013, the second is currently underway, and the research plan for the third is in development. This third phase includes a process evaluation/market characterization assessment of the CBO initiative and has two overarching goals. The first key overarching goal of this evaluation is to attempt to document and, where possible, quantify the effects of the GJGNY Outreach Program. Although the costs of this program are easily quantified, myriad potential benefits are less tangible and less easily quantified. All of the traditionally-defined energy reduction impacts of this program will be evaluated within the scope of the programs through which the retrofits are conducted. In the case of this program, which is designed to provide access to historically underrepresented population segments, not all of the program benefits will be captured by these impact evaluations. The second key overarching goal is to understand CBO outreach strategies in order to identify CBO strategies that maximize these benefits.

9.3.3 Workforce Development

The evaluation needs identified in the workforce development 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.

9.3.4 On-Bill Recovery Financing

On-Bill Recovery 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. As the program matures and the number of projects increases, On-Bill Recovery financing activities will be evaluated in conjunction with the HPwES program. NYSERDA may periodically conduct short-term assessments of the financing program to offer real time feedback to assist with the long term positioning of program services.

9.4 Evaluation Budget

Table 9-1 provides the Evaluation budget.

Table 9-1. Evaluation Budget

Component	Budget	Expended	Encumbered	Committed	Balance
Internal Cost	\$5,600,000	\$577,997	\$0	\$0	\$1,290,452
Evaluation Consultants		1,298,893	1,687,661	744,998	
TOTAL	\$5,600,000	\$1,876,890	\$1,687,661	\$744,998	\$1,290,452
<p>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.</p>					

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

Identification Number	Contractor	Description	Contract Amount	Expended*	Encumbered	Committed
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	57,114	62,871	0
28232	ICF Resources LLC	Economic and Environmental Impacts Evaluation Contractor, Planning	15,371	15,371	0	0
28232	ICF Resources LLC	Economic and Environmental Impacts Evaluation Contractor, Mod 1 to TWO #1 Line 3	8,497	6,877	1,619	0
29131	Research Into Action Inc.	Process and market evaluation contractor	850,002	612,054	237,948	0
29725	Abt SRBI Inc.	Survey data collection contractor for evaluation of NYSERDA Programs	326,480	122,617	203,863	0
30146	Energy & Resource Solutions Inc.	Impact Evaluation of NYSERDA Programs	500,000	10,888	489,112	0
34368	ICF Resources LLC	Economic and Environmental Impacts Evaluation Contractor, GJGNY	111,191	96,180	15,012	0
ST9836-1	Megdall & Associates	Impact Assessment	0	0	0	0
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
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
24594	NMR Group Inc.	General Evaluation Assistance Contractor, Modification	0	0	0	25,000
28232-1	ICF Resources LLC	Economic and Environmental Impacts Evaluation Contractor, Balance of Task #1	239	0	239	0
29131	Research Into Action Inc.	Process and market evaluation contractor, Cost Modification	0	0	0	649,998
29725-1	Abt SRBI Inc.	Survey data collection contractor for evaluation of NYSERDA Programs, Modification No. 1	0	0	0	70,000
30146	Energy & Resource Solutions Inc.	Impact Evaluation of NYSERDA Programs, Cost Modification	649,996	0	649,996	0
TOTAL			\$2,986,554	\$1,298,893	\$1,687,661	\$744,998
* Expended funds in the amount of \$577,997 for internal costs are not represented in this table.						

Appendix A: GJGNY Advisory Council Meeting Agendas

**Green Jobs – Green New York (GJGNY)
Advisory Council Meeting Agenda
September 12, 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: 1-866-394-2346, conference code: 5819671375

Welcome and Introductions	Frank Murray	1:00
Financing: Bond Issuance	Jeff Pitkin	1:10
Coordination between Assisted Home Performance and EmPower New York	John Ahearn	1:20
2013 Annual Report	Peggie Neville	1:30
Evaluation Results and Updates a. Jobs Impact Assessment b. Market/Process Evaluation–Small Commercial c. Forthcoming Activities d. Evaluation Advisory Group	Jennifer Meissner Carley Murray	1:45
Public Input	Frank Murray	3:00
Closing Remarks and Next Steps	Frank Murray	3:15

Upcoming GJGNY Advisory Council Meeting:
Wednesday, December 4, 2013, 1:00pm

New York State Energy Research and Development Authority

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New York City
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**West Valley Site
Management Program**
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West Valley, NY
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**Green Jobs – Green New York (GJGNY)
Advisory Council Meeting Agenda
December 4, 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: 1-866-394-2346, conference code: 5819671375

Welcome and Introductions	John Rhodes	1:00
Budget adjustment	Karen Hamilton	1:10
A01245/S01111 – Expansion of financing to include technologies eligible for net metering	Karen Hamilton	1:15
Workforce Development Update: Clean Energy On-the-Job Training (PON 2033)	Adele Ferranti	1:30
Public Input	John Rhodes	1:45
Closing Remarks and Next Steps	John Rhodes	

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**Green Jobs – Green New York (GJGNY)
Advisory Council Meeting Agenda
May 14, 2014
10:00 AM**

Meeting will be held at NYSERDA's Albany and Buffalo Offices.

New York City participants will attend at the Division of Housing and Community Renewal,
641 Lexington Ave, Conference Room A, 4th Floor, NYC 10022

Call-in number: 1-866-394-2346, Conference code: 5819671375

Welcome and Introductions	John Rhodes
Income Requirement for EmPower Participants	John Ahearn
Small Commercial Energy Efficiency Update	Kathryn Fantauzzi
Financing Update: Including Technologies Eligible for Net Metering	John Ahearn
Public Input	John Rhodes
Closing Remarks and Next Steps	John Rhodes

New York State Energy Research and Development Authority

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West Valley Site

Management Program

9030-B Route 219

West Valley, NY

14171-9500

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Appendix B: Annual On-Bill Recovery Report

Annual On-Bill Recovery 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, 2014		Residential		Small Business / Not-For-Profit		Multifamily	
		Customers	Dollars	Customers	Dollars	Customers	Dollars
Utility Account Arrears > 60 Days	Central Hudson Gas and Electric	14	\$750	0	\$0	0	\$0
	Consolidated Edison	4	\$2,978	0	\$0	0	\$0
	PSEG Long Island	43	\$30,086	1	\$8,452	0	\$0
	National Grid	58	\$31,813	0	\$0	0	\$0
	New York State Electric and Gas Corporation	11	\$3,415	0	\$0	0	\$0
	Orange and Rockland Utilities ¹	2	\$1,738	0	\$0	0	\$0
	Rochester Gas & Electric	0	\$0	0	\$0	0	\$0
	Total	132	\$70,779	1	\$8,452	0	\$0
On-Bill Recovery Payment Arrears > 60 Days	Central Hudson Gas and Electric	14	\$2,205	0	\$0	0	\$0
	Consolidated Edison	9	\$5,525	0	\$0	0	\$0
	PSEG Long Island	128	\$29,658	1	\$3,075	0	\$0
	National Grid	136	\$23,853	0	\$0	0	\$0
	New York State Electric and Gas Corporation	10	\$1,344	0	\$0	0	\$0
	Orange and Rockland Utilities ¹	2	\$872	0	\$0	0	\$0
	Rochester Gas & Electric	1	\$73	0	\$0	0	\$0
	Total	300	\$63,529	1	\$3,075	0	\$0
Utility Service Terminated	Central Hudson Gas and Electric	0	\$0	0	\$0	0	\$0
	Consolidated Edison	0	\$0	0	\$0	0	\$0
	PSEG Long Island	1	\$1,817	0	\$0	0	\$0
	National Grid	1	\$633	0	\$0	0	\$0
	New York State Electric and Gas Corporation	4	\$530	0	\$0	0	\$0
	Orange and Rockland Utilities ¹	0	\$0	0	\$0	0	\$0
	Rochester Gas & Electric	0	\$0	0	\$0	0	\$0
	Total	6	\$2,980	0	\$0	0	\$0

¹ Orange and Rockland Utility metrics reflect data through March 31, 2014

Reporting period - January 30, 2012 through June 30, 2014		Residential		Small Business / Not-For-Profit		Multifamily	
		Units	Dollars	Units	Dollars	Units	Dollars
1st Year Energy Savings	Estimate of kWh savings	1,317,237	\$190,309	232,106	\$22,186	-	\$0
	Estimate of oil mmBtu savings	70,389	\$1,974,431	-	\$0	-	\$0
	Estimate of propane mmBtu savings	1,416	\$48,739	-	\$0	-	\$0
	Estimate of natural gas mmBtu savings	9,302	\$92,751	-	\$0	-	\$0
	Estimate of other mmBtu savings	2,502	\$27,385	-	\$0	-	\$0
	Total Dollar Savings		\$2,333,616		\$22,186		\$0
Lifetime Energy Savings	Estimate of kWh savings	23,901,359	\$3,359,404	N/A	N/A	-	\$0
	Estimate of oil mmBtu savings	1,627,163	\$45,650,487			-	\$0
	Estimate of propane mmBtu savings	34,522	\$1,185,830			-	\$0
	Estimate of natural gas mmBtu savings	224,132	\$2,170,960			-	\$0
	Estimate of other mmBtu savings	60,660	\$661,693			-	\$0
	Total Dollar Savings		\$53,028,375				

OBR Expenditures through 6/30/14		
Program Area	Expended	
Administrative/General ²	\$1,553,308	
Marketing	\$2,555,008	
Evaluation	\$478,261	
Audit Incentive	\$4,585,768	
Payment to Utilities (\$100 per loan & 1% of loan amount)	\$333,499	
OBR Loans	RES	\$18,009,046
	SB/NFP	\$63,320
	MF	\$0
	Total	\$18,072,366
Implementation/Services	RES	\$1,593,892
	SB/NFP	\$8,455
	MF	\$0
	Total	\$1,602,347
Total Expended	\$29,180,557	

² Includes NYS Cost Recovery Fee

Appendix C: On-the-Job Training Case Study

On-the-job training program is a win-win solution for employer and employee

Joe Adeigbo
Supervisor and Installer of
Solar Thermal Systems
The Radiant Store



“I’ve had the opportunity to develop a career. I am now training others and helping to grow a successful business.”

Joe Adeigbo’s story is one of perseverance, hard work, and, ultimately, reward. Joe was hired by Terry Moag, owner of The Radiant Store, in 2011 at a time in his life when he didn’t have a vision for this career or for his future. He was working in a dead-end job and couldn’t afford tuition to pursue a degree.

Terry’s solar thermal (hot water) business in North Greenbush was growing. He knew he needed to hire new workers, and wanted to hire from his local community. He learned of NYSERDA’s On-the-Job Training (OJT) Incentive Program (Program Opportunity Notice 2033) that allows businesses to connect with qualified workers through the New York State Department of Labor Career Centers and provides funding to support six months of hands-on training for new employees to learn necessary career skills.

NYSERDA’s OJT program fosters business development because companies are better able to hire and train workers and those workers are better equipped with valuable expertise that can help them to develop a strong

1-866-NYSERDA
nyserdera.ny.gov/workforce



career pathway in clean energy. 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 applications to hire and train two rounds of new workers. As a contractor in good standing with NYSERDA, The Radiant Store was awarded a total of \$50,000 in incentives. Joe was part of the first round of workers who were previously making minimum wage in low-skill jobs. He was motivated to learn a new skill and enthusiastic to engage in a job that would help him to build a career and a future. Joe's drive and willingness to learn how to install solar thermal technology in a hands-on environment quickly made him an asset to The Radiant Store. Joe has been promoted from an installer to a supervisor and has trained six additional entry-level hires under the OJT program.



Joe recently led a team of three installers at Welcome Stock Farms in Gansevoort, NY. The team installed 20 solar thermal collectors that will serve to heat the more than 500 gallons of hot water used each day to clean dairy equipment. The system, which costs around \$5,000 to install after incentives, will pay for itself in energy savings in about one year's time. He has been the lead installer on more than 50 dairy farm solar thermal water installations and continues to bring in new customers across New York State. In addition, over the past three years, Joe was able to go back to school and earn a degree in nursing and buy his own home.

Terry attests to the fact that spending time and resources for training is well worth it because well-trained workers mean higher quality installations. The Radiant Store, which now employs 12 people, has exceeded \$10 million in revenue over the past eight years. He adds "the environmental benefits of energy efficiency coupled with improving the standard of living for people is a win-win situation."

ARE YOU READY FOR TRAINING IN ENERGY EFFICIENCY OR RENEWABLE ENERGY? Call **1-866-NYSERDA** or visit nyserda.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-adeigbo2-cs-1-v1
8/14



Appendix D: Outreach and Marketing – CBO Training Webinar Details

Green Jobs – Green New York Outreach and Marketing
Constituency-based Organization (CBO) Training Webinar Details
July 1, 2013-June 30, 2014

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

July 2013: Two separate trainings offered NY HP Portal overview training on how to use the NY HP Portal, including using the job submission workflow and the online audit application process.

August 2013: Establishing a utility provider relationship ; green jobs workforce metrics; coordination between EmPower and Assisted Home Performance with ENERGY STAR; review and clarification of the policy on distributing non-GJGNY marketing materials at CBO events; CBO program metrics; the NYSERDA CBO Locator Webpage; NY HP Portal roll-out; and SharePoint alerts.

August 2013: Two part webinar series on Energy Savings Measures Building Science Trainings.

September 2013: Check-in from RePower Bainbridge and BlocPower; Low-rise electric condo increased incentive offering; CBO program metrics; Efficiency First/Home Depot rebate; review of the resources available in the document library; and use of the Concern Tracker on SharePoint.

October 2013: Update from NeighborWorks H.E.A.T. Squad: One-Stop-Shop for Home Energy Efficiency; update from GRID Alternatives; update from People United for Sustainable Housing on Small Commercial Green Building Retrofit Program; CBO program metrics; EmPower NY Regional Greenhouse Gas Initiative funding update; NY HP Portal updates; reporting reminders; and information on the Vermiculite Technical Bulletin.

November 2013: Fostering better contractor alliances; Winter Seasons Effects on the Homes resources, CBO end-of-contract requirements, CBO program metrics, two phase loan option for fuel conversions, NY HP Portal updates, photovoltaic financing, and SharePoint alerts.

January 2014: New York Green Bank overview and strategy discussion; pre-application “how to” session, instructional review about the Lockheed Martin online ordering tool; CBO program metrics; end-of-contract report reminder; updates on SharePoint; review of the NYSERDA Brand Toolkit; no-heat emergency situations; HPwES Program funding source status; and Building Performance Institute accreditation renewal updates.

February 2014: Informational presentation on Biodiesel: America’s First Advanced Biofuel; update on residential photovoltaic (PV) financing, review of the Lockheed Martin online ordering tool; CBO program metrics; CBO contract back-dating; information on the end of the Owner-Occupied Low-Rise Program; updates on customer relationship management; and introduction to new colleagues.

March 2014: Overview of the new SharePoint site and the new reporting and invoice templates; community-based social marketing; best practices for reporting, CBO submitted audit applications and marketing campaigns; net promoter score; CBO program metrics; CBO Locator Tool referral response time; and highlights on the PathStone matching funds opportunity and Neighborhood Housing Services of Jamaica Green Owners Forum.

May 2014: Utility incentives for electric vehicles, solar for CBOs, Building Performance Institute contractor success stories presented by You Save Green and Early Wins for Home Performance; CBO program metrics; EmPower updates; monthly report guidance, and highlights on the Affordable Housing Partnership of the Capital Region.

June 2014: Small Commercial Energy Efficiency Program updates, Creating an Industry Working Group update, information on the Direct Install Pilot Program; CBO program metrics; updates on the Building Performance Institute accreditation process for contractors; portal enhancement request updates, highlights on Make the Road New York); and clarification on performance payments .

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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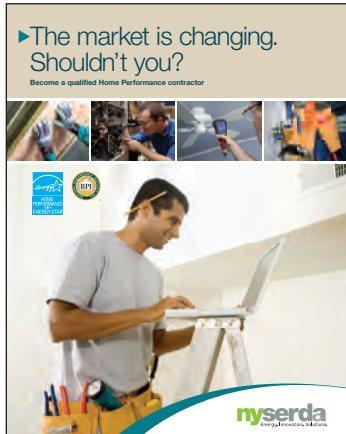
Contractor Recruitment

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 Kattman, 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, Kattman 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 Murtha, 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

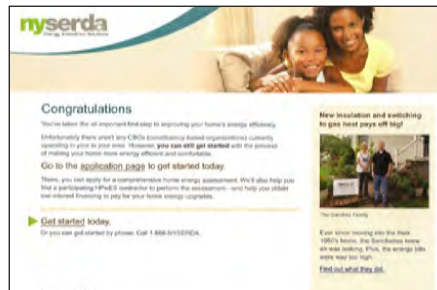
Audience: Potential program participants visiting nyserdera.ny.gov

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

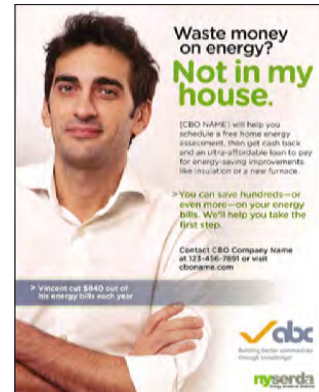
Who Should Use: CBO (for placement)



C



C



C



C

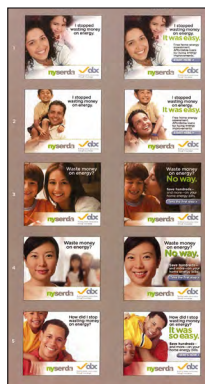


C



C

Frames:



C

Banners:



C



GJGNY-CBO-ppefny-ad-3-v1 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 recent RUPCO training session, a contractor shared the energy savings, cost savings, and health benefits of energy efficiency with his customers. He also shared how he can help them save money on their energy bills.

Typically, RUPCO will perform a comprehensive home energy assessment at a customer's home and then make specific recommendations for energy efficiency upgrades, which will enable the customer to save energy, lower utility bills, and improve the health of the home. RUPCO will also provide the customer with a list of local contractors who can help them implement the recommended energy efficiency upgrades.

At the RUPCO training session, the contractor shared the benefits of energy efficiency with his customers. He also shared how he can help them save money on their energy bills.

RUPCO
nyserda

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

Veteran finds new career in energy efficiency

After leaving the military, Roger found a new career in energy efficiency. He joined the workforce through a training program that provided him with the skills and experience he needed to succeed in the energy efficiency industry.

After leaving the military, Roger found a new career in energy efficiency. He joined the workforce through a training program that provided him with the skills and experience he needed to succeed in the energy efficiency industry.

POWER UP COMMUNITIES
nyserda

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

my home, made better

An energy efficiency audit can help you save money on your energy bills and improve the health of your home. A professional auditor will inspect your home for energy efficiency issues and provide you with a list of recommendations to improve your home's energy efficiency.

An energy efficiency audit can help you save money on your energy bills and improve the health of your home. A professional auditor will inspect your home for energy efficiency issues and provide you with a list of recommendations to improve your home's energy efficiency.

POWER UP COMMUNITIES
nyserda

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

my home, made better

An energy efficiency audit can help you save money on your energy bills and improve the health of your home. A professional auditor will inspect your home for energy efficiency issues and provide you with a list of recommendations to improve your home's energy efficiency.

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POWER UP COMMUNITIES
nyserda

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

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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



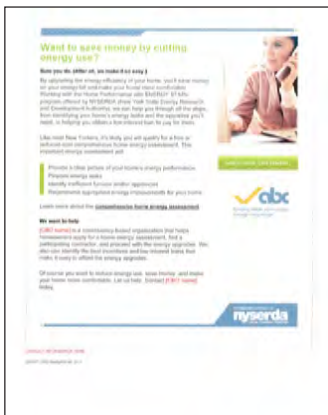
GJGNY-CBO-leadgen-em-4-v1 C



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

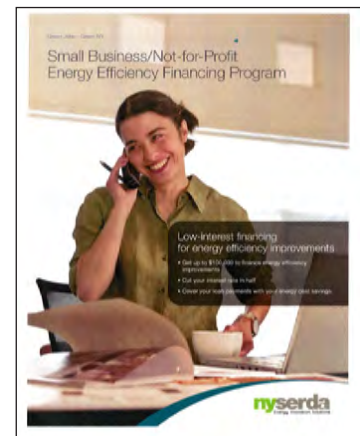
Who Should Use: Hotline, NYSERDA, Small Business contractors



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



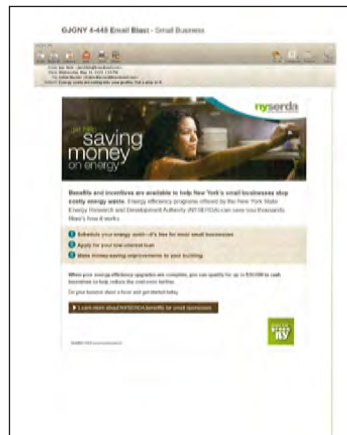
GJGNY-SB-gen-wban-2-v1

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



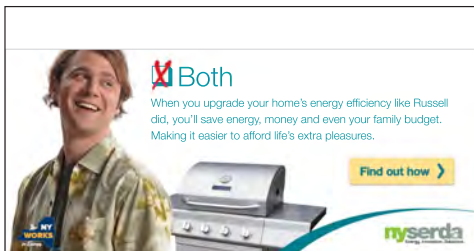
GJGNY-SB-lp-1-v1



GJGNY-SB-lp-nfp-1-v1

Residential Contractors Web Banners

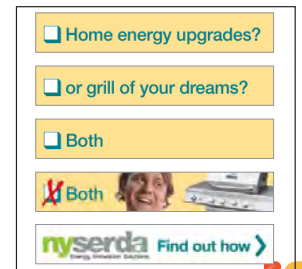
Audience: Potential HPwES customers
Purpose: Encourage program participation
Who Should Use: NYSERDA placement



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: NYSERDA's Home Performance with ENERGY STAR[®] Eligible Measures and Accessories

NY Home Performance with ENERGY STAR® Eligible Measures and Accessories

This is a general guide to eligible incentives and financing options available through NYSERDA’s Home Performance with ENERGY STAR (HPwES) Program. Eligibility may vary based on the energy efficiency requirements for each upgrade type, results of the comprehensive home assessment, fuel type, energy utility, and funding source availability.

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% High Efficiency Measure Incentive (HEMI), the 50% Assisted Subsidy for income-eligible households, or the Residential Loan Fund. NYSERDA also offers two low-interest financing options through Green Jobs – Green NY: a Smart Energy Loan and an On-Bill Recovery Loan. A Smart Energy Loan 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.

Table 1. Eligible Measures and Prequalified List

	Eligible Measures	Minimum Efficiency Requirements	Prequalified List (for 10% HEMI, Assisted Subsidy, Smart Energy Loan and Residential Loan Fund)
Primary Heating and Cooling System ^{1,6}	Furnace ² – Natural Gas or LP	AFUE 95% (as long as not prohibited by local codes). Furnaces with ECM Motor allowed.	✓
	Furnace ² – Fuel Oil	AFUE 85%	✓
	Boiler - Condensing	AFUE 90%	✓
	Boiler – Hot Water ³	AFUE 85%	✓
	Boiler – Steam	AFUE 82% (size must be matched to cumulative capacity of connected radiators, per Institute of Boilers & Radiator Mfrs (IBR) standards)	✓
	Boiler Reset Controls	Programmed properly per manufacturer’s specifications and site conditions. Maximum price of \$250.	✓
	Air Source Heat Pump (electric split systems) ²	14.5 SEER / 12 EER / 8.2 HSPF	
	Ground Source Heat Pump ²	ENERGY STAR Qualified (closed-loop, open-loop, or direct expansion). Requires submission of detailed engineering design work prior to approval.	
	Wood/or Solid Fuel Pellet Stove	EPA phase 2 (Solid fuel pellet stoves are exempt from EPA Phase 2)	
	Distribution Improvements in Natural Gas or Electrically Heated Homes ⁴	Installed in accordance with all applicable state and local codes	
	Distribution Improvements in Oil or Propane Heated Homes ⁴	Installed in accordance with all applicable state and local codes	✓
	Duct Sealing	UL 181B mastic or tape; use of “duct tape” is disallowed	✓
	Pipe Insulation	R-3	✓
	Central Air Conditioner (split system) ^{5,7}	AHRI Certificate Required. 14.5 SEER / 12 EER. Except in Con Edison and Central Hudson electric territory, this measure is subject to site-specific TRC analysis in order to determine HEMI eligibility.	✓
Programmable Thermostat	5+2 day programmable thermostat including smart thermostat. Limited to one thermostat installed per dwelling unit.	✓	
Building Shell	Insulation (attic, wall, floor, band joist, basement, crawl space)	Refer to Insulation Program Policy for homes heated with natural gas or electricity. Must be accompanied by blower door assisted air sealing per BPI and program guidelines.	✓
	Air Sealing	Supervised by professional; blower door assisted per BPI and program guidelines.	✓
	Replacement Windows	ENERGY STAR for climate/region. May be subject to SHPO review.	
	Storm Windows and Storm Doors	No minimum efficiency requirement. May be subject to SHPO review.	
	Movable Window Insulation	R-3	
Exterior Doors	ENERGY STAR for climate/region. May be subject to SHPO review.		

	Eligible Measures	Minimum Efficiency Requirements	Prequalified List (for 10% HEMI, Assisted Subsidy, Smart Energy Loan, and Assisted Loan)
Water Heater ⁶	Natural Gas	Tank: 20-100 gallons, EF >= 0.67, FHR >= 67 gallons per hour, <75,000 BTU	
		On-Demand: EF >= 0.82, GPM >= 2.5 over a 77°F rise, <2 gallons storage, <200,00 BTU	
	Electric	EF .93	
	Propane	Tank: 20-100 gallons, EF >= 0.67, FHR >= 67 gallons per hour, <75,000 BTU	✓
		On-Demand: EF >= 0.82, GPM >= 2.5 over a 77°F rise, <2 gallons storage, <200,00 BTU	✓
	Oil	Tank: 20-100 gallons, EF >= 0.67	✓
	Indirect-Fired Tank	UL Approved	✓
	Heat Pump Water Heaters	ENERGY STAR Qualified. Subject to site-specific TRC analysis and pre-approval by CSG in order to determine eligibility.	✓
	Pipe Insulation	R-3	✓
Hot Water Tank Insulation - Electric	R-10		
Conservation	Faucet Aerator	No minimum efficiency requirement	✓
	Low Flow Showerhead	Maximum flow rate of 1.5 gallons per minute. Aerating type showerheads not eligible.	✓
Appliances & Lighting⁷	Refrigerator	CEE Tier 2 or 3.	✓
	Freezer	ENERGY STAR Qualified	✓
	Dishwasher	ENERGY STAR Qualified	
	Clothes washer	ENERGY STAR Qualified	
	Dehumidifier	ENERGY STAR Qualified	✓
	Room Air Conditioner	ENERGY STAR Qualified	✓
	CFLs	ENERGY STAR Qualified. Refer to CFL Guidelines in Contractor Resource Manual.	✓
	LEDs	ENERGY STAR Qualified. Refer to contractor support site for a list of eligible LEDs.	✓
	Light Fixtures	ENERGY STAR Qualified for compact fluorescent, or electronic ballast for fluorescent tubes	

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.

²Duct systems for warm air furnaces, heat pumps and central air conditioners should be tested and sealed to reduce leakage. This will help ensure that the total system will operate efficiently.

³ Boilers with tankless coils are not eligible.

⁴In instances where an area of a home lacks adequate distribution, installation of new distribution to serve the area is eligible. The area lacking adequate distribution must be located within the pre-existing thermal boundary.

⁵Not eligible for the Assisted Home Performance subsidy.

⁶Refer to the Fuel Conversion Policy for eligibility of fuel switches

⁷Measure is 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

Non-prequalified measures and Health and Safety Measures and Accessories are not eligible for the 10% HEMI, the 50% Assisted Subsidy, or the Residential Loan Fund.

Smart Energy Loan:

Up to 15%, not to exceed \$2,000, in non-prequalified measures 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.

On-Bill Recovery:

Up to 15%, not to exceed \$2,000, in eligible Health & Safety Measures and Accessories in Table 2 may be included in an 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	Dryer 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	Attic soffit, gable, or ridge vents	Furnace humidifier
	Attic storage areas / mechanical access	Chimney liners and caps
	Attic pull-down stairs	Germicidal UV lights or HEPA filters
	Drywall as thermal barrier for spray foam or air sealing	AC coil when not installed with condenser
	Thermal barriers for spray foam	Fuel conversion accessory items
	Air Cleaners	Oil burner replacement
	Additional thermostats	Moisture barriers

All Health and Safety Measures and Accessories costs must be itemized for the purposes of determining incentive eligibility and loan cost effectiveness. These costs are eligible for incorporation into a Smart Energy Loan or On-Bill Recovery Loan, but are not eligible for the 10% HEMI, the Assisted Subsidy, or the Assisted Loan.

The costs associated with the installation of certain measures can be included in the related energy saving measure. Items such as high hat covers, kneewall wrap, weather stripping, and outlet gaskets can be included with air sealing. Baffles, insulation dams, and creating access to the attic can be included with attic insulation.

Renewable Technologies

Solar thermal and solar photovoltaic (PV) systems may be included in a Smart Energy Loan or the On-Bill Recovery Loan, subject to cost-effectiveness requirements, with approval through the NYSERDA or PSEGLI Solar Thermal Program or the PSEGLI Solar Pioneer Program or the NYSERDA Solar PV Incentive Program.

Table 3. Renewable Technologies

	Eligible Measures	Minimum Efficiency Requirements
Renewable Technologies	Solar Thermal	OG-100 or OG-300 certification from SRCC. SF 0.5. Warranty: 10 years on the panel, 5 years on the system. System needs to be reviewed and approved by the NYSERDA or PSEGLI Solar Thermal Program prior to submission to HPwES.
	Solar Photovoltaic (PV)	Warranty: 5 years on the system. System needs to be reviewed and approved by the PSEGLI Solar Pioneer Program or the NYSERDA Solar PV Incentive Program prior to submission to HPwES.

INCENTIVES

The HPwES Program offers a 10% cash-back HEMI on eligible measures. For income-qualified customers, Assisted HPwES offers a 50% work scope subsidy of up to \$5,000 for a single-family home and up to \$10,000 for 2 to 4-family homes. The balance of the project cost is eligible for financing. The HEMI and Assisted Subsidy can be used in combination with low interest rate Smart Energy or On-Bill Recovery Loan. For those borrowers who choose to finance through the Residential Loan Fund, that loan may be combined with the Assisted Subsidy, but not the HEMI.

Incentive Eligibility

The 10% HEMI, 50% Assisted Subsidy, and the Residential Loan Fund 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 HEMI or the Assisted Subsidy for natural gas efficiency measures only. The 10% HEMI and the 50% Assisted Subsidy may not be combined with any other utility incentive.

The HEMI 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 customers 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% HEMI, 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 average 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-qualified upgrades listed in Table 1 and eligible Health and 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, a Savings to Investment Ratio (SIR) greater than .8 is required.

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. Upgrades listed in Table 1 and Table 2 may be included in the loan, however the monthly loan installment payment may not exceed 1/12th of the estimated annual energy cost savings for the improvements over the loan term. Measures and accessories listed in Table 2 are capped at 15% of the total prequalified measure cost, not to exceed \$2,000.

Residential Loan Fund

The Residential Loan Fund 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 up to 10 years. The Residential Loan Fund is offered in limited areas and may not be combined with the 10% HEMI. Only those upgrades on the Prequalified List may be included in the Residential Loan Fund, and no further cost-effectiveness screening is required. Eligible upgrades in Table 2 may not be included in the Residential Loan Fund.

Interest rates and loans terms are subject to change. Full details about all Program Financing are available at <http://www.nyserra.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 reliance on fossil fuels. NYSERDA professionals work to protect the environment and create clean-energy jobs. NYSERDA has been developing partnerships to advance innovative energy solutions in New York State since 1975.

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Green Jobs - Green New York 2014 Annual Report

Reporting Period Ending June 30, 2013

Final Report
September 2014

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