## New York State Energy Research and Development Authority

# Green Jobs – Green New York February 2017 Monthly Update

Period ending February 28, 2017

# Table of Contents

1	Workforce Development	2
	1.1 Training Program Updates	2
2	Outreach and Events	3
	2.1 Outreach Activities	3
0	ne- to Four-Family Residential Buildings Program	6
	3.1 Home Performance with ENERGY STAR® Assessments	6
	3.2 Home Performance with ENERGY STAR® Projects	8
	3.3 One- to Four-Family Residential Buildings Financing	9
3	Multifamily Energy Performance Portfolio	16
	4.1 Multifamily Energy Performance Assessments	16
	4.2 Multifamily Energy Performance Projects	17
	4.3 Multifamily Energy Performance Financing	18
5	Small Commercial Energy Efficiency Program	19
	5.1 Small Commercial Energy Efficiency Assessments	19
	5.3 Small Commercial Energy Efficiency Financing	20
6	Evaluation	21
	Evaluation Activities Currently Underway	21

# List of Figures

Figure 2-1. CBO Monthly Percentage of Overall GJGNY Completed Assessments, Quarterly	
Figure 2-2. CBO Percentage of Monthly GJGNY Unit Completions, Quarterly	3
Figure 2-3. Percentage of CBO-initiated Projects that are Assisted Customers, Quarterly	4
Figure 3-1. Green Jobs–Green New York Financing Residential Applications Received vs. Percent Denied, Monthly, for Prior Three Year Period	. 12
Figure 3-2. Green Jobs-Green New York Financing Residential Applications Received, Monthly	13
Figure 3-3. Green Jobs-Green New York Financing Residential Loans Issued by Type, Monthly	13
Figure 3-4. Green Jobs-Green New York Financing Residential Loans Processed, Energy Efficiency Only, Monthly	14
Figure 3-5. Green Jobs-Green New York Financing Residential Loans Processed, Renewables and Combined Technologies, Monthly	15
List of Tables	
Table 3-1. Home Performance with ENERGY STAR Assessments	7
Table 3-2. Home Performance with ENERGY STAR Projects	8
Table 3-3. One- to Four-Family Residential Buildings Financing Details	. 11
Table 3-4. Green Jobs-Green New York Financing Summary	12
Table 4-1. Multifamily Energy Performance Assessments	16
Table 4-2. Multifamily Energy Performance Project	17
Table 4-3. Multifamily Energy Performance Financing	18
Table 5-1. Small Commercial Energy Efficiency Assessments	19
Table 5-2. Small Commercial Energy Efficiency Projects	. 20
Table 5-3. Small Commercial Energy Efficiency Financing	20

## **Program Description**

Green Jobs – Green New York (GJGNY) provides funding for energy assessments, low-cost financing for energy upgrades, and technical and financial support to develop a clean energy workforce. GJGNY is a statewide effort to strengthen communities through energy efficiency and uses constituency-based organizations to support program outreach in underserved communities. GJGNY enables New Yorkers to make a significant difference in homes, businesses and neighborhoods—making them more comfortable, more sustainable, and more economically sound. GJGNY is administered by NYSERDA and made available by the Green Jobs – Green New York Act of 2009.

## 1 Workforce Development

GJGNY supports a broad range of education and training programs aimed at creating an experienced green collar workforce. This workforce will have the relevant skills and credentials needed to support New York State's growing clean energy economy. The workforce training programs help meet the demand for energy efficiency and renewable energy measures and technologies. Through public-private partnerships, Workforce Development Programs fund the development and delivery of cutting-edge training programs, and provide financial support to those who wish to pursue new career training, professional certifications and critical on-the-job training.

## 1.1 Training Program Updates

#### **Clean Energy Technical Training**

Through February 2017, NYSERDA's GJGNY training partners trained over 3,846 individuals in courses including solar thermal installation, introductory photovoltaic training, advanced air sealing, pressure diagnostics, BPI Basic Air Sealing and Insulation, oilheat technology, and thermography. All NYSERDA's GJGNY-funded training partnership agreements have concluded. Any new activity will be reported to the Advisory Council in future reports.

#### 2 Outreach and Events

GJGNY Outreach and Marketing provides for community-based outreach, enabling one-on-one assistance with the process of participating in the GJGNY Program. This, combined with both print and electronic statewide marketing initiatives, increases the reach of the program, particularly among disadvantaged populations and those not traditionally participating in energy-efficiency programs.

#### 2.1 Outreach Activities

Constituency-based organizations (CBOs) continue to assist customers to access the Home Performance with ENERGY STAR program (HPwES) offered through Green Jobs-Green New York. Through February 2017, CBOs are responsible for 7,342 completed assessments resulting in 2,393 completed retrofits. Approximately 57 percent of those retrofits were for Assisted HPwES customers who have a household income of up to 80 percent of the county median income, which is the target market for CBOs.

Figure 2-1. CBO Percentage of GJGNY Completed Assessments.

Figure 2-1 provides percentages of GJGNY residential assessment completions by quarter that were initiated by CBOs versus other sources, such as home performance contractors or online searches.

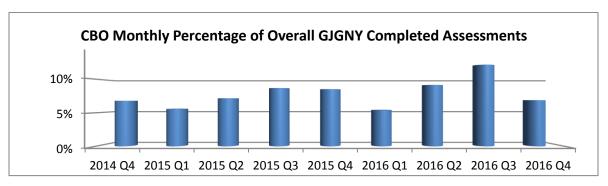
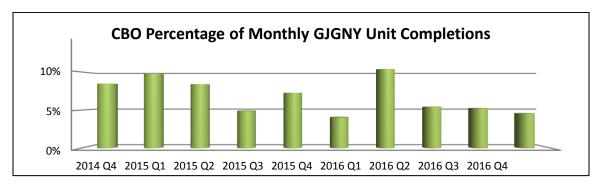


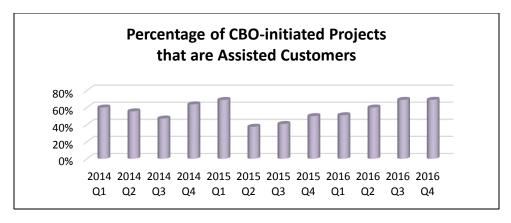
Figure 2-2. CBO Percentage of GJGNY Unit Completions.

Figure 2-2 provides percentages of project (by number of units) completions by quarter that were initiated by CBOs.



#### Figure 2-3. Percentage of CBO-initiated Projects that are for Assisted Customers.

Figure 2-3 provides percentages of CBO-initiated project completions for Assisted Home Performance customers by quarter.



#### **CBO Events and Activities**

CBOs participated in a variety of events and meetings throughout January, providing program information to a variety of audiences across the state.

- PathStone conducted eleven meetings or outreach sessions at several locations throughout the greater Rochester area. The organization conducted events with several county governments in the Finger Lakes (Wyoming, Genesee, Orleans counties) and provided energy efficiency information at its post-purchase homebuyer and landlord classes.
- El Puente hosted or attended a total of seven outreach events throughout several neighborhoods in Brooklyn. In addition to conducting outreach at three separate community board meetings, the organization held its own homebuyer's course to promote energy efficiency. As a result of reaching out to owners of commercial spaces such as local shopping centers regarding outreach opportunities, they tabled at a local Home Depot.
- Neighborhood Housing Services of Jamaica participated in six separate outreach events
  throughout Queens. Additionally, its subcontractor CHHAYA CDC held free tax assistance
  workshops on a daily basis to about a dozen individuals. During these workshops, clients were
  informed of NYSERDA's energy efficiency offerings. A promotional mailing campaign also took
  place during the month of February, reaching approximately 520 households in Queens Village
  and South Jamaica.
- Sustainable South Bronx conducted outreach at several civic association events, netting more
  than one dozen potential referrals across several market sectors: homeowners, multifamily
  buildings owners, and businesses. The CBO is scheduled to participate in a homeowner's
  resource fair next month.
- PUSH Buffalo held three outreach events throughout the greater Buffalo area, all of which coincided with existing outreach activities being conducted in Erie County. In addition to conducting low-income outreach at an event supported by the HEAP program at a local library, the CBO promoted small business energy efficiency at Buffalo State College. They engaged with several of its past clients to recruit friends and neighbors who may be interested in the HPwES and Assisted HPwES programs. By doing this, they were able to pre-screen nearly two dozen homes in February while finding more than a dozen additional homeowners who may qualify.

• In Richmond County, Neighborhood Housing Services of Staten Island reached out to clients who had been inactive for a year or more in an attempt to spur interest in homeowners who have stalled in the HPwES and Assisted HPwES programs. After conducting a home maintenance training workshop in late February, nine clients received certificates of completion. The CBO gained seven new leads from participants in this training session.

#### **Additional Outreach**

- Adirondack North Country Association (ANCA) has contacted two families in the North
  Country in order to construct a case study for energy efficiency in the region. The CBO has also
  been working with Northern New York Business Magazine to identify community leaders. One
  of the goals of the outreach is to work with the magazine's editors to assemble a group for a
  workshop and for energy assessments. Eventually, the CBO believes that these local leaders
  would help convince homeowners in the Adirondacks to take advantage of NYSERDA program
  offerings.
- As it has in recent months, Affordable Housing Partnership continues to gather leads through its
  homeownership informational website as well as its long-running homeowner workshops and
  presentations. The CBO also conducted several outreach events with municipalities (City of
  Albany) in addition to conducting an informational session for employees of the University at
  Albany.
- In the Mid-Hudson Region, RUPCO has continued to rely on its strong relationships with key partners including the local utility (Hudson Gas & Electric) as well as Energize NY and the Mid-Hudson EDGE program staff. As a result, of these partnerships, the CBO was able to find the names of 45 homeowners who may be interested in HPwES or Assisted HPwES. RUPCO also participated in seventeen activities throughout the area to recruit homeowners and promote efficiency program offerings.

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

GJGNY provides home assessments and financing to support energy efficiency and renewable energy improvements to one-to-four family homes.

NYSERDA's Home Performance with ENERGY STAR® (HPwES) program offers homeowners in New York State a comprehensive approach to improving energy efficiency and home comfort while saving money. Participating Building Performance Institute (BPI) Gold Star contractors conduct energy assessments and upgrades. Income-qualified homeowners are eligible for additional incentives to make energy improvements.

The GJGNY loan also supports deployment of solar photovoltaic (PV) through the NY-Sun program, solar thermal (hot water) systems, and certain wood and pellet stove replacements through Renewable Heat NY.

### 3.1 Home Performance with ENERGY STAR® Assessments

Through February 2017, from the 141,039 approved assessment applications, 108,489 (77 percent) assessments have been completed. In the month of February, 1,399 free/reduced-cost comprehensive home energy assessment applications were received. The Program-to-date conversion rate from assessment to energy retrofit is 30 percent. The conversion rate for the period between February 2016 and February 2017 was 36 percent. The average cycle time between assessment completion to project completion is 81 days.

#### Table 3-1. Home Performance with ENERGY STAR Assessments.

Table 3-1 provides HPwES monthly and cumulative assessment figures.

		CBO Initiated since	
Timeframe		11/1/11 <sup>a</sup>	GJGNY Totals since 11/15/10 b
	Received Aud	it Applications	
February		111	1,399
Program to Da	te	11,274	147,273
Average # of Applications Received	per Month	173	1,951
	Approved Aug	lit Applications	
	Fi	ree	
February		117	1,382
Program to Da	te	10,944	130,594
	Reduc	ed Cost	
February		5	113
Program to Da	te	600	10,445
<b>Total Approved Audit Applications</b>		11,544	141,039
Average # of Applications Approved	Per Month	178	1,868
	Schedul	ed Audits	
Scheduled Audits as of End of Curre	nt Month	59	5,717
	Complet	ed Audits	
		Free	
	February	36	1,072
Goal: (77,500-Audits)	Program to Date	6,950	100,737
doal. (77,300-Addits)		Reduced Co	st
	February	1	106
	Program to Date	392	7,752
Total Completed Audits		7,342	108,489
Audit Funds Invoiced to Date			

<sup>&</sup>lt;sup>a</sup> Round 2 CBO production as of 6/1/2012.

<sup>&</sup>lt;sup>b</sup> GJGNY totals since 11/15/10 are inclusive of CBO initiated activities.

<sup>&</sup>lt;sup>c</sup> Reported data includes all audits offered through the Residential Free/Reduced-Cost Energy Audit Program. In mid-2016, NYSERDA began using CEF funds for audits in CEF electric utility territories.

## 3.2 Home Performance with ENERGY STAR® Projects

Of the 32,326 projects completed through HPwES resulting from a GJGNY assessment and/or GJGNY financing, 11,333 (35 percent) projects are associated with income-qualified customers who have a household income of up to 80 percent of the county median income.

In February 2017, there were 444 HPwES project completions, of which 390 (88 percent) were associated with a GJGNY assessment or loan. Fifty-Three percent of the January GJGNY HPwES project completions were for income-qualified customers who have a household income of up to 80 percent of the state or county median income.

Table 3-2. Home Performance with ENERGY STAR Projects.

Table 3-2 provides HPwES monthly and cumulative project figures.

Timeframe	CBO Initiated since 11/1/11	GJGNY Totals since 11/15/10 <sup>a</sup>	HPwES Totals since 11/15/10b						
Projects Contracted									
To Date	2,505	31,440	NA						
Completed Projects/Units <sup>c</sup>									
	Assi	sted							
Month	28 / 31	206 /206	244 / 248						
Program to Date	1156 / 1371	10,887 / 11,333	17,653 / 18,286						
	Marke	et Rate							
Month	5/5	184 / 185	200 / 201						
Program to Date	1108 / 1021	20,791 / 20,993	25,863 / 26,119						
Total Completed Projects/Units (Project Goal: 25,000)	2264 / 2392	31,678 / 32,326	43,516 / 44,405						

<sup>&</sup>lt;sup>a</sup> Projects completed resulting from a GJGNY Audit and/or GJGNY Financing.

b Total HPwES including GJGNY Projects.

c Projects completed and units served resulting from GJGNY.

### 3.3 One- to Four-Family Residential Buildings Financing

GJGNY provides two loan options for consumers: On-Bill Recovery (OBR) loans, which enable customers to make payments through their utility bills; and Smart Energy loans, unsecured loans that are paid back directly to NYSERDA's loan servicing contractor. Both loans offer expanded credit qualification criteria (Tier 2) enabling some applicants who would not qualify for a loan based on more traditional criteria (Tier 1) to qualify for GJGNY loans.

As of February, 2017, 19,482 Residential GJGNY Loans have been issued to date, comprising of 13,281 Home Performance with Energy Star® (HPwES) loans, 6,176 Photovoltaic (PV) loans, 11 Solar Thermal (ST) loans and 14 Renewable Heat NY (RHNY) loans. Of the 19,482 total loans issued, 16.1 percent are Tier 2 customers, representing 15.4 percent of the total funds, while 83.9 percent are Tier 1 customers representing 84.6 percent of the funds.

Of the 13,281<sup>1</sup> HPwES loans issued to date, 33.3 percent are for Assisted HPwES customers, representing 24.8 percent of the total funds; while 66.7 percent are for Market Rate customers representing 75.2 percent of the total funds; 17 percent are Tier 2 customers, representing 16.1 percent of the total funds, while 83 percent are Tier 1 customers representing 83.9 percent of the funds. Of the loans issued for Assisted HPwES customers, 70.5 percent are Tier 1 loans, while 29.5 percent are Tier 2.

Since the launch of On-Bill Recovery, 24.8 percent of the Assisted HPwES customers who access financing use OBR Loans, while 32.6 percent of the Market Rate HPwES customers who access financing use OBR Loans; 25.7 percent of Tier 2 customers use OBR Loans while 30.9 percent of Tier 1 customers use OBR Loans.

Of the 6,176 PV loans issued to date, 52 percent are OBR Loans and 86.0 percent are Tier 1 customers. 37 of these PV loans also have an Affordable Solar incentive.

<sup>&</sup>lt;sup>1</sup> This includes GJGNY loans issued through PSEG LI's HPwES / AHPwES program.

#### Table 3-3. Green Jobs-Green New York Financing Details.

Table 3-3 provides cumulative details of the Green Jobs-Green New York financing program. EE= energy efficiency only. PV = PV only. EE & PV = a loan incorporating both energy efficiency and PV. RH = renewable heat (pellet or wood stoves).

GJGNY Loan Type	Applications Received (Number)*	Applications Approved (Number)	Loans Closed (Number)	Loans Closed (Dollars)	Loans Awaiting Closing (Number)	Loans Awaiting Closing (Dollars)
EE Smart Energy Loan		12,767	9,620	\$88,582,487	473	\$4,097,875
EE On-Bill Recovery Loan		6,078	3,661	\$40,920,581	45	\$1,826,806
Total	28,800	18,845	13,281	\$129,503,067	518	\$5,924,681
PV Smart Energy Loan		3,659	2,939	\$48,891,550	239	\$4,051,510
PV On-Bill Recovery Loan		4,219	3,208	\$55,285,281	223	\$4,047,456
Total	9,763	7,878	6,147	\$104,176,831	462	\$8,098,965
EE & PV Smart Energy Loan		47	22	\$402,089	2	\$29,149
EE & PV On-Bill Recovery Loan		73	7	\$151,050	2	\$31,958
Total	294	120	29	\$553,139	4	\$61,107
RHNY Smart Energy Loan		19	13	\$161,063	0	\$0
RHNY On-Bill Recovery Loan		6	1	\$13,445	0	\$0
Total	44	25	14	\$174,508	0	\$0
ST Smart Energy Loan		11	9	\$64,039	0	\$0
ST On-Bill Recovery Loan		2	2	\$11,510	0	\$0
Total	13	13	11	\$75,549	0	\$0
Grand Total	38,914	26,881	19,482	\$234,483,095	984	\$14,084,754

<sup>\*</sup>Applicants are not required to choose loan type (Smart Energy vs On-Bill Loan) at time of application, therefore only total applications are shown.

Table 3-4. Green Jobs-Green New York Financing Summary.

Table 3-4 provides a cumulative summary of Smart Energy Loan and On-Bill Recovery Loan activity.

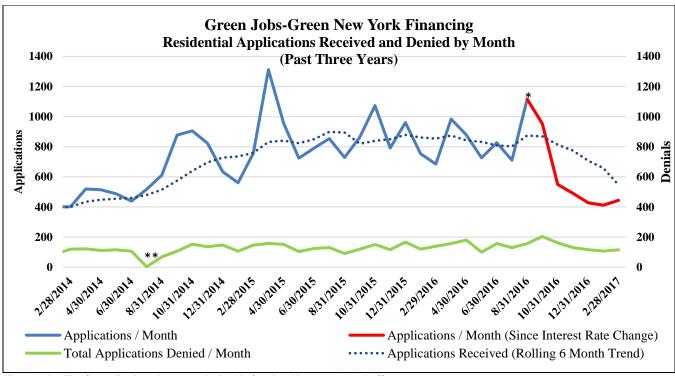
Financing Summary		Smart Energy		On-Bill Recovery			
Financing Summary	Tier 1	Tier 2	Total	Tier 1	Tier 2	Total	
Loans Closed	10,479	2,124	12,603	5,872	1,007	6,879	
Value	\$115,763,847	\$22,337,381	138,101,228	\$82,546,337	\$13,835,530	96,381,867	
Average Loan*	\$11,047	\$10,517	\$10,958	\$14,058	\$13,739	\$14,011	
Average Term	13.4 Years	14 Years	13.5 Years	14.7 Years	14.8 Years	14.7 Years	
2.99%	N/A			14.24%	9.53%	13.55%	
3.49%	84.25%	81.07%	83.72%	85.47%	90.07%	86.15%	
3.99%	14.65%	17.70%	15.16%				
4.99%	0.31%	0.38%	0.32%	0.14%	0.10%	0.13%	
5.49%	0.10%	0.33%	0.14%	N/A			
5.99%	N/A	0.42%	0.07%	N/A	0.30%	0.04%	
6.49%	N/A	0.09%	0.02%	N/A			
6.99%	0.44%	N/A	0.36%	0.12%		0.10%	
7.49%	0.10%	N/A	0.08%	N/A			
7.99%	0.14%	N/A	0.12%	0.03%		0.03%	
8.49%	0.01%	N/A	0.01%	N/A			

<sup>\*</sup>Average Loan Amount for borrowers with Assisted Home Performance projects is \$7,277.86.

NOTE: Black fill for a particular interest rate denotes that rate is not available for that loan type and/or tier.

Figure 3-1. Green Jobs-Green New York Financing Residential Applications Received vs. Percent Denied, Monthly, for Prior Three Year Period

Figure 3-1 illustrates the number of applications received vs. percent denied for GJGNY loans, monthly, for the prior three years.



<sup>\*</sup>Denotes deadline for applications that were submitted before tiered interest rate took effect.

<sup>\*\*</sup>Reductions in July 2014 denials is due to revised underwriting criteria which allowed previously denied applications to be rescreened and qualify.

#### Figure 3-2. Green Jobs-Green New York Financing Loans Issued by Type, Monthly.

#### Figure 3-2. Green Jobs-Green New York Financing Loans Issued by Type, Monthly.

Figure 3-2 illustrates the rate of loans issued for GJGNY Smart Energy Loans and GJGNY On-Bill Recovery Loans, by month.

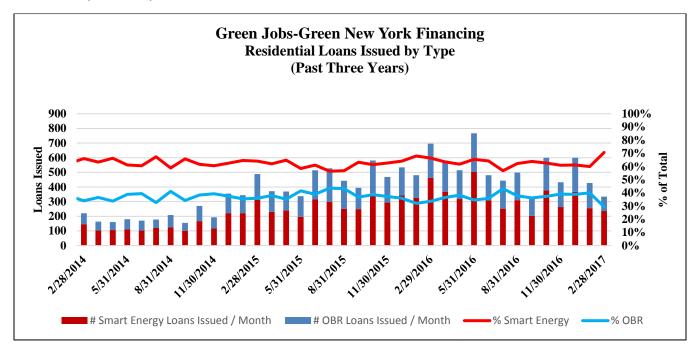


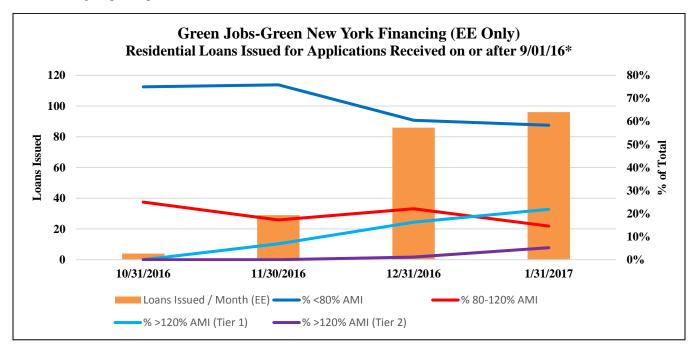
Figure 3-3. Green Jobs-Green New York Financing Loans Issued by Tier, Monthly.

Figure 3-3 illustrates trends in GJGNY loans issued, distinguished between Tier 1 and Tier 2 loans, by month.



# Figure 3-4. Green Jobs-Green New York Financing Residential Loans Issued, Energy Efficiency Only, Monthly

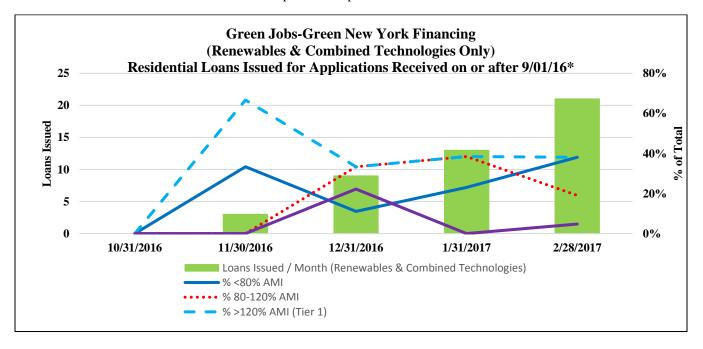
Figure 3-4 illustrates the number of Energy Efficiency loans issued, where the application was first submitted on or after September 1, 2016. Also shown is the percentage of the total that each household income group comprises.



<sup>\*</sup> AMI = Area Median Income, which is the greater of the State or County Median Income. Households with incomes greater than 120% AMI are further grouped by underwriting Tier, with different interest rates applying to each group.

# Figure 3-5. Green Jobs-Green New York Financing Residential Loans Issued, Renewables and Combined Technologies, Monthly

Figure 3-5 illustrates the number of Renewables and Combined Technology loans issued, where the application was first submitted on or after September 1, 2016. Also shown is the percentage of the total that each household income group comprises. The relatively small number of loans issued to date for this subset of loans should not be used to interpret future performance.



<sup>\*</sup>AMI = Area Median Income, which is the greater of the State or County Median Income. Households with incomes greater than 120% AMI are further grouped by underwriting Tier, with different interest rates applying to each group.

## 4 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.

## **4.1 Multifamily Energy Performance Assessments**

Through February 2017, from the 333 approved assessment applications, 304 (91 percent) assessments have been completed.

Table 4-1. Multifamily Energy Performance Assessments.

Table 4-1 provides Multifamily Performance monthly and cumulative assessment figures.

Metric		February		Cumulative			
	Affordable Housing	Market Rate Housing	Monthly Total	Affordable Housing	Market Rate Housing	Program Total	Budget/ Goal
Received Assessment Applications	0	0	0	193	140	333	
Approved Assessment Applications	0	0	0	193	140	333	500
Assessment Funds Encumbered (\$)	0	0	0	2,342,960	1,120,987	3,463,947	
Assessment Funds Invoiced (\$)	0	0	0	1,291,100	\$694,930	1,986,030	3,000,000
Completed Assessments	0	0	0	170	134	304	400
Number of Projects Withdrawing from MPP after Assessment*	0	0	0	17	29	46	

<sup>\*</sup>MPP Projects must achieve a minimum of 15 percent in energy savings. Projects may choose to proceed outside MPP. Some may choose smaller work scopes which will not achieve program standard and thus not be eligible for MPP and some may elect to access utility incentives. If energy efficiency projects are completed, building owners that have an authorized assessment would still be eligible to apply for GJGNY financing.

## **4.2 Multifamily Energy Performance Projects**

Through February 2017, the Multifamily Energy Performance Program has completed 32,894 housing units with installed measures. Of those units with installed measures, 15,539 (47 percent) are associated with affordable housing.

Table 4-2. Multifamily Energy Performance Projects.

Table 4-2 provides Multifamily Performance monthly and cumulative project figures.

Metric		February		Cumulative			
	Affordable Housing	Market Rate Housing	Monthly Total	Affordable Housing	Market Rate Housing	Program Total	
Projects in Pipeline*	0	0	0	193	140	333	
Projects Contracted to have Measures Installed	0	0	0	193	140	333	
Households Associated with Projects Contracted	0	0	0	32,785	32,817	65,602	
Projects with Installed Measures (units)	0	0	0	15,539	17,355	32,894	
kWh Savings of Installed Measures	0	0	0	13,810,878.6	4,103,148.2	17,914,027	
MMBtu Savings of Installed Measures	0	0	0	198,280.1	177,455.9	375,736	
Dollar Savings of Installed Measures	0	0	0	\$9,611,178.24	\$7,147,540.00	\$16,758,718.24	

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

## 4.3 Multifamily Energy Performance Financing

As of February 2017, the Multifamily Performance Program has closed 22 loans with a total value of \$12,099,798. NYSERDA's share of that total loan value is \$3,834,685.

#### **Table 4-3. Multifamily Energy Performance Financing.**

Table 4-3 provides Multifamily Performance monthly and cumulative financing figures.

Loan Status		February		Cumulative			
	Number	NYSERDA Share of Total Loan Value	Total Loan Value	Number	NYSERDA Share of Total Loan Value	Total Loan Value	
Participation Agreements Approved	0	\$0	\$0	22	\$3,834,685	\$12,099,798	
Loans Closed	0	\$0	\$0	22	\$3,834,685	\$12,099,798	

## 5 Small Commercial Energy Efficiency Program

NYSERDA's Small Commercial Energy Efficiency Program offers financial and technical assistance to help small businesses improve their energy efficiency and reduce their energy costs. This program offers free assessments 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 nonprofits 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 nonprofits access low-interest financing for energy efficiency improvements by providing a share of the loan principle at a low interest rate. In addition, eligible small business and not-for-profit customers participating in NYSERDA's NY-Sun Solar PV Incentive Program can now access low-interest GJGNY financing to install solar PV systems of up to 200 kW.

### 5.1 Small Commercial Energy Efficiency Assessments

Through February 2017, the Small Commercial Energy Efficiency Program has received 4,508 assessment applications. Of those received applications, 4,216 (94 percent) have resulted in completed assessments. The assessment program closed in December 2016, but eligible applicants can receive cost-shared assessments via NYSERDA's FlexTech program. NYSERDA will create and issue a measure package in 2018, which will include an outreach component.

Table 5-1. Small Commercial Energy Efficiency Assessments.

Table 5-1 provides Small Commercial Energy Efficiency monthly and cumulative assessment figures.

Metric	February			Program Cumulative		
	GJGNY	ARRA*	Monthly Total	GJGNY	ARRA*	Program Total
Received Assessment Applications	0	0	0	3,574	934	4,508
Completed Assessments	13	0	13	3,367	849	4,216

<sup>\*</sup>The GJGNY Act of 2009 restricts the provision of GJGNY-funded energy assessments to small business and not-for-profit organizations with 10 employees or less. American Recovery and Reinvestment Act of 2009 (ARRA) funds were used for eligible small business and not-for-profit organizations that have more than ten employees. ARRA funding expired on September 30, 2013.

## **5.2 Small Commercial Energy Efficiency Projects**

Through February 2017, the Small Commercial Energy Efficiency Program estimates 1,855 project completions as a result of GJGNY funded assessments.

#### Table 5-2. Small Commercial Energy Efficiency Projects.

Table 5-2 provides an estimate of Small Commercial Energy Efficiency monthly and cumulative project figures.

Metric	February	GJGNY Program Cumulative						
Estimated Projects Completed*	6	1855						
*The 2015 Small Commercial Energy Efficiency Program Impact Evaluation found that 44 percent of the energy savings recommended through program audits were reported to be implemented. Estimated projects completed are inclusive of those that used ARRA funds referenced in Table 5-1 above.								

## 5.3 Small Commercial Energy Efficiency Financing

Through February 2017, the Small Commercial Energy Efficiency Program has closed 59 loans with a total value of \$2,880,634. NYSERDA's share of that total loan value is \$1,820,017.

#### Table 5-3. Small Commercial Energy Efficiency Financing.

Table 5-3 provides Small Commercial Energy Efficiency monthly and cumulative financing figures.

Loan Status		February		Program Cumulative					
	Number	NYSERDA Share of Total Loan Value	Total Loan Value**	Number	NYSERDA Share of Total Loan Value	Total Loan Value**			
	Applications Approved*								
Participation Loans	2	\$41,851	\$83,702	129	\$2,652,263	\$5,643,463			
On-Bill Recovery	1	\$50,000	\$50,629	79	\$2,535,305	\$3,222,790			
		Loans Clos	ed						
Participation Loans	0	\$0	\$0	27	\$868,998	\$1,844,416			
On-Bill Recovery	2	\$88,739	\$91,019	32	\$951,019	\$1,036,218			
Total	2	\$88,739	\$91,019	59	\$1,820,017	\$2,880,634			

The Small Commercial Energy Efficiency Financing Program has 13 participating lenders.

<sup>\*</sup> Customer applications are assessed for both Participation Loan and On-Bill Recovery Loan eligibility prior to approval. Approved application values are inclusive of loans that have moved forward to closure.

<sup>\*\*</sup>The total loan value represents the total value of the loan issued by the lender to the borrower. The total loan value may include financing for non-energy efficiency projects. NYSERDA's share of the total loan value represents 50% of the total energy project cost or \$50,000, whichever is less.

#### 6 Evaluation

The overarching goals of Evaluation are to provide objective and credible information that supports optimum program operation and outcomes, as well as program accountability. Three major types of evaluation are implemented for the GJGNY program. Process evaluation provides information to support program operations by addressing program efficiency and effectiveness, satisfaction and barriers to participation, among other issues. Impact evaluation provides information to help understand actual program impact and improve energy impact estimates, including economic, environmental, and non-energy benefits; in doing so it supports program accountability. Market evaluation also provides information to support program operations and accountability by characterizing and assessing target markets for programs.

#### **Evaluation Activities**

An evaluation of the GJGNY Jobs impacts was recently completed. This evaluation was conducted in two phases. The focus of Phase 1 was to estimate the number of jobs generated in 2014 and 2015 as a result of Green Jobs - Green New York-funded program activities and to determine other job-related impacts, particularly hourly wage levels. This information served as inputs to an economic impact analysis conducted under Phase 2. Key findings of the Phase 1 study include:

- NYSERDA's GJGNY program resulted in a total of 2,627 direct jobs in 2014 and 2015, 98 percent of which were generated as a result of three programs.
- With 1,236.8 direct jobs, the Workforce Development and Training program accounted for slightly under one-half of the total GJGNY direct jobs.
- The NY-Sun Initiative had 863.1 direct jobs, representing one-third of the total GJGNY direct jobs.
- The Home Performance with ENERGY STAR program had 471.1 direct jobs, representing close to
  one-fifth of the total GJGNY Direct jobs. The <a href="Phase 1 evaluation report">Phase 1 evaluation report</a> can be accessed on
  NYSERDA's website.

Phase 2 included an economic impact analysis, an assessment of the contribution that economic activity can have on a regional economy. This analysis estimated the extent to which the GJGNY program supported additional economic activity statewide in New York, in 12 individual regions, and in disadvantaged communities identified throughout the State. To conduct this analysis, Phase 2 relied on primary survey data of 2014 and 2015 GJGNY program full-time equivalent employees and wages captured by a survey of trade allies and program partners conducted in Phase 1. This information was then used to create IMPLAN modeling scenarios for new, retained, and up-skilled and up-waged jobs.

#### NYSERDA GJGNY Monthly Update - February 2017

The Phase 2 study found that the GJGNY program-related activities generate a significant economic impact throughout New York State. In addition to creating job opportunities for workers directly related to the GJGNY program (i.e., direct effects), the program generates job opportunities in industries that sell to and buy from sectors supporting the program (i.e., indirect effects) as well as in consumer goods and services industries to satisfy the increased demands resulting from the worker wages (i.e., induced effects). The <u>full report of Phase 2 methodology and results</u> can be accessed on the NYSERDA website.