Green Jobs - Green New York Low to Moderate Income (LMI) Working Group Recommendations

Final Report

September 2015

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.

Pursuant to Section 5, Part SS, of Chapter 58 of the Laws of 2015 NYSERDA established a working group to make recommendations to increase participation of and issuance of loans to low-to-moderate income (LMI) households in the Green Jobs – Green New York (GJGNY) Program created under the Green Jobs - Green New York Act of 2009. Part SS also called for NYSERDA to submit a report regarding the results of consultations with and solicitations of the working group. The undersigned members of the working group have convened and consulted on the content and recommendations contained in this report.

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Green Jobs - Green New York

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Executive Summary

This report is submitted in accordance with Section A.3008/S.2008, Part SS, of the New York State 2015-2016 Budget, which, among other things, requires NYSERDA to:

- Develop standards and/or criteria that will encourage and increase participation of and issuance of loans to low-to-moderate income (LMI) households statewide for qualified energy efficiency services under the Green Jobs - Green New York (GJGNY) program.
- Convene a working group to assist in developing these standards and/or criteria that includes individual representatives of constituency-based organizations (CBOs.)
- Consult with and solicit information and recommendations from the working group as to how to increase participation and issuance of loans to LMI households seeking qualified energy efficiency services.
- Report the results of consultations with and solicitations of the working group to the governor, the senate majority leader and the speaker of the assembly within six months of the effective date of the legislation.

The GJGNY LMI Working Group consists of 19 members who represent CBOs, low-to-moderate income consumer advocates, advocates on utility and housing issues, and stakeholders (including contractors) of the photovoltaic and home energy services industries. The group is chaired by the president and CEO of NYSERDA. It met eight times to discuss barriers, review program and loan data, and develop the recommendations in this report. In addition, some members met as small subgroups to discuss and formulate recommendations regarding specific barriers or topics. Recommendations were offered by working group members or subgroups to the entire working group for discussion and consensus. Except where noted, the recommendations in this report reflect the consensus of all members of the working group. Where complete agreement could not be reached, multiple views are provided.

GJGNY has expanded the reach of energy efficiency services and renewable energy products to many households who otherwise would not have access to those services or products, by providing alternative loan qualification criteria, eliminating the cost of the audit, and providing outreach and support services through CBOs. However, there are still many households who are unaware of the opportunities, or who have not been successful in their attempt to participate in the energy efficiency or renewable energy market.

This report identifies numerous barriers to LMI household participation in energy efficiency and renewable energy (primarily solar electric, also known as photovoltaic or PV) projects and the GJGNY loan program, as described in Section 3. The barriers generally fell into five categories: challenges of the loan process for installers and contractors, challenges of the loan process for consumers, barriers related to affordability of a project or loan, barriers related to outreach and assistance to consumers interested in undertaking a project, and barriers related to accessing the program. Recommendations to overcome those barriers and challenges are provided in Section 4 and Section 5. In most cases, NYSERDA immediately accepted the recommendations and began to take action on their implementation, and some recommendations were implemented prior to the submission of this report. In other cases, additional research or discussion will be needed before an action plan can be developed. Examples of recommendations include streamlined loan and subsidy applications; expanded access to loans by households currently unable to qualify for a loan; improved access to financing for necessary non-energy improvements that prevent energy efficiency work from going forward; improved communication between NYSERDA, CBOs, and contractors; improved access to energy efficiency services for households living in manufactured housing; and improved training for contractors, installers, and CBOs on a variety of relevant topics.

Some working group members also brought forward additional barriers to participation or challenges related to other aspects of the GJGNY program that are outside the mission of the GJGNY LMI Working Group as previously described. Those additional barriers and challenges are described in Section 6. Recommendations related to those additional barriers and challenges are described in Section 7. NYSERDA has shared this report, and in particular Section 6 and Section 7, with the GJGNY Advisory Council, and will pursue further discussion of these barriers, challenges and recommendations with the Advisory Council during upcoming meetings.

Additional input from individual members of the group, which may reflect additional details or views of those members regarding barriers, challenges and recommendations, or general comments on the GJGNY program, are provided in Appendix C.

NYSERDA thanks the members of the working group for their time and effort in providing valuable feedback on the program, along with creative solutions to the challenges and barriers identified. NYSERDA looks forward to continuing the discussion on the recommendations that require further research or development, along with other program and market-related topics.

1 Introduction

1.1 Enabling Legislation for the GJGNY Program

On October 9, 2009, the Green Jobs-Green New York Act of 2009 (the Act), was signed into law.

The purpose of the GJGNY program is to:

- Promote energy efficiency, energy conservation, and the installation of clean energy technologies.
- Reduce energy consumption and energy costs.
- Reduce greenhouse gas emissions.
- Support sustainable community development;
- Create green job opportunities, including opportunities for new entrants into the State's workforce, the long-term unemployed and displaced workers.
- Use innovative financing mechanisms to finance energy efficiency improvements through energy cost savings.

The Act directs NYSERDA to:

- Establish a revolving loan fund to provide loans to finance the cost of approved qualified energy-efficiency services for residential, multifamily, and nonresidential structures.
- Pursue the feasibility of other innovative financing mechanisms.
- Issue one or more competitive opportunities to solicit applications from partnerships or consortia composed of CBOs that can connect community members to GJGNY. In awarding contracts to CBOs:
    - 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, while also reflecting geographic diversity of the State.
    - 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, and establish a schedule of fees for energy audits, including a sliding scale by which audit fees will be waived for residential applicants based on median county income.
- In consultation with the Department of Labor, enter into contracts with CBOs, workforce development organizations, labor organizations, and other training-related organizations, for the purpose of supporting GJGNY with employment and training services.
- Establish an Advisory Council.
- Provide annual reports to the Governor, Senate, and Assembly.

1.2 Establishment of On-Bill Recovery Financing

On August 4, 2011, Governor Andrew M. Cuomo signed the Power NY Act of 2011, which established an on-bill recovery (OBR) financing mechanism for GJGNY project financing and increased the maximum loan limits for residential and small business/not-for-profit GJGNY loans, subject to certain project payback criteria. OBR loans have strict cost-effectiveness requirements associated with them, meaning that on average, the annual cost of the energy improvements are no more than the projected bill savings to achieve a “bill neutral” approach to financing, Although the legislation called for the OBR Loans to be available by May 2012, working with the utilities and Department of Public Service staff, NYSERDA was able to implement OBR Loans for residential consumers commencing January 30, 2012. In April 2012, an amendment to the GJGNY law (Public Authorities Law § 1896(5)) made additional changes to improve the OBR financing mechanism.

1.3 Addition of Net-Metered Technologies

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 net-metered technologies, which enabled residential solar electric installations through GJGNY loans.

1.4 GJGNY LMI Working Group

Section A.3008/S.2008, Part SS, of the New York State 2015-2016 Budget included requirements for NYSERDA related to GJGNY as follows:

1. Provide a report to the executive, temporary president of the Senate, speaker of the Assembly, the chair of the Senate Committee on Energy and Telecommunications and the chair of the Assembly Committee on Energy regarding the financial status of the GJGNY program. The financial status report was submitted on May 1, 2015, and is provided in Appendix A.
2. Continue to offer financing, through the GJGNY program for qualified energy efficiency services to all applicants who were eligible on January 1, 2015, through March 31, 2016.
3. Develop standards and/or criteria that will encourage and increase participation of and issuance of loans to low-to-moderate income households statewide for qualified energy efficiency services under the GJGNY program.
4. Convene a working group to assist in developing these standards and/or criteria that includes individual representatives of CBOs.
5. Consult with and solicit information and recommendations from the working group as to how to increase participation and issuance of loans to low-to-moderate income households seeking qualified energy efficiency services.

6. Report the results of consultations with and solicitations of the working group to the Governor, the Senate Majority Leader and the Speaker of the Assembly within six months of the effective date of the legislation.

This report is submitted in accordance with provisions 3 through 6. In addition, to the extent that individual members of the GJGNY LMI Working Group had time, additional recommendations are made in Section 7 regarding the GJGNY program in general.

The GJGNY LMI Working Group consists of 19 members who represent CBOs, LMI consumer advocates, advocates on utility and housing issues, and stakeholders (including contractors) of the solar electric and home energy services industries. The group is chaired by the president and CEO of NYSERDA. Members of the GJGNY LMI Working Group are listed in Table 1-1.

Table 1-1. GJGNY LMI Working Group Members

Name	Organization
John Rhodes	NYSERDA (Chair)
Stephan Edel	Center for Working Families
Bill Feldmann	Empire Clean Energy Supply
Monica Ferreri	NYS Department of Public Service
Adam Flint	Binghamton Regional Sustainability Coalition
Clarke Gocker	PUSH Buffalo
Stan Greschner	Grid Alternatives
Jeff Irish	Hudson Solar
Guy Kempe	RUPCO
Kathleen Langton	Affordable Housing Partnership (AHP) Home Ownership Center
Carlo Lanza	Harvest Power
Euphemia Martin	Public Policy and Education Fund of New York (PPEF) – Southern Tier
Michael Murphy	All Star Energy
Ellen Redmond	International Brotherhood of Electrical Workers
Henri Rivers	Drum River Renewable Energy & Efficiency
Marriele Robinson	Long Island Progressive Coalition
Hal Smith	Home Energy Performance by Halco
Angela Tover	Sustainable South Bronx
Hubert Van Tol	Pathstone

The GJGNY LMI Working group met in 2015 on April 28, May 26, June 25, July 22, August 18, August 31, September 10, and September 22. Meeting notes are provided in Appendix B. In addition, some members met as small subgroups to discuss and formulate recommendations regarding specific barriers or topics. Recommendations were offered by working group members of subgroups to the entire working group for discussion and consensus. Except where noted, the recommendations in this report reflect the consensus of all members of the working group. Additional input from individual members of the group, which may reflect additional details or views of those members regarding barriers, challenges and recommendations, or general comments on the GJGNY program, are provided in Appendix C.

2 Background

2.1 LMI Landscape in New York State

For purposes of this working group and per the Budget bill, LMI is defined as less than or equal to 80 percent of the area (county) median income (AMI). In New York, it is estimated that nearly 3 million households meet this income threshold, with approximately 2.3 million having incomes equal to or less than 60 percent of the state median income (SMI, which is approximately equal to 200 percent of the federal poverty level.)[1] At least 865,000 housing units in multifamily buildings with five dwelling units or more are designated as affordable housing and are managed or owned by various New York State and New York City agencies. Many LMI households also live in privately owned multifamily buildings, or in one-to-four family buildings, which they either own or rent.

In the 2014-2015 heating season, 1.4 million households in New York State (NYS) received benefits through the Home Energy Assistance Program (HEAP), a federally funded program administered by the New York State Office of Temporary and Disability Assistance that assists low-income New Yorkers with the cost of heating their homes. HEAP also offers an emergency benefit for households in a heat or heat-related energy emergency. Energy efficiency services are offered to low-income households through two State-administered programs: 1) the Weatherization Assistance Program (WAP), a federally funded program administered by NYS Homes and Community Renewal; and 2) EmPower New York (EmPower), funded through the NYS Energy Efficiency Portfolio Standard and the Regional Greenhouse Gas Initiative, and administered by NYSERDA. Both programs provide cost-effective energy efficiency improvements to the eligible household at no cost, subject to a funding cap per household. Eligibility for HEAP, WAP, and EmPower is based on an income equal to or less than 60 percent of the SMI. Other local programs may also help provide funding for energy efficiency improvements.

Households that are unable to qualify for WAP or EmPower, but have income that is less than or equal to 80 percent of the state or area median income (S/AMI), whichever is greater, may qualify for the Assisted Home Performance with ENERGY STAR (HPwES) program, administered by NYSERDA, which

1 American Consumer Survey, 2013

provides grants of 50 percent, up to $5,000, for cost-effective energy efficiency improvements. The household must provide the remainder of the funding with cash, a loan, or grants from other sources. It is this group of households that is a particular target for GJGNY, as the loan fund might serve as that additional source of funding for some households.

In addition, NYSERDA administers the Multifamily Performance Program, which can provide financial assistance for cost-effective energy efficiency improvements for affordable housing. GJGNY also offers a loan fund to provide more affordable financing for multifamily housing serving the LMI sector.

The energy efficiency programs above have reached, in total, more than 800,000 housing units with LMI program services. Income data is not as readily available to determine how many LMI households have installed solar electric systems on their homes; however, it is believed that the numbers are comparatively small. One method of estimating LMI household participation in the solar electric program is to identify those installations that occur within a census block meeting the income guidelines (up to 80 percent of the AMI). Figure 2-1 shows a mapping of solar electric installations against LMI census blocks through June 2015. It indicates that 2,708, or 15 percent of the installations, are located within census blocks having an average income meeting the LMI threshold. However, the relationship between LMI households and LMI census blocks is not one to one, so that number is only an estimate.

Another way to estimate LMI participation in the PV program is to examine LMI participation in the GJGNY loan program. NYSERDA does not have household income data for all past participants in the GJGNY loan program, however Table 2-1 shows that using loan applicant and co-applicant income as a proxy for household income[2] indicates that a much smaller percentage of lower income households may be using the loan fund to purchase solar electric (9 percent of the total solar electric loans) as compared to energy efficiency services (28 percent of the total energy efficiency loans.) Note that because many LMI households are unable to take advantage of solar tax credits, qualifying LMI households may choose to take advantage of power purchase agreements (PPAs) instead of actually purchasing a system using a

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2 Does not correct for number of household members. Assumes both applicant and co-applicant, if any, are members of the household, and are the only wage earners in the household. Note that NYSERDA does have household income for loan applicants who also apply for the Assisted Home Performance with ENERGY STAR® subsidy. Therefore, the actual data for energy efficiency loans qualifying as LMI can be compared to the method used in Table 3-1. The actual percentage of energy efficiency loan applicants that qualify as LMI is 29 percent, representing 22 percent of the fund value, compared to 33 percent and 28 percent, respectively, in Table 3-1.

loan. However, PPAs are often out of reach for LMI households due to the credit qualification requirements of the agreement. So again, this approach yields only an estimate and may not reflect actual LMI household participation in the solar electric market.

Figure 2-1. Locations of Solar Electric (PV) Installations

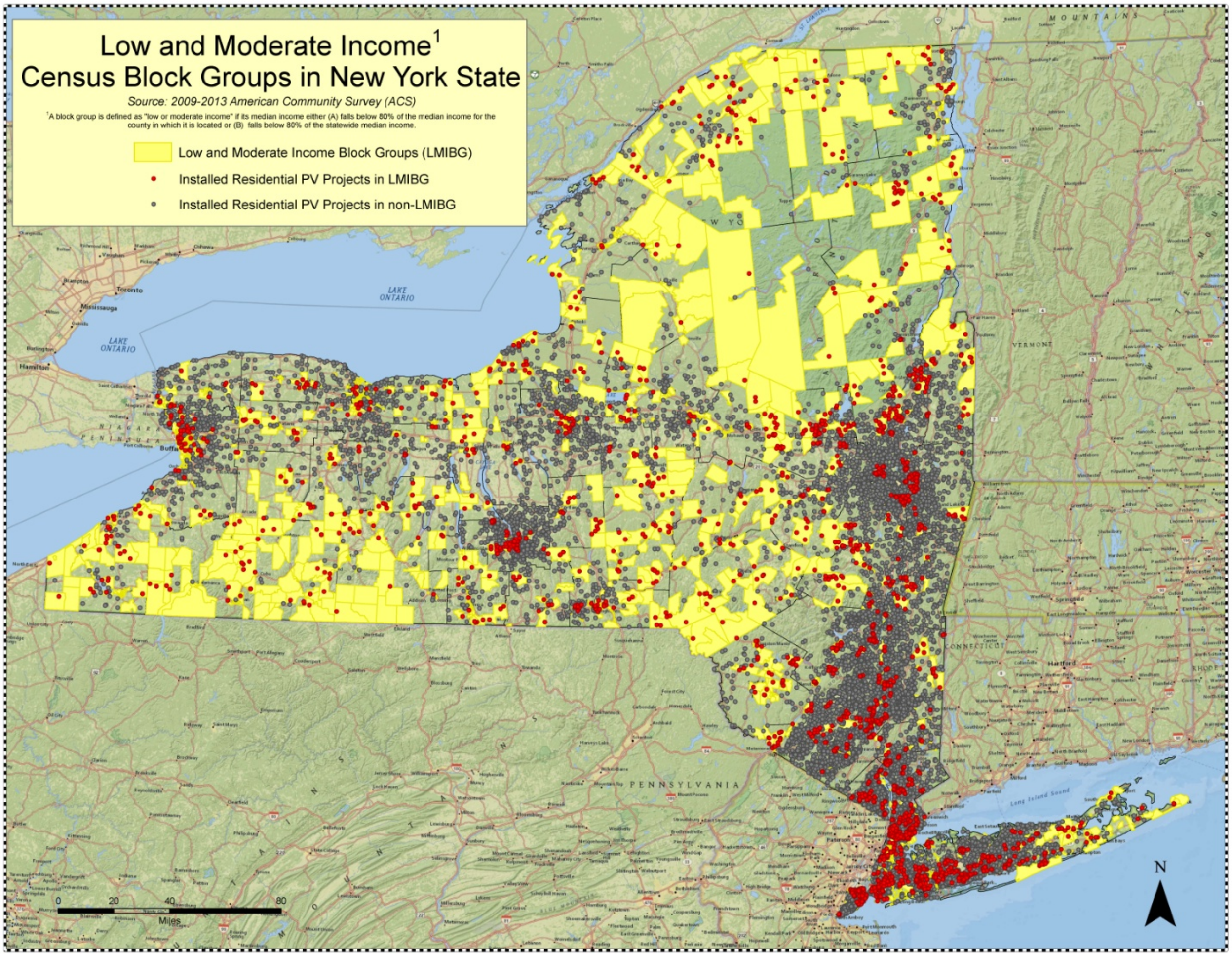

Table 2-1. GJGNY Loan Activity Based on Applicant and Co-Applicant Income

Applicant and Co-applicant Income	Energy Efficiency Loans				PV Loans			
	Number of Loans	% of Number	Dollar Value of Loans	% of Value	Number of Loans	% of Number	Dollar Value of Loans	% of Value
0-80% AMI	2,815	33%	$ 23,554,362	28%	145	10%	$2,293,003	9%
>80% AMI	5,636	67%	$ 61,221,373	72%	1,286	90%	$ 22,071,010	91%

2.2 Description of the GJGNY Program

NYSERDA's initial planning process for GJGNY involved significant input from the general public, various interested parties, and program stakeholders. Working groups were established for each of the program areas, including Workforce Development, Outreach and Marketing, Financing, Residential, Multifamily, and Small Business/Not-for-Profit. During the initial nine-month planning phase of the program, the GJGNY Advisory Council held meetings every three to four weeks. The GJGNY Advisory Council meeting agendas and materials continue to be posted at nyserda.ny.gov/About/Green-Jobs-Green-New-York/Advisory-Council/Meetings in advance of the meetings. The meeting notes, along with a video of the meeting, are posted afterward. Public participation is allowed at every meeting. 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. In 2014, the Advisory Council meeting schedule became bi-annual, with additional meetings to be scheduled as needed and monthly reports continuing. Annual reports are submitted to the Governor's office and the legislature on October 1 of each year, as required by the enabling legislation.

A summary of program initiatives offered through GJGNY is provided in the remainder of this section. Visit nyserda.ny.gov/About/Green-Jobs-Green-New-York/GJGNY-Advisory-Council-Reports for more detailed information on each of these initiatives included in annual and monthly reports.

2.2.1 One-to-Four Family Residential

Services to the residential sector are delivered through the successful existing program called Home Performance with ENERGY STAR® (HPwES ®). The program offers homeowners in New York State a comprehensive approach to improving energy efficiency and home comfort while saving money. Participating HPwES contractors that are accredited by the Building Performance Institute (BPI) conduct energy assessments and upgrades. Income-qualified homeowners are eligible for additional incentives through Assisted HPwES to make energy improvements. Implementation of the GJGNY free and reduced cost audits began in the fourth quarter of 2010. Energy efficiency improvements through HPwES include building shell measures, high-efficiency heating and cooling measures, and ENERGY STAR appliances and lighting. The budget for GJGNY residential audits is $23 million. Through March 2015, 69,976 GJGNY home energy assessments and 19,987 energy upgrades have been completed.

GJGNY offers two types of loans for one- to four-family residential energy improvements. Loan terms are offered for five, 10, and 15 years. The amount of the loan cannot be in excess of $13,000, or $25,000 for projects that meet higher cost-effectiveness standards.

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. Effective January 8, 2013, the name "Unsecured Loan" was changed to "Smart Energy Loan" based upon feedback from participating contractors.

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 HPwES program. EFS reviews loan applications and originates loans pursuant to loan underwriting criteria established by NYSERDA, which includes alternative criteria enabling some consumers who cannot qualify through traditional loan underwriting criteria to participate in the GJGNY loan program. 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. Loans are processed with an interest rate of 3.49% for OBR loans and Energy Smart Loans that are serviced through an automatic withdrawal from the applicant's checking account; or at 3.99 percent for Smart Energy Loans when payments are made through traditional (non-automatic) payments to Concord Servicing Corporation.

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 technologies eligible for net-energy metering. Effective February 3, 2014, NYSERDA was able to offer the two low-interest financing options through GJGNY for residential solar electric systems installed through the NY-Sun PV Incentive program. On August 1, 2014, through a Memorandum of Understanding with PSEG Long Island, NYSERDA extended the GJGNY loan program to participants in PSEG Long Island's Solar Pioneer program.

Through March 2015, 8,144 residential GJGNY loans have closed, at a value of $85.7 million in loan proceeds, with another $21.1 million in loans pending. Additional detail regarding the residential loan portfolio can be found in Section 2.3 and Appendix D.

2.2.2 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 facilitate assessments, funding, and implementation of energy efficiency upgrades that improve building performance and save money. Implementation of GJGNY Multifamily Building audits began in the third quarter of 2010. The budget for multifamily audits is $5.4 million. Through March 2015, 320 multifamily building energy assessments have been completed; and energy upgrades were completed in 31,568 housing units.

NYSERDA launched the GJGNY Multifamily Financing Program in June 2011. GJGNY financing is available to multifamily building owners with an approved NYSERDA audit. Building owners may work with a commercial lender of their choice. NYSERDA contracts directly with the lender. NYSERDA provides 50 percent of the principal of the loan made to support the installation of the improvements contained in the pre-approval document at zero percent interest, up to $5,000 per apartment or $500,000 per building. The lender provides the remaining principal of the loan at 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. Sixteen loans with a total value of $10.6 million have closed, with another $0.8 million pending.

2.2.3 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 Qualified Energy Assessments to help identify economically viable improvements, (e.g., lighting, motors or thermostats) that may yield substantial annual energy savings. The budget for small commercial/not-for-profit audits is $9.7 million. Through March 2015, 2,425 small business and not-for-profit GJGNY energy assessments have been completed, and it is estimated that 20 percent of the recommended energy measures installed.

Through GJGNY, NYSERDA offers two low-interest loan options to finance energy efficiency projects. On-Bill Recovery Financing 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. Participation Loans are possible when NYSERDA partners with lenders across New York State to help small businesses and not-for-profits access low-interest financing for energy efficiency improvements. Twenty Participation Loans have closed valued at nearly one million dollars.

2.2.4 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, facilitates reaching disadvantaged populations and those not traditionally participating in energy-efficiency programs. Although one-to-one assistance can be a more expensive form of outreach, it facilitates 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, providing personal, societal, and environmental benefits. 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. CBOs also help identify additional funding sources to cover the cost of necessary non-energy improvements, or the cost-share needed for energy improvements. Examples of this approach to leveraging multiple funding sources are provided in a presentation that is included in Appendix B and was given to the Working Group by PUSH Buffalo at the July 29, 2015 meeting. Two-year contracts for outreach services were awarded in late 2011 and early 2012 through two competitive solicitations, and another round of contracts were awarded through a competitive solicitation issued in 2013. Currently, 11 CBOs are under contract to provide outreach services throughout the State. In total, $11.0 million has been committed to CBO contracts to date. From the fall of 2011 through March 2015, CBOs were responsible for 5,014 completed assessments resulting in 1,500 completed retrofits. Approximately 52 percent of those retrofits were for Assisted HPwES customers who have a household income of up to 80 percent of the S/AMI.

A marketing investment of $2.5 million was allocated to support the GJGNY program and CBO outreach and education activities. The CBOs were engaged to support the development of a plan to use these funds. The plan included development of a robust toolkit of customizable materials to support local efforts; allocation of a budget to each CBO to direct local activities; web content, demand generation, and lead nurturing activities; a fully funded print ad placement program with media decisions directed by each local CBO; materials translated into Spanish and Chinese; support of pilot programs including a referral program; social media content for placement on CBO social media channels; scripts to support homeowner recruitment; and statewide awareness to drive inquiries to CBO partners.

2.2.5 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 (NYSDOL) programs targeted at preparing individuals for energy services careers in New York State. The budget for GJGNY workforce development activities is $7.3 million. 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. More than 80 contracts have been awarded through those solicitations to a variety of local and regional training organizations, community-based organizations, labor unions, and trade organizations. More than 3,600 students have attended training. In addition, GJGNY funds have been used to help 32 companies received BPI accreditation and 86 individuals receive certifications. Under the Clean Energy On-the-Job Training incentive program, 86 businesses have hired a total of 537 individuals, of which 278 individuals were hired using GJGNY funds with the remainder supported with funding through the Systems Benefits Charge.

2.2.6 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. Evaluations have been accomplished using phased approaches, to characterize markets early in the program, assess the early program processes and impacts, and in coming months, markets and impacts will be reassessed. Certain evaluations have already identified positive impacts of the program. For example, the second phase of the CBO evaluation indicates that CBOs are bringing in households that had not heard of or considered HPwES prior to engagement with the CBO. Evaluations have also been used to make significant program improvements, such as changes in the way performance payments are designed and implemented in CBO contracts. The evaluation budget is $5.6 million. Visit nyserda.ny.gov/About/Publications/Program-Planning-Status-and-Evaluation-Reports/Evaluation-Plans to view GJGNY Evaluation Plans and Reports.

2.3 Summary of LMI Household Participation in GJGNY

2.3.1 GJGNY Loan Participation by Income Level

Figure 2-2 provides a summary of GJGNY residential loans issued, delineated by income level. Since the initiation of loan products in the fourth quarter of 2010, consumer participation, including LMI household participation, in the loan program has steadily increased over time. Through March 31, 2015, LMI participation accounts for $16.12 million, or 19 percent, of the total $74.71 million in energy efficiency loan funds. LMI participation in the solar electric loan program is currently unknown.[3] However, an estimate was provided in Section 2.1.

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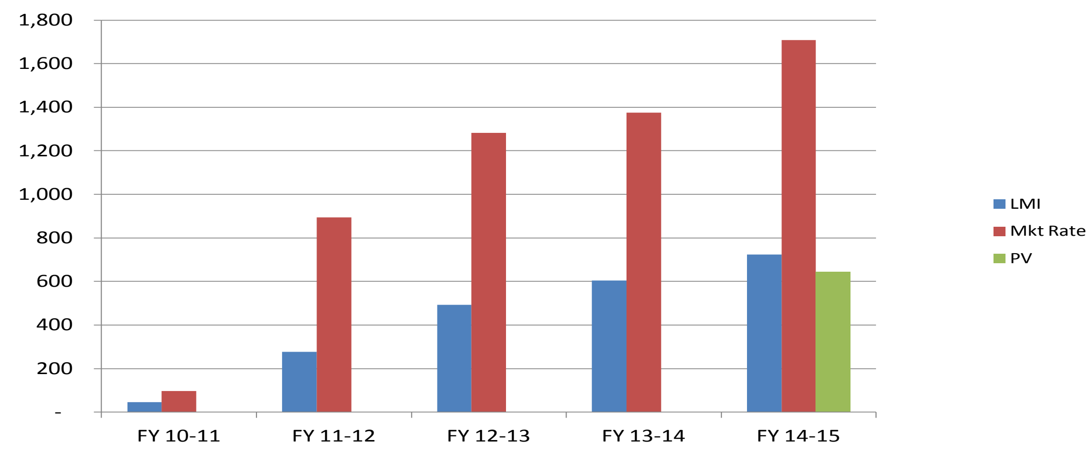
[3] Income differentiation is currently only available for energy efficiency loans. Income-eligible households undertaking energy efficiency projects may qualify for Assisted Home Performance subsidies, and if so, the loan is categorized as going to an LMI household. Qualification for the Assisted Home Performance subsidy is based on household income, as opposed to loan applicant income, and household size. As the NY-Sun PV Incentive program does not currently have a similar subsidy for LMI households, it is not known how many households applying for loans for solar electric systems would be considered LMI households, as it is the loan applicant (and co-applicant, if any) income that is documented – not the household income.

Figure 2-2. GJGNY Residential Loans by Income Level



Income	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
LMI	$294,116	$1,879,641	$3,748,344	$4,699,331	$5,498,997	$16,120,429
Mkt Rate	$861,115	$8,954,438	$13,703,386	$14,881,718	$20,193,429	$58,594,086
PV					$10,942,224	$10,942,224
Grand Total	$1,155,231	$10,834,079	$17,451,731	$19,581,049	$36,634,650	$85,656,739

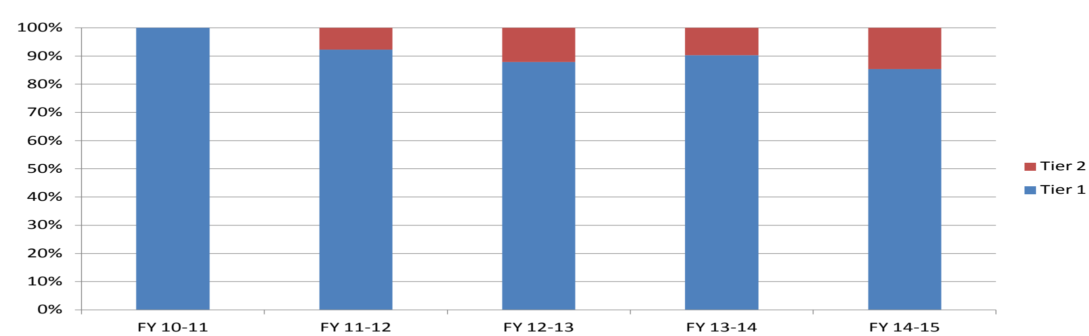
2.3.2 GJGNY Loan Participation Based on Underwriting Criteria

The GJGNY loans are approved based on one of two different sets of loan underwriting criteria. The Tier 1 loans use standard underwriting criteria relying primarily on FICO scores and debt-to-income ratios. Tier 2 expands the number of people who can qualify by substituting satisfactory 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, which is currently the most common cause of loan denials, based on the expectation that utility bills payments will be reduced by the project being undertaken. Table 2-2 summarizes current loan underwriting criteria 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 responsibly improve the penetration of financing to consumers who do not meet Tier 1 underwriting standards through incremental adjustments to the Tier 2 criteria. Tier 2 loans now consistently make up more than 10 percent of loans issued on a monthly basis, as shown in Figure 2-3.

Table 2-2. GJGNY Loan Underwriting Criteria

Standard	Tier 1 Loans	Tier 2 Loans
Minimum FICO	640 (680 if self-employed for 2yrs+) (720 if self-employed < 2yrs)	540
Mortgage payment history	None	Current on all mortgage payments, if any (as reported on the credit report), for the past 12 months. No mortgage payments more than 60 days late during the past 24 months.
Max Debt-to-Income Ratio	Up to 50%	Up to 80% for FICO 680+ Up to 75% for FICO 600-679 Up to 70% for FICO 540-599 Up to 100% for LMI/Assisted
Bankruptcy	No bankruptcy, foreclosure, or repossession within last 7 years	No bankruptcy, foreclosure, or repossession within last 2 years
Judgments	No combined outstanding collections, judgments, charge-offs, or tax liens > $2,500	
Revision history		
1/26/11	Increased Tier 2 DTI to 55%	
7/21/11	Increased Tier2 DTI to 70% if FICO 680+; Revised Tier2 bankruptcy history to 5 years	
10/18/11	Allowed Tier2 DTI up to 100% for Assisted	
9/25/12	If no mortgage history was available, requirement satisfied if current for 9 months on utility payment	
7/18/14	Revised min FICO score to 540, eliminated utility payment history, revised DTI limits (up to 80%/75%/70% based on FICO), and shortened bankruptcy history to 2 years.	

Figure 2-3. GJGNY Residential Loans by Underwriting Tier



Underwriting	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
Tier 1	$1,155,231	$9,925,307	$15,438,645	$17,771,192	$31,620,617	$75,910,992
Tier 2		$908,771	$2,013,085	$1,809,857	$5,014,033	$9,745,747
Grand Total	$1,155,231	$10,834,079	$17,451,731	$19,581,049	$36,634,650	$85,656,739

2.3.3 GJGNY LMI Loan Performance

Limited conclusions regarding loan performance can be made at this time, due to the relatively short operating time of the GJGNY loan program. However, initial indicators are that the loans are performing at least as well as other consumer loans on the market. As shown in Table 2-3, GJGNY Residential Loan Performance, at this point in time, Tier 1 loans are performing better than Tier 2 loans, and Market Rate loans are performing better than LMI loans; neither of these outcomes are unexpected. Because of the collection methodology associated with OBR Loans that have become delinquent (utility bills are paid before OBR loans in payment plans), it is also not unexpected that Smart Energy Loans appear to perform better than OBR loans. Finally, because solar electric loans have been part of the program for only one year, it is too early to draw any conclusions regarding their performance.

Table 2-3. GJGNY Residential Loan Performance

	Avg FICO	Avg DTI	Loans Issued	Avg Term	Avg Age	Payments Remaining	Outstanding Balance	Delinquent Loan Amount	% of Balance	Loan Default Chargeoff	% of Loans Chargedoff	Annual Chargeoff %
Underwriting												
Tier 1	752	29%	$75,910,992	160.4	25.3	135.1	$64,785,343	$2,719,386	4.2%	$817,136	1.1%	0.5%
Tier 2	709	64%	$9,745,747	168.4	19.8	148.6	$8,711,436	$432,181	5.0%	$138,013	1.4%	0.9%
Grand Total	747	33%	$85,656,739	161.3	24.6	136.7	$73,496,779	$3,151,568	4.3%	$955,149	1.1%	0.5%
Income Level												
LMI	741	39%	$16,120,429	162.6	25.9	136.7	$13,475,899	$861,248	6.4%	$420,601	2.6%	1.2%
Market Rate	749	31%	$58,594,086	159.5	26.6	132.9	$49,305,292	$2,239,570	4.5%	$521,708	0.9%	0.4%
Undetermined	757	32%	$10,942,224	172.3	3.7	168.6	$10,715,588	$50,750	0.5%	$12,839	0.1%	0.4%
Grand Total	747	33%	$85,656,739	161.3	24.6	136.7	$73,496,779	$3,151,568	4.3%	$955,149	1.1%	0.5%
Purpose												
EE	746	34%	$74,714,515	160.4	26.4	134.0	$62,781,191	$3,100,818	4.9%	$942,310	1.3%	0.6%
PV	757	32%	$10,942,224	172.3	3.7	168.6	$10,715,588	$50,750	0.5%	$12,839	0.1%	0.4%
Grand Total	747	33%	$85,656,739	161.3	24.6	136.7	$73,496,779	$3,151,568	4.3%	$955,149	1.1%	0.5%
Loan Type												
On-Bill Recovery	751	33%	$30,908,203	174.8	18.3	156.4	$28,178,900	$2,432,296	8.6%	$372,484	1.2%	0.8%
Smart Energy	745	34%	$54,748,536	154.9	27.6	127.3	$45,317,879	$719,272	1.6%	$582,665	1.1%	0.5%
Grand Total	747	33%	$85,656,739	161.3	24.6	136.7	$73,496,779	$3,151,568	4.3%	$955,149	1.1%	0.5%

2.3.4 Loan Fund Sustainability

The GJGNY residential loan fund has filled a gap in the market for residential energy efficiency and solar electric loans. Progress has been made over the past five years in the development of private market loan options, particularly for solar electric and for consumers meeting traditional loan underwriting criteria. At least four lenders are available to serve the New York market with a variety of loan products for solar electric systems, at a range of interest rates, loan terms, and developer fee structures. Some solar electric installers are already using private sector financing due to the ability of the products to better meet their business needs. However, consumers with lower FICO scores, high debt-to-income ratios, or lower incomes still do not have adequate access to private market loan options. The GJGNY loan fund is still filling a gap for those consumers. However, the low interest rate, combined with the long loan terms and an increasing rate of demand for loans for higher income borrowers, jeopardizes the sustainability of the fund. The interest rate is not adequate to cover the full cost of providing the loans (costs of loan origination, servicing, defaults and financing), and the rate of replenishment of the loan capital is not adequate to keep up with demand for new loans. NYSERDA expects to continue subsidizing the interest rate for LMI consumers to address affordability of loans and projects, and maintain a viable loan fund for LMI consumers, but is also analyzing data to determine what interest rate would be required to more fully cover the cost of providing the loans to other income segments. NYSERDA has brought the issue of loan fund sustainability to the attention of the GJGNY Advisory Council to obtain their input on potential solutions, and has informed the GJGNY LMI Working Group of the ongoing discussions with the Advisory Council. A presentation providing more information on the issue is provided in Appendix E.

2.4 Additional Loan Data

Additional data regarding GJGNY residential and multifamily loans is presented in Appendix D. This data was used to support the discussions undertaken by the GJGNY LMI Working Group.

3 Barriers to LMI Participation in and Loans for Qualified Energy Services

The GJGNY LMI Working Group identified numerous barriers to participation in energy efficiency and solar electric projects, and the GJGNY loan program, as described in this section. The barriers generally fell into five categories: challenges of the loan process for installers and contractors, challenges of the loan process for consumers, barriers related to affordability of a project or loan, barriers related to outreach and assistance to consumers interested in undertaking a project, and barriers related to access to the program. Recommendations to address these barriers are presented in Section 4 and Section 5.

3.1 Challenges of the Loan Process for Installers and Contractors

The loan payment process and timeline (especially related to solar electric) is too lengthy. There is sometimes a considerable lag time between project completion and the payment of the incentive and loan proceeds by NYSERDA to the contractor. This lag is generally due to the type of documentation needed to verify project completion. Contractors, as a result, often have to carry the cost of the work for several months prior to being paid, resulting in cash flow issues.

Education regarding the loans is needed for contractors and installers. Some contractors do not have adequate experience with, or understanding of, the financing products among their staff. As a result, they sometimes lack the skills to identify the best loan product for the customer, and to sell the customer on the benefits of the loan product.

There is no perceived benefit of the OBR loan to contractors. Because the OBR loan requires additional approval steps and processing time, some contractors do not encourage their customers to pursue an OBR loan. The additional steps are required to verify that the applicant is the homeowner, and to file a declaration with the County regarding the obligation associated with the utility account.

The cost effectiveness requirements are too limiting. The OBR loan in particular has cost-effectiveness requirements that can be difficult to meet, particularly if a home is replacing gas heating equipment or if health and safety improvements are part of the scope of work. Because of the current low price of natural gas, payback on these systems can be longer than the term of a loan – and therefore not meet the cost effectiveness requirements. In other words, the amount of the monthly loan payment may be more than the amount of the predicted average monthly gas bill savings through the term of the loan. Developing a scope of work that meets both the needs of the household and the cost effectiveness criteria can be challenging and time consuming for the contractor.

3.2 Challenges of the Loan Process for Consumers

The Assisted HPwES subsidy and loan application processes can be confusing and complex. The application processes for the Assisted HPwES subsidy and the GJGNY loan are separate, as not all consumers are applying for both. Information needs are somewhat different and some information requested is not always readily available. This issue can lead to confusion and, in some cases, a failure to provide all information needed.

Ability to qualify in more complex employment or family living situations. Some applicants have complex small business or rental property ownership situations, for example, that make qualifying for a loan based on a simple review of tax returns (one of the current options for income documentation) difficult. The lack of more comprehensive income documentation options, and the inability of CBOs to be part of the review process (due to confidentiality issues) and therefore offer assistance in pulling together a more complete income verification package, may prevent some qualified individuals from being approved for loans. This may also apply to other types of complex life and family situations, such as caring for an elderly or disabled family member, inheriting a small family farm, or temporarily taking in adult children.

Loan qualification criteria are too limiting. Traditional criteria, such as debt-to-income (DTI), do not consider that the household will save money on their energy bills, thereby improving the household cash flow situation. Although NYSERDA has made adjustments in the Tier 2 loan underwriting criteria over time, and the rate of denials has decreased, there are still many households that may be able to make loan payments that are offset by energy bill savings, but are denied financing.

Cost effectiveness requirements are too limiting. The OBR loan in particular has cost-effectiveness requirements that can be difficult to meet, particularly if a home is replacing gas heating equipment or if health and safety improvements are part of the scope of work. Because of the current low price of natural gas, payback on these systems can be longer than the term of a loan, and therefore not meet the cost effectiveness requirements. In other words, the amount of the monthly loan payment may be more than the amount of the predicted average monthly gas bill savings through the term of the loan. The inability to finance the desired scope of work because of the cost effectiveness requirements associated with the loan can be confusing to consumers, and ignores the possibility that the consumer may also want to invest in energy-related health, safety, and comfort improvements.

Consumers are not aware of program and loan options, including Tier 2. Many consumers who may know they cannot qualify for traditional financing are unaware that the program provides financing options that may meet their needs, and therefore do not pursue participation.

3.3 Barriers Regarding Affordability of Projects or Loans

Solar electric systems are unaffordable to households that are ineligible for related tax credits. Lower income households who wish to invest in solar electric often cannot take full advantage of income tax credits because they have inadequate tax liability to offset the credit. If they can't get the credit, they may need to take out a higher loan amount. In addition, even if the household can qualify for the tax credits, the fact that the tax return may become available many months after the system is installed places a financial burden on the household in the meantime because the installer needs to be paid in full at the time of installation. Finally, the current loan program does not accommodate a refinance of the loan after a tax return is received and used to pay down the loan balance, meaning the household may have higher monthly payments than needed or desired.

The definition and calculation of LMI may ultimately limit how many projects move forward. The GJGNY loan program does not currently differentiate between loan applicants based on income; however the Assisted HPwES subsidy, which is an important component of funding for a low-income household's project uses 80 percent of the S/AMI, whichever is higher, as the qualification threshold. The information used to determine eligibility for the subsidy does not adequately address unique circumstances of some applicants, or those with more complicated tax scenarios. Alternatively, those with higher incomes who also have certain tax benefits that reduce their reported income may inappropriately qualify for a subsidy.

In addition, to maintain a self-sustaining loan fund and ensure assistance is provided where it is most needed (that is, to LMI households), there may be a need in the future to differentiate loan applicants based on household income, such as to provide subsidized interest rates to income-eligible households. As previously stated, the current process for determining household income may cause some otherwise eligible households not to qualify as LMI.

LMI is not defined consistently across all assistance programs available to New York State residents. LMI is defined as up to 60 percent of the SMI for NYSERDA's EmPower New York program, the Weatherization Assistance Program administered by NYS Homes and Community Renewal, and the Home Energy Assistance Program (HEAP) administered by the NYS Office of Temporary and Disability Assistance. LMI Household is defined as up to 80% of the state or area (county) median income (AMI) by NYSERDA in determining eligibility for subsidies through the Assisted HPwES program. According to the New York State Association for Affordable Housing (NYSAFAH), a moderate income household is defined as "households earning between 80 percent and 120 percent of AMI", a low income household is defined as "households earning between 50 percent and 80 percent of AMI", and a very low income household is defined as "households earning no more than 50 percent of AMI." Federal assistance programs administered by the State, such as those providing assistance for food, housing, or other urgent needs, often use criteria based on a percentage (which varies from program to program) of the federal poverty level (FPL). In New York State, 60 percent SMI is approximately equal to 200 percent FPL.

Loans may not fully cover health and safety improvements that are required for completion of efficiency work. Although the GJGNY loan can fund a small amount of health and safety measures related to the energy work, as specified in the related programs, some homes need more work than is currently accommodated. This work may include more extensive roof repairs prior to installing attic insulation, removal of asbestos-containing heating systems, replacement of moldy wood and sheetrock prior to installing insulation, or other work. The inability of the loan to fully cover the cost of energy-related health and safety measures may prevent the efficiency work from going ahead.

Term limits of the loan lead to high payments on higher-cost, longer payback projects. The 15-year term allowed through GJGNY is longer than many personal loan products on the market. However, because of the long payback period associated with some improvements – particularly gas heating equipment – the 15-year loan term may not enable a household to have a cash-neutral project, meaning the amount of savings per month may not be as much as the cost of the work.

Consumers who do not trust that the savings will be realized are hesitant to invest in work they believe may not be paid back in energy cost savings.

3.4 Barriers Regarding Outreach and Assistance to LMI Households

Gaps exist in areas served by CBOs across New York State. One CBO was selected to serve each region of the State; however each CBO also focuses on particular communities within the region – generally in the area that the CBO is physically located. Face-to-face meetings with consumers outside that immediate community can be difficult to undertake.

Contractors and CBOs are not working together effectively in all cases. Some CBOs and the home performance contractors in their region have established good working relationships, while others are still trying to determine how best to make the relationship as effective as possible. The contractor and the CBO each have a unique relationship with the consumer they are trying to serve, and sometimes the CBO/contractor relationships are very synergistic with the value each party brings to the relationship well understood. In other cases, one party may see the other as interfering with their relationship with the consumer, or a lack of trust may exist between the parties. In regions where relationships are struggling, opportunities to improve program effectiveness may be lost.

A good description of the home performance process — from start to finish — is needed. Program materials may explain aspects of the program, but they are not always readily available and may not describe the program from start to finish, including processes for obtaining financing through project completion.

Customers often need more assistance with the application than the program currently accommodates. The CBO is not able to obtain all information regarding the consumer's loan application, additional data or evidence required, and reasons for denial that will enable the CBO to maximize their assistance.

3.5 Barriers Regarding Access to the Program

The program does not effectively serve customers living in manufactured housing units. An inadequate number of contractors participating in the program have staff with the certification necessary to serve this housing sector. In addition, the criteria established for issuing loans to households living in manufactured housing (structure permanency, land ownership, etc) are not well understood.

Delivering comprehensive energy efficiency and renewable energy services is hindered by independently operated programs. NYSERDA offers several programs to the LMI sector, but each is implemented separately with the assistance of separate implementation contractors and filed representatives. Contractors and CBOs do not have a single point of contact with whom to coordinate services or address problems. These programs include EmPower New York (for homes with incomes up to 60 percent of the State median income), HPwES (which includes a component for households with incomes up to 80 percent of the state or area median income), and the NY-Sun incentive program (which will soon also have a component for LMI households, per recent announcements).

Statute prevents community net metering in the solar electric market. The GJGNY Act currently does not allow off-site installations (those not attached to the dwelling) to be financed. Community net metering is anticipated to be a real opportunity for the LMI households to participate in solar electric.

4 Recommendations

This section provides the LMI Working Group recommendations to address the barriers described in Section 3. The recommendations reflect discussions of the working group. Original or more detailed comments and recommendations along with greater context from some members of the working group are provided in Appendix C. In some cases, the recommendations in Appendix C reflect previous positions taken by the member prior to the group discussion.

NYSERDA's responses to the recommendations are provided alongside each recommendation, and planning or implementation of many recommendations is already underway. Implementation of the recommendations is expected to result in the following:

- Increased participation of LMI households in energy efficiency and renewable energy projects.
- Reduced denial rate for loans among LMI households, with more of those who are able to pay for improvements through energy bill savings qualifying for loans.
- Improved rate of conversion from audits to completed projects.
- More comprehensive projects completed, resulting in increased benefits for household members.
- Reduced timeline for the sales and completion of projects, and improved contractor and installer cash flow.

4.1 Recommendations to Address Challenges of the Loan Process for Installers and Contractors

1) **NYSERDA should develop a means to pay solar electric installers the incentive and loan proceeds sooner to alleviate cash flow problems.**

   NYSERDA response: NYSERDA accepts this recommendation. The payment process was reviewed based on input from the working group and changes were implemented in July 2015. Installers now have alternate means to verify that a solar electric system is installed and operating, which triggers payment.

2) **NYSERDA should develop training for contractors on the features and benefits of the GJGNY loan products, how the loans relate to the development of work scopes, and best practices for selling potential customers on the loan products.** Training should include an overview of the role CBOs could play in the sales and application process.

   NYSERDA response: NYSERDA accepts this recommendation. Several contractor trade associations offer training on business and marketing. NYSERDA will work with these private sector partners, contractors, and CBOs over the next year to update and deliver appropriate training**.**

4.2 Recommendations to Address Challenges of the Loan Process for Consumers

1) **NYSERDA should simplify and streamline the loan and assisted subsidy application processes, which may include combining the loan and subsidy applications into a single document.**

   NYSERDA response: NYSERDA accepts this recommendation. Based on comments from the working group, NYSERDA completed a full review of all applications in May 2015, and revised applications were shared with the working group for input in August 2015. Input from the working group is being used to refine the applications. A new, single, streamlined application for all subsidies and loans will be implemented by November 30, 2015.

2) **NYSERDA should explore and consider alternative loan qualification criteria to address the denial rate associated with debt-to-income ratio (DTI).**

   NYSERDA response: NYSERDA accepts this recommendation. DTI is one of the important characteristics reviewed by investors who would be expected to be approached in the future to refinance the loans that have been issued. At about 35 percent, DTI is currently the highest denial category for GJGNY LMI loan denials. NYSERDA has adjusted underwriting criteria five times since the launch of the GJGNY loan program, gradually increasing the percentage of consumers qualifying for loans through Tier 2 from 8 percent in fiscal year 2011-2012 to 14 percent in 2014-2015. NYSERDA will continue to monitor the performance of loans associated with consumers who have high DTI ratios, and adjust underwriting criteria in a responsible manner over time as warranted. In addition, NYSERDA will review denials with the loan originator to better understand whether there are patterns or typical reasons for denials that could inform underwriting criteria, and based on input from the Working Group, work with CBOs, contractors and others to identify other factors that should be considered to ensure applicants receive a full review of their financial situations. NYSERDA is also exploring options for treating expected energy bill savings as a source of income for the loan applicant, and expects to modify its loan underwriting standards by the end of 2015. A possible option is to increase DTI limits in line with an announcement by the U.S. Department of Housing and Urban Development (HUD) in August 2015 to increase its income qualifying ratio by 2 percentage points for homes that achieve a Home Energy Score (HES) of at least six.[4]

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[4] While the HUD policy is based on a home achieving a HES of at least six, NYSERDA would instead adopt the criteria change for homes undergoing qualified energy improvements. The HES is similar to a vehicle's miles-per-gallon rating. It helps homeowners and homebuyers understand how much energy a home is expected to use. NYSERDA will be exploring the role the HES may play in New York through initiatives of the Clean Energy Fund, and may update the underwriting criteria in the future as appropriate. Visit http://energy.gov/eere/buildings/home-energy-score for additional information about the Home Energy Score.

3) **NYSERDA should explore options for providing access to loans with a 20-year term.** Some projects struggle to meet cost-effectiveness requirements of the GJGNY loans within a 15-year loan term. Where the life of the energy improvement is at least 20 years, a longer term loan may enable the project to move ahead.

   NYSERDA response: NYSERDA accepts this recommendation and is exploring other loan options that may accommodate a longer loan term. Some new options may be introduced into the market within the coming year.

4) **NYSERDA should review the cost effectiveness test methodology used on the loan pro forma to ensure the predicted energy bill savings are as accurate as possible.**

   NYSERDA response: NYSERDA accepts this recommendation and will review its calculation of energy savings used to determine project cost effectiveness to ensure that the methodologies are based on current utility rates and that they include appropriate cost escalation factors to arrive at reasonable projections of anticipated energy cost savings over the loan term (for On-Bill Recovery Loans) or the project useful life (for Smart Energy loans.)

4.3 Recommendations to Address Barriers Regarding Affordability of Projects or Loans

1) **NYSERDA should institutionalize a relationship with the Green and Healthy Homes Initiative (GHHI) and other federal or regional initiatives, as appropriate, to be more accessible to the communities in NYS.** These initiatives may provide funding for common problems found in low-income housing, which could be combined with NYSERDA program funds to enable energy efficiency work to go forward.

   NYSERDA response: NYSERDA accepts this recommendation and with input from the working group, will work with the GHHI and other programs to determine how NYSERDA can best facilitate access to those programs for communities. These conversations will commence in early 2016 and be ongoing.

2) **The project application should require a listing of other funding sources that may be supporting a project, and the terms associated with that funding (deadlines, for example).** In addition, NYSERDA should request evidence of approval of the other funding sources before the project is approved to move forward, so that work is not started without certainty of funding. Finally, NYSERDA should make contractors aware that customers may be using sources of funding that have special requirements, and that the status must be checked prior to work starting. NYSERDA response: NYSERDA accepts this recommendation and will implement it in the fall of 2015.

3) **NYSERDA should provide greater flexibility for project approvals where there is a chance financing may fall apart due to missed deadlines.** Projects that have critical milestones approaching should be given priority for processing.

   NYSERDA response: NYSERDA accepts this recommendation. NYSERDA has made significant progress in reducing project approval times over the past year, reducing the average approval time from 9 days to 1 day. Further improvements will be introduced before the end of 2015 allowing automated approval of up to 90 percent of projects through the program portal. However, for customers with more complex applications that cannot be automatically approved, NYSERDA will provide training to contractors and CBOs on the means to highlight critical timing issues. The approval timeframes for projects, loans, and subsidies do not align and may be the source of confusion. Projects are approved in the portal for 90 days. Contractors can obtain extensions by resubmitting for a new approval. Subsidy and loan approval letters provide 6 months to complete the project from the date the applications were pre-approved. NYSERDA will grant extensions for up to 1 year from the date of application submission. NYSERDA will work with partners and stakeholders to review the approval timeframes and extension processes, and provide training to contractors and CBOs, to ensure these administrative processes are not the cause of a consumer losing funding from another source.

4) **NYSERDA should identify means to finance necessary non-energy improvements. These improvements may include increasing the amount of the GJGNY loan that could be used for non-energy improvements; or working with other State agencies or other organizations to create a package of financing for consumers that would not require separate applications.**

   NYSERDA response: NYSERDA accepts this recommendation and will increase the percentage of the Smart Energy Loan that can be used for energy-related health and safety measures, or other critical work that will prevent energy work from proceeding. New loan guidelines will be established by November 30, 2015. In addition, over the coming year, NYSERDA will work with other State agencies, local organizations, CBOs and others to identify opportunities to expand or incorporate into a project financing options for non-energy improvements in a streamlined manner.

5) **NYSERDA should develop options for expanding the definition of LMI as it relates to GJGNY loans** (for example, related to eligibility for low interest rates) and the impact of those options. NYSERDA should continue to work with stakeholders, including the GJGNY Advisory Council and the GJGNY LMI Working Group in defining LMI for the GJGNY loan program.

   NYSERDA response: NYSERDA accepts this recommendation and has developed several scenarios regarding the expansion of the definition of LMI, options for establishing loan interest rates based on income eligibility, and the potential impact of those various scenarios. NYSERDA is working with the GJGNY Advisory Council and the GJGNY LMI Working Group to develop a plan for improving GJGNY loan fund sustainability, with the goal of ensuring LMI households continue to have access to financing needed to implement energy efficiency and renewable energy projects.

6) **NYSERDA should consider using third-party energy assessors to provide consumers with more confidence in the savings potential of their home.** Alternatively, NYSERDA should provide energy auditor training to CBOs who can then assist with energy assessment interpretation for consumers who are in need of this type of assistance.

   NYSERDA response: NYSERDA accepts this recommendation and agrees that consumers need to have confidence in projected savings and energy assessment results. Current HPwES program policies allow for a third-party option, and NYSERDA will continue to work with stakeholders to explore alternative business models that may support third-party energy assessments. NYSERDA is also pursuing other means to improve projections of savings and consumer confidence in assessment results, such as the energy efficiency meter and residential performance contracting. These business models may provide a guarantee of savings to the consumer, and ongoing measurement of results based on energy consumption data from the utility. Additional information on this approach can be found in NYSERDA's Clean Energy Fund Supplemental Filing,[5] submitted to the NYS Public Service Commission on June 25, 2015.

4.4 Recommendations to Address Barriers Regarding Outreach and Assistance to LMI Households

1) **NYSERDA should provide the CBOs with improved access to project information related to their clients, and should track meaningful events (such as the completion of an energy assessment) in the records.**

   NYSERDA response: NYSERDA accepts this recommendation, and is in the process of making improvements to the Home Performance project portal. Based on this input, NYSERDA will improve CBO access to project information in upcoming portal upgrades, which are expected to be implemented by the end of 2015.

2) **NYSERDA should facilitate improved access for CBOs to certain financing information related to their clients, with client permission, to enable the CBO to better assist the client in providing information needed to obtain loan approval.**

   NYSERDA response: NYSERDA accepts this recommendation and will work with the loan originator to develop a disclosure agreement for consumer signature granting access for a specific CBO and/or contractor to certain loan related information, within legal limits. This new form will be available no later than the end of 2015.

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5 Visit http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={FC3FBD53-FBAC-41FB-A40E-3DA0A5E0866A} to view NYSERDA's Clean Energy Fund Supplemental Filing.

3) **NYSERDA should identify and provide information about additional project financing resources to CBOs and contractors as well as additional training and technical support so CBOs, contractors, and other community-based organizations can help customers who have non-energy improvement needs.**

   NYSERDA response: NYSERDA accepts this recommendation. Over the next year, NYSERDA will work with community leaders, CBOs, contractors and others to identify other potential sources of funding, and an appropriate means to disseminate information to interested parties.

4.5 Recommendations to Address Barriers Regarding Access to the Program

1) **NYSERDA should work with contractors to increase the numbers and improve geographic coverage of contractors certified to perform work in manufactured housing.** This housing type is largely occupied by LMI households, and the energy efficiency needs are significant. NYSERDA should ensure there are adequate training opportunities to support the certification needs.

   NYSERDA response: NYSERDA accepts this recommendation and will work with the Building Performance Institute, contractor trade associations, contractors, and others over the next year to develop strategies and plans for improving delivery of service to this important sector.

2) **NYSERDA should provide clear guidance on the loan qualification requirements associated with manufactured housing.**

   NYSERDA response: NYSERDA accepts this recommendation, and updated the underwriting guidelines on July 30, 2015. Certain manufactured homes are eligible for GJGNY financing. The applicant and contractor must certify that the home is permanently affixed to its foundation. For the Smart Energy Loan, the applicant must own the home, but is not required to own the land where the home is located. For the OBR Loan, the applicant must own the home and is required to own the land where the home is located. NYSERDA will provide training to contractors and CBOs on these guidelines in upcoming webinars in the fall of 2015.

3) **NYSERDA should work with organizations participating in the Community Development Financial Institutions (CDFI) program, and with NY Green Bank, to develop loan underwriting criteria that can be supported through capital investments, including philanthropic organizations, or to otherwise collaborate on loan offerings.**

   NYSERDA response: NYSERDA accepts this recommendation to the extent possible. NYSERDA recently hired a director of financing solutions who will be exploring numerous opportunities to increasing capital investment in energy services, and expanding the reach of financing for residential energy improvements in New York. The role of CDFIs, philanthropic organizations, and other sources of private capital, along with innovative financing approaches and underwriting criteria, will be explored. New approaches to financing will be introduced to the New York State market on an ongoing basis.

4) **NYSERDA should work with the NYS Department of Public Service (DPS) to bring residential programs under a single umbrella to facilitate comprehensive energy improvements, including energy efficiency and renewable energy.**

   NYSERDA response: NYSERDA accepts this recommendation to the extent feasible. Certain programs have specific budgets targeted to LMI households, and specific energy savings and other goals associated with the funding sources. There may be risks associated with merging initiatives that have differing objectives, and the risks must be mitigated to ensure LMI consumers continue to benefit and maintain consumer protections as intended by the programs. NYSERDA will work with stakeholders to develop implementation strategies that will more easily facilitate comprehensive projects without adding undue risk.

5 Recommendation Requiring a Change to the GJGNY Act

This section provides an LMI Working Group recommendation to address a barrier described in Section 3.5. The recommendation reflects the discussion of the working group.

The current OBR statute should be changed to allow off-site, net-metered technologies (those not attached to the structure) to be financed.

NYSERDA response: This recommendation would require a change to the GJGNY Act. The GJGNY Act provides for loans issued for "qualified energy efficiency services," which is defined as a modification to a structure, based on recommendations contained in an energy audit that will increase the energy efficiency and conservation of an existing structure (residential, multifamily, or nonresidential structure.) NYSERDA agrees that the GJGNY Act does not provide for loans for qualified energy services that are implemented on a different structure (for example, a remotely located solar electric installation). NYSERDA anticipates that community net metering can provide significant benefits to LMI households and is one of the better options for increasing LMI participation in the solar electric market. In addition, NYSERDA is currently working to make financing for shared renewable opportunities available to LMI and other households through the proposed Clean Energy Fund and other initiatives.

6 Other Barriers for LMI Households Related to GJGNY

The GJGNY LMI Working Group was charged with providing information and recommendations as to how to increase participation of and issuance of loans to LMI households seeking qualified energy efficiency services. During the discussion, working group members also identified barriers and challenges for LMI households related to other aspects of the GJGNY program. Those barriers, related to workforce development, jobs for disadvantaged workers, and the Reforming the Energy Vision (REV) proceeding, are described here, and related recommendations for overcoming those barriers are presented in Section 7. The report will be provided to the GJGNY Advisory Council for further discussion of these additional recommendations.

6.1 Barriers Regarding Community Development through Jobs

Lack of adequate data. As stated in the GJGNY Act, one of the goals of the program is to create job opportunities, including opportunities for new entrants into the State's workforce, the long-term unemployed and displaced workers. In addition, per the Act, to the extent permitted by statute, regulation or federal grant a preference would be given for training and placement of women, minorities, low-income individuals and populations with barriers to employment. Inadequate employment and labor data is available to assess the impact of the GJGNY in creating good jobs for disadvantaged workers and struggling communities.

Inadequate funding for CBO role in connecting workers to jobs. It is difficult for contractors to find trained workers, and difficult for potential workers to find and enroll in training. NYSERDA previously entered into unique contracts with CBOs for this purpose. However, in the subsequent round of CBO solicitations, NYSERDA did not offer individual contracts for workforce development outreach services, but rather combined workforce development outreach services with other CBO outreach services in the solicitation, resulting in less funding being targeted for this purpose.

Consistent quality of jobs created through the program for disadvantaged workers. It is not clear that the program investments in workforce training and development initiatives are resulting in quality jobs for disadvantaged workers. NYSERDA requires contractors to sign community benefit agreements, which include hiring and job standards, if the contractor is participating in an aggregation pilot, meaning the contractor benefits from receiving a group of geographically co-located and interested customer leads from the CBO. However, only two CBOs are offering aggregation in their region. In other regions, nothing compels contractors to hire from a pool of candidates that have participated in GJGNY training initiatives or to hire from disadvantaged communities.

6.2 Potential Challenges Related to Reforming the Energy Vision

There is the potential for complexity and confusion among customers and contractors as energy services and programs change through Reforming the Energy Vision (REV). LMI households, in particular, may be impacted by the changing landscape and not have the information they need to make choices that will most benefit their households. Language barriers, lack of knowledge regarding the new roles for utilities, and other barriers may be difficult for LMI households to overcome.

7 Additional Recommendations

The GJGNY LMI Working Group was charged with providing information and recommendations as to how to increase participation of and issuance of loans to LMI households seeking qualified energy efficiency services. During the discussion, working group members also identified barriers and challenges for LMI households related to other aspects of the GJGNY program as presented in Section 5. Related recommendations for overcoming those barriers are presented in this section. There are no NYSERDA responses to these recommendations at this time; the report will be provided to the GJGNY Advisory Council for further discussion of these recommendations.

7.1 Recommendations to Address Community Development through Jobs

1) **NYSERDA should work with NYS Department of Labor (NYSDOL) and others to improve data collection regarding job development, wages, employer benefits, employer hiring patterns, and other issues for the purpose of analyzing the impact of GJGNY on disadvantaged individuals and communities.** NYSDOL should determine to what extent existing data and processes can be used to develop this information, and what additional data collection and analysis might be required.
2) **NYSERDA should increase funding for GJGNY workforce development programs, focus resources on programs that benefit disadvantaged workers as intended by the GJGNY Act, and organize workforce development programs into an integrated continuum of offerings that promote real career pathways for disadvantaged workers.** This continuum should support flexible and innovative program designs that maximize participant access and retention through multiple on-ramps and the provision of adequate wraparound support services. Disadvantaged workers should be able to engage this continuum of workforce programs with clear expectations about potential advanced training and employment related outcomes tied to successful participation, and a clear understanding of the trajectory of programs that would prepare them to achieve particular outcomes. NYSERDA should develop and support a continuum of workforce programs that culminates with registered apprenticeships in the energy efficiency and renewable energy sectors. Apprenticeship programs are generally recognized as the gold standard for industry training. NYSERDA's support for apprenticeship program models would serve clear public policy objectives, especially when combined with a commitment to enhanced access for disadvantaged workers. Mechanisms that enhance access to apprenticeship programs, such as direct indenture/direct entry, currently exist and should receive NYSERDA's explicit endorsement.
3) **NYSERDA should establish multi-stakeholder committees to communicate issues, lessons learned, and best practices related to clean energy jobs.** This action may include discussions of the role that CBOs can play in supporting job development, and other means to create a "one-stop approach" to career opportunities for disadvantaged workers.

4) **NYSERDA should work with NYSDOL and stakeholders to explore the adoption of program-wide labor standards for GJGNY, and the viability of mandatory versus voluntary standards, in order to leverage investments in workforce development and job training.** Labor standards could include:

   - Local and targeted hiring from the community/region in which projects occur, and that technical workers come from a disadvantaged category, including people of color, young adults, women, formerly incarcerated, low-income household, refugee/immigrant, veteran, long-term unemployed, or frontline climate-vulnerable community.
   - A designated network of community-based organizations, training program providers, and workforce development agencies as first source worker referral partners capable of leveraging NYSERDA and NYSDOL workforce investments to match disadvantaged workers with GJGNY-affiliated contractors.
   - Support for existing registered apprenticeship programs. In cases where existing programs need to be expanded or new programs need to be developed, NYSERDA should work with NYSDOL and stakeholders representing organized labor, industry, and community to expand existing or develop new apprenticeship programs.
   - A community hiring hall model of transitional employment and hands-on training for disadvantaged workers as part of a continuum of workforce programs. The community hiring hall model would empower community-based and workforce organizations to directly hire disadvantaged workers for short-term paid job assignments with GJGNY affiliated contractors.
   - A mandatory living wage and benefit standard where no prevailing wage standard applies.

   More detail on each of the recommended standards is provided in Appendix C. There was not a consensus on some aspects of this recommendation. In particular, although proposals were recognized as having value, not all parties agreed that some of the proposed standards should be mandatory.

5) **NYSERDA should authorize the creation of stakeholder advisory committees in regions across the State.** These committees would be democratically organized and would include workers, and representatives from community-based organizations, organized labor, industry, workforce development agencies, NYSERDA, and NYSDOL. Advisory committees would be responsible for (a) developing local strategies to meet program-wide minimum labor standards; (b) monitoring compliance and reporting findings to NYSERDA on a regular basis; and (c) making recommendations to NYSERDA around improvements to workforce development programs and the implementation of labor standards.

6) **NYSERDA should restore dedicated funding in GJGNY for CBOs to perform workforce coordination activities.** CBOs have demonstrated an ability to advocate for the interests of disadvantaged workers. NYSERDA should continue to contract with CBOs to assist disadvantaged workers access and navigate GJGNY training and employment opportunities. CBOs could take on the additional responsibility of convening or co-convening regional stakeholder advisory committees.

7.2 Recommendations Regarding Access to the Program for Non-LMI Consumers

Although it is commendable that the GJGNY program should expand access to solar power for LMI households, expanding such access should not harm or limit access to GJGNY initiatives, including the loan, for non-LMI households currently eligible for the program.

7.3 Recommendations Regarding Challenges Related to REV

NYS DPS and NYSERDA should engage stakeholders, including CBOs, in the planning process for REV and the proposed Clean Energy Fund as early as possible.

NYSERDA should make a commitment to using CBOs as part of the solution to overcoming challenges for LMI households in the future. NYSERDA should ensure that all disadvantaged communities statewide have a CBO to turn to for assistance.

Appendix A: Green Jobs-Green New York Financial Status Report

Green Jobs – Green New York Financial Status Report
March 31, 2015

This report is submitted pursuant to Section 5, Part SS, of Chapter 58 of the Laws of 2015[1] regarding the financial status of the Green Jobs – Green New York (GJGNY) Program created under the Green Jobs - Green New York Act of 2009 (the Act).

Attachment 1 provides a summary of the GJGNY funding as of March 31, 2015. The funding for the program was provided through $112 million in initial funding allocated through the GJGNY Act from proceeds from the Regional Greenhouse Gas Initiative (RGGI), $1.8 million in accumulated interest earnings on unexpended funds, and $5.2 million in additional RGGI funding allocated for the program for a total of $119 million in funding available to date for the program. The funding has been allocated to components of the GJGNY program with input from the GJGNY Advisory Council established under the Act.

Through March 31, 2015, GJGNY expenditures (including loans issued) total $151.1 million. Loan repayments and proceeds from bonds/notes issued to finance certain loans total $64.1 million, resulting in an unexpended balance of $32 million. Outstanding contract obligations (encumbrances) total $12.9 million and an additional $17.4 million is committed (pre-encumbered) for pending contract awards, energy audit subsidies, and loans approved but not yet issued. As of March 31, 2015, the program had a total of $1.8 million in uncommitted funding.

[1] No later than 30 days following the effective date of this act, the authority shall provide a report to the executive, temporary president of the senate, speaker of the assembly, the chair of the senate committee on energy and telecommunications and the chair of the assembly committee on energy regarding the financial status of the green jobs – green New York program. The report required under this subdivision shall detail the current fund balances, total expenditures, and encumbered and committed funds since the program's inception.

Attachment 1

GJGNY Status - 3/31/15

Component	Approved Funding 1	Expenses and Loans Issued	Loan Repayments and Proceeds from Bonds/Notes	Unexpended (Cash) Balance	Encumbered (Contractual Commitments)	Preencumbrances (Pending Contract Awards and Loans)	Uncommitted	
Outreach and Marketing	$ 15,510,000	11,098,662		4,411,338	2,786,416	79,913	1,545,009	2
Workforce Development	7,337,565	5,514,791		1,822,774	1,500,158	-	322,616	
Energy Audits - Single Family	23,407,270	18,749,510		4,657,760	-	2,206,251	2,451,509	
Energy Audits - Multifamily	5,418,920	3,783,770		1,635,150	1,066,553	3,075	565,523	
Energy Audits - Small Commercial /NFP	9,660,911	4,848,695		4,812,216	4,812,216	-	-	
Revolving Loan Fund - Single Family	35,129,701	91,661,766	63,271,046	6,738,981	287,411	14,647,000	(8,195,430)	3
Revolving Loan Fund - Small Commercial/NFP	1,774,917	767,324	76,095	1,083,688	280,152	-	803,536	
Revolving Loan Fund – Multifamily	5,423,169	3,431,476	750,722	2,742,415	285,009	428,500	2,028,905	
Administration	7,840,000	7,380,344		459,656	-	-	459,656	
Evaluation	5,600,000	2,374,234		3,225,766	1,857,289	-	1,368,477	
NYS Cost Recovery Fee	1,904,000	1,443,764		460,236	-	-	460,236	
	$ 119,006,453	151,054,334	64,097,862	32,049,981	12,875,203	17,364,739	1,810,039	

[1] Includes initial $112 million provided through the GJGNY Act, $1,779,747 in accumulated interest earnings, and $5,226,707 in additional RGGI funds allocated to the program during fiscal year 2015-16.

[2] NYSERDA plans to extend CBO contracts through June 2016.

[3] The enacted 2015-16 State Budget directs NYSERDA to continue providing such financing through March 31, 2016 to all customers that were eligible for the program at the end of 2014. Based on current loan applications and loan origination volume, NYSERDA estimates that additional funding of $80 million will be required to continue GJGNY financing through March 31, 2016 (approximately $32 million for residential energy efficiency loans and $48 million for residential solar loans. NYSERDA will allocate $80 million from the Regional Greenhouse Gas Initiative to fund these loans. NYSERDA anticipates to finance a pool of energy efficiency loans during 2015 through bonds to be issued by the NYS Environmental Facilities Corporation through the Clean Water State Revolving Fund, and estimates that bond proceeds of approximately $19 million will be available (after paying a $30 million Short-Term Financing Note issued to EFC in 2014) to replenish the RGGI fund. In addition, NYSERDA is exploring a bond or note financing for residential solar loans and anticipates that proceeds of approximately $34 million will be available to replenish the RGGI fund. Combined, the total reimbursements are anticipated at approximately $53 million. The $27 million in net funding required for the GJGNY financing program extension was not contemplated when the fiscal year 2015-16 RGGI Operating Plan extension was first formulated. Rather than adjusting proposed funding for programs currently supported in the fiscal year 2015-16 Operating Plan, NYSERDA proposes to fully fund the GJGNY financing extension from future program revenues.

Appendix B: Green Jobs-Green New York Low-to-Moderate Income Working Group Meeting Notes

Green Jobs-Green New York
Low-to-Moderate Income Working Group
April 28, 2015
Meeting Notes

Agenda

10:00 a.m.	Welcome and Introductions	John Rhodes
10:15 a.m.	Purpose of the Working Group; Proposed Work Schedule	John Rhodes
10:25 a.m.	Overview of LMI Sector Statistics	Chris Coll
10:35 a.m.	Overview of GJGNY Loan Program and Performance to Date	Jeff Pitkin
11:00 a.m.	Discussion - Shaping the Work Plan	John Rhodes
11:50 a.m.	Next Steps	John Rhodes

Meeting Notes

1) The meeting was chaired by John Rhodes. A list of the Working Group members, meeting attendees, and the slide presentation are attached.
2) The purpose of this first meeting was to frame the issue and obtain agreement on a path forward.
3) The proposed work schedule was reviewed and no concerns raised; however it was noted that the group should establish specific topics/agendas for the upcoming meetings. It was noted that the work product will be a collaborative effort.
4) Data regarding the LMI sector and the loan program and performance were presented. These slides are intended to be used as resources during the upcoming months.
5) The following points summarize the discussion, including questions regarding the information and data presented:
    - <u>Question regarding income levels:</u> how were the 60 and 80 percent median income thresholds chosen for the data and NYSERDA programs?
      <u>Response:</u> NYSERDA uses “60 percent of the state median income” for EmPower as it aligns with HEAP and Weatherization eligibility. “Eighty percent of the state or median income” is a threshold used by some other affordable housing programs and was therefore chosen for NYSERDA’s Assisted Home Performance with ENERGY STAR program.
    - <u>Clarification:</u> slides reflecting “LMI loans” are for energy efficiency only, as those households are qualified as LMI through the Assisted Home Performance incentive process. For loan applications, only the applicant’s income is collected – we do not collect household income on a loan application at this time, so we have no way of knowing whether a PV loan applicant meets LMI criteria. NYSERDA will look at the possibility of collecting more data in the future.
    - <u>Questions and Comments on the GJGNY loan in general:</u>
        - <u>Question:</u> What is the delta for consumer participation between (for example) those with FICO scores of 540 and those with FICO scores of 640?
          <u>Response:</u> Applicants are denied financing for several reasons. NYSERDA’s data indicates there is not a strong correlation between FICO score and debt-to-income ratio, for example, which is a primary reason for denial.

Comment: The one thing that is actionable [related to loan approval] is helping consumers improve their FICO scores. Third parties can't do anything about an income level or debt level; but third parties can help them improve their FICO score.

- Contractors are not marketing the OBR and Smart Energy loans equally.
- Smaller contractors are having a very difficult time with loans because the time to pay the contractor is long. This seems to be a problem in particular for PV.
- Compared to other commercial loan programs, contractors have to carry the unpaid loan cost eight to eleven weeks. The slow payment process is a major barrier.
- In lieu of progress payments, suggest the installer get a project completion sign-off from the customer to trigger final payment.
- The payment process for PV projects takes a long time due to "a lot of hands" being involved. There needs to be a simpler process.

  Response: For on-bill recovery, the Legislation says that the charge on the bill cannot start until the project is completed. NYSERDA has likewise applied that same standard to the Smart Energy Loan. NYSERDA's understanding is that Energy Finance Solutions (EFS – NYSERDA's loan origination contractor) makes payments fairly quickly, so the problem is likely somewhere in the process of determining that the project is complete. [Note that the final payment release for a PV project requires a letter from the utility indicating the system is connected and operational, which can take a long time in some cases.]
- The loan program is working well on the energy efficiency side. The biggest opportunity is to educate contractors on how to use the program and the loans. Many larger contractors have this capability in-house; the smaller contractors need the education to use the loans more effectively.
- Fluctuations in employment status or other household challenges can interrupt participation in the program, and then it is difficult for a household to get re-engaged with the contractor and the loan.
- The cap on the loan needs to be increased, and/or payback period changed.

- Comments on On-Bill Recovery (OBR) loan: Fewer OBR loans are undertaken because the contractors are not promoting that loan.
  - Contractors have issues with the loan because there are no benefits to them, especially to small contractors. OBR loans take longer to process/approve and are more labor intensive for the homeowner and contractor.
  - There is frustration from consumers that some projects don't qualify for the OBR loan.
  - People get approved for OBR, but then a switch is made to the Smart Energy Loan.

  Response:
  - There is an OBR statutory requirement to file a notice of the loan with the county, which then also requires a title search, and which slows down the process. The title search has to be done in person in the County Clerk's office as it is not electronic.
  - The OBR, by law, also has strict cost-effectiveness requirements. It may be that for some projects the contractors steer customers away from OBR if they are sure, based on experience, that the project will not meet the requirements.
- Comments on PV tax credits and affordability:
  - There are both federal and state tax credits involved. A barrier is that some LMI consumers do not have the ability to use tax credits at all, and those that can, may not be able to recover them in one year. This impacts the economics of the project.

    - May need a two-stage loan product: one stage to finance the tax credits, which may be paid back in a shorter time period with low or no interest; and a second, long-term stage for the balance of the loan.
    - A 6kw system at 375/watt, you would get $6,750 in federal tax credits—it's a 35% tax credit. It can be up to 40-50% of the system cost. If the consumer cannot take advantage of the tax credit it is a significant cost burden that other consumers don't have.
    - Are there changes to the PV incentive structure that can be considered? Would an increase in incentive structure be possible and helpful for the LMI customers? If the conversation is about how to expand participation, then increasing the incentive structure should be considered.
- <u>Comments on GJGNY boundaries:</u>
    - The original intent of the GJGNY legislation was to have this program to be open to everyone.
        - NYSERDA should not be focusing just on LMI households in the future.
        - It appears that people that are utilizing the solar program are not LMI.
        - GJGNY should not use 80 percent of area median income as the threshold.

      <u>Response:</u> We don't know how many of the PV participants are LMI, as we don't have the data needed to perform that analysis. We also do not have household income data for those who are above the 80% AMI threshold, which would enable us to better understand who is currently using the loan.
    - Limited health and safety measures are covered by the program [due to both program and loan cost effectiveness requirements], which is a problem for serving LMI homes – as there are often health and safety measures needed before energy efficiency work can get done.
    - NYSERDA should not be eliminating workforce development initiatives from GJGNY.
- <u>Comment on Clean Energy Fund (CEF):</u> The discussions here should inform the CEF.
  <u>Response:</u> At a minimum, this group must deliver on its recommendations around LMI for GJGNY. NYSERDA embraces discussion about market rate and other topics, and the group should feel free to discuss the relationship to the CEF. We can factor ideas about LMI into the CEF, but this group has to deliver on GJGNY LMI recommendations.
- <u>Comments on goal setting:</u> Is there any direction about what the goals or intent of this group is? Is it to increase participation? Is it to provide real savings to LMI households? What are the true goals of this LMI program? Should we be setting a list of what the goals are of a good LMI program?
  <u>Response</u>: This working group can take on the issue of goal-setting. The spirit of NYSERDA's thinking is that we aim for value for LMI customers. We want to have a strong view about what the minimum requirements are of a good program, taking into account workforce development, value to LMI customers, and high participation rates while dealing with resource scarcity. NYSERDA wants to keep the "minimum good package" in mind.
  <u>Comment</u>: Some elements of a minimum good package should include consumer protections; energy savings projections; and community benefits, such as workforce training and hiring opportunities.
  <u>Question</u>: Do we have an idea of the savings being delivered to LMI customers, not OBR? Are they saving 15% off their energy bills? 60%?
  <u>Response</u>: Average savings in the program are about 20% - that's energy efficiency specifically through the Home Performance with ENERGY STAR program.
  <u>Comment</u>: The experience of a Working Group member is that the savings for LMI households is, on average, 40%.

Summary of Action Items and Future Discussion Topics

1) NYSERDA will fulfill the following Data Requests:

- Market rate loan data VS. LMI loan data, as opposed to “all loans” and “LMI loans” as is currently shown.
- Loans by utility service territory.
- Loan and participation data for the multifamily and small commercial/not-for-profit sectors.
- More detailed view of applications, including those denied, cut by various factors, such as FICO, income, debt-to-income, etc.
- Information on savings for households.

2) NYSERDA will explore how to collect more complete household income data for all loan applicants (currently, only applicant/co-applicant income is included on a loan application – not household income.)

3) The following topics have been identified for more discussion:

- Process issues related to payment of loan proceeds, in particular for PV loans, and the associated burden of delay. NYSERDA will explore what can be done to improve the process-related issues identified prior to the next working group meeting.
- Process issues related to applying for both the loan and the Assisted subsidy. NYSERDA will explore this issue prior to the next meeting to see what can be done.
- Contractor participation challenges with the OBR loan.
- Contractor education to better make use of and sell loans.
- Affordability issues, in particular related to LMI household inability to leverage tax credits. for PV, and related incentive structures.
- Ways to increase participation in the energy efficiency market in general – not just loans.

4) Suggest that group members consider offering their thoughts about the following in preparation for the next meeting:

- A majority of the focus today was on loans and processes. How do we want to describe and think about challenges to overall participation?
- Issues of affordability and incentive structure.
- Contractor outreach and education.

Information received by Working Group members in advance of the next meeting will be used to shape the agenda and meeting materials.

Comments regarding any of the above, new topics, but in particular, the items in #4 above, should be sent to Karen Hamilton using “GJGNY ideas” in the subject line. Karen’s e-mail address is: karen.hamilton@nyserda.ny.gov.

Green Jobs-Green New York
Low-to-Moderate Income Working Group
April 28, 2015 Meeting Attendees

John Rhodes – NYSERDA (Chair, NYC)
Stephan Edel – Center for Working Families (phone)
Bill Feldmann – Empire Clean Energy Supply (phone)
Adam Flint – Binghamton Regional Sustainability Coalition (phone)
Stan Greschner - Grid Alternatives (phone)
Jeff Irish – Hudson Solar (phone)
Guy Kempe – RUPCO (Albany)
Kathleen Langton - Affordable Housing Partnership Home Ownership Center (Albany)
Carlo Lanza – Harvest Power (NYC)
Euphemia Martin – Public Policy & Education Fund of New York (PPEF) (NYC)
Michael Murphy – All Star Energy (Buffalo)
Ellen Redmond – IBEW (NYC)
Henri Rivers – Drum River Renewable Energy & Efficiency (phone)
Marriele Robinson – Long Island Progressive Coalition (NYC)
Angela Tover – Sustainable South Bronx (NYC)

Additional attendee:
Edward Rush, Center for Working Families, for Stephan Edel (NYC)

NYSERDA staff Albany:
Jeff Pitkin
John Ahearn
Susan Andrews
Kevin Carey
Chris Coll
Mishel Filisha
Karen Hamilton
Susan Moyer
Carley Murray

NYSERDA staff Buffalo:
Kelly Tyler

NYSERDA staff NYC:
Michael Colgrove
Sharon Griffith
Max Joel

Green Jobs-Green New York
Low-to-Moderate Income Working Group

John Rhodes - NYSERDA (Chair)
Michael Corso - Department of Public Service
Stephan Edel - Center for Working Families
Bill Feldmann - Empire Clean Energy Supply
Adam Flint - Binghamton Regional Sustainability Coalition
Clarke Gocker - PUSH Buffalo
Stan Greschner - Grid Alternatives
Jeff Irish - Hudson Solar
Guy Kempe - RUPCO
Kathleen Langton - Affordable Housing Partnership Home Ownership Center
Carlo Lanza - Harvest Power
Euphemia Martin - Public Policy & Education Fund of New York (PPEF) – Southern Tier
Michael Murphy - All Star Energy
Ellen Redmond - IBEW
Henri Rivers - Drum River Renewable Energy & Efficiency
Marriele Robinson - Long Island Progressive Coalition
Hal Smith – Home Energy Performance by Halco
Angela Tover - Sustainable South Bronx
Hubert Van Tol – Pathstone

Green Jobs-Green New York
Low-to-Moderate Income Working Group
5-26-2015
Meeting Notes

Agenda

2:00	Welcome and Introductions	John Rhodes
	Summary to Date	
2:15	Update on NYSERDA Action Items	John Ahearn, David Sandbank
2:35	Discussion – Identification of Other Barriers to Participation	John Rhodes facilitates
3:00	Discussion - Deeper Dive on Contractor Training Needs Regarding Loans – Development of Recommendations	John Rhodes facilitates
3:20	Discussion – Deeper Dive on Issues of Affordability and Incentives - Development of Recommendations	John Rhodes facilitates
3:45	Process for Developing Final Report	Chris Coll
3:50	Discussion of Next Steps and Agenda for Next Meeting	John Rhodes

Update on NYSERDA Action Items from previous meeting

Payment process and timeliness

- NYSERDA has been reviewing feedback regarding cash flow issues with GJGNY loans and looking at ways to get around the hold-up caused by documentation of project completion.

Improve application process

The loan application and Assisted Home Performance application are under review. A sample of a revised application should be available for Working Group member review within two weeks. The revision is attempting to implement a standard definition of household income and reduced documentation requirements.

- Comment: screening the customer according to your guidelines prior to their application for financing would be helpful. Pre-screening tools would assist.
- Response: one strength of a universal application is that it can screen for financial products and qualification for Assisted Home Performance as well. The burden on the applicant will not be heavy at first.
- Action item: NYSERDA will give CBOs and contractors about 10 days to review the revised application and provide feedback. Reviewers should look at the new application with "two eyes" – first with their own, then through those of the customers who use it. The faster NYSERDA can get feedback, the faster the application can be improved. Reviewers should provide feedback on the application during this review period and also after it is in use.

Discussion – Identification of Other Barriers to Participation

Barriers regarding Financing

- Comment: More discussion on how to combat the DTI and FICO barriers is needed. We need to reopen the "Tier 3" discussion.
- Comment: There is always going to be a percentage of the low-income population who should not be taking out loans. The application improvements will not address this issue.
- Question: Is it possible to do a pilot whereby applicants are judged on utility bill payment history? Response: NYSERDA has backed off on the idea of piloting that, due to difficulty of obtaining the bill payment history. The energy consumption data system is a totally different system than the historic bill paying data system. But it's something we can take another look at. Not being able to get this information is a problem.
- Question: Some of the customers who are unable to qualify for the GJGNY loans are able to get CDFI loans and credit union loans. Do people have experience with this type of organization?
  Response: It depends where you live. We could open up that conversation with them.
  Response: Pathstone does that kind of lending, but it's not a big part of our portfolio.
  Question: Are there different criteria for underwriting?
  Response: No. Our CBOs collection of data is different.
  Response: Credit unions can have different underwriting criteria.
  Action item: Explore other lending programs for qualification criteria and other best practices.
- Question: Why is NYSERDA looking at mortgage history in addition to FICO as an indicator? The mortgage history piece seems irrelevant and would be reflected in the FICO.
  Response: NYSERDA we can take a look at that. We will follow up.
- Comment: For people in our area who have been turned away from on-bill, we've been able to get them a loan from the Affordable Housing Corporation which is a loan and also grant funding. Sustainable South Bronx has been able to develop a partnership with them. This is a possibility to look at.
- Question: Do we want to be talking about a target loan denial rate? What's a threshold level of access to capital that might be measured by denial rate?

Barriers regarding awareness

- Question: How many consumers are aware of the expanded criteria of Tier 2 loans? Do we need to take a deeper dive into the data that NYSERDA already has?
- Question: We can think of things as following a lifecycle:
  1. Awareness.
  2. If it's an option, is it an option for me?
  3. Pulling everything together .
  4. Time runs out or it takes too long.

  Do these four "seasons" trigger any response?

Response: Awareness is a huge part of the program. They need to know the program enough to go from the initial stage through to retrofit—more than just the summary of the program that we give everybody. The program materials are not clear enough.
Comment: The program is initially an easy sell. But after that it's a tug-of-war all the way through. The loan originator does not actually help people - the CBO needs the information the loan originator has in order to help people.
Response: There are restrictions on what the loan originator can share.
Question: Why can't they share? Why can't the consumer sign a disclosure? If you're trying to help a customer, you need details. There's lots of room to work outside the box and still do very prudent lending.

- Comment: The goal can't be just to pre-screen folks. The real question is how do we make sure there's money available for those who need it?
  Comment: We need to be talking about how we can get people through, rather than focusing on how we can screen people out.
- Comment: We need to be thinking about all New Yorkers if we're really serious about getting solar on homes and having a cleaner, greener New York. We should not limit the program.
- Comment: If the goal is all new Yorkers, we need to be sure that we're thinking about all New Yorkers.
- Comment: The eligibility income for the Assisted subsidy has to be raised for more people to be able to get into the program.
- Comment: People who are over income for the subsidy can get into the subsidy because NYSERDA only looks at the tax form. So people with a 401K, who are better off, are able to get in the program.
  Action item: NYSERDA review the income reporting requirements.

Discussion - Deeper Dive on Contractor Training Needs Regarding Loans – Development of Recommendations

Note: A financing webinar is being planned on how to sell the products and how to present the loan offerings.

- Comment: We hope you'll recommend that they talk to the CBOs, who are doing a great job at that.
  Response: We can make that recommendation in one of the slides, but there are regions that CBOs are not serving.
  Comment: People need advance notice about webinars. I'm hearing that people are too busy to keep up with all the trainings.
- Comment: We need to not have gaps in the CBO geography.
- Suggestion: Host a webinar on how to work effectively with CBOs. This is a good opportunity for training.
- Comment: CBOs will be able to take a role in talking about shared solar.

Discussion – Deeper Dive on Issues of Affordability and Incentives - Development of Recommendations

- Comment: A major obstacle about tax credits has been identified. Is there a possibility of making a longer term on the loans for LMI specifically? What I'm specifically targeting is 25 years. Is that a possibility?
  Response: We'll take that back. This has come up over and over. The market doesn't even like 15 year loans.
  Comment: For LMI, it looks like there's a need for the 25-year option. Perhaps look at a regionalized incentive? Could we take a look at individual LMI customers and put them through the cost-effectiveness calculator and see what's necessary for these customers?
  Question: How does stretching out the loan term affect the customer savings?
  Response: It's still a good proposition. Also, we should look at a different incentive structure.
- Suggestion: If we're going to consider mortgage repayment history, why not consider the Homeowner Affordable Modification Program (HAMP)? They follow a formula that drills down to what the level of incentive that needs to be to make the home cash neutral. The model was developed by government in an effort to respond to the mortgage crisis.
  Question: Is it the case that every home might receive a different incentive amount?
  Response: Yes.
  Question: Do you think there would be concerns about fairness?
  Response: The current standard can also be considered unfair. You can be one penny over the threshold and be out of the program.
  Response: Those kinds of decisions are made every day, and yes, it is not necessarily fair, but it works.
- Comment: Some regions have a high percentage of mobile homes. NYERDA should reconsider the restrictions on mobile homes and see how you can better help them.

Process for Developing Final Report

A Working Group report is due October 1, 2015 to Governor's Office and legislature. We will be drafting it throughout the coming months and send it out for review and comment. We'll aim to have a final draft of the report by September 1, 2015. Comments will be due by September 22, 2015. Ideally, there will be a consensus. When there is not, dissenting opinions will be noted.

- Question: What are we reporting? Is it future-looking or historic?
  Response: We'll be providing our recommendations to the Governor's Office. The report is future-looking.
- Comment: We should include our policy recommendations concerning REV, CEF, etc. – about the broad energy reforms going on.

Post-Meeting Notes

After the May 26th meeting, e-mail traffic resulted in the following additional points:

- Comment: Job quality and job access standards, and workforce and contractor development, as critical issue areas we consider as a group and recognize as part of our purpose moving forward. In my estimation these issues have received scant attention within the various venues devoted to New York State's clean energy reform agenda but stand as a hallmark of Green Jobs-Green NY. As a group I think we need to reconcile this contradiction and arrive at some recommendations around effective job creation and contractor development strategies for GJGNY that could also carry forward into e.g., the Clean Energy Fund and REV. PUSH Buffalo can provide a presentation on these topics.
  Comment: Building science training has also been valuable for CBO staff.
- Comment: The discussion about using utility bill payment histories focused on the problem of getting utility companies to research and share this information, but there is another approach that is simpler. One of Vantage Score's claims is that they more accurately present the credit risks for "thin file" customers and LMI customers, and they claim to use some alternative payment information to develop their scores. Has NYSERDA looked at using Vantage Score instead, or if wedded to FICO, looked at the FICO versions that use a methodology more like Vantage Score?
- Response: We have not but can look into it.

Action Items and Requests for Next Meeting

Data requests

- Look at participation data, loan data by CBO region.
- GIS mapping of data

Action Items:

- All should investigate other lending programs targeting LMI households for qualification criteria and lessons learned.
- NYSERDA will give CBOs and contractors about 10 days to review the revised Loan/Assisted application and provide feedback. Reviewers should look at the new application with "two eyes" – first with their own, then through those of the customers who use it. The faster NYSERDA can get feedback, the faster the application can be improved. Reviewers should provide feedback on the application during this review period and also after it is in use.
- Some who are better off financially may be receiving a benefit because of the type of income they have – which is often of a type that is not reportable but that lower income households do not have. NYSERDA will review the requirements for reporting income on the loan application.
- NYSERDA will explore whether mortgage history should be reviewed in addition to FICO on the loan application.
- NYSERDA will review the issues regarding serving mobile homes.
- NYSERDA will look into the "Vantage Score" system as a credit service for customers not able to qualify for loans through traditional methods.

The next meeting is scheduled for June 25 at 2:00 p.m.

Green Jobs-Green New York Low-to-Moderate Income Working Group
Meeting Notes, 6-25-2015

Agenda

2:00	Welcome and Introductions
2:10	Update on NYSERDA Action Items: Payment Process for PV Loans, Application Process for Residential Loans and Assisted Subsidy , Action items from last meeting
2:20	Additional loan fund and project slides by CBO territories
2:30	Self-Sustainability of Loan Fund – Discussion and Debrief of GJGNY Advisory Council Meeting
3:00	Discussion to develop recommendations – expanding the reach of Tier 2, or "Tier 3"; other criteria for qualifying consumers
3:30	Discussion – GJGNY loans and Community Solar
3:50	Discussion of Next Steps and Agenda for Next Meeting

Attendees

Working Group members:

- Stephan Edel - Center for Working Families
- Bill Feldmann - Empire Clean Energy Supply
- Monica Ferreri – NYS Department of Public Service
- Clarke Gocker - PUSH Buffalo
- Stan Greschner - Grid Alternatives
- Jeff Irish - Hudson Solar
- Guy Kempe - RUPCO
- Kathleen Langton – AHP Home Ownership Center
- Carlo Lanza - Harvest Power
- Ellen Redmond - IBEW
- Lisa Tyson - Long Island Progressive Coalition
- Angela Tover - Sustainable South Bronx
- Hubert Van Tol – Pathstone
- Karen Hamilton, for John Rhodes (NYSERDA)

NYSERDA staff
CSG: Tina Carton (CBO Implementation contractor)

<u>Initial Updates and Action Item Status</u>

- PV application and loan process is being streamlined. The PV team is considering using the electrical inspection as the point of payment instead of waiting for the letter from the utilities. This is being examined to make sure it can be used statewide.
- All related application documents are being examined and aligned under a further streamlining effort. Hard copy applications will be distributed for review and feedback in approximately a week to CBOs, select contractors, and working group. Next step is to see how all of these can be incorporated into a streamlined online form. Exploring making a single hardcopy application for Assisted Home Performance subsidy and GJGNY Loan – however it may make the application too

long and complex. The website is also under examination for clarity regarding application process. NYSERDA's approach is to make sure revisions are clear enough that any applicant can complete it independently.

- It was noted in a previous meeting that some applicants who should not qualify for the Assisted program might qualify if only income shown on the tax return is included on the application. The application will now more clearly ask for total household income.
- In a previous meeting, NYSERDA was asked why we are using mortgage payment history and FICO, vs one or the other. Clarification - we're only doing this for Tier 2 loans.
- After the last meeting, NYSERDA was asked to look into the Vantage score as a possible replacement for FICO. FICO scores are the most prominent credit scoring model. Vantage score model produces a score between 501 and 990. Like other scoring models, it ranks consumers in terms of risk. The report consulted as a reference showed that the correlation between Vantage and other scoring models is high. Different scoring models produced similar results about 80% of the time. The scores do not vary among demographics, with lowest variation among lower age groups and those in low-income neighborhoods. NYSERDA will continue to explore this option, but is taking into consideration the report's conclusions.
  Suggestion: Retain utility bill payment history as a measure of credit worthiness.
  Question: Regarding requirement of mortgage payment history, is there any analysis about mortgage payment history as compared to FICO score. Why is it still being considered?
  Response: They are independent. Both credit score and mortgage payment history are equivalently considered in terms of qualification.
  Suggestion: We should discuss the possibility of decoupling the two measures in both this context and the PV context.
- In a previous meeting, NYSERDA was asked to look at barriers associated with serving mobile homes. Contractors serving mobile homes through the program are required to have two certifications –one from the Building Performance Institute which is designed for mobile homes, and one from the NYS Department of State. This is a challenge, as not a lot of contractors have both. NYSERDA will look into ways to increase the number of certified contractors. In addition, GJGNY Smart Energy loans can only be used when the mobile home is attached to a permanent foundation; on-bill recovery loans care not available for mobile homes. NYSERDA acknowledges that further exploration is needed to determine how to better serve mobile homes.

Loan Fund and Project Slides

Slides 7-10 show information about project participation by CBO region.

- Question: If a program participant does not use a GJGNY loan, do you have information about source of payment for the project?
  Answer : No.
- Comment: RUPCO is doing a series of case studies to reveal why it is we can't serve who that can't serve. There will be 20-30 LMI projects in the sample and it should be ready next month. That should highlight the variety of reasons projects cannot go forward, and perhaps it will identify some trends or consistencies.
- Requests for data:
  - Data that provides a more complete picture by CBO – numbers of audits submitted, completed, conversion rates, approvals & denials.
  - How many CBO-initiated audits resulted in Empower applications and how many of those applications resulted in work being done.

Response: NYSERDA can explore. Not sure if we're tracking referrals by individual CBOs in EmPower, or just in aggregate.

- o Zip code level data.

Self Sustainability of the Loan Fund

Slides 25-28 were also presented to the GJGNY Advisory Council on June 9, 2015. The slides show the status of the GJGNY budget, commitments and expenditures. Additional details of the loan fund show the imbalance between the amount of loan funds being issued and the amount of repayments. A number of challenges facing the loan fund were discussed. It was noted that NYSERDA will be providing additional information to the Advisory Council at their request, including the interest rate that would be needed to cover administration costs.

- Question: Have you considered tiered interest rate pricing?
  Response: NYSERDA has considered this, but initially thought it might limit loan availability. At the time of the launch of the loan fund, a universal rate was established.
- Question: Regarding the overall budget, how much data do you have on Workforce Development (jobs created, wages paid, etc)?
  Response: NYSERDA has done a study on that topic and has other data. NYSERDA will distribute the relevant evaluation reports.
- Question: Is there any risk that this program will no longer be able to make loans?
  Response: The 2015-2016 NYS Budget requires NYSERDA to keep the loan fund open through March 31, 2016, to all of those who were eligible for loans on Jan 1, 2015. To accommodate this requirement, NYSERDA allocated $80 million in RGGI funds, of which we believe about $53 million will be repaid through bond proceeds, leaving a net cost to RGGI of $27 million. With the type of growth we are seeing, it would be a challenge to keep the program operating in its current form.
  Question: Are there any other possible pools of funding to access, such as federal funds?
  Response: NYSERDA did use some federal ARRA funds to form a loan loss reserve early on in the program, but we are not aware of any federal funds that would help our efforts at this time.

Development of Recommendations Regarding "Expanding the Reach" of the Loan Program

- An action items from a previous meeting was to look at the qualification criteria and lessons learned from other organizations issuing loans to LMI customers. NYSERDA contacted some CDFIs and researched minimum FICO score, maximum debt to income, and any alternative criteria when considering loans for LMI consumers:
  - o CDFI #1 – No minimum FICO, but once they get to 550, they start looked negatively on it. They have made loans to people with scores in high 400's and have been paid in full; have made loans to people with higher FICOs and they have defaulted – so not an exact indicator. The preference is to look at credit patterns (aggressively paying off other debts, for example.) DTI ratio maxes out at 48% but that is too high and may be dropped to 45% soon. No credit counseling is required, however free financial counseling is available.
  - o CDFI #2 – LMI is their primary market. Credit below 600 causes lender to look closer for mitigating circumstances, such as job loss, as reason for score. Denial is avoided by use of co-signer. DTI is 40 % or a co-signer is required. No credit counseling may be required for first-time home buyers etc. All denials are reviewed by committee.

  Question: How did they get the additional information about the consumers?
  Response: A lot of it is available on credit report.

- Comment: The GJGNY program tries to simplify the process so much, that we miss an opportunity to know the whole story. When you ask people what their income is, people give inaccurate answers. They may not understand what is considered income. Some have complex situations, like rental property income, business losses, etc. It requires CBOs to help the customer get the information and document it. How will you know if the information provided is correct?
  Response: NYSERDA will be using an electronic verification of income, and where the reported income can be verified, that will be enough. EFS will be use an income estimator provided by TransUnion. For an applicant, it requires providing the names of all the relevant names of the household. We think that will work for about 30% of applicants. For the other 70%, we can prequalify applicants on the basis of their reported income, but then require the submission of documentation to verify before final approval.
  Response: That will only work for people in "typical" financial situations, not people with unusual or complex circumstances.
- Comment: CDFIs work with consumers to help get this information.
- Question: If CDFI's are already serving this more challenging sector, those that GJGNY cannot reach with Tier 2, should GJGNY be trying to expand further into the sector and replicate services offered by CDFIs?
  Response: Don't try to replicate the service. Work with the existing services provided by CDFIs.
  Response: By doing that, what is given up is the subsidized rate and on-bill.
- Comment: Look at turnover rate for homes in LMI areas. That On-bill stays with the home is a big selling point.
- Comment: Consider blended financing, with some capital coming from GJGNY.
  Response: That is the type of loan GJGNY has for small business and multifamily.
- Comment: GJGNY has the ability to do a deeper subsidy than most CDFIs can offer.
- Question: Can the CDFI cover the entire state or are they region specific/utility specific?
  Response: Most CDFIs serve regions, some the whole state.
  Question: Couldn't the CDFIs work together to create a universal program that works under these circumstances?
  Response: Service area maps are available from CDFIs, but the operational capacity of each CDFI is separate from what is theoretically possible. There is a NYS-based CDFI group being established.
- Comment: It seems the Green Bank could be instrumental in supporting the work of CDFIs.
- **Recommendation:** Exploration is necessary, but NYSERDA should look for ways to collaborate with and leverage CDFIs.
- Comment: Flexibility to have a longer term for PV loans is going to be key to making the program work as incentives (including federal tax credits) are reduced or eliminated.

Loans and Community Solar

- **Recommendation:** Suggest legislative change to allow for off-site renewables being eligible for financing. Right now, the PV system has to be part of the building.
- Comment: In the case of rental communities: Is there any way to have some flexibility in the case of rental complexes, where loans are not tied to real estate ownership, through the property management agency or something similar? It's like people buying into power—more like a PPA model.
- Comment: The group needs to consider who are you financing - the developer? The community itself through a co-op model?

- Comment: Financing nonprofit developers might be an easier sell than private developers.
- Question: Is the minimum loan amount set legislatively?
  Response: This was set by NYSERDA.
  Comment: That's another variable to consider. Perhaps lower that to $500 or $1000.

Next Steps and Action Items

- Further recommendations for consideration can be submitted via e-mail to Karen Hamilton (who will forward to the working group) or to the entire group directly.
- To ensure we can complete our task with the time remaining, it was agreed that sub-groups should be formed to develop recommendations in different areas. **Those Working Group members who were not able to make the June 25th Working Group meeting should feel free to join any sub-groups** (and please let Karen Hamilton know so the list of group members can be updated.) The following groups were established (additional sub-groups may be formed):
  - Expanding the reach of financing: Guy Kempe, Hubert Van Tol, Ellen Redmond
  - Job creation, access to jobs: Clarke Gocker, Ellen Redmond, Angela Tover, Stan Greschner
  - Need for case management: Kathleen Langton
  - Contractor training on loans: Karen Hamilton will work with contractors in the working group.
- Action items:
  - NYSERDA will provide additional data by CBO region – such as numbers of audit applications, number of audits completed, conversion rates to projects, loan denial rates
  - NYSERDA will provide loan data at the zip code level
  - NYSERDA will determine whether conversion rates for EmPower projects submitted by CBOs are available
  - NYSERDA will provide the working group with evaluation reports and other metrics on the GJGNY workforce development initiatives
  - All working group members are invited to submit recommendations for overcoming barriers to Karen Hamilton, who will forward them to the Working Group for consideration (or members can send them to the Working Group directly.)
  - NYSERDA will consider what approaches might improve services to mobile homes.
- July 29th meeting agenda:
  - Coordinating community resources, including presentation by Clarke Gocker on behalf of PUSH Buffalo
  - Improving contractor/CBO coordination
  - Overview of the status of EmPower

GJGNY LMI Working Group Meeting Notes
7-29-2015

Attendees

- Working Group members:
  - Marriele Robinson - LIPC
  - Clarke Gocker – PUSH Buffalo
  - Hubert Van Tol – Pathstone
  - Kathleen Langton – AHP Home Ownership Center
  - Guy Kempe - RUPCO
  - Ellen Redmond - IBEW
  - Stan Greschner - Grid Alternatives (and additional staff)
  - Euphemia Martin – PPEF Southern Tier
  - Hal Smith – HALCO
  - Stephan Edel - Center for Working Families
  - Bill Feldmann - Empire Clean Energy Supply
  - Mike Murphy – Home Comfort
  - Angela Tover - Sustainable South Bronx
  - Adam Flint - Binghamton Regional Sustainability Coalition
  - Karen Hamilton, for John Rhodes (NYSERDA)
- NYSERDA Staff

Agenda

Welcome and Introductions
Update on NYSERDA Action Items
Coordinating community resources; presentation by Clarke Gocker; development of recommendations
Report out from sub-groups with recommendations
Discussion of the status of EmPower
Discussion of Next Steps and Agenda for Next Meeting
Improving contractor/CBO coordination; development of recommendations

Note – agenda was reordered to ensure highest priority items were addressed.

<u>Update on NYSERDA Action Items</u>

- Jennifer Johnson briefed WG on the memo title "User Acceptance Testing for the revised Residential Credit Application and Assisted Subsidy Application". The memo outlines NYSERDA's efforts to revise these applications and update business processes with the end goal being an improved customer experience. The memo was distributed to the WG prior to the meeting and the revised applications will be sent out shortly. The memo discusses three potential application options and at this time NYSERDA is requesting feedback and the preferred option from the working group within 10 business days after they receive the complete package for review. The memo & revised draft applications will also be sent out to other CBOs and contractors.

- Option A – Streamlined version of the current Credit & Subsidy Applications
- Option B – Combined Credit & Subsidy Application (for all Program Types)
- Option C – Combined Credit & Subsidy Application for Program Types where subsidy is available; & and a separate Combined Credit & Subsidy Application for other programs where subsidy is not available.

NYSERDA is looking to move forward with one of these options or a modification based on one of these options; NYSERDA is open to other options as well that may not have been considered up to this point.
Question: Will the application include authorization that allows for CBO & Contractor to share info?
Answer: Authorization will be provided via a separate rider to avoid confusion.

- NYSERDA provided the working group with additional loan and project data by CBO region and ZIP Code.

- NYSERDA provided links to evaluation studies done for GJGNY.

- NYSERDA was asked to provide conversion rates for EmPower projects submitted by CBOs. Unfortunately this data is skewed and it is not very straightforward. However, overall the number of projects is very small and generally speaking, where there are referrals of EmPower eligible customers from a CBO, most of those projects appear to be moving forward.
  Question: Do applications that CBOs send to EFS get counted?
  Answer: Yes, however it is a labor intensive process for to track CBO generated projects due to the number of systems in which the information resides (different program systems were not set up originally to track this information).

Coordinating community resources, presentation by Clarke Gocker, development of recommendations

- Clarke walked the group through his presentation entitled *Lessons in Program and Resource Coordination Targeting LMI Communities*. The presentation was comprised of four segments:
  - PUSH Green + Healthy Homes (GHHI)
  - PUSH Green Small Commercial Green Building Retrofit Program
  - PUSH Green Job Training Demonstration Project (included short video interviewing 6 CEO participants)
  - PUSH Green Warm and Dry Program

- A series of discussions followed seeking to develop recommendations from the WG on how to increase participation in GJGNY through coordination:
  - Recommendation: NYSERDA should institutionalize a relationship with GHHI so that it's more easily accessible by the communities in NYS.
  - Discussion: Coordination of outside funding sources and project approval is an ongoing issue for CBOs. Better coordination between NYSERDA, contractors, CBOs and applicants is needed when different funding sources are involved so that funding is not pulled back because a deadline expires. There should be more visibility into the other parts of a project by all parties.
  - Response: NYSERDA asks that CBOs use Erik Gilbert as their point of contact at NYSERDA when they encounter any delays.

- Recommendation: The project application should include means to identify the terms associated with the various sources of funding that may be associated with a project, and perhaps evidence of approval of other grant sources before moving forward.
  Recommendation: There should be more flexibility regarding the timing of project approvals where there is a chance financing may fall apart due to missed deadlines.

- Question: Is there any coordination with apprenticeship programs in the PUSH Buffalo area?
  Answer: No, there really hasn't been; might be an opportunity to get organized labor and building trades involved.
  Follow up Comment: Reference: Youth Build on Long Island. Could this model be used in LMI areas? Coordinate with apprenticeship programs to provide a pathway to a career.
  Response: NYSERDA is working on this as part of Workforce Development strategy. Suggest talking with NYSERDA workforce development staff (Rebecca and/or Adele.)
- Question: Is there a way to better integrate financing for energy improvements and non-energy repairs? Can NYSERDA lower payback requirements? Can NYSERDA integrate financing specific for non-energy repairs with the financing for the energy improvements?
  Response: Some of this is within NYSERDA's control and some is not. Not much latitude with OBR loan due to legislation and bill neutrality. However, with Smart Energy Loan there is more latitude.
  Comment: Barriers to moving forward with energy improvements typically are roofs, structural repairs, inability to secure funding.
  Recommendation: NYSERDA should consider increasing the amount of financing available for non-energy improvements in a Smart Energy Loan.
  Comment: Explore creating funding packages, including combining financing from other State agencies, as a way to alleviate some systemic issues; rather than having several agencies provide separate funding. However, lack of capacity in other agencies could lead to more delays.
  Recommendation: NYSERDA should provide list of additional resources to CBOs; as well as additional training and support so CBOs (and contractors and other community-based organizations) can help customers who have non-energy improvement needs.
  Comment: Time spent grant writing is less time in the field.
  Comment: Consider whether there should be a recommendation for additional funding for CBOs, as small CBOs have limited resources for finance packaging work.
  Comment/Question: How do we share this information with contractors and agencies not served by CBOs?

Report out from sub-groups with recommendations

- WF Job Standards sub-group – Clarke
  Comment: No recommendations at this time; expected in next 1-2 weeks.

- Case Management – Kathleen
  Comment: Recommendations include removing duplicative efforts; increased access to the portal; ability to upload utility bills.
  Response: John Ahearn briefed group on upcoming portal integration. CBO integration is possible after EmPower integration. John also briefed group on pilot set to launch allowing utility bills to be uploaded electronically.

Action item: John to revisit recommendations from CBOs with regard to priorities for data access.

- Financing Opportunities through CFIs – Guy

  Comment: Group is not at a point where they can provide recommendations however they did have a conversation with the Green Bank. Additional conversations will take place with other lenders.

- Contractor Training on Loans – Karen

  Comment: Karen noted that Chris Coll did have a conversation with contractors regarding training recommendations for improving sale of financing products within the contractor base; should be getting recommendations out to everyone soon.

Need for Additional Meetings?

- Karen stressed the need to have a good solid draft of our report by September 1st. Karen will send out shortly the 1st section of the draft report which will focus on barriers and articulate recommendations that have come out of process so far.
- Can we effectively develop recommendations via email or should group consider adding another meeting/conference call? By late August consensus is needed on recommendations going into report. Final report is due by October 1st.

  Action item: Karen will look to schedule a second call for August, and suggested that sub-groups meet as well prior to the next working group meeting.

Discussion of the status of EmPower

- Karen briefed WG on status of EmPower. EmPower is supported through the end of 2015. Requested $11M has been approved; plus up to additional $8M. There is a proposal through the CEF to continue funding EmPower starting in 2016. We need to align the number of referrals and projects with the funds remaining through 2015 so as to avoid long delays in service.
- Contractors have been asked to maintain their normal levels of activity and have been given quotas for projects assigned through the end of Dec 2015; contractors are asked not to advertise EmPower so as not to generate more than their normal level of activity.

  Question: Are applicants that are in the queue being considered in the quotas?

  Answer: Yes.

  Concern: CBO outreach brings in more than GJGNY customers – it also brings in EmPower applicants. What should CBOs do?

  Answer: Continue outreach efforts for GJGNY; just do not increase those efforts in ways that specifically target EmPower customers. NYSERDA can accommodate "business as usual" referrals that result from GJGNY marketing.

Improving Contractor/CBO Coordination; development of recommendations

Comment: CBOs can't track the status of audits accurately. Many times the milestone dates are not actual dates.

Recommendation: Audit record in the database should include date of actual audit.

Recommendation: Grant CBOs access to the portal so they can track audit progress more accurately. Knowing that an audit is complete is critical.

Response: What is usually tracked for program metrics is reservation claim date, audit completion date, and audit claim date. With regard to continued development of the portal, work for automating approval of the audit will start within the next month or two. John also noted that NYSERDA can look at what resources are available to address CBO needs once current portal upgrades are completed.
Questions: Are there any anticipated coordination issues with LMI PV & Home Performance?
Answer: The plan is to use existing processes for admin and applications for customers and contractors as much as possible. Customers' recent participation in AHPwES or EmPower would satisfy some efficiency requirements. Income verification process is expected to be the same.

Next Steps

- Karen to schedule a second August meeting/call.
- Proposed agenda topics for August
    - Updates from Sub-groups
    - Review of recommendations developed to date
    - Review feedback of 1st draft of the report

Lessons in Program and Resource Coordination Targeting LMI Communities

PUSH Green + Healthy Homes (GHHI)

What is it?

- Green and Healthy Homes Initiative (GHHI) (www.ghhi.org) - National public-private partnership model for coordinating funding and resource delivery
- Whole house approach to energy efficiency plus health and safety
    - Focus on mitigating exposure to indoor environmental hazards including lead, radon, asbestos, VOCs, pests, mold/moisture, CO, tobacco smoke, household accidents/injury, fire
    - Public health goals - reduce incidence of childhood lead poisoning; reduce asthma triggers and hospital admissions
- GHHI Buffalo
    - Launched in 2010 - supported by $2.6 million NYS Attorney General settlement of Clean Air Act violation; GHHI workforce development program supported by Open Society Foundation
    - Since 2010, over 400 units of low income housing have been supported - PUSH Buffalo is one of 5 local GHHI production partners; over 130 units served
    - GHHI investments leverage WAP, Assisted Home Performance, and EmPower
    - 2015 Social Innovation Fund *Pay for Success* program subgrantee - capacity building to de[illegible] feasibility of social impact bond financing model (mechanism to privatize risk of program fai[illegible] socializing program benefits)

PUSH Green + Healthy Homes (GHHI)

"No workscope proposed. 'ALM' visible on boiler distribution in basement. Entire south side roof needs complete tear-off. Wood shingles under asphalt shingles visible from inside attic, soft and damp. All windows in poor condition with chipping paint. Mold-like substance visible on large area of 2nd floor walls. Bathroom fan inoperable with no window, causing condensation build-up on all surfaces. Possible live K&T wiring in home. Home beyond program funding."

"Large amount of rat feces visible throughout basement. 'ALM' oŔ ÖŅKÚ ŇŌUÚŦŌMÛÚŌŖŔ MŖŖÚU ŌŔ MKUŅRŅŔÚ KŔŇ KŦŖÛŔŇ ÖŅKÚ UÛTT living area. Undersized and improperly installed furnace along with ventless gas heater in use. Knob and tube wiring visible iŔ KÚÚŌN floor, improperly installed electrical throughout house. Several small gas leaks located in basement, client advised to repair ASAP. Mold/mildew issues visible in living space with areas of plaster needing repair. Several broken and improperly installed windoŰU throughout house. Exterior window frames heavily weathered, damaged. Entire exterior of house has chipping/peeling paint. Rear 2nd floor entry stairs unstable. Home beyond energy scope of work."

"Audit attempted 4-29-13. Cancelled due to broken sewage pipe from basement to street causing human waste to back-up/spill onto basement floor. On-going issue is causing clients basement belongings to rot and deteriorate in area. Mold-like substance KQUŖ ŮŌUŌMQŅ ŌŔ QŌŮŌŔÕ UTKNŅ KQŖŔÕ ŰŌÚÖ ŇŖÕ Ô in the attic. Boiler distribution covered with 'ALM' in poor condition. DHWT shut off valve leaking causing additional standing water and damage to home. Home beyond ene scope of work. Client fully aware of situation."

PUSH Green + Healthy Homes (GHHI)

Lessons learned:

- Intensity of resource inputs a function of economic disinvestment at neighborhood and household levels - how do we deal with worst cases?
- Sustainability of funding sources across agencies and programs
- Strong centralized local coordination and TA capacity is essential
- Capable network of resource providers and production partners
- Articulation of workforce investments with investment in unit production using appropriate levers (RFQs/RFPs, community workforce agreements) is critical

PUSH Green Small Commercial Green Building Retrofit Program

What is it?

- In 2012, PUSH awarded $800,000 grant by Empire State Development Corp. through the Western Region Consolidated Funding Application (CFA) process
- PUSH serves as a pass through for incentive grant funds to small commercial businesses in economically distressed communities for catalyst building improvements
- Steps to participate:
    - Apply for a GJGNY audit through the CFA process
    - Receive ASHRAE Level 1 GJGNY audit from CJ Brown Energy and decide to move forward with the installation of recommended and/or non-recommended efficiency measures
    - If necessary, seek approval for GJGNY financing for recommended efficiency measures
    - Develop complimentary workscope of non-energy or non-efficiency related catalyst improvements
    - If necessary, seek approval for financing for non-recommended efficiency and general building repair or improvement measures
    - Select contractors to perform improvement measures
- Maximum incentive grant award is $35,000 or ¼ of the total capital improvement cost for the proje is greater
- Progress to date:
    - 60 GJGNY audits
    - 4 projects funded, >$70,000 in incentive grants, $390,000 in leveraged investment

PUSH Green Small Commercial Green Building Retrofit Program

Lessons learned:

- Greater access to comprehensive project finance
- Small business owners within disinvested commercial districts have trouble accessing capital
- Affordable microfinancing alternatives needed for smaller projects
- ASHRAE Level 1 audit fails to communicate total scope of energy efficiency improvement needs
- NYSERDA participating lender model is undersubscribed
- Unknown marketplace of qualified, certified professional energy efficiency improvement contractors leaves customers without verifiable options
- Common building typologies marginalized in the program:
    - Multi-metered mixed-use commercial and residential buildings
    - Churches - low overall energy consumption related to reduced operating hours make project payback untenable

PUSH Green Job Training Demonstration Project

What was it?

- In 2013, PUSH was awarded a $122,000 capital improvement grant from NYS Homes and Community Renewal/Community Foundation for Greater Buffalo (CFGB) as part of the Western Region CFA process. HCR funding braided with a $100,000 NYS Department of Labor/CFGB grant to the Center for Employment Opportunities (CEO). The combined grant awards were used to rehab a PUSH-owned single family home on the West Side of Buffalo into green affordable housing and to place transitional employment work crews from CEO on the project for purposes of hands-on construction training
- Approximately 100 transitional workers placed on the job site during 18 month construction schedule
- Transitional workers received OSHA 10-hour for construction certification, case management, and job placement/retention services from CEO
- PUSH's affordable housing subsidiary, Buffalo Neighborhood Stabilization Corp., hired 6 CEO participants for full-time living wage job assignments on a large multi-unit mixed use retrofit project in South Buffalo
- PUSH Green Job Training Demonstration Project at 16 Winter Street, Buffalo, NY 14213

Lessons learned:

- Articulate with NYSERDA and DOL workforce support and business services infrastructure
- Scale-up and institutionalize as part of green affordable housing development
- Greater participation and accountability from industry partners

PUSH Green Warm and Dry Program

What is it?

- In 2014, PUSH awarded ~$500,000 from the Affordable Housing Corp. (AHC) for GHHI-style energy efficiency and building repair program
- Program launched in May 2015 with goal of assisting 30 LMI (<80% AMI) households in zip code 14213 with maximum grant awards of $16,000
- Program seeks to coordinate and leverage investments made by Assisted Home Performance and EmPower program
- PUSH permitted to self-perform partial or complete scopes of work funded by AHC that are valued under $5,000 - opportunity for PUSH to build general contracting capacity and utilize local workers

Lessons learned:

- Participation could be deterred by the fact that the AHC grant is actually a zero inter forgivable loan requiring a lien to be placed on the property

Green Jobs-Green New York
Low-to-Moderate Income Working Group
8-18-2015
Meeting Notes

Agenda

Welcome and Introductions	John Rhodes
Overview of the feedback received on the three options for updated Assisted subsidy and financing applications	Karen Hamilton
Reports from Sub-groups, including recommendations: ● Expanding the reach of financing	Guy Kempe, Hubert Van Tol, Ellen Redmond, Mariele Robinson
● Job creation, access to jobs	Clarke Gocker, Ellen Redmond, Angela Tover, Stan Greschner
● Need for case management	Kathleen Langton
● Contractor training on loans	Chris Coll
Feedback on the first draft of the report, including recommendations developed to date, and request for consensus or dissenting views on those recommendations.	John Rhodes, Karen Hamilton
Identification and discussion of any barriers/recommendations not already addressed by working group/sub-groups.	John Rhodes
Discussion of Next Steps and Agenda for Next Meeting	John Rhodes, Karen Hamilton

Attendees
Working Group members

- Euphemia Martin – PPEF Southern Tier
- Stephan Edel – Center for Working Famlies
- Hubert Van Tol - Pathstone
- Stan Greschner – Grid Alternatives
- Guy Kempe - RUPCO
- Jeff Irish – Hudson Solar
- Hal Smith – Hal Co.
- Adam Flint – Binghamton Regional Sustainability Coalition
- Mike Murphy – Home Comfort
- Clark Gocker – PUSH Buffalo
- Marriele Robinson – Long Island Progressive Coalition
- Monica Ferreri – NYS Department of Public Service
- Ellen Redmond – IBEW
- Kathleen Langton – AHP Home Ownership Center

NYSERDA Staff

Slides presented at the August 7, 2015 GJGNY Advisory Council meeting regarding the sustainability of the GJGNY residential loan fund have been made available to the GJGNY LMI Working Group.

Overview of the feedback received on the three options for updated Assisted subsidy and financing applications

Karen Hamilton provided an overview of the changes represented in the application options provided to the Working Group, noting that Option C would include PV, and comments received from working group members. Three Working Group members preferred Option C. Four Working Group members preferred Option B. Kathleen Langton proposed Option B and discussed edits she feels would clarify the language and process. Guy Kempe proposed Option C with edits.

Question: Instead of asking the applicant what programs he/she is applying to, is it possible to have one application process for all NYSERDA programs where people fill out an application and then NYSERDA identifies all programs/incentives for which the applicant is eligible?
Response: That could be just as confusing to an applicant as listing the programs on the application, and the loan limit may not allow participation in multiple programs.
Response: Since the requirements for a complete loan package vary from program to program, the loan originator (EFS) uses the program name to ensure all the relevant documents are in the package.
Question: Why not list what is needed for income documentation up front?
Comment: NYSERDA and EFS will initially pre-qualify people based on their stated income. If that stated income can then be verified through a third-party service, no more income documentation will be required. If unable to verify the stated income, EFS will request more information.
Comment: If further verification is needed, EFS will send a follow up letter. NYSERDA might be able to provide a companion piece to the application for the CBOs and contractors about what kinds of further information might be needed.

Reports from Sub-groups, including recommendations

- **Expanding the reach of financing** (Guy Kempe, Hubert Van Tol, Ellen Redmond, Marriele Robinson)
  Marriele discussed a recommendation to revisit replacing debt-to-income ratio (DTI) with utility usage history, with the goal of increasing LMI participation.
  Response: The current standard is set at the 100% DTI level. It is possible to increase that percentage without going back to considering the utility usage information. However, NYSERDA believes DTI to be a better predictor of ability of consumers to make the loan payments.
  Comment: Suggest running a pilot with utility payment history or a different schema to see what effect the change would have on payment ability.
  Question: Should it be examined what impact on approval rate it would have if we took into consideration the energy savings that will in theory represent an increase in the applicant's income?
  Comment: There needs to be a dramatic change in order to actually draw more LMI consumers.
  Recommendation: NYSERDA should consider several options for how to address denial rate associated with DTI ratio.

The subgroup is still interested in exploring the CDFI approach and will do so in the next couple of weeks.

- **Job creation, access to jobs** (Clarke Gocker, Ellen Redmond, Angela Tover, Stan Greschner)

  No recommendations forwarded by the subgroup, yet but they will be able to do so in the coming weeks.

  Comment: Baseline workforce data needs better collection methods. Attention needs to be paid to working with labor standards. Local advisory committees need to be able to communicate with NYSERDA. There should be work toward restoring workforce coordination that CBO's have engaged in.
  Comment: Certified apprentice programs are already in place. Additions should be made to the programs that are already in place rather than reinventing the wheel.
  Comment: Different parts of the state have different models and different stakeholders. There is a need to ensure flexibility to local job training force. The approach needs to be as broad as possible.
  Comment: An effort should be made to look at the experience of various training consortia to glean what lessons they have learned. Need to improve ability to find information on where to find what training.

- **Need for case management** (Kathleen Langton)
  Comment: There is also a need for CBOs to have access to CRIS and HP Portal. In response, John Ahearn provided a summary of current NYSERDA efforts regarding these topics.
  Comment: We need a place for the customer to consent to disclosure of certain credit application information to CBOs.
  Response: NYSERDA is working on a separate disclosure agreement, as we believe it is in the best interest of the consumer to have this stand out from the rest of the application.

- **Contractor training on loans** (Chris Coll, Karen Hamilton)
  Chris Coll spoke with a group of contractors to get input on types of training that would be useful. In general, there is agreement that training is needed and that current training does not fully address the barriers and issues.
  Recommendation: NYSERDA should work with the industry and training partners to update and enhance existing training to better meet needs.
  Comment: Suggest the training indicate contractors should refer customers to CBOs, who already excel at helping consumers understand and apply for loans.

- **Feedback on the first draft of the report, including recommendations developed to date, and request for consensus or dissenting views on those recommendations.**

  Drafting the required report will be a rolling process. Karen Hamilton addressed specific questions regarding the report, noting that there currently are not any "expected outcomes" listed in the report. She asked if the Working Group thought that expected outcomes should be specified.

Comment: Yes. Expected outcomes should be specified, whether or not those outcomes are quantifiable.
Comment: Yes. It will be useful for comparative measurement.

Action Item for Working Group: Karen requested that those providing recommendation should include expected outcomes, if possible.

Karen asked if the Working Group thought that meeting notes and agendas should be included as an appendix to the report.

Comment: Yes. Agendas and notes should be included.
Comment: Yes

Karen noted that the report does not include a recommendation concerning mobile homes and asked if this should this be included as a recommendation.

Comment: Yes. It should be included, but the word "mobile" is a misnomer. Use "manufactured housing" instead.
Comment: HCR has been paying a lot of attention to manufactured housing, so it would be good to include and also to coordinate with HCR.

Identification and discussion of any barriers/recommendations not already addressed by working group/sub-groups.

Comment: The term "constituency based organization" (term used in the GJGNY legislation) lacks substantive meaning. It is unfriendly and sounds political. We should consider coming up with a more meaningful relevant term. "Community based organizations" should suffice.

Comment: There should be a document explaining the difference between a Smart Energy loan and the on-bill financing. This will clarify and make the program more transparent.
Response: Considering that one of the goals of the Working Group is to offer the best loan product without too much disclosure in order to simplify the process for the consumer, providing some introductory language on loans should be considered.

Comment: Consider very briefly explaining the loan options on the application, then providing more information on the follow-up letter.

John Rhodes asked how the definition of LMI (as it applies to the GJGNY loan fund) should be addressed.

Comment: The definition should be increased to 120 percent.
Comment: Agreement with that, and also look at the energy burden percentage.
Question: If outcomes are going to be specified, should they be delineated into two groups-- low income and moderate income?
Comment: Yes. This distinction should be made.
Comment: There should be consistency across programs.
Question: What does the legislation say about the definition of LMI?

Response: For the purposes of the working group LMI is 80 percent of the area median income and below.
Question: What about original legislation?
Response: There is no definition of LMI in the original GJGNY legislation. It refers to reduced cost audits provided for those up to 400 percent AMI and free for up to 200 percent AMI, and says that NYSERDA should base programmatic aspects on existing programs.
Comment: The original legislation refers to certain kinds of communities (high energy costs, high unemployment, exceeding air quality standards) – can't that be used in our definition of LMI?
Response: That original language refers to communities to be targeted by CBOs for outreach – not the definition of households to be served by the program.
Response: The extension of financing does not need to be contained within consumers that CBOs serve.
Question: Can we use data available we have to understand the implications of using a different standard, perhaps using the environmental justice areas mapped by DEC to find a more suitable cut off point?
Response: NYSERDA will look at the data we have to see what can be used to support this discussion.

John Rhodes reminded Working Group members that the residential loan fund is already facing a sustainability challenge. If we simply expand the definition of LMI to 120 percent AMI, we will not address the sustainability problem. We need to think about other options as well.

Recommendation: NYSERDA should develop options to expand the definition of "LMI."

Question: Can we get an idea of how many of the current applicant pool would be considered LMI if the standard were changed from 80 percent to 120 percent?
Response: Yes. This is possible with a crude degree of accuracy, understanding that household income and applicant/co-applicant income may not be the same thing.
Action Item: NYSERDA will provide a rough estimate of how many of the current applicant pool would be considered LMI if the standard were changed from 80 percent to 120 percent.
Comment: The more people we can include in the financing initiative, the more beneficial to the state in terms of the objectives regarding renewable energy.

Question: What are market rate interest rates right now?
Response: It depends on the type of financing, but between 6 and 9 percent. Some lower interest rates are associated with dealer fees.

Discussion of Next Steps and Agenda for Next Meeting

Action Item: NYSERDA will add a meeting date prior to the already scheduled September 22 to use as an alternative meeting time, if necessary.
Action Item: NYSERDA will perform analysis to better characterize the market from 80 – 120 percent AMI.
Action Item: All working group members should review the draft report and send comments to Karen Hamilton, or be prepared to discuss them at the next meeting. Keep in mind that we need to have a final draft early in September to allow for a final review, final editing and preparation of the report for submission.

Green Jobs-Green New York
Low-to-Moderate Income Working Group
8-31-2015
Meeting Notes

Agenda

Welcome and Introductions	John Rhodes
Update on expanded eligibility for subsidized financing	John Rhodes, Jeff Pitkin
Update on loan and subsidy application changes	Karen Hamilton, Jenn Johnson
Reports from sub-groups, including recommendations: ● Expanding the reach of financing ● Job creation, access to jobs	 Guy Kempe, Hubert Van Tol, Ellen Redmond, Marriele Robinson Clarke Gocker, Ellen Redmond, Angela Tover, Stan Greschner
Feedback on the draft report, including recommendations developed to date, and request for consensus or dissenting views on those recommendations.	John Rhodes, Karen Hamilton
Identification and discussion of any barriers/recommendations not already addressed by working group/sub-groups.	John Rhodes
Discussion of Next Steps and Date/Agenda for Next Meeting (do we need to meet on September 10th,? What is the agenda for that meeting?)	John Rhodes

Attendees

Working Group Members

- Clarke Gocker – PUSH Buffalo
- Monica Ferreri – NYS Department of Public Service
- Marriele Robinson – Long Island Progressive Coalition
- Stephan Edel – Center for Working Families
- Carlo Lanza – Harvest Power
- Bill Feldmann – Empire Clean Energy
- Kathleen Langton – AHP Home Ownership Center
- Guy Kempe - RUPCO
- Adam Flint – Binghamton Regional Sustainability Coalition
- Hal Smith – Hal Co.
- Euphemia Martin – PPEF Southern Tier

NYSERDA Staff

Update on expanded eligibility for subsidized financing

Jeff Pitkin indicated that discussions are in progress about a more sustainable approach to the GJGNY financing program based on adjusting interest rates. Preliminary thinking has divided the market into three income categories, which correspond to adjusted interest rates.

- Category 1: for consumers with incomes below or equal to 80% of the median income, the rate would be 3.49 percent.
- Category 2: for consumers with incomes greater than 80 and up to 120% of median income, the rate would be higher than 3.49 percent (in a range around 5%) but would still require subsidization.
- Category 3: for consumers with income greater than 120% of median income, the interest rate will be equal to the cost of making loans to that segment of the market, or somewhere near seven to eight percent.

<u>Question</u>: Where would the funds come from to subsidize the second category?
<u>Response</u>: Possibly from RGGI.
<u>Question</u>: How much of the current loan pool would be included in each of these categories?
<u>Response</u>: We do not have household income data for all past participants in our loan program, however using applicant and co-applicant data rather than household data where necessary, the following estimates have been made.
Energy Efficiency Loans
Category 1 = 28%; Category 2 = 24%; Category 3 = 48%
PV Loans
Category 1 = 9%; Category 2 = 16%; Category 3 = 75%

<u>Action Item</u>: NYSERDA will make the data used to make these assumptions available to the Working Group.

<u>Update on loan and subsidy application changes</u>

NYSERDA's loan application will be updated to accommodate the three categories and corresponding interest rates. There will be a single application to serve all programs (Option "B" as presented at the previous meetings.) NYSERDA is also updating the most recent draft of the application based on feedback from the working group and every effort will be made to make the application as user-friendly as possible. A final draft will be sent to the Working Group for a final review. This may take a couple weeks.

<u>Reports from sub-groups, including recommendations</u>

- **Expanding the reach of financing** (Guy Kempe, Hubert Van Tol, Ellen Redmond, Mariele Robinson)
  The subgroup is still finalizing their recommendations, but is focusing on the following:

  1. NYSERDA should prioritize energy efficiency for low-to-moderate income New Yorkers through the Green Bank.
  2. NYSERDA should explore opportunities to provide financial resources and services to low-to-moderate income New Yorkers through Community Development Financial Institutions and Credit Unions.

- **Job creation, access to jobs** (Clarke Gocker, Ellen Redmond, Angela Tover, Stan Greschner) The subgroup forwarded five recommendations to the group. They are briefly summarized below, with greater detail in the attached document.

  1. NYSERDA should require baseline workforce data from GJGNY affiliated contractors.
  2. NYSERDA should increase funding for GJGNY workforce development programs, focus resources on programs that benefit disadvantaged workers, and organize workforce development programs into an integrated continuum of offerings, including apprenticeships, that promote real career pathways for disadvantaged workers.
  3. NYSERDA should adopt program-wide labor standards from GJGNY in order to leverage investments in workforce development and job training, including local and targeted hiring; first source referral systems; pre-apprenticeship and apprenticeship utilization; transitional employment; and living wage and benefit rates.
  4. NYSERDA should authorize the creation of stakeholder advisory committees in regions across the state.
  5. NYSERDA should restore funding in GJGNY for CBOs to perform workforce coordination activities.

  Question: Are you encouraging NYSERDA to set these requirements only for projects receiving a GJGNY loan?
  Response: Those receiving a loan and projects receiving GJGNY audits.
  Comment: Making these mandatory requirements might be problematic. There are many good proposals here but they should be done voluntarily. Some of these requirements will steer small contractors away as an unintended consequences. Costs will be increased to contractors, and then be passed on to customers, including the LMI customers we are trying to help.
  Question: Is there empirical evidence to support that these moves will drive contractors out of the market? Clean Energy Works in Oregon has had success with similar efforts.
  Response: A local contractor found similar requirements to be burdensome in the solar market.
  Comment: GJGNY has successfully included standards of various types from the beginning. The objections should be disaggregated. There are two different concerns:

  1. Whether contractors will reject requirements. Note that some are already achieving these levels of expectations.
  2. Whether or not we can implement this in a way that is not burdensome. This is a separate question.

  Comment: I support workforce development efforts, but we need to make sure they address the right problems. Experience has found that graduating trainees in rural New York who did not have a driver's license prevented them from accessing jobs. Work preparation training should be considered as part of the overall training effort.
  Comment: The challenge is not a lack of interest in the training programs, but instead how to connect people with jobs. Streamlining the program offerings into a continuum is desirable.
  Comment: Contractors do not know how or where to find the trainees. Having a more robust communication platform will assist with these challenges.
  Comment: The recommendations speak to workforce coordination to ensure connectivity. Local one-stop centers (DOL) are good resources, but their assistance is very generalized. It is difficult to identify the clean energy worker candidates. The centers are rooted in place, generally in

cities or suburbs, and do not reach everybody. Some are understaffed. The level of service varies from county to county.
Comment: Better coordination is needed among existing training and employment program elements.
Comment: The recommendations should apply to all NYSERDA programs, not just GJGNY.

Action Item: Not all participants feel they can sign on to the recommendations as written. Those who wish to engage with the subgroup on refining the recommendations should contact them.

Feedback on the draft report, including recommendations developed to date, and request for consensus or dissenting views on those recommendations.

NYSERDA made an effort to include expected outcomes in the current draft of the report. Working group members should reply with specific recommendations by Friday, September 4.

Comment: Section 5.6.9 should included stronger language regarding the definition of LMI and more information about what the process looks like moving forward.
Comment: Section 5.5 should have more specific speculation.
Comment: Section 4.9 requires confirmation and elaboration on the thought process.

Identification and discussion of any barriers/recommendations not already addressed by working group/sub-groups

There was no further discussion about the inclusion of any barriers/recommendations not already addressed by working group/sub-groups.

Discussion of Next Steps and Date/Agenda for Next Meeting

The Working Group will meet again on Thursday, September 10 from 3:00 p.m. to 5:00 p.m.

Action Item: All working group members should review the draft report and send comments to Karen Hamilton, preferably by Friday, September 4. Keep in mind that we need to have a final draft early in September to allow for a final review, final editing and preparation of the report for submission. Those interested in working with the “jobs” subgroup on their five recommendations attached should contact them.

Action Item: Working group members should plan on communicating with Jen McDonald about the appropriate form for their signature to be included on the signature page of the final report.

GJGNY Low-to-Moderate Income Working Group
September 10, 2015
Meeting Notes

Agenda

Welcome and Introductions	John Rhodes
"Expanding financing opportunities" (Guy Kempe, Hubert Van Tol, Ellen Redmond, Marriele Robinson)	
"Recommendations from the CBO network" (Stephan Edel)	
"A few comments …" (Ellen Redmond)	
"General program recommendation" (Guy Kempe)	
"Workforce development and job standards" update (Clarke Gocker, Ellen Redmond, Angela Tover, Stan Greschner)	
Any barriers or recommendations not previously discussed	
Feedback on the draft report, including recommendations developed to date, and request for consensus or dissenting views on those recommendations.	John Rhodes, Karen Hamilton
Discussion of Next Steps and Agenda for Next Meeting	John Rhodes, Karen Hamilton

Attendees

Working Group Members

- John Rhodes - NYSERDA
- Ellen Redmond – International Brotherhood of Electrical Workers
- Adam Flint – Binghamton Regional Sustainability Coalition
- Carlo Lanza – Harvest Power
- Hubert Van Tol – Pathstone
- Guy Kempe – RUPCO
- Hal Smith – HALCO
- Stephan Edel – Center for Working Families
- Monica Ferreri – NYS Department of Public Service
- Clarke Gocker – PUSH Buffalo
- Kathleen Langton – AHP Home Ownership Center

Anthony Joseph – NYS Department of Labor

NYSERDA staff

<u>Review of Comments and Recommendations</u>

Karen Hamilton indicated that the goal of the meeting is to come to consensus on barriers and recommendations to include in the LMI Working Group report. A new section was created in the most recent draft to identify the recommendations outside the mission of the group. These recommendations will be referred to the GJGNY Advisory Council for further discussion.

- **"Expanding financing opportunities" (Guy Kempe, Hubert Van Tol, Ellen Redmond, Marriele Robinson)**

Two recommendations were distributed. These two items were integrated into one recommendation in the report. The language in the report is believed to capture the spirit of the recommendations.

<u>Action item</u>: NYSERDA will provide the recommendation to the Green Bank for review.

- **"Recommendations from the CBO network" (Stephan Edel)**

Recommendation 1: In addition to allocating funds for the loan fund, NYSERDA should ensure other core program elements are solvent.

The group discussed that the objective of the LMI Working group is increasing access to financing for LMI markets, not "to maintain GJGNY" as stated in the comments. In response to apparent misunderstandings, Karen Hamilton reminded the group that only the loan program was required to be extended by law.

John Rhodes agrees with a holistic approach, but expressed caution about siloing GJGNY, and to be sure to consider it in context of Reforming the Energy Vision and the Clean Energy Fund (CEF.) NYSERDA has included elements of GJGNY in the CEF proposal.

<u>Question</u>: Is the intention to say that the existing CBOs should be moved forward?
<u>Response</u>: This could be the case, but it does not have to be. The overall discussion about the role of the CBOs should continue.
<u>Comment:</u> The intent of the comment is that NYSERDA should make a commitment to GJGNY going forward in some way.

Recommendation 2: Clearly expand the CBO role and funding to work with the newly combined EmPower, AHP, GJGNY, and other programs under the CEF.
<u>Comment:</u> CBOs should have an expanded role across all programs.

Recommendation 3: NYSERDA should expand its commitment to serve LMI communities through CBOs as independent contractors for marketing, outreach and program delivery.

Question: If CBOs are normally doing outreach work as part of their mission, should the group be recommending that CBOs leverage their own separate marketing budgets in some way?
Response: The money spent on an outside marketing contractor might be better spent more locally by individual CBOs. The marketing materials were not useful and there were too many.
Comment: The original marketing objective was to promote the program outside of those areas where CBOs are already reaching.
Comment: In the early stages of the Advisory Council, it was agreed upon that the overall program needed promotional support. But the money would be better spent by individual CBOs on regionally specific efforts.

Recommendation 4: The workforce development recommendations necessitate additional business development to ensure that small contractors and MWBE contractors can participate and thrive even as program wide standards are attached.
Comment: Other business development infrastructures (local development corporations and incubators) can be leveraged, but increasing working capital for small contractors is also an essential component.
Comment: Hesitant to recommend using more money to help navigate program challenges. This strays from the original objectives of workforce development. (Program challenges are better addressed with program improvements.)

Recommendation 5: NYSERDA should shift its definition of LMI so that any household income at or below 80 percent of the AMI is considered "low-income"; above 80 percent and up to 120 percent of the median income is considered "moderate- income."
Question: Are you talking about changing the definitions with respect to loans?
Response: The recommendation is to look at the program more holistically, including the subsidies.
Comment: Funding would have to be redeployed from other low income consumers in order to reach the larger market in the case that there are no budget increases.
Response: Doing this should not limit the funds to those in the lowest income brackets. Funding should be sought elsewhere.
Comment: This may be an aspirational goal.
Comment: Homes and Community Renewal is now defining middle-income as up to 130 percent of area median income.

Recommendation 6: Separating the audit and QA process from retrofit work will afford an additional layer of customer protection in the energy upgrade process. Audit reports and work scopes will become more transparent as they will need to be understood not only by the homeowner but also companies that want to undertake work. Independent auditing will also disincentivize the “sales call” nature of energy audits in that the auditor’s prime goal is to relay information to the homeowner and not to make a sale to justify the time spent on the audit. The current $250 audit fee will have to be raised to cover the actual expense.
Question: Who would be hiring and paying for the independent auditor?

Response: If the free program continues, it might be drawn from those funds, or additional funding could be sought.
Comment: There has been discussion of CBOs hiring people internally.
Comment: The Staten Island pilot used an independent auditor then shifted work to established Home Performance contractors. The uptake was disappointingly low and was not considered replicable.
Comment: Contractors note that what NYSERDA is paying is not actually sufficient to cover their costs, but the overage is incorporated into their overhead. An independent auditor model would not have that same cost structure. It would cost significantly more.
Comment: It would be helpful if NYSERDA could publish some of the results of what the contractors are dong in terms of doing comprehensive work, rather than focusing on the work that is more profitable.
Comment: Exception is taken to the assumption that contractors are only focusing on scopes with the most profit. Many customers are undergoing projects that are best for them and are happy with the results.
Comment: The current program rules do not preclude a separate auditor (a general contractor model.) This has been tried by a contractor, who worked with other contractors to do the work. But it was not successful.
Comment: NYSERDA does have an independent third party contractor who does the quality assurance work, including looking at the audit and resulting scope of work.

No consensus was reached on this recommendation.

Recommendation 7: NYSERDA should reallocate additional resources to community outreach. This recommendation has five subitems.

1. NYSERDA should identify and allocate significantly greater financial resources to fund marketing and outreach by CBOs to ensure a more robust and impactful program for LMI communities.
2. Longer contract terms with CBOs can ensure program stability, retention of trained program staff, , and reduce funding uncertainty for CBOs which will ensure LMI communities are served without interruption and program metrics are achieved.
3. Financial resources should be made available to CBOs to provide professional training leading to BPI certification(s) for program delivery staff. NYSERDA should require BPI certification as a professional standard for every CBO as a program deliverable within the first year of every contract.
4. The financial resources that were diverted to for the development and distribution of marketing materials on a statewide level can be spent more effectively by the CBO's within their local communities.
5. NYSERDA should ensure that the benefits of energy efficiency and customer outreach be available to all LMI New Yorkers regardless of their address in the state. NYSERDA should ensure that a CBO is identified to serve economically-distressed communities in every region of the state.

Comment: Funding for CBOs should be performance based. Results should speak for themselves.
Comment: The current program is performance based. Bonus payments are used to fund the program.
Comment: Include a recommendation that the state be served throughout.

Question: Is this a suggestion that the Act be changed? That the CBOs not target the types of communities identified in the Act?
Response: No. The current coverage is not sufficient to cover the disadvantaged communities.
Comment: There is not adequate coverage to meet the need that the legislation requires.
Comment: Perhaps there should be a discussion among the CBOs and stakeholders about how CBOs can be utilized more cost effectively. Understanding that it is not an easy task, and that the particular consumers being reached require a lot of one-on-one work, it's a relatively expensive way to bring in customers. The cost per retrofit accomplished ranges widely form around $1,300 to around $35,000 for a CBO that has had particular issues in its operation. Maybe CBOs should look at best practices.
Comment: Tie the conversation in with solar outreach.
Comment: Cost effectiveness of CBO outreach should be examined.
Question: Can NYSERDA assemble some data that will help the Group to understand that?
Comment: Part of achieving the cost effectiveness goal is streamlining the program and making the system more efficient.
Comment: CBO staffing is a problem. The short term of the contracts leads to high turnover.

Action item: NYSERDA will make that data available for future meetings.

- **"A few comments …" (Ellen Redmond)**

The program should continue being available for all New Yorkers. A recommendation should be included to offer loans with 20-year terms.
Comment: Twenty year loans are difficult to sell on the market.
Question: Can there be an option for secure loans to be offered?
Response: NYSERDA has hired a Director of Financing Solutions who is exploring options and will be reported on at a later time.
Comment: Although this set of comments does not include a specific barrier and recommendation, the thoughts should not be lost. Can NYSERDA include working group comments in the report?

Action item: NYSERDA will include an Appendix that will include all written comments from the Working Group members.

- "General program recommendation" (Guy Kempe)

Bring all residential energy programs offered through NYSERDA under a single umbrella to streamline the delivery of services to LMI New Yorkers.
Comment: Combining programs could lead to co-mingling of funds with funds being shifted away from low to moderate income consumers down the road.
Response: Combining programs under a single umbrella is being undertaken to streamline administration and reduce redundancy and added cost. NYSERDA appreciates the concern regarding co-mingling of funding and will have systems in place to prevent that.
Comment: From a CBO perspective, the streamlining will actually benefit CBOs and their ability to deliver services to LMI customers.

Comment: Recommendation to include language to the effect that NYSERDA should work with DPS to better align these programs.

- "Workforce development and job standards" update (Clarke Gocker, Ellen Redmond, Angela Tover, Stan Greschner)

Five recommendations were forwarded to the group. NYSDOL, who is not a member of the Working Group, was invited to participate in this meeting because a number of the recommendations mention DOL specifically, or involve activities that are in the purview of DOL.

1. NYSERDA should require all GJGNY affliated contractors to provide baseline workforce data to NYSERDA.
Comment: The Department of Labor (DOL) does quarterly collection. It is challenging to get to specific Home Performance industry data, but DOL does create a profile that is adequately matched to the recommendation. If there is a requirement to have contractors report data, a similar instrument to that used by the DOL should be used.
Comment: NYSERDA's job evaluation report done a couple of years ago is available. There is a plan to replicate that assessment in 2016-2017.
Comment: There was a low response rate from contractors. Using the program participation agreement to require reporting would allow for more accurate data.
Response: Actually, the response rate for the study was considered fairly good.
Comment: Some of the data suggested for collection is considered confidential data. NYSERDA would need to partner with the Department of Labor to reach the desired information and limit redundancy, in discussion with all concerned stakeholders.
Comment: The objective is to generate evidence-based proof of program success.
Comment: NYSERDA, DOL, contractors and CBOs should get together to discuss this further.

2. NYSERDA should increase funding for GJGNY WFD programs.
Comment: NYSERDA should be more intentional about the workforce programs going forward.
Comment: Input should be sought closer to the ground on what the actual needs are.

3. NYSERDA should adopt program-wide labor standards for GJGNY in order to leverage investments in workforce development and job training.
Comment: The emphasis on program-wide standards is the most important point.
Comment: These recommendations will add cost to the contractors. This recommendation is not appropriate for the report the group is charged with. There is not enough time to sort through details before the report is due.
Comment: Suggestion to craft the recommendation into more broad language to suit the comfort levels.
Comment: No mandates should be supported for any of the recommendations proposed due to potentially unintended consequences that prohibit industry success.
Comment: Mandates are a part of programs that are funded with public dollars. It is part of a public policy objective. There are already many requirements on contractors so this is not a new concept.
Comment: Safety standards are necessary. What is proposed in the recommendation is more elective.
Comment: There is nothing broken. Do not fix it.

Comment: We need to raise the whole industry to that successful standard.
Comment: These should be voluntary standards, not mandatory.
Comment: What about a hybrid of On-the-Job training and apprenticeship program.

Action item: The recommendations will be reworded in terms of exploration and additional discussion. The goal would be to try to come up with language that everyone can agree to. If not, all dissenting views will be expressed in the report.

4. NYSERDA should authorize the creation of stakeholder advisory committees in regions across the state.
(no discussion)

5. NYSERDA should restore funding in GJGNY for CBOs to perform workforce coordination activities.
Comment: NYSERDA should review how the CBOs are represented on the web site. There was a major web site change, with no notice to CBOs and no consultation with how they are represented. The current way of representing CBOs is not useful.

Any barriers or recommendations not previously discussed (Karen Hamilton)

Group did not raise any barriers not previously discussed.

Feedback on the draft report, including recommendations developed to date, and request for consensus or dissenting views on those recommendations (John Rhodes, Karen Hamilton)

The group should review the current draft and provide feedback as soon as possible if there are concerns over language or recommendations; especially if they do not feel comfortable signing off on any recommendations. The goal is to have a document in the end that everyone feels comfortable signing. Signing the document does not imply agreement with every recommendation, but implies only agreement where consensus has been reached, and that dissenting opinions are adequately captured in the document.

Discussion of Next Steps and Agenda for Next Meeting (John Rhodes, Karen Hamilton) The report will be finalized over the next couple of weeks and distributed back out to everyone. The objective for the September 22 meeting is to discuss the final draft document and to get assurances from everyone that they will be able to sign the final document, and also to start getting signatures.

Green Jobs – Green New York
LMI Working Group Meeting Notes
September 22, 2015
Meeting Notes

Agenda
Finalize any changes to the GJGNY LMI Working Group report.

Attendees
Working Group Members

- Monica Ferreri – NYS Department of Public Service
- Stephen Edel – Center for Working Families
- Hubert Van Tol – Pathstone
- Stan Greschner – Grid Alternatives
- Hal Smith – Hal Co.
- Bill Feldmann – Empire Clean Energy Supply
- Marriele Robinson – Long Island Progressive Coalition
- Ellen Redmond – International Brotherhood of Electrical Workers
- Carlo Lanza – Harvest Power
- Clarke Gocker – PUSH Buffalo
- Kathleen Langton – AHP Home Ownership Center
- Guy Kempe – RUPCO
- Euphemia Martin - Public Policy & Education Fund of New York – Southern Tier
- Adam Flint – Binghamton Regional Sustainability Coalition

NYSERDA staff
Jacqueline Espinal, El Puente

Karen Hamilton noted that the objective of the meeting is to get the last input on the GJGNY LMI Working Group report.

Regarding Section 4.3, Recommendation 6: There was a correction made to the NYSERDA response to the recommendation. NYSERDA planned to change the report to say that the audit to project conversion rate for the Staten Island pilot is approximately the same as the program-wide conversion rate over the past year, but the cost was much higher. The increase in cost is not commensurate with the degree of success of the program. Concern was expressed that the language is too negative. Several members provided input as to how to better express alternative language. After discussion, it was decided to delete the language entirely, along with another reference to a third-party audit model that was not successful. NYSERDA will keep the language already in the response that says NYSERDA will continue to work with stakeholders on business models that support third-party audits.

Regarding Appendix C: Last week, Guy Kempe sent an excerpt and report from the Better Buildings Neighborhood Program which includes a Spotlight on Engagement with Community Based Organizations. An excerpt from this report will be added to Appendix C along with a link to the full report on line.

Regarding Appendix B: Clarke Gocker's presentation given to the working group on July 29th will be included in Appendix B along with the July 29 meeting notes.

Regarding Section 6.1, Recommendation 4: The report was updated per the request of the Working Group to reflect NYSERDA "exploring" the adoption of job standards with Department of Labor. This had been done to attempt to come up with consensus-based language. As a result, the language regarding a lack of consensus had been removed. After further discussion, it was decided that the language regarding a lack of consensus should be added back to the report.

Regarding the Memo from Stephan Edel on behalf of the CBOs: Karen Hamilton noted that she believes she captured the primary messages of the CBO memo in the report, and asked if Working Group members noticed anything missing. Nothing was cited. Stephen Edel indicated that he plans to make changes to the memo and resubmit for Appendix C.

Regarding Section 4.5, Recommendation 5**:** It had been suggested by a working group member that a separate section should be created for recommendations that require a change to the GJGNY Act. Working group members agreed.

Regarding cost effectiveness testing for On-Bill Recovery Financing (OBR): The strict cost-effectiveness test for OBR was discussed in early meetings, however no recommendation was developed from those discussions. Working Group members were asked to consider whether a recommendation should be added to address the barrier.
Comment: A lot of projects toggle right around the 1/12 rule. If that were relaxed, a lot of projects would automatically qualify. It's not critical, but it would help a bit.
Comment: Installers say that the mechanism for determining PV output is quite conservative.
Comment: NYSERDA has looked at predicted output versus actual, which has been pretty good.
Comment: Consumer advocates were concerned about having OBR loans available without a requirement that it be bill neutral. Are there other ways to approach this concern? Consumer advocates would need to be consulted. Are there ways to get a little closer to cost effectiveness without making major changes?
Comment: All recommendations should be considered in light of forthcoming Reforming the Energy Vision changes.
Comment: Maybe the approach is to say NYSERDA should explore the methodology used to calculate energy savings. There is concern that the electric rates being used in the calculation may not be accurate.
Action Item: NYSERDA will add a recommendation that a review of the cost-effectiveness test calculation be accomplished, and in particular, how rates are being used in the calculation. There will not be a recommendation to change the Act.

Regarding Section 4.2, Recommendation 2**:** Within this section or in initial Barriers section, it should be clarified that Debt-to-Income ratio is the highest reason for denial, and the percentage of denials that it represents included.
Comment: To align with a recent decision by the US department of Housing and Urban Development, it is possible that DTI percentage could be raised by 2 percent.

Next Steps

Discussion of the signature page: Jen McDonald sent out an email for confirmation on appropriate spelling and titles. She will send out of formal signature page on September 23. Members should sign the signature page, scan it, and send it back to Jen McDonald at Jennifer.McDonald@nyserda.ny.gov. NYSERDA will assemble the signatures into an integrated document. Signature does not indicate that the member agrees with all of the recommendations, but rather that the report captures the outcome of the process, including any dissenting views. If there are any remaining comments for Appendix C, we need them as soon as possible.

The GJGNY Advisory Council will meet following this LMI Working Group meeting. They will receive a briefing on the report. In particular, it will be noted that the recommendations outside the scope of the LMI Working Group will be discussed with the Advisory Council at upcoming meetings.
Comment: Suggestion that the GJGNY Advisory Council is a reasonable forum for discussion of those recommendations not yet implemented and additional recommendations, but that Working Group members should be included in the email notifications to the Advisory Council.
Comment: Concern was expressed that the work of LMI Working Group will lose momentum, that recommendations will not be implemented, or that the additional recommendations will not be addressed in a timely manner because of the Advisory Council meeting schedule.
Response: NYSERDA is already working on most of the recommendations that were within the scope of the Working Group, and the Advisory Council will discuss the other recommendations in upcoming meetings. NYSERDA can convene the Advisory Council on as frequent a schedule as needed, and in fact, shortly after a decision was made to change to a two-per-year schedule, the Advisory Council has been meeting almost monthly.

The report will be delivered electronically. There has been no request for a briefing from legislative staff at this point. It was expressed that if there is a briefing, some members of the Working Group may want to attend. If the Legislature poses any questions, NYSERDA will inform the Advisory Council and the Working Group members via email.

Appendix C: GJGNY Low-to-Moderate Income Working Group Member Comments and Dissent

Appendix C – GJGNY LMI Working Group Member Comments and Dissent

Contents

Ellen Redmond, IBEW - General Comments, August 31, 2015

Submitted by Ellen Redmond, International Brotherhood of Electrical Workers (IBEW

While the Legislature's interest in expanding access to solar power for low and moderate income New Yorkers is commendable, a few points need to be raised regarding the specific details laid out by NYSERDA's Working Group Recommendations draft report.

First, the legislative intent behind the Green Jobs Green New York (GJGNY) Act of 2009 clearly defines the program as one for all New Yorkers. As a measure that passed the State Legislature and signed into law with overwhelming bi-partisan support, GJGNY is a comprehensive measure meant to benefit a wide range of New Yorkers, not restricted to a specific income or regional group. That's why we should not weaken the GJGNY program for working and middle class New Yorkers. We should not take incentives away from one income group in order to fund incentives for another income group. Any reforms to the program must be consistent with the legislative intent to create a universal benefit, not a means-tested program.[1]

The draft report details the strong performances of GJGNY programs, particularly in its residential loan program. Specifically, the report mentions that these programs currently perform "as well as other consumer loans on the market".[2] Access to various GJGNY programs needs to be expanded, especially for LMI households; doing so, however, must not harm or limit access to current programs. Such a move would only have the exact opposite effect of what NYSERDA seeks to achieve.

Second, some households cannot meet the current cost-effectiveness standards because their monthly energy efficiency savings are smaller than the monthly loan payments. One way to reduce the loan payments is to lengthen the term of the loan. We should include a recommendation to offer loans with 20 year terms.

Third, the draft report identifies lack of household and contractor awareness as one reason for limited GJGNY access. We should recommend that the administration process of GJGNY programs be improved and stream-lined. It is welcoming that NYSERDA has provided some improvements to the process.

Fourth, New York State already has an extensive system of well-established state-approved apprenticeship training programs operating at training centers across the State. NYSERDA should look to build upon what works, utilizing every opportunity to incorporate the tried and true process of learning and educating the next generation of workers in this emerging industry.

[1] Senator Darrel J. Aubertine's letter to the Governor's Office; A0891-2009 (GJGNY Act) Bill memo
[2] GGJNY LMI Working Group Draft Report, p. 15

GJGNY LMI Working Group Recommendations – Expanding Financing Opportunities

Submitted by Guy Kempe, Hubert VanTol, Marriele Robinson, Ellen Redmond

From the perspective of LMI New Yorkers, liquidity constraints and having to satisfy the most pressing short-term needs may seem like the most decisive factor in whether to invest in energy efficient appliances (e.g. an energy efficient light bulb). Many economists assume that the poor are more risk-averse, more impatient in their decision-making and less likely to plan for the future.

1. The NY Green Bank is a state-sponsored, specialized financial entity working in partnership with the private sector to increase investments into New York's clean energy markets, creating a more efficient, reliable and sustainable energy system. NY Green Bank increases the availability of capital for projects deploying proven clean energy technologies across New York State through:
   A. Leveraging private sector capital to support and expand clean energy financing markets;
   B. Animating and growing capital markets reducing the need for government support; and
   C. <u>Motivating faster and more extensive deployment of clean energy assets</u>, contributing to economic development, greater energy choices, reduced environmental impacts and more green energy advantages for every public dollar spent.

Accordingly, NYSERDA should include energy efficiency for LMI New Yorkers as a <u>priority</u> for the NY Green Bank

2. Community Development Financial Institutions (CDFIs) are specialized community based financial institutions with a primary mission to promote economic development by providing financial products and services to people and communities underserved by traditional financial institutions, particularly in low income communities. CDFIs include community development banks and credit unions, and non-regulated institutions such as non-profit loan funds or venture capital funds. As of 2014, 67 CDFI's operate in NYS (http://www.cdfi.org/wp-content/uploads/2015/02/New-York.pdf). NYSERDA should explore opportunities to provide financial resources and services to LMI New Yorkers through CDFIs and Credit Unions.

GJGNY LMI Working Group Members Dissent, September 24, 2015

GJGNY LMI Working Group members,

In June 2014, a group of concerned CBO stakeholders requested a meeting with NYSERDA President Rhodes to discuss our concerns and suggestions for the GJGNY program: specifically, we wished to discuss our request for “continued community based outreach strategy as part of the NYSERDA program offerings.” We acknowledged that GJGNY was intended to be “a seamless program to dramatically scale up the market for home performance and energy efficiency services” and observed that NYSERDA's own evaluation showed that CBOs were “reaching communities that have not previously been reached and that the program is an increasingly large part of the market for home performance services in New York State.” We noted additionally that GJGNY has offered “a laboratory for developing improvements in outreach, program design, and financing.”
We asked to discuss three topics in particular:

- **Ensuring the continuation of community based outreach** based upon concern that the current NYSERDA RGGI Operating Plan does not include additional funding for the continuation, let alone expansion, of the CBO role. CBOs need clarity and predictability to perform well. CBOs and other community partners need to know what NYSERDA is planning well ahead of the contract completion. This is necessary to ensure that staff are retained, small community based organizations can plan and fulfill their goal, and new partners can decide how and when to apply for future Request for Proposals. Market transformation doesn’t happen overnight, and connecting community members with energy efficiency and renewable energy programs takes time. Community based outreach is not just mandated by the GJGNY law, but is in line with NYSERDA's vision of an array of program offerings. NYSERDA’s stated goal is to increase the accessibility of energy efficiency and renewable energy generation so that all New Yorkers including those in low income, middle income, and environmental justice communities can participate in the clean energy transition. If NYSERDA is serious that it wants to serve all of New York’s communities, it needs to engage with those working in these communities.
- **Program improvements** based upon GJGNY CBOs and other stakeholders’ suggestions for how to improve financing, program processes, and incentives. We asked for the opportunity to discuss a vision for how NYSERDA can better serve our communities.
- **Engaging our communities in energy policy discussions** within venues where energy policy decisions are made and programs are developed that were then and are now effectively closed to the public, especially low income New Yorkers and those in environmental justice communities. We asked NYSERDA to seize the opportunity to include community voices in energy planning. NYSERDA should commit to an ongoing conversation with community representatives alongside other stakeholders in the context of the rapid pace of change underway in NY State’s energy policy.

In April 2015, the NYS Legislature ordered NYSERDA to convene a stakeholder working group to "develop standards and/or criteria that will encourage and increase participation of and issuance of loans to low-to-moderate income households statewide for qualified energy efficiency services under the green jobs-green NY program." Each of our organizations were invited into and accepted invitations from NYSERDA to participate in what came to be known as the GJGNY LMI Working Group. We are grateful to the Legislature and to NYSERDA for the opportunity to participate in a constructive process that has produced a set of recommendations regarding improvements to the GJGNY program as requested by the Legislature. We believe this process has enabled us to meaningfully address some of the issues we raised in our letter to President Rhodes in 2014. We stand ready to formally endorse the set of recommendations outlined in NYSERDA's forthcoming report to the Legislature and the Governor's office which will be submitted on October 1, 2015.

While the Legislature called for the creation of a working group to focus on the needs of LMI New Yorkers the legislative intent behind the GJGNY Act clearly defines the program as one for all New Yorkers. As a policy with universal appeal, GJGNY passed the State Legislature and was signed into law with overwhelming bi-partisan support. We are concerned that this process has created an artificial expectation that GJGNY will transition into a means-tested program serving only LMI communities. Any reforms to the program must be consistent with the legislative intent to create universal access to energy efficiency retrofits. GJGNY was intended to be "a seamless program to dramatically scale up the market for home performance and energy efficiency services" and solar services, which were added later. The Legislature recognized that the goal was better met through an integrated suite of services that are available for all New Yorkers. And in order to meet that goal it would require innovative community-based outreach strategies to reach deep into communities that had been historically underserved or where the need was greatest based on the prevalence of high household energy burdens.

GJGNY was funded through an initial allocation of RGGI proceeds, however, the program was not intended to be limited to this initial funding allocation. We recognize that existing funding is limited, but we believe NYSERDA has the power to remedy the current state of austerity confronting the program, and in fact, has a responsibility to work with the Legislature to secure new funding for legislatively mandated programs like GJGNY.

Despite our collective support for the GJGNY LMI Working Group's recommendations, this process has laid bare and in many cases reinforced our belief that GJGNY is at risk of being marginalized by several energy efficiency and clean energy policy reform proceedings now underway, including REV and the Clean Energy Fund (CEF). The narrow focus of the GJGNY LMI Working Group limited our ability to investigate the relationship between proposed investments in the CEF and the impact of those investment decisions on GJGNY CBOs, LMI households and working families, disadvantaged workers, and contractors. We developed recommendations without a clear understanding of that relationship. As a result, our recommendations may fail to have a lasting impact. We're alarmed at the prospect of a worst case scenario unfolding in which GJGNY is not supported within the CEF, and the explicit GJGNY policy objective of equity for economically distressed and environmentally overburdened communities seeking access to affordable energy efficiency services, clean energy, and good jobs is nullified. We recognize that this scenario could begin to unfold as soon as late 2016 unless a specific commitment is made in the CEF to support GJGNY and equity for all communities.

Therefore, we believe that additional deliberation and executive, legislative or administrative action, outside the specific charge of this Working Group, is needed to ensure that measurable, equity-based policy objectives carry forward and that GJGNY is the driver.

Respectfully,

Stephan Edel, Center For Working Families

Clarke Gocker - Director of Policy and Strategy, PUSH Buffalo

Lisa Tyson, Long Island Progressive Coalition Director

Hubert Van Tol, President PathStone Enterprise Center

Ellen Redmond, International Representative, International Brotherhood of Electrical Workers (IBEW), Third District

Guy Thomas Kempe, VP of Community Development, Program Director, Green Jobs/Green NY RUPCO

Euphemia Martin, Program Director, Public Policy & Education Fund of NY (PPEF) Southern Tier/Green Jobs Green NY

Kathleen Langton, Energy Program Manager, AHP Homeownership Center

Adam Flint, Program Manager, Southern Tier Solar works (STSW) Coordinator, Energy Leadership Program (ELP)

Guy Kempe - Better Buildings Neighborhood Program, excerpt and report

Submitted by Guy Thomas Kempe, RUPCO

The following is an excerpt from *Spotlight on Key Program Strategies from the Better Buildings Neighborhood Program, Final Evaluation*, Volume 6 (June 2015). Prepared For the U.S. Department of Energy Office of Energy Efficiency and Renewable Energy. It includes a discussion titled "Spotlight on Engagement with Community-based Organizations"

This study "draws on the experiences of seven Better Building Neighborhood Program (BBNP) grantees (the 'selected grantees') that collaborated with CBOs to achieve program goals," including NYSERDA, and provides a number of recommendations related to community-based outreach. The full report is located at http://energy.gov/sites/prod/files/2015/08/f25/bbnp_volume_6_spotlight_072215_0.pdf.

CONCLUSIONS AND RECOMMENDATIONS

The BBNP evaluation team offers "the following conclusion and recommendations for future program managers considering engaging CBOs.

Conclusion: Grantees effectively employed a variety of strategies to engage CBOs in recruiting residential energy efficiency upgrades. Selected grantees were successful in coordinating with CBOs when the CBO's mission, capacity, and organizational strengths satisfied the program's needs. Successful grantee-CBO collaborations tended to involve motivated CBOs with sufficient resources to recruit retrofit participants from their constituencies using customized outreach approaches based on the CBO's guiding objectives and capabilities.

- Recommendation: Tailor CBO recruitment to the program's needs. Carefully define the program's goals, and seek CBOs that can most effectively help the program meet those goals. If the program goals emphasize maximizing savings, recruit established CBOs with energy efficiency experience and strong contractor connections to more quickly generate the needed leads. If program goals emphasize recruiting projects within specific hard-to-reach populations, recruit CBOs with direct access to and respect within those populations.
- Recommendation: Temper expectations for CBO productivity and anticipate the need to provide CBOs support. The value that CBOs provide is based on their position of trust within specific communities. While CBOs can recruit participants in hard-to-reach populations, such outreach takes time and resources. CBO outreach alone is unlikely to generate sufficient volume to sustain a program.
- Recommendation: Allow flexibility in CBOs' outreach approaches; allow program flexibility in CBO engagement. CBO outreach is most effective when CBOs tailor their outreach strategies based on their organization's capacity and mission. Not all CBO collaborations, and not all outreach activities, will be successful. The effective use of CBOs requires program managers to track CBO sign-ups and application assistance, and then make adjustments as needed to recruit and retain only partners that help the program realize its goals."

Guy Kempe - General GJGNY Program Recommendations

Submitted by Guy Thomas Kempe, RUPCO

The GJGNY Program was created through NYS Legislation in October 2009. The legislature found that "promoting widespread dissemination of energy efficiency and clean energy technologies represents a clear and cost-effective strategy for communities in New York State to curtail the emission of greenhouse gases and harmful air contaminants, reducing the dependence on fossil fuels, lowering housing costs, supporting community development, and creating green jobs to sustain and enhance our economy." Since 2011, GJGNY "Community Energy Resources" (formerly identified as Constituency Based Organizations or CBO's) have worked at a grassroots level to educate the public about and spur requests for free and reduced-cost "whole house" energy assessments including residential audits for underserved LMI New Yorkers, low-cost financing for energy efficiency improvements and participation in green job training opportunities.

However, we have found there are barriers in the NYSERDA portfolio of residential programs that interrupt delivery of comprehensive energy services to LMI New Yorkers as a market segment. Among these barriers, independent program implementing contractors have tended to operate in silos that are confusing to the consumer and insurmountable for the CBO.

Assisted Home Performance with ENERGY STAR® offers income-qualified homeowners in New York State a comprehensive, whole-house approach to improving energy efficiency and home comfort while saving money. http://www.nyserda.ny.gov/All-Programs/Programs/Assisted-Home-Performance-with-ENERGY-STAR

EmPower New York offers no-cost energy efficiency services such as insulation, air sealing, energy efficient light bulbs, and replacement of an inefficient refrigerator and freezer to low-income (such as HEAP-eligible) homeowners and renters. http://www.nyserda.ny.gov/All-Programs/Programs/EmPower-New-York

Home Energy Efficiency Programs offers a range of programs designed to help New York State residents reduce energy waste and lower their energy bills. http://www.nyserda.ny.gov/All-Programs/Programs/Home-Energy-Efficiency-Upgrades

Home Performance with ENERGY STAR® offers homeowners in New York State a comprehensive, whole-house approach to improving energy efficiency and home comfort while saving money. http://www.nyserda.ny.gov/All-Programs/Programs/Home-Performance-With-ENERGY-STAR

NY-Sun (Solar Electric) is a multifaceted approach aimed to lower energy costs for all New Yorkers by increasing solar power capacity and the efficiency and reliability of the electric grid. Public-private partnerships help make installing solar technology more affordable for all New Yorkers while scaling up New York's solar industry. In addition to the Solar Electric Program, NY-Sun also includes training for installers and public officials, standardized permitting, customer aggregation, and consumer education. http://www.nyserda.ny.gov/All-Programs/Programs/NY-Sun-Initiative

Recommendation: Bring these residential energy programs under a single umbrella to streamline the delivery of services to LMI New Yorkers.

NYSERDA GJGNY LMI WORKING GROUP - Tier 2 Underwriting Criteria Proposal

Submitted by Marriele Robinson, Long Island Progressive Coalition

If low-to-moderate income communities are to meaningfully participate in state energy efficiency programs, NYSERDA will need to adjust their current credit criteria to better match the financial reality of those living in these communities. Currently On Bill Recovery underwriting criteria-both Tier 1 and Tier2-relies heavily on applicant's FICO score and debt0to-Income ratio, with 30% of applicants denied due to credit and 38% denied for exceeding the debt-to-income ratio requirements. Low-to-moderate income households, significant amounts of which are minority, single parent, and/or multi-generational households, typically maintain lower credit scores and higher debt. These households are also more likely to live in older housing stock, have higher energy costs, and pay substantially more of their income on utility costs. However, a household on a budget does not translate to a household with the inability to pay for energy saving, cost effective improvements. If the current NYSERDA financing barriers are not addressed homeowners from LMI communities will remain unable to access NYSERDA low-interest financing, thereby excluding entire populations form energy efficiency and solar opportunities.

As the Reforming Energy Vision (REV) unfolds and the utilities become more prominent stakeholders in the energy landscape, NYSERDA is in an ideal position to revisit utility bill repayment history as Tier 2 underwriting criteria. Similar to the Clean Energy Works Oregon (SEWO) model, replacing debt-to-income requirements with utility bill repayment history will open doors to LMI homeowners. NYSERDA, in addition to working with utilities to streamline energy usage sharing, should partner with utilities to create a more effective method of sharing utility bill payment history. By supporting the development of a more inclusive Tier 2 financing mechanism, utilities will display real commitment to addressing, and ultimately reducing, the energy burden of LMI communities. While it is true that there were significant issues in the past regarding the ability of utilities to produce proof of timely payment history, these efforts can be used as learning experiences and built upon moving forward. With the implementation of the REV and NYSERDA pivoting program focus to LMI communities, this is the ideal time to implement an improved Tier 2 with credit criteria that is inclusive of the LMI population.

While Tier 1 will continue to serve part of the population, it will remain limited in its scope. The majority of households that currently utilize NYSEDA financing are not LMI. If NYSERDA cuts rebate and financing availability to non-LMI households while maintaining the same underwriting criteria, there is a real possibility that the result is a significant decrease in the total loans awarded with zero increase in LMI household participant. Developing a Tier 2 that considers utility bill history, rather than debt-to-income ratio, brings 38% of previously denied applicants back into the fold. Such criteria would also deter homeowners unable to currently pay their utility bills from taking on more debt. With the development of the REV and NYSERDAs focused commitment to LMI communities, NYSERDA has the opportunity to implement a new Tier 2 that works for low-to-moderate income communities.

Drafted by Marriele Robinson, PowerUp Communities Project Coordinator, Long Island Progressive Coalition. The Long Island Progressive Coalition is the community based organization for Nassau and Suffolk County, contracted through the NYSERDA Green Jobs Green New York initiative since 2010.
Contact: marriele@lipc.org

Recommendations to NYSERDA GJGNY LMI Working Group from the GJGNY CBO Network

Collected by: Stephan Edel, Center for Working Families.

Additional contractor support
Problem: Expanding workforce development and labor standards will increase the back office and compliance burden on small contractors. They may need additional support to develop and maintain their participation.

Recommendation: The WFD recommendations necessitate additional business development to ensure that small contractors and MWBE contractors can participate and thrive even as program wide standards are attached.

Improved collaboration
Problem: Given the complexity of the ongoing energy reforms, NYSERDA should proactively seek and incorporate stakeholder feedback early in the process of developing solutions.

Recommendations: Clearly expand the CBO role and funding to work with the newly combined EmPower, AHP, GJGNY, and other programs under the CEF.

Expand support for middle income participation
Problem: The cost of a retrofit or solar project is still prohibitively high for many middle income working families. Additionally, many middle income households interested in energy efficiency and renewable energy projects do not have tax positions that make deductions a compelling or useful form of subsidy.

Recommendation: NYSERDA should shift its definition of LMI so that any household income at or below 80% of the AMI is considered "low-income"; above 80% and up to 120% of the median income is considered "moderate- income." Above this is “middle-income.” This would put them in line with some of the State's affordable housing programs. http://www.uhab.org/co-op-members/resource-library/governance/income-limits-explained#sthash.EdOdox8m.dpuf

Offer expanded opportunities for independent audits
Problem: There is an potential conflict of interest when the same contractor conducts an audit for work that they will. The CEF includes language that will make audits and energy scores part of the house buying process furthering possibilities for biased home energy efficiency information to cause harm to consumers.

Recommendation: Separating the audit and QA process from retrofit work offers one model to afford an additional layer of customer protection in the energy upgrade process. Audit reports and workscopes will become more transparent as they will need to be understood not only by the homeowner but also companies that want to undertake work. The current $250 audit fee will have to be raised to cover the actual expense.

If NYSERDA contracts a third party to perform residential energy audits, then homeowners and Home Performance contractors could experience the same benefits as the stakeholders operating through NYSERDAs Small Commercial and Non-Profit Energy Efficiency program.

To this point, in 2015 the Long Island Progressive Coalition has scheduled over 30 audits through this program, with TRC Solutions as the regional subcontracted auditing agency. Each institution assessed has reacted positively to having an unbiased, state subcontracted entity provide the initial assessment. In most cases this first step actually increased confidence in energy efficiency investments as well as the contractors that would ultimately perform the work. Contractors have the added benefit of being provided a vetted and interested client, with whom they know in advance the general project scope and can plan/propose accordingly. If residential audits were to be subcontracted similarly, these benefits would apply cross industry.

As the home energy audit becomes a more integral part of the real estate process, independent energy auditing will become vastly important so that consumers know that they can trust a home's energy score and its contribution to a home's value.

Continue funding of the program
Problem: The goal of this working group is to maintain GJGNY and to offer feedback on how NYSERDA can better serve our community.

Recommendation: In addition to allocating additional funds for the RLF, NYSERDA should act to ensure that other core program elements are solvent. Specifically NYSERDA should allocate annual RGGI revenue to ensure that underserved communities are fully engaged in this program through community based organizations as part of the NYSERDA marketing budget.

Including a specific commitment to supporting the CBO role under the CEF
Problem: A clear commitment to expand the CBO role moving forward and make clearer that the CBOs are a key part of the solution.

NYSERDA should explicitly recognize the unique challenges that LMI consumers face in relation to the REV plan. As the REV transition evolves, NYSERDA should use more traditional energy-efficiency programs to meet the efficiency needs of these consumers, who spend far more than average New Yorkers on energy costs. In addition to including provisions intended to ensure LMI customers reap the benefits of the REV transition, the order included a very positive commitment to guard against disparate environmental impacts: "We require measures to avoid or mitigate potentially harmful emission concentrations from distributed generation or demand response in environmental justice areas."

According to the Green jobs-green New York act of 2009 "Constituency-based organization" (CBO) means an organization incorporated for the purpose of providing services or other assistance to economically or socially disadvantaged persons within a specified community, and which is supported by, or whose actions are directed by, members of the community in which it operates. Empowering stakeholders in distressed communities to invest in energy efficiency projects that reduce energy bills, decrease greenhouse gas emissions and reducing energy demand in the state are central missions for CBO's. The legislature saw this as an opportunity to create economic and environmental justice through a program rooted in community. CBOs have demonstrated to NYSERDA that they are essential to serving LMI communities that otherwise will have great difficulty participating.

Looking back at the RFP NYSERDA should allocate significantly more resources for some regions. The Green Jobs - Green New York Act of 2009 Act allocated $112,000,000 in funding from New York's share of the Regional Greenhouse Gas Initiative (RGGI) to support the GJGNY program to serve LMI communities. In 2011 NYSERDA allocated $10,190,000 in funding for Outreach & Marketing.as shown in Table 1.1 of the Green Jobs — Green New York Annual Report (Month ending July 31, 2011) http://www.nyserda.ny.gov/-/media/Files/EDPPP/GJGNY/Annual-Report-GJGNY/2011-gjgny-annual-report.pdf

Of the $10,190,000 allocated by NYSERDA, just $6,040,000 was devoted to marketing and outreach delivered through CBOs (Round I funding for 14 CBOs funded by RFP 2038, Round I, 5 CBOs funded by RFP 2327.)
In August 2013 GJ/GNY Round II (RFP) 2773 made an allocation of $4.5 Million available to CBOs distributed across the state regions as illustrated in Table 1 below:

Table 1. Regional Funding Allocations

CBO Region	Counties Associated with the Region	Total Outreach Budget*
North Country	Hamilton, Jefferson, Franklin, St. Lawrence, Lewis, Essex, Washington, Clinton, Warren, and Herkimer Counties	$166,703
Bronx	Bronx County	$206,863
Kings	Kings County	$439,658
Richmond	Richmond County	$117,724
Queens	Queens County	$456,504
New York	New York County	$336,720
Southern Tier	Schuyler, Steuben, Chenango, Broome, Otsego, Tompkins, Tioga, and	$183,193
Western	Chautauqua, Allegany, Cattaraugus, Niagara, and Erie Counties	$415,029
Finger lakes	Seneca, Yates, Orleans, Genesee, Monroe, Livingston, Wayne, Ontario and Wyoming	$341,599
Central	Oswego, Oneida, Cortland, Cayuga, Onondaga, and Madison Counties	$283,340
Mid Hudson and Westchester	Delaware, Greene, Sullivan, Ulster, Columbia, Dutchess, Orange, Rockland, Westchester, and	$562,350
Nassau	Nassau County	$346,650
Suffolk	Suffolk County	$374,249
Capital	Rensselaer, Schenectady, Albany, Saratoga, Schoharie, Montgomery, and Fulton Counties	$269,418
Total		$4,500,000

***Performance payments of up to 15% of the total budget per region are over and above (in addition to) the stated total budget.

The GJGNY law directs that Customer Outreach be targeted within specific geographic areas to economically-distressed communities, communities with high energy costs in relation to income, and nonattainment areas for one or more pollutants under the federal Clean Air Act. As of March 2015, as CBO contracts were extended through June 2016 NYSERDA invested a total of $15,510,000 in outreach and marketing for GJGNY (see status report below.)

GJGNY Status - 3/31/15

Component	Approved Funding 1	Expenses and Loans Issued	Loan Repayments and Proceeds from Bonds/Notes	Unexpended (Cash) Balance	Encumbered (Contractual Commitments)	Preencumbrances (Pending Contract Awards and Loans)	Uncommitted
Outreach and Marketing	$ 15,510,000	11,098,662		4,411,338	2,786,416	79,913	1,545,009
Workforce Development	7,337,565	5,514,791		1,822,774	1,500,158	-	322,616
Energy Audits - Single Family	23,407,270	18,749,510		4,657,760	-	2,206,251	2,451,509
Energy Audits - Multifamily	5,418,920	3,783,770		1,635,150	1,066,553	3,075	565,523
Energy Audits - Small Commercial /NFP	9,660,911	4,848,695		4,812,216	4,812,216	-	-
Revolving Loan Fund - Single Family	35,129,701	91,661,766	63,271,046	6,738,981	287,411	14,647,000	(8,195,430)
Revolving Loan Fund - Small Commercial/NFP	1,774,917	767,324	76,095	1,083,688	280,152	-	803,536
Revolving Loan Fund – Multifamily	5,423,169	3,431,476	750,722	2,742,415	285,009	428,500	2,028,905
Administration	7,840,000	7,380,344		459,656	-	-	459,656
Evaluation	5,600,000	2,374,234		3,225,766	1,857,289	-	1,368,477
NYS Cost Recovery Fee	1,904,000	1,443,764		460,236	-	-	460,236
	$ 119,006,453	151,054,334	64,097,862	32,049,981	12,875,203	17,364,739	1,810,039

[1] Includes initial $112 million provided through the GJGNY Act, $1,779,747 in accumulated interest earnings, and $5,226,707 in additional RGGI funds allocated to the program during fiscal year 2015-16.

[2] NYSERDA plans to extend CBO contracts through June 2016.

[3] The enacted 2015-16 State Budget directs NYSERDA to continue providing such financing through March 31, 2016 to all customers that were eligible for the program at the end of 2014. Based on current loan applications and loan origination volume, NYSERDA estimates that additional funding of $80 million will be required to continue GJGNY financing through March 31, 2016 (approximately $32 million for residential energy efficiency loans and $48 million for residential solar loans. NYSERDA will allocate $80 million from the Regional Greenhouse Gas Initiative to fund these loans. NYSERDA anticipates to finance a pool of energy efficiency loans during 2015 through bonds to be issued by the NYS Environmental Facilities Corporation through the Clean Water State Revolving Fund, and estimates that bond proceeds of approximately $19 million will be available (after paying a $30 million Short-Term Financing Note issued to EFC in 2014) to replenish the RGGI fund. In addition, NYSERDA is exploring a bond or note financing for residential solar loans and anticipates that proceeds of approximately $34 million will be available to replenish the RGGI fund. Combined, the total reimbursements are anticipated at approximately $53 million. The $27 million in net funding required for the GJGNY financing program extension was not contemplated when the fiscal year 2015-16 RGGI Operating Plan extension was first formulated. Rather than adjusting proposed funding for programs currently supported in the fiscal year 2015-16 Operating Plan, NYSERDA proposes to fully fund the GJGNY financing extension from future program revenues.

In all, roughly $15,510,000 (less than 14%) of the $112M RGGI funds for GJGNY was allocated by NYSERDA to fund marketing and outreach by CBOs, with several million dollars set aside to fund the development of marketing materials for the program by Brand Cool.
NYSERDA should expand its commitment to serve LMI communities through CBOs as independent contractors for marketing, outreach and program delivery. This would require an expanded commitment to fund statewide CBOs at a significantly more robust level than before; including dedicated funding to do own local marketing and other programmatic work themselves. As well as increased funding in order to do outreach and customer support for related programs under the CEF: GJGNY EmPower, AHP, and other programs.

Recommendations:

1. NYSERDA should identify and allocate significantly greater financial resources to fund marketing and outreach by CBOs to ensure a more robust and impactful program for LMI communities.
2. Longer contract terms with CBOs can ensure program stability, retention of trained program staff, , and reduce funding uncertainty for CBOs which will ensure LMI communities are served without interruption and program metrics are achieved.
3. Financial resources should be made available to CBOs to provide professional training leading to BPI certification(s) for program delivery staff. NYSERDA should require BPI certification as a professional standard for every CBO as a program deliverable within the first year of every contract.
4. The financial resources that were diverted to for the development and distribution of marketing materials on a statewide level can be spent more effectively by the CBO's within their local communities.
5. NYSERDA should ensure that the benefits of energy efficiency and customer outreach be available to all LMI New Yorkers regardless of their address in the state. NYSERDA should ensure that a CBO is identified to serve economically-distressed communities in every region of the state.

GJGNY LMI Working Group Recommendations
Workforce Development and Job Standards Subgroup

Submitted by Clarke Gocker, Ellen Redmond, Angela Tover, and Stan Greschner

1. NYSERDA should require all GJGNY affiliated contractors to provide baseline workforce data to NYSERDA that includes such things as demographic information, municipality or zip code of residence, date of hire, industry credentials, and information related to wage rates and benefits for all incumbent field level staff. This information should be updated on a regular basis to ensure accuracy. NYSERDA should make aggregate data publicly available within each region of the State and should provide GJGNY CBOs with contractor-level data. Data could be used to target training resources to local communities and support to contractors.

2. NYSERDA should increase funding for GJGNY workforce development programs, focus resources on programs that benefit disadvantaged workers as intended by the GJGNY Act, and organize workforce development programs into an integrated continuum of offerings that promote real career pathways for disadvantaged workers. This continuum should support flexible and innovative program designs that maximize participant access and retention through multiple on-ramps and the provision of adequate wraparound support services. Disadvantaged workers should be able to engage this continuum of workforce programs with clear expectations about potential advanced training and employment related outcomes tied to successful participation, and a clear understanding of the trajectory of programs that would prepare them to achieve particular outcomes. NYSERDA should develop and support a continuum of workforce programs that culminates with registered apprenticeships in the energy efficiency and renewable energy sectors. Apprenticeship programs are generally recognized as the gold standard for industry training. NYSERDA's support for apprenticeship program models would serve clear public policy objectives, especially when combined with a commitment to enhanced access for disadvantaged workers. Mechanisms that enhance access to apprenticeship programs, such as direct indenture/direct entry, currently exist and should receive NYSERDA's explicit endorsement.

3. NYSERDA should adopt program-wide labor standards for GJGNY in order to leverage investments in workforce development and job training. Labor standards should include:

A. Local and Targeted Hiring – At a minimum, NYSERDA should require that 51% of technical work hours be performed by residents in the community/region in which projects occur, and that technical workers come from a disadvantaged category, including people of color, young adults, women, formerly incarcerated, low-income household, refugee/immigrant, veteran, long-term unemployed, or frontline climate-vulnerable community. Definitions for local hiring should be determined by local stakeholders, including GJGNY CBOs and workforce development agencies, serving on regional advisory committees (see recommendation 4. below). NYSERDA should adopt a standard definition of "disadvantaged worker."

B. First Source Referral System – NYSERDA should designate a network of community-based organizations, training program providers, and workforce development agencies as first source worker referral partners capable of leveraging NYSERDA and DOL workforce investments to match disadvantaged workers with GJGNY affiliated contractors. NYSERDA should require contractors to utilize the first source referral system to recruit and place disadvantaged workers in jobs.

C. Pre-Apprenticeship and Apprenticeship Utilization – In order to ensure a reliable pipeline of trained and qualified workers are available to GJGNY affiliated contractors, NYSERDA should support existing registered apprenticeship programs. In cases where existing programs need to be expanded or new programs need to be developed, NYSERDA should work with stakeholders representing organized labor, industry, and community to expand existing or develop new apprenticeship programs. NYSERDA should support new and existing career pathways and pre-apprenticeship training providers as well as work with community organizations, workforce agencies, and the building trades unions to develop uniform standards for career pathways and pre-apprenticeship programs. Career pathways and pre-apprenticeship training providers should be linked with registered apprenticeship programs through a direct indenture/direct entry mechanism. Regional advisory committees should set disadvantaged worker enrollment and participation standards for apprenticeship programs to follow. NYSERDA should educate contractors about the benefits of apprenticeship program models and should incentivize contractors to sponsor apprenticeship programs at their companies. NYSERDA should create a apprenticeship utilization standards in consultation with regional advisory committees for all GJGNY projects.

D. Transitional Employment (Community Hiring Hall) – NYSERDA should work with community and workforce stakeholders to develop and support a community hiring hall model of transitional employment and hands-on training for disadvantaged workers as part of a continuum of workforce programs. The community hiring hall model would empower community-based and workforce organizations to directly hire disadvantaged workers for short-term paid job assignments with GJGNY affiliated contractors. Workers participating in the community hiring hall would earn the program minimum living wage and benefit rate, and would receive wraparound support services. The community hiring hall would enable contractors to meet local and targeted hiring requirements while receiving administrative and HR support from the hiring hall provider. Graduates of career pathways and pre-apprenticeship programs, as well as aspiring apprentices, could participate in the community hiring hall in order to gain valuable work experience in the field. Organizations administering community hiring hall models should be eligible for direct entry status with the Department of Labor. As a result, disadvantaged workers participating in the community hiring hall would be eligible for direct entry into registered apprenticeship programs after successfully completing a specified number of hours of employment in the field.

E. Living Wage and Benefit Rates – NYSERDA should create a mandatory living wage and benefit standard where no prevailing wage standard applies. Living wage and benefit rates should be established regionally based on variations in cost of living and should be indexed to annual cost of living increases. NYSERDA should develop and support the implementation of a certified payroll reporting system to ensure GJGNY affiliated contractors comply with the standard and that workers receive a living wage with benefits.

4. NYSERDA should authorize the creation of stakeholder advisory committees in regions across the state. These committees would be democratically organized and would include workers, and representatives from community-based organizations, organized labor, industry, workforce development agencies, NYSERDA, and DOL. Advisory committees would be responsible for (a.) developing local strategies to meet program-wide minimum labor standards; (b.) monitoring compliance and reporting findings to NYSERDA on a regular basis; and (c.) making recommendations to NYSERDA around improvements to workforce development programs and the implementation of labor standards.

5. NYSERDA should restore funding in GJGNY for CBOs to perform workforce coordination activities. CBOs have demonstrated an ability to advocate for the interests of disadvantaged workers. NYSERDA should continue to contract with CBOs to assist disadvantaged workers access and navigate GJGNY training and employment opportunities. CBOs could take on the additional responsibility of convening or co-convening regional stakeholder advisory committees.

Efficiency First NY HP Contractor Response to LMI Working Group Recommendations

Submitted by Hal Smith of HALCO and Will Schweiger of Efficiency First NY

Efficiency First NY, on behalf of its home performance contractors members throughout NY state respectfully submits the following comments regarding the LMI (Low and Middle Income) Working Group Recommendations. Efficiency First NY commends NYSERDA for convening a group of stakeholders to discuss issues specifically related to the LMI sector, in an effort to refine and improve the services provided to New Yorkers who can benefit most from energy efficiency improvements.

The roots of the Home Performance (HP) industry today, and in fact many of the contractors that currently participate in NYSERDA's various energy efficiency programs, can be traced back to the 1970s with the weatherization programs that were created to tackle issues of energy affordability for New York's most vulnerable residents. To this day, performing energy audits and efficiency retrofits in LMI homes is a central part of the nearly every HP contractor's business across the state. These contractors are in LMI homes every day, working one on one with homeowners to solve their energy issues by utilizing the programs offered by NYSERDA and other agencies. Furthermore, these same contractors spend time and money actively marketing their services to LMI households in order to grow and drive production for their businesses.

With the recognition that contractors play such a critical role in the delivery of LMI programs, Efficiency First NY questions why it was not a greater priority of the LMI working group to have contractor representation and participation. Only four contractors statewide were asked to participate, of which only one (Hal Smith - HALCO) was able to attend regularly and contribute. While we recognize the benefit of having direct contractor feedback in this type of working group, we would respectfully ask that Efficiency First NY also be included in future meetings of this type. Many things compete for contractors' time and attention, running their businesses being the main priority, and Efficiency First NY exists (in part) to share the perspectives of contractors in discussions like these.

Efficiency First NY would also like to comment on the strategy of using CBOs to reach LMI customers, and the impact that they have had from the contractor's perspective. Contractor experiences with CBOs have differed greatly across the state. In some areas, CBOs and HP contractors developed strong relationships that have led to meaningful increases in the number of LMI homeowners completing retrofits, and penetration into communities that would have otherwise been left unserved. However, in other areas, contractors that have signed on to participate in CBO lead generation programs have encountered issues with poor lead quality (conversion), low quantity, and adversarial relationships with the CBOs. Efficiency First NY encourages NYSERDA to work with these organizations to find ways to maximize the effectiveness of CBO marketing dollars and share best practices to improve performance statewide.

Efficiency First NY strongly believes in the power of the HP contractors to generate business through their own marketing efforts, which have proven effective at reaching LMI customers. The vast majority of LMI customers that are brought into NYSERDA's programs are generated by contractors and Efficiency First NY asks that NYSERDA expand their support for this lead generation pathway. We believe that giving contractors the tools and program offerings to create project proposals that LMI consumers can easily say "yes" to is the most effective thing that can be done. Streamlining programs, enhancing coordination between AHP and EmPower, and reducing approval times are key ways to support this effort. Furthermore, we ask that you consider the additional funding and expansion of the Co-Op Advertising Fund to assist contractors with the costs of marketing directly to the LMI sector.

Efficiency First NY strongly supports NYSERDA's response to Topic 6 in Section 4.3, on the issue of creating a third party auditor system. While a third party auditing system can be accommodated by the current program structure and has been explored by contractors throughout the state, the system has largely been abandoned for a variety of reasons. Not only does this system drastically increase the cost of the initial assessment and various energy model revisions, it adds significant complexity and confusion to the sales and production processes. Efficiency First NY member contractors believe strongly that NYSERDA's existing QA/QC is adequate to ensure accurate energy modeling and high quality installations. In recognition of the state policy reform outlined in the Clean Energy Fund and NYSERDA's market transformation role, we believe that promoting third party audits would be in opposition to the market signals given by the HP industry. Furthermore, we applaud NYSERDA for including the Efficiency Meter Pilot in their response to this recommendation, as a way to increase energy modeling accuracy and consumer confidence in savings projections. Efficiency First NY strongly endorses the Efficiency Meter concept as a solution for many of the challenges that LMI and Market Rate program delivery currently face. We stand ready to assist NYSERDA with getting the pilot program underway.

Regarding the proposed labor standards included in this document, Efficiency First NY would like to make several comments and provide some perspective from its contractor members. Before addressing specific topics however, it is important to understand the market realities and challenges faced by HP contractors throughout the state. For many years, NYSERDA and others have invested in the Home Performance industry, creating a contractor network that promotes diagnostic testing, whole-home deep energy retrofits, and adheres to industry standards. This group of contractors has chosen to differentiate themselves from the insulation and HVAC contractors to create a new industry type. Despite continued growth, the Home Performance industry is still quite small and has not yet reached a point of widespread public awareness. This means that during this intermediate stage of market growth, HP contractors are not only competing with one another, they are competing with unregulated insulation and HVAC contractors as well. HP contractors face a distinct market disadvantage as they compete with these other industries, as their cost structure is significantly higher due to the diagnostic testing, equipment, employee training/certification, and administration requirements that go hand-in-hand with being an HP contractor. NYSERDA's investments into these contractors through rebates and subsidies have helped to offset some of the costs, but the reality is that it is expensive to be a Home Performance contractor.

Efficiency First NY member contractors support many of the ideals that are advocated for in the labor standards section of this document, but object to the approach that is proposed. Creating *mandatory* labor standards will increase the HR costs, reporting burden, and overall operating costs for all contractors, in an industry that is already plagued with these problems. Many, if not all of the labor goals can be accomplished by strategic investments into underfunded programs that already work and by creating better employee-employer matchmaking systems.

On the topic of local hiring, we agree that hiring from communities where projects are being done is important. It should be noted however, the majority of HP contractors throughout the state are small businesses that by their nature hire locally and have a fairly local service territory. Creating mandatory requirements around this type of activity will create more reporting than necessary for activities that are already happening. We also agree that hiring disadvantaged workers is important for social and economic justice, but we have concerns about creating mandates around hiring these workers. There are practical and business considerations that must be considered when hiring any employee, especially ones that will be performing the technical aspects of a project. The most common technical job in an HP contractor's business is their auditor position, which comes with the responsibilities of working independently in customers' homes, beginning (and perhaps fully managing) the sales process, driving a van/truck, computer skills, etc. Our members have shared experiences of seeking state-trained disadvantaged workers but were unable to locate candidates who met all of the necessary requirements for that position (ex. Candidate had training but no motor vehicle license). We welcome assistance finding qualified candidates, as staffing and training is expensive, but oppose any system that sets requirements or otherwise infringes on the autonomy of contractors to select their employees.

Efficiency First NY strongly supports increasing funding for the On the Job Training (OJT) program as a way to encourage the hiring of disadvantaged workers. This program has been widely used by HP contractors statewide, has lead to many successful job placements for disadvantaged workers, and promotes voluntary participation instead of setting mandatory requirements. The OJT program recognizes and directly offsets the additional costs associated with hiring disadvantaged workers and Efficiency First NY believes that this type of cost-benefit approach should be considered in any job placement strategy.

On the topic of wage and benefit standards, Efficiency First NY member contractors feel strongly against imposing these requirements on an industry that is already plagued with significant issues of cost-competitiveness, industry differentiation, and reporting burden. Furthermore, the training and variety of skills that virtually all employees are required to have, already necessitates HP contractors compensate them with wage and benefits packages that meet or exceed these standards. Putting these requirements in place would serve only to raise the cost of improvements to homeowners and ratepayers due to increased reporting, and increase the market disadvantage to HP contractors. Efficiency First NY would only consider supporting the implementation of mandatory wage and benefit standards if they were implemented statewide, cross-industry, and would impact all trades including the currently unregulated insulation and HVAC installers.

We welcome the opportunity to work with NYSERDA and its stakeholders to continue to build upon market transformation efforts and improve the HP industry for LMI and Market Rate projects statewide.

Appendix D: Green Jobs-Green New York Loan Portfolio Details

Green Jobs - Green New York (GJGNY) Low-to-Moderate Income (LMI) Working Group

June 30, 2015

Contents

Residential Loan Summary

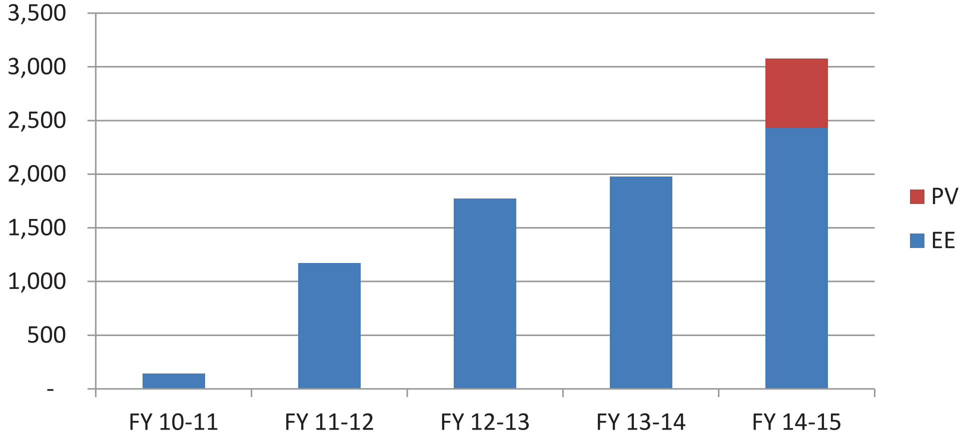
GJGNY Residential Loans Issued

All Loans (As of 3/31/15)

Purpose	Consumer Income	Underwriting	Count	Avg Loan	Total Loans Issued
EE	LMI	Tier 1	1,658	$7,424	$12,308,779
		Tier 2	485	$7,859	$3,811,650
	LMI Total		2,143	$7,522	$16,120,429
	Mkt Rate	Tier 1	4,973	$10,869	$54,053,111
		Tier 2	384	$11,825	$4,540,975
	Mkt Rate Total		5,357	$10,938	$58,594,086
EE Total			7,500	$9,962	$74,714,515
PV		Tier 1	564	$16,931	$9,549,103
		Tier 2	80	$17,414	$1,393,122
PV Total			644	$16,991	$10,942,224
Grand Total			8,144	$10,518	$85,656,739

GJGNY Residential Loans Issued by Year

Number of All Loans



Purpose	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
EE	143	1,171	1,775	1,979	2,432	7,500
PV					644	644
Grand Total	143	1,171	1,775	1,979	3,076	8,144

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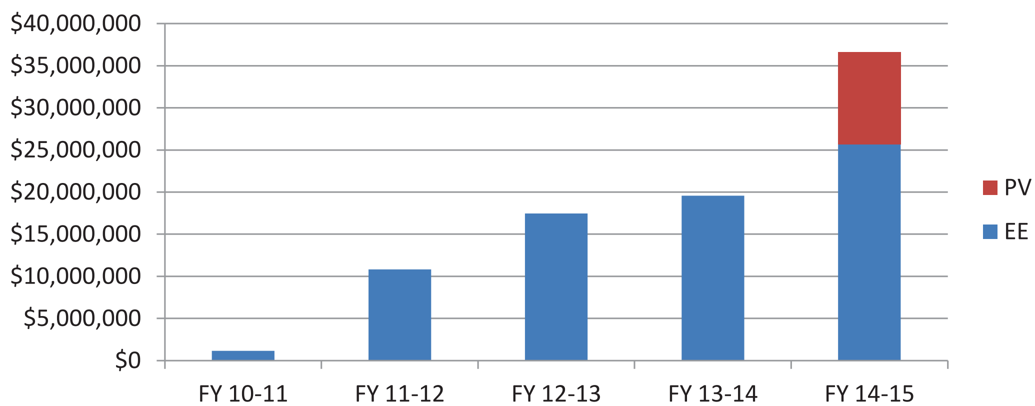
GJGNY Residential Loans Issued by Year

Dollar Value of All Loans



Purpose	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
EE	$1,155,231	$10,834,079	$17,451,731	$19,581,049	$25,692,425	$74,714,515
PV					$10,942,224	$10,942,224
Grand Total	$1,155,231	$10,834,079	$17,451,731	$19,581,049	$36,634,650	$85,656,739

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GJGNY Residential Loans Context
All Loans

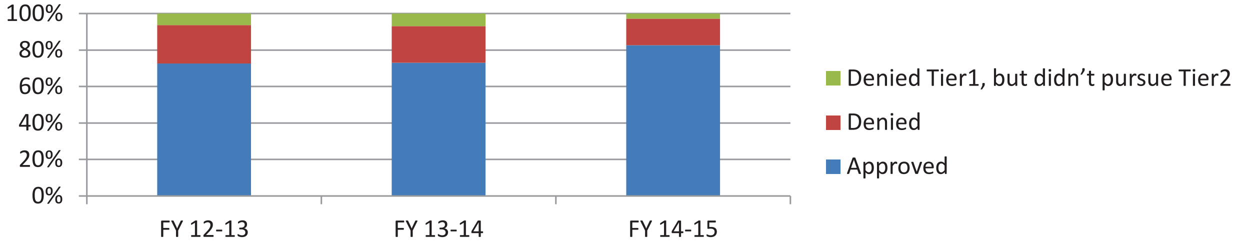
NY-Sun Applications for 2014	
Leased systems	9,211
Purchased systems	4,797
Total Applications	14,008
Application using GJGNY financing	1,258
Percent of Purchased systems using GJGNY financing	**26%**
Percent of 2014 Total Applications using GJGNY financing	**9%**

Energy Efficiency Projects – FY 14-15	
Total Completed Projects	6,296
GJGNY Loans Issued	2,342
Percent of projects using GJGNY financing	**37%**

GJGNY Residential Loan Underwriting Performance History

GJGNY Residential Loan Underwriting Performance History

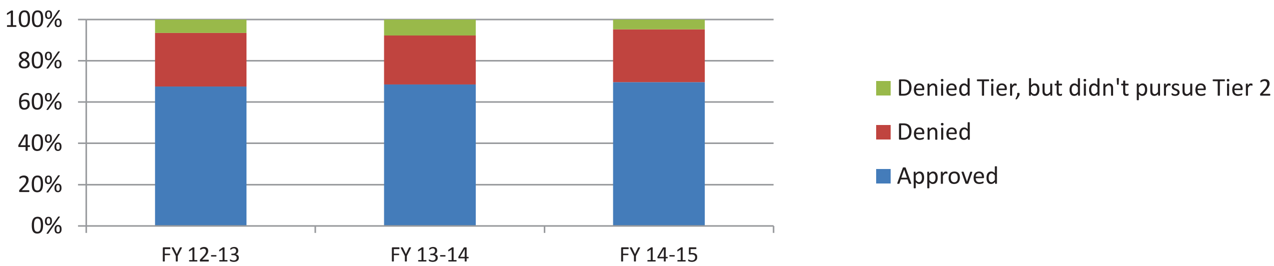
All Loans



	FY 12-13	FY 13-14	FY 14-15	Cumulative%	Cumulative#
Approved	72.7%	73.1%	82.7%	74.9%	15,045
Denied	21.0%	20.0%	14.5%	19.6%	3,938
Denied Tier1, but didn’t pursue Tier2	6.3%	6.9%	2.8%	5.5%	1,102
Total	100.0%	100.0%	100.0%	100.0%	20,085
Reason for Denial:					
DTI	30.9%	38.5%	27.9%	34.7%	1,750
FICO	37.2%	28.0%	29.4%	29.9%	1,505
Bankruptcy history	13.0%	12.0%	6.7%	11.9%	601
Judgments/collections	17.7%	20.7%	33.5%	21.8%	1,098
Other	1.2%	0.8%	2.4%	1.7%	86
Total	100.0%	100.0%	100.0%	100.0%	5,040

GJGNY Underwriting Performance History

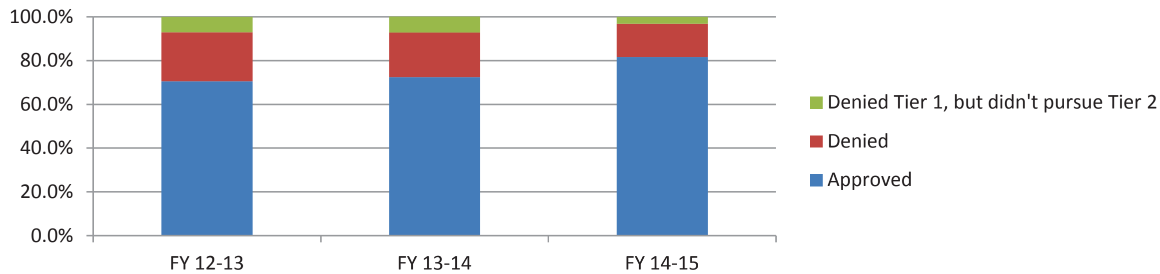
LMI Loans (EE Only)



	FY 12-13	FY 13-14	FY 14-15	Cumulative %	Cumulative #
Approved	67.5%	68.5%	69.7%	68.4%	3,367
Denied	26.0%	23.8%	25.6%	25.4%	1,249
Denied Tier 1, but didn't pursue Tier 2	6.5%	7.7%	4.7%	6.2%	305
Total	100.0%	100.0%	100.0%	100.0%	4,921
Reason for Denial					
DTI	30.6%	41.5%	34.9%	38.1%	592
FICO	33.1%	26.7%	29.7%	28.4%	441
Bankruptcy/Foreclosure/Repossession	16.4%	12.2%	6.2%	11.5%	179
Judgments/Collections	19.1%	19.1%	28.4%	21.1%	328
Other	0.8%	0.5%	0.8%	0.9%	14
Total	100.0%	100.0%	100.0%	100.0%	1,554

GJGNY Underwriting Performance History

Market Rate Loans (EE only)



	FY 12-13	FY 13-14	FY 14-15	Cumulative %	Cumulative #
Approved	70.6%	72.4%	81.6%	71.9%	9,619
Denied	22.3%	20.4%	15.2%	21.7%	2,910
Denied Tier 1, but didn't pursue Tier 2	7.1%	7.3%	3.2%	6.4%	858
Total	100.0%	100.0%	100.0%	100.0%	13,387
Reason for Denial					
DTI	31.0%	35.7%	23.9%	33.4%	1,260
FICO	38.3%	28.8%	32.9%	31.6%	1,191
Bankruptcy/Foreclosure/Repossession	12.3%	12.1%	7.3%	12.7%	477
Judgments/Collections	17.3%	22.6%	33.5%	20.7%	779
Other	1.1%	0.9%	2.4%	1.6%	61
Total	100.0%	100.0%	100.0%	100.0%	3,768

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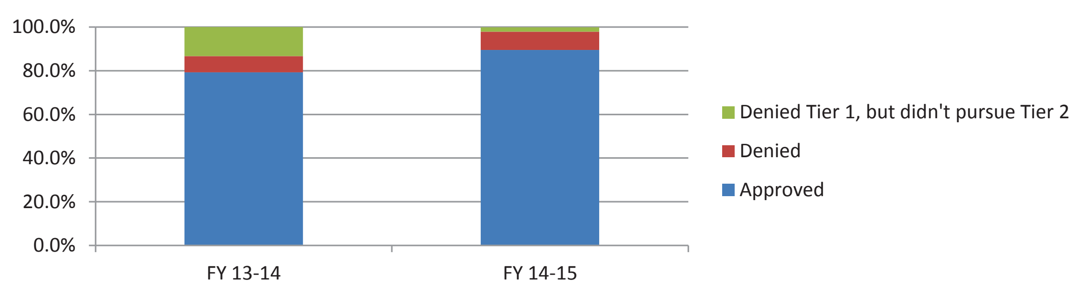
GJGNY Underwriting Performance History

Market Rate Loans (PV only)



	FY 12-13	FY 13-14	FY 14-15	Cumulative %	Cumulative #
Approved	0.0%	79.3%	89.5%	89.1%	2,849
Denied	0.0%	7.4%	8.4%	8.4%	268
Denied Tier 1, but didn't pursue Tier 2	0.0%	13.3%	2.0%	2.5%	80
Total	0.0%	100.0%	100.0%	100.0%	3,197
Reason for Denial					
DTI	0.0%	39.3%	32.8%	33.3%	116
FICO	0.0%	14.3%	20.9%	20.4%	71
Bankruptcy/Foreclosure/Repossession	0.0%	25.0%	6.6%	8.0%	28
Judgments/Collections	0.0%	21.4%	35.0%	33.9%	118
Other	0.0%	0.0%	4.7%	4.3%	15
Total	0.0%	100.0%	100.0%	100.0%	348

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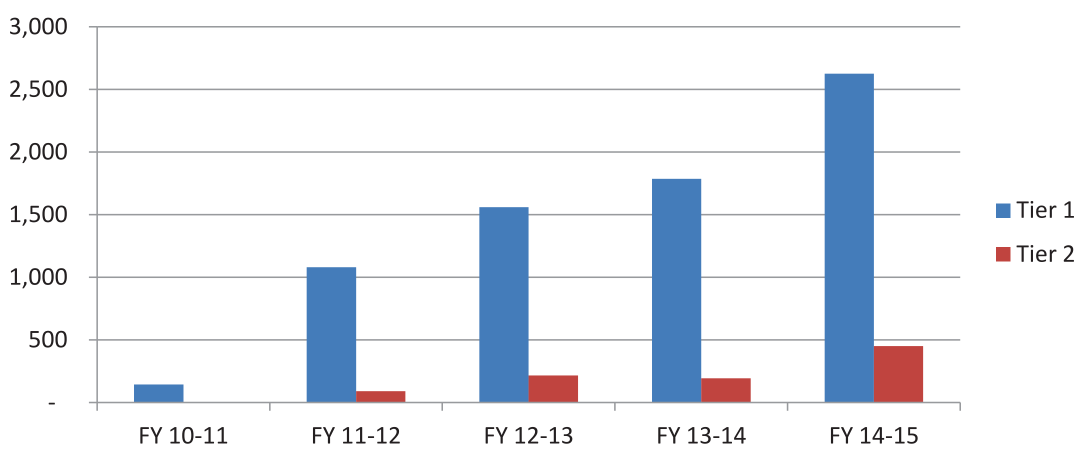
GJGNY Residential Loans by Underwriting Tier

GJGNY Loans by Underwriting Tier

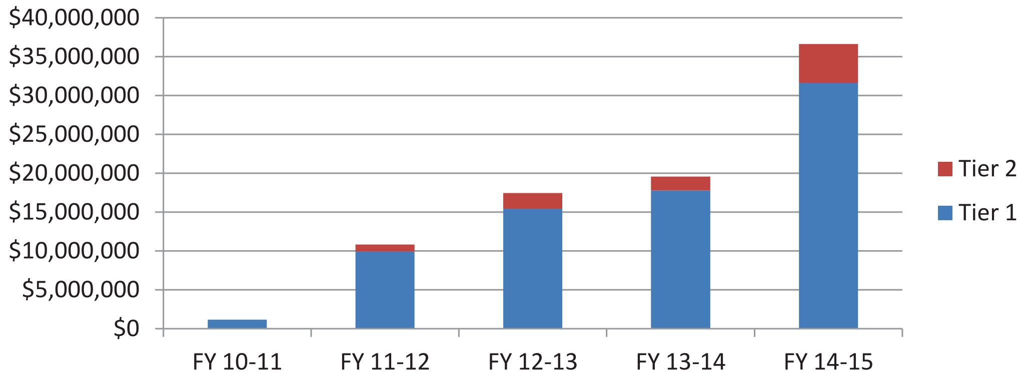
Number of All Loans



Underwriting	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
Tier 1	143	1,081	1,560	1,786	2,625	7,195
Tier 2		90	215	193	451	949
Grand Total	143	1,171	1,775	1,979	3,076	8,144

Loans by Underwriting Tier

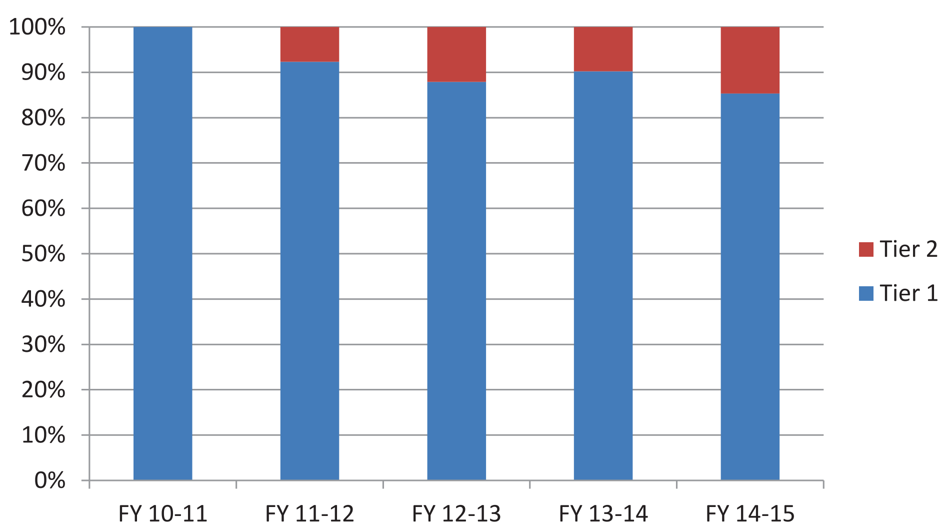
Dollar Value of All Loans



Underwriting	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
Tier 1	$1,155,231	$9,925,307	$15,438,645	$17,771,192	$31,620,617	$75,910,992
Tier 2		$908,771	$2,013,085	$1,809,857	$5,014,033	$9,745,747
Grand Total	$1,155,231	$10,834,079	$17,451,731	$19,581,049	$36,634,650	$85,656,739

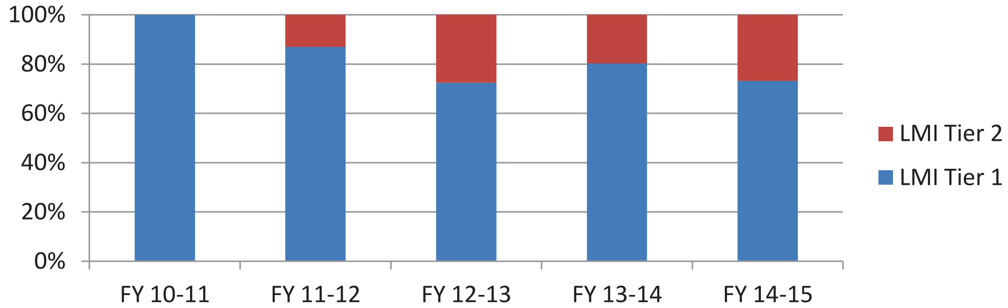
Percent of GJGNY Loans by Underwriting Tier

All Loans



GJGNY Loans by Underwriting Tier

LMI Loans (EE only)

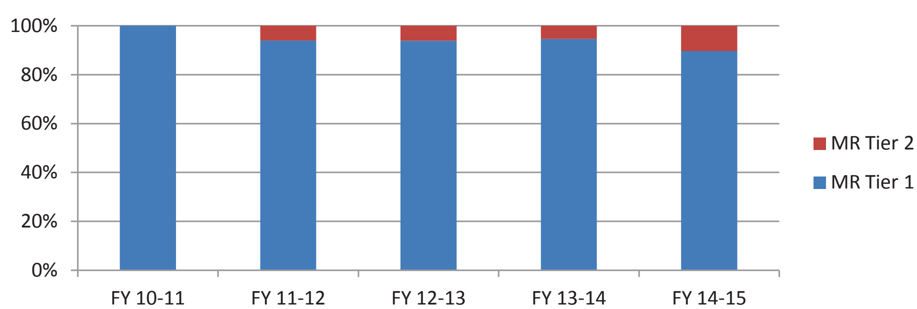


Income	Underwriting	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
LMI	Tier 1	$294,116	$1,602,079	$2,634,854	$3,767,675	$4,010,055	$12,308,779
	Tier 2		$277,562	$1,113,490	$931,656	$1,488,941	$3,811,650

Income	Underwriting	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
LMI	Tier 1	46	241	357	485	529	1,658
	Tier 2		36	136	119	194	485

GJGNY Loans by Underwriting Tier

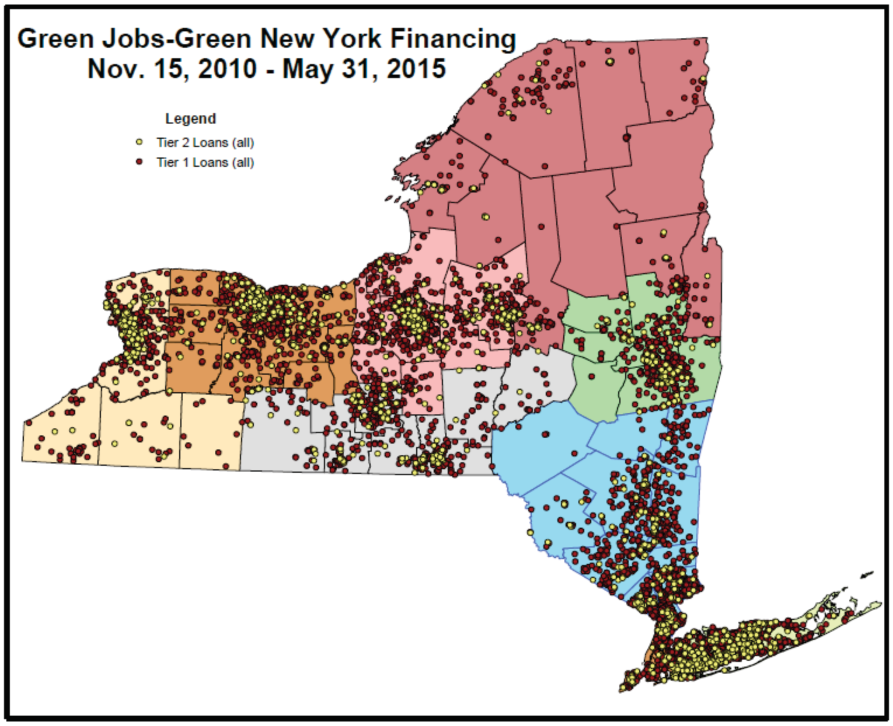
Market Rate Loans (EE only)



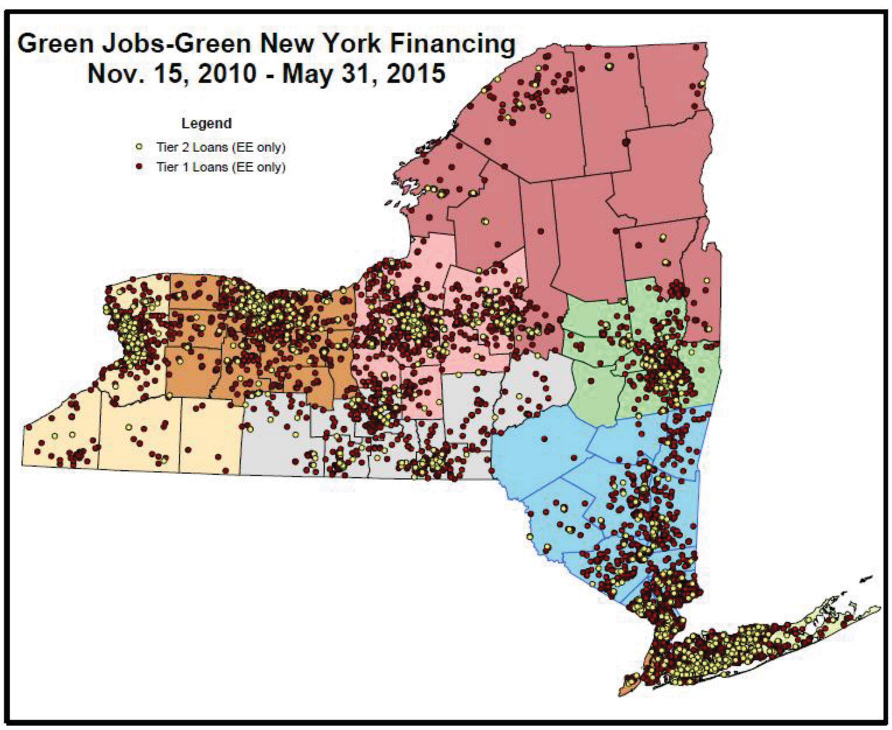
Income	Underwriting	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
Mkt Rate	Tier 1	$861,115	$8,323,228	$12,803,791	$14,003,517	$18,061,459	$54,053,111
	Tier 2		$631,209	$899,595	$878,201	$2,131,970	$4,540,975

Income	Underwriting	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
Mkt Rate	Tier 1	97	840	1,203	1,301	1,532	4,973
	Tier 2		54	79	74	177	384

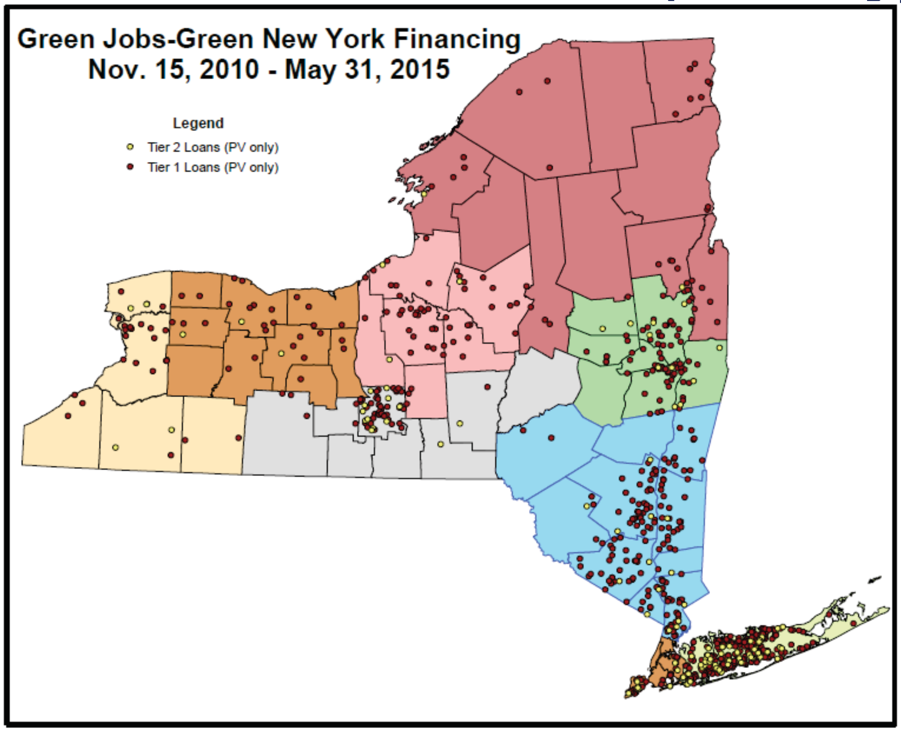
Tier 1 and Tier 2 Loans (All)



Tier 1 and Tier 2 Loans (EE only)



Tier 1 and Tier 2 Loans (PV only)



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GJGNY Residential Loans by Income Level

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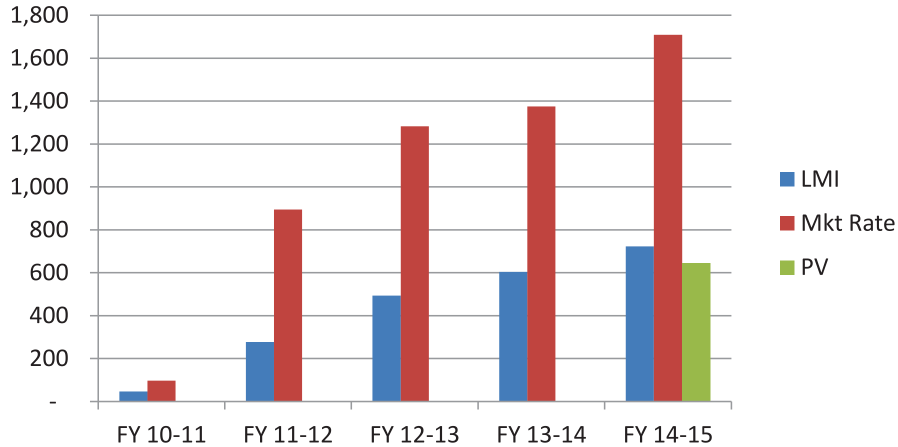
GJGNY Residential Loans by Income Level

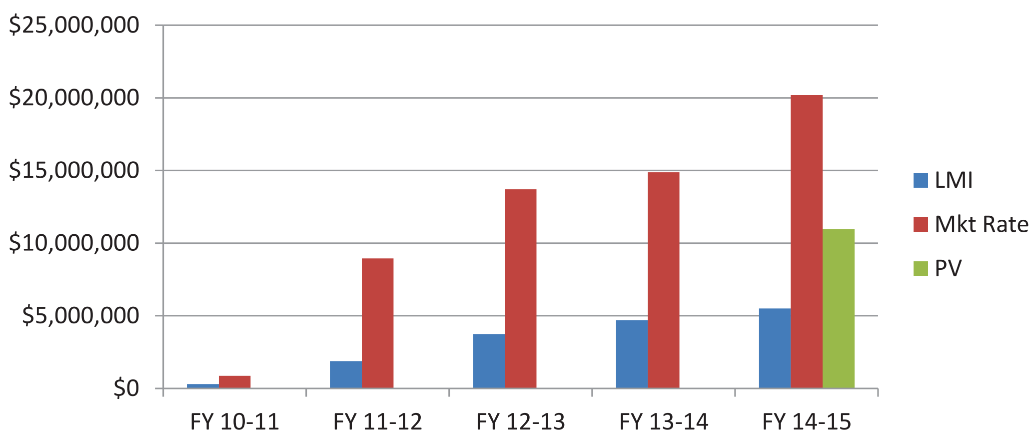
Number of All Loans



Income	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
LMI	46	277	493	604	723	2,143
Mkt Rate	97	894	1,282	1,375	1,709	5,357
PV					644	644
Grand Total	143	1,171	1,775	1,979	3,076	8,144

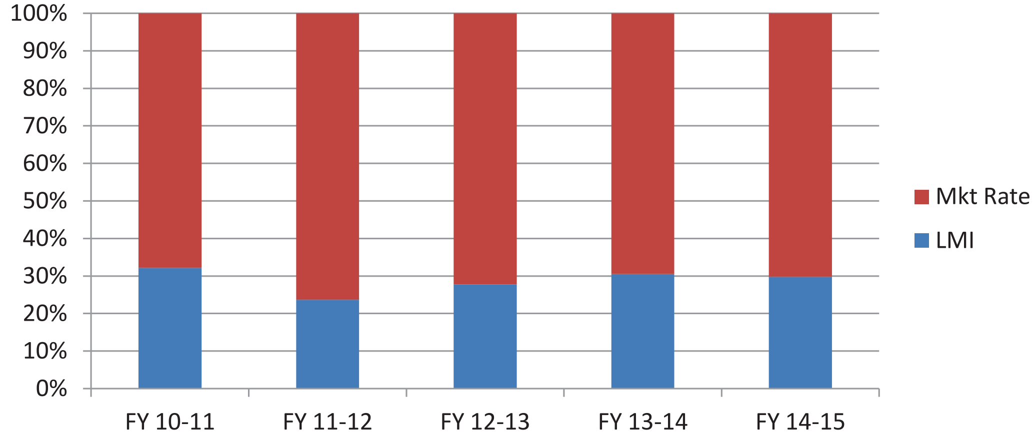
GJGNY Loans by Income Level

Dollar value of All Loans



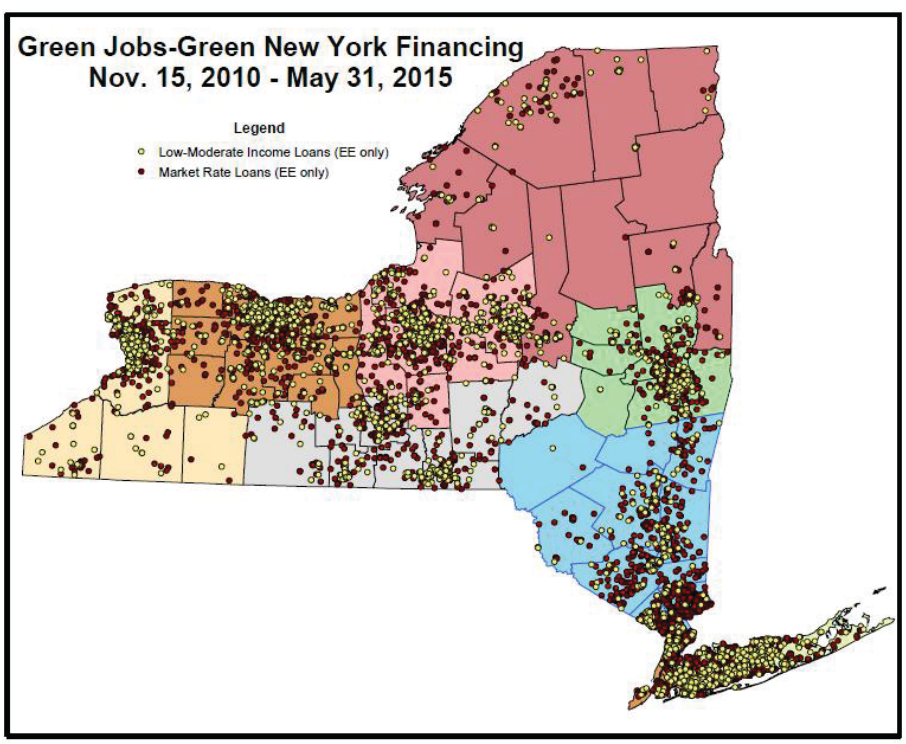
Income	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
LMI	$294,116	$1,879,641	$3,748,344	$4,699,331	$5,498,997	$16,120,429
Mkt Rate	$861,115	$8,954,438	$13,703,386	$14,881,718	$20,193,429	$58,594,086
PV					$10,942,224	$10,942,224
Grand Total	$1,155,231	$10,834,079	$17,451,731	$19,581,049	$36,634,650	$85,656,739

GJNGY Percent of Loans by Income Level (EE Only)



Income	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
LMI	46	277	493	604	723	2,143
Mkt Rate	97	894	1,282	1,375	1,709	5,357
PV					644	644
Grand Total	143	1,171	1,775	1,979	3,076	8,144

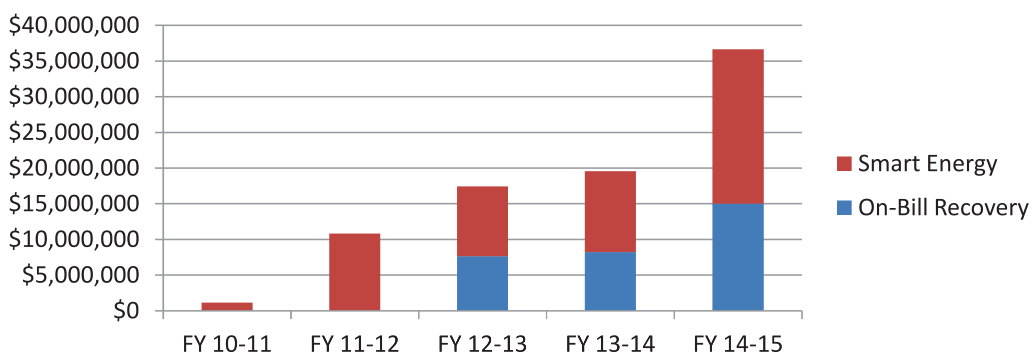
Market Rate and Low-Moderate Income Loans (EE only)



GJGNY Residential Loans by Loan Type

GJGNY Loans by Loan Type

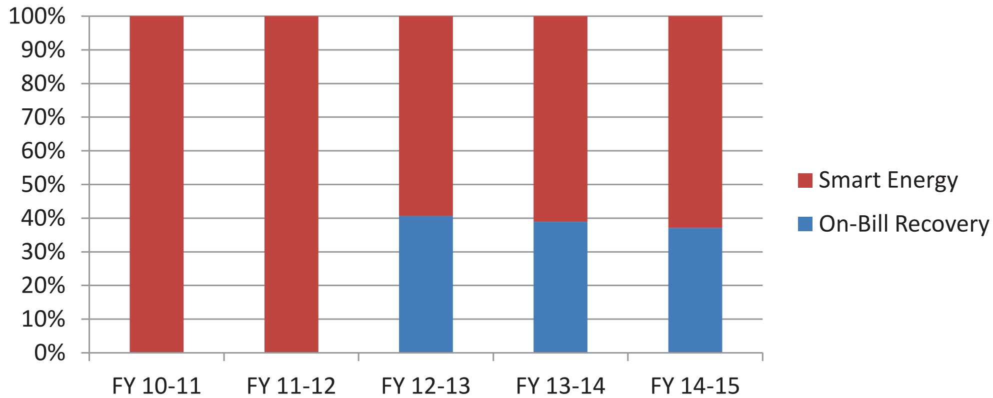
All Loans



Loan Type	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
On-Bill Recovery			$7,643,125	$8,232,743	$15,032,336	$30,908,203
Smart Energy	$1,155,231	$10,834,079	$9,808,606	$11,348,306	$21,602,314	$54,748,536
Grand Total	$1,155,231	$10,834,079	$17,451,731	$19,581,049	$36,634,650	$85,656,739

GJGNY Loans by Loan Type

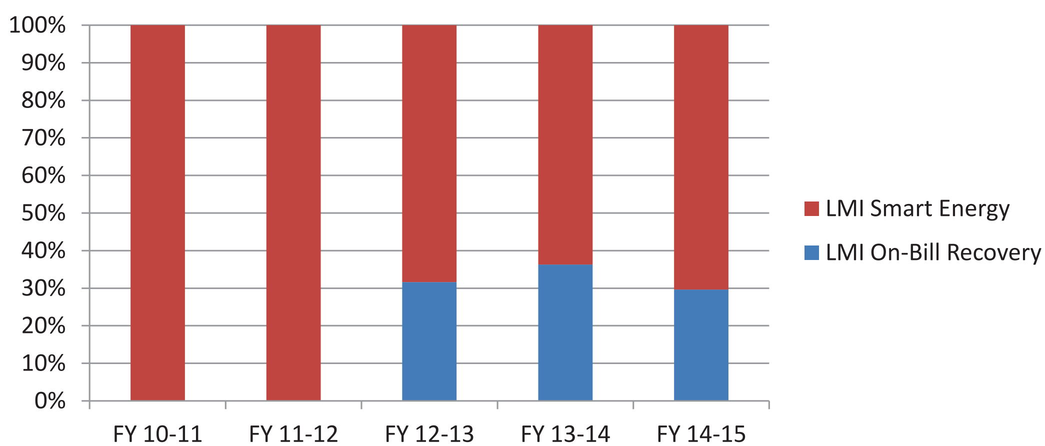
All Loans



Loan Type	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
On-Bill Recovery			720	770	1,140	2,630
Smart Energy	143	1,171	1,055	1,209	1,936	5,514
Grand Total	143	1,171	1,775	1,979	3,076	8,144

GJGNY Loans by Loan Type (EE only)

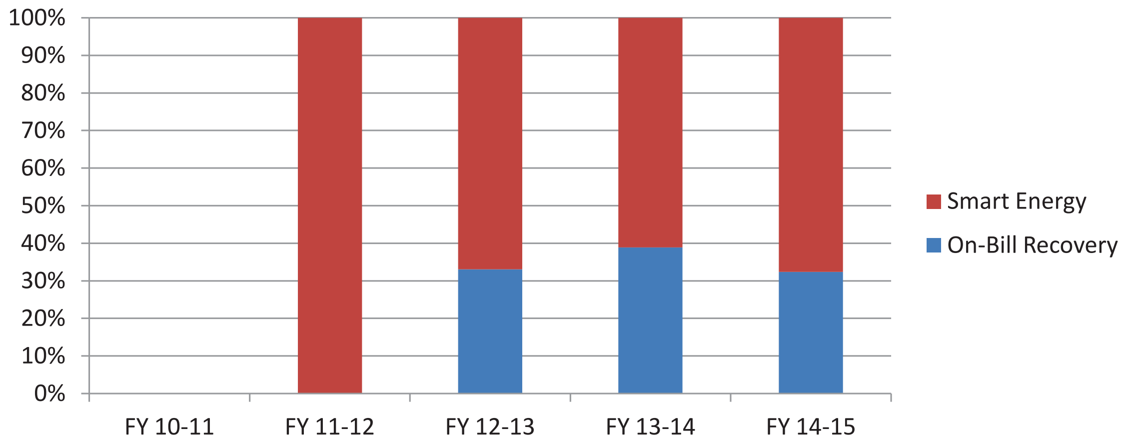
LMI Loans



Income	Loan Type	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
LMI	On-Bill Recovery			156	219	214	589
	Smart Energy	46	277	337	385	509	1,554

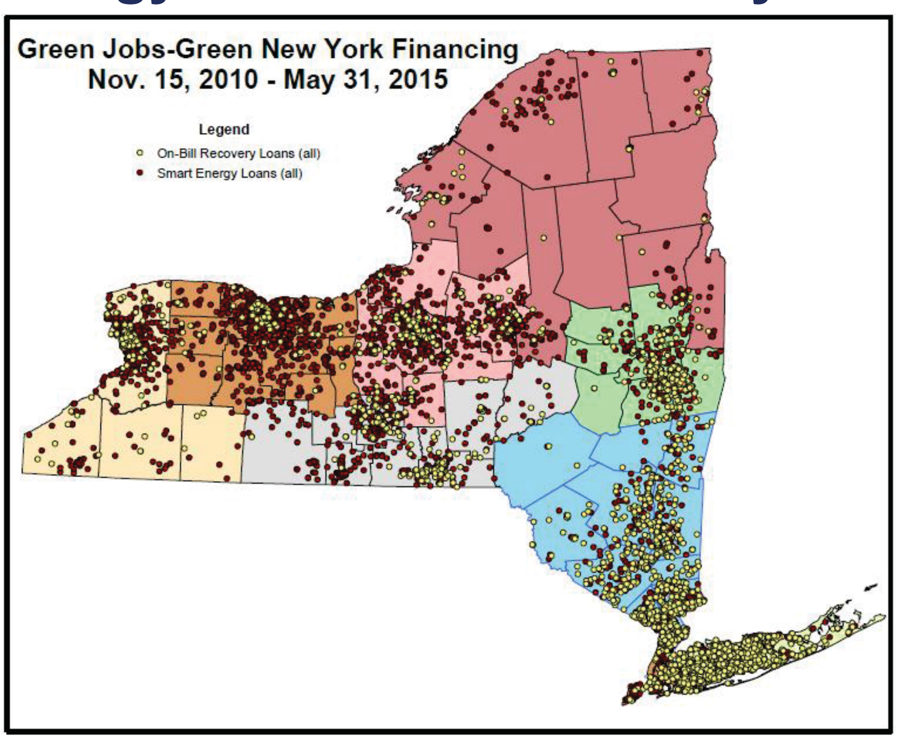
GJGNY Loans by Loan Type

Tier 2 Loans

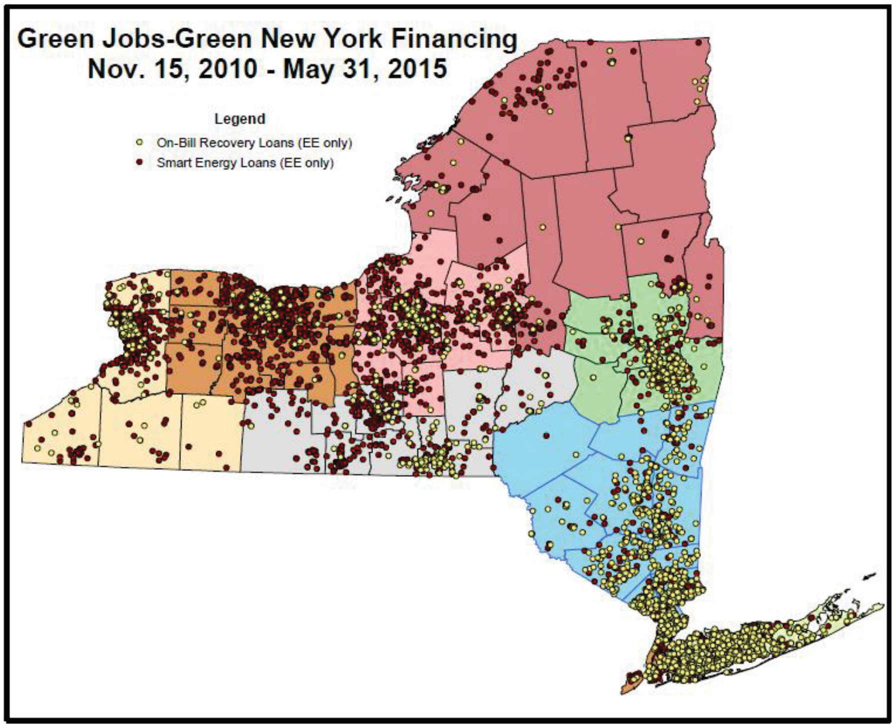


Loan Type	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
On-Bill Recovery			71	75	146	292
Smart Energy		90	144	118	305	657
Grand Total	-	90	215	193	451	949

Smart Energy and On-Bill Recovery Loans (All)



Smart Energy and On-Bill Recovery Loans (EE only)



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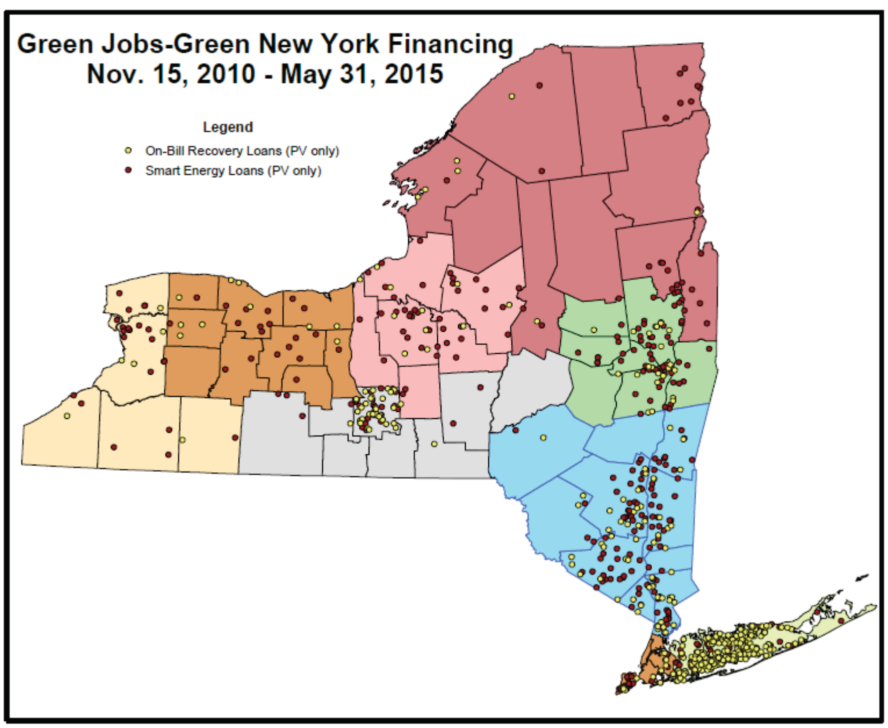
Smart Energy and On-Bill Recovery (PV only) Loans



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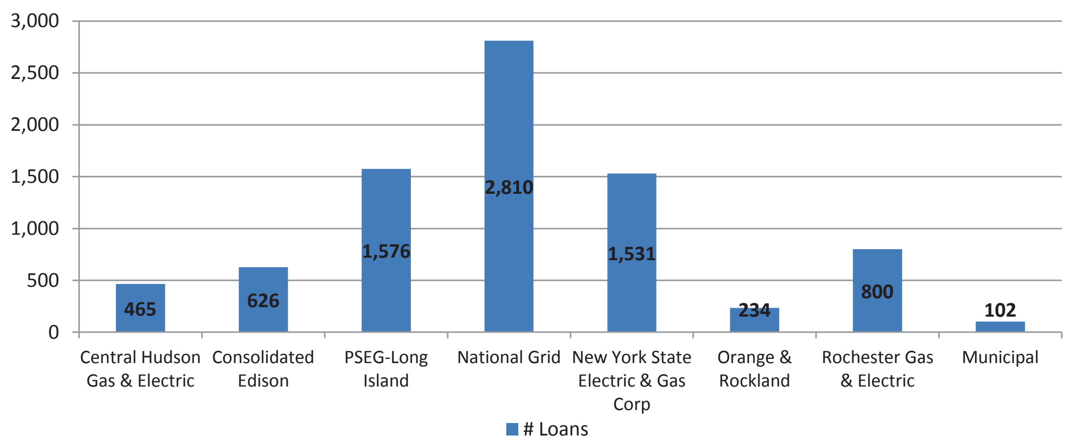
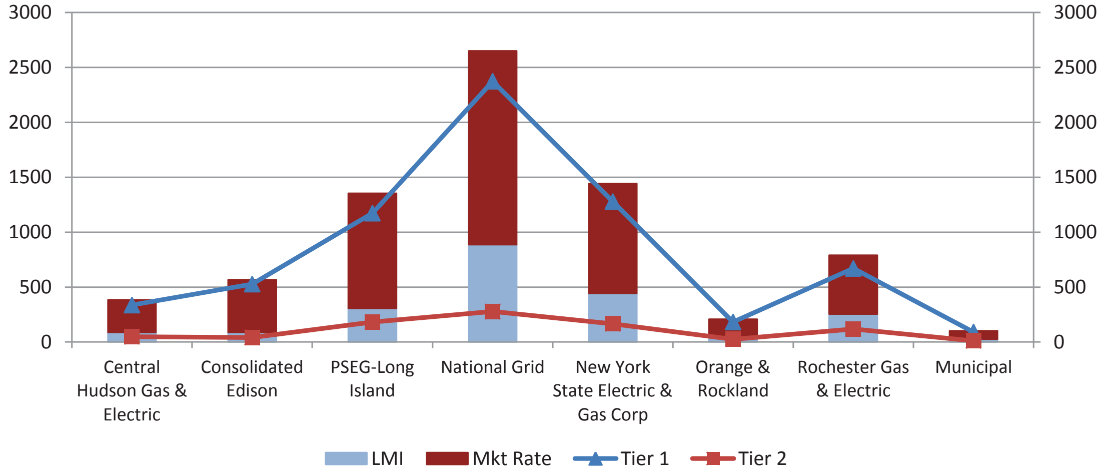
GJGNY Residential Loans by Utility Service Territory

Residential GJGNY Loans by Utility Service Territory



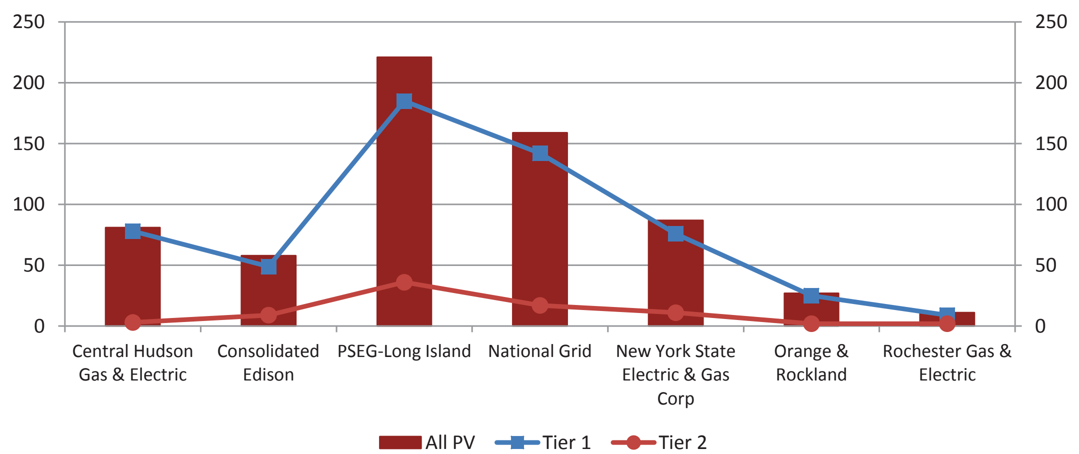
Utility	Central Hudson Gas & Electric	Consolidated Edison	PSEG-Long Island	National Grid	New York State Electric & Gas Corp	Orange & Rockland	Rochester Gas & Electric	Municipal	Total
Loan Amount	$5,705,837	$8,320,835	$20,001,662	$25,633,209	$15,540,190	$2,685,394	$6,862,910	$906,701	$85,656,739

Residential GJGNY Loans by Utility Territory (EE only)



Utility	Central Hudson Gas & Electric	Consolidated Edison	PSEG Long Island	National Grid	New York State Electric & Gas Corp	Orange & Rockland	Rochester Gas & Electric	Municipal	Total
Loan Amount	$4,381,650	$7,240,272	$15,762,554	$23,268,209	$14,267,398	$2,185,202	$6,702,527	$906,701	$74,714,515

Residential GJGNY Loans by Utility Territory (PV only)



Utility	Central Hudson Gas & Electric	Consolidated Edison	PSEG Long Island	National Grid	New York State Electric & Gas Corp	Orange & Rockland	Rochester Gas & Electric	Total
Loan Amount	$1,324,187	$1,080,563	$4,239,108	$2,365,000	$1,272,792	$500,192	$160,382	$10,942,224

GJGNY Residential Loans and Projects by CBO Region

Constituency Based Organizations (CBOs) by Region

Region		Status**	Constituency Based Organization (CBO)
Capital District			Affordable Housing Partnership of the Capital Region (AHP)
Central		Closed	Public Policy and Education Fund (PPEF Central)
Finger Lakes			Pathstone
Long Island*			Long Island Progressive Coalition (LIPC)
Mid-Hudson			Rural Ulster Preservation Company (RUPCO)
New York City	Queens	Closed	Asian Americans for Equality (AAFE)
	New York	Closed	Civic Association Serving Harlem (CASH)
	Kings		El Puente
	Kings	Closed	Make the Road New York (MRNY)
	Queens		Neighborhood Housing Services of Jamaica Inc (NHSJ)
	Richmond		Neighborhood Housing Services of Staten Island (NHSSI)
	Bronx		Sustainable South Bronx (SSBx)
North Country			Adirondack North Country Association (ANCA)
Southern Tier			Public Policy and Education Fund (PPEF ST)
Western			People United for Sustainable Housing (PUSH)

**The Long Island region is comprised of two separate regions under RFP 2773 (Nassau and Suffolk), both of which were awarded to the Long Island Progressive Coalition (LIPC).*

*** Some contracts awarded during the first contract round are now closed. All other contracts were either new or were renewed during the second round.*

Home Performance with ENERGY STAR®

Project Completions Associated with CBOs

CBO	Residential Retrofits Program-to-Date
AAFE - Asian Americans for Equality	16
AHP - Affordable Housing Partnership of the Capital Region	197
ANCA - Adirondack North Country Association	57
CASH - Civic Association Serving Harlem	1
El Puente	6
LIPC - Long Island Progressive Coalition	174
MRNY - Make the Road New York	49
NHSJ - Neighborhood Housing Services of Jamaica Inc	48
NHSSI - Neighborhood Housing Services of Staten Island	35
Pathstone	154
PPEF Central - Public Policy and Education Fund	27
PPEF Southern Tier - Public Policy and Education Fund	266
PUSH - People United for Sustainable Housing	262
RUPCO - Rural Ulster Preservation Company	372
Sustainable South Bronx	14
Grand Total	1678

Approximately half of the residential retrofits associated with CBOs are for LMI households. 7% - 10% of GJGNY project completions are currently associated with CBOs on an ongoing basis.

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Green Jobs-Green New York Residential Loans

Associated with CBOs through May 31, 2015

	Smart Energy Loans			On-Bill Recovery Loans			Total Loans		
Constituency Based Organization (CBO)	# Loans	$ Loans	Avg $ Loans	# Loans	$ Loans	Avg $ Loans	# Loans	$ Loans	Avg $ Loans
Asian Americans for Equality (AAFE)	4	$31,890	$7,973	4	$41,104	$10,276	8	$72,994	$9,124
AHP of the Capital Region (AHP)	27	$290,838	$10,772	49	$492,225	$10,045	76	$783,063	$10,303
Adirondack North Country Association (ANCA)	14	$156,042	$11,146	19	$173,764	$9,145	33	$329,806	$9,994
El Puente	1	$10,289	$10,289	0	$0	$0	1	$10,289	$10,289
Long Island Progressive Coalition (LIPC)	10	$100,685	$10,069	46	$484,835	$10,540	56	$585,520	$10,456
Neighborhood Housing Services of Jamaica Inc (NHSJ)	1	$7,185	$7,185	1	$3,337	$3,337	2	$10,521	$5,261
Neighborhood Housing Services of Staten Island (NHSSI)	3	$23,096	$7,699	0	$0	$0	3	$23,096	$7,699
OTHER	2	$5,960	$2,980	3	$35,783	$11,928	5	$41,744	$8,349
Pathstone	42	$339,916	$8,093	4	$27,355	$6,839	46	$367,270	$7,984
Public Policy and Education Fund (PPEF Central)	9	$74,168	$8,241	1	$17,890	$17,890	10	$92,058	$9,206
Public Policy and Education Fund (PPEF ST)	75	$643,706	$8,583	64	$567,296	$8,864	139	$1,211,002	$8,712
People United for Sustainable Housing (PUSH)	43	$295,790	$6,879	27	$140,655	$5,209	70	$436,445	$6,235
Rural Ulster Preservation Company (RUPCO)	44	$486,967	$11,067	133	$1,526,861	$11,480	177	$2,013,828	$11,378
Sustainable South Bronx (SSBx)	4	$37,099	$9,275	1	$12,974	$12,974	5	$50,073	$10,015
Grand Total	**279**	**$2,503,631**	**$8,974**	**352**	**$3,524,077**	**$10,012**	**631**	**$6,027,709**	**$9,553**

Approximately 7% of GJGNY Loans are associated with a CBO

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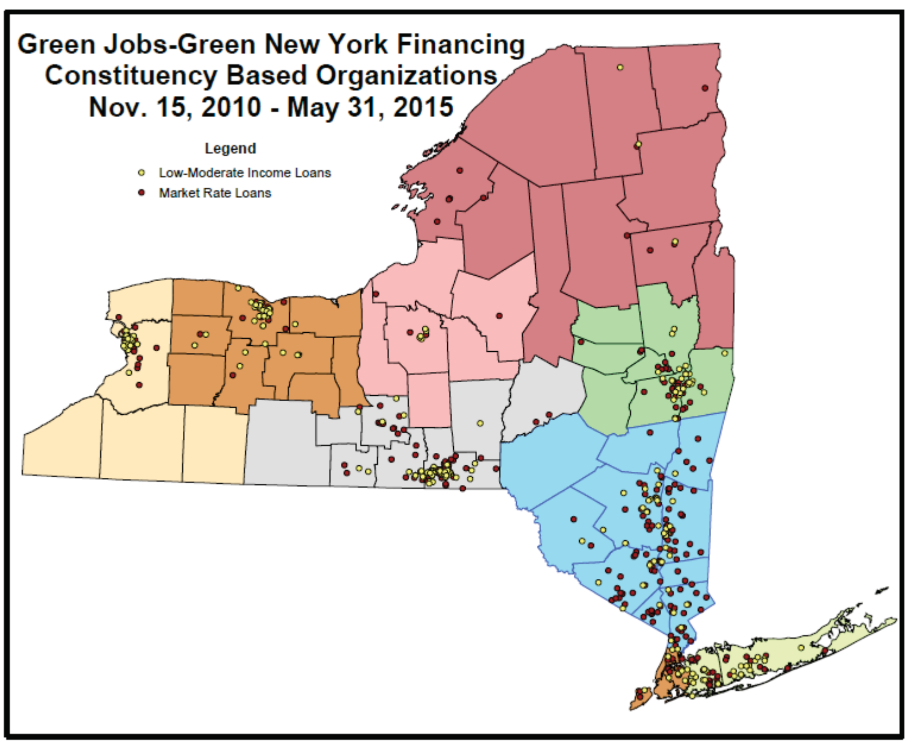
Green Jobs-Green New York Residential Loans

Associated with CBOs through May 31, 2015

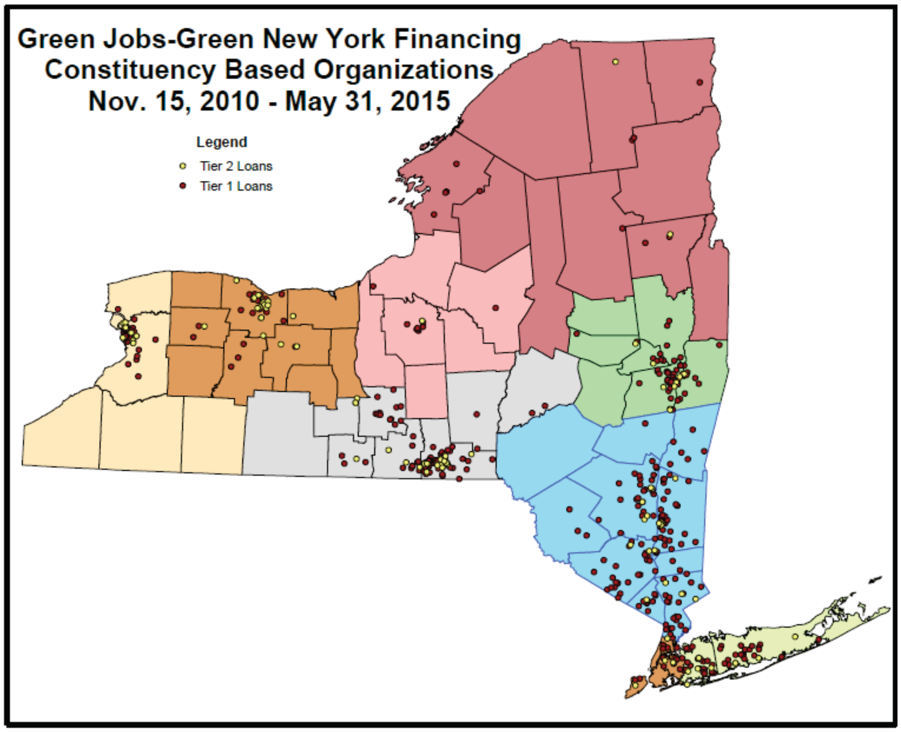
	Tier 1 Loans			Tier 2 Loans			Market Rate			Low-Moderate Income		
Constituency Based Organization (CBO)	# Loans	$ Loans	Avg $ Loans	# Loans	$ Loans	Avg $ Loans	# Loans	$ Loans	Avg $ Loans	# Loans	$ Loans	Avg $ Loans
Asian Americans for Equality (AAFE)	7	$63,148	$9,021	1	$9,846	$9,846	3	$27,960	$9,320	5	$45,034	$9,007
Affordable Housing Partnership of the Capital Region (AHP)	64	$674,893	$10,545	12	$108,170	$9,014	41	$469,756	$11,457	35	$313,307	$8,952
Adirondack North Country Association (ANCA)	30	$311,155	$10,372	3	$18,651	$6,217	22	$255,305	$11,605	11	$74,500	$6,773
El Puente	1	$10,289	$10,289	0	$0	$0	0	$0	$0	1	$10,289	$10,289
Long Island Progressive Coalition (LIPC)	46	$503,173	$10,939	10	$82,347	$8,235	32	$348,190	$10,881	24	$237,330	$9,889
Neighborhood Housing Services of Jamaica Inc (NHSJ)	1	$7,185	$7,185	1	$3,337	$3,337	2	$10,521	$5,261	0	$0	$0
Neighborhood Housing Services of Staten Island (NHSSI)	2	$14,982	$7,491	1	$8,115	$8,115	2	$14,746	$7,373	1	$8,350	$8,350
OTHER	4	$38,414	$9,603	1	$3,330	$3,330	3	$35,783	$11,928	2	$5,960	$2,980
Pathstone	29	$216,799	$7,476	17	$150,472	$8,851	17	$170,439	$10,026	29	$196,831	$6,787
Public Policy and Education Fund (PPEF Central)	9	$85,825	$9,536	1	$6,233	$6,233	5	$58,177	$11,635	5	$33,881	$6,776
Public Policy and Education Fund (PPEF ST)	118	$1,028,285	$8,714	21	$182,717	$8,701	80	$790,631	$9,883	59	$420,370	$7,125
People United for Sustainable Housing (PUSH)	61	$389,200	$6,380	9	$47,245	$5,249	47	$322,767	$6,867	23	$113,678	$4,943
Rural Ulster Preservation Company (RUPCO)	157	$1,756,283	$11,187	20	$257,545	$12,877	131	$1,572,429	$12,003	46	$441,399	$9,596
Sustainable South Bronx (SSBx)	5	$50,073	$10,015	0	$0	$0	4	$43,896	$10,974	1	$6,177	$6,177
Grand Total	534	$5,149,702	$9,644	97	$878,006	$9,052	389	$4,120,602	$10,593	242	$1,907,107	$7,881

Approximately 7% of GJGNY Loans are associated with a CBO.

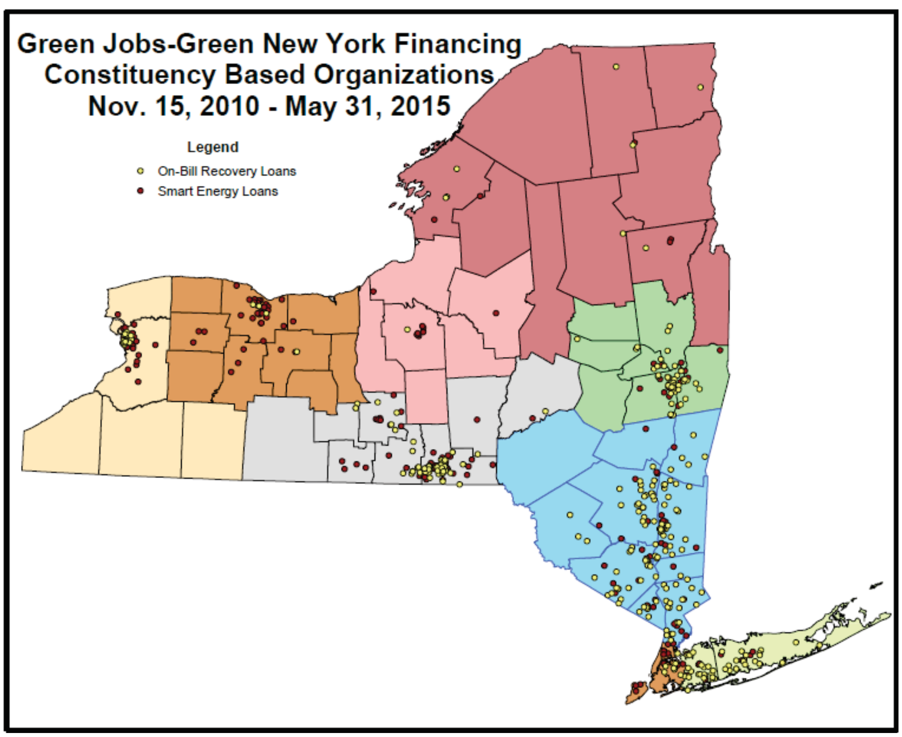
Market Rate and Low-Moderate Income Loans – CBO Clients



Tier 1 and Tier 2 Loans – CBO Clients

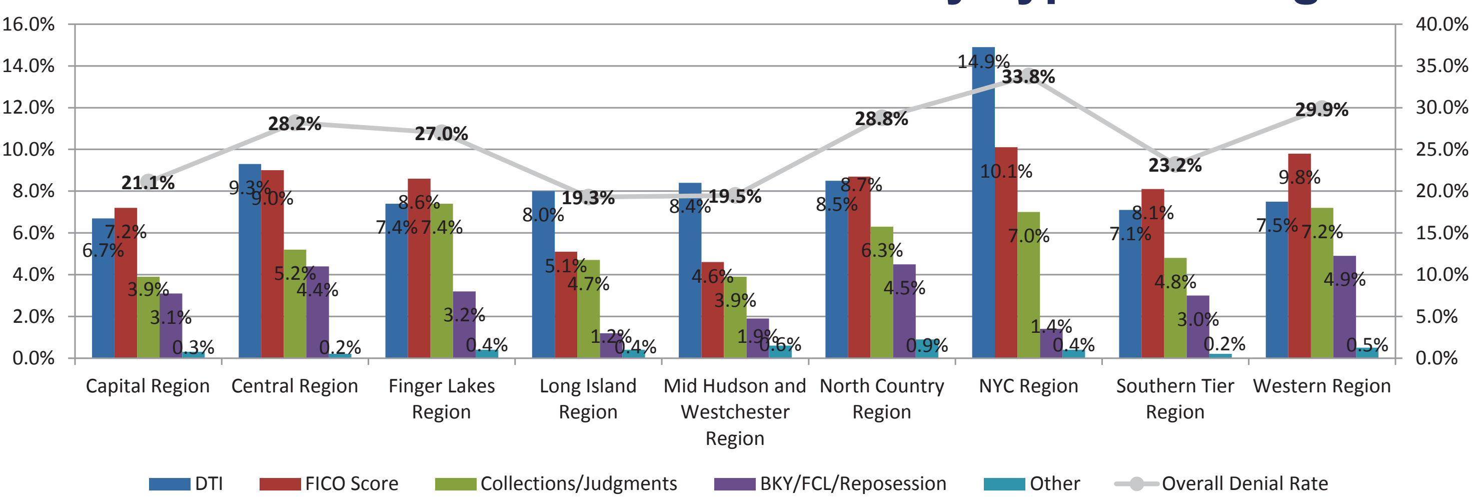


Smart Energy and On-Bill Recovery Loans – CBO Clients



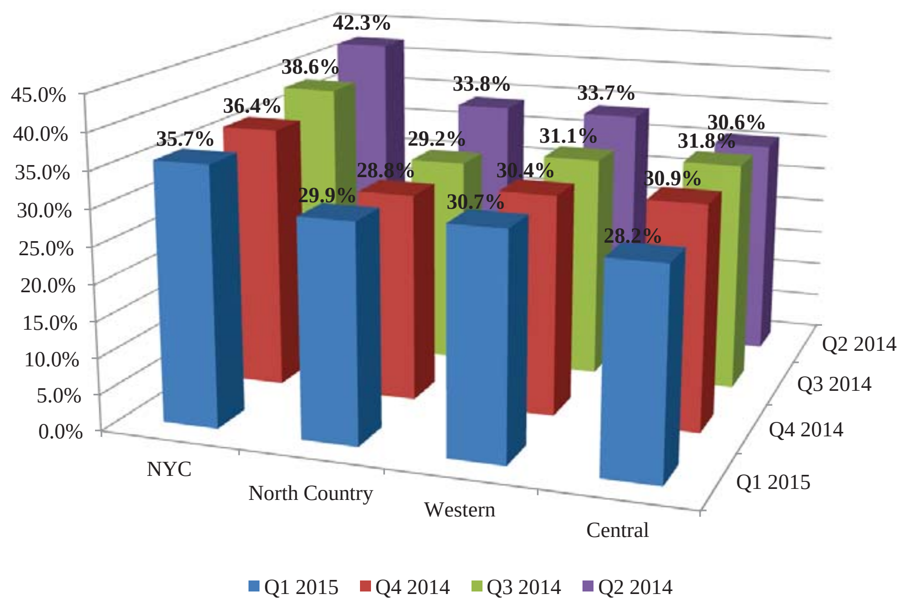
Residential Loan Denials by Type and Region

GJGNY Residential Loan Denials by Type and Region

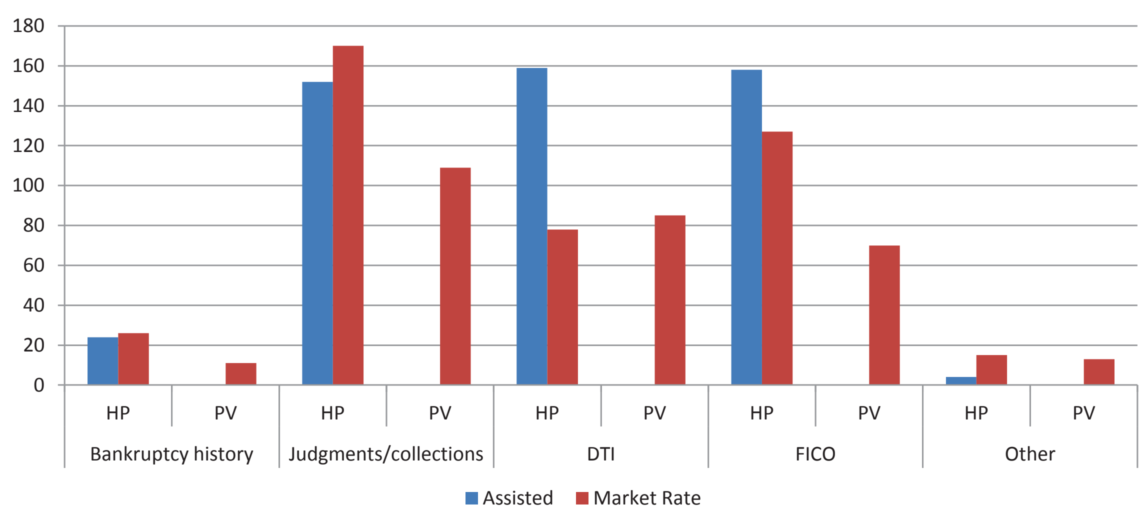


Region	Capital	Central	Finger Lakes	Long Island	Mid Hudson and Westchester	North Country	NYC	Southern Tier	Western
# Applications Denied	1,528	3,018	3,059	4,727	3,447	874	1,124	1,610	2,087

GJGNY Residential Loan Denial Rate in Four Highest Denial Regions Changes: April 1, 2014 – March 31, 2015



GJGNY Residential Loan Denial Reasons
August 1, 2014 – April 30, 2015



Denial Reason	Bankruptcy history	Judgments/ collections	Debt-to-Income (DTI)	FICO	Other	Total
Percentage	5%	36%	27%	30%	3%	100%

GJGNY Residential Loan Denial Characteristics
August 1, 2014 – April 30, 2015

Project Type	Credit Score Group	% LMI	% Market Rate	Total
HP	Not Scored	16%	6%	12%
	350-499	6%	7%	6%
	500-509	6%	5%	5%
	510-519	9%	4%	7%
	520-529	6%	6%	6%
	530-539	6%	13%	9%
	540-599	31%	34%	32%
	600-639	21%	24%	22%
HP Total		100%	100%	100%
PV	Not Scored		10%	10%
	350-499		4%	4%
	500-509		3%	3%
	510-519		4%	4%
	520-529		4%	4%
	530-539		11%	11%
	540-599		27%	27%
	600-639		36%	36%
PV Total			100%	100%
Grand Total		45%	55%	100%

Project Type	DTI Group	% LMI	% Market Rate	Total
HP	50.1% - 60%	3%	9%	5%
	61% - 70%	4%	1%	3%
	71% - 80%	4%	5%	4%
	81% - 90%	8%	14%	10%
	91% - 100%	2%	18%	7%
	>100%	80%	53%	71%
HP Total		100%	100%	100%
PV	50.1% - 60%		3%	3%
	61% - 70%		6%	6%
	71% - 80%		8%	8%
	81% - 90%		20%	20%
	91% - 100%		14%	14%
	>100%		49%	49%
PV Total			100%	100%
Grand Total		49%	51%	100%

GJGNY Residential Loan Performance

GJGNY Loan Performance

All Loans

	Avg FICO	Avg DTI	Loans Issued	Avg Term	Avg Age	Payments Remaining	Outstanding Balance	Delinquent Loan Amount	% of Bal	Loan Default Chargeoff	% of Loans Chargedoff	Annual Chargeoff%
Underwriting												
Tier 1	752	29%	$75,910,992	160.4	25.3	135.1	$64,785,343	$2,719,386	4.2%	$817,136	1.1%	0.5%
Tier 2	709	64%	$9,745,747	168.4	19.8	148.6	$8,711,436	$432,181	5.0%	$138,013	1.4%	0.9%
Grand Total	747	33%	$85,656,739	161.3	24.6	136.7	$73,496,779	$3,151,568	4.3%	$955,149	1.1%	0.5%
Income Level												
LMI	741	39%	$16,120,429	162.6	25.9	136.7	$13,475,899	$861,248	6.4%	$420,601	2.6%	1.2%
Mkt Rate	749	31%	$58,594,086	159.5	26.6	132.9	$49,305,292	$2,239,570	4.5%	$521,708	0.9%	0.4%
(blank)	757	32%	$10,942,224	172.3	3.7	168.6	$10,715,588	$50,750	0.5%	$12,839	0.1%	0.4%
Grand Total	747	33%	$85,656,739	161.3	24.6	136.7	$73,496,779	$3,151,568	4.3%	$955,149	1.1%	0.5%
Purpose												
EE	746	34%	$74,714,515	160.4	26.4	134.0	$62,781,191	$3,100,818	4.9%	$942,310	1.3%	0.6%
PV	757	32%	$10,942,224	172.3	3.7	168.6	$10,715,588	$50,750	0.5%	$12,839	0.1%	0.4%
Grand Total	747	33%	$85,656,739	161.3	24.6	136.7	$73,496,779	$3,151,568	4.3%	$955,149	1.1%	0.5%
Loan Type												
On-Bill Recovery	751	33%	$30,908,203	174.8	18.3	156.4	$28,178,900	$2,432,296	8.6%	$372,484	1.2%	0.8%
Smart Energy	745	34%	$54,748,536	154.9	27.6	127.3	$45,317,879	$719,272	1.6%	$582,665	1.1%	0.5%
Grand Total	747	33%	$85,656,739	161.3	24.6	136.7	$73,496,779	$3,151,568	4.3%	$955,149	1.1%	0.5%

GJGNY Loan Performance

LMI loans (EE Only)

	Avg FICO	Avg DTI	Loans Issued	Avg Term	Avg Age	Payments Remaining	Outstanding Balance	Delinquent Loan Amount	% of Bal	Loan Default Chargeoff	% of Loans Chargedoff	Annual Chargeoff%
Underwriting												
Tier 1	749	29%	$12,308,779	161.1	27.0	134.1	$10,141,985	$661,506	6.5%	$346,883	2.8%	1.3%
Tier 2	711	74%	$3,811,650	167.8	22.1	145.7	$3,333,913	$199,742	6.0%	$73,719	1.9%	1.1%
Grand Total	741	39%	$16,120,429	162.6	25.9	136.7	$13,475,899	$861,248	6.4%	$420,601	2.6%	1.2%
Loan Type												
On-Bill Recovery	749	38%	$4,833,339	174.2	19.5	154.7	$4,307,411	$663,032	15.4%	$132,507	2.7%	1.7%
Smart Energy	738	40%	$11,287,090	158.2	28.3	129.9	$9,168,488	$198,216	2.2%	$288,094	2.6%	1.1%
Grand Total	741	39%	$16,120,429	162.6	25.9	136.7	$13,475,899	$861,248	6.4%	$420,601	2.6%	1.2%

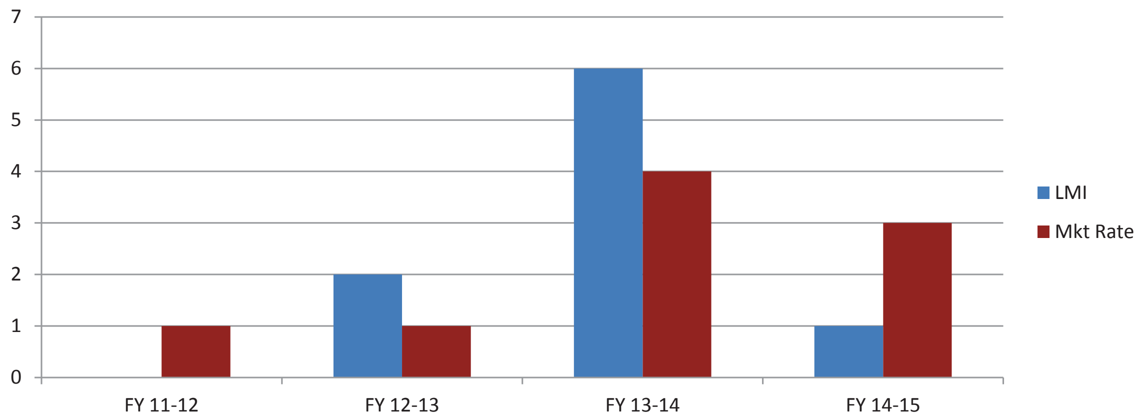
GJGNY Loan Performance
Market Rate loans (EE Only)

Underwriting	Avg FICO	Avg DTI	Loans Issued	Avg Term	Avg Age	Payments Remaining	Outstanding Balance	Delinquent Loan Amount	% of Bal	Loan Default Chargeoff	% of Loans Chargedoff	Annual Chargeoff%
Tier 1	752	30%	$54,053,111	158.9	27.1	131.8	$45,310,585	$2,007,130	4.4%	$457,414	0.8%	0.4%
Tier 2	702	52%	$4,540,975	167.5	20.7	146.8	$3,994,707	$232,439	5.8%	$64,294	1.4%	0.8%
Grand Total	749	31%	$58,594,086	159.5	26.6	132.9	$49,305,292	$2,239,570	4.5%	$521,708	0.9%	0.4%

Loan Type	Avg FICO	Avg DTI	Loans Issued	Avg Term	Avg Age	Payments Remaining	Outstanding Balance	Delinquent Loan Amount	% of Bal	Loan Default Chargeoff	% of Loans Chargedoff	Annual Chargeoff%
On-Bill Recovery	750	31%	$20,980,819	174.5	20.7	153.7	$18,833,623	$1,718,514	9.1%	$239,977	1.1%	0.7%
Smart Energy	748	32%	$37,613,267	152.3	29.5	122.8	$30,471,669	$521,056	1.7%	$281,732	0.7%	0.3%
Grand Total	749	31%	$58,594,086	159.5	26.6	132.9	$49,305,292	$2,239,570	4.5%	$521,708	0.9%	0.4%

GJGNY Multifamily Loans

GJGNY Multifamily Loans by Income Level
(no PV Loans to Date)



Income	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
LMI	0	2	6	1	9
Mkt Rate	1	1	4	3	9
Grand Total	1	3	10	4	18

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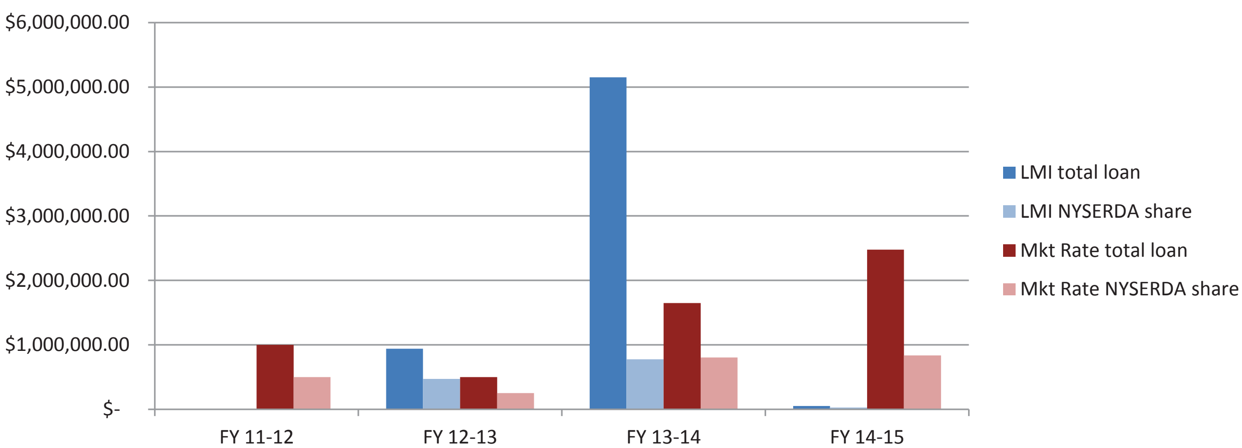
GJGNY Multifamily Loans by Income Level
(no PV Loans to Date)



Income	FY 11-12	FY 12-13	FY 13-14	FY 14-15	Grand Total
LMI NYSERDA share		$ 470,471	$ 774,747	$ 25,568	$ 1,270,785
LMI total loan		$ 940,941	$ 5,152,499	$ 51,135	$ 6,144,575
Mkt Rate NYSERDA share	$ 500,000	$ 250,000	$ 805,391	$ 837,390	$ 2,392,781
Mkt Rate total loan	$ 1,000,000	$ 500,000	$ 1,650,249	$ 2,477,874	$ 5,628,123
Grand Total	$ 1,500,000	$ 2,161,412	$ 8,382,885	$ 3,391,967	$ 15,436,263

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Appendix E: Green Jobs-Green New York Residential Loan Sustainability Presentation

GJGNY Residential Loan Interest Rates for Sustainability

Green Jobs – Green New York Advisory Council
August 7, 2015

Agenda

- Cost Components
- Loan Portfolio Mix
- Cash Flow
- Implications for Sustainability
- Options

Cost Components

- Origination
- Servicing
- Loan defaults
- Financing costs

Origination

- Fixed costs by loan
- Fees paid to loan originator (Energy Finance Solutions - EFS) for loan underwriting (incl. credit report) and loan disbursement
  - $175 for each Smart Energy loan issued
  - $225 for each On-Bill Recovery loan issued

Servicing Costs

Includes:

- Fees paid to loan servicer (Concord) for servicing loans
  - Payment processing, billing and collections
  - Generally average about $5/acct/month
- Utility fees for OBR loans - $100/loan and 1% of loan amt
- Title company fees for last owner search for OBR loans ($76 avg)
- Fees paid to title company and municipalities to file OBR Declaration and file satisfaction for OBR loans ($310 avg)

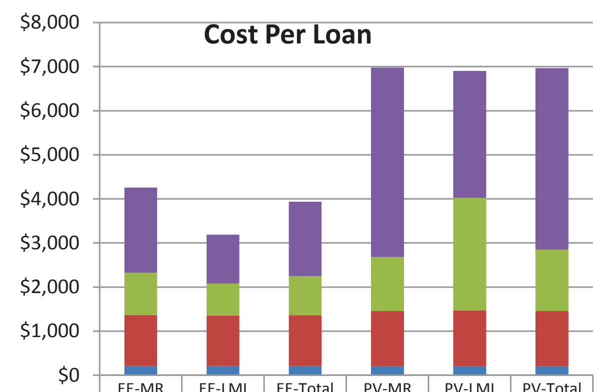
Loan Defaults

- Assume continuation of current loan defaults
  - About .5% per year for Tier 1 loans (~7% cumulative for avg 14-yr term)
  - About 1% per year for Tier 2 loans (~14% cumulative for avg 14-yr term)

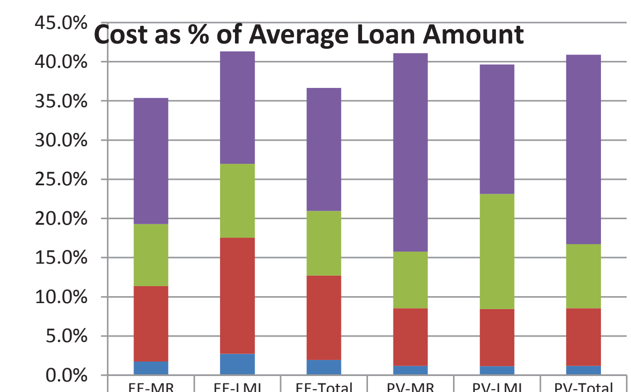
Financing

- Tier 1 EE loans financed with support through EFC Clean Water State Revolving Fund
  - 2013 Bonds issued at net interest cost of .5% with use of QECB subsidies
  - 2015 Bonds issued at net interest cost of 2.4% - partially subsidized
  - EFC advises that interest subsidies not likely available in the future. \
  - Assume future bond interest cost about 3.3% without subsidy
- Tier 1 PV loans not financeable through EFC
  - NYSERDA exploring private placement financing – anticipate rate of about 5%
- Tier 2 EE and PV loans not immediately financeable – held until performance allows financing – assume 4 yr hold period

Cost Summary



	EE-MR	EE-LMI	EE-Total	PV-MR	PV-LMI	PV-Total
Financing	$1,934	$1,108	$1,686	$4,298	$2,878	$4,116
Defaults	$954	$728	$886	$1,226	$2,554	$1,396
Servicing	$1,160	$1,142	$1,155	$1,251	$1,272	$1,253
Origination	$208	$211	$209	$201	$200	$201



	EE-MR	EE-LMI	EE-Total	PV-MR	PV-LMI	PV-Total
Financing	16.1%	14.4%	15.7%	25.3%	16.5%	24.2%
Defaults	7.9%	9.4%	8.3%	7.2%	14.7%	8.2%
Servicing	9.6%	14.8%	10.8%	7.4%	7.3%	7.4%
Origination	1.7%	2.7%	1.9%	1.2%	1.1%	1.2%

Loan Segmentation – 12 Months Ended 6/30/15

Purpose	Income Level	Underwriting	Loan Type	Count	% of Total	Avg Loan	Total	% of Tot
EE	Market Rate	Tier 1	On-Bill Recovery	566	21%	$13,399	$7,583,995	27%
			Smart Energy	1029	39%	$11,264	$11,590,545	41%
		Tier 2	On-Bill Recovery	77	3%	$12,395	$954,443	3%
			Smart Energy	174	7%	$11,969	$2,082,611	7%
	Subtotal			1846	70%	$12,032	$22,211,594	78%
	LMI	Tier 1	On-Bill Recovery	151	6%	$8,551	$1,291,164	5%
			Smart Energy	376	14%	$7,287	$2,740,073	10%
		Tier 2	On-Bill Recovery	69	3%	$10,275	$708,948	3%
			Smart Energy	196	7%	$6,998	$1,371,641	5%
	Subtotal			792	30%	$7,717	$6,111,826	22%
EE Total				2638	100%	$10,737	$28,323,420	100%
PV	not available	Tier 1	On-Bill Recovery	481	42%	$17,075	$8,212,933	42%
			Smart Energy	514	45%	$16,887	$8,680,137	45%
				995	87%	$16,978	$16,893,070	87%
		Tier 2	On-Bill Recovery	73	6%	$17,400	$1,270,210	7%
			Smart Energy	73	6%	$17,426	$1,272,122	7%
				146	13%	$17,413	$2,542,332	13%
PV Total				1141	100%	$17,034	$19,435,402	100%
Grand Total				3779		$12,638	$47,758,822	

Monthly PV loan issuances have increased over last year. Current annual future forecast of $43M used for analysis.

Cash Flow

- Holding Period
  - Loans initially funded through GJGNY Revolving Loan Fund – aggregated until they are financed
  - Assume Tier 1 EE and PV loans held for avg of 12 months before financing
  - Assume Tier 2 loans held for avg of 4yrs before financing
  - P&I repaid during holding period reduces amount financed and offsets costs
- Overcollateralization
  - Depending upon interest rates, in order to meet debt service requirements, pledge loans may be > proceeds from financing, so RLF not fully replenished
  - Requires cash, but recovered over term of financing (e.g. 15 yrs)
  - Assume coverage ratio of 125%

Cash Flow Effects

- Holding period

	Energy Efficiency			PV			Total
	MR	LMI	Total	MR/Tier1	LMI/Tier2	Total	
Revolving fund needed for holding period:							
- Loan issuance *	$22.2	$6.1	$28.3	$37.4	$5.6	$43.0	$71.3
-Tier 2 (+3yr hold period)	$8.4	$5.7	$14.1	0	$16.8	$16.8	$30.9
Total	$30.6	$11.8	$42.4	$37.4	$22.4	$59.8	$102.2

- Overcollateralization

	Energy Efficiency			PV			Total
	MR	LMI	Total	MR/Tier1	LMI/Tier2	Total	
Loan$ Issued Per Year *	$22.2	$6.1	$28.3	$37.4	$5.6	$43.0	$71.3
Cash deficit at Financing (overcollateralization) based on current rates	$4.6	$1.4	$6.0	$10.2	$.7	$10.9	$16.9

* Based on 12 months ended Jun 2015 for EE; projected future annual loan issuance for PV.

Interest Rate Strategies

- By consumer segment (MR vs LMI) and by purpose (EE vs PV)
- Portfolio rate recovery with continuation of subsidized rate for LMI
- Tiered pricing by term
- Pricing by utility territory (takes into consideration project economics and differences in utility rates)

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Hypothetical Loan Rate to Address Costs

($ in millions)	Energy Efficiency			PV		
	MR	LMI	Total	MR/Tier1	LMI/Tier2	Total
Loan$ Issued Per Year *	$22.2	$6.1	$28.3	$37.4	$5.6	$43.0
Cost deficit (over loan term) based on current Interest Rate	$1.9	$.9	$2.8	$5.0	$.7	$5.7
Interest rate required to eliminate cost deficit	**4.75%**	**5.50%**	**4.90%**	**5.45%**	**5.00%**	**5.40%**
Cash deficit (overcollateralization)that still results if above rates were used	$3.0	$.7	$3.7	$6.3	$.2	$6.5
Interest rate to eliminate cost deficit, but maintain current LMI rate	**5.30%****	**3.49%**	**4.90%**	**5.70%****	**3.49%**	**5.40%**
Cash deficit (overcollateralization)that still results if above rates were used	$2.3	$1.4	$3.7	$5.8	$.7	$6.5

* 12 months ended Jun 2015 for EE; projected future annual loan issuance for PV.
** Assumes MR loans would stay at current levels of loan issuance to make up for LMI shortfall.
If MR loan issuances decreased, would require a higher rate.

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Hypothetical Loan Rate to Address Overcollateralization

	Energy Efficiency			PV			Total
	MR	LMI	Total	MR/Tier1	LMI/Tier2	Total	
Loan$ Issued Per Year *	$22.2	$6.1	$28.3	$37.4	$5.6	$43.0	$71.3
Cash deficit at Financing (overcollateralization) based on current rates	$4.6	$1.4	$6.0	$10.2	$.7	$10.9	$16.9
Interest rate required to eliminate cash overcollateralization	**7.00%**	**7.25%**	**7.10%**	**8.40%**	**5.60%**	**8.00%**	
Interest rate required to eliminate cash overcollateralization, but maintain current rate for LMI	**7.95%****	**3.49%**	**7.10%**	**8.70%****	**3.49%**	**8.00%**	

* 12 months ended Jun 2015 for EE; projected future annual loan issuance for PV.
** Assumes MR loans would stay at current levels of loan issuance to make up for LMI shortfall.
If MR loan issuances decreased, would require a higher rate.

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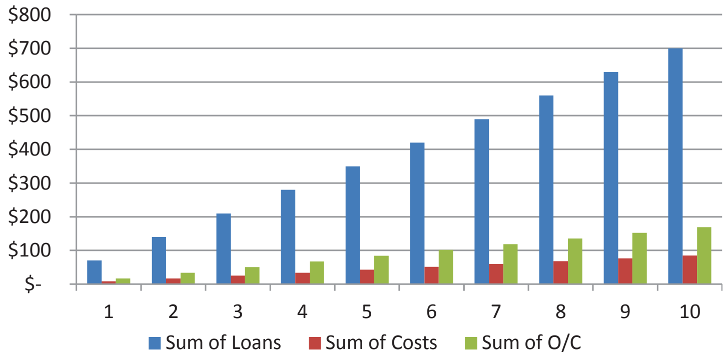
Summary Capital Magnitude



Year	Loans	Costs	O/C
1	$ 70	$ 9	$ 17
2	$ 140	$ 17	$ 34
3	$ 210	$ 26	$ 51
4	$ 280	$ 34	$ 68
5	$ 350	$ 43	$ 85
6	$ 420	$ 51	$ 101
7	$ 490	$ 60	$ 118
8	$ 560	$ 68	$ 135
9	$ 630	$ 77	$ 152
10	$ 700	$ 85	$ 169

Strategic Business Options

		EE		PV		Total
		MR	LMI	MR/Tier1	LMI/Tier2	
Option 1	Business as Usual					
	Current Rates	3.49%-3.99%		3.49%-3.99%		
	Cost deficit resulting from each year's loan issuances	$1.9mm	$.9MM	$5.0mm	$.7mm	$8.5mm
	Overcollateralization cash shortfall from each year's loan issuances	$4.6mm	$1.4mm	$10.2mm	$.7mm	$16.9mm
Option 2	Origination Cost Recovery					
	Hypothetical Rates	4.75-5.3%	3.49-5.5%	5.45-5.70%	3.49-5%	
	Cost deficit resulting from each year's loan issuances	$0	$0	$0	$0	
	Overcollateralization cash shortfall from each year's loan issuances	$2.3-3.0mm	$.7-1.4mm	$5.8-6.3mm	$.2-.7mm	$10.2mm
Option 3	Origination Cost Recovery and Overcollateralization Reserves					
	Hypothetical Rates	7-7.95%	3.49-7.25%	8.4-8.7%	3.49-5.60%	
	Cost deficit resulting from each year's loan issuances	$0	$0	$0	$0	
	Overcollateralization cash shortfall from each year's loan issuances	$0	$0	$0	$0	$0

Impact of Hypothetical Rate Change on EE Project Savings

Segment	#Loans	Total Loans	Avg 1st Yr Energy Savings	Avg Annual Loan Pmt	Avg 1st Yr Net Savings	Avg 1st Yr Net Savings @4.0%	Avg 1st Yr Net Savings @4.5%	Avg 1st Yr Net Savings @5.0%	Avg 1st Yr Net Savings @5.5%	Avg 1st Yr Net Savings @6.0%	Avg 1st Yr Net Savings @6.5%	Avg 1st Yr Net Savings @7.0%	Avg 1st Yr Net Savings @7.5%
Tier 1													
LMI/ Assisted	1779	$13,240,144	$1,010	$725	$284	$263	$241	$218	$195	$172	$148	$123	$99
Market	5373	$58,718,785	$1,179	$1,074	$105	$71	$38	$4	($29)	($64)	($99)	($135)	($171)
	7152	$71,958,930	$1,137	$988	$149	$118	$88	$58	$26	($5)	($38)	($71)	($104)
Tier 2													
LMI/ Assisted	587	$4,598,742	$1,059	$728	$331	$309	$285	$261	$237	$212	$186	$161	$134
Market	471	$5,590,615	$1,306	$1,102	$204	$168	$132	$96	$59	$21	($17)	($57)	($96)
	1058	$10,189,357	$1,169	$895	$275	$246	$217	$188	$158	$127	$96	$64	$32
Total	8210	$82,148,287	$1,141	$976	$165	$135	$105	$74	$43	$12	($21)	($53)	($86)

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Impact of Hypothetical Rate Change on EE Savings – Utility Territory

	Utility Territory	#Loans	Total Loans	Avg 1st Yr Energy Savings	Avg Annual Loan Pmt	Avg 1st Yr Net Savings	Avg 1st Yr Net Savings @4.0%	Avg 1st Yr Net Savings @4.5%	Avg 1st Yr Net Savings @5.0%	Avg 1st Yr Net Savings @5.5%	Avg 1st Yr Net Savings @6.0%	Avg 1st Yr Net Savings @6.5%	Avg 1st Yr Net Savings @7.0%
Tier 1 LMI	CHGE	63	$553,956	$1,265	$438	$827	$412	$385	$358	$331	$303	$274	$245
	ConEd	65	$606,945	$1,364	$484	$880	$455	$427	$398	$369	$339	$309	$278
	LIPA	252	$2,323,825	$1,662	$786	$877	$758	$730	$702	$673	$644	$614	$584
	NatGrid	888	$6,107,294	$878	$197	$680	$180	$159	$138	$117	$95	$73	$51
	NYS EG	268	$1,942,505	$925	$211	$714	$189	$167	$145	$122	$100	$76	$53
	O&R	38	$322,979	$1,123	$296	$826	$266	$240	$214	$188	$161	$134	$106
	RG&E	192	$1,285,808	$658	$12	$646	($4)	($24)	($45)	($66)	($87)	($109)	($131)
Tier 1 MR	CHGE	258	$3,073,036	$1,348	$230	$1,118	$190	$154	$117	$80	$42	$4	($35)
	ConEd	450	$6,100,080	$1,612	$290	$1,322	$245	$204	$163	$121	$78	$34	($10)
	LIPA	1059	$13,080,784	$1,601	$477	$1,124	$436	$399	$361	$322	$283	$243	$202
	NatGrid	2124	$20,696,002	$954	($51)	$1,005	($79)	($108)	($138)	($168)	($199)	($230)	($261)
	NYSEG	811	$9,210,275	$1,179	$53	$1,126	$17	($17)	($52)	($87)	($123)	($160)	($197)
	O&R	133	$1,480,301	$1,183	$141	$1,042	$102	$69	$35	($0)	($35)	($71)	($108)
	RG&E	498	$4,570,883	$738	($193)	$931	($218)	($245)	($273)	($302)	($331)	($360)	($390)
Tier 2 LMI	CHGE	26	$257,543	$1,499	$588	$911	$556	$527	$496	$465	$433	$401	$369
	ConEd	20	$228,237	$1,649	$540	$1,109	$500	$465	$430	$395	$359	$322	$285
	LIPA	100	$921,537	$1,656	$839	$817	$809	$781	$753	$724	$694	$664	$634
	NatGrid	255	$1,813,423	$876	$195	$681	$178	$157	$135	$113	$90	$67	$44
	NYSEG	76	$607,223	$1,004	$286	$718	$262	$238	$213	$188	$163	$137	$110
	O&R	16	$121,160	$934	$229	$705	$200	$177	$154	$130	$106	$81	$56
	RG&E	88	$609,785	$707	$59	$648	$41	$20	($1)	($23)	($45)	($67)	($90)
Tier 2 MR	CHGE	26	$358,726	$1,563	$332	$1,231	$283	$241	$199	$155	$111	$66	$20
	ConEd	24	$308,720	$1,718	$523	$1,195	$485	$446	$407	$366	$325	$284	$241
	LIPA	130	$1,715,306	$1,749	$560	$1,189	$517	$477	$436	$395	$353	$310	$266
	NatGrid	152	$1,564,751	$1,012	$29	$983	$0	($31)	($62)	($94)	($127)	($160)	($194)
	NYSEG	61	$765,746	$1,263	$103	$1,160	$66	$28	($10)	($49)	($89)	($130)	($171)
	O&R	17	$217,874	$1,393	$95	$1,299	$54	$16	($23)	($63)	($103)	($145)	($186)
	RG&E	55	$590,149	$827	($174)	$1,001	($201)	($234)	($267)	($300)	($335)	($369)	($405)

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Impact of Hypothetical Rate Change on EE Savings – By Income Level

Borrower/ Coborrower Income as % of AMI	#Loans	Total Loans	Avg 1st Yr Energy Savings	Avg Annual Loan Pmt	Avg 1st Yr Net Savings	Avg 1st Yr Net Savings @4.0%	Avg 1st Yr Net Savings @4.5%	Avg 1st Yr Net Savings @5.0%	Avg 1st Yr Net Savings @5.5%	Avg 1st Yr Net Savings @6.0%	Avg 1st Yr Net Savings @6.5%	Avg 1st Yr Net Savings @7.0%	Avg 1st Yr Net Savings @7.5%
EE	**8210**	**$82,148,287**	**$1,141**	**$976**	**$165**	**$135**	**$105**	**$74**	**$43**	**$12**	**($21)**	**($53)**	**($86)**
Tier 1	**7152**	**$71,958,930**	**$1,137**	**$988**	**$149**	**$119**	**$88**	**$58**	**$26**	**($5)**	**($38)**	**($71)**	**($104)**
0-60%	951	$8,149,919	$1,072	$834	$238	$211	$186	$159	$133	$106	$78	$50	$22
61-80%	619	$5,029,512	$958	$797	$160	$137	$113	$88	$63	$37	$11	($16)	($43)
81-100%	797	$7,049,998	$1,039	$899	$140	$114	$88	$61	$34	$6	($23)	($51)	($81)
101-120%	769	$7,004,628	$1,006	$890	$116	$88	$61	$33	$4	($24)	($54)	($83)	($114)
121%+	4016	$44,724,872	$1,225	$1,090	$135	$100	$67	$33	($2)	($37)	($73)	($109)	($146)
Tier 2	**1058**	**$10,189,357**	**$1,169**	**$895**	**$275**	**$246**	**$217**	**$188**	**$158**	**$127**	**$96**	**$64**	**$32**
0-60%	259	$2,089,479	$1,185	$757	$427	$404	$379	$355	$330	$304	$278	$251	$224
61-80%	166	$1,298,781	$927	$738	$188	$167	$144	$120	$95	$70	$45	$19	($7)
81-100%	182	$1,717,711	$1,108	$870	$238	$211	$182	$153	$124	$94	$63	$32	$0
101-120%	128	$1,174,142	$958	$846	$112	$87	$60	$31	$3	($27)	($56)	($87)	($117)
121%+	323	$3,909,245	$1,399	$1,118	$281	$244	$207	$170	$132	$94	$54	$15	($26)
Total	**8210**	**$82,148,287**	**$1,141**	**$976**	**$165**	**$135**	**$105**	**$74**	**$43**	**$12**	**($21)**	**($53)**	**($86)**

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Impact of Hypothetical Rate Change on PV Loan Payment

Segment	#Loans	Total Loans	Total Loans	Current Avg Monthly Payment	Avg Mo Pmt @ 4%	Avg Mo Pmt @ 4.5%	Avg Mo Pmt @ 5.0%	Avg Mo Pmt @ 5.5%	Avg Mo Pmt @ 6.0%	Avg Mo Pmt @ 6.5%	Avg Mo Pmt @7.0%	Avg Mo Pmt @ 7.5%
PV	1147	$19,539,905	$19,539,905	$128	$133	$137	$141	$146	$150	$155	$160	$164
Tier 1	1001	$16,997,573	$16,997,573	$128	$132	$137	$141	$146	$150	$155	$159	$164
Tier 2	146	$2,542,332	$2,542,332	$129	$134	$138	$143	$147	$152	$157	$161	$166
Total	1147	$19,539,905	$19,539,905	$128	$133	$137	$141	$146	$150	$155	$160	$164

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Considerations

- Market players standing ready for Market Rate financing
  - These organizations have greater capital resources than GJGNY Fund
  - Existence of subsidized GJGNY financing is currently delaying market entry
- Market providers not as well poised to serve LMI consumer market

Market-based Financing Products - EE

	Admirals Bank, No Dealer Fee	Admirals Bank, Deferred Loan, No Dealer Fee	GreenSky Credit
Max Loan	$45,000	$45,000	$55,000
FICO, Min	700	700	Mid-600s
Debt:Income, Max	45%	45%	Avgs 40%
Term/Interest Rate	7 yrs: 5.99% 10 yrs: 6.99% 12 yrs: 7.99%	7 yrs: 6.49% 10 yrs: 7.49% 12 yrs: 8.49%	Up to 12 years
Interest Rate			3.99%, 5.99%, 7.99%
Secured/Unsecured	Unsecured		Unsecured
Developer Fee	No. Homeowner pays a 5% loan origination fee + a 1% annual maintenance fee, paid monthly (funds Admirals' loan loss reserve)		No
Notes:	For the homeowner to incur no origination fee, the Contractor can pay a developer fee on a graduating scale.		Contractors have the option to buy down the interest rate to 3.99%

Market-based Financing Products - PV

	Sungage Financial	Kilowatt Financial	Hudson Clean Energy	Admirals Bank, Unsecured Loan	Admirals Bank, Secured Loan (*FHA Backed*)	GreenSky Credit	Dividend Solar
Max Loan	$50,000	$60,000	$70,000	$45,000	$40,000	$55,000	$50,000
FICO, Min	680	660	680	700	650	640	680
Debt:Income, Max	50%	NA	TBD for NYS. Needed with FICO is below 700	45%	45%	Avg 40%, but depends on credit score	55%
Terms	5, 10, 15, 20 yrs	15 and 20 yrs	20 yrs	5, 7, 10, 15 and 20 yrs	5, 7, 10, 15 and 20 yrs	Up to 12 yrs	20 years
Interest Rates	4.5-7.25%	4.99-9.99% 20 yrs: 5.99-10.99%	5.99% (APR)	4.99-9.99%	4.99-9.99%	0%-9.99%	6.5%
(Un)Secured	Unsecured; UCC-1 filing	Unsecured; UCC-1	Unsecured; UCC-1 filing	UCC-1 filing	Secured with a 2nd mtg	UCC-1 filing	Ucc-1 filing
Deferred Payment Option?	12, 15 and 18 mos, interest free	12 mos	12-18 months	Up to 16 mos (4 mos construction + 12 mos), interest free	30% (tax credit portion) only	18 months, 0% interest. Balance re-amortized over (up to) 12 years	0%, 12 months
Developer Buy-Down?	No	Yes		6% Fee = 9.99% 7% Fee = 8.99% 8% Fee = 7.99% 9% Fee = 6.99%	No buy-down permitted. Develo per fee built into the loan; no out-of-pocket cost to the borrower	Yes. Amount depends on which of the 24 programs is selected.	5% developer fee
Developer Fee	5-7%	Yes; competitive				Available for PV and HP projects	

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