



NYSERDA

Green Jobs Green New York Advisory Council

August 23, 2018

Agenda

- 1) Residential Loan Fund Status Update
- 2) Proposed Loan Fund Changes
- 3) Workforce Development Update
- 4) Updated list of outreach contractors, contract terms

Residential Loan Fund Status Update

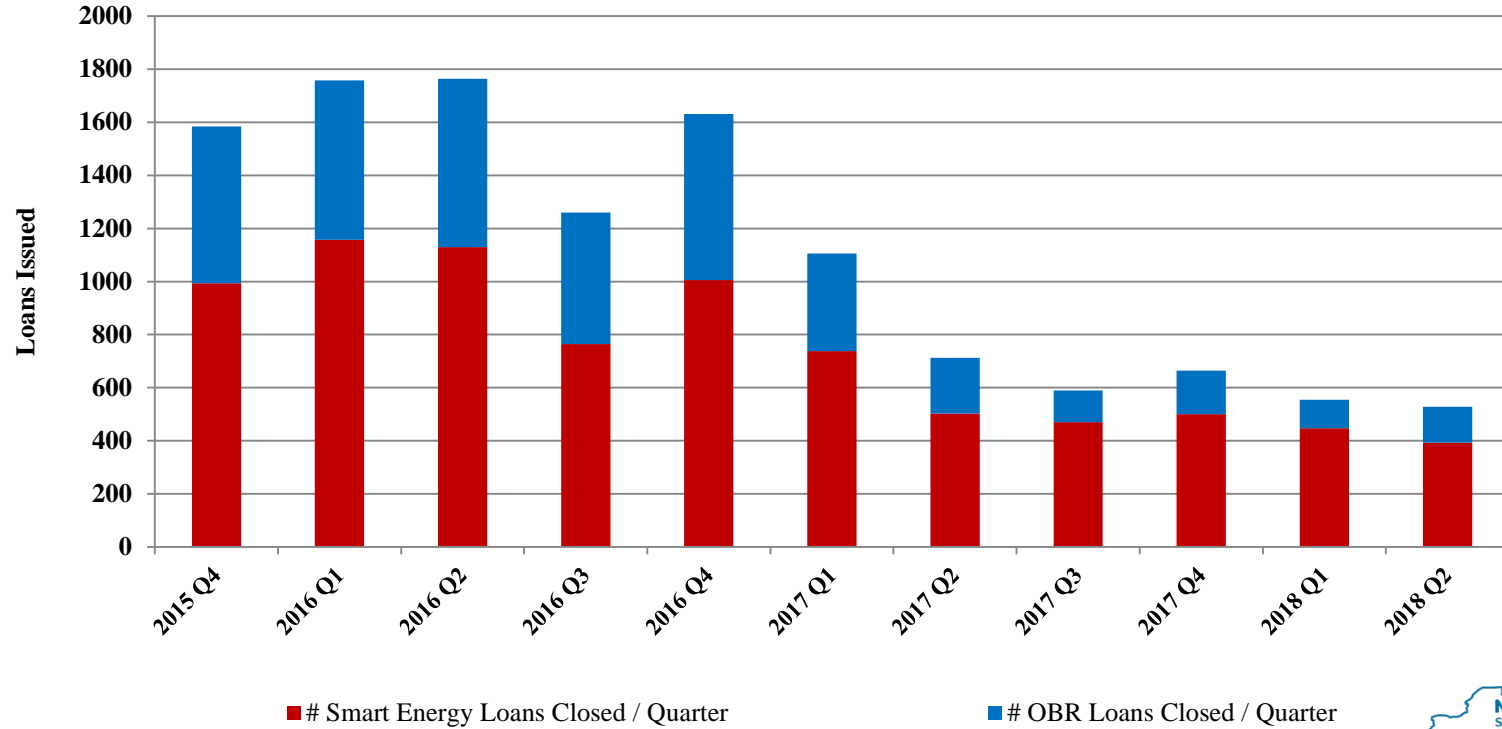
March 2018 Bond Issuance

- \$18.5 million Residential Solar Financing Green Revenue Bonds
- A-rated by Kroll Bond Rating Agency
- “Green” bond certified by Climate Bond Initiative (CBI)
- Secured by Tier1 residential PV loans
- Average coupon 4.55% (taxable); 10.5 year maturity; orders 2.5X oversubscribed
- First municipal bond issuer to securitize residential solar loans
- First CBI certified bond in US Municipal market under the CBI’s Solar Eligibility Criteria
- Third bond deal in NYS to use CBI independent verification with CBI standards
- Ongoing semi-annual portfolio performance reporting through publicly accessible MSRB Electronic Municipal Market Access website
- Structure expected to be used again in 2019 to finance additional PV and EE loans, and potentially seasoned Tier2 EE loans

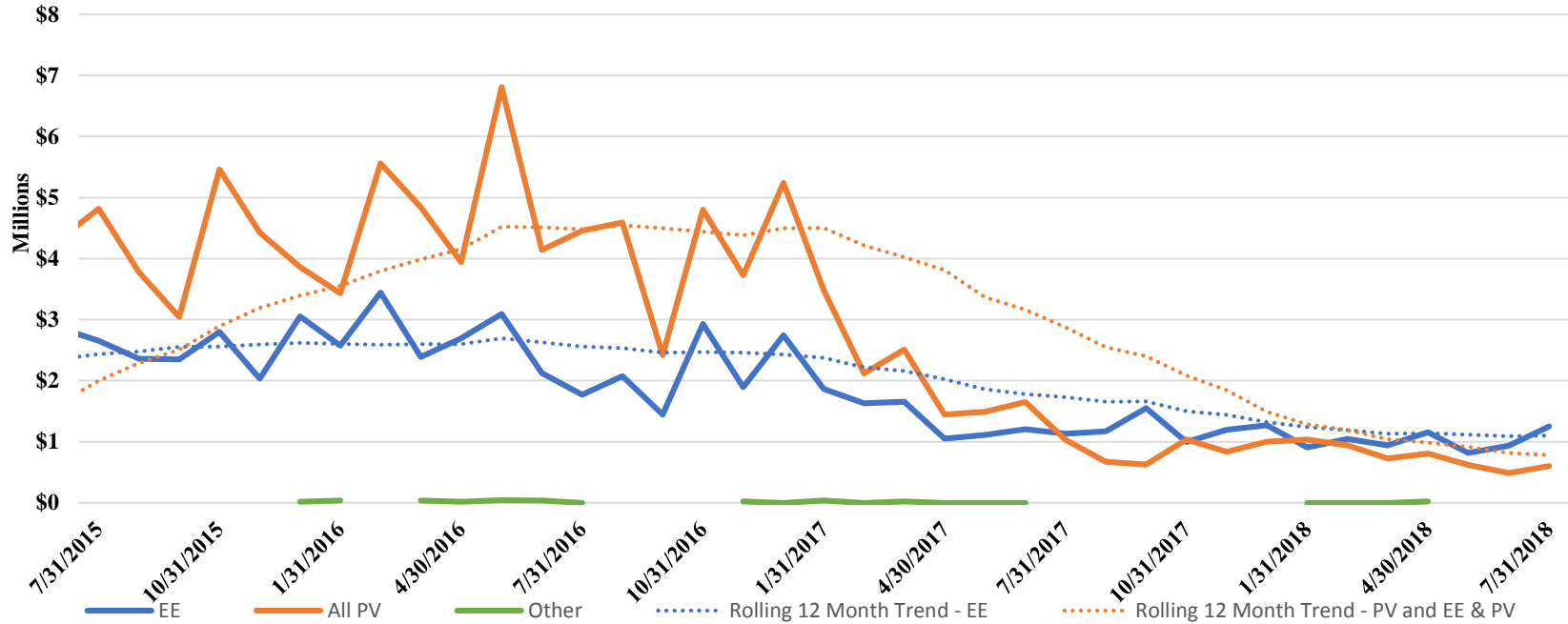
Public Access to Loan Performance Data

- Anonymized loan portfolio attributes and performance information now posted on publicly-accessible NYS OpenNY platform for more than 22,000 loans issued since the inception of GJGNY
- OpenNY link to dataset:
<https://data.ny.gov/Energy-Environment/Green-Jobs-Green-New-York-GJGNY-Residential-Loan-P/9evn-drxk>
- OpenNY system provides report visualization reporting (Tableau)
- Also allows users to download complete dataset for their own analysis
- NYSERDA to soon add additional pre-configured visualization summaries/tables
- Information to be updated monthly

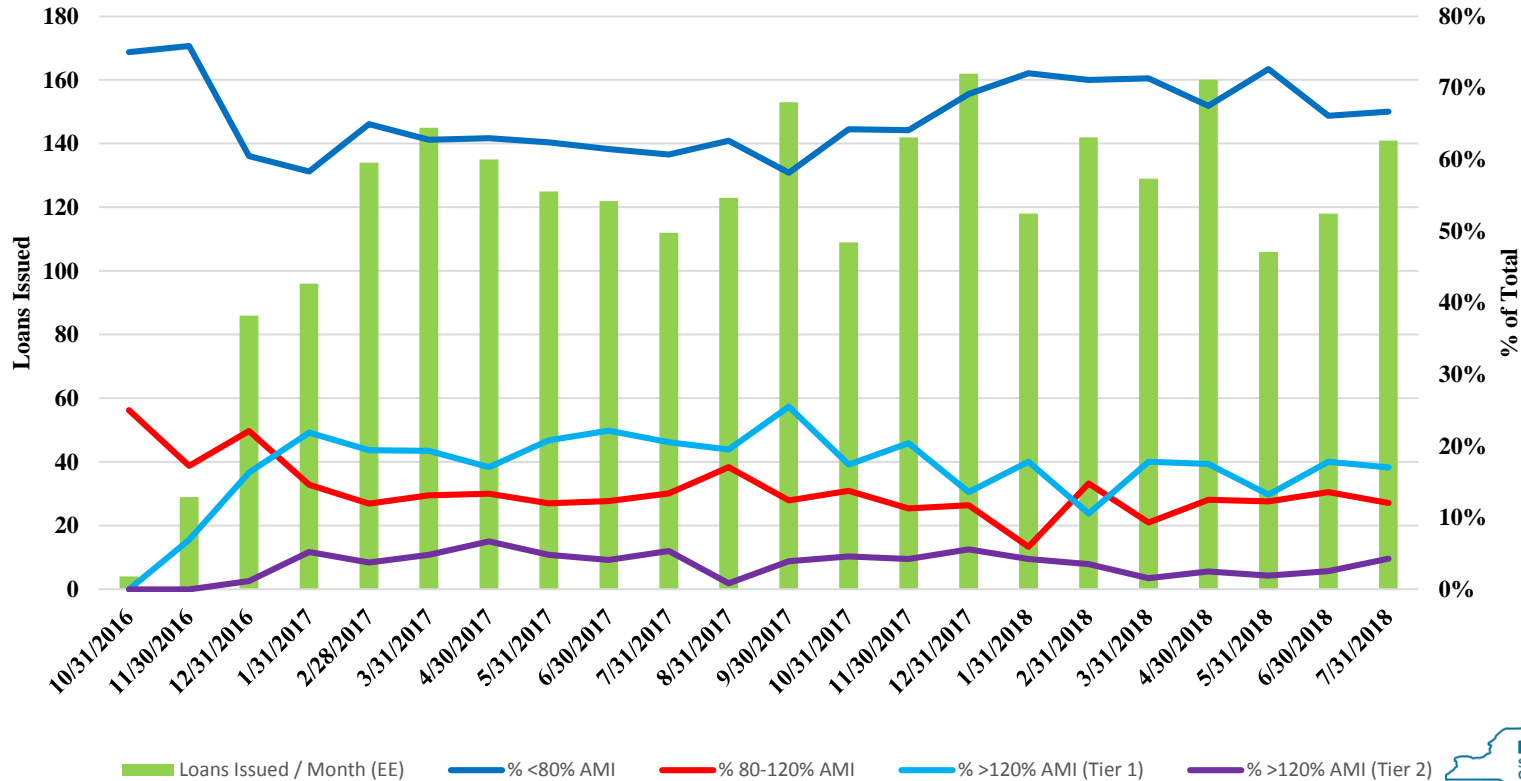
Green Jobs-Green New York Financing Residential Loans Issued by Type



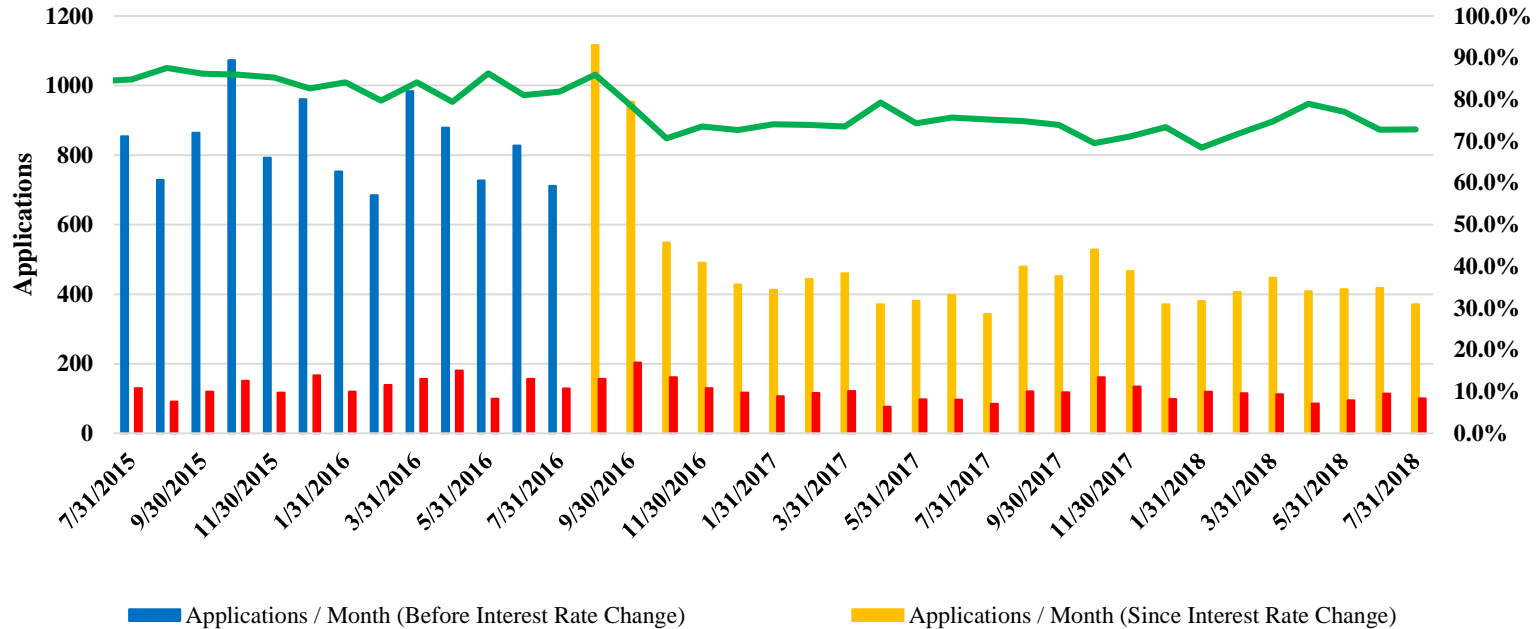
Green Jobs-Green New York Financing Dollar Value of Residential Loans Issued by Month (Past Three Years)



Green Jobs-Green New York Financing (EE Only) Residential Loans Issued for Applications Received on or after 9/01/16*



Green Jobs-Green New York Financing Residential Applications Received and Denied by Month (Past Three Years)



■ Applications / Month (Before Interest Rate Change)
 ■ Applications / Month (Since Interest Rate Change)
■ Total Applications Denied / Month
 — % Applications Approved / Month

Proposed Loan Fund Changes

Why Are Changes Needed?

- Better address affordability for high debt households
- Better align with industry standards for customer service
- Achieve “at the kitchen table” sales

Outreach

- Community Energy Advisors (CEA)/Outreach Contractors
- Energy Efficiency Contractors
- Photovoltaic Contractors
- Omnicap (financial advisor)
- Kroll (rating agency)
- Ramirez (underwriter)

Proposed Changes to Loan Fund

1. Simplify interest rate structure; reduce number of rates
2. Eliminate Smart Energy Loan cost-effectiveness screening for applicants with high FICO score
3. Simplify underwriting and income documentation for applicants not seeking reduced interest rates or subsidies
4. Provide improved project review for cost-effectiveness when lending to Assisted HPwES loan applicants with very high debt-to-income ratio

1. Interest Rate Changes

Area Median Income	Current*	Proposed*	Change
up to 80%	3.49%/3.99%	3.49%/3.99%	No change
>80-120%	4.99%/5.49%	3.49%/3.99%	Merge with up to 80% AMI group
>120% Tier 2	5.99%/6.49%	6.99%/7.49%	Merge with greater than 120% AMI Tier 1 group
>120% EE	6.99%/7.49%	6.99%/7.49%	No change
>120% PV	7.99%/8.49%	6.99%/7.49%	Use same rates as EE

*Interest rate for OBR and automatic withdrawal from account/interest rate for direct bill

Resulting Interest Rates

Income as Percentage of Area Median Income	Loan Type		
	On-Bill Recovery	Smart Energy (Auto Pay)	Smart Energy (Direct bill/ Pay by mail)
Less than or equal to 120%	3.49%	3.49%	3.99%
Greater than 120%	6.99%	6.99%	7.49%

2. Eliminate Cost Effectiveness Screening for Smart Energy Loan applicants with credit score of 780 and above

- Recognizes these customers have demonstrated the ability and desire to pay for purchases that do not “pay for themselves”
- Recognizes customers often invest in energy efficiency projects for reasons other than energy bill savings
- Will require a credit screening tool or customers to apply for a loan prior to contractor scoping work to be most effective
- Cost effectiveness still required for all OBR loans as required by the GJGNY Law

3. Underwriting and Income Documentation Changes (Applicants not Seeking Lower Interest Rate or Subsidies)

- Eliminate debt-to-income (DTI) Limit for Tier 1 applicants with credit scores of 780 or above
- Eliminate income documentation for Tier 1 applicants with credit scores of 780 or above
- Simplify income documentation for applicants with credit scores below 780
 - List all income on application but only provide documentation for the largest single amount (primary income)
- Applicants seeking income-eligible incentives or interest rates still need to document all income

4. Closer Review of Project for Assisted HPwES Loan Applicants with High DTI

- Assuming applicant has the ability to repay a loan when debt obligations potentially exceed 100% of income is too risky for applicant
- Current policy assumed 50% Assisted HPwES incentive results in bill neutrality; allowed DTI up to 100%
- Customers are not always realizing bill neutrality
 - OBR loan tests for bill neutrality but savings not always realized
 - Smart Energy Loan threshold of .8 savings-to-investment ratio
- For Assisted HPwES applicants whose current DTI is higher than limits but up to 100%, add “second look” requirement by HPwES implementation contractor to confirm savings estimate

Underwriting and Documentation

Tier	FICO	DTI Rule	Documentation
Tier 1	780+	No DTI limit	DTI calculated on stated income only for program analysis purposes; no proof of income required unless seeking reduced interest rate or incentive*
	640-779	DTI up to 50%	
Tier 2	680+	DTI up to 80%	DTI calculated on stated income; proof of primary source of income only unless seeking reduced interest rate or incentive*
	600-679	DTI up to 75%	
	540-599	DTI up to 70%	
	540+ Assisted HPwES customers not meeting DTI limits above	Up to 100%	Second look at project to confirm projected savings and bill neutrality

*Any applicant seeking reduced interest rate or incentive based on income eligibility must provide proof of all stated income, regardless of FICO or DTI ratio

Additional Topics for Discussion

- Customer Service Improvements
- OBR Policy and Fees

Customer Service Improvements

- Electronic signature of loan documents in final development
 - Customer account with unique email address required
- On-line applications (available now)
 - Benefits: faster response, improved accuracy and security
 - Establish account to facilitate electronic signature
 - Only 15% of applicants currently submit on line (compared to 85% in New Jersey)
- Suggestions for increasing on-line submittal?

OBR Policy and Fees to be Addressed in Future

- Funding of title search and filing fees for OBR loans is unsustainable
 - Cost is up to \$1,555 per loan; \$456,000 per year; \$3.5 million to date
- Current transferability mechanism causes confusion and is not effective
 - Plan to work with legislature to amend GJGNY Law; replace transferability with a voluntary assignment, eliminating the need for recording loans
 - If unsuccessful in making changes in 2019 Legislative session, propose to begin charging consumers these fees (can be included in the amount financed)

Workforce Development Update

Strategy

- Create talent pipeline to ensure that NYS clean technology and energy service businesses have robust supply of new and existing workers
 - Occupational skills, credentials and experience to support professional services (including A&E and research) and
 - Technical skills necessary to manufacture, specify, sell/distribute, install, operate, maintain, repair, and inspect clean energy technology and systems
- Initial focus areas:
 - Offshore wind (OSW): training for estimated 3,500 peak new jobs by 2030; address need for new skills for existing workers throughout supply chain
 - Energy efficiency and clean technology: update existing training, develop new training, provide hands-on experience
 - Cleantech startups: training and internships to address a shortage of entry-level and experienced cleantech workers to overcome challenges for firms entering the clean energy market

Talent Pipeline Funding and Expected Outcomes

- \$47 million 2018-2025, including \$10 million for OSW
- Energy Efficiency and Cleantech Training Goals
 - 16,250 trained
 - 2,000 new hires through on-the-job (OJT) training incentives
 - 1,900 internships through direct support to businesses
 - Private investment of \$26.6 million

Training Infrastructure, Internships and On-the-Job Training

- Building/enhancing training infrastructure and capacity
 - Curriculum, training equipment, training trainers
 - Work with experienced training providers on initiatives that meet employer's needs
 - Certificate programs, degree programs, apprenticeships, continuing education, career pathways programs, job preparedness/placement initiatives, etc.
- Developing an internship program
- Implementing an OJT program with NYSDOL
- Preference for efforts that help priority populations: low-income and displaced workers, veterans, 18-24 year olds, etc.

Building Energy Efficiency and Cleantech Training Infrastructure

- Competitive solicitation issued fall 2018
- Unions, colleges and universities, manufacturers, distributors, trade associations, community-based organizations, technical high schools, training and job placement intermediaries, etc.
- Preference for training that targets priority populations
- Document market need, skills gap, relationships with businesses/industry
- Developing, modifying curriculum; delivering training (on-line, classroom, on-site, etc.); certification costs; equipment purchase for hands-on training; hiring and training trainers; marketing; internships; job placement services; pre-apprenticeships and apprenticeships

On-The-Job (OJT) Training

- Open enrollment solicitation issued fall 2018
- Implemented in close coordination with NYSDOL and their Business Service Representatives
- Wage subsidies to eligible energy efficiency and clean technology businesses throughout the supply chain to hire and provide OJT for new workers
- Higher wage subsidies for priority populations

Internship Program

- Open enrollment solicitation issued Fall 2018
- NYSERDA and NYSDOL recruit interested clean energy businesses and solicit resumes from college and technical high school students and help match businesses with interns by interest area, location, etc.
- NYSERDA will offset intern wages up to 90% depending on business size
- Internships up to 12 weeks, full-time during summers and part-time during the school year

Building Operations and Maintenance Initiative

Workforce Development: Building Operations & Maintenance Overview

- Improving the skills of workers in building operations and maintenance occupations across all sectors.
- \$21 million total budget
- PON 3175: Applications accepted on a continuous first-come, first-served basis
- \$400,000 per proposal, minimum cost share of 50 percent
- To date, 20 projects contracted or contracts being developed: \$4.8 million in NYSERDA funding, 2,100 trained and \$9.8 million in anticipated annual energy savings

Multifamily Building O&M Projects

- 10 projects with O&M training for multifamily buildings
- Internships, building on-site training labs, mentoring programs, classroom training, training trainers, etc.
- Training on HVAC systems, building management systems, building monitoring data analytics, steam distribution, boiler O&M, etc.
- Example: FS Energy, the energy management subsidiary of FirstService Residential, is delivering on-site training to approximately 450 O&M staff members and 200 property managers. The training will be supplemented by an ongoing, in-house educational program that will include training videos, digital learning modules, etc.

Community Energy Advisors

Community Energy Advisors By Region

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