Green Jobs-Green New York Advisory Council Meeting

November 27, 2017

Agenda

Welcome and Opening Remarks	Alicia Barton
Community Energy Engagement Program - Contracts Status Update	Kelly Tyler
Workforce Development • Hiring Hall Working Group • Building Operations and Maintenance	Adele Ferranti
Overview of LMI Market Characterization Study	Chris Coll
Residential Loan Fund Update	Karen Hamilton
Wrap-up	Alicia Barton

Community Energy Engagement Program

Contracts Status Update

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RFP3588 – Community Energy Engagement Program

- RFP3588 sought proposals from qualified organizations to provide locally-based engagement (energy awareness and education) services to drive energy efficiency and renewable energy deployment to residential, multifamily, and small business customers, with a focus on low-to-moderate income (LMI) households and communities.

- NYSERDA originally issued this RFP in May 2017 and awarded eight of the ten Economic Development Regions through that release of the solicitation.

- NYSERDA re-issued RFP3588 with proposals due October 10, 2017 for the remaining two Economic Development Regions

New Contracts Status

- Of the eight Contracts that were awarded through the first release of RFP3588 seven are executed and beginning work on the program

- Award notifications were recently sent out for proposals received through the second release of the solicitation

CEEP Contractors by Region

Region	Lead Organization
Capital District	Affordable Housing Partnership of the Capital Region, Inc.
Central NY	Home HeadQuarters, Inc.
Finger Lakes	PathStone Corporation
Long Island	United Way of Long Island
Mid-Hudson	Awarded, Not Yet Executed
Mohawk Valley	Awarded, Not Yet Executed
New York City	Center for New York City Neighborhoods, Inc.
North Country	Awarded, Not Yet Executed
Southern Tier	Cornell Cooperative Extension of Tompkins County
Western New York	People United for Sustainable Housing, Inc (PUSH)

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Workforce Development

Hiring Hall Working Group

A Refresher: GJGNY Workforce Training Working Group Members*

- Adele Ferranti, NYSERDA, Convener

- Stephan Edel, Center for Working Families

- Clarke Gocker, PUSH Buffalo

- Ross Gould, Workforce Development Institute

- Dave Hepinstall, Association for Energy Affordability

- Tony Joseph, NYS Department of Labor

- Jason Kuflik, Green Street Solar

- Ellen Redmond, International Brotherhood of Electrical Workers

- Will Schweiger, Efficiency First New York

- Paul Shatsoff, PS Consulting

- Hal Smith, Halco

- Marilyn Oppedisano, National Electrical Contractors Association

* The Working Group met seven times over six months in 2016.

Primary Areas of Discussion

The working group addressed the following opportunities and needs identified in the *GJGNY LMI Work Group Recommendations Report*:

- Role of community-based organizations in future workforce training efforts

- Opportunities to coordinate with the NYS Department of Labor (NYSDOL)

- Future directions for workforce training efforts, including career pathways, training consortia, apprenticeships, and direct entry

- Incorporating lessons learned, both from within GJGNY programs and other jurisdictions

- Labor standards

Summary of Recommendations

1. Provide on-the-job training incentives to mitigate business risks associated with hiring new clean energy workers
2. Support New York State Registered Apprenticeships in clean energy fields
3. Explore innovative, employer-driven approaches to bridging the gaps between training and employment, including a hiring hall model

Recommendation #3 – Hiring Halls

Explore innovative, employer-driven approaches to bridging the gaps between training and employment, including a hiring hall model.

- Consider non-traditional ways to support disadvantaged workers, such as "hiring halls," where skilled and vetted workers are employed and insured by a host and can be hired out on an as-needed basis
  - o This is one way to support "high road standards," such as family sustaining wages, fringe benefits, and overtime pay
- Work with locally-based organizations who are uniquely positioned to bridge gaps between workers and clean energy businesses seeking to hire

Response to # 3 – Hiring Halls

NYSERDA will continue to investigate opportunities to support all career pathways opportunities to ensure that all New Yorkers have access to good paying jobs in the clean energy economy.

- NYSERDA is currently looking at market needs/barriers and options to support innovative solutions to bridging the gaps between training and job placement.

- NYSERDA will convene a group to explore what role hiring halls and pre-apprenticeship programs (with a pipeline to registered apprenticeships) might play in increasing clean energy employment within disadvantaged communities, with a recommendation made by the end of the year.

Hiring Hall Working Group Members

- Adele Ferranti, NYSERDA, Convener

- Clarke Gocker, PUSH Buffalo

- Rahwa Ghirmatzion, PUSH Buffalo

- Lisbeth Shepherd, Green City Force

- Mara Cerezo, Green City Force

- Sean Morrissey, YouthBuild Troy

- Aggie Lane, Urban Jobs Task Force

- Ruth Pillittere, NYS Department of Labor

- Liz Martin, NYS Department of Labor

Working Group Discussion and Preliminary Recommendations

- Looking at ways NYSERDA can support a variety of models (hiring halls, apprenticeships, pre-apprenticeship programs, direct entry, YouthBuild, and social enterprise models such as AmeriCorps, etc.) as we explore how best to develop clean energy talent pipelines.

- NYSERDA should further investigate support for activities such as career awareness/exploration/preparation, professional and technical training, onboarding, bringing workers to full productivity, career advancement, and job retention. These activities should be driven by business needs with the end goal of job placement.

- Youth in NYS have a much higher unemployment rate (>10%), compared to the overall state unemployment rate of 4.6%.

Discussion, Continued

- One-on-one outreach to and relationships with both the worker and business are critical

- Need to develop industrial and commercial awareness particularly for youth

- Focus is needed on facilitating advancement to full-time, good paying jobs

- As NYSERDA gets more involved with procurement activities, such as Community Solar, consider local hiring and labor standards

Next Steps

Working Group will continue to meet regularly to share best practices and help develop talent pipeline initiatives

Current CEF Workforce Training Initiative: Building Operations and Maintenance

Building Operations and Maintenance (O&M)

NYSERDA's first Workforce Development and Training investment strategy focuses on an industry partnership approach to training.

- Opportunity: 120,000 building operations and maintenance workers in the state require similar skills across sectors. There is a potential for training to reduce a building's energy use by 5-20%.

- Goal: to increase the operational efficiency of buildings by identifying common building O&M workforce needs and interventions across industry sectors; identifying worker skill gaps; informing investments in skills and talent development; supporting career pathways; and developing the training infrastructure needed to better link supply and demand in the labor market.

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Building O&M

Activities to Date:

- Convening industry partnership group, stakeholder meetings, and extensive interviews with building owners, building managers, property management companies, and unions

- Two solicitations issued with 12 projects moving forward; third solicitation open ($4 million), open enrollment through 1/31/18

- Two pilot projects to demonstrate business case for workforce training underway, and four additional pilots being finalized

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NYSERDA's Goals under PON 3715

Support for employers and building owners with workforce development and training projects that:

- Create talent development strategies

- Improve corporate culture

- Develop the framework for on-site training

- Create training tools that support building O&M beyond classroom training opportunities

Eligible Activities

NYSERDA will support eligible projects by providing funding for activities such as:

- On-site training laboratories

- Curriculum development

- Career pathways training

- Coaching and mentorships

- Apprenticeships and internships

- Intermediaries to support talent recruitment and placement

- Training trainers

- Partnerships with manufacturers

Building O&M Project Snapshot

- 12 projects: 6 executed agreements, remainder executed by 12/31/17

- Sectors represented: health care (3 hospitals), multifamily buildings (5), education (4)

- NYSERDA Investment $3.49 million; $4.9 million in cost share

- Average estimated energy saving 6% for $8.3 million in total annual savings

- 2,477 trained

- Total cost per trainee $3,360 with NYSERDA covering $1,400 per trainee

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Building O&M Example Projects

NYS Schools Facilities Association

Collaboration of 10 central NY school districts to provide Building Operator Certification training for 75 school facility directors and maintenance workers. In future years, train an additional 240 school staff members on timely K-12 energy management topics.

$400,000 in NYSERDA funding

$1.0 million annual energy savings (est.)

The Cooper Union

Train 19 staff members (engineering, building operations, and energy efficiency) and six mechanical engineering interns. Develop a new for-credit course on HVAC and Energy Efficient Buildings. In the future, extend training to an additional six engineers and four to six interns per year.

$167,671 in NYSERDA funding

$75,300 million annual energy savings (est.)

LMI Market Characterization Study

LMI Market Characterization

- What does the LMI population in NYS look like?
    - Demographics, housing characteristics, geographic distribution
- What are the underserved populations, where are they?
- What opportunities exist to improve the impact of our programs?

Market Characterization Research

- Contract with APPRISE (population analysis and special topic reports)

- Data sourced and computed from the following data sets:

  o 2013-2015 American Community Survey

  o American Housing Survey

  o Current Population Survey

  o Residential Energy Consumption Survey

- Population Analysis: data by income group, demographics, housing characteristics, geography

- Special Topic Reports:

  o Income Status: documents how income status is defined and identifies income groups

  o LMI Market Segmentation: presents a market segmentation strategy and furnishes detailed profiles for important market segments

  o Household Energy Burden: provides stats on energy burden

  o Financial Capacity: documents the financial capacity of LMI households and assesses the ability of LMI households to invest in clean energy improvements

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Population Analysis- Sizing

Number and Percentage of Households by Income Group, with Avg. Annual Income

Income Group	Number of Households	Percent of Households	Average Income
Very Low-Income Households	1,388,051	40%	$12,801
Low-Income Households	969,865	28%	$29,739
Moderate-Income Households	1,153,239	33%	$47,348
All LMI Households	3,511,156	100%	$28,827

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Population Analysis-Demographics

By Household Type and Income Group

Household Type	Income Group		
	Very Low-Income	Low-Income	Moderate-Income
Elderly Couple	14%	22%	25%
Elderly Individual	24%	25%	18%
Older without Children (40-59)	19%	17%	21%
Older with Children (40-59)	17%	16%	14%
Younger without Children (<40)	10%	9%	13%
Younger with Children (<40)	17%	12%	8%
All LMI Households	100%	100%	100%

By Race/Ethnicity and Income Group

Race and Ethnicity	Income Group		
	Very Low-Income	Low-Income	Moderate-Income
White Non-Hispanic	43%	56%	59%
Black Non-Hispanic	20%	16%	16%
Hispanic	26%	19%	17%
Asian	8%	6%	6%
Other	2%	2%	2%
All LMI Households	100%	100%	100%

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Population Analysis- Geographic Distribution

Distribution of LMI Population by Region and Housing Type

NYS Economic Development Region	Single Family	Small Multifamily	Large Multifamily	Mobile Home	All Housing Units
Capital District	46%	27%	21%	6%	100%
Central New York	52%	19%	22%	7%	100%
Finger Lakes	56%	17%	21%	6%	100%
Long Island	71%	12%	16%	1%	100%
Mid-Hudson	42%	22%	33%	3%	100%
Mohawk Valley	52%	24%	13%	12%	100%
New York City	12%	24%	64%	<1%	100%
North Country	55%	16%	13%	15%	100%
Southern Tier	52%	18%	17%	13%	100%
Western New York	52%	27%	16%	5%	100%
All LMI Households	34%	22%	41%	3%	100%

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Population Analysis-Distribution by Housing Type and Ownership Status

Distribution of LMI Population by Income Grouping, Housing Type, and Ownership Status

Housing Unit Type	Very Low-Income		Low-Income		Moderate Income	
	Owner	Renter	Owner	Renter	Owner	Renter
Single Family Home	209,713	116,158	292,939	72,380	424,526	71,854
Small Multifamily Home	42,428	280,641	46,309	164,974	67,992	160,273
Large Multifamily Home	34,377	660,880	34,894	323,815	60,607	338,226
Mobile Homes	26,803	17,051	25,180	9,374	22,298	7,463
All Households	313,321	1,074,730	399,323	570,542	575,424	577,816

Special Topic- Energy Burden

Energy Burden by Housing Type for Households with Annual Income at or Below 100% FPL

Housing Unit Type	Percent of LMI Households	Average Energy Bill	Average Income	Average Energy Burden
Single Family	34%	$3,500	$10,312	33.9%
Small Mulitfamily	29%	$2,503	$10,865	23.0%
Large Multifamily	33%	$1,588	$9,332	17.0%
Mobile Homes	4%	$3,095	$10,680	29.0%
Income Less than Poverty	100%	$2,563	$10,168	25.2%

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Special Topic- Energy Burden

Energy Burden by Main Heating Fuel, All LMI Households

Main Heating Fuel	Percent of LMI Households	Average Energy Bill	Average Income	Average Energy Burden
Natural Gas	65%	$2,681	$31,117	8.6%
Fuel Oil	13%	$4,477	$34,892	12.8%
Electricity	15%	$1,857	$25,246	7.4%
Propane	4%	$3,503	$29,970	11.7%
Wood/Coal	2%	$3,288	$33,633	9.8%
All LMI Households	100%	$2,839	$30,726	9.2%

Special Topic- Financial Capacity

Average Shelter Burden for New York State Households by Income Group

Household Group	Average Shelter Bill	Average Income	Average Shelter Burden
LMI Households	$13,769	$28,923	47.6%
Non-LMI Households	$22,605	$143,671	15.7%
All Households	$18,355	$88,472	20.7%

Banking Status for New York State Households by Income Group

Household Group	Unbanked	Underbanked	Fully Banked	Unknown
LMI Households	15%	30%	48%	7%
Very Low Income	26%	30%	36%	7%
Low Income	6%	34%	55%	5%
Moderate Income	9%	24%	59%	8%
Non-LMI Households	1%	18%	73%	8%
All Households	8%	24%	61%	7%
LMI Homeowners	3%	20%	69%	7%

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Special Topic-Program Penetration

LMI Market Segments by Owner Status, Income Group, and Housing Unit Type Population Share and Percent Served

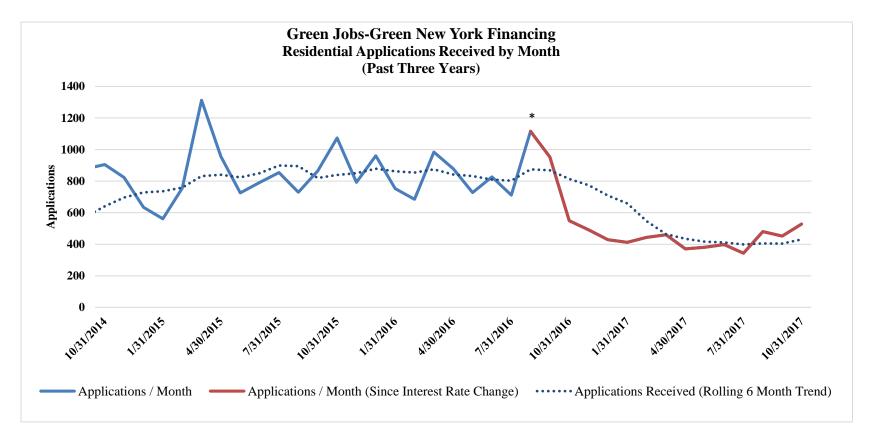| Housing Unit Type	Renter		Owner	
	Low Income	Moderate Income	Low Income	Moderate Income
Large Multifamily	Population Share: 28% Percent Served: 17%	Population Share: 10% Percent Served: 34%	Population Share: 4% Percent Served: Unknown	
Small Multifamily	Population Share: 18% Percent Served: 3%	Population Share: 6% Percent Served: Unknown	Population Share: 17% Percent Served: 21%	Population Share: 14% Percent Served: 6%
Single Family				
Mobile Homes	Population Share: 3% Percent Served: 25%			
All Housing Types	3,511,156 LMI housing units (3,511,156) / number housing units served (473,542): 13%			

Research- Identified Uses of Results

- Program planning

  o Program design, targeting, and resource allocation

- Measuring program impact

- Open source data and insights

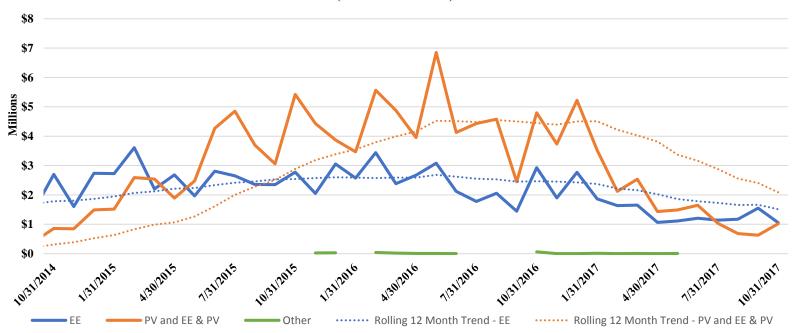 o User panel to help prioritize the publication of data
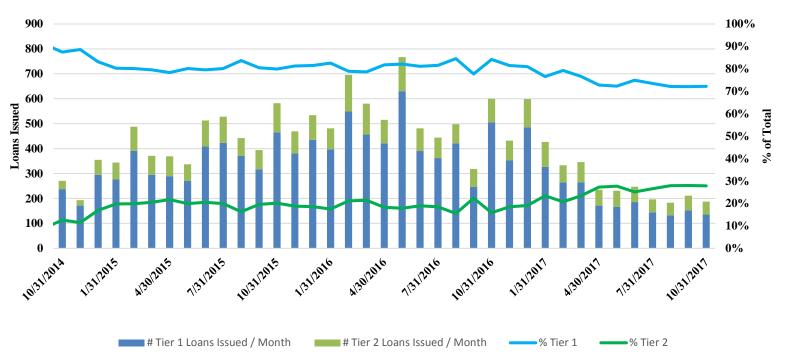
Residential Loan Fund Update

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

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

Green Jobs-Green New York Financing
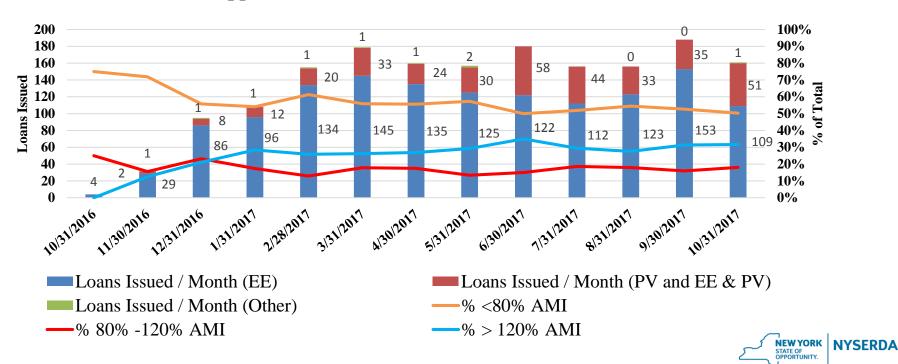Residential Loans Issued by Tier
(Past Three Years)
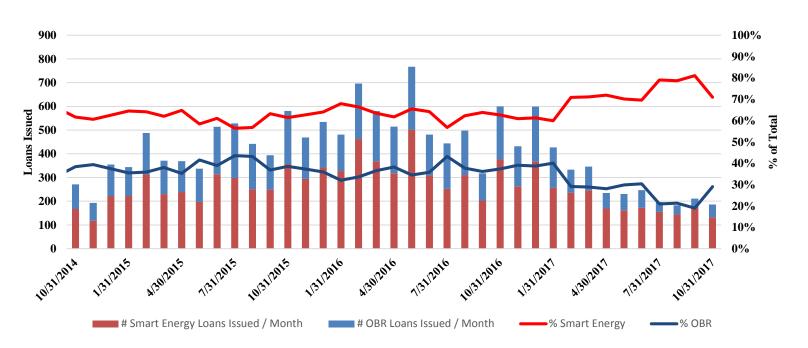
Regional Greenhouse Gas Initiative (RGGI) Funding Needs

Component	Loans Issued 11/1/2016 - 10/31/2017		RGGI Funds $M*	Allocation of RGGI Funds
	Number of Loans	$M		
Tier 1 Energy Efficiency	1,490	13.3	2.7	14%
Tier 1 PV and other	1,288	20.7	7.2	38%
Tier 2	848	9.2	9.2	48%
Total	3,626	43.2	19.1	100%

*RGGI Funds are needed to support refinancing over-collateralization (amount not funded through bond proceeds), or to carry Tier2 loans that cannot immediately be refinanced until sufficient repayment history.

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Green Jobs-Green New York Financing
Residential Loans Issued by Income Range
(Applications Submitted on 9/1/2016 or Later)

Green Jobs-Green New York Financing
Residential Loans Issued by Type
(Past Three Years)

Factors That May Impact Demand for Loans in the Future

- Addition or subtraction of third party lenders and financing products in the market
- Weather conditions
- Change in the economy
- Change in refinancing interest rates
- New Clean Energy Fund residential pilots (proposed)
  - Small scale for two-three years
  - Statewide expansion in three-four years
  - Expected to increase the number of contractors providing services
  - Expected to increase consumer demand for services

Wrap-up

Comments or questions regarding Advisory Council membership can be sent to:

- Kevin Carey kevin.carey@nyserda.ny.gov or
- Karen Hamilton karen.hamilton@nyserda.ny.gov