

Understanding Workforce Training & Development in the New Clean Energy Economy

Public Engagement Meeting

Just Transition Working Group

**February 3, 2021
1:00-3:00 pm**



**Department
of Labor**



NYSERDA



**Climate Action
Council**

Just Transition Working Group (JTWG)

Public Engagement Meeting Agenda

- 1. Welcome Remarks**
- 2. Clean Energy Industry Trends**
- 3. Panelist Presentations**
 - **NEW (Nontraditional Employment for Women)**
 - **32 BJ**
 - **Green City Force**
 - **IBEW 43**
- 4. Public Input**
- 5. Next Steps / Closeout**

Just Transition Working Group: Membership

Roberta Reardon,
Co-Chair

Commissioner:
Department of Labor

Doreen Harris,
Co-Chair

Acting President &
CEO: NYSERDA

RuthAnne
Visnauskas
Commissioner: Homes
& Community
Renewal

John Rhodes
Chair: Public Service
Commission

Vincent Albanese
Director of Policy and
Public Affairs: LIUNA

Omar Freilla
Founder &
Coordinator: Green
Worker Cooperatives

Henry Garrido
Executive Director: DC
37

Patrick Jackson
Director of Global
Energy Management:
Corning, Inc.

Gary LaBarbera
President: Building
and Construction
Trades Council of
Greater New York

Michael Padgett
Vice President of
Energy: Alcoa

Brian Raley
Principal Staff
Engineer: Global
Foundries

James Shillitto
President: Utilities
Workers Union of
America Local 1-2

**Maritza Silva-
Farrell**
Executive Director:
ALIGN

Ted Skerpon
Chair: IBEW Local 97
& Utility Labor Council

Lara Skinner
Executive Director:
The Worker Institute
at Cornell University

Candis Tolliver
Political Director: 32BJ
SEIU

Randy Wolken
President: MACNY &
Manufacturers
Alliance

Overview of New York's Clean Energy Industry by BW Research



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**Department
of Labor**

February 3, 2021

Part 1: CEIR Overview

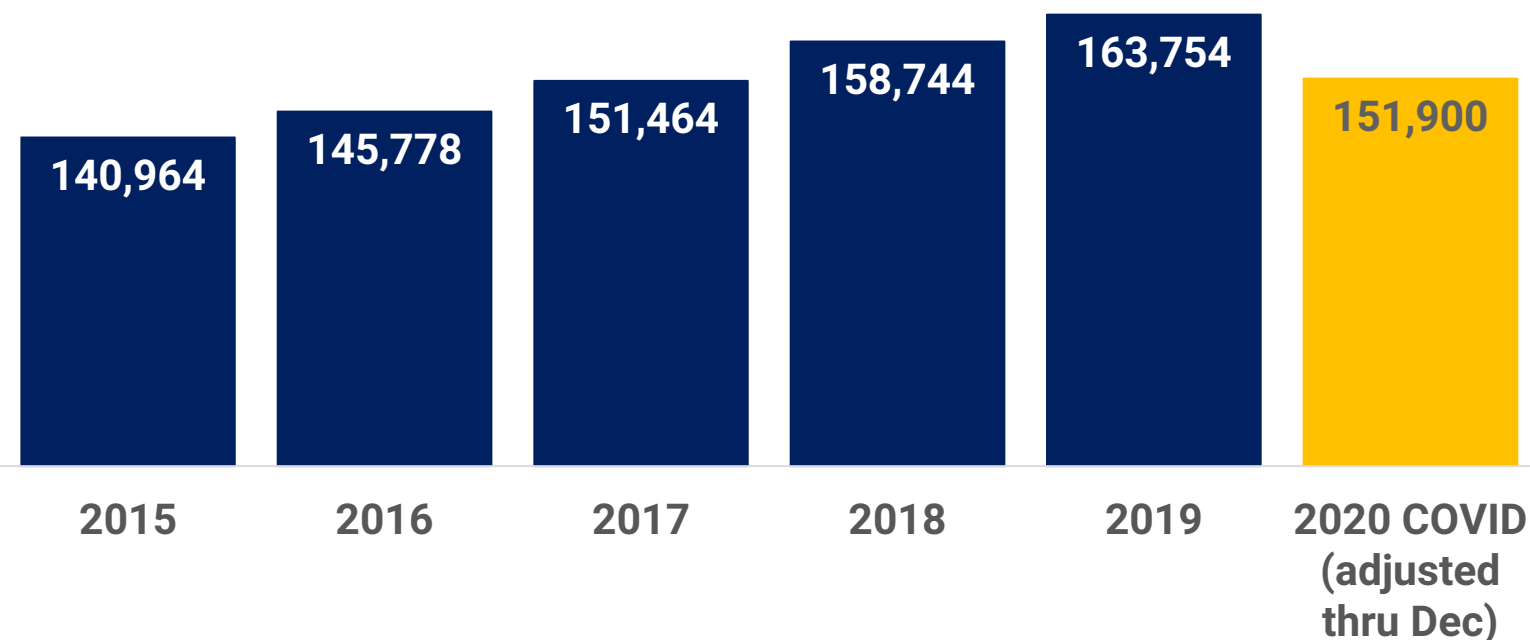
The 4th edition of the New York Clean Energy Industry report:

- > Measures, characterizes, and analyzes clean energy and traditional energy employment trends across technology sectors
- > Provides an early look at COVID-19 impacts and recovery
- > Explores clean energy employer needs and related workforce training and development opportunities



Overall Clean Energy Employment

Annual Clean Energy Employment in New York (2016-2020 COVID-adjusted)



- > Clean energy jobs represented almost 1.7% of all employment within the State
- > Between 2018 and 2019, clean energy employment increased by 3.2%, outpacing the total New York employment growth of 1.1%



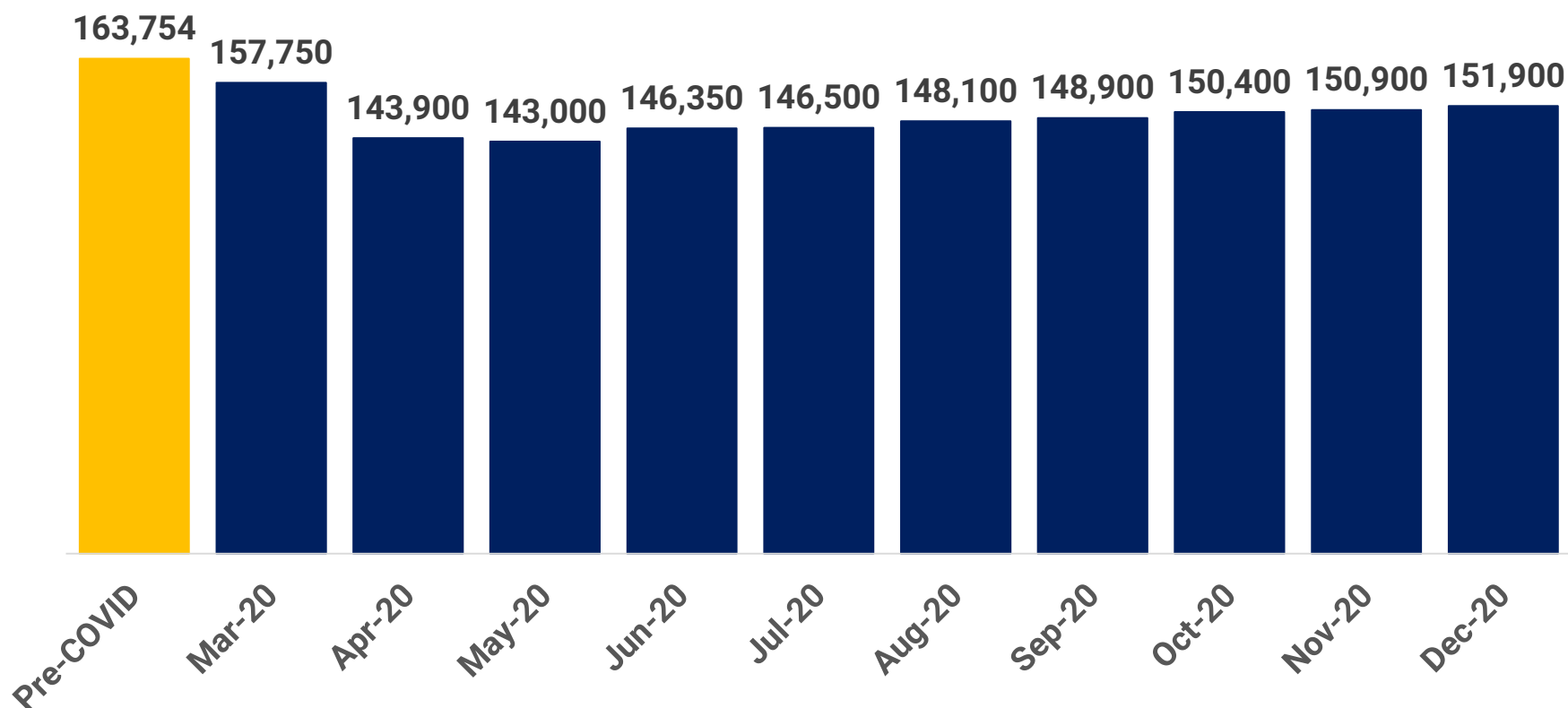
COVID

As of December 2020, New York lost 11,815 clean energy jobs cumulatively since February 2020, about 7.2% of the total clean energy workforce



COVID-19 Clean Energy Job Trends

New York Clean Energy Monthly Employment Estimates through COVID-19 (March – December 2020)



- As of December, nearly 9,000 clean energy jobs had been restored under NY Forward since May
- Recovery trajectory indicates the economic resilience of NY's clean energy sector.
 - Nationwide, clean energy sector is down 12.4%
 - NY only down 7.2%

COVID Employment Impacts by Technology

	Employment			Change, 2018 - 19		Change, 2019 - Dec 2020	
	2017	2018	2019		%		%
Energy Efficiency	117,339	123,292	126,739	3,447	3%	-9,236	-7.3%
Renewable Electric Power Generation	22,064	22,023	23,491	1,467	7%	-1,641	-7.0%
Clean and Alternative Transportation	7,881	8,624	8,579	-45	-1%	-634	-7.4%
Renewable Fuels	2,590	2,654	2,656	2	0%*	-133	-5.0%
Grid Modernization and Energy Storage	1,590	2,151	2,289	139	6.5%	-171	-7.5%

- > Impacts to renewable electric power generation were slightly less than other technology sectors
- > Renewable fuels has suffered a smaller percentage of job losses compared to other technologies



COVID-19 Impacts by Value Chain

	Employment by Value Chain, 2019	COVID job loss from 2019 to 2020	
	Number of jobs	Number of jobs	%
Installation	97,197	-9,911	-10.2%
Professional Services	21,329	-1,153	-5.4%
Public or Private Utility	13,208	-13	0.1%
Manufacturing	6,803	-442	-6.5%
Sales and Distribution	8,067	-238	-3.0%
Other Support Services	14,792	-800	-5.4%
Other	2,359	-103	-4.4%

- > Installation was most heavily impacted by COVID-19, with jobs down 10.2% from 2019 as of December 2020
- > Manufacturing also struggled under COVID-19 at a higher rate than many other value chain categories

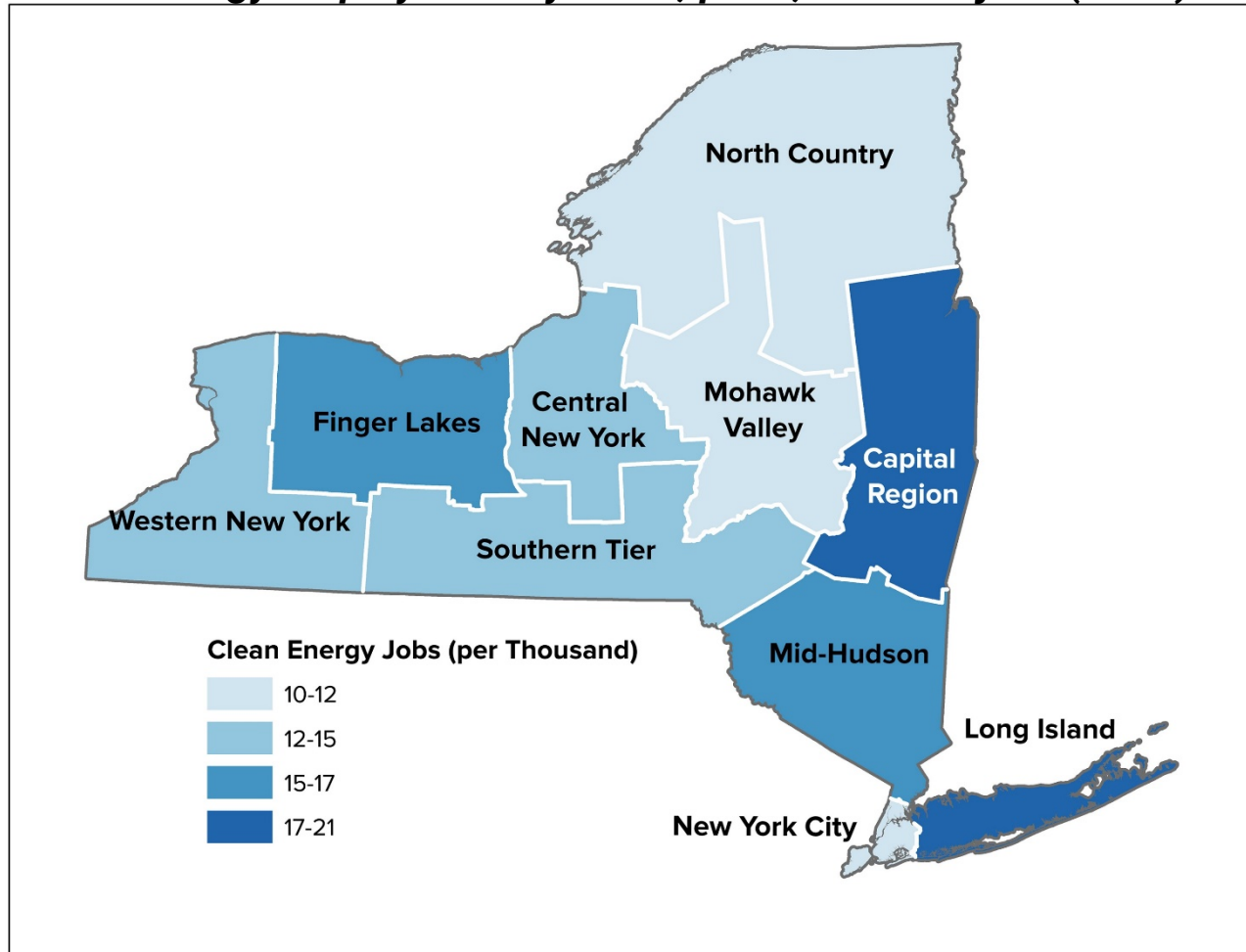
COVID-19 Recovery Sentiment

- > Clean energy firms that are still in business and were recontacted have brought back all lost employment
- > Firms anticipate slight employment losses with a second wave at the beginning of 2021, but with a full rebound by the end of April 2021
- > Heat pump installers report much more difficulty installing systems, acquiring financing, and reaching new customers now than September
- > Solar firms report no change in difficulty operating
- > Non-HVAC EE workers report slightly more difficulty acquiring new and maintaining current customers



Regional Employment

Clean Energy Employment by REDC, per 1,000 total jobs (2019)



- > Across REDCs, clean energy employment ranges from 11 (Mohawk Valley) to 20 (Long island) jobs per 1,000 total jobs

Demographics

New York State and National Clean Energy Demographics

	NY Overall	NY Clean Energy Industry, 2019			US Clean Energy
		Overall Clean Energy	Energy Efficiency	Renewable Energy Gen	
Female	52%	26%	28%	24%	25%
Male	48%	74%	72%	76%	75%
White	72%	72%	72%	74%	75%
Hispanic/Latinx	18%	15%	16%	14%	16%
Black	16%	8%	9%	7%	8%
Asian	10%	8%	9%	5%	6%
Native American	n/a	1%	2%	2%	2%
Pacific Islander	n/a	1%	1%	1%	1%

> New York's clean energy industry employs significantly fewer women and people of color than the state's broader labor force

> The energy efficiency sector employed a slightly higher share of women and people of color than the state's clean energy industry as a whole

Wages & Benefits

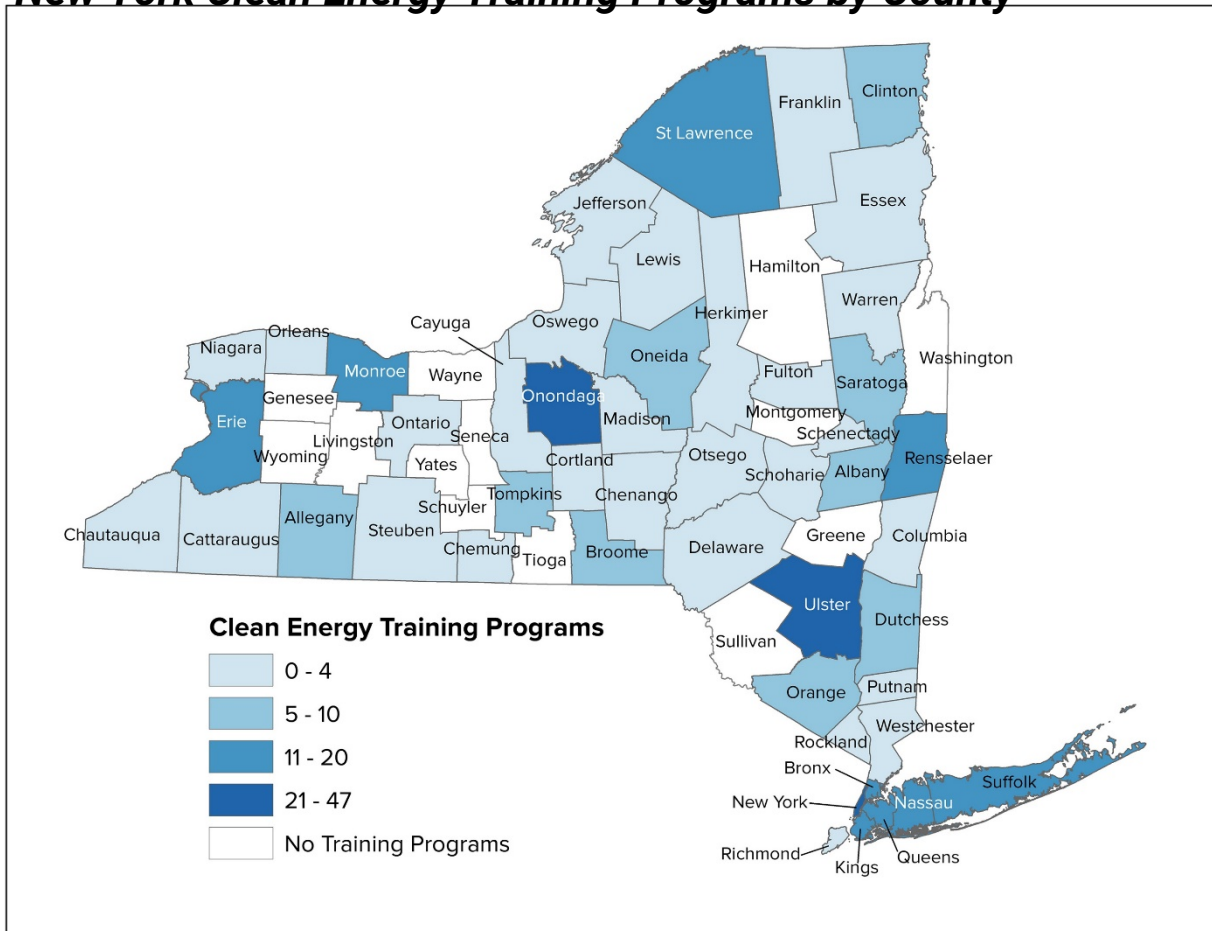
Wages were high among most clean energy industries

- > Wage premiums tend to be strong for entry level employees, but level off or reverse among higher level clean energy workers
- > Clean energy jobs are more likely to offer benefits as compared to other sectors of the economy
- > Unionization rates are highly correlated with higher wages and increased benefits.



Workforce Development

New York Clean Energy Training Programs by County



- > About one fifth of the training programs are aimed at HVAC workers, followed by programs for engineering (11.6%), electrical (10.4%), and construction (10.4%) workers.
- > Colleges provide the largest number of training opportunities (23% 4-year, 20% community colleges)
- > 123 training programs, are offered primarily online (25% of known programs)

Other Details & Next Steps

> Other notable topics in this report include:

- Deep dives and spotlights on Heat Pump Installation, Offshore Wind, Grid Modernization and Energy Storage, Alternative Transportation, Workforce Development in Disadvantaged Communities
- Hiring difficulties (results are pre-COVID)
- Industry Profiles on heat pumps, energy storage, alternative transportation, workforce development



Panelist Presentations

NEW

(Nontraditional Employment for Women)



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“My life has changed drastically. I was in Section-8 housing and on public assistance. Now, I make six figures.”

— Kieli McKoy, NEW Graduate, Carpenter, New York City District Council of Carpenters

NEW'S MISSION

NEW prepares, trains, and places women in careers in the skilled construction, utility, and maintenance trades, helping women achieve economic independence and a secure future for themselves and their families. At the same time, NEW provides a pipeline of qualified workers to the industries that build, move, power, green, and maintain New York.

NEW'S HISTORY

For over 40 years, Nontraditional Employment for Women (NEW) has been a groundbreaking model that works for women and for New York City. NEW's no-cost training program gives women the skills and knowledge they need to begin careers as union tradeswomen in the construction, transportation, and facilities management industries. **NEW is committed to changing the lives of women - providing the opportunity to move out of poverty and into prosperity through careers in the trades.**

Through 42 years of hard work and dedication, NEW has pushed the meter from 2% to 7% women represented in trade careers in New York City. In the last ten years, NEW has placed women in over 3,000 industry careers.

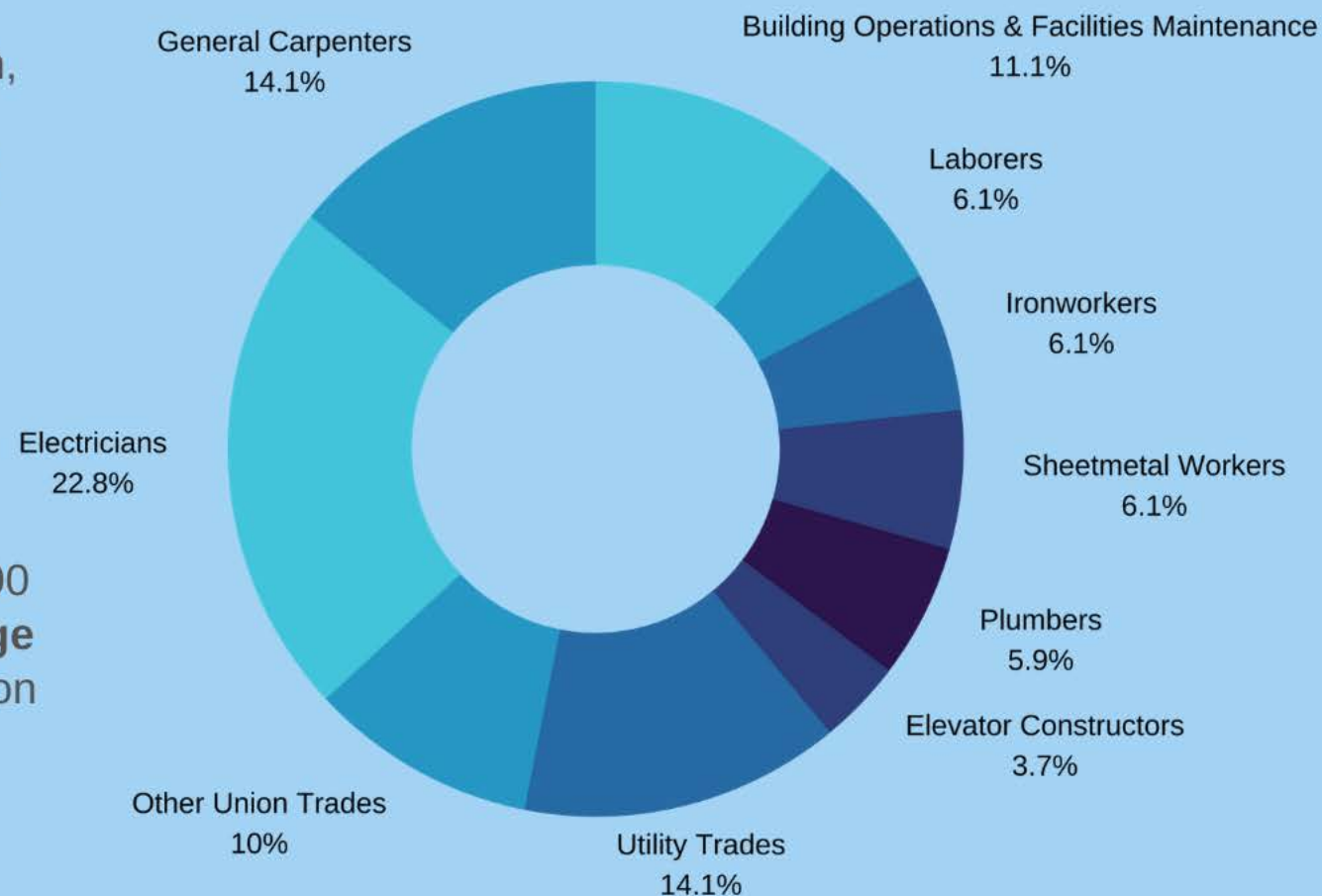
Women in Construction

Nationally, women represent a staggering 3% of all trade employees. Through 42 years of hard work and dedication, NEW has pushed the meter from 2% to 7% women represented in trade careers in New York City. **In the last ten years, NEW has placed women in over 3,000 industry careers.**

Long-term Financial Stability

Nearly 1 million working New Yorkers earn less than \$20,000 per year. New York State minimum wage is \$15.00 per hour. **NEW graduate wages, in the first year, average \$19 per hour.** In addition to sustainable hourly wages, upon placement in apprenticeships, NEW graduates receive comprehensive benefits, career development, and union protection.

NEW graduates were placed in the following trades in 2019:



3,000

In the last decade, NEW has placed 3,000+ women in careers in the trades.

350

NEW serves 350+ students through core programs annually.

150

NEW is connected to 150+ employer partners, 36 of which are unions and apprenticeships.

\$19

Average starting wages for our graduates range from \$19+ per hour.

275

NEW places 275+ graduates in construction-related careers each year.



NEW Programs

Blue Collar Prep

Blue Collar Prep is a preapprenticeship program geared towards giving women a well-rounded introduction to the building trades and hands on training experience with tools and building materials. This hybrid training combines online and hands-on instruction. Classes are offered during the day Monday to Friday.

NEW at Night

NEW at Night is an evening program for women working during the day or have daytime commitments. This hybrid training combines online and hands-on instruction. Training is held three evenings per week and every Saturday.

Green Collar Prep

Aligned with the green initiatives of New York City and State, NEW's Green Collar Prep (GCP) incorporates environmental sustainability issues and practices with the foundational skills students acquire through NEW's core preapprenticeship programming. Using a hybrid model combining online and hands-on instruction, GCP integrates content directly linked to sustainability and efficiency practices, applies a green lens to NEW's core curriculum, and provides students with a comprehensive training in environmental construction techniques and literacy.

Young Women's Initiatives

Through Boot Camps, workshops and tradespeakers, NEW's Young Women's Initiatives connects young women and girls to career exploration and training opportunities connect to career pathways in NYC construction.

Advanced Training

Advanced Training is offered to NEW graduates and covers topics such as trade-specific entrance exam preparation, OSHA certifications, and interview skills that are tailored to provide extra support to graduates as they enter the workforce.



Green Collar Prep

GCP is a part of NEW's sustainability strategy to insure women are a part of the growing green economy. Trades jobs are the greenest jobs! The Blue Collar industry will be a driving force in greening and reclaiming the environment in New York.

GCP connects people who were passionate about stewardship and sustainability, but hadn't realized how this could translate to a career in the trades.

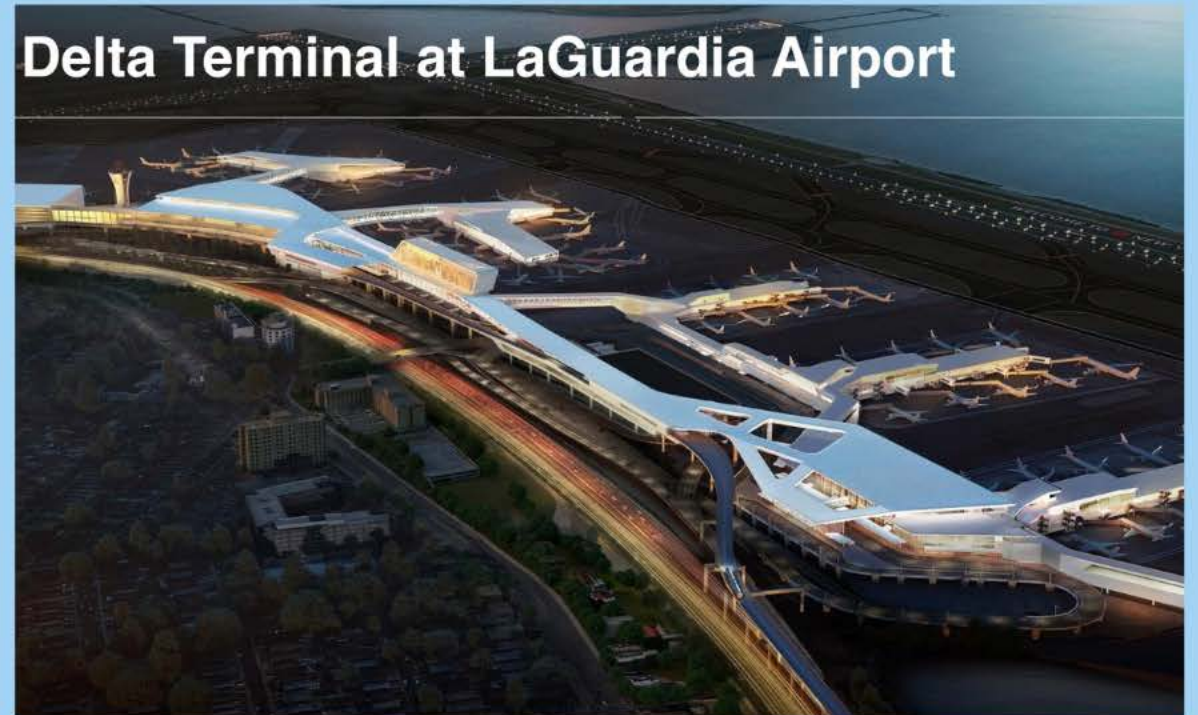
Beyond the preapprenticeship credential, GCP will provide graduates with the opportunity to see how basic concepts in sustainability apply, so they can standout and advance more quickly, when they enter into apprenticeships.

Incorporating sustainability into training positions NEW a resource for ready, knowledgable candidates to achieve workforce diversity goals on projects.

Signature Projects

Signature Projects were conceived to generate demand. NEW works with developers to **set workforce participation goals**

In its tenth year, the NEW Signature Projects Program has grown to **60 projects across New York City**. The NEW Signature Projects program increases the utilization of tradeswomen on New York City construction projects, ensures an adequate supply of skilled tradeswomen who are prepared for the demands of the industry, and helps industry leaders adopt best practices.



Eligibility

- Must be 18 years or older
- Eligible to work in the United States
- High school diploma or equivalency
- Interested in hands-on training to join a career path in the construction field
- NEW welcomes women, transgender, and nonbinary individuals to register

How to Sign Up

The first step in enrolling is attending an online information session, hosted by NEW every Monday at 6:00pm and Tuesday at 10:00am.

Use the form on our website www.new-nyc.org/enroll or call us today (646) 291-2375 to sign up for an information session.

After registering, you should expect a confirmation phone call from NEW within a few business days.





Nontraditional Employment for Women

Hard Hats. Strong Women. Building the Future.

To learn more about how to partner and collaborate with NEW, contact

Amanda Kogut-Rosenau

VP Programs

Phone: (917) 881-7389

Email: akogut@new-nyc.org

32BJ



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February 3, 2021

32BJ Training Fund



Understanding Workforce Training & Development in the New Clean Energy Economy

February 3, 2021

James Barry
Senior Manager, Program Development
jbarry@32bjfunds.com

Michaela Boren
Manager, Green Programs
mboren@32bjfunds.com

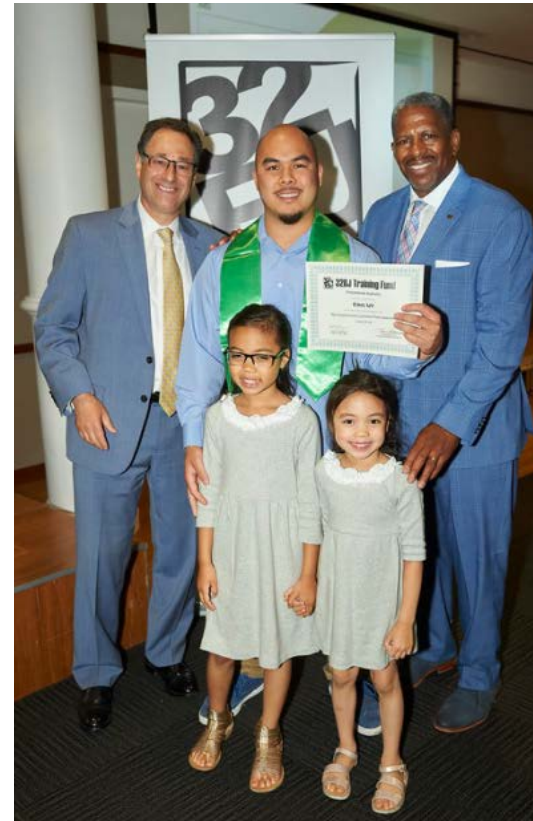


32BJ Training Fund

The 32BJ Training Fund is a joint labor-management partnership that offers training to eligible participants at no cost. The fund is supported by contributions negotiated between 32BJ SEIU and participating employers.

Mission: To train every participant to grow to the next level.

Goal: Making it possible for our members to get the education, training, and skills they need to grow in the quickly changing property services industry.



Student Profile: Karen's video (1 min. 34):
<https://www.youtube.com/watch?v=R8cl-eRadTM&feature=youtu.be>

32BJ SEIU



With 175,000 members in 12 states & the District of Columbia, 32BJ SEIU is the largest property service workers union in the country. We are an affiliate of SEIU, the Service Employees International Union.

32BJ Members Include:

- Supers
- Handypersons
- Doormen
- Maintenance workers
- Security officers
- Bus drivers and aides
- Window cleaners
- Food service workers



Grants

NYSERDA Funded Activities



BMS Training

3 BMS control boards; virtual buildings; 3-trimester class



Green Supers Training and Coaching (On-Site)



Multifamily Building Analyst (MFBA) Curriculum

LEED for Existing Buildings

- Hold LEED Existing Building test preparation sessions

Green Seminar Series with Steven Winters Associates

- The beginnings of the Green Buildings Supers course.
- 2004/2005 - 7 cycles



Training Approaches & Models

Student-Centered Teaching

- Classroom Set-Up: Students are involved in tasks through solo, pairwork and group work
- Understand the content and its challenges from a learner perspective
- Engagement: Variety of tasks and then have opportunities to figure things out, ask questions, discuss ideas, practice, and get feedback

Testing

- Offer testing in different languages
- Oral testing
- Picture-based tests



Training Approaches & Models

Hands - On

- Materials
- Equipment
- Field Trips




Scavenger Hunts/ Surveys



Greenthal 32 Gramercy Park South Training
Boiler Room Survey

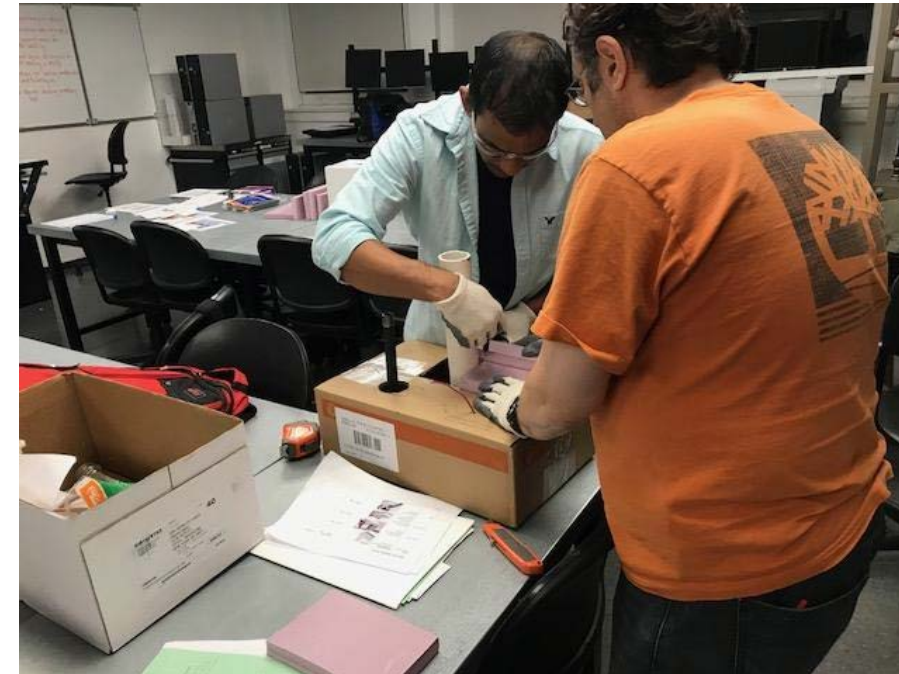
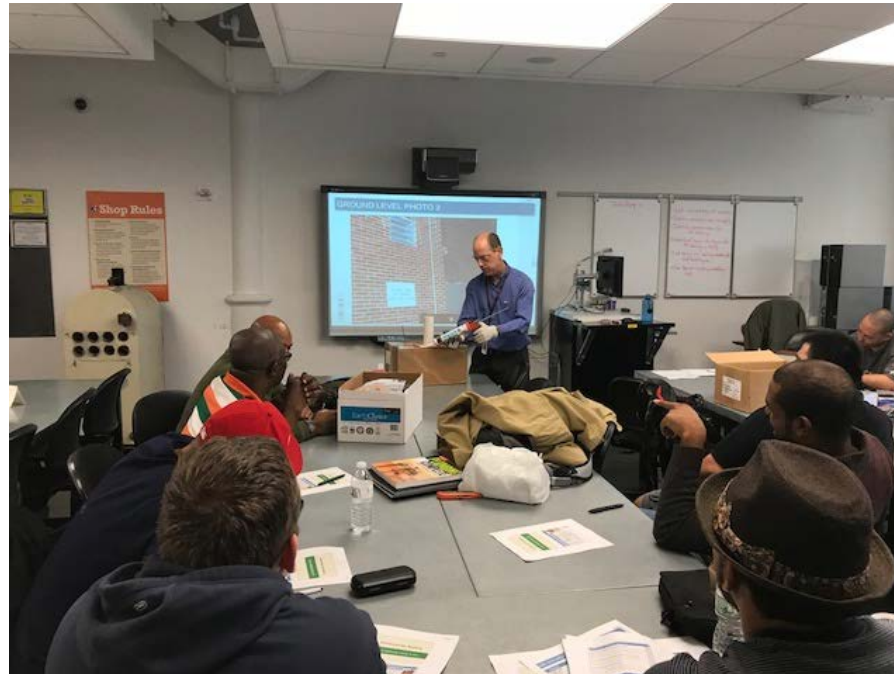
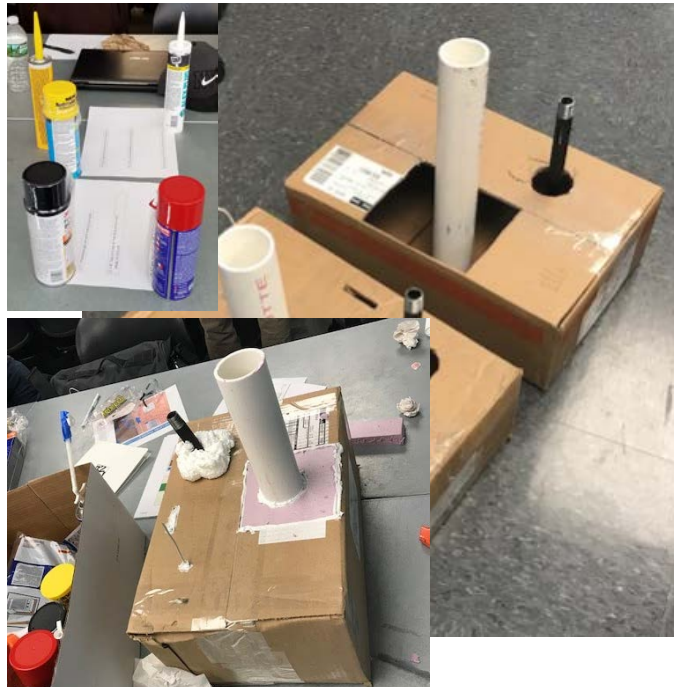
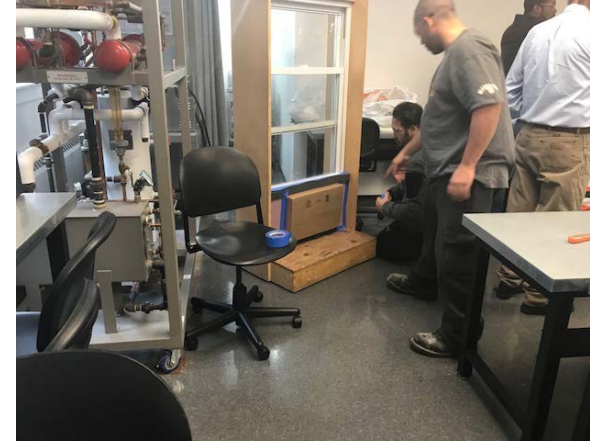
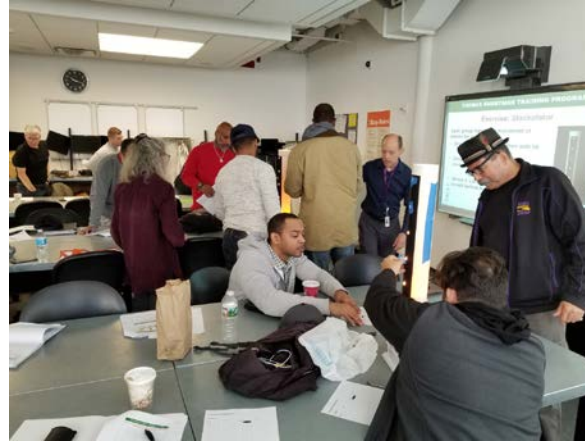
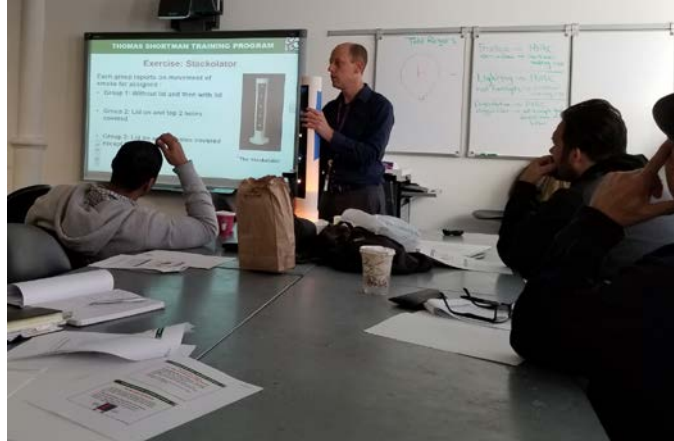


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Training Approaches & Models

Hands - On: Air Sealing Course



Training Approaches & Models

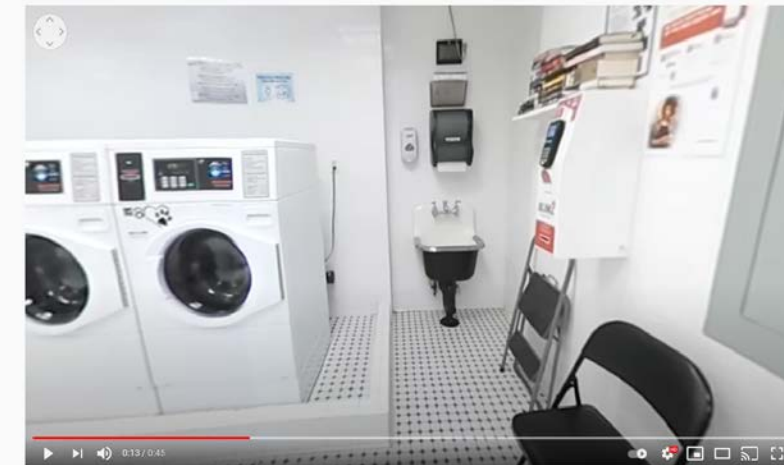
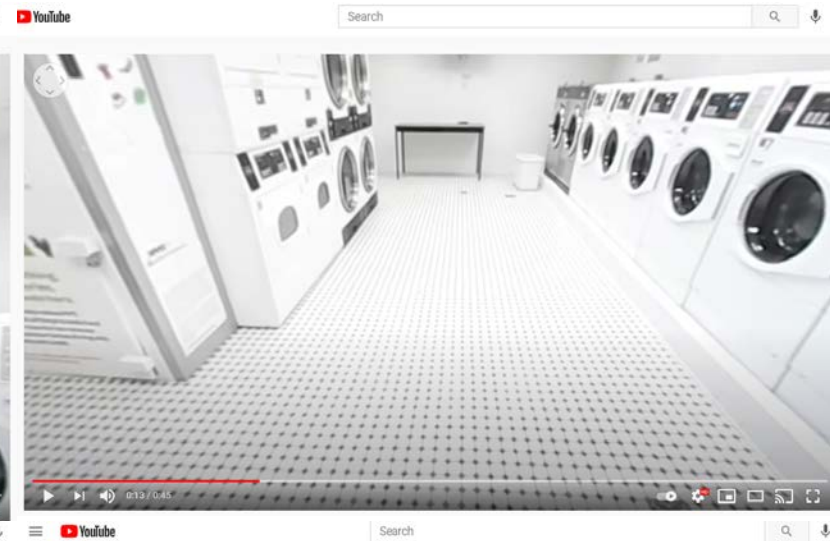
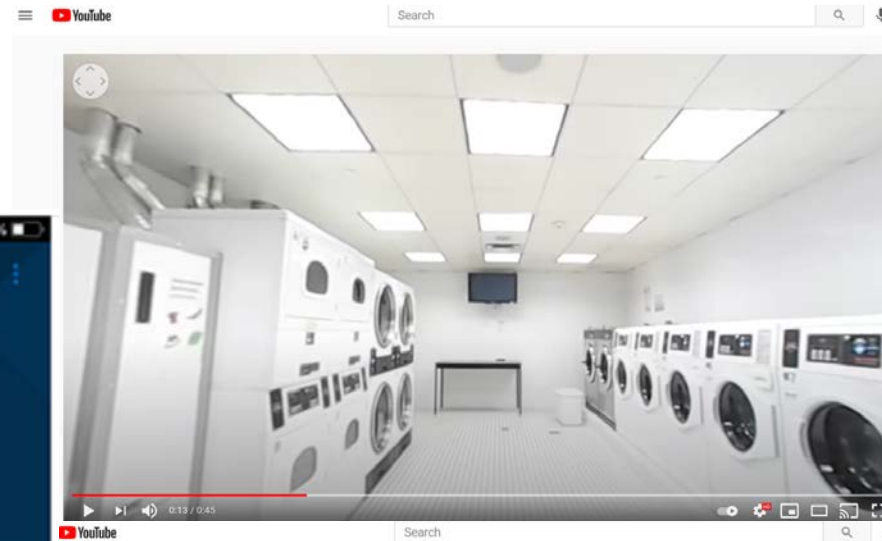
Accessibility: Online

Mobile App

(especially for those who do not have laptops or have low tech skills)



360 videos



Training Approaches & Models

Communication

- Text message campaign & class reminders
- Offered in top 4 languages

Compliance & Employer Requirements

(Keeps the company and 32BJ members interested and engaged)

- COVID-19 for cleaners
- COVID-19 for security
- CPR/First Aid
- Online Workplace Harassment
- Green cleaning courses (LEED)

Course Availability in Other Languages (Safety & Compliance)

- Spanish
- Polish
- Albanian
- Mandarin

Coronavirus Quick videos -

<https://training.32bjfunds.org/courses/coronavirus>

English as a Second Language I

SHOW COMMENTS

SHOW UPLOADS

SHOW QA

SHOW AUDIT TRAIL

HIDE TEXT MESSAGES

SHOW DATES

Session	Start	End	Location	Instructor	R W M	
[REMOTE] 2020\Fall - TuTh - 6-8pm #27833	9/29/2020	12/15/2020	Remote	VIVIAN COLON	13 0 0	<div>Close</div> <div>SELECT</div>

Custom Text Message						
Message: "32BJ Training: Please reply 1 if you got the text book, or 2 if you didn't get it. Porfavor responda a este text con 1, si recibio el libro, 2 si no lo recibio."						
Sent: 11/03/2020 10:52AM						
Student	Status	Reply Time	Reply	MobilePhone	HomePhone	Email
Arevalo, Yensy	Sent	11/3/20 12:14PM	1	(347) 634-0865		YGUEVARA2@HOTMAIL.COM
Batista, Diomary	Not Sent			(917) 392-6610		diomary2719@gmail.com
Calero-Vega, Nancy	Sent	11/3/20 11:25AM	1	(646) 270-9246	(718) 396-2590	nancy_calero@hotmail.com



32BJ Member: Wilfredo Carrero



Position: Resident Manager, 32BJ Training Instructor

Building: 315 East 72nd Street (1958)

Energy Star & Grade: 84 - B

Background:

- 1997 - Doorman at Gracie Gardens
- 1997-2015 - Porter, handyman, then resident manager
- 2010 - Took classes at the Training Fund and earned certifications
- 2014 - Became an instructor at 32BJ Training
- 2015/2016 - Moved to a larger and higher end building



When he became the super was at Gracie Gardens:

“Supers are afraid to be graded...But I wanted to know where my building stood.”

32BJ Training Fund



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James Barry
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Michaela Boren
Manager, Green Programs
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Green City Force



NYSERDA



**Department
of Labor**

February 3, 2021



Climate Leadership and Community Protection Act (CLCPA)

Just Transitions Group Presentation

February 2, 2021

greencityforce.org @greencityforce

WE ARE A MOVEMENT WE ARE THE FORCE.



Cohort 17 in Service Boot
Camp at Howard Houses

**GREEN
CITY
FORCE**

**TRAINING LEADERS TO POWER THE
GREEN ECONOMY, THROUGH SERVICE.**

greencityforce.org @greencityforce



OUR VISION

One day we will live in green cities where everyone can thrive.

OUR MISSION

We train young leaders to power a green and inclusive economy, through service.

OUR PILLARS

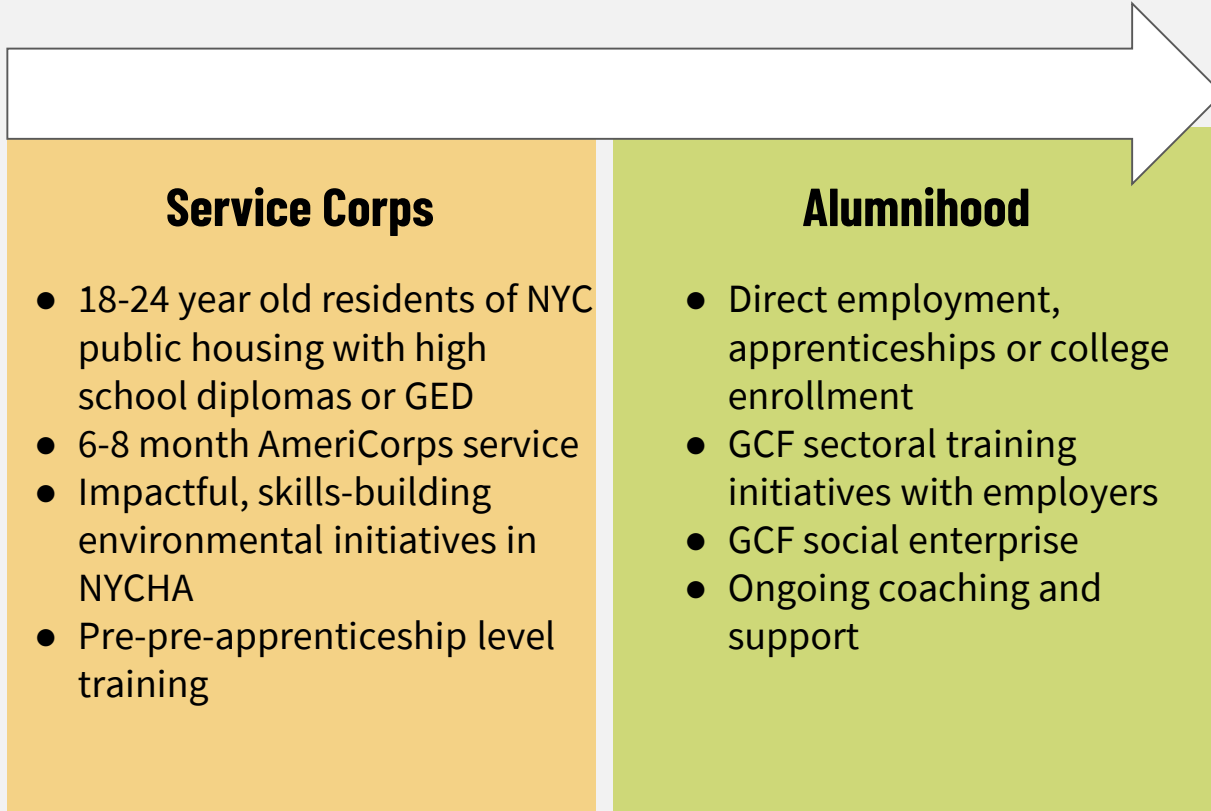
Service. Training. Sustainability. Justice.

OUR VALUES

People. Passion. Perseverance.

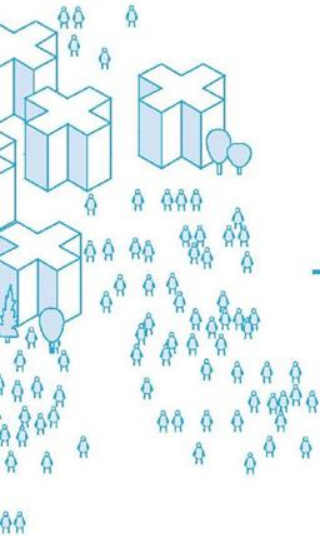


GREEN CITY FORCE PROGRAM MODEL



GCF CORPS MEMBER JOURNEY

Public Housing in NYC:
a city within the city



Residents 18-24 are unemployed at higher rates than their peers outside of NYCHA.

GCF connects the dots between young talent and climate change, health and equality imperatives and opportunity in emerging fields.

RECRUITMENT & ORIENTATION



Build the force for green service, one cohort at a time.

SERVICE & TRAINING

Greening NYCHA communities through visible, measurable, impactful, and skill-building paid service initiatives.



GCF's Corps drives large-scale environmental initiatives in NYCHA to transform land, buildings & practices, engaging thousands of residents.



Members earn stipends and an education award at graduation. GCF provides MetroCard, certifications & support services.



Professional development, hard + power skills, eco literacy, community building.

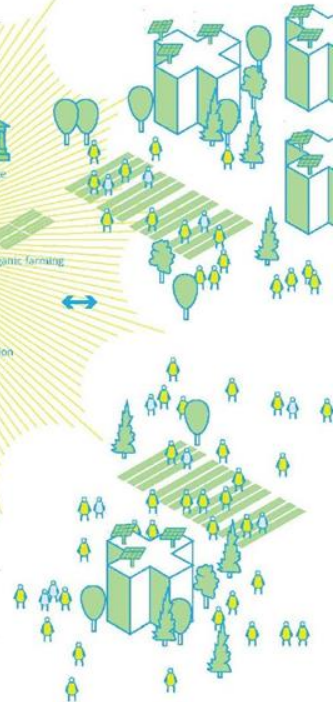
ALUMNIHOOD

life-long commitment to alumni career development



Continued engagement, support, and training, coupled with employer cultivation.

Alumni power green and equitable cities



PROVEN APPROACH



In 10 years, GCF has demonstrated young adults in NYCHA are ready to serve, can create large-scale environmental impact, build interest and skills for in-demand jobs and become standouts in the green economy.

Alumni in Energy & Buildings

This aspect of our sector includes careers related to:

- energy efficiency, utilities, renewables and behind the meter technology
- construction, operations, maintenance, and management of buildings

Examples of job titles include:

- Direct Installer
- Site Superintendent
- Porter/Handyperson
- Green Building Superintendent



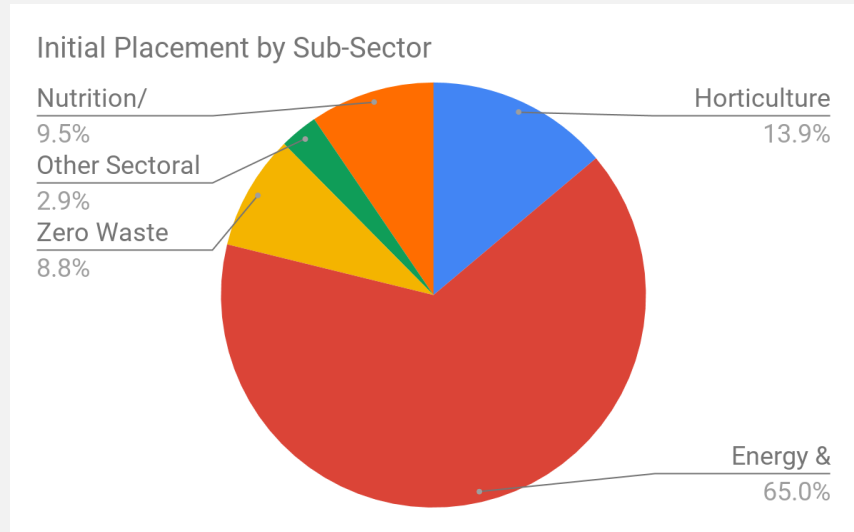
65%

Of GCF Graduates

FOCUS ON GREEN ECONOMY SECTORAL PLACEMENT

Green City Force targets service-learning experiences, technical training and employer partnerships linked to jobs that relate to sustainable and resilient buildings and communities and encompass :

- energy efficiency, utilities, renewables and behind the meter technology;
- construction, operations, maintenance and management of buildings;
- waste management including recycling and composting;
- green infrastructure;
- maintenance and management of green spaces;
- horticulture and food production;
- community health and sustainability education outreach.



GCF ALUMNI NETWORK

Continued counseling, trainings, and leadership for green economy careers related to sustainable buildings and communities



Salonia Thompson, Cohort 13 Alum



Domingo Morales, Cohort 10 Alum

GCF EMPLOYERS

A growing community investing in young talent and racial equity in
the sustainability sector



Multiple Hires



Individual Placements

GCF SOCIAL ENTERPRISE

Employing GCF alumni leveraging EmPower NY & NYCHA EPCs



Sectoral skill-building



Boosting NYC's efficiency



EARLTON MASSENBURG



Current Position:

Apprentice at IBEW Local 3

Achievements at Green City Force:

- Gained certification as a Green Building Professional (GPRO) from the U.S. Green Building Council.
- Obtained 10 & 30 hour Occupational Safety & Health (OSHA 10 & 30) certification
- Completed NYCHA Resident Training Academy

Markeys Gould



Worked as:

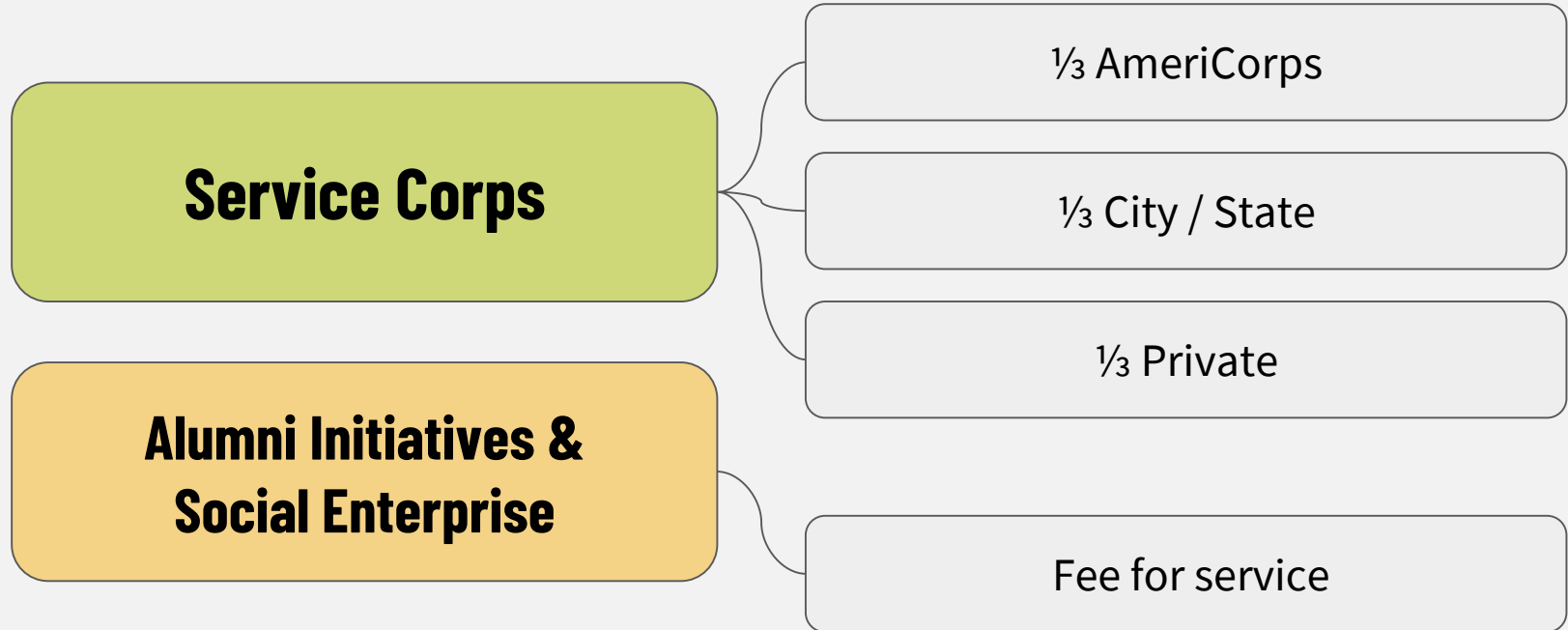
Superintendent at C&C Apartment Management

Achievements at Green City Force:

- Gained certification as a Green Building Professional (GPRO) from the U.S. Green Building Council;
- Earned Building Science Principles certificate from the Building Performance Institute (BPI BSP);
- Recognized as Energy Efficiency Technician (EET) by the Association for Energy Affordability.



FUNDING MODEL



NYSERDA's PRIORITY POPULATION LANGUAGE



Conservation corps participants are prioritized as part of New York State's \$70 million investment in clean energy workforce funding through NYSERDA.

“Priority populations” include the following groups:

- 18- to 24-year-olds participating in work preparedness training programs, that include energy related technical training, such as BOCES, technical high schools, Conservation Corps, Youthbuild, AmeriCorps, etc.

Join us! To learn more: [GreenCityForce.org](https://greencityforce.org)



**GREEN
CITY
FORCE**

Tonya Gayle
Executive Director
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Aram Marcelle
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Advancement Manager
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greencityforce.org
[@greencityforce](https://twitter.com/greencityforce)

IBEW 43



NYSERDA



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of Labor**

February 3, 2021

Public Input

Public Input

Framing Questions

- > What specific opportunities and challenges do you anticipate for New York's workforce in the transition to a clean energy economy in the State?
 - Particularly, where do you see opportunities and challenges pertaining to skills gaps and development?
 - What are you hearing from workers in terms of their concerns and hopes as the state transitions?
- > How do you see the energy workforce changing over the coming decades, demographically or otherwise?
- > What present state programs have been most supportive to the workforce, from your vantage point?
- > For existing fossil fuel workers, what training opportunities are most promising for a transition a role in clean energy? What opportunities exist in adjacent industries/other sectors where existing skillsets may be readily transferable?
- > Are you aware of successful training models that can be scaled up or replicated if demand for training increased rapidly?

Next Steps

- > Please share additional feedback and comments to JTWG@nyserda.ny.gov.
- > Next **Just Transition Working Group** meeting scheduled on February 23, 9-11am