Just Transition Working Group

Meeting #6

January 21, 2021
11:00-1:00 pm

NEW YORK STATE OF OPPORTUNITY. Department of Labor

NEW YORK STATE OF OPPORTUNITY. NYSERDA

NEW YORK STATE OF OPPORTUNITY. Climate Action Council

Just Transition Working Group (JTWG)

Meeting #6 Agenda

1. Introduction / Roll Call
2. Member Updates
3. Presentation: Clean Energy Industry Report Summary
4. JTWG Jobs Study Team Introduction
5. Public Engagement Meeting
6. Just Transition Principles
7. Subgroup Updates
8. Next Steps

Member Updates

Recent highlights from Working Group / Advisory Panel Members

New York
JTWG Jobs Study
CEIR Overview & Project Introduction

NEW YORK STATE OF OPPORTUNITY. | NYSERDA

Presentation Outline

1. Overview of the 2020 Clean Energy Industry Report (CEIR)

2. Introduce the Research Team for the Jobs Study

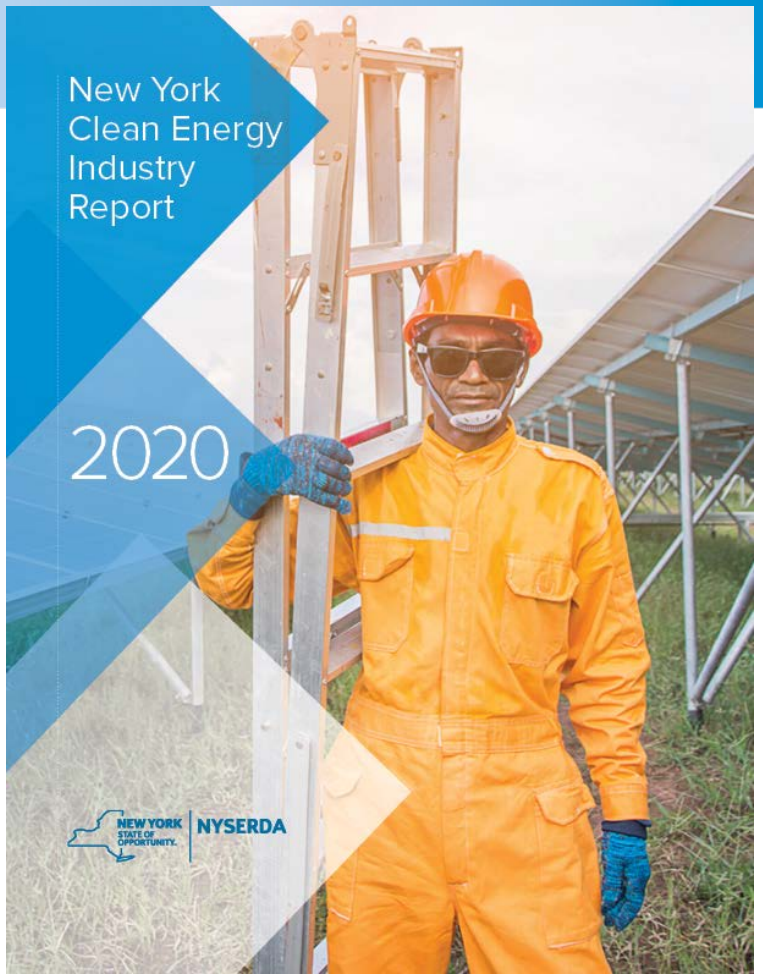
3. Discuss the Literature Review

4. Next steps for the Jobs Study

Part 1: CEIR Overview

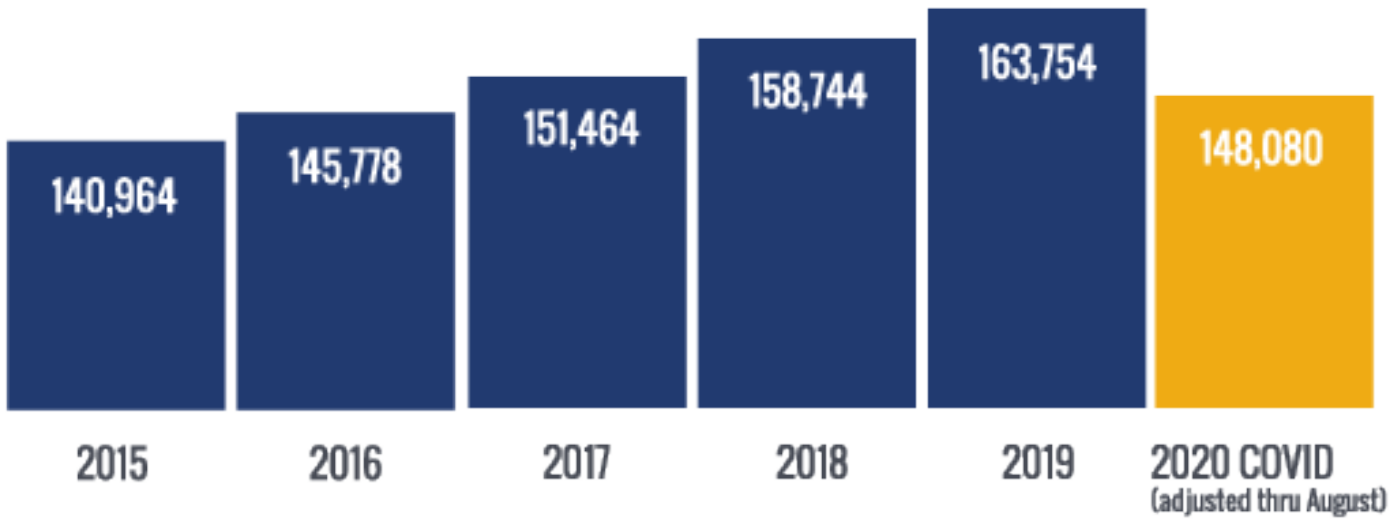
The 4th edition of the New York Clean Energy Industry report:

- 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
- https://www.nyserda.ny.gov/About/Publications/New-York-Clean-Energy-Industry-Report



Overall Clean Energy Employment

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



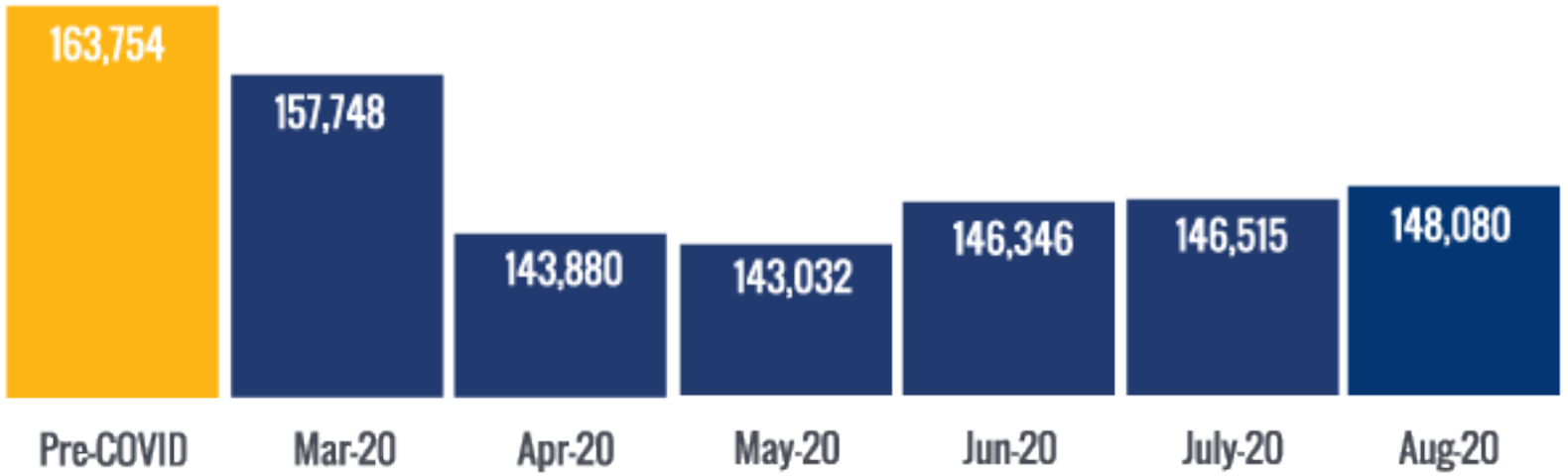
- Clean energy jobs represented almost 1.7% of all employment within the State
- Between 2018 and 2019, clean energy employment increased by 3.2%, outpacing the total New York employment growth of 1.1%

COVID

As of August 2020, New York lost 15,674 clean energy jobs, about 9.6% of the total clean energy workforce

COVID-19 Clean Energy Job Trends

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



- As of August, just over 5,000 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 14%
  - NY only down 9.6%

COVID-19 Recovery Sentiment

- More than two in three clean energy firms that lost employees during the pandemic have brought workers back
- Energy efficiency employers expect to bring back about 95% of their workforce by the end of the year
- Solar firms are suggesting a return to about 92% of pre-pandemic employment by the end of the year
- Grid modernization and energy storage firms were optimistic about revenue returning to normal by the end of the year
- Alternative transportation employers expect a near-full workforce return but had slightly more concern over long-term revenue impacts

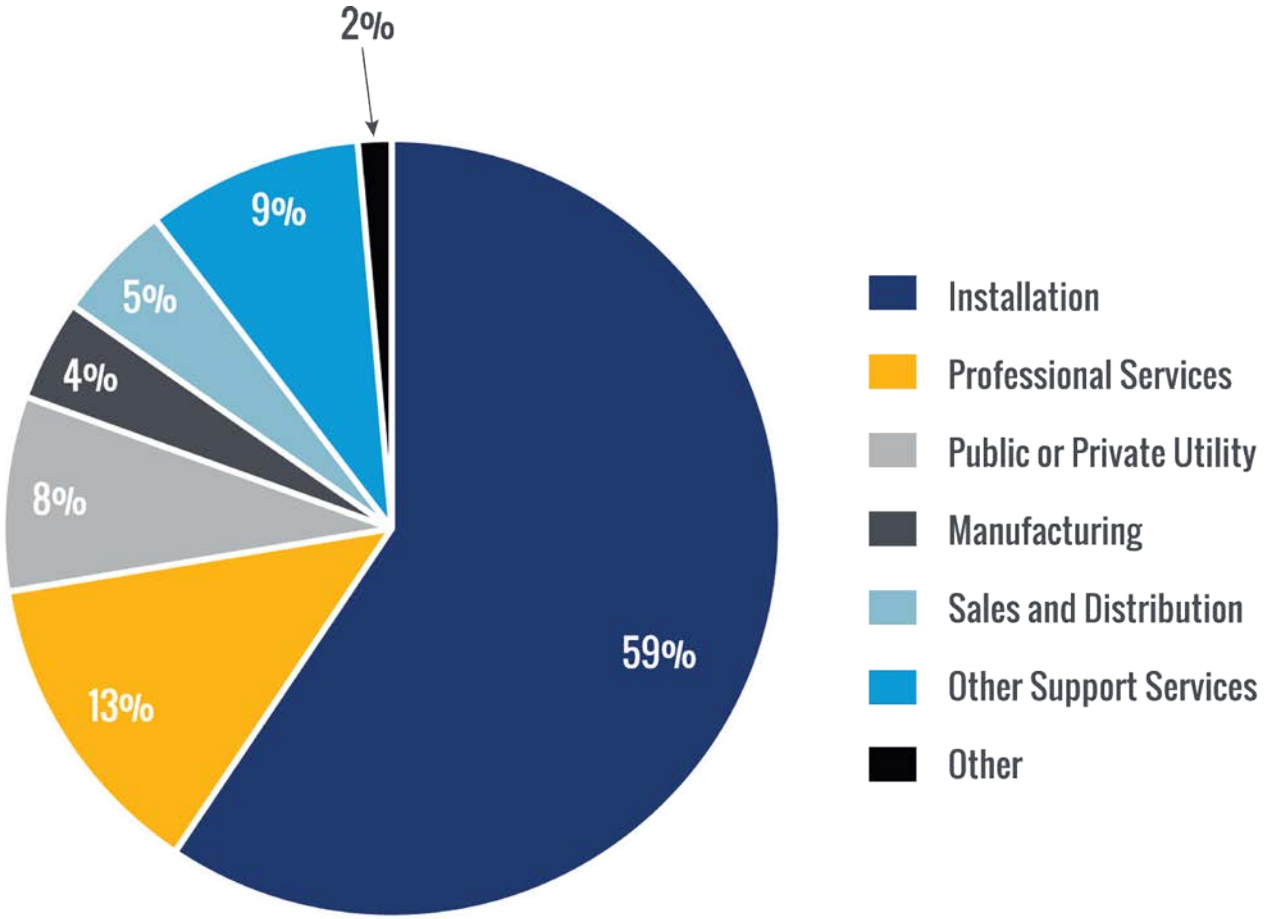
COVID Employment Impacts by Technology

	Employment			Change, 2018-19		Change, 2019-Aug 2020	
	2017	2018	2019		%		%
Energy Efficiency	117,339	123,292	126,739	3,447	3%	-12,314	-9.7%
Renewable Electric Power Generation	22,064	22,023	23,491	1,467	7%	-2,382	-10.1%
Clean and Alternative Transportation	7,881	8,624	8,579	-45	-1%	-801	-9.3%
Renewable Fuels	2,590	2,654	2,656	2	0%*	-184	-6.9%
Grid Modernization and Energy Storage	1,590	2,151	2,289	139	6.5%	-226	-9.9%

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

Employment by Value Chain

Clean Energy Employment by Value Chain (2019)



> Installation had the highest employment growth rate among all sub-sectors, 6.1% since 2018, maintaining steady increases since 2016

> Professional services employed the second-largest share of workers across the value chain, 21,329 jobs, or 13% of clean energy employment, increasing 16.8% since 2016

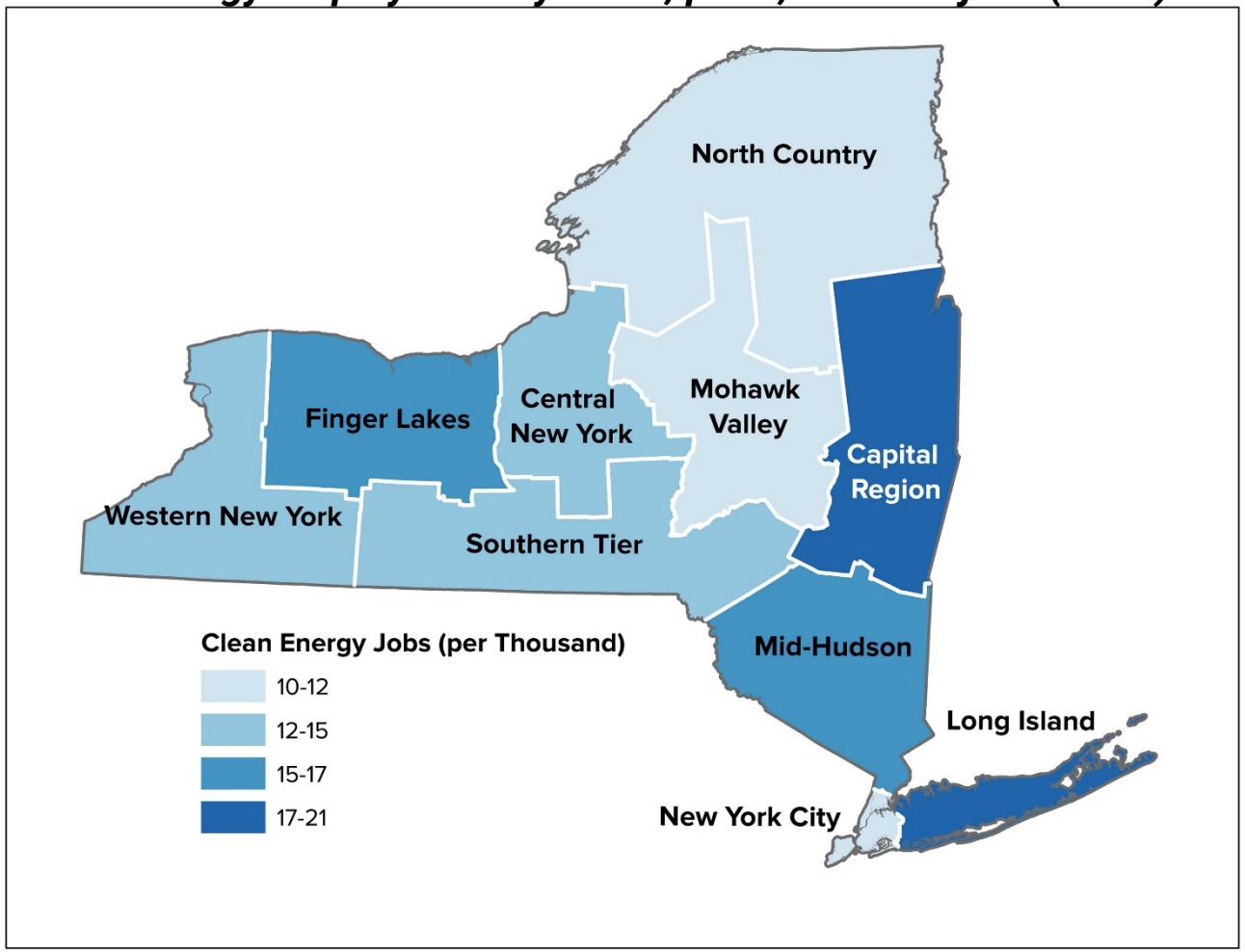
COVID-19 Impacts by Value Chain

	Employment by Value Chain, 2019	COVID job loss from 2019 to 2020	
	Number of jobs	Number of jobs	%
Installation	97,197	-7,265	-7.4%
Professional Services	21,329	-5,663	-26.5%
Public or Private Utility	13,208	-3	-0%
Manufacturing	6,803	-957	-14%
Sales and Distribution	8,067	-528	-6.5%
Other Support Services	14,792	-1,251	-8.5%
Other	2,359	-8	-0.3%

- Professional services was most heavily impacted by COVID-19, with jobs down 26.5% from 2019 as of August 2020
- Manufacturing also struggled under COVID-19 at a higher rate than many other value chain categories

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 Clean Energy Industry			
	NY Overall	Overall Clean Energy	Energy Efficiency	Renewable Energy Gen	US Clean Energy
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

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

Electrician wages across technologies:

Energy Efficiency			Renewable Electric Power Generation			Grid Modernization & Energy Storage			Renewable Fuels			Alternative Transportation			Median Union Wage
Entry	Mid	High	Entry	Mid	High	Entry	Mid	High	Entry	Mid	High	Entry	Mid	High	
$20.61	$36.69	$63.76	$20.41	$37.16	$62.70	$20.96	$36.97	$65.64	$20.69	$35.74	$63.64	$23.41	$43.11	$73.68	$38.87

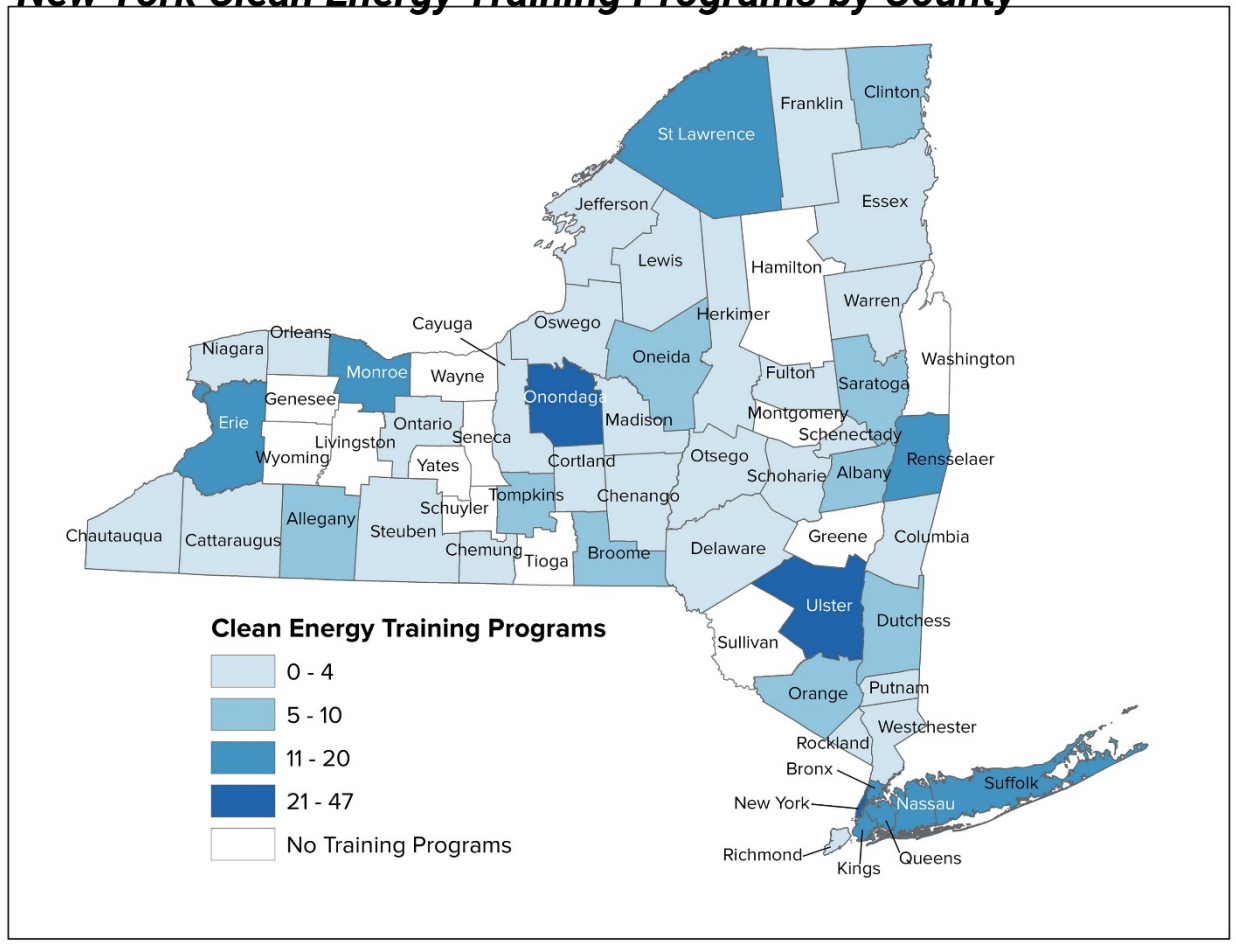
Benefits

Occupation	Clean Energy Benefits		Overall Benefits		Union Benefits	
	Health Insurance	Retirement	Health Insurance	Retirement	Health Insurance	Retirement
Construction Managers	85%	75%	81%	72%	90%	85%
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	84%	74%	74%	69%	88%	84%
Construction Laborers	81%	70%	77%	67%	89%	84%
Electricians	81%	71%	78%	68%	89%	84%
Insulation Workers, Mechanical	85%	75%	78%	69%	90%	84%
Solar Photovoltaic Installers	81%	68%	77%	66%	89%	84%
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	81%	69%	77%	67%	89%	84%
Wind Turbine Service Technicians	84%	79%	80%	74%	91%	86%
Assemblers and Fabricators, All Other, Including Team Assemblers	83%	75%	81%	74%	91%	87%
First-Line Supervisors of Mechanics, Installers, and Repairers	87%	79%	82%	74%	91%	87%

- **At least 80 percent of clean energy workers received at least some health insurance, compared to 73 percent of workers in the greater economy.**
- **Healthcare benefits were highest among union members (in CE-related industries), at least 87 percent of workers within each occupation received healthcare coverage.**

Workforce Development

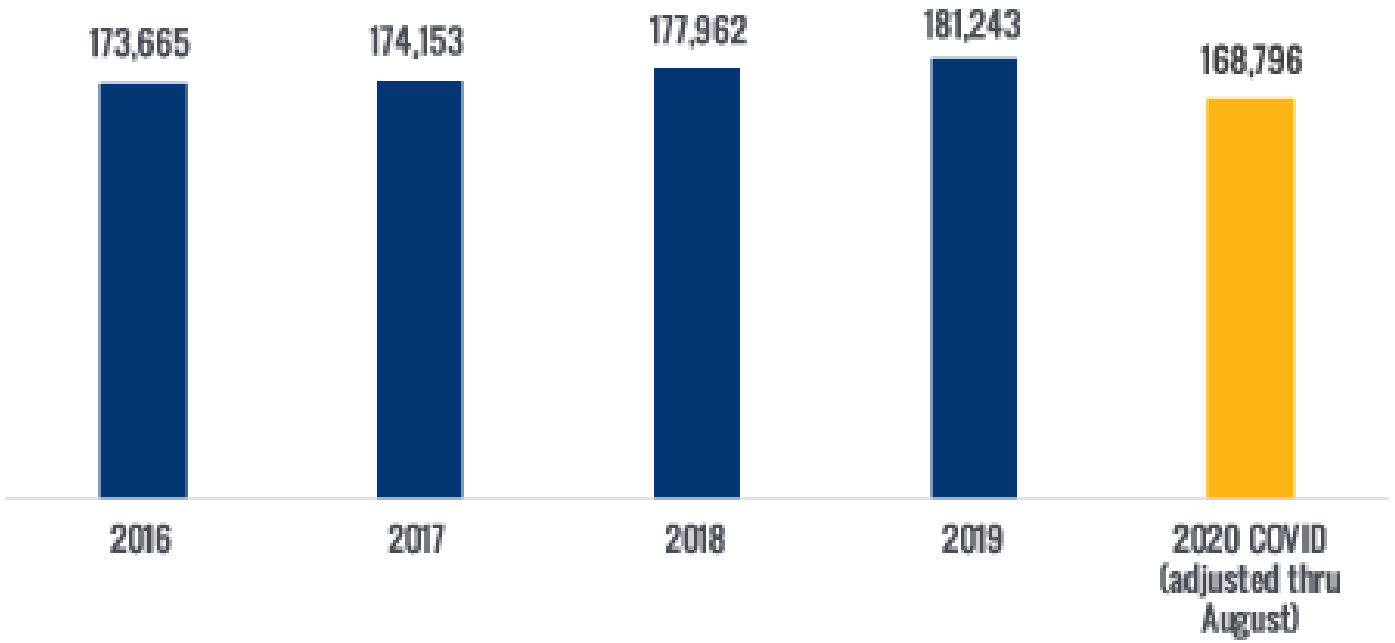
New York Clean Energy Training Programs by County



- 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)

Overall Traditional Energy Employment

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



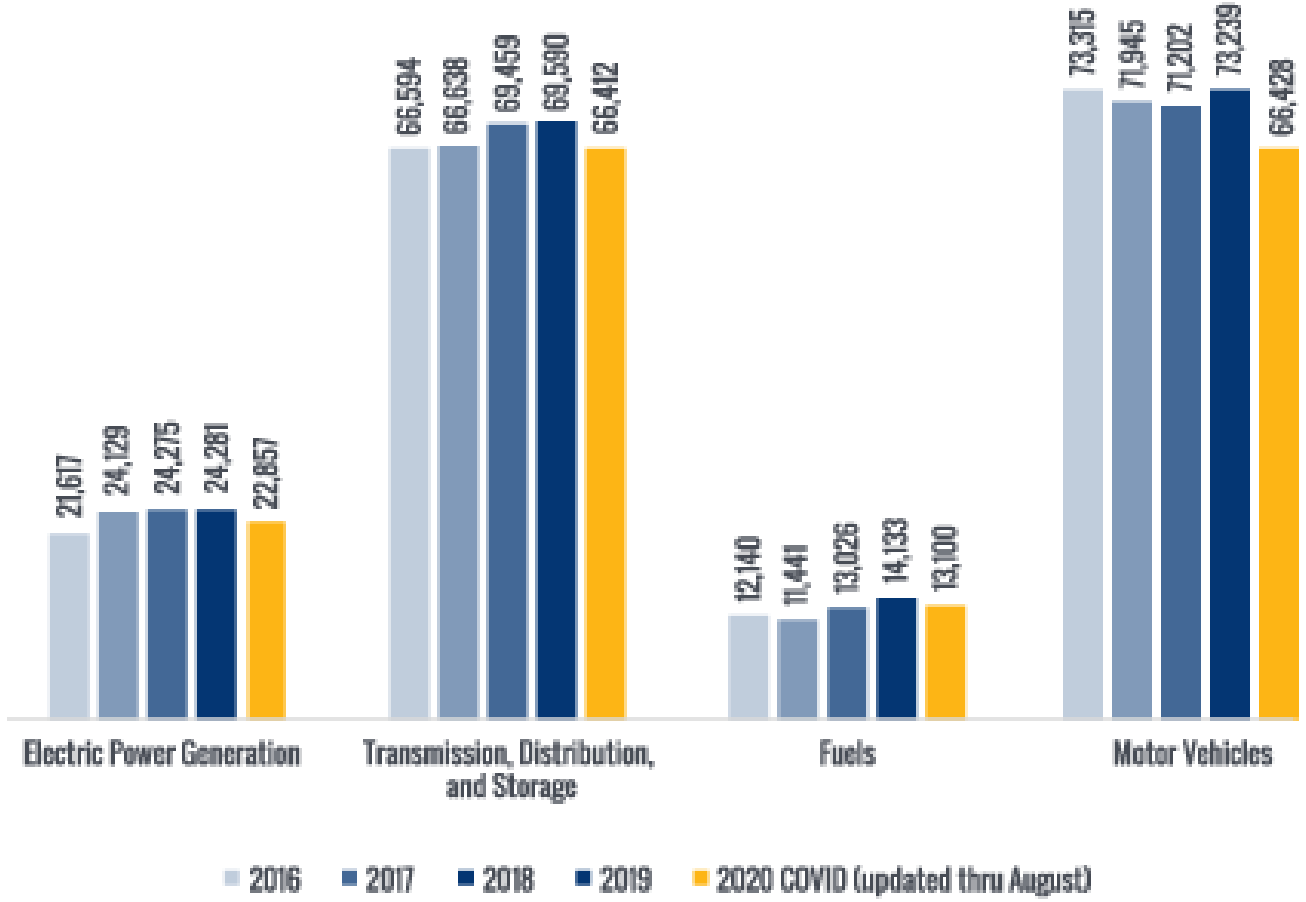
Traditional energy employment has grown steadily since 2016 (4.4%) but has been outpaced by clean energy employment

COVID

As of August 2020, New York lost 12,447 jobs, about 6.9% of the traditional energy workforce

Traditional Energy Employment by Technology

Traditional Energy Employment by Technology (2016-2020 COVID-adjusted)



- Traditional transmission, distribution, and storage was the largest, accounting for 38% of all traditional energy employment in 2019
- Traditional fuels observed the largest and most consistent growth, rising 16.4% from 2016 to 2019

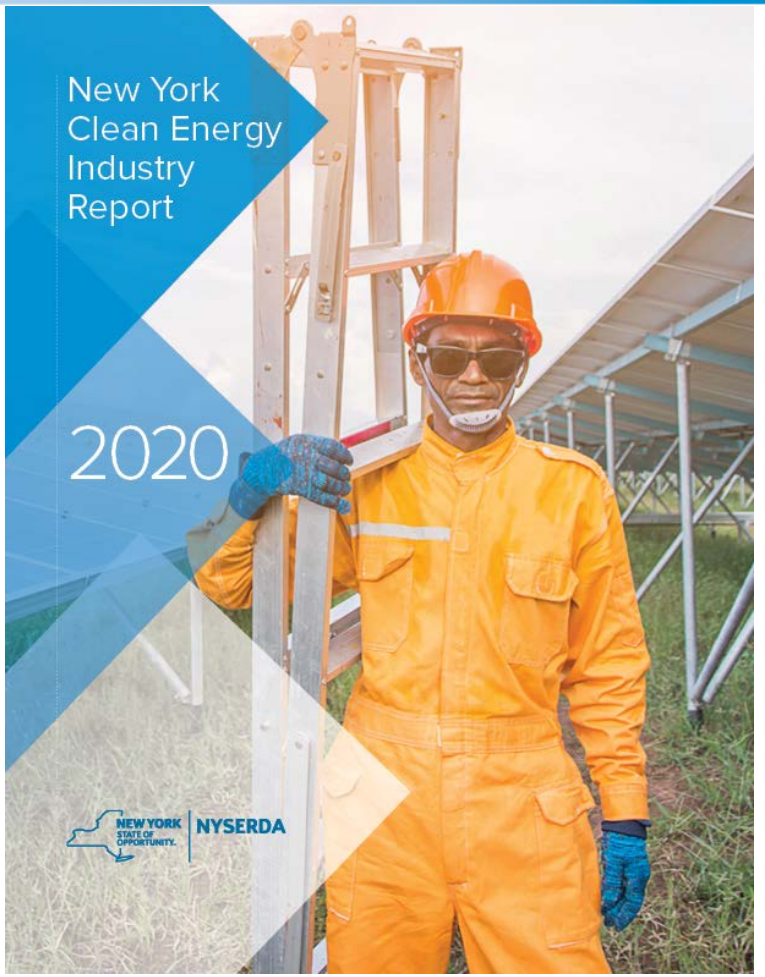
COVID

Hardest on motor vehicles employment (9.3% below 2019 levels in August 2020)

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



Questions and Discussion

Part 2: Jobs Study Introduction

The Jobs Study has a few primary research objectives:

> Measure the number of jobs to be created to counter climate change, under different scenarios, in the State of New York.

> Assess how the inventory of jobs could change as the state counters climate change, and what that means for training, education, and workforce development.

> Examine the size and scope of workforce disruptions due to community transition to a low carbon economy.

> Evaluate training and workforce opportunities for segments of the population that may be underrepresented in the clean energy workforce.

Jobs Study Team

The State agency team leading the effort includes:

> NYSERDA and NYSDOL, with input from other agencies supporting JTWG and CAC

The consultant team for the Jobs Study, includes:

> **BW Research**: will be the primary consultant on the contractor team with the project managed by Josh Williams & Phil Jordan. Mitch Schirch, Nate Hunt and Cobi Frongillo will be data and research analysts for the Jobs Study.

> **Industrial Economics (IEc):** will be engaged in the economic impact analyses and will be advising on research design. Jason Price will be leading the IEc team for this study.

> **Inclusive Economics**, will be represented by Betony Jones who will be advising on the research design, workforce analyses, and related occupational research.

[bw] RESEARCH PARTNERSHIP

IEc

INCLUSIVE ECONOMICS

Part 3: Literature Review for the Jobs Study

The Literature Review is one of the first substantive tasks of the Jobs Study.

This task will look to identify, analyze and catalog the latest findings from research and provide some of the foundation for the Jobs Study.

The literature review will look to assess;

> **Methodologies, approaches, or definitions** that could be considered or applied in the Jobs Study.

> **Data and information** that is relevant for the Jobs Study and supports the economic and employment modelling.

> **Conclusions and analytical presentations** that support a more robust understanding of climate change mitigation scenarios and their impact on the transitioning workforce and different industry sectors.

Research for the Literature Review

20 research studies/resources have been identified to be included in the literature review and they include:

> Reversing Inequality, Combatting Climate Change: A Climate Jobs Program for New York (Cornell University)

> US Climate Alliance: Jobs in the Clean Energy Economy

> Net-Zero America: Potential Pathways,… (Princeton)

> America's Zero Carbon Action Plan (SDSN)

> The Climate and Community Protection Act (UMass Amherst, NY Renews)

Part 4: Next Steps for the Jobs Study

The Jobs Study team is developing the following items

1. The project work plan
2. The initial recommendation for the Jobs Inventory Framework & Study Methodology
3. The initial findings from the Literature Review

The Jobs Study will be also be supported by, as well as feed into, the CAC Integration Analysis.

- The Integration Analysis will serve as key input to the Just Transition Working Group Jobs Study
- The linkage between integration analysis and jobs study will illustrate employment benefits of GHG Mitigation

Questions and Discussion

Public Engagement Meeting

- **Date/Time:**
  - February 3, 2021; 1:00-3:00pm
  - To take place in-lieu of previously scheduled JTWG Meeting (JTWG members still encouraged to attend as if it were a normal meeting)
- **Approach**:
  - Educational and informative session that also seeks public input
- **Topic**: *Understanding Workforce Training & Development in the New Clean Energy Economy*
- **Draft Agenda**
  - Clean Energy Industry Trends: *Information & Awareness building*
  - Stakeholder Engagement: *Facilitated Panel Presentations and knowledge-sharing on key insights across/among workforce stakeholders*
  - Public Input
  - Next Steps / Closeout

JTWG – Schedule Ahead

- Thursday, January 21, 1:00-3:00pm (today!) – JTWG January Meeting
- Wednesday, February 3, 1:00-3:00pm – JTWG “Public Engagement Meeting” **newly changed*
- Tuesday, February 23, 9:00-11:00am – JTWG February Meeting **newly added*
- Wednesday, March 3, 1:00-3:00pm – JTWG March Meeting
- Tuesday, 3/23/21, 1:00-3:00pm – JTWG March Meeting **newly added*

Just Transition Principles

Proposed plan for sharing our Just Transition principles with other Advisory Panels members:

> President Harris and Commissioner Reardon to send a communication via email to AP chairs with the principles and the intent for their use.
  - We would emphasize in our dissemination that these principles should be understood as overarching guideposts to advise recommendations to the Climate Action Council rather than metric-driven goals.
  - AP Chairs would then be responsible for sharing and discussing the principles with their Advisory Panel.

Subgroup Updates

> Business Impacts
- Upcoming meeting on 1/27, two dates held for February
- Focused on business opportunities and challenges task
- February to focus on workforce task
- EITE definition research ongoing

> Power Plant Inventory and Reuse Subgroup
- Held most recent subgroup meeting on 1/7; next meeting planned in coming weeks
- Also held briefing with interested members of the Land Use & Local Government Advisory Panel on 1/15
- Focus remains on advancing two main deliverables: power plant inventory, and issues and opportunities presented by site reuse
- Continuing data collection and research efforts to inform both workstreams

Next Steps

> Public Session
  - Wednesday, February 3, 1:00-3:00pm

> February JTWG Meeting
  - Tuesday, February 23, 9:00-11:00am

> March JTWG Meeting
  - Wednesday, March 3, 1:00-3:00pm

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