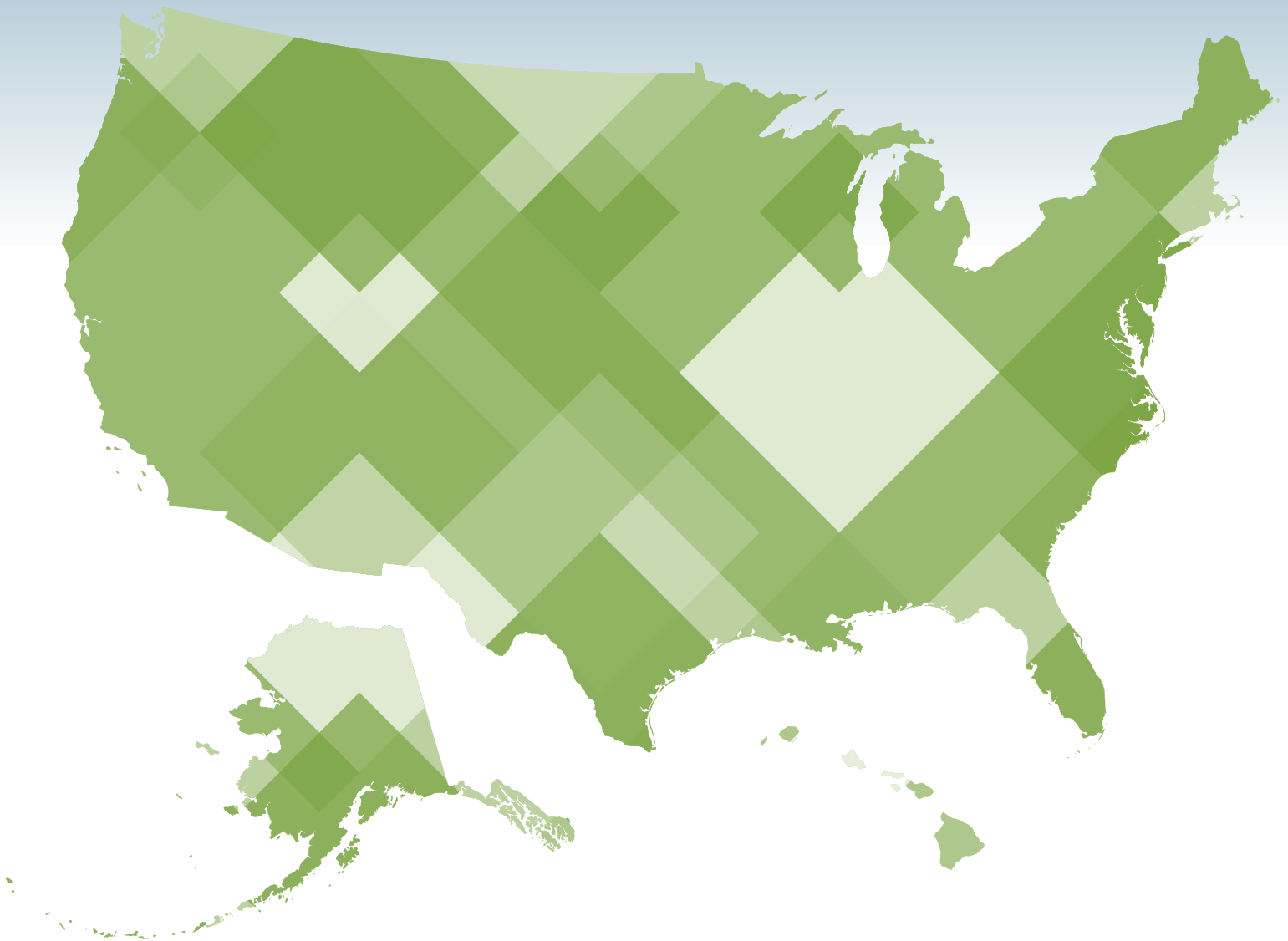


# Energy Efficiency Jobs in America

OCTOBER 2021



# Energy Efficiency Jobs in America

June 2021:

2,115,533

December 2020:

2,107,174

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Overview: America's Energy Efficiency Workforce

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Rhode Island

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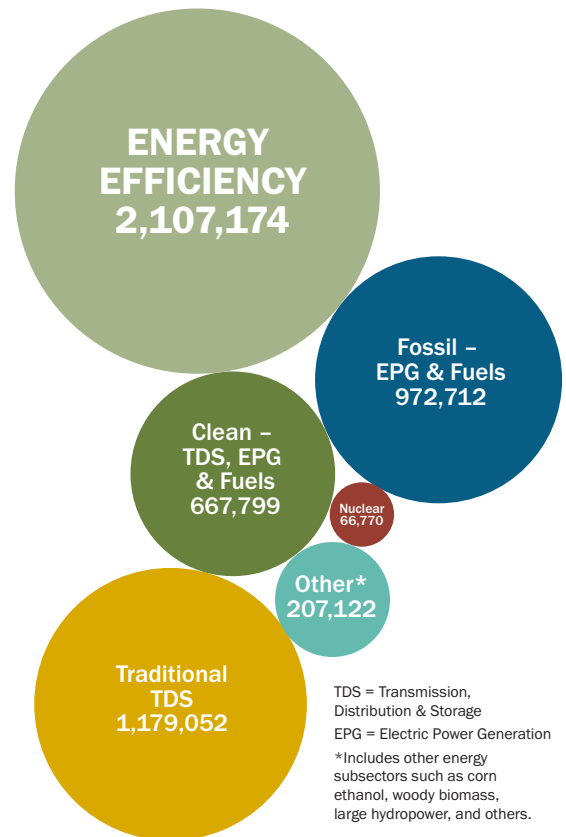
# AMERICA'S ENERGY EFFICIENCY WORKFORCE: REDUCES COSTS, DRIVES ECONOMIC GROWTH

More than 2.1 million Americans now work in energy efficiency (EE), representing the biggest part of the entire energy sector. Workers in every state and community pull on their gloves and boots daily to help make our homes, offices, schools and other buildings more efficient. And some “boot up” in an office rather than out in the field, like developers of advanced energy management software, architects and designers, and administrative staff.

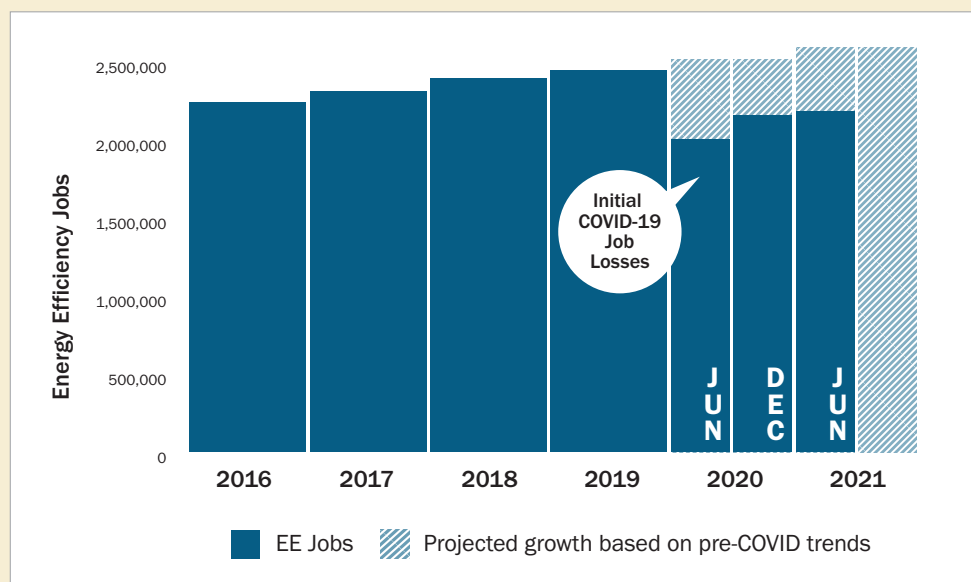
Whether EE workers upgrade heating/cooling systems or improve building enclosures, manufacture Energy Star equipment and appliances or install advanced lighting systems, they're also helping American consumers, businesses and local governments to save money, reduce emissions and fight climate change.

“Maximizing the deployment of building demand management technologies could avoid the need for up to one-third of coal- or gas-fired power generation.”

Source: Lawrence Berkeley National Laboratory. [How Managing Building Energy Demand Can Aid the Clean Energy Transition](#)



## How is the energy efficiency industry recovering?



Source: [E4TheFuture/BW Research job analysis, July 2021](#)

The EE workforce is recovering, but is still below pre-pandemic total job numbers.

Public investment NOW will make our buildings, manufacturing facilities, and overall economy more efficient and resilient. It can help address climate change while driving economic growth and creating jobs.

# ENERGY EFFICIENCY SAVINGS CREATE JOBS AND HELP LOCAL ECONOMIES NATIONWIDE

All buildings provide efficiency opportunities in design, construction, operation, and maintenance. “Mining” inefficient older buildings for energy savings can create local good-paying careers and customer savings through improved insulation, better HVAC and appliances, and new digital controls — among other upgrades.

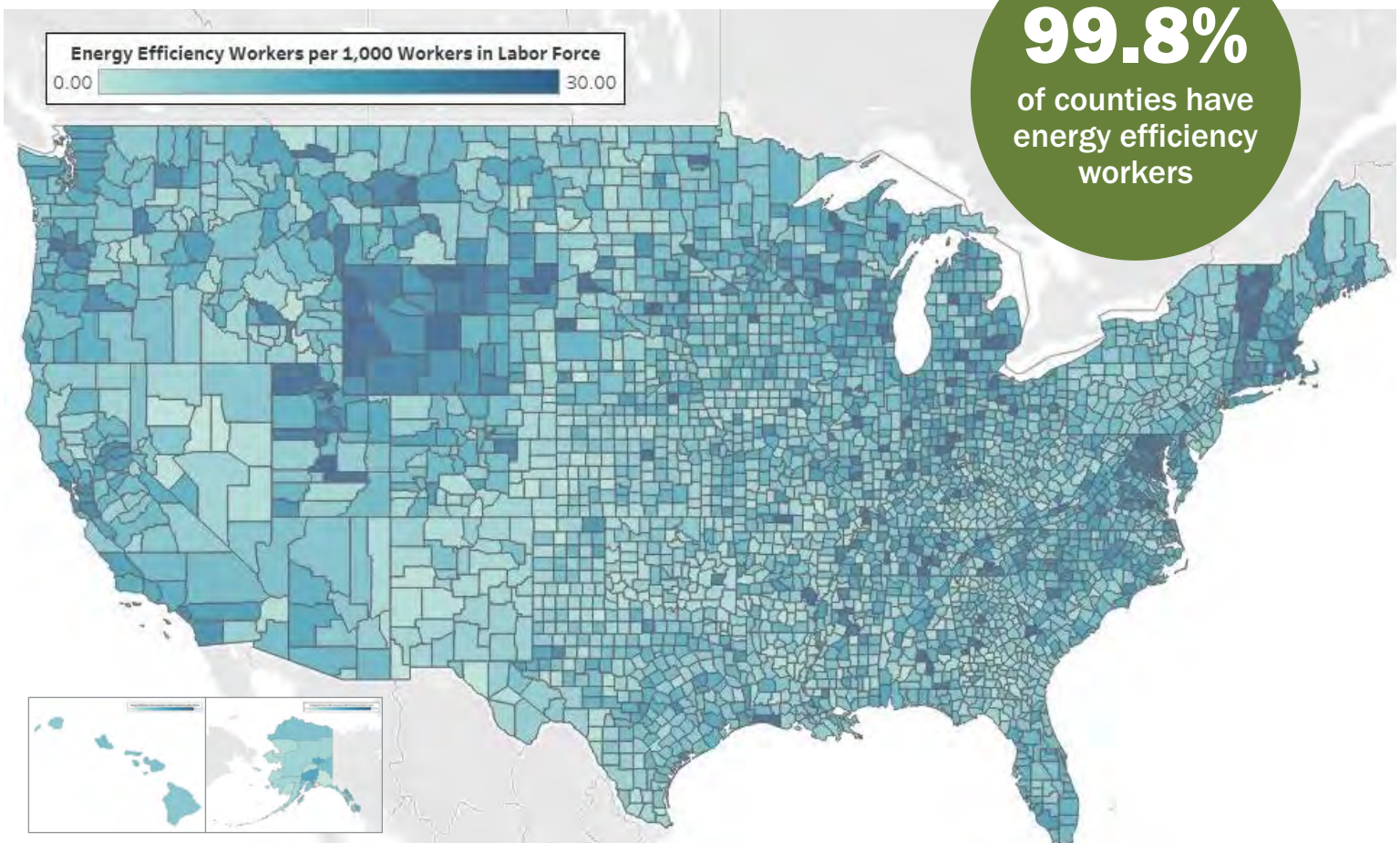
New  
**net-zero**  
buildings produce  
**more**  
**energy**  
than they consume.

Just as important is making new buildings efficient and grid-interactive from the start. Stronger building codes and smart incentives spur fresh innovation in the design and construction project phases.

Investing in efficient and flexible buildings is smart climate and economic development policy for cities and rural communities alike. Constructing to standards such as LEED and Passive House for net zero energy use is the future of building in America.

Potential to  
**reduce**  
national residential  
electricity use by  
**32%\***

**99.8%**  
of counties have  
energy efficiency  
workers



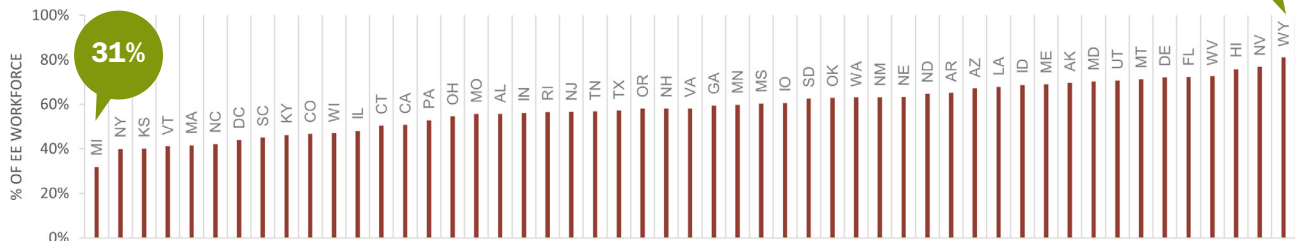
\*Sources: [E4TheFuture/BW Research retrofit analysis, July 2021](#), [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)



# ENERGY EFFICIENCY WORKFORCE NEEDS VARY BY STATE

While most EE jobs are in construction, opportunities extend across manufacturing, professional services and other sectors. The distribution of current EE jobs is a good place to start when considering how to best match workforce training with job paths, to better serve employers and potential employees.

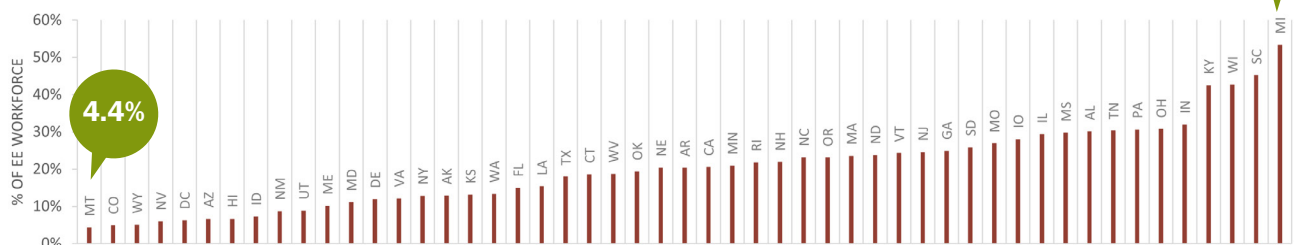
## EE Workers in Construction



86%

In metro and rural areas, and in-between, over 1.1 million EE construction workers are employed everywhere buildings exist. About 16% of total U.S. construction workers spend at least 50% of their time on energy efficiency.

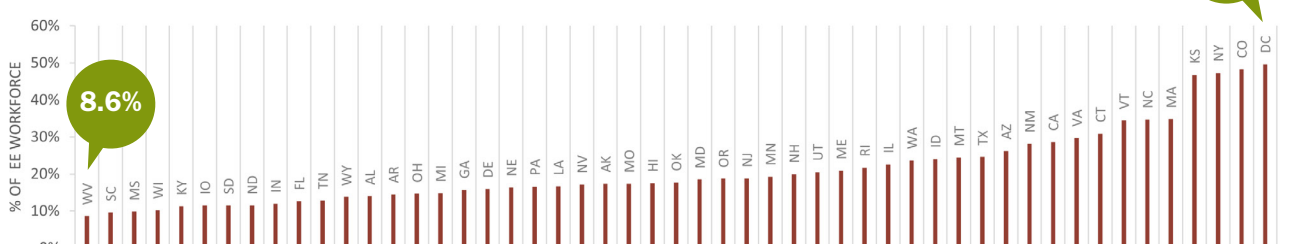
## EE Workers in Manufacturing and Trade



53%

A robust domestic manufacturing industry of energy efficient products supports over 468,000 U.S. jobs. These products are installed and maintained by trained professionals in your community.

## EE Workers in Professional and Other Services



50%

Engineers, designers, architects, financial services, and legal professionals create concepts and plans, and finance projects – representing nearly 495,000 U.S. efficiency workers.

# ENERGY EFFICIENCY HAS A LONG VALUE CHAIN ACROSS CONSTRUCTION, MANUFACTURING, AND PROFESSIONAL SERVICES

EE includes jobs across a wide range of the U.S economy, including:

- a strong manufacturing sector making products from insulation to heat pumps to sophisticated digital controls — with potential for enormous growth
- a diverse professional services sector of architects, engineers and financial services experts who translate clean energy vision into executable project plans
- a robust construction sector ranging from small residential contractors to unionized experts who construct and insulate mechanical systems that heat and cool our larger buildings and industries



\*Professional Services include finance/accounting, architecture, engineering, R&D, etc. and Other includes maintenance, and business and nonprofit organizations.

# CREATING AN ENERGY EFFICIENCY WORKFORCE TO MEET THE MOMENT

Roads, transmission lines, and water systems were created largely to support the places where we live, work, and play. Most of today's existing buildings — whether privately or publicly owned — will remain in use in 2050. This represents a huge opportunity.

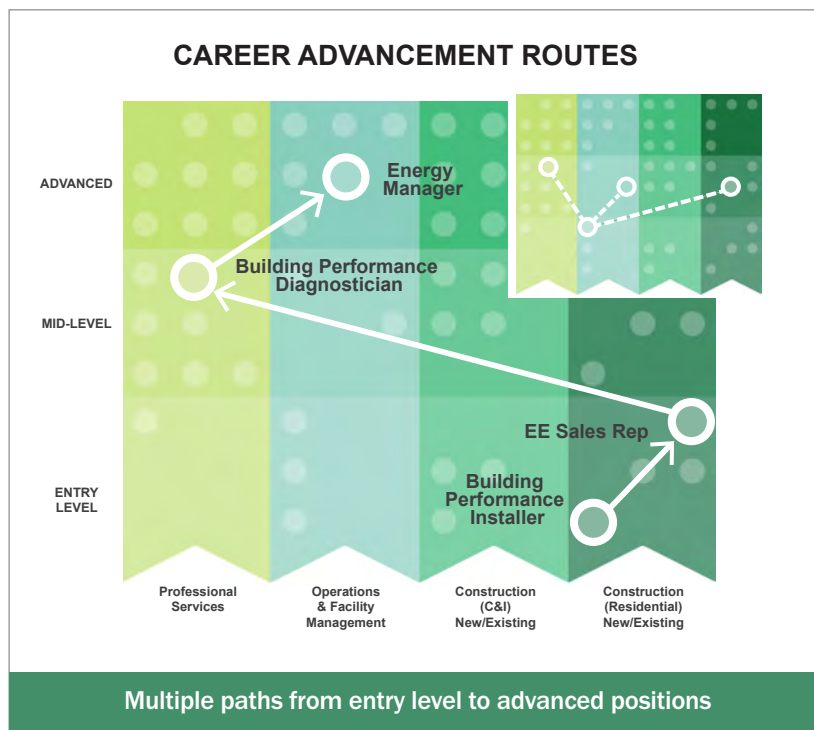
Source: ACEEE, [Mandatory Building Performance Standards: A Key Policy for Achieving Climate Goals](#)



## WORKFORCE TRAINING: FOUNDATION FOR SOLID CAREERS

A 2021 [U.S. Dept. of Energy career map](#) shows paths to achieving the most high-paying jobs, even for workers who begin without a college degree.

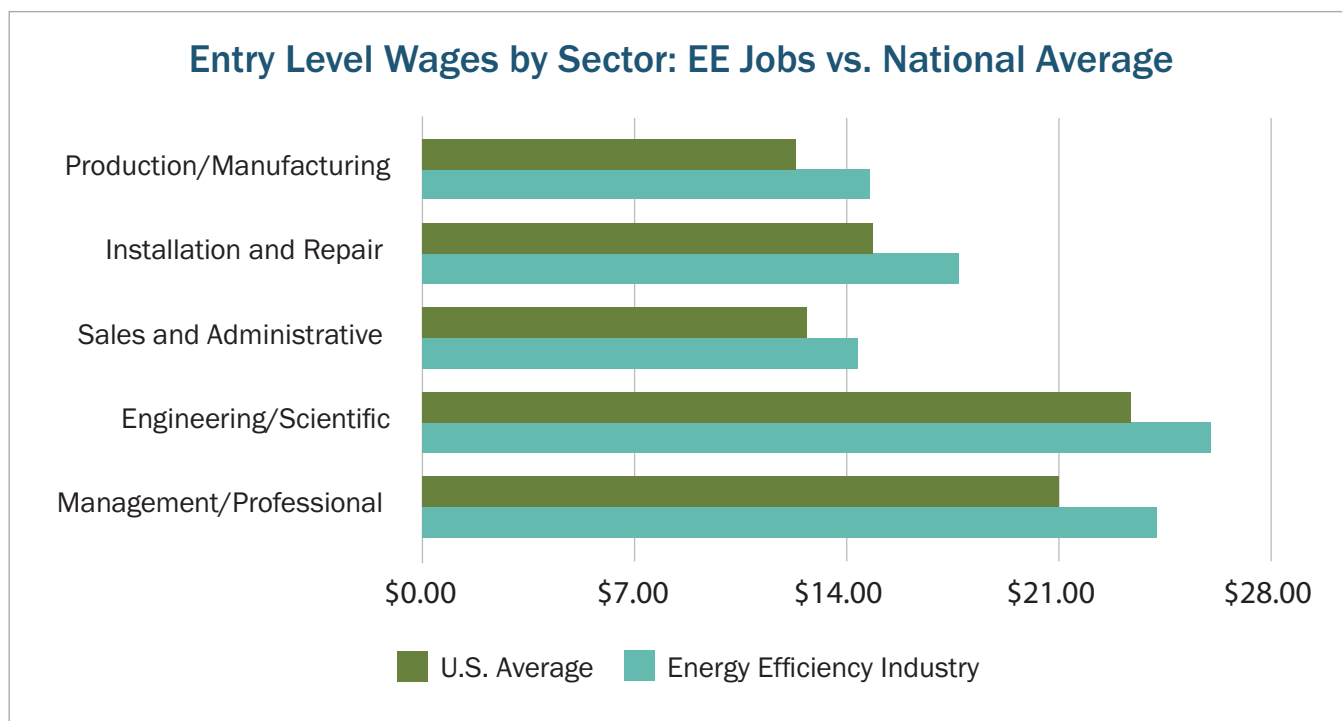
Workforce development and training are vital to economic health. As an industry essential for meeting climate goals with thousands of opportunities in every region and metro area, energy efficiency offers on-ramps for workers in transition and young people entering the workforce.



# ENERGY EFFICIENCY CAREERS COME WITH GOOD PAY, BENEFITS

Efficiency workers receive good compensation when compared to their peers. The compensation advantages are particularly seen in entry-level positions, making energy efficiency training a very attractive option for programs in vocational high schools and community colleges.

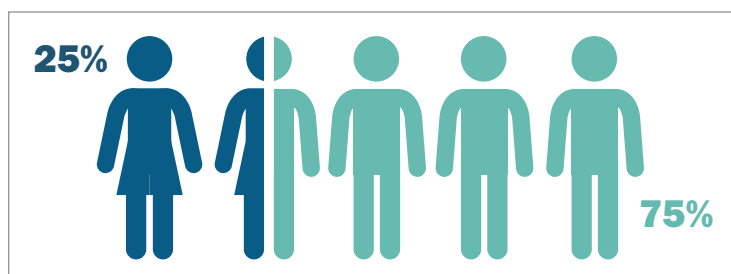
The median hourly wage of \$24.44 for EE exceeds the median hourly wage across the US economy (\$19.14) – about 28% above the national median.



Source: [2020 U.S. Energy and Employment Report \(USEER\) supplemental Wage Report](#)

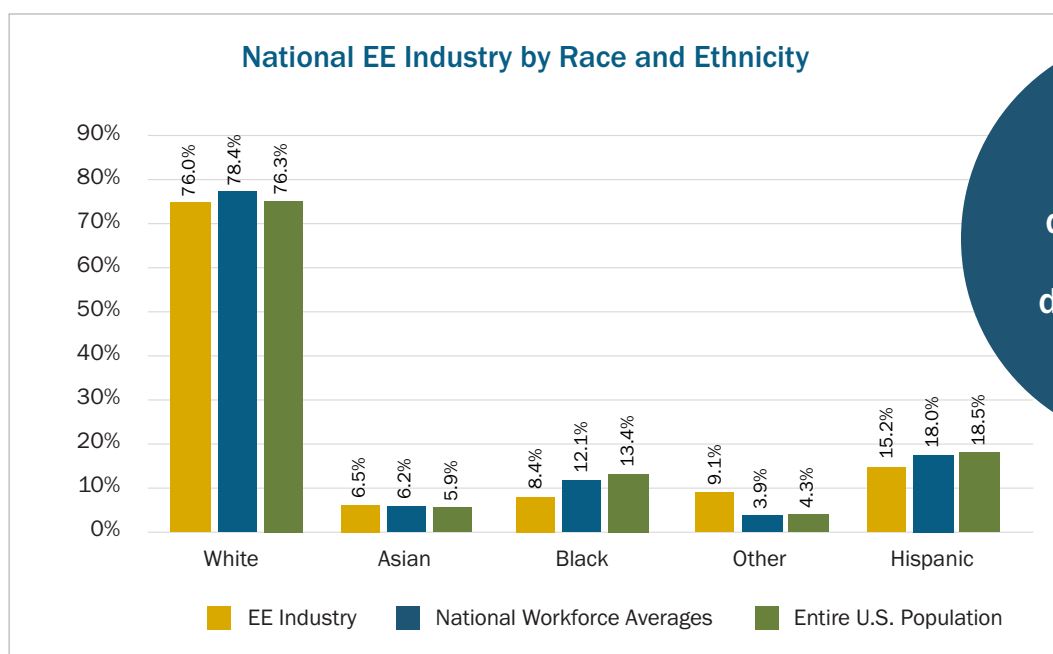
# BUSINESS THRIVES WITH A DIVERSE WORKFORCE

Demographic data is crucial for measuring progress in the EE industry. Increasing diversity in the efficiency sector means a more robust and more inclusive industry. Diversity in hiring will be key to maintaining a future workforce of talented professionals and ensuring that communities across the nation are better represented in the efficiency sector. Investing resources to ensure energy efficiency projects are deployed in diverse communities will enable potential workers to see EE as a viable career choice.



The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

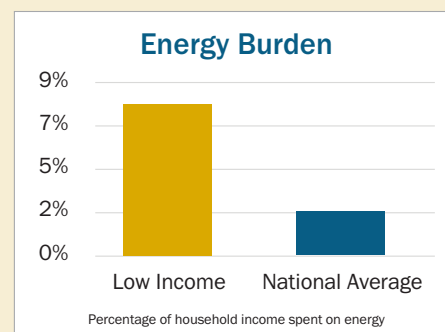


Robust investment in workforce development is essential for diversity, equity, and inclusion.

\*Includes non-Hispanic and Hispanic whites.

## EFFICIENCY PROVIDES FINANCIAL RELIEF

Low-income households and households of color consistently spend a large portion of their income on energy bills (and are therefore saddled with an “energy burden”). Weatherization upgrades, including thermal efficiency measures like insulation, can reduce these burdens by 25%. Too few households historically receive such upgrades. More attention and increased resources can help.



Source: [Low-Income Households, Communities of Color Face High “Energy Burden” Entering Recession](#)



# WORKFORCE TRAINING BENEFITS BOTH WORKERS AND EMPLOYERS



**Darius Fells**  
*Walker-Miller Energy Services*  
*Detroit, Michigan*

“Since earning my BPI Building Analyst certification, I advanced in my career from a direct installer role to Energy Auditor. Energy efficiency trainings assist in performing comprehensive, whole-home assessments, approaching the house as a system. I can identify root causes of problems within a home and help our customers better understand how certain measures affect their utility costs [and] to prioritize energy efficient solutions that save them money.

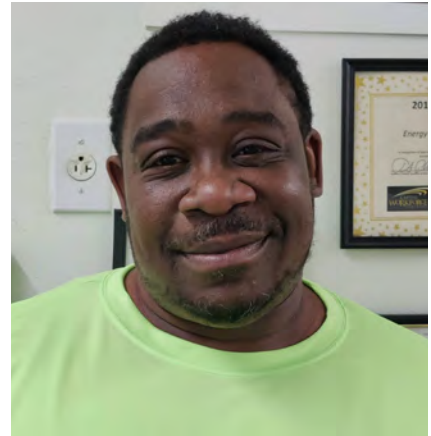
I look forward to participating in additional trainings and am excited about the opportunity to progress in my career.”



**Bryan Pringle**  
*Evergreen Home Performance*  
*Portland, Maine*

“The energy efficiency training program I accessed through Southern Maine Community College was the critical first step in my career. It was through this training program that I obtained BPI certification.

That BPI certification helped me get my first energy efficiency job, and provided a springboard for fast advancement at my company. I have now been an energy advisor for the last four years and I am not looking back.”



**Demont Murphy**  
*Energy Efficiencies Solutions*  
*Hartford, CT*

“I started working at Energy Efficiencies Solutions (EES) in 2012 as an entry-level technician. After I demonstrated excellent hard work and loyalty, EES enrolled me in a state energy efficiency training program.

Before working at EES, I was unemployed. I am now a building scientist and lead technician. I see it as a gift to be paid to help people in the community save money and energy, while I make their homes safer and more comfortable.”



**Energy efficiency:**  
**America's**  
**Job-creation**  
**powerhouse**



# BUILDING EFFICIENCY AND RESILIENCE MATTERS

Unprecedented heat and cold snaps in 2021 reveal the necessity of making updates to heating and cooling systems, and better insulating structures to help prevent energy waste.

Older buildings were not designed for such extreme weather conditions. Examples include:

- Northwest U.S. states like Oregon suffered recurring deadly heat waves that *“exposed how communities built for the mild summers of decades past are grossly unprepared”* (Mike Baker, Sergio Olmos, NYT)
- When Texas power plants failed in icy conditions, people used to living without winter worries were instantly in serious crisis.

*“Texas’ buildings waste a massive amount of energy. Two-thirds of our homes predate a statewide building code and lack adequate insulation. That’s one reason that more than 100 Texans died of hypothermia during the blackouts. Among the 28 states that have adopted an energy efficiency goal, Texas ranks last in the amount of energy it saves.”*  
(Doug Lewin, Dallas Morning News)

Energy efficient buildings allow occupants to remain safe during extended power outages, which are becoming more frequent.

Using updated international building codes that further advance energy efficiency is a key component of a more successful path forward. Enforcing compliance with mandatory code provisions is essential.

Buildings account for  
**29%\*** of all energy  
used in the U.S.  
**76%\*\*** of all  
electricity used.

Although most  
**existing  
buildings**  
will still be used in 2050,  
**80% are  
already 20+  
years old.\*\*\***



Thermal imaging. Photo: Zone 6 Energy

\*Source: [U.S. Energy Information Administration](#)

\*\*Source: [Department of Energy: An Assessment of Energy Technologies and Research Opportunities](#)

\*\*\* Sources: [U.S. Energy Information Administration](#) and [U.S. Census Bureau QuickFacts](#)

# CLIMATE BENEFIT POTENTIAL FROM RETROFITTING ALL 111 MILLION RESIDENTIAL UNITS CONSTRUCTED BEFORE 2000

To shed light on the scale of energy efficiency's contribution to meeting 2030 climate goals, we modeled an investment in U.S. homes (which account for 29% of all energy and 75% of all electricity consumed).

## How could a national energy efficiency investment benefit our existing older homes?

**Assumptions:** Insulation, doors, and windows are upgraded; at the end of equipment's useful life, existing HVAC or water heater replacements would be ENERGY STAR-rated for any homes constructed prior to 2000.



**Results:** Investing in this initiative could employ over one million full time workers for a decade. It would pump billions of dollars back into the economy as consumers experience lower energy bills, which benefits every community.

Thousands of workers would be needed to design, manufacture, and install insulation, controls, replacement appliances, upgraded HVAC units, and more. Energy efficiency disproportionately benefits low-income consumers historically burdened with energy costs. For workers, consumers, and the environment, energy efficiency is a WIN-WIN-WIN!

Avoided carbon emissions from these energy savings also help to mitigate the worst impacts of climate change. And the improvements increase community resilience to severe weather events and power outages.

Source: [E4TheFuture/BW Research retrofit analysis, July 2021](#)

# POWERFUL PARTNER IN BUILDING A CLEAN ELECTRIC GRID

Efficiency will play a critical role in achieving carbon-free electricity goals. A recent study shows that when combined in a clean energy portfolio with wind, solar and storage resources, energy efficiency more than pulls its weight.

In an optimal clean energy portfolio, EE can:



Source: [Analysis by E4TheFuture based on RMI data](#)

## GOOD USA JOBS & GLOBAL COMPETITIVENESS

- Energy efficiency jobs are inherently local; the vast majority cannot be offshored. With on-site work required to improve homes and buildings, it's likely you know efficiency workers.
- A robust domestic manufacturing industry of energy efficient products supports over 290,000 U.S. jobs.
- These products are installed and maintained by trained professionals in your community.



# POLICY LEADERSHIP

Energy efficiency saves money, reduces emissions, improves air quality and public health; it also makes us more energy independent – while tackling climate change and creating jobs. It is an energy source we must invest in.

***Federal Policy leadership can ensure that energy efficiency and indoor air quality are addressed to benefit property owners, occupants, and the country.***

**Increase funding for proven federal energy efficiency programs, including:**

- State energy programs
- Weatherization programs
- Energy efficiency and conservation grants

**Support ENERGY STAR which helps people make smart energy choices.**

**Support and expand initiatives that incentivize building owners to make smart property upgrades that advance domestic manufacturing of energy efficient technologies and create jobs, such as:**

- Commercial and residential building tax credits
- Residential rebate programs to drive efficiency deployment and job creation for local contractors
- Programs to encourage greater efficiency and sustainability in U.S. housing stock
- Programs focused on resilience, energy efficiency, and air quality in public buildings
- Tax credits and rebates for U.S. manufacturing of energy efficient appliances and technologies

**Strengthen standards and invest in programs advancing indoor air quality and energy efficiency, e.g.:**

- Strengthen building and appliance efficiency standards with training and enforcement
- Direct FEMA (Federal Emergency Management Agency) to ensure rebuilding projects comply with updated international building codes and advance energy efficiency
- Support energy audits, technical assistance, and financing options for large manufacturers

**Advance and prioritize diversity, equity, and inclusion in federal energy efficiency programs:**

- Strengthen workforce development and apprenticeship programs for the energy efficiency sector
- Create a workforce grant program to help organizations and small businesses hire and train new energy- efficiency employees with a focus on equity, diversity, and inclusion.
- Increase grants and financing to deploy more efficiency projects in underserved communities that often carry greater energy burdens while developing career opportunities for local workers

***State and local leaders can keep energy efficiency jobs growing. Leaders can:***

- Adopt high efficiency and indoor air quality standards for new construction and existing buildings
- Support workforce development and apprenticeship programs that prioritize equity, diversity, and inclusion
- Adopt energy benchmarking and reporting requirements for existing buildings
- Incorporate broader use of performance contracting in public buildings
- Advance commercial property assessed clean energy (PACE) programs
- Modernize regulations to ensure transparent and comprehensive cost-effectiveness evaluations; align utility incentives with investments in efficiency
- Invest in advanced infrastructure to enable interval data analytics and boost resilience



See the [Energy Efficiency Jobs in America website](#),  
with animated key statistics for each state.

## ABOUT THE REPORT

The 2020 job numbers come from the national 2021 U.S. Energy and Employment Report (USEER), which focuses on all energy jobs. The USEER analyzes data from the U.S. Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages (QCEW) to track employment across many energy production, transmission, and distribution subsectors. The 2021 USEER also relies on a unique supplemental survey of 35,000 business representatives across the U.S. This survey is used to identify energy-related employment within key subsectors of the broader industries as classified by the BLS and to assign them into their component energy and energy efficiency sectors. Numbers for 2021 come from BLS data analysis by BW Research and U.S. Dept. of Labor unemployment weekly summaries, used to calculate the labor impacts for each month. See appendix A of the USEER for complete methodology details.

For questions regarding this report, visit the Energy Efficiency Jobs in America [FAQ](#) or contact E4TheFuture or E2 directly.



### ABOUT E4TheFuture

E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org).



### ABOUT E2

E2 is a national, nonpartisan group of business leaders, investors and other professionals from every sector of the economy who advocate for smart policies that are good for the environment and good for the economy. E2 members have founded or funded more than 2,500 companies, created more than 600,000 jobs and control more than \$100 billion in private and venture capital equity. Visit [www.e2.org](http://www.e2.org).



### ABOUT BW Research

BW Research Partnership is a full-service, economic and workforce research consulting firm with offices in Carlsbad, California and Wrentham, Massachusetts. It is the nation's leading provider of accurate, comprehensive energy and clean energy research studies, including the United States Energy and Employment Report (USEER), National Solar Jobs Census, wind industry analyses for the National Renewable Energy Laboratory and the Natural Resources Defense Council, and state-level clean energy reports for Massachusetts, New York, Illinois, Vermont, Iowa, Rhode Island, Florida, Connecticut, Pennsylvania, and Missouri, among others.

# Alabama

## Energy Efficiency Jobs in America

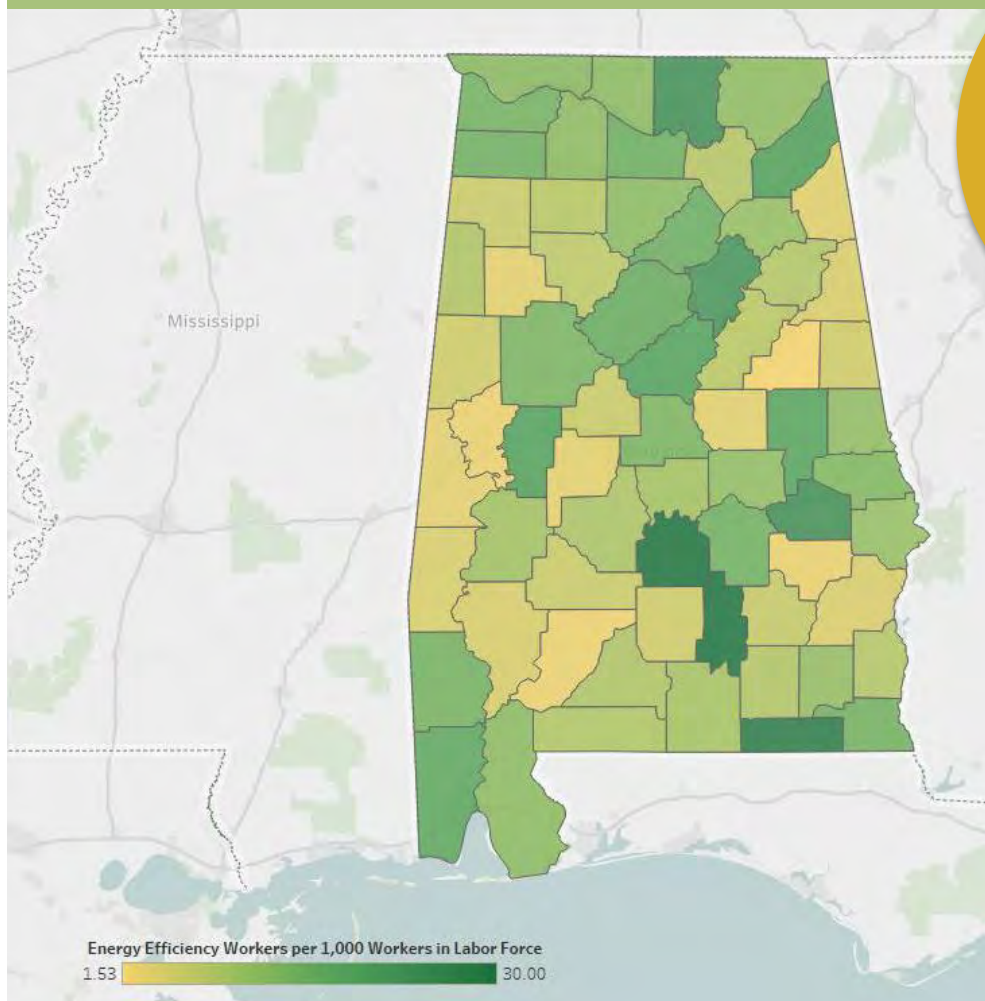


*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Alabama, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



**100%**  
of Alabama  
counties have  
energy efficiency  
workers

**~14,100**  
new EE construction  
jobs to retrofit  
Alabama homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of AL residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



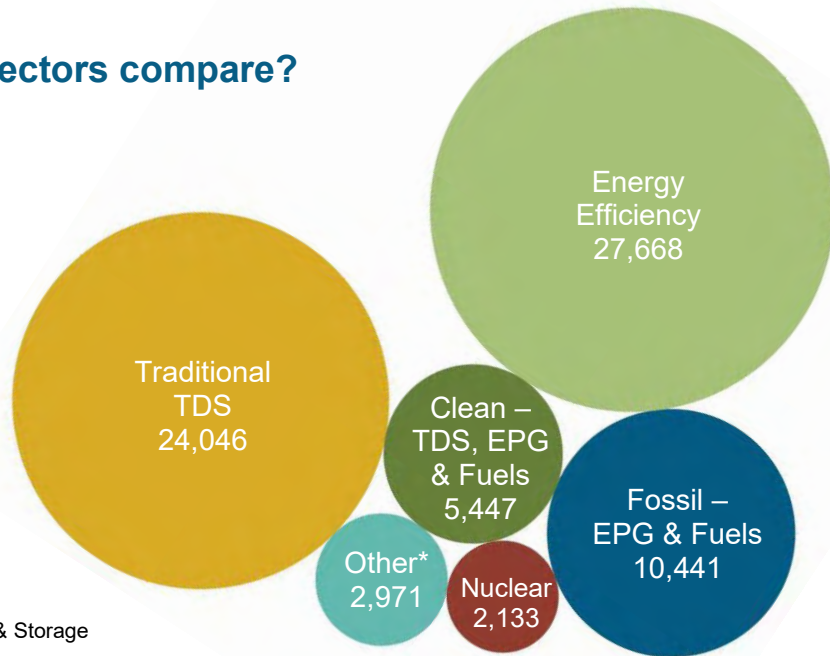
# Key EE Statistics for Alabama

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Alabama's energy sectors compare?

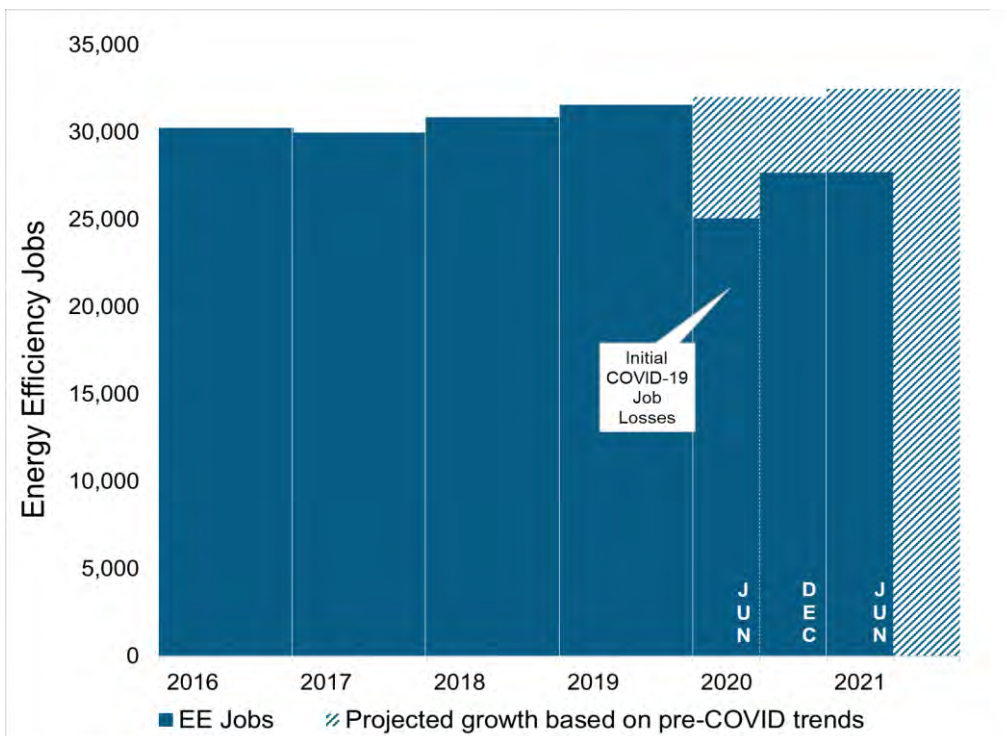
*Energy Efficiency is the **largest** energy sector in Alabama.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



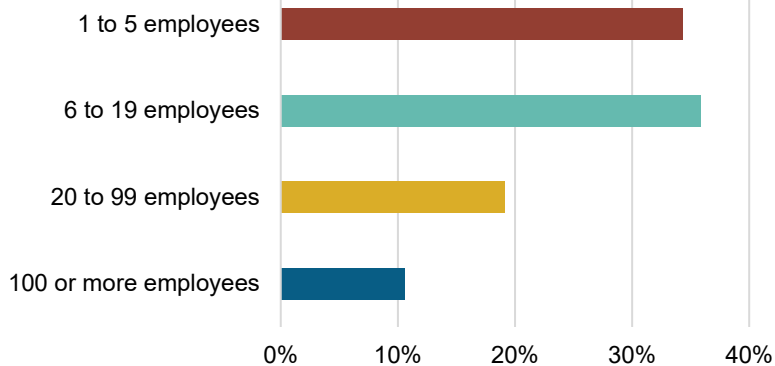
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



## What does EE look like in Alabama?

### 89.2% of AL EE Businesses Have Less Than 100 Employees



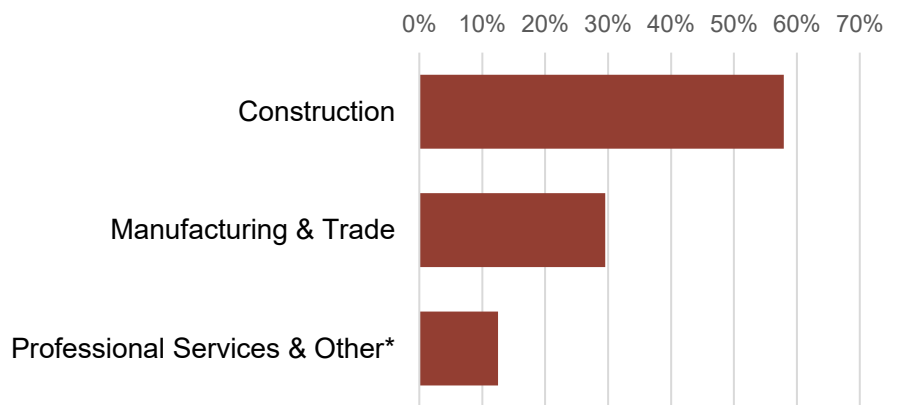
**4,636**  
EE businesses in  
Alabama



EE construction  
workers comprise  
**16%** of Alabama  
construction  
workers

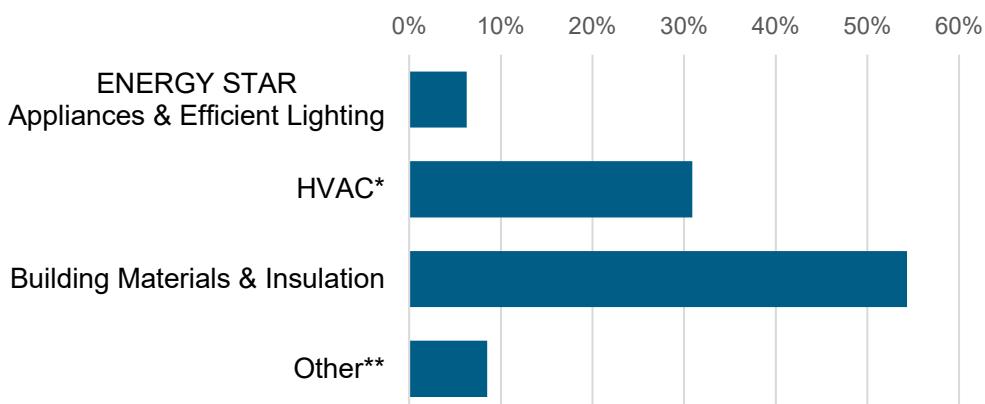


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

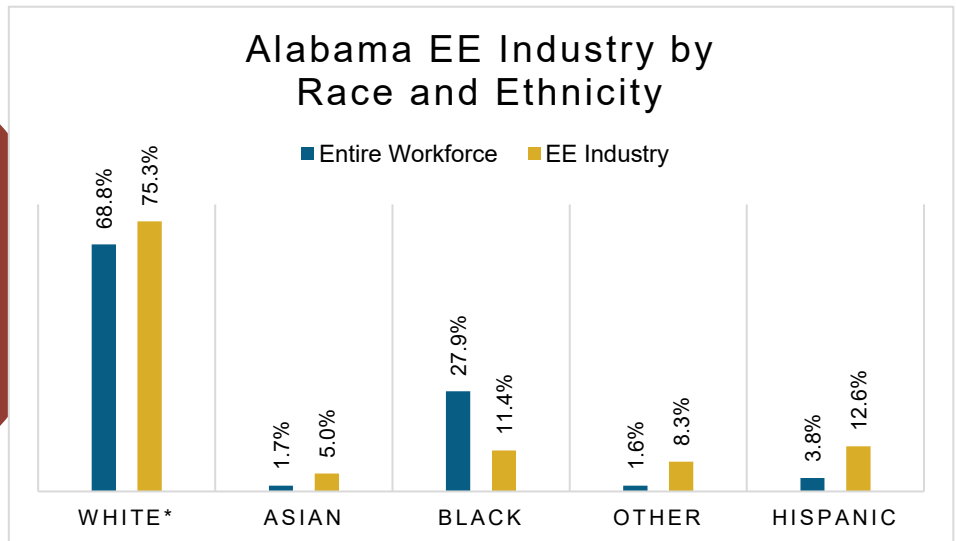


**7%** of  
Alabama  
EE workers are  
**Veterans**

## How is EE doing on diversity in Alabama?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Alabama communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Alabama's EE Potential

Decades of work, ready for Alabama's growing energy efficiency workforce.

Weatherization Assistance Program:



**543\*** units weatherized in 2018, out of ~**300,000** total low-income households

**1,460,849**

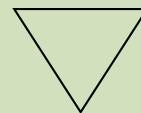
Alabama homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**38%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)



## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,844	Anniston-Oxford	501
2	4,210	Auburn-Opelika	628
3	3,169	Birmingham-Hoover	8,348
4	3,225	Columbus	195
5	4,081	Decatur	784
6	5,815	Dothan	925
7	2,324	Florence-Muscle Shoals	870
		Gadsden	474
		Huntsville	2,919
		Mobile	3,002
		Montgomery	2,425
		Tuscaloosa	1,098
		Rural	5,499

State Senate							
District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	1,469	11	1,468	21	839	31	94
2	674	12	500	22	1,236	32	733
3	1,013	13	975	23	416	33	2,018
4	817	14	876	24	158	34	645
5	665	15	2,609	25	2,063	35	322
6	364	16	139	26	60		
7	1,010	17	494	27	252		
8	486	18	2,348	28	977		
9	414	19	99	29	510		
10	608	20	<5	30	319		

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	512	28	472	55	105	82	86
2	268	29	91	56	169	83	10
3	400	30	226	57	12	84	190
4	730	31	393	58	<5	85	698
5	28	32	637	59	<5	86	136
6	1,067	33	75	60	<5	87	154
7	69	34	63	61	689	88	<5
8	<5	35	19	62	266	89	265
9	355	36	71	63	<5	90	123
10	271	37	215	64	952	91	18
11	505	38	458	65	294	92	138
12	31	39	69	66	211	93	9
13	283	40	<5	67	221	94	217
14	60	41	752	68	66	95	214
15	847	42	318	69	320	96	291
16	401	43	1,216	70	<5	97	1,158
17	65	44	601	71	62	98	103
18	63	45	435	72	27	99	388
19	211	46	701	73	<5	100	300
20	944	47	<5	74	972	101	313
21	33	48	<5	75	12	102	9
22	161	49	76	76	593	103	359
23	113	50	63	77	62	104	42
24	223	51	102	78	9	105	33
25	<5	52	640	79	326		
26	85	53	<5	80	30		
27	18	54	1,512	81	63		



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



E2 is a national, nonpartisan group of business leaders, investors and other professionals from every sector of the economy who advocate for smart policies that are good for the environment and good for the economy. Visit [www.e2.org](http://www.e2.org)



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# Alaska

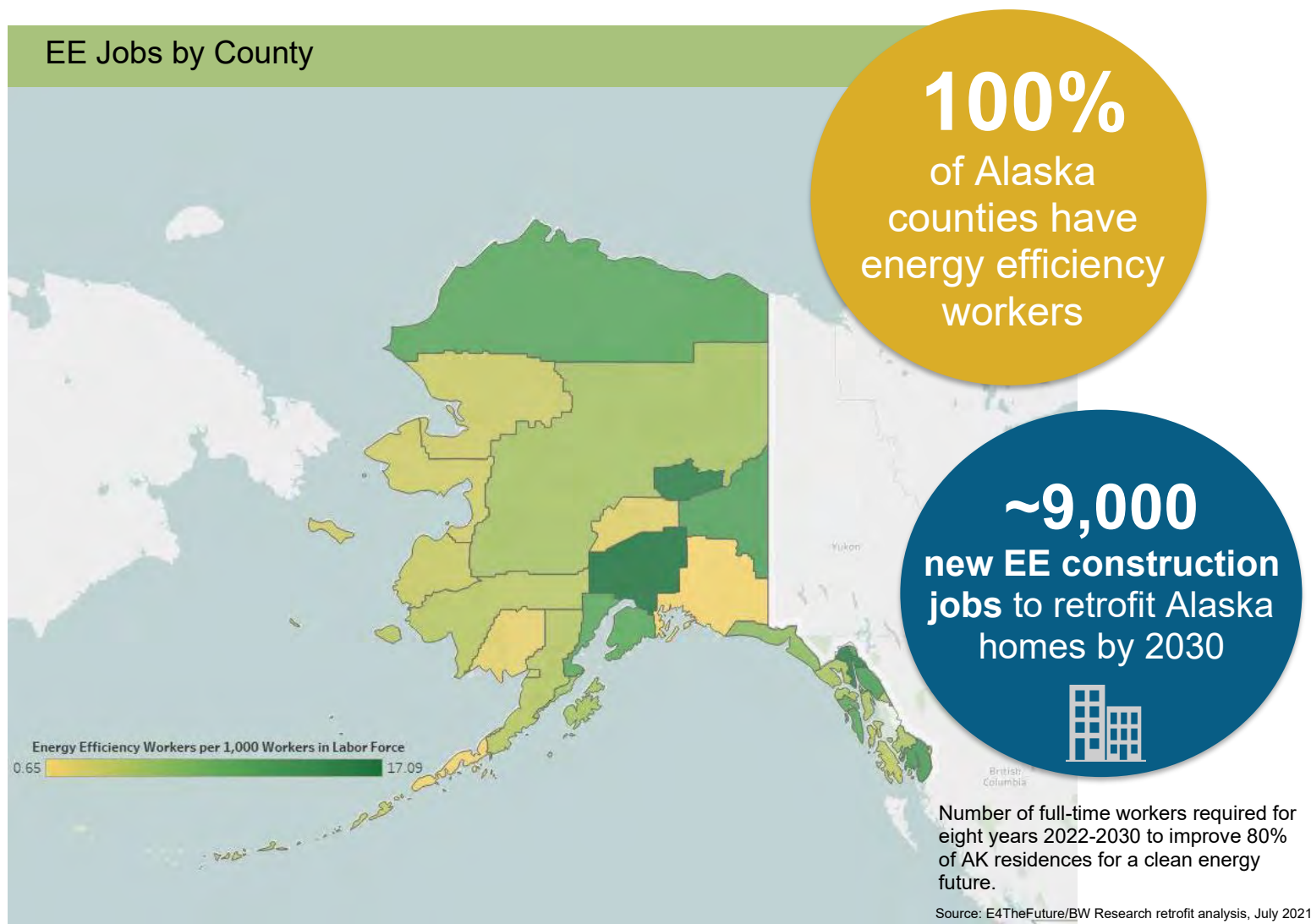
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Alaska, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



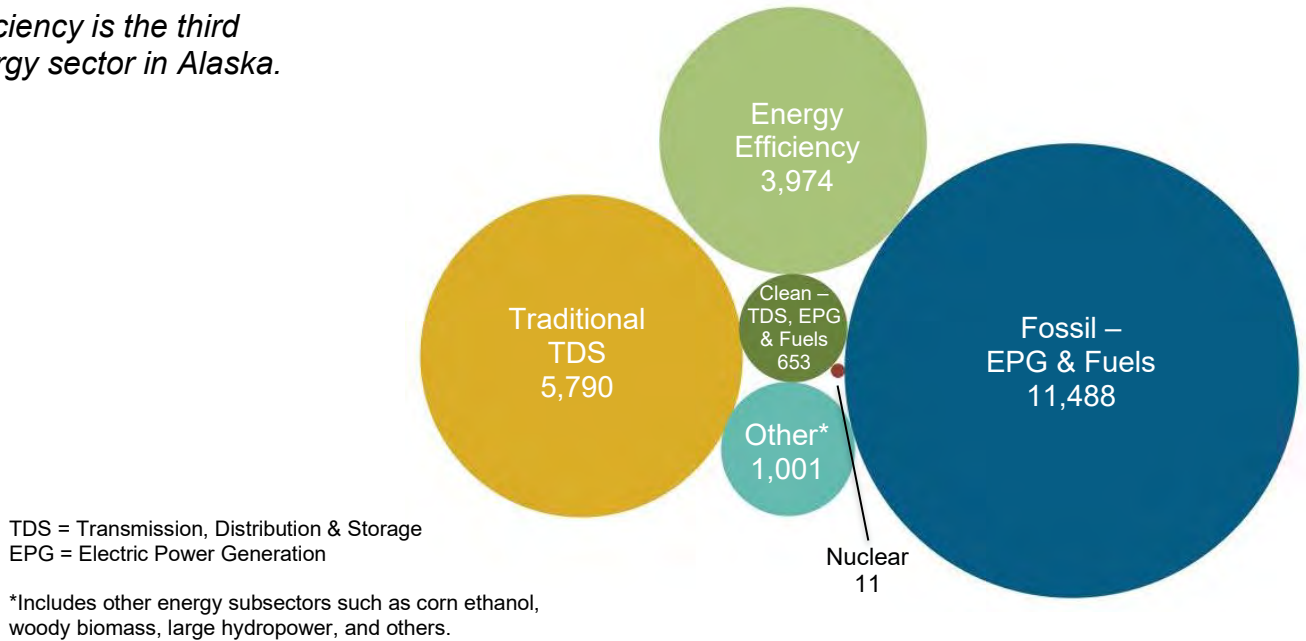
# Key EE Statistics for Alaska

## What are energy efficiency (EE) jobs?

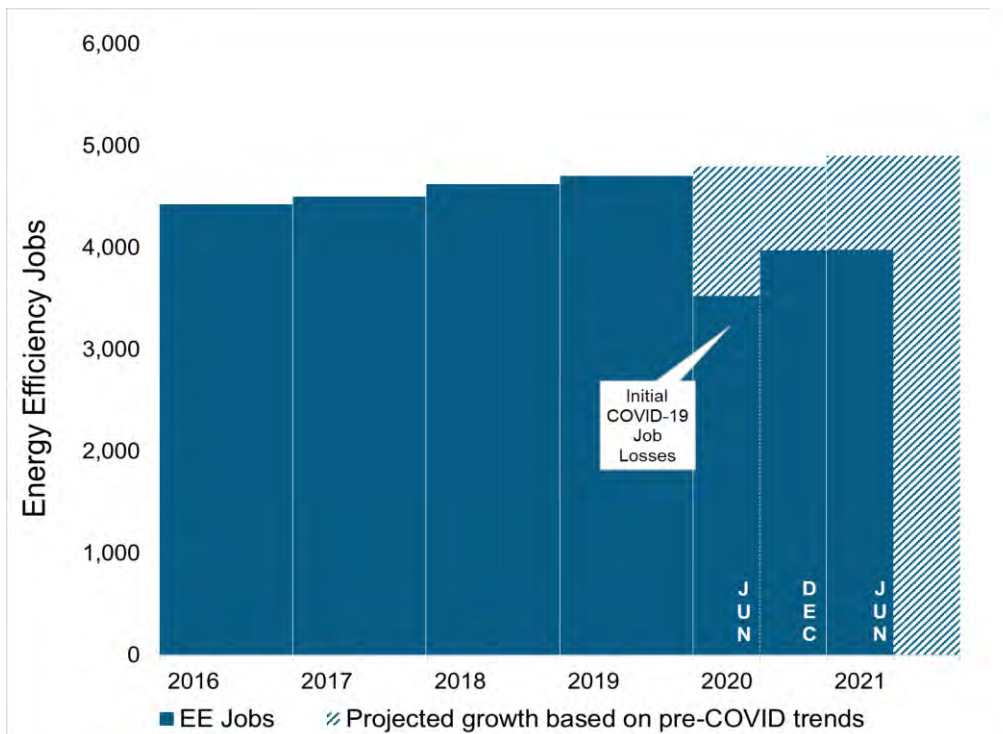
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Alaska's energy sectors compare?

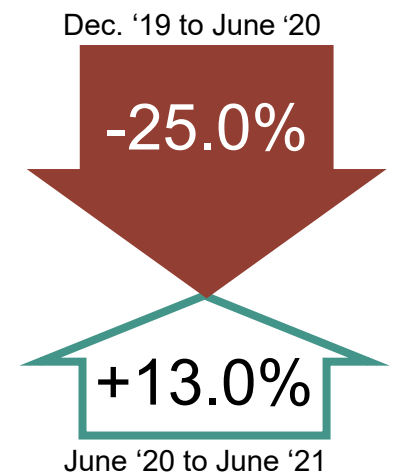
*Energy Efficiency is the third largest energy sector in Alaska.*



## How is the EE industry recovering?



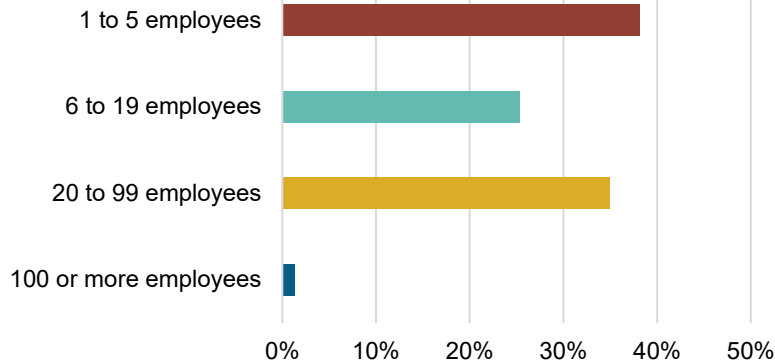
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Alaska?

## 98.6% of AK EE Businesses Have Less Than 100 Employees



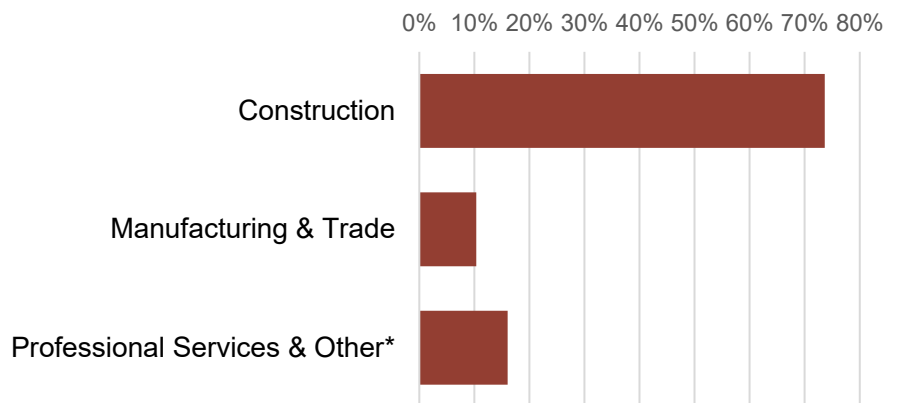
**500**  
EE businesses in  
Alaska



EE construction  
workers comprise  
**19%** of Alaska  
construction  
workers

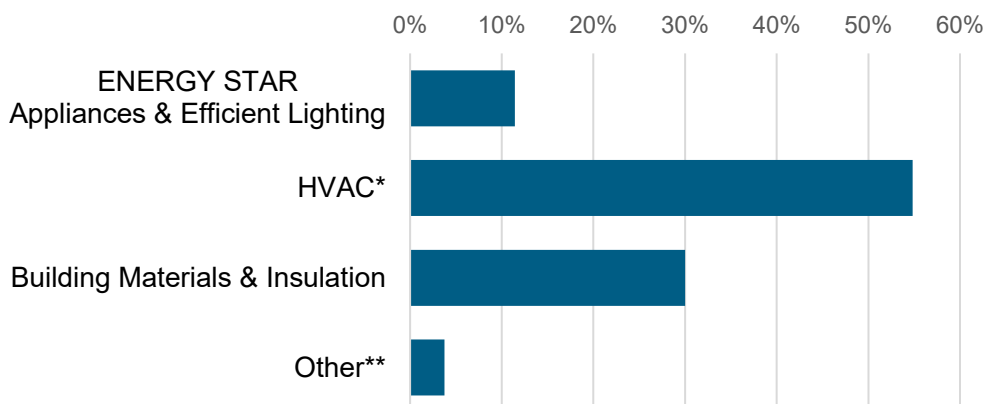


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services



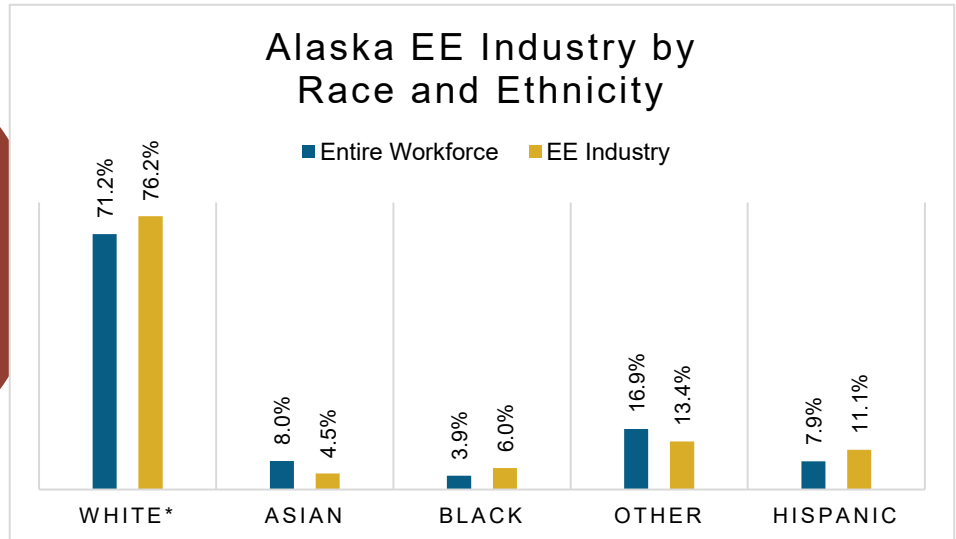
**10%** of  
Alaska  
EE workers are  
**Veterans**



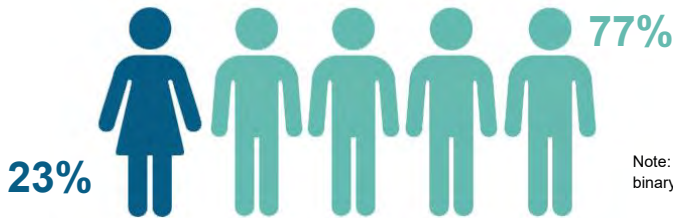
## How is EE doing on diversity in Alaska?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Alaska communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Alaska's EE Potential

Decades of work, ready for Alaska's growing energy efficiency workforce.

Weatherization Assistance Program:



**309\*** units weatherized in 2018, out of **~26,000** total low-income households

**225,496**

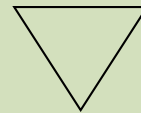
Alaska homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**22%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	3,974	Anchorage	2,345
		Fairbanks	495
		Rural	1,135

AK State Senate			
District	Jobs	District	Jobs
00H	754	00T	104
00I	468	00A	474
00D	425	00B	6
00L	226	00C	78
00G	175	00O	238
00K	192	00P	163
00M	71	00Q	255
00E	16	00R	206
00N	9	00S	83
00F	28		

State House of Representatives				
District	Jobs		District	Jobs
1	370		28	9
2	103		29	237
3	<5		30	<5
4	6		31	78
5	<5		32	84
6	76		33	255
7	397		34	<5
8	29		35	101
9	12		36	105
10	<5		37	49
11	<5		38	34
12	28		39	38
13	175		40	66
14	<5			
15	528			
16	225			
17	<5			
18	468			
19	<5			
20	<5			
21	78			
22	118			
23	226			
24	<5			
25	<5			
26	71			
27	<5			



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# Arizona

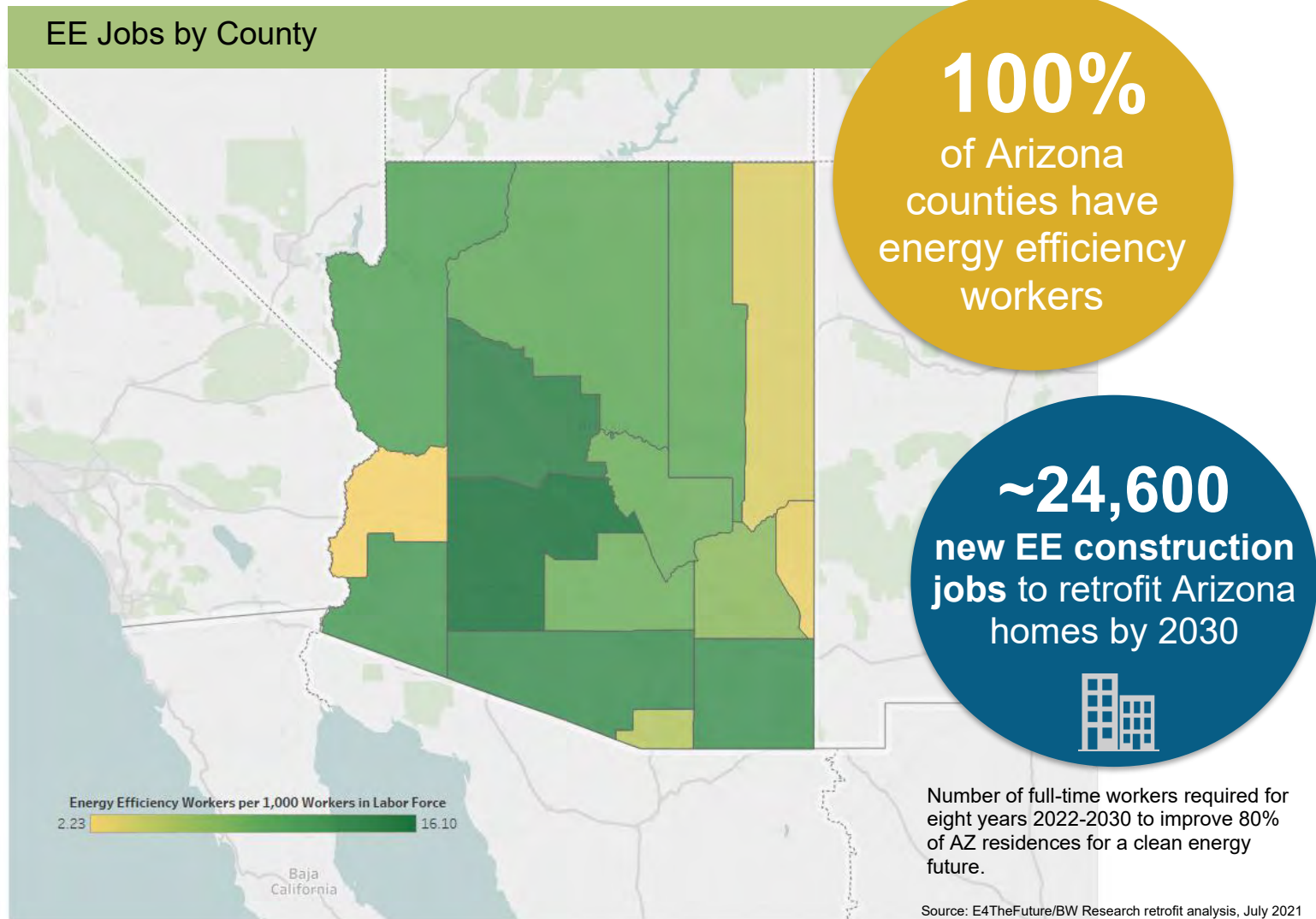
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Arizona, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



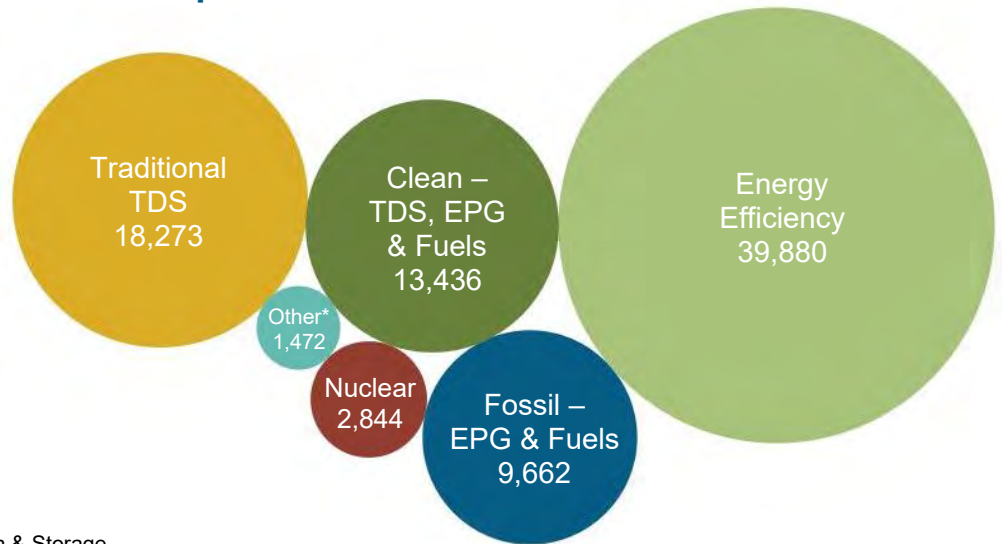
# Key EE Statistics for Arizona

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Arizona's energy sectors compare?

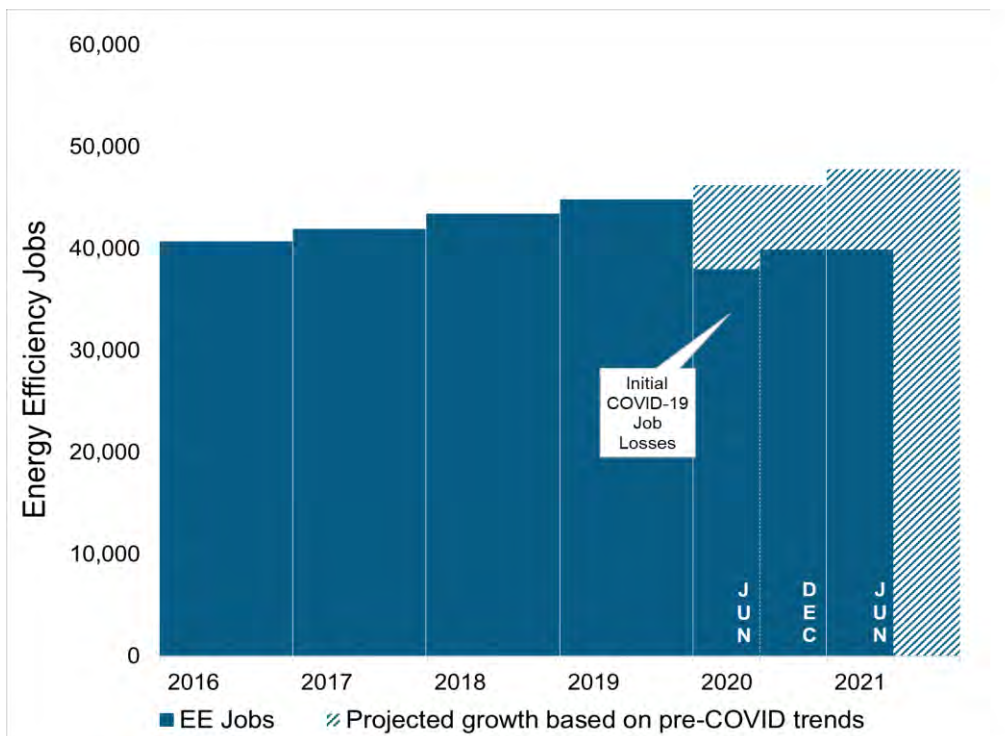
*Energy Efficiency is the **largest** energy sector in Arizona.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*

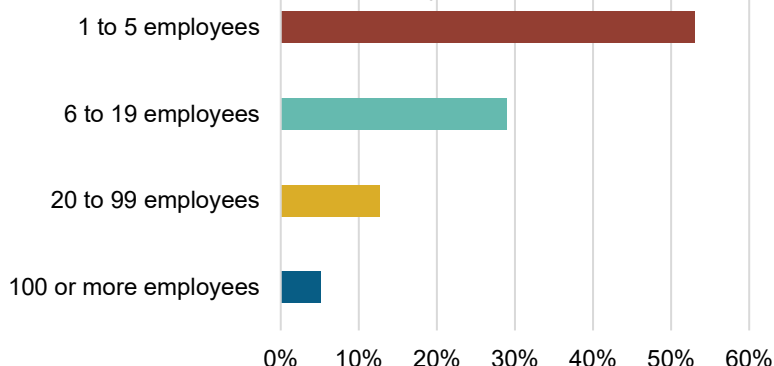


Source: E4TheFuture/BW Research job analysis, July 2021



# What does EE look like in Arizona?

## 94.7% of AZ EE Businesses Have Less Than 100 Employees



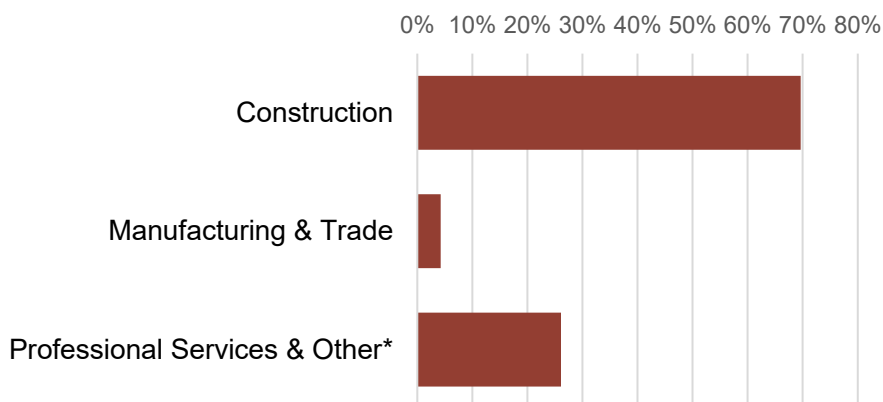
**10,141**  
EE businesses in  
Arizona



EE construction  
workers comprise  
**15%** of Arizona  
construction  
workers

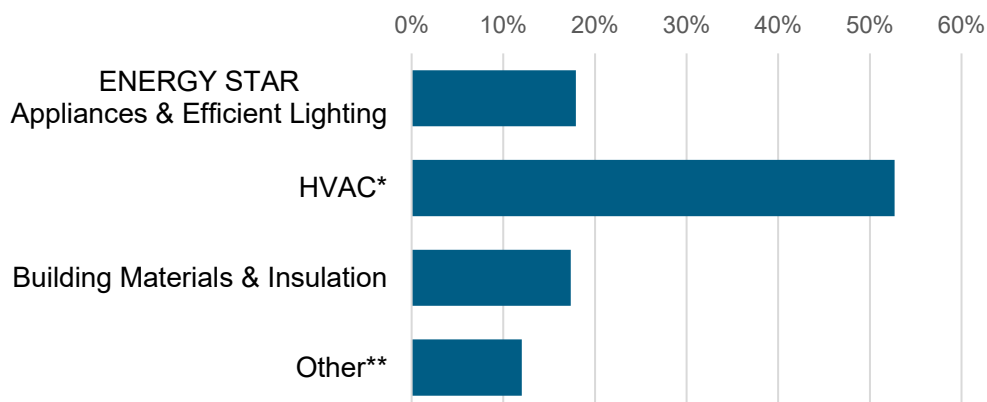


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

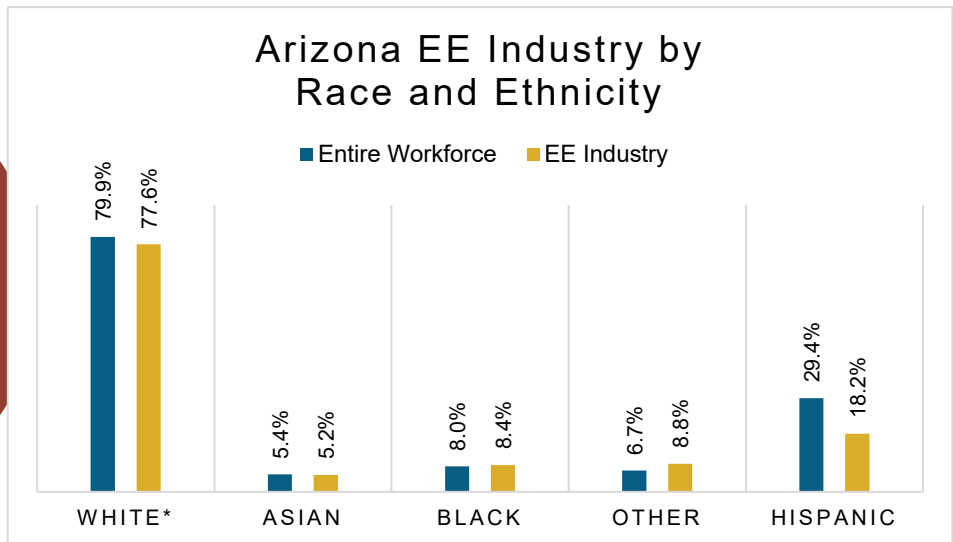


**7%** of  
Arizona  
EE workers are  
**Veterans**

## How is EE doing on diversity in Arizona?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Arizona communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Arizona's EE Potential

Decades of work, ready for Arizona's growing energy efficiency workforce.

Weatherization Assistance Program:



**557\*** units weatherized in 2018, out of **~370,000** total low-income households

**1,754,996**

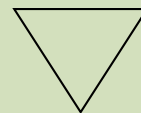
Arizona homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**37%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,008	Phoenix-Mesa-Scottsdale	29,809
2	4,609	Tucson	5,176
3	3,129	Yuma	532
4	3,448	Flagstaff	883
5	4,226	Lake Havasu City-Kingman	906
6	11,831	Prescott	1,140
7	7,086	Rural	1,434
8	1,023		
9	522		

AZ State Senate							
District	Jobs		District	Jobs		District	Jobs
1	2,177		11	140		21	399
2	2,067		12	3,011		22	108
3	1,269		13	542		23	4,000
4	875		14	605		24	6,897
5	985		15	2,968		25	526
6	1,100		16	576		26	1,516
7	306		17	671		27	<5
8	1,059		18	2,188		28	574
9	1,560		19	1,347		29	381
10	246		20	1,486		30	301

State House of Representatives						
District		Jobs		District		Jobs
1		2,171		28		547
2		2,166		29		356
3		1,236		30		282
4		846				
5		973				
6		1,090				
7		379				
8		999				
9		1,531				
10		240				
11		136				
12		2,799				
13		549				
14		608				
15		2,871				
16		555				
17		629				
18		2,107				
19		1,925				
20		1,409				
21		378				
22		101				
23		3,943				
24		7,021				
25		499				
26		1,534				
27		<5				



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# Arkansas

## Energy Efficiency Jobs in America

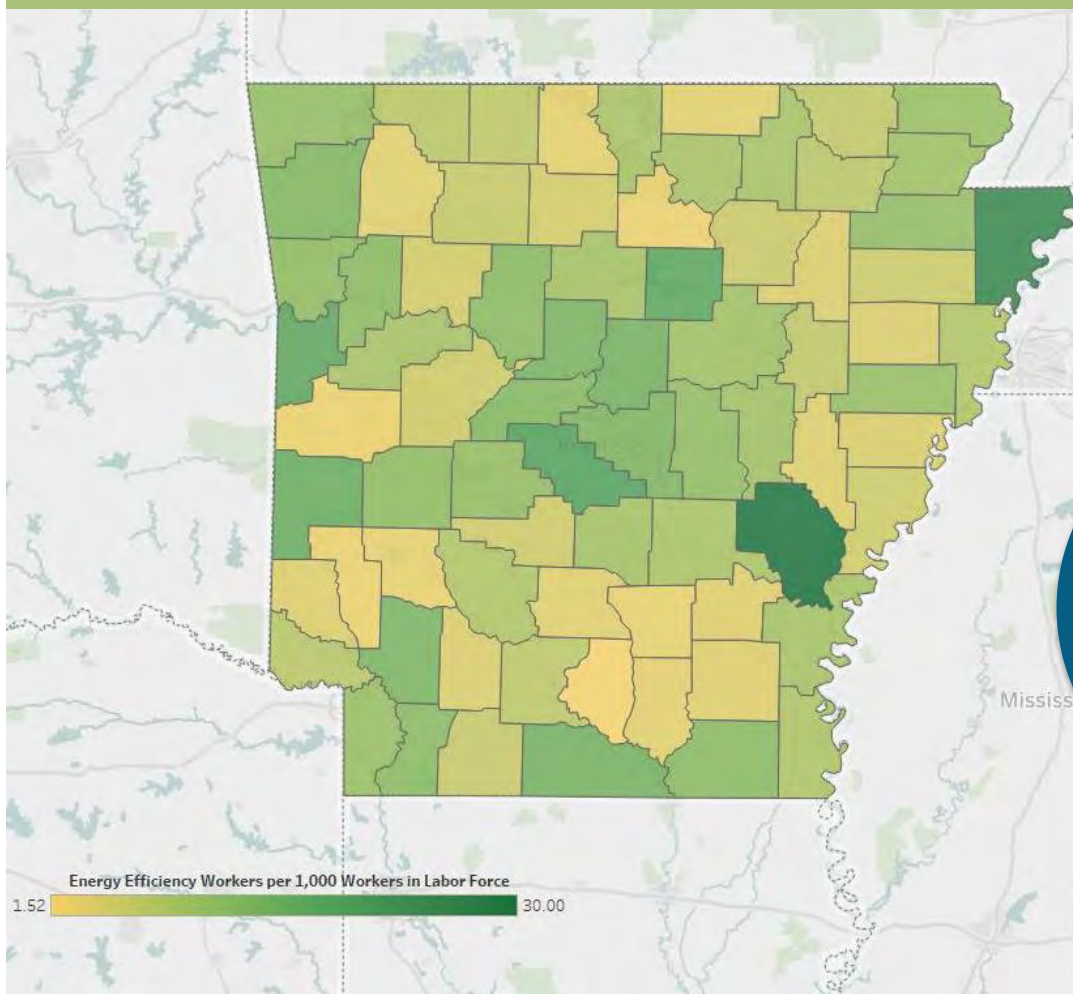


*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Arkansas, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



**100%**  
of Arkansas  
counties have  
energy efficiency  
workers

**~9,600**  
new EE construction  
jobs to retrofit  
Arkansas homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of AR residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





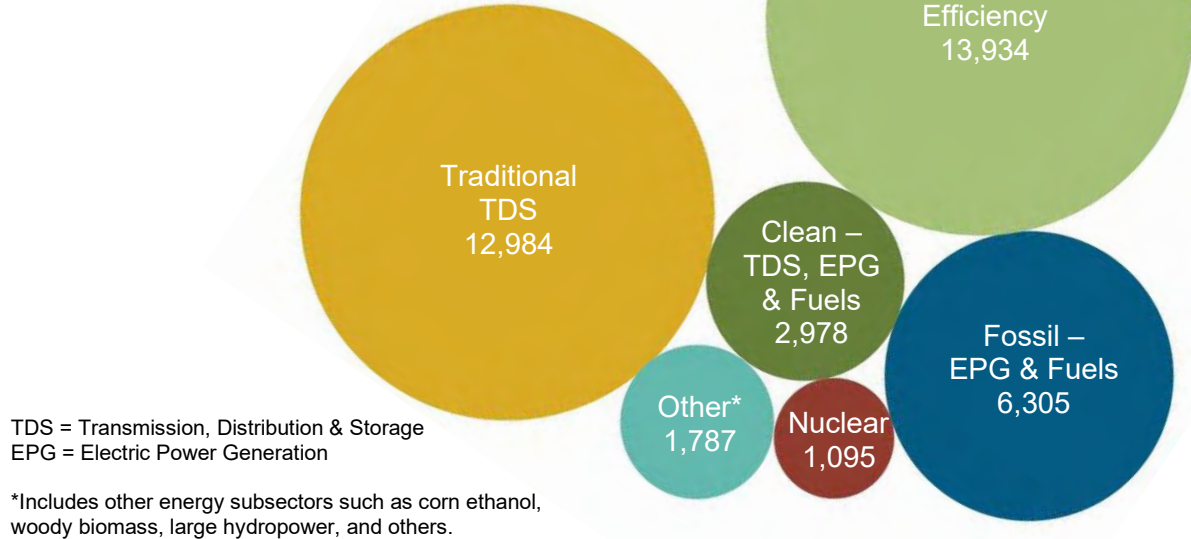
# Key EE Statistics for Arkansas

## What are energy efficiency (EE) jobs?

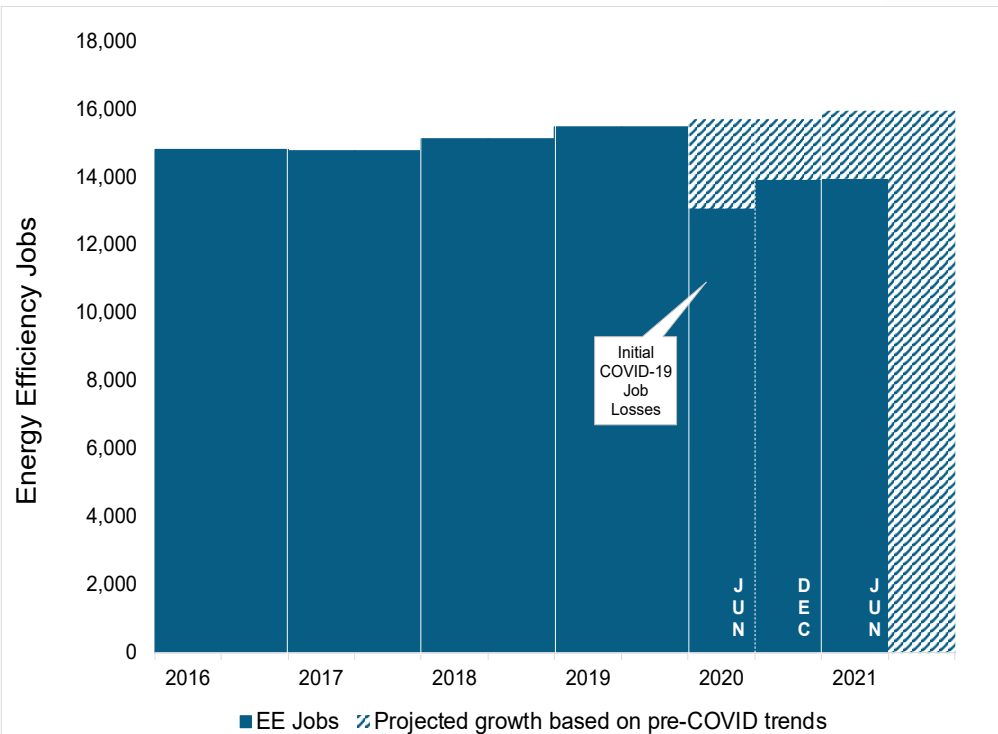
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Arkansas's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Arkansas.*



## How is the EE industry recovering?



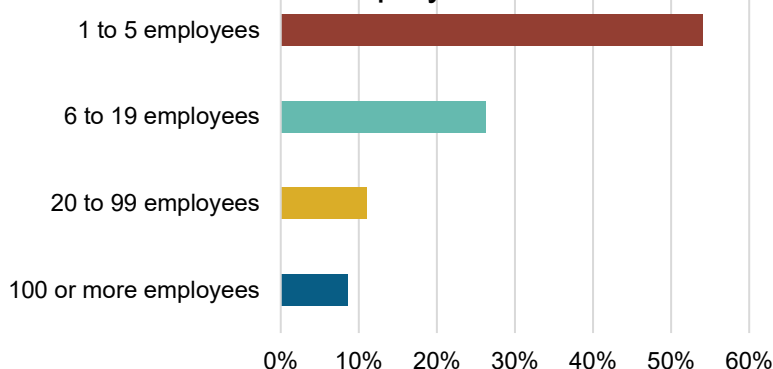
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Arkansas?

## 91.3% of AR EE Businesses Have Less Than 100 Employees



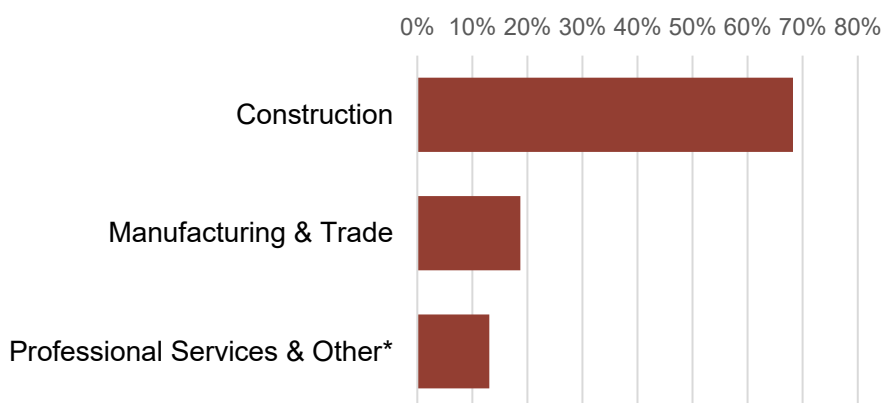
**3,101**  
EE businesses in  
Arkansas



EE construction  
workers comprise  
**17%** of Arkansas  
construction  
workers

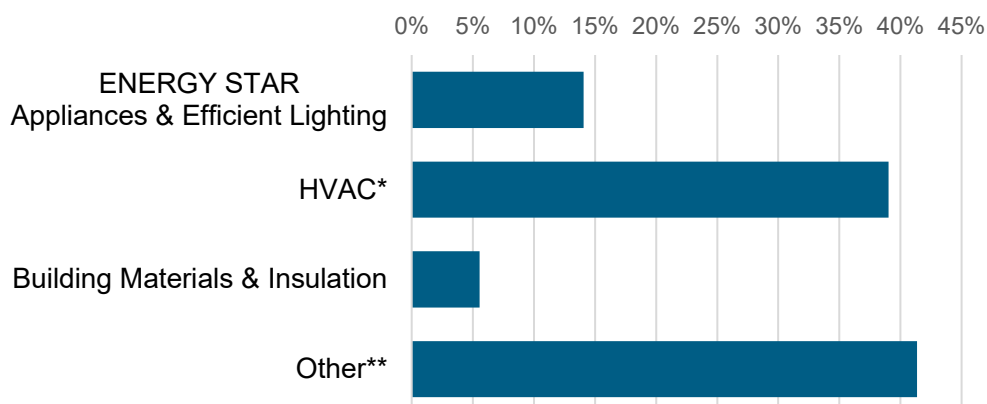


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services



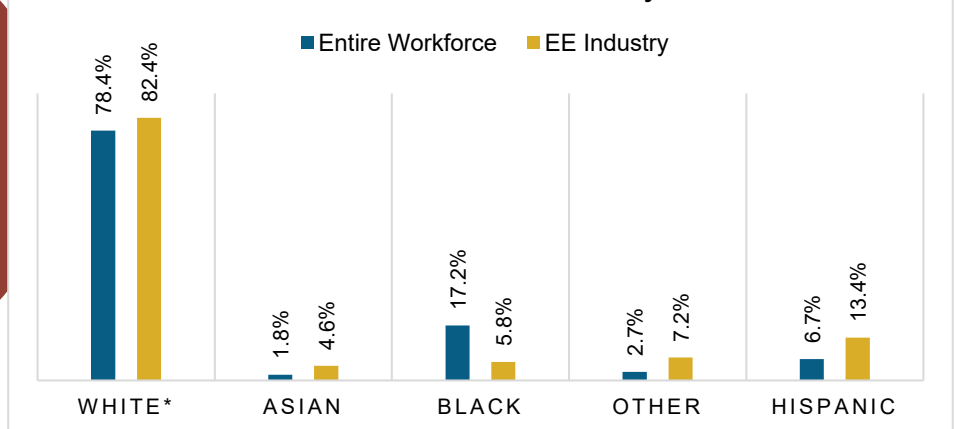
**9%** of  
Arkansas  
EE workers are  
**Veterans**

# How is EE doing on diversity in Arkansas?

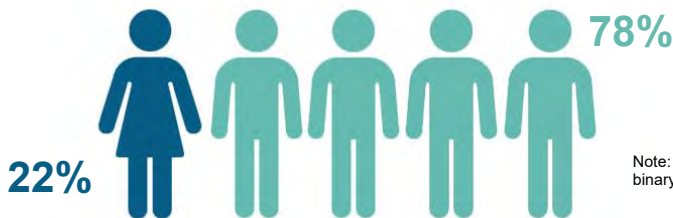
Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Arkansas communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

## Arkansas EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Arkansas's EE Potential

Decades of work, ready for Arkansas's growing energy efficiency workforce.

Weatherization Assistance Program:



**658\*** units weatherized in 2018, out of **~190,000** total low-income households

**859,078**

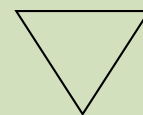
Arkansas homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**47%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	3,470	Fayetteville-Springdale-Rogers	2,457
2	4,071	Fort Smith	955
3	4,083	Hot Springs	560
4	2,309	Jonesboro	705
		Little Rock-North Little Rock-Conway	4,065
		Memphis	407
		Pine Bluff	328
		Texarkana	203
		Rural	4,255

AR State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	1,359		11	298		21	139		31	229
2	163		12	265		22	298		32	284
3	333		13	884		23	298		33	<5
4	566		14	106		24	269		34	117
5	423		15	1,179		25	490		35	<5
6	221		16	458		26	320			
7	<5		17	262		27	227			
8	706		18	443		28	134			
9	69		19	323		29	140			
10	341		20	713		30	1,875			

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	191	28	<5	55	<5	82	64
2	192	29	270	56	182	83	296
3	156	30	474	57	<5	84	314
4	69	31	159	58	<5	85	<5
5	65	32	120	59	<5	86	<5
6	230	33	1,071	60	88	87	<5
7	12	34	<5	61	153	88	<5
8	280	35	<5	62	88	89	<5
9	22	36	<5	63	<5	90	664
10	172	37	532	64	201	91	31
11	128	38	113	65	133	92	69
12	226	39	<5	66	34	93	260
13	289	40	379	67	<5	94	<5
14	493	41	<5	68	116	95	30
15	206	42	<5	69	85	96	<5
16	161	43	<5	70	<5	97	34
17	<5	44	47	71	125	98	7
18	317	45	15	72	<5	99	68
19	16	46	<5	73	57	100	15
20	70	47	113	74	79		
21	257	48	143	75	221		
22	374	49	90	76	307		
23	73	50	195	77	278		
24	<5	51	<5	78	<5		
25	<5	52	337	79	<5		
26	<5	53	583	80	494		
27	27	54	199	81	570		



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# California

## Energy Efficiency Jobs in America

June 2021\*

285,641

Dec 2020

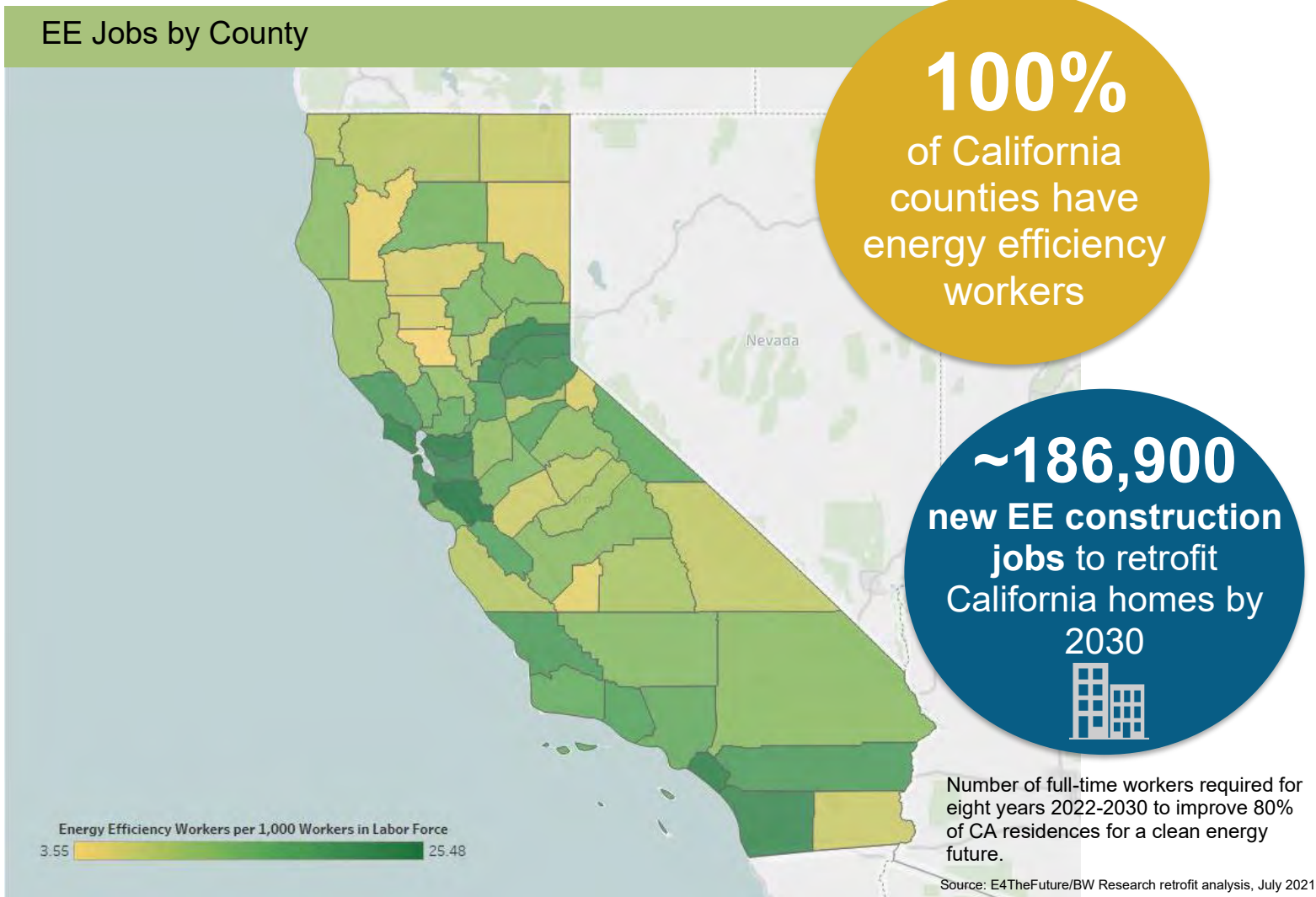
283,839

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In California, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



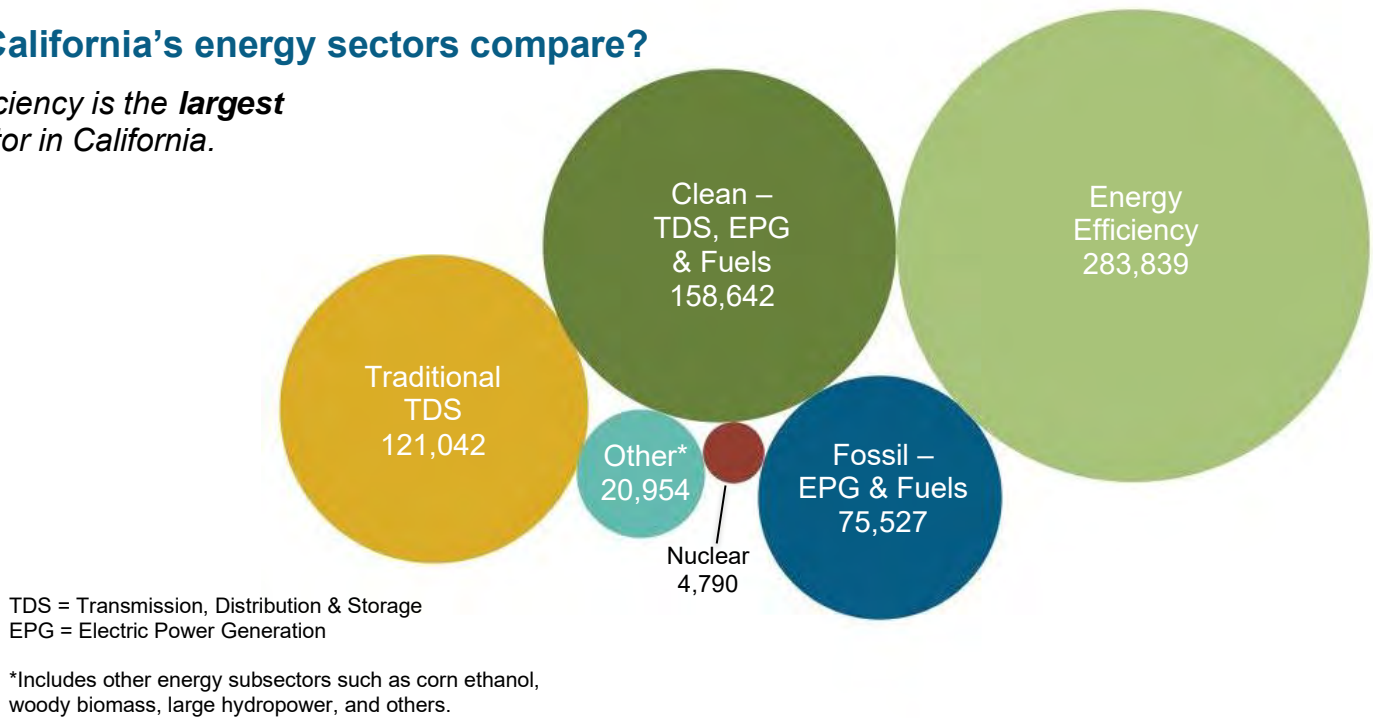
# Key EE Statistics for California

## What are energy efficiency (EE) jobs?

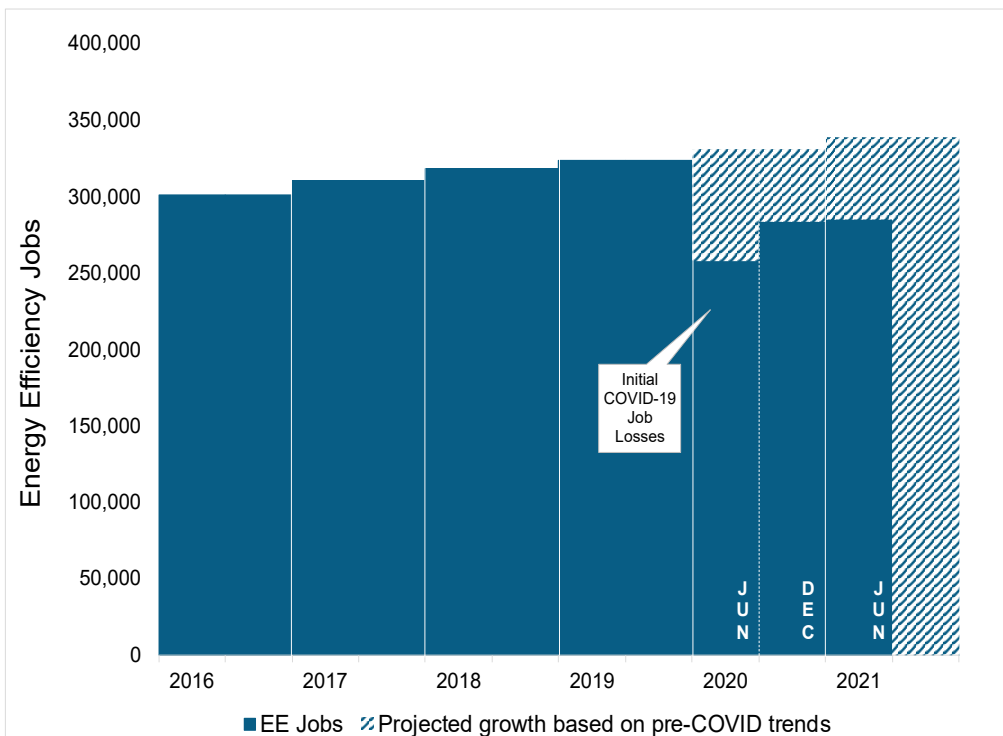
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do California's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in California.*



## How is the EE industry recovering?



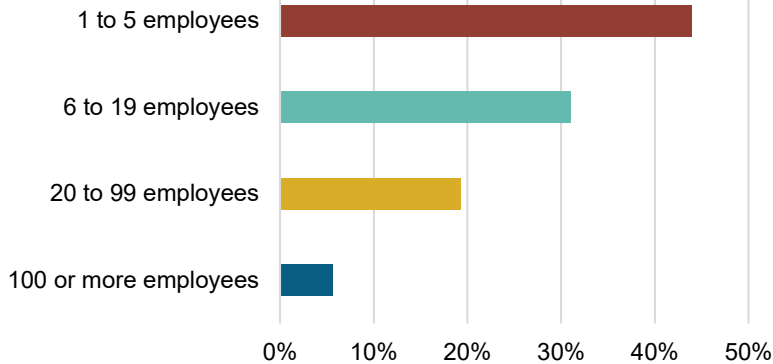
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in California?

## 94.3% of CA EE Businesses Have Less Than 100 Employees



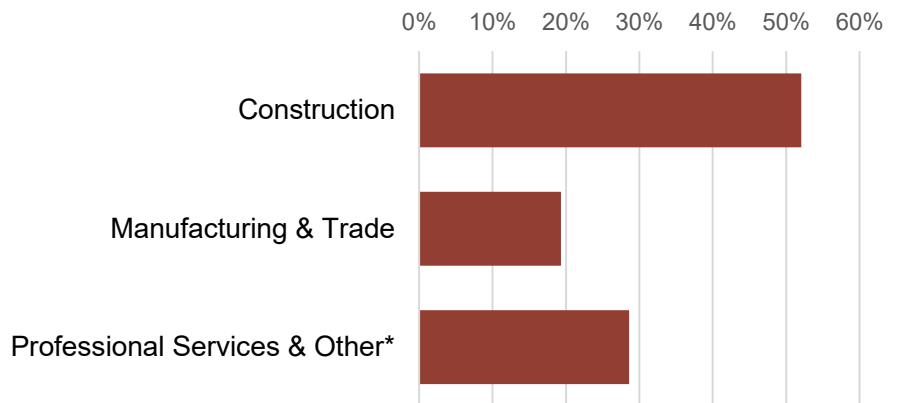
**53,387**  
EE businesses in California



EE construction workers comprise **17%** of California construction workers

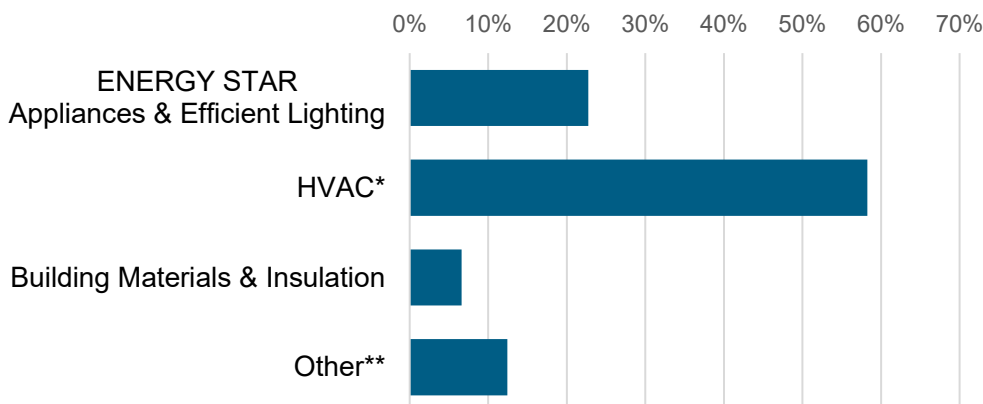


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services

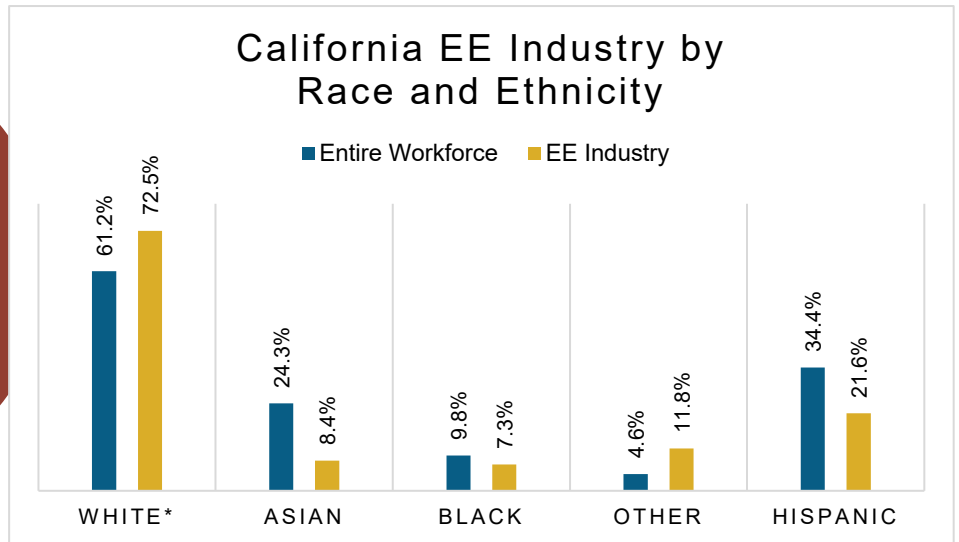


**8%** of California EE workers are **Veterans**

# How is EE doing on diversity in California?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all California communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## California's EE Potential

Decades of work ready, for California's growing energy efficiency workforce.

Weatherization Assistance Program:



**10,518\*** units weatherized in 2018, out of **~1,600,000** total low-income households

**10,534,406**

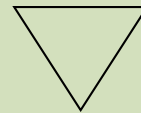
California homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**21%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional				Metropolitan Areas	
District	Jobs	District	Jobs	Area	Jobs
1	7,238	28	7,090	Bakersfield	4,350
2	10,675	29	2,172	Chico	1,803
3	5,799	30	4,990	El Centro	658
4	6,775	31	2,163	Fresno	5,535
5	3,934	32	3,377	Hanford-Corcoran	364
6	5,535	33	9,866	Los Angeles-Long Beach-Santa Ana	83,858
7	3,087	34	4,573	Madera	614
8	3,866	35	4,449	Merced	748
9	4,111	36	4,853	Modesto	2,582
10	3,319	37	3,376	Napa	1,306
11	9,811	38	3,707	Oxnard-Thousand Oaks-Ventura	5,488
12	17,245	39	6,245	Redding	1,513
13	7,700	40	2,431	Riverside-San Bernardino-Ontario	21,278
14	5,897	41	5,096	Sacramento-Arden-Arcade-Roseville	17,346
15	5,395	42	3,136	Salinas	2,538
16	4,400	43	3,028	San Diego-Carlsbad-San Marcos	31,220
17	9,362	44	1,555	San Francisco-Oakland-Fremont	53,393
18	5,982	45	11,993	San Jose-Sunnyvale-Santa Clara	17,492
19	2,626	46	2,507	San Luis Obispo-Paso Robles	5,235
20	3,104	47	4,242	Santa Barbara-Santa Maria-Goleta	4,713
21	3,449	48	4,779	Santa Cruz-Watsonville	2,362
22	2,360	49	10,264	Santa Rosa-Petaluma	5,769
23	3,273	50	4,130	Stockton	3,352
24	9,957	51	4,875	Vallejo-Fairfield	1,721
25	4,059	52	8,979	Visalia-Porterville	1,717
26	3,039	53	1,442	Yuba City	701
27	6,526			Rural	6,182

CA State Senate							
District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	11,144	11	17,934	21	3,415	31	3,520
2	9,623	12	3,553	22	5,711	32	3,499
3	10,523	13	8,234	23	4,140	33	5,184
4	4,796	14	5,145	24	7,421	34	7,891
5	5,153	15	4,892	25	4,177	35	3,430
6	5,713	16	3,794	26	10,279	36	10,985
7	6,984	17	9,461	27	6,661	37	8,715
8	7,017	18	7,141	28	6,260	38	8,853
9	10,416	19	7,119	29	6,915	39	11,695
10	12,895	20	6,590	30	4,602	40	2,362



## State Assembly

District	Jobs		District	Jobs		District	Jobs
1	5,709		31	980		61	2,649
2	4,404		32	1,715		62	2,153
3	1,778		33	2,484		63	2,724
4	6,330		34	1,785		64	1,943
5	3,141		35	6,431		65	3,392
6	5,747		36	2,088		66	1,720
7	6,746		37	6,390		67	2,504
8	1,082		38	4,050		68	7,693
9	908		39	2,277		69	2,540
10	4,364		40	2,592		70	2,114
11	1,896		41	4,520		71	4,138
12	3,390		42	4,077		72	2,170
13	1,624		43	3,146		73	3,470
14	6,865		44	1,876		74	4,665
15	5,703		45	5,004		75	3,754
16	2,387		46	1,762		76	3,167
17	17,325		47	1,123		77	11,700
18	4,827		48	2,217		78	6,951
19	1,643		49	1,679		79	1,446
20	4,651		50	8,070		80	71
21	1,055		51	2,441			
22	4,513		52	3,926			
23	4,680		53	2,947			
24	5,560		54	2,517			
25	8,269		55	3,470			
26	2,598		56	822			
27	1,440		57	2,621			
28	2,592		58	707			
29	4,323		59	410			
30	1,495		60	1,703			



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



E2 is a national, nonpartisan group of business leaders, investors and other professionals from every sector of the economy who advocate for smart policies that are good for the environment and good for the economy. Visit [www.e2.org](http://www.e2.org)



BW Research Partnership is a full-service, economic and workforce research consulting firm with offices in Carlsbad, California and Wrentham, Massachusetts. It is the nation's leading provider of accurate, comprehensive energy and clean energy research studies. Visit [www.bwresearch.com](http://www.bwresearch.com)

Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

For questions on E4TheFuture analyses please email: [policy@e4thefuture.org](mailto:policy@e4thefuture.org).

# Colorado

## Energy Efficiency Jobs in America

June 2021\*

32,792

Dec 2020

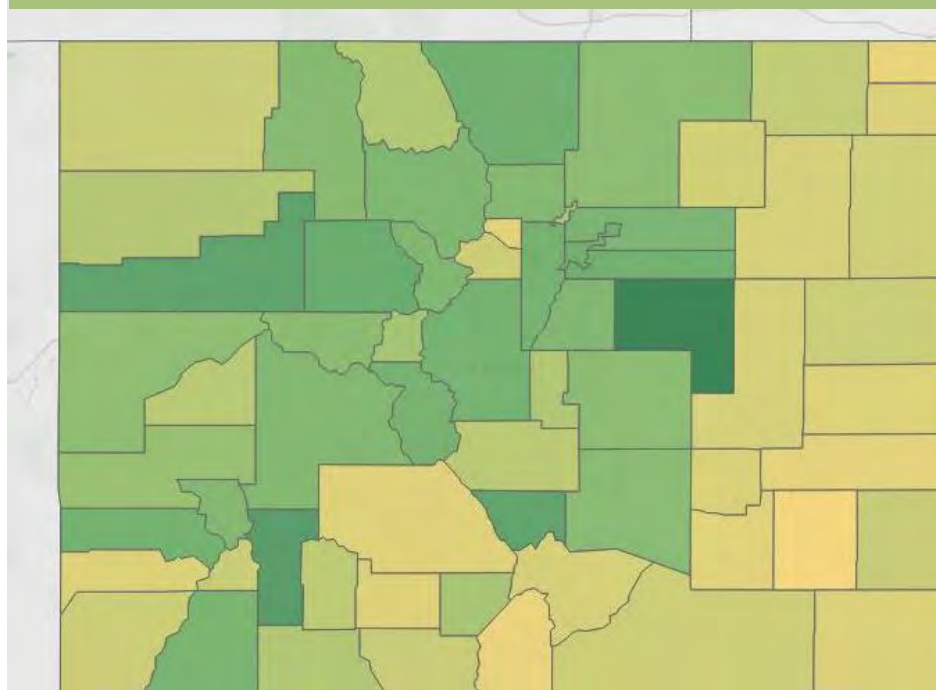
32,595

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Colorado, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



Energy Efficiency Workers per 1,000 Workers in Labor Force  
1.34 25.79

**100%**  
of Colorado  
counties have  
energy efficiency  
workers

**~25,800**  
new EE construction  
jobs to retrofit  
Colorado homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of CO residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



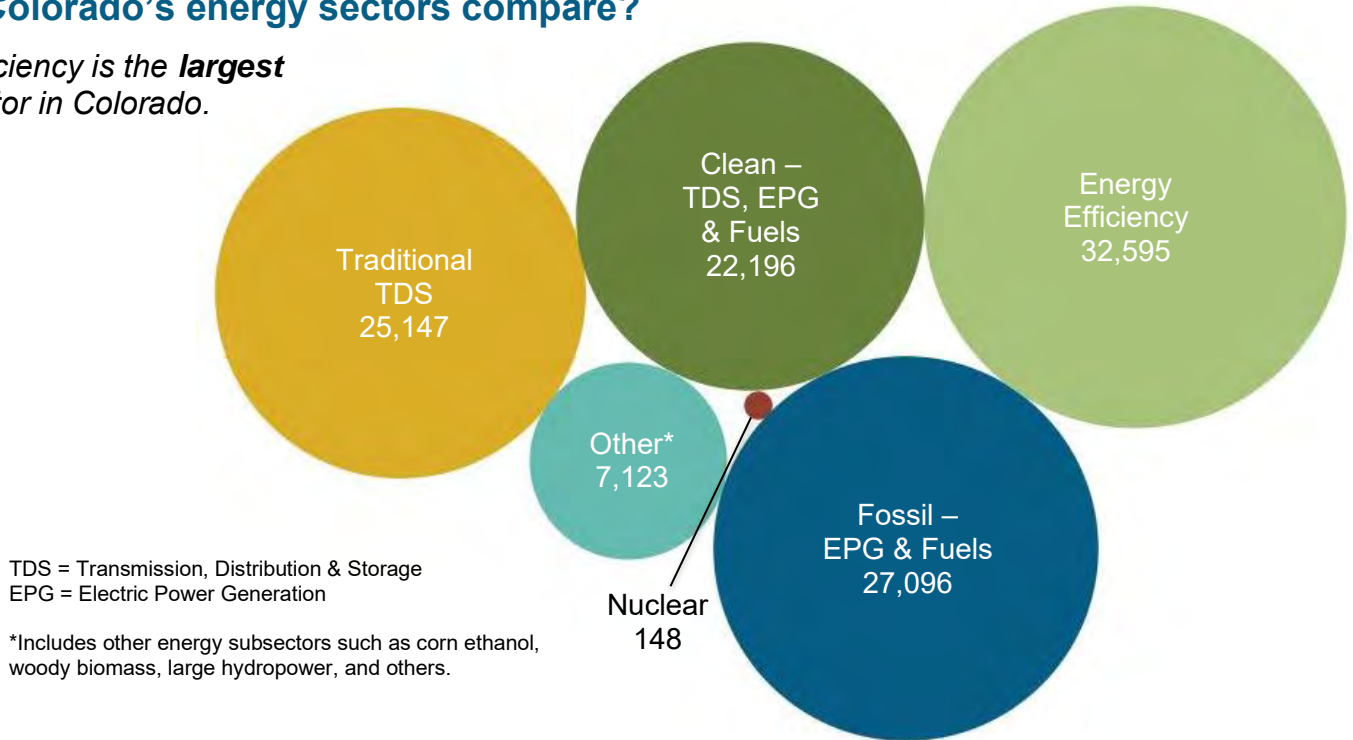
# Key EE Statistics for Colorado

## What are energy efficiency (EE) jobs?

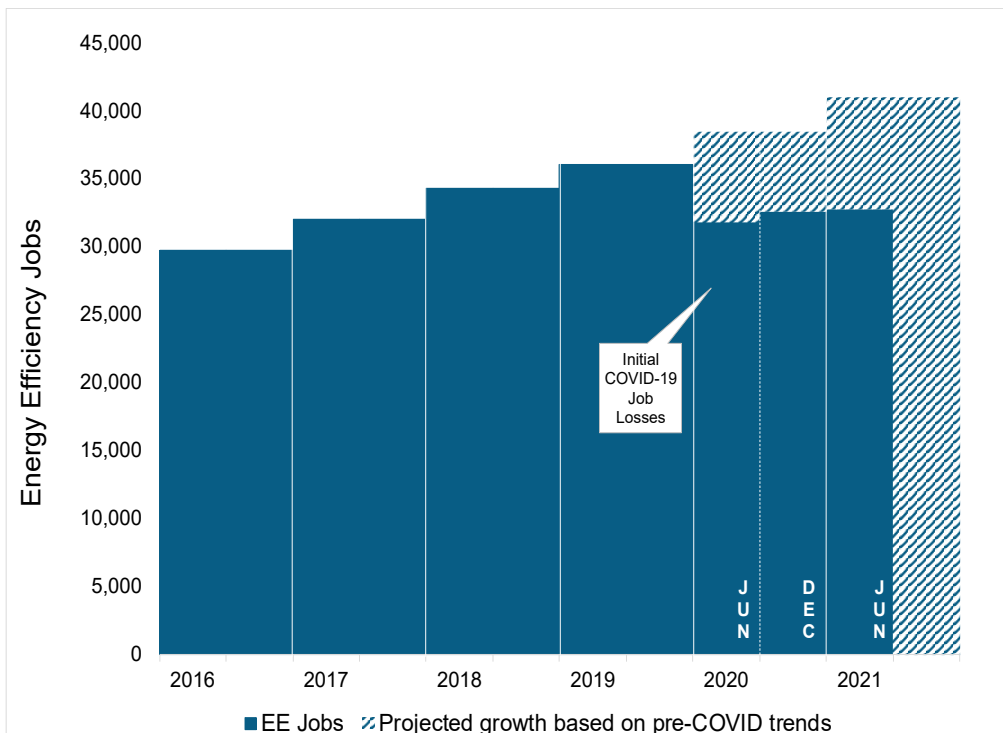
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Colorado's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Colorado.*



## How is the EE industry recovering?



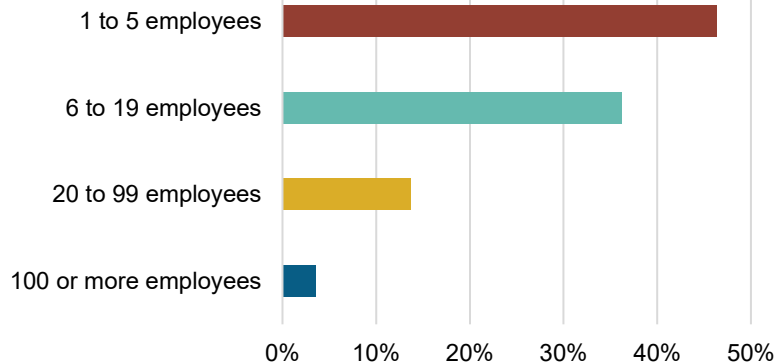
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Colorado?

## 96.3% of CO EE Businesses Have Less Than 100 Employees



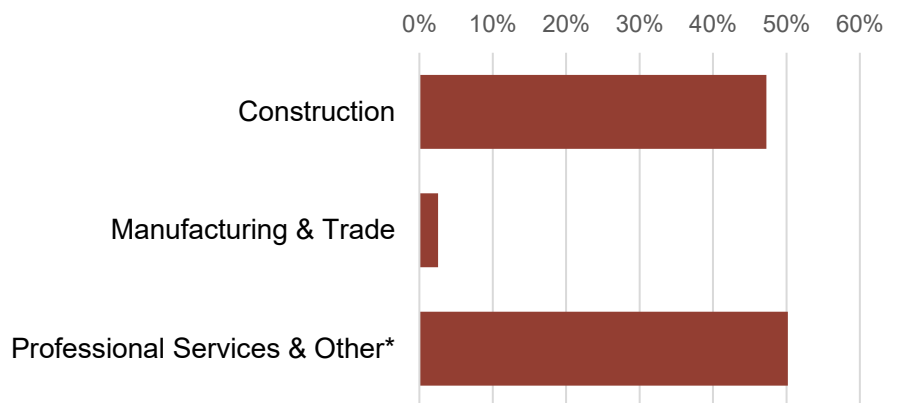
**6,677**  
EE businesses in  
Colorado



EE construction  
workers comprise  
**9%** of Colorado  
construction  
workers

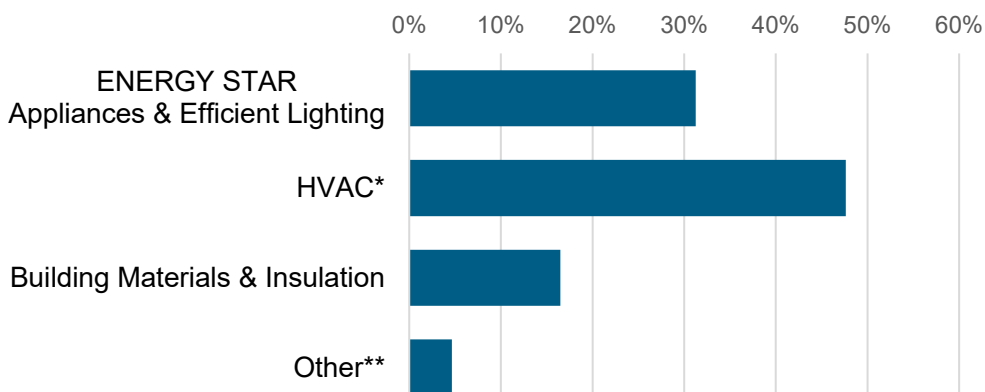


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services

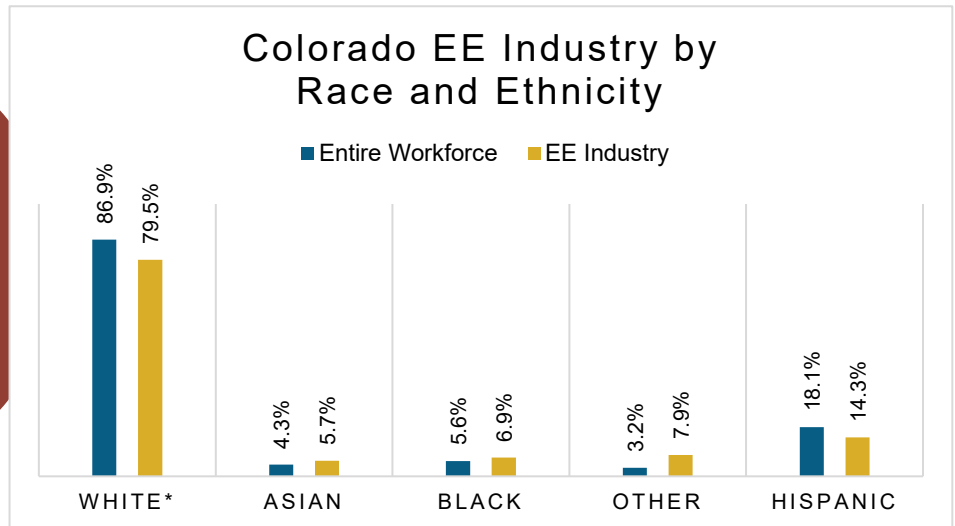


**7%** of  
Colorado  
EE workers are  
**Veterans**

## How is EE doing on diversity in Colorado?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Colorado communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Colorado's EE Potential

Decades of work, ready for Colorado's growing energy efficiency workforce.

Weatherization Assistance Program:



**1,218\*** units weatherized in 2018, out of **~210,000** total low-income households

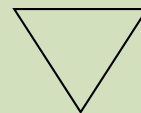
**1,607,898** Colorado homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**24%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	10,218	Boulder	3,526
2	8,731	Colorado Springs	2,706
3	4,138	Denver-Aurora	17,516
4	4,154	Fort Collins-Loveland	2,011
5	2,893	Grand Junction	724
6	1,012	Greeley	1,148
7	1,448	Pueblo	505
		Rural	4,460

CO State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	1,735		11	656		21	1,778		31	1,838
2	989		12	22		22	<5		32	1,025
3	451		13	409		23	106		33	564
4	1,729		14	642		24	153		34	2,895
5	1,446		15	1,165		25	287		35	395
6	950		16	3,079		26	1,914			
7	732		17	1,836		27	<5			
8	1,095		18	1,083		28	113			
9	1,184		19	1,152		29	84			
10	246	20	599	30	240					



State House of Representatives							
District	Jobs		District	Jobs		District	Jobs
1	1,195		28	<5		55	<5
2	1,523		29	155		56	115
3	2,129		30	1,166		57	400
4	1,057		31	44		58	430
5	2,708		32	52		59	726
6	1,124		33	231		60	189
7	848		34	22		61	758
8	<5		35	<5		62	191
9	286		36	218		63	99
10	2,713		37	<5		64	289
11	472		38	258		65	224
12	780		39	1,158			
13	464		40	<5			
14	613		41	<5			
15	378		42	<5			
16	535		43	<5			
17	753		44	<5			
18	133		45	<5			
19	231		46	362			
20	14		47	251			
21	7		48	1,506			
22	281		49	1,216			
23	1,309		50	56			
24	582		51	<5			
25	163		52	<5			
26	863		53	<5			
27	510		54	807			

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# Connecticut

## Energy Efficiency Jobs in America

June 2021\*

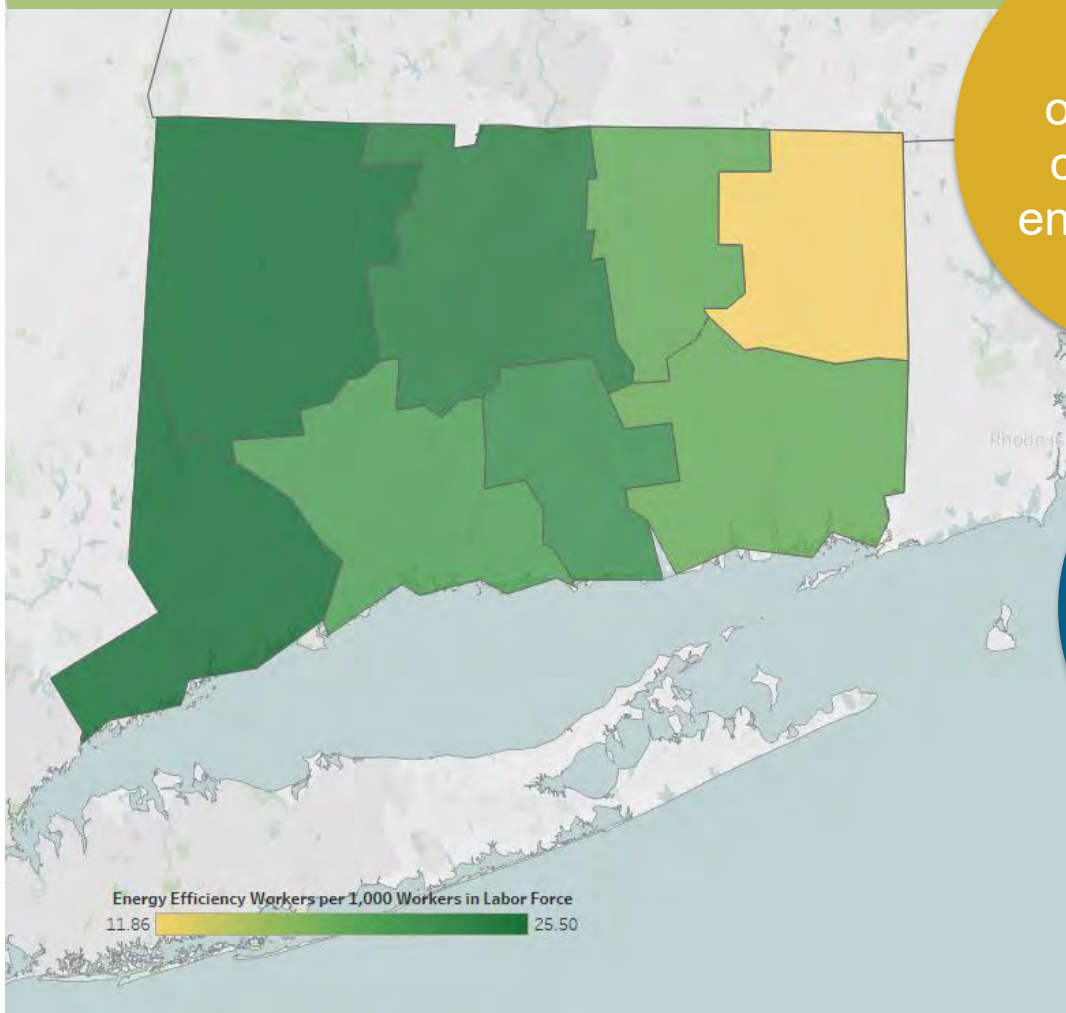
33,797  
Dec 2020  
33,573

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Connecticut, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Connecticut  
counties have  
energy efficiency  
workers

**~18,600**  
new EE construction  
jobs to retrofit  
Connecticut homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of CT residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



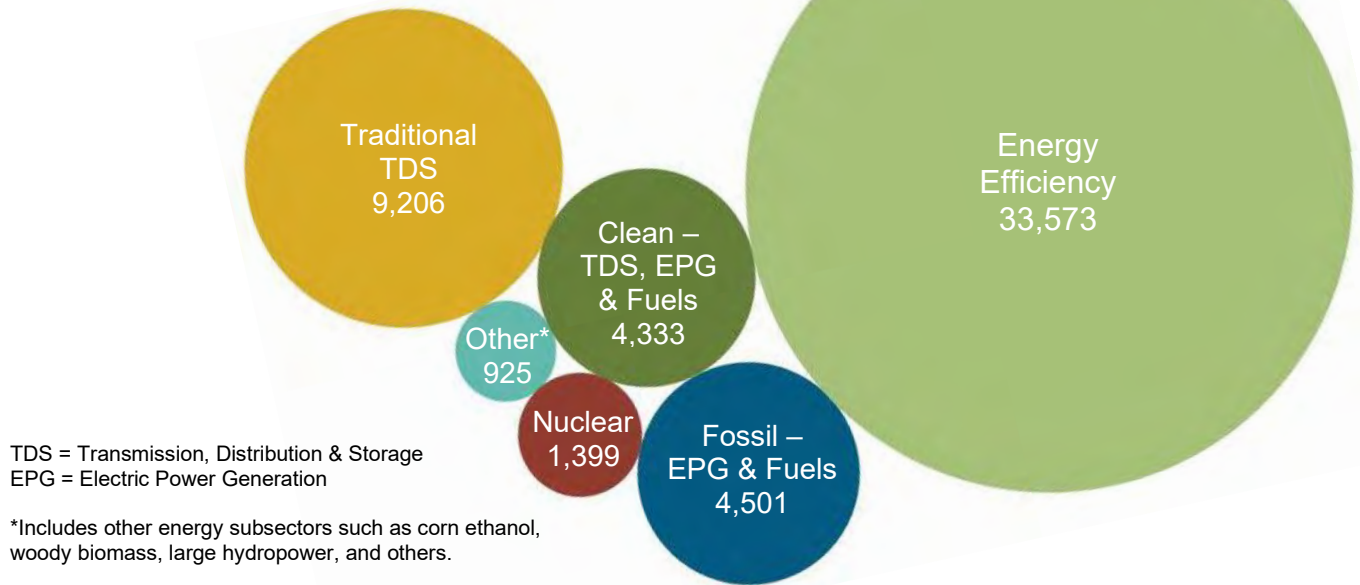
# Key EE Statistics for Connecticut

## What are energy efficiency (EE) jobs?

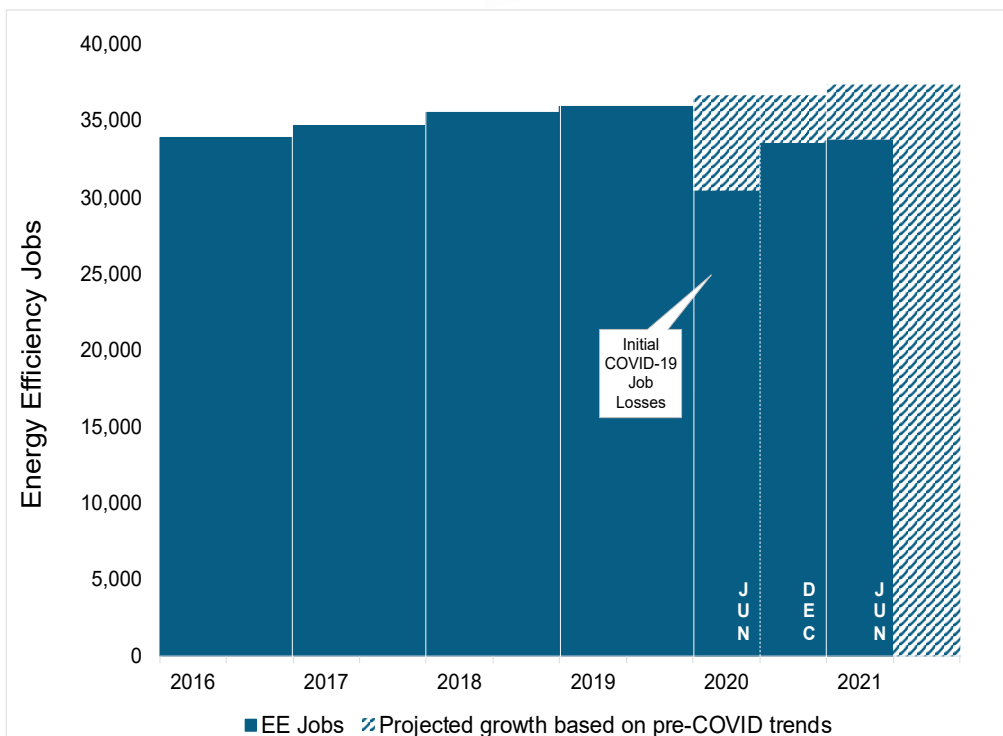
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Connecticut's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Connecticut.*



## How is the EE industry recovering?



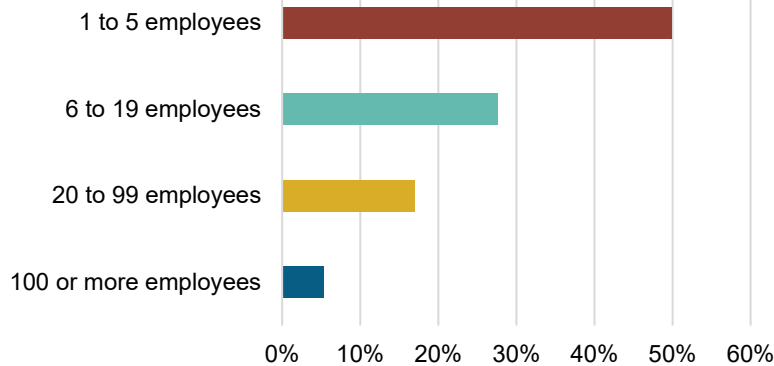
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in Connecticut?

### 94.6% of CT EE Businesses Have Less Than 100 Employees



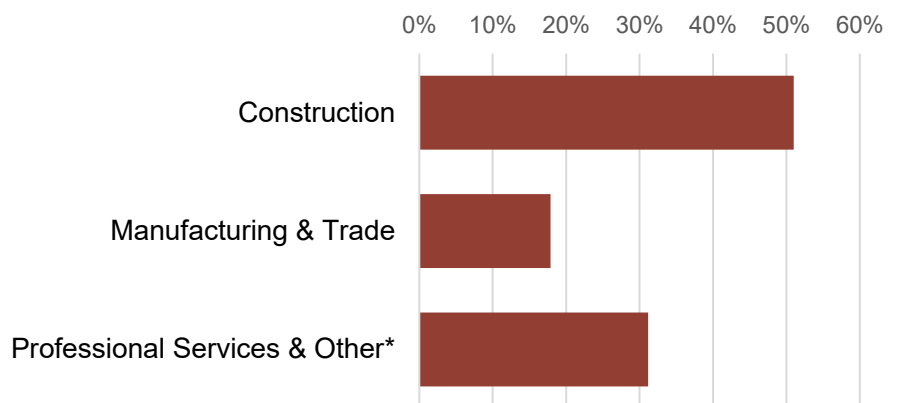
**7,007**  
EE businesses in  
Connecticut



EE construction workers comprise  
**29%** of Connecticut  
construction workers

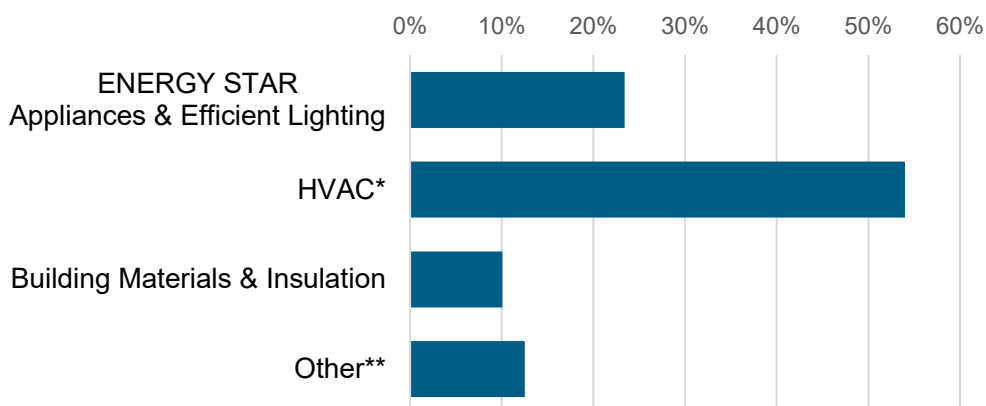


### What type of work do energy efficiency firms do?



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### What energy efficiency sectors employ the most workers?



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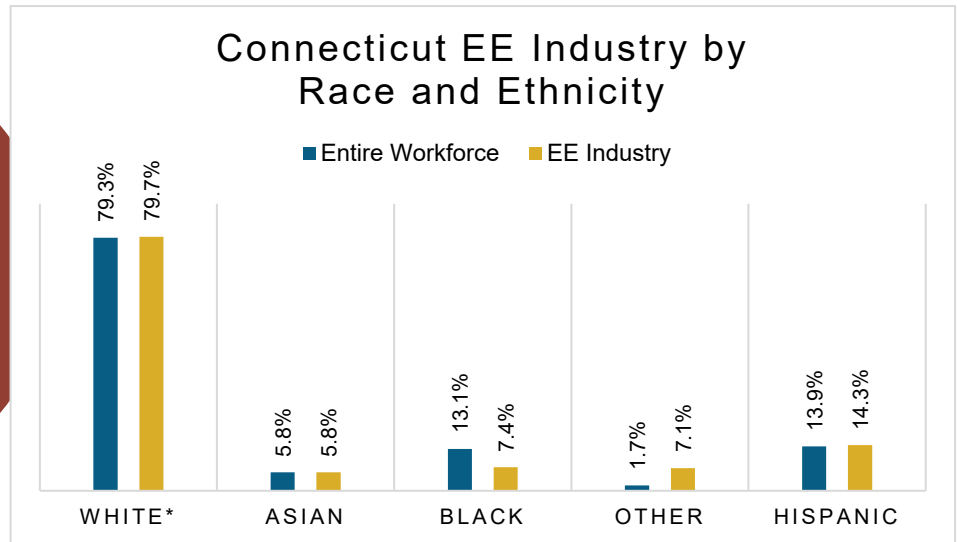


**7%** of  
Connecticut  
EE workers are  
**Veterans**

## How is EE doing on diversity in Connecticut?

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The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Connecticut's EE Potential

Decades of work, ready for Connecticut's growing energy efficiency workforce.

Weatherization Assistance Program:



**42\*** units weatherized in 2018, out of **~140,000** total low-income households

**1,229,619**

Connecticut homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**16%**

\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	8,771	Bridgeport-Stamford-Norwalk	11,296
2	4,812	Hartford-West Hartford-East Hartford	11,433
3	6,539	New Haven-Milford	6,556
4	8,518	Norwich-New London	1,896
5	4,933	Rural	2,392

CT State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	1,838		11	1,060		21	1,492		31	692
2	742		12	934		22	603		32	722
3	1,260		13	1,046		23	66		33	845
4	935		14	897		24	1,724		34	<5
5	1,045		15	870		25	2,043		35	332
6	443		16	541		26	1,254		36	1,205
7	703		17	243		27	2,181			
8	1,049		18	778		28	1,086			
9	1,369		19	628		29	428			
10	1,082		20	970		30	464			



## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	194	32	184	63	530	94	<5	125	595
2	1,514	33	573	64	231	95	129	126	153
3	470	34	264	65	<5	96	<5	127	<5
4	962	35	190	66	415	97	97	128	127
5	194	36	384	67	258	98	334	129	<5
6	<5	37	112	68	177	99	<5	130	<5
7	59	38	464	69	251	100	<5	131	152
8	347	39	<5	70	186	101	197	132	731
9	915	40	331	71	118	102	<5	133	<5
10	<5	41	<5	72	272	103	<5	134	696
11	445	42	221	73	142	104	165	135	118
12	<5	43	112	74	<5	105	129	136	<5
13	448	44	162	75	<5	106	87	137	1,014
14	<5	45	37	76	81	107	244	138	<5
15	463	46	267	77	373	108	84	139	23
16	413	47	195	78	76	109	<5	140	<5
17	170	48	104	79	<5	110	<5	141	349
18	407	49	26	80	91	111	485	142	<5
19	338	50	205	81	86	112	202	143	<5
20	<5	51	93	82	255	113	426	144	1,529
21	75	52	104	83	<5	114	260	145	642
22	226	53	15	84	<5	115	190	146	<5
23	415	54	<5	85	931	116	<5	147	<5
24	425	55	152	86	347	117	535	148	<5
25	<5	56	<5	87	<5	118	142	149	1,000
26	<5	57	257	88	375	119	<5	150	194
27	<5	58	237	89	436	120	408	151	<5
28	188	59	<5	90	<5	121	60		
29	487	60	100	91	<5	122	280		
30	490	61	229	92	542	123	<5		
31	32	62	202	93	343	124	380		



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



E2 is a national, nonpartisan group of business leaders, investors, and other professionals from every sector of the economy who advocate for smart policies that are good for the environment and good for the economy. Visit [www.e2.org](http://www.e2.org)



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# Delaware

## Energy Efficiency Jobs in America

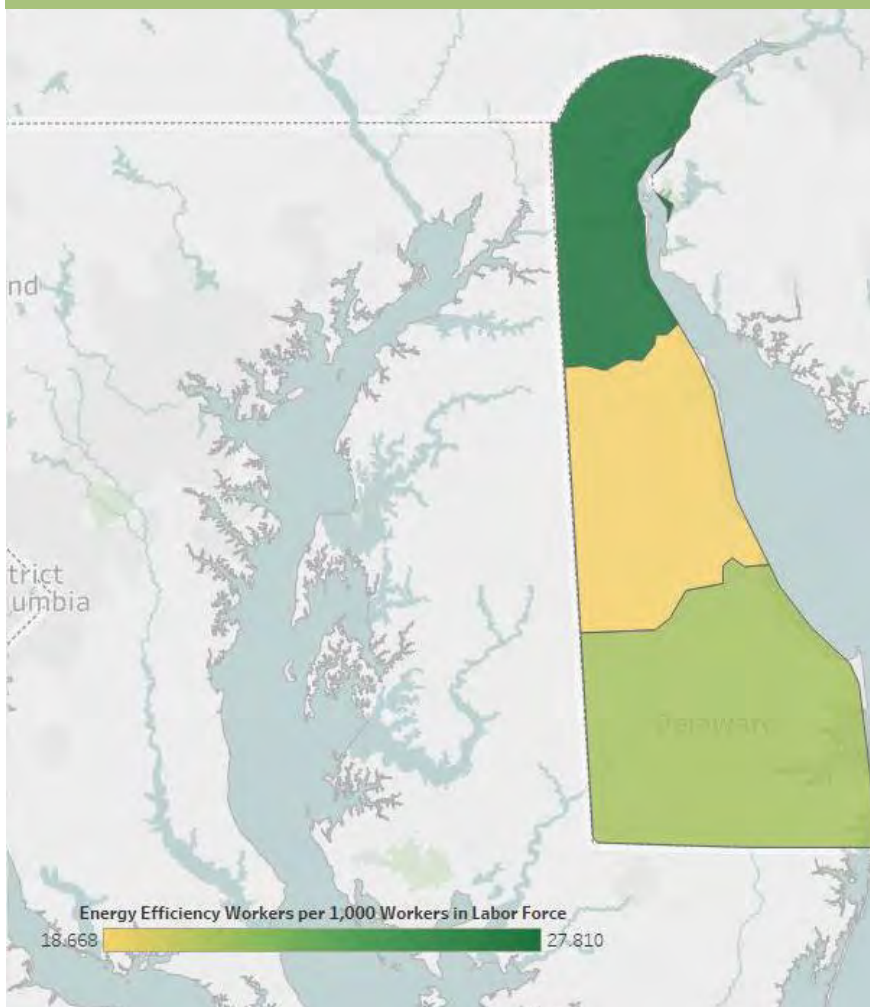


*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Delaware, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



**100%**  
of Delaware  
counties have  
energy efficiency  
workers

**~4,000**  
new EE construction  
jobs to retrofit  
Delaware homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of DE residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



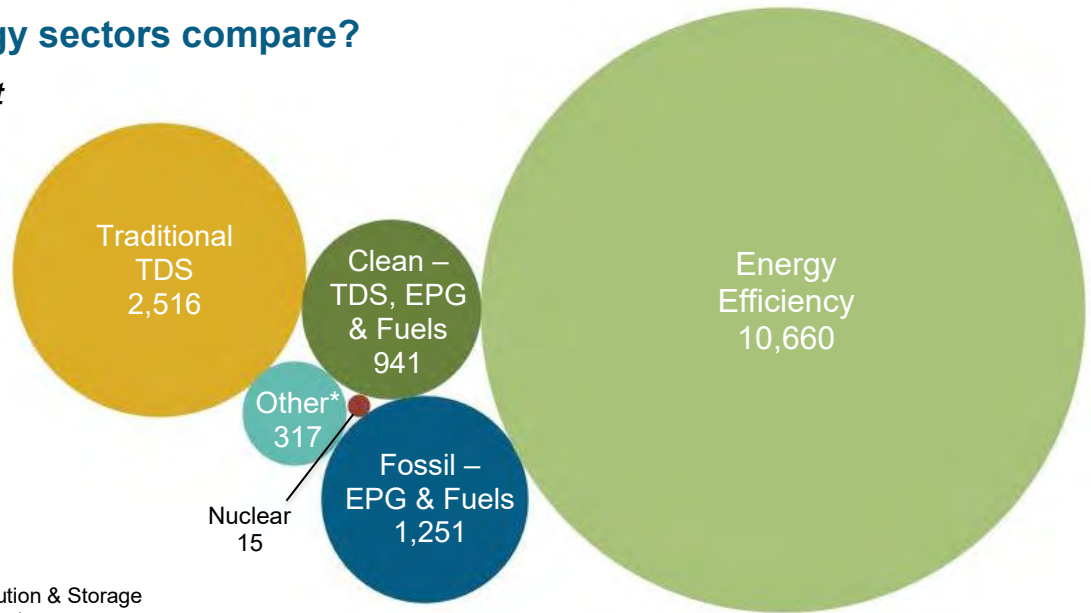
# Key EE Statistics for Delaware

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Delaware's energy sectors compare?

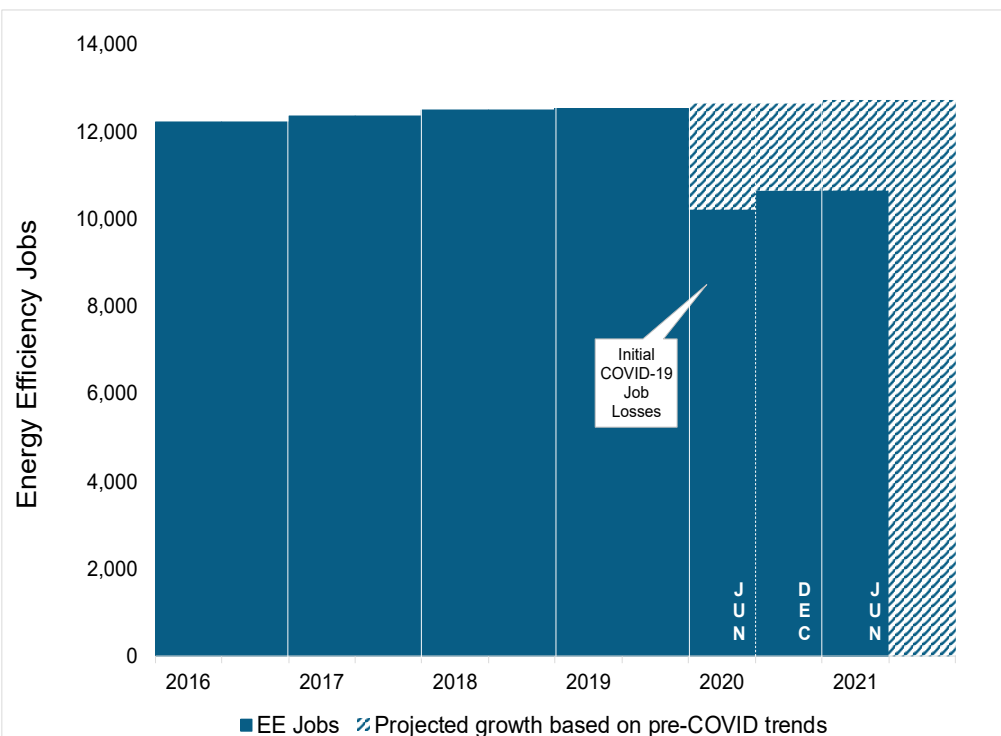
*Energy Efficiency is the **largest** energy sector in Delaware.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



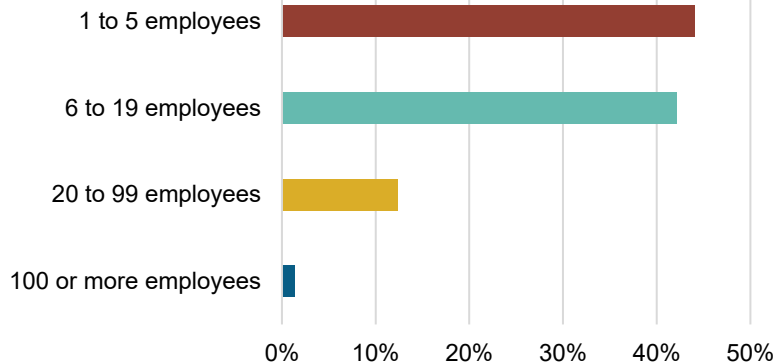
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



## What does EE look like in Delaware?

### 98.5% of DE EE Businesses Have Less Than 100 Employees



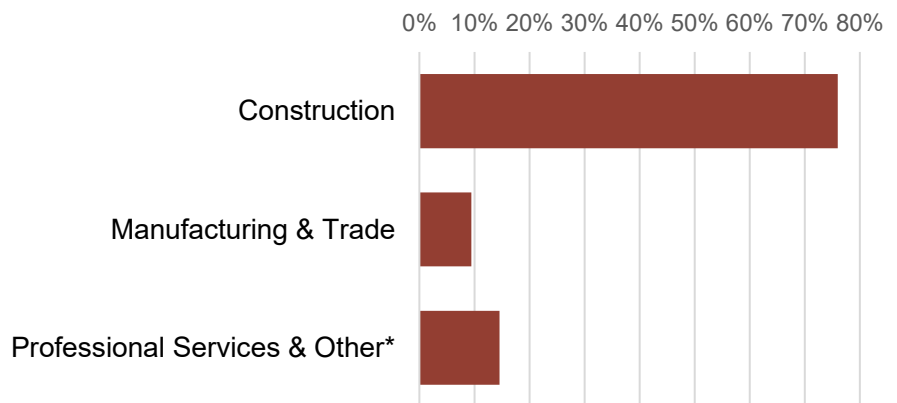
**1,849**  
EE businesses in Delaware



EE construction workers comprise **34%** of Delaware construction workers

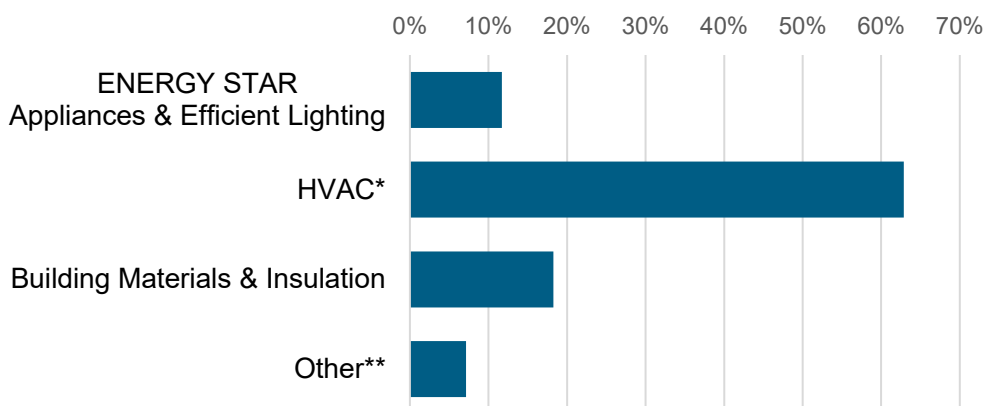


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services

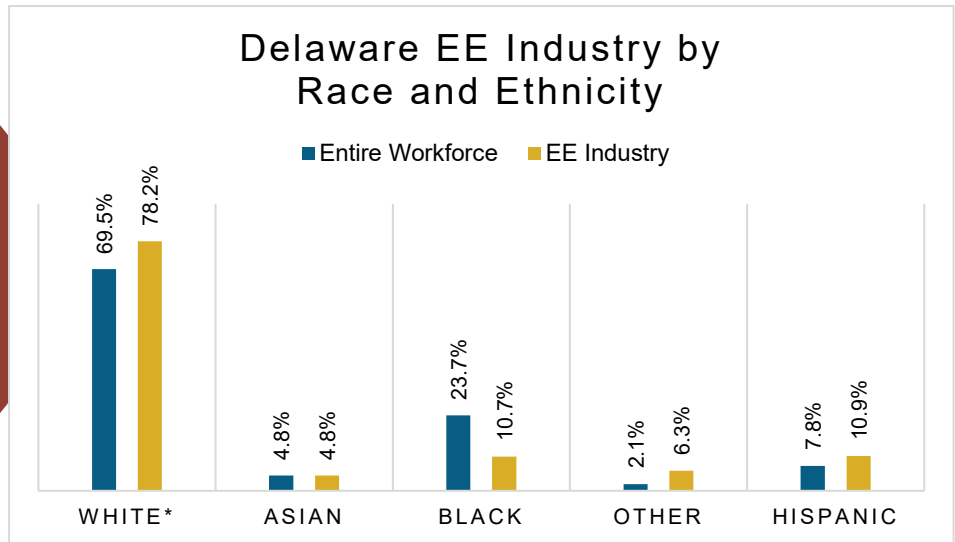


**10%** of Delaware EE workers are **Veterans**

## How is EE doing on diversity in Delaware?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Delaware communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Delaware's EE Potential

Decades of work, ready for Delaware's growing energy efficiency workforce.

Weatherization Assistance Program:

**195\*** units weatherized in 2018, out of **~44,000** total low-income households

**281,505**

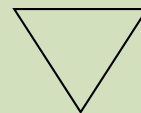
Delaware homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**45%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	10,660	Dover	1,227
		Philadelphia-Camden-Wilmington	6,800
		Rural	2,633

DE State Senate							
District	Jobs		District	Jobs		District	Jobs
1	1,353		11	<5		21	197
2	1,611		12	52			
3	466		13	<5			
4	1,097		14	686			
5	214		15	709			
6	1,415		16	310			
7	<5		17	<5			
8	374		18	245			
9	464		19	279			
10	634		20	553			



State House of Representatives					
District	Jobs		District	Jobs	
1	772		28	361	
2	2,376		29	11	
3	154		30	550	
4	598		31	<5	
5	804		32	63	
6	313		33	<5	
7	<5		34	<5	
8	425		35	575	
9	187		36	<5	
10	<5		37	<5	
11	541		38	546	
12	6		39	<5	
13	<5		40	63	
14	715		41	<5	
15	51				
16	<5				
17	341				
18	<5				
19	<5				
20	705				
21	476				
22	<5				
23	28				
24	<5				
25	<5				
26	<5				
27	<5				



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# District of Columbia

## Energy Efficiency Jobs in America

June 2021\*

11,307

Dec 2020

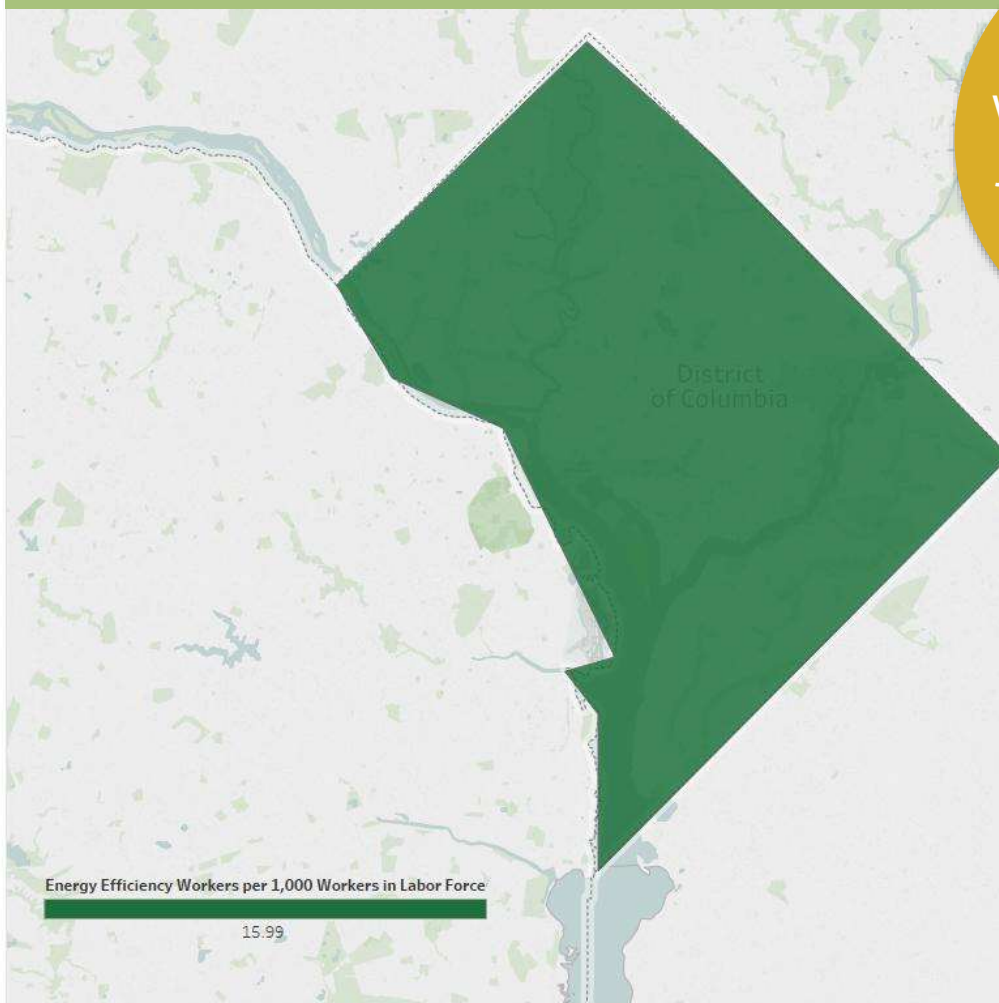
11,214

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by Location



Energy efficiency workers are on the job throughout the District.

**~2,200**  
**new EE construction jobs** to retrofit District of Columbia homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of DC residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



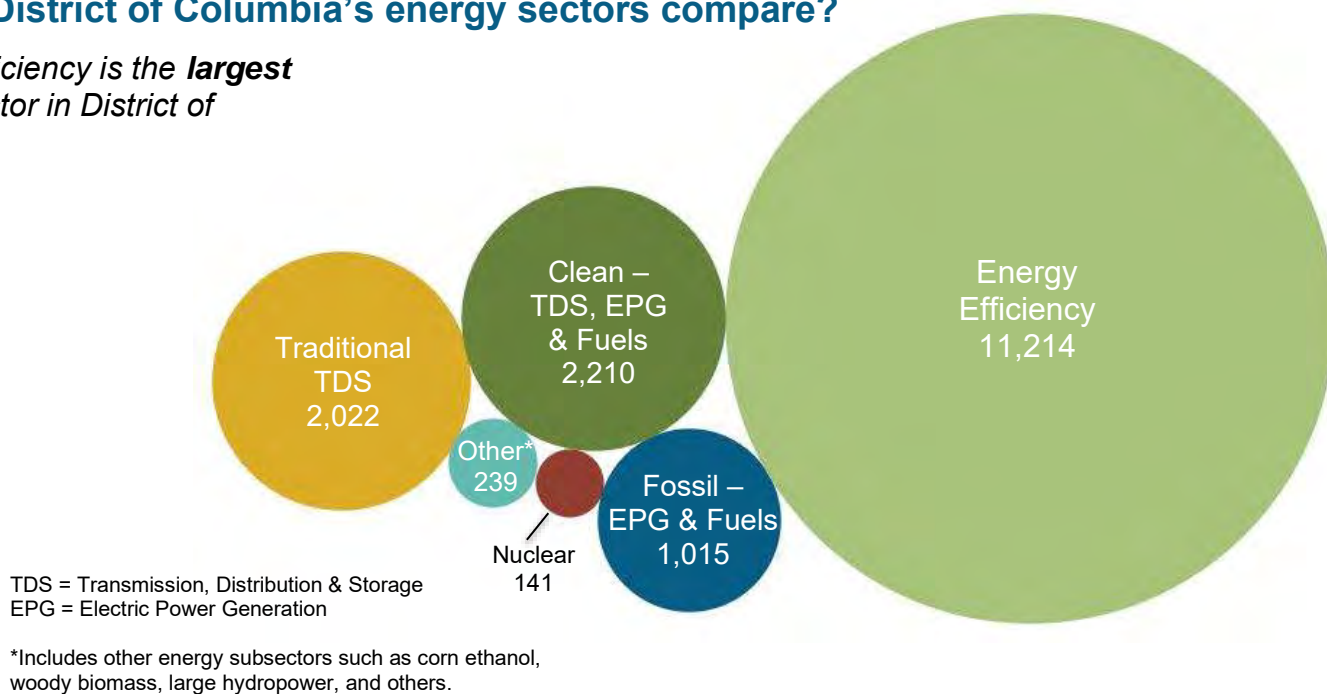
# Key EE Statistics for District of Columbia

## What are energy efficiency (EE) jobs?

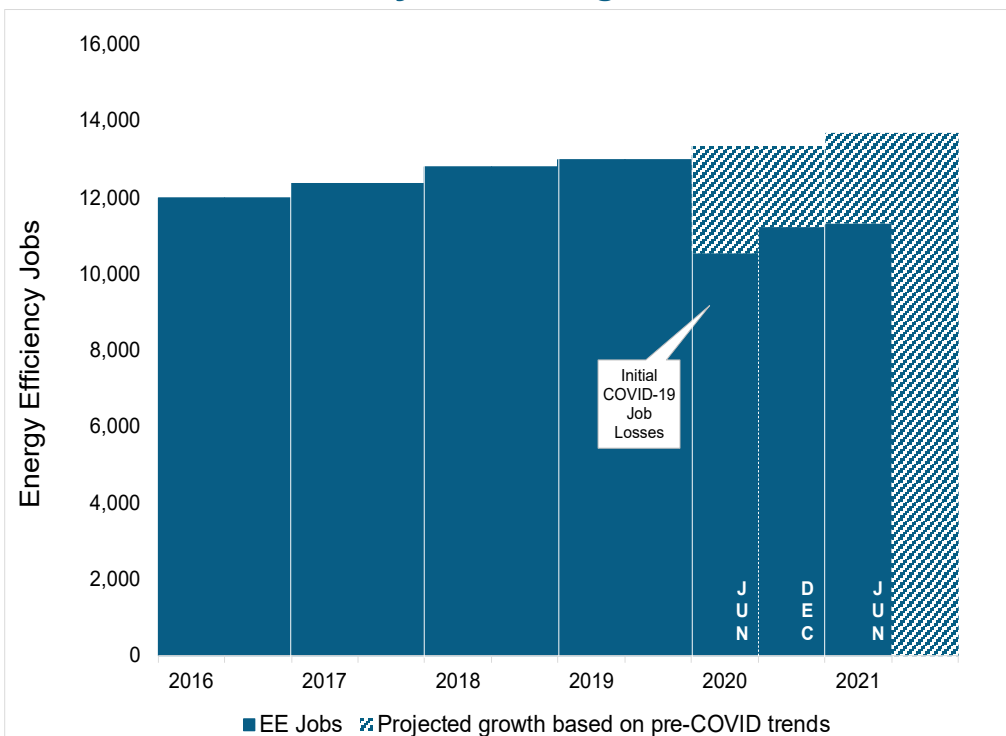
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do District of Columbia's energy sectors compare?

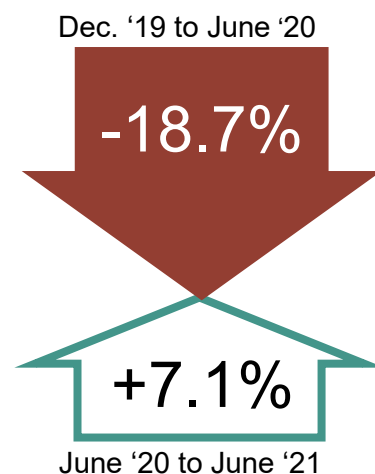
*Energy Efficiency is the **largest** energy sector in District of Columbia.*



## How is the EE industry recovering?



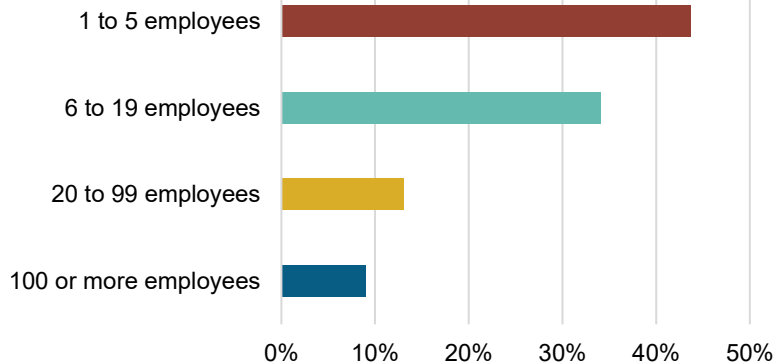
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in District of Columbia?

## 90.8% of DC EE Businesses Have Less Than 100 Employees



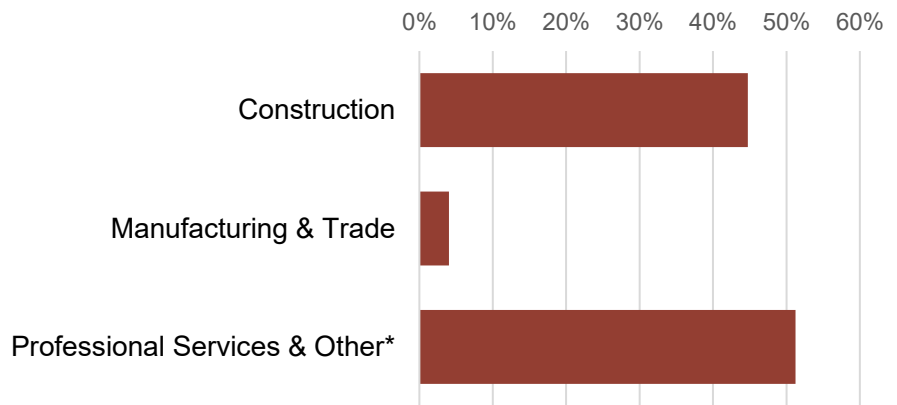
**2,684**  
EE businesses in  
District of Columbia



EE construction  
workers comprise  
**33%** of District of  
Columbia construction  
workers

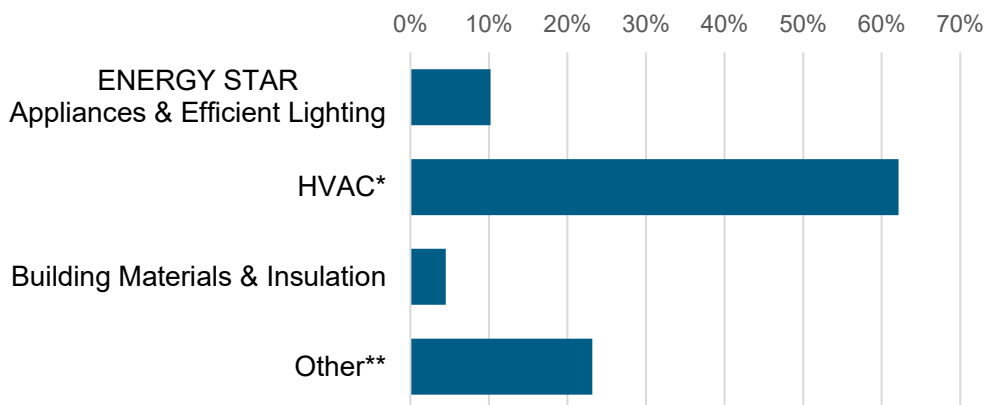


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services

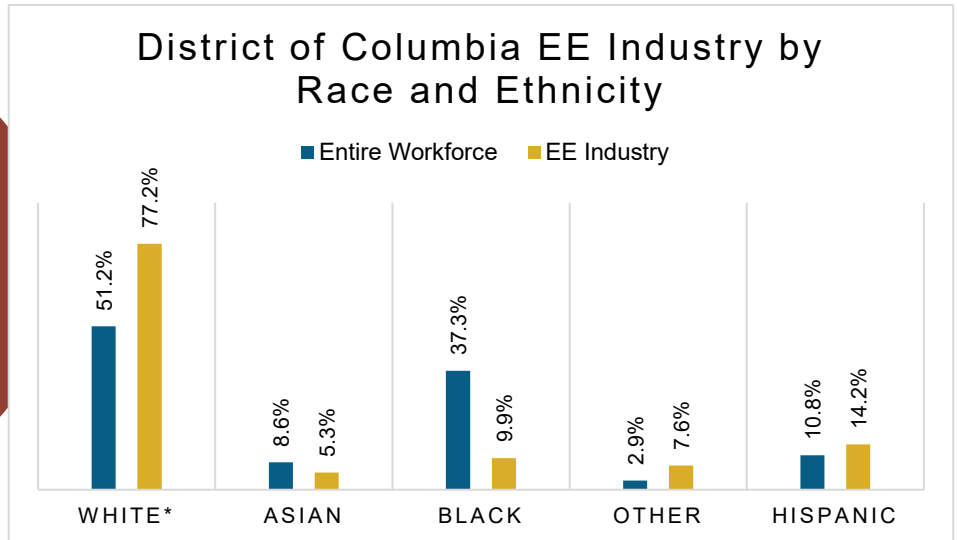


**6%** of  
District of  
Columbia  
EE workers are  
**Veterans**

# How is EE doing on diversity in District of Columbia?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all District of Columbia communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## District of Columbia's EE Potential

Decades of work, ready for District of Columbia's growing energy efficiency workforce.

Weatherization Assistance Program:



**201\*** units weatherized in 2018, out of **~42,000** total low-income households

**219,318**

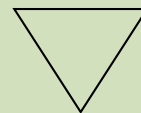
District of Columbia homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**34%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas		
District	Jobs		Area	Jobs
1	11,214		Washington-Arlington-Alexandria	11,214

DC State Upper House							
District	Jobs		District	Jobs		District	Jobs
1	2,110		4	136		7	286
2	7,513		5	254		8	103
3	404		6	407			



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# Florida

## Energy Efficiency Jobs in America

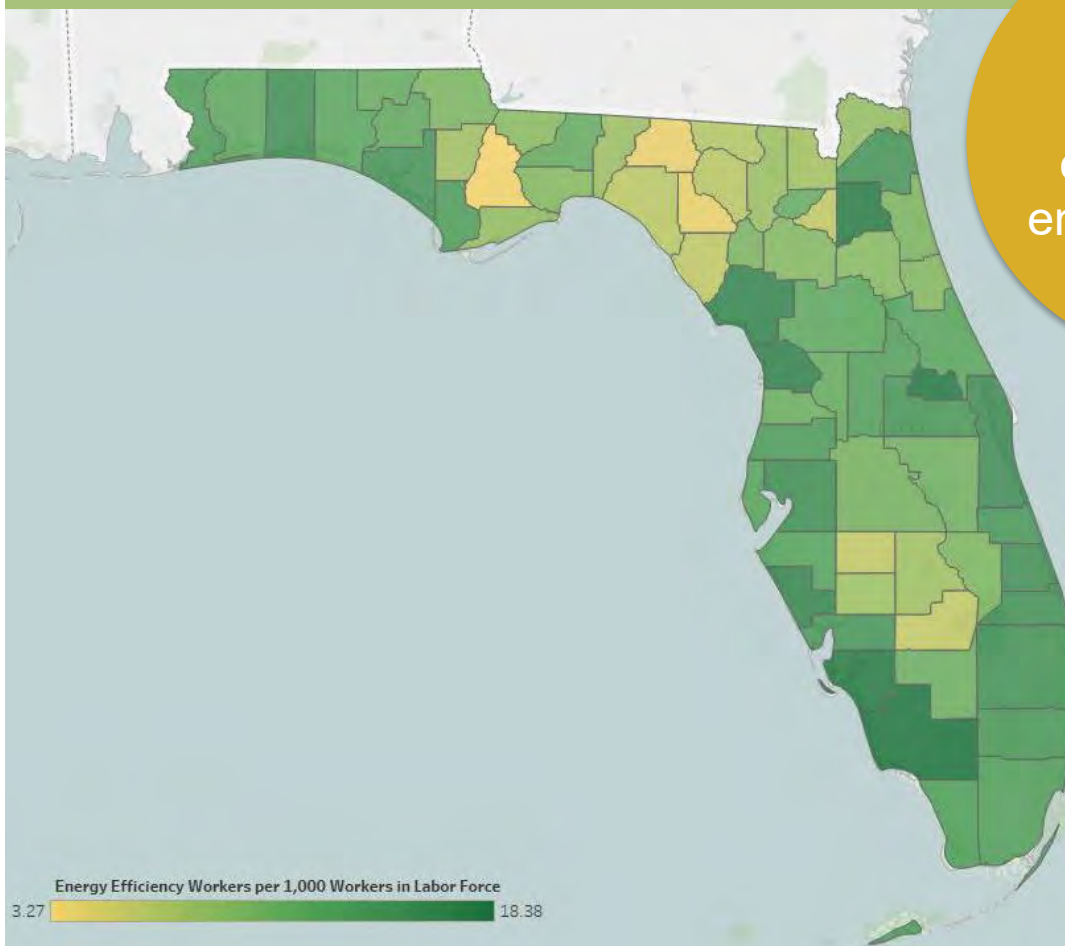


*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Florida, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



**100%**  
of Florida  
counties have  
energy efficiency  
workers

**~51,000**  
new EE construction  
jobs to retrofit Florida  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of FL residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



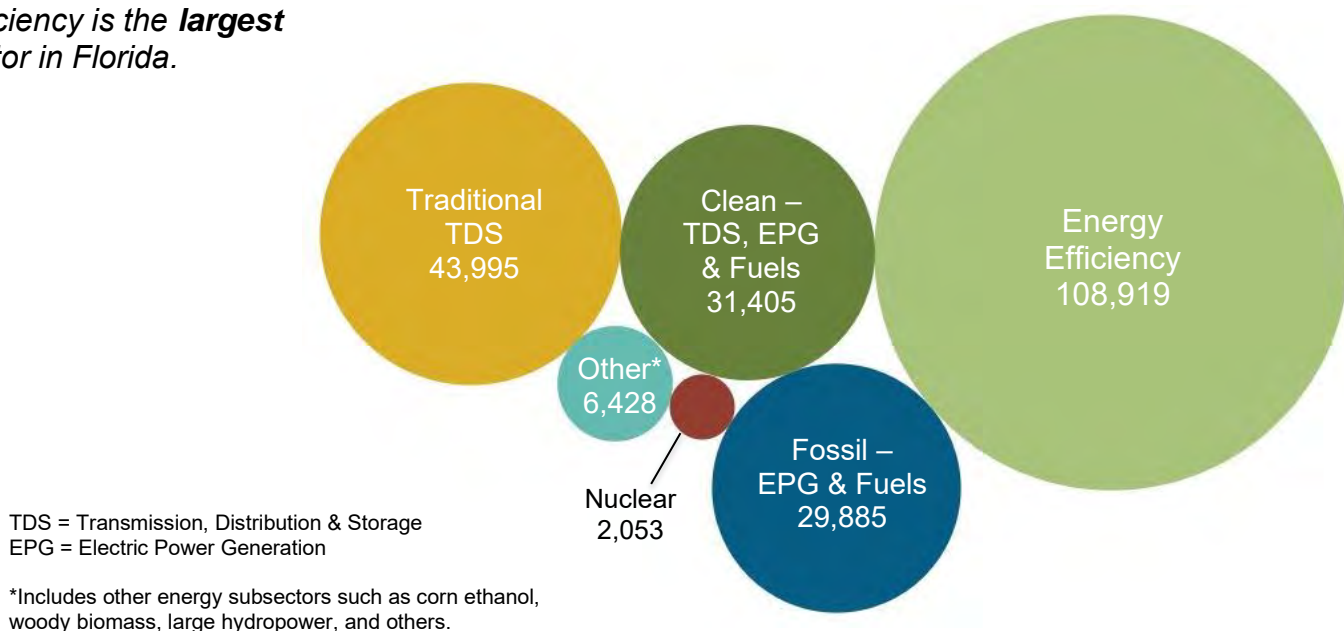
# Key EE Statistics for Florida

## What are energy efficiency (EE) jobs?

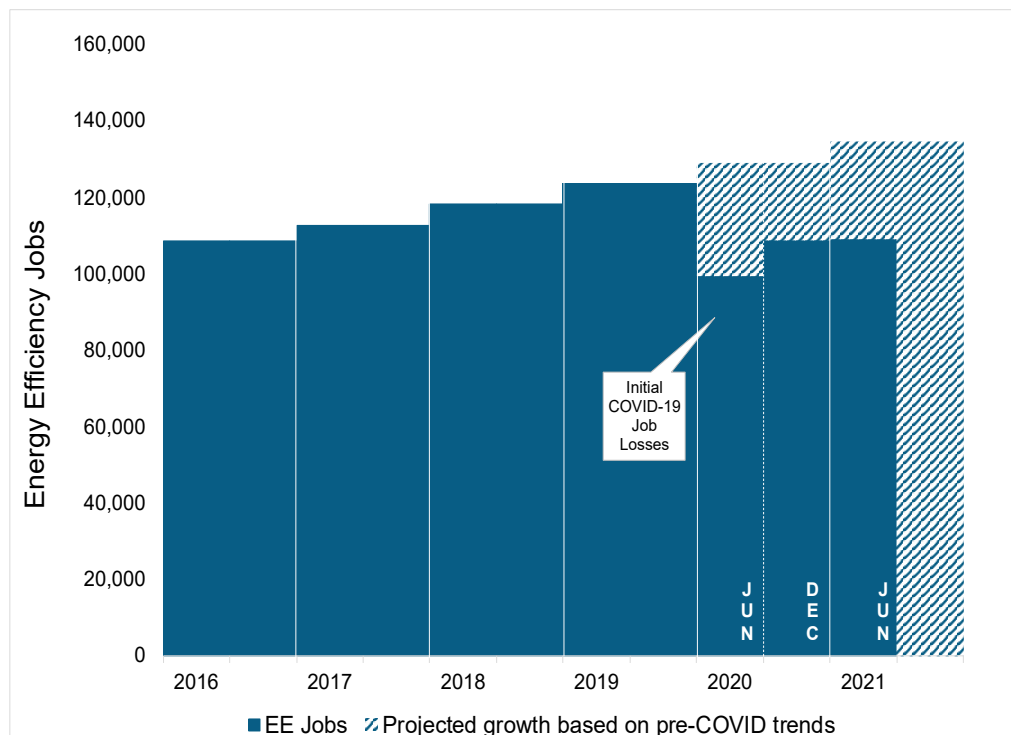
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Florida's energy sectors compare?

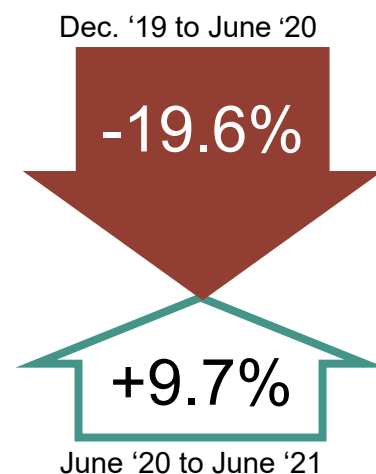
*Energy Efficiency is the **largest** energy sector in Florida.*



## How is the EE industry recovering?



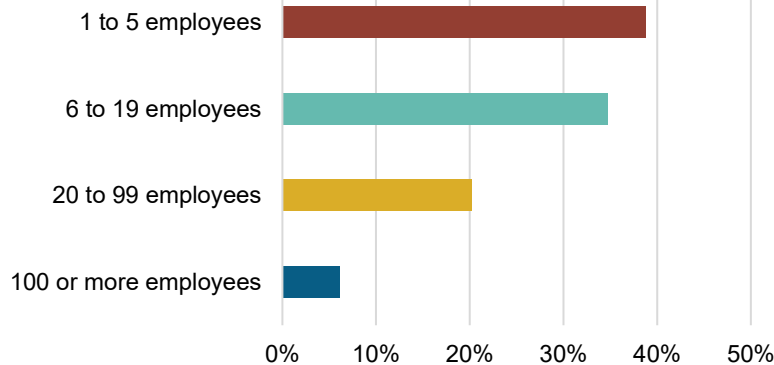
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Florida?

## 93.8% of FL EE Businesses Have Less Than 100 Employees



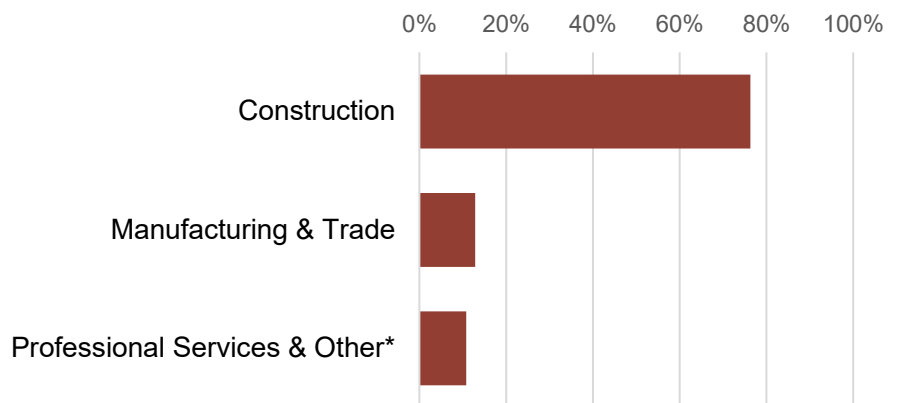
**15,739**  
EE businesses in  
Florida



EE construction  
workers comprise  
**14%** of Florida  
construction  
workers

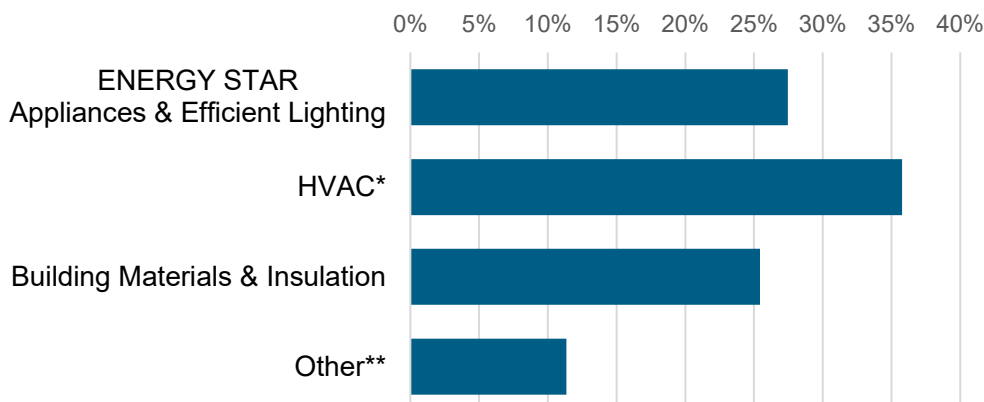


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

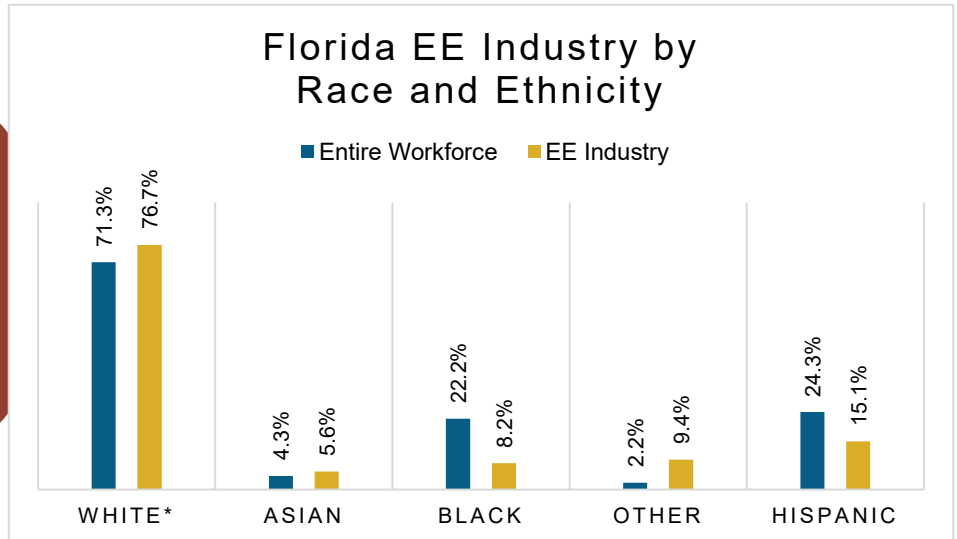


**11%** of  
Florida  
EE workers are  
**Veterans**

## How is EE doing on diversity in Florida?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Florida communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Florida's EE Potential

Decades of work, ready for Florida's growing energy efficiency workforce.

Weatherization Assistance Program:



**678\*** units weatherized in 2018, out of **~1,000,000** total low-income households

**6,107,321**

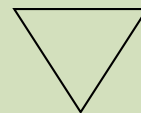
Florida homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**60%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	3,730	Cape Coral-Fort Myers	4,525
2	3,578	Deltona-Daytona Beach-Ormond Beach	2,212
3	3,483	Fort Walton Beach-Crestview-Destin	1,110
4	5,423	Gainesville	1,451
5	5,406	Jacksonville	7,430
6	3,246	Lakeland	1,840
7	3,243	Miami-Fort Lauderdale-Pompano Beach	39,593
8	3,817	Naples-Marco Island	2,417
9	1,822	Ocala	1,441
10	1,942	Orlando-Kissimmee	10,967
11	2,378	Palm Bay-Melbourne-Titusville	2,850
12	4,655	Palm Coast	317
13	3,282	Panama City-Lynn Haven	910
14	4,992	Pensacola-Ferry Pass-Brent	2,189
15	1,504	Port St. Lucie	2,594
16	4,531	Punta Gorda	855
17	2,505	Sarasota-Bradenton-Venice	4,446
18	9,998	Sebastian-Vero Beach	897
19	5,833	Tallahassee	2,175
20	8,213	Tampa-St. Petersburg-	14,338
21	1,893	Rural	4,361
22	4,932		
23	4,742		
24	3,711		
25	3,685		
26	3,005		
27	3,370		

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	2,643		11	1,921		21	2,124		31	4,498
2	2,234		12	3,612		22	1,165		32	2,000
3	2,500		13	1,929		23	4,266		33	2,746
4	5,217		14	1,210		24	667		34	3,575
5	2,142		15	1,495		25	7,102		35	7,279
6	2,833		16	2,628		26	1,803		36	1,224
7	1,767		17	3,942		27	3,205		37	2,016
8	1,878		18	1,477		28	3,099		38	2,533
9	391		19	4,704		29	3,867		39	2,061
10	3,189	20	2,962	30	2,713	40	299			

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	1,042	32	893	63	<5	94	1,652
2	792	33	349	64	1,008	95	548
3	534	34	896	65	636	96	625
4	823	35	384	66	1,175	97	638
5	887	36	893	67	646	98	623
6	773	37	974	68	926	99	1,432
7	787	38	447	69	363	100	1,049
8	1,152	39	1,409	70	1,751	101	422
9	552	40	283	71	617	102	996
10	669	41	152	72	939	103	1,681
11	1,449	42	781	73	333	104	25
12	1,517	43	38	74	769	105	801
13	1,117	44	885	75	991	106	765
14	496	45	480	76	1,990	107	592
15	383	46	1,696	77	800	108	1,041
16	833	47	885	78	1,683	109	699
17	965	48	164	79	212	110	216
18	484	49	410	80	1,315	111	720
19	379	50	266	81	1,469	112	4,114
20	1,680	51	1,187	82	5,552	113	433
21	370	52	1,195	83	1,097	114	886
22	692	53	251	84	247	115	1,237
23	182	54	1,098	85	1,394	116	190
24	1,108	55	588	86	1,546	117	325
25	782	56	299	87	709	118	<5
26	427	57	1,041	88	966	119	56
27	296	58	1,448	89	2,527	120	730
28	1,759	59	63	90	132		
29	729	60	2,937	91	86		
30	1,396	61	366	92	3,239		
31	575	62	706	93	2,207		



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



E2 is a national, nonpartisan group of business leaders, investors, and other professionals from every sector of the economy who advocate for smart policies that are good for the environment and good for the economy. Visit [www.e2.org](http://www.e2.org)



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

For questions on E4TheFuture analyses please email: [policy@e4thefuture.org](mailto:policy@e4thefuture.org).



# Georgia

## Energy Efficiency Jobs in America

June 2021\*

51,239

Dec 2020

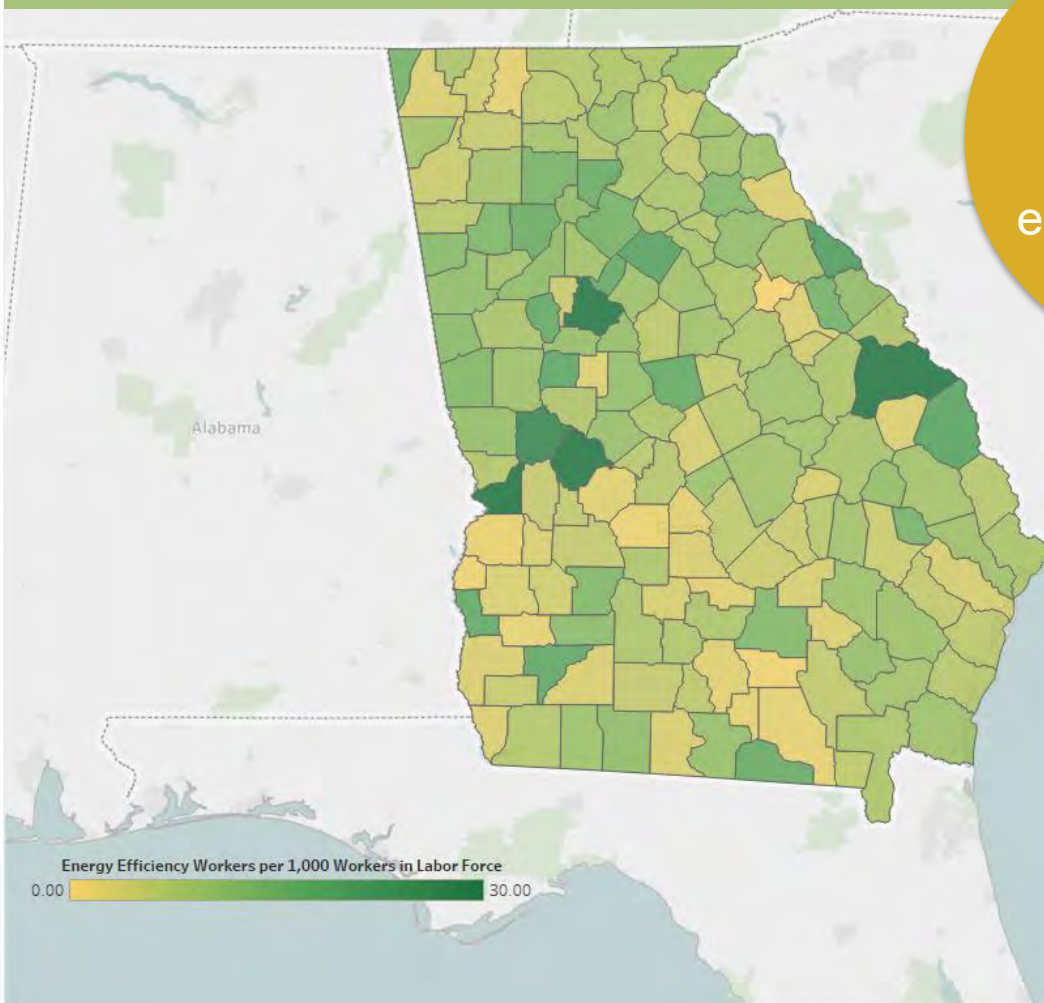
51,123

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Georgia, there are EE jobs in nearly every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



99%

of Georgia  
counties have  
energy efficiency  
workers

~26,100

new EE construction  
jobs to retrofit  
Georgia homes by  
2030



Number of full-time workers required for  
eight years 2022-2030 to improve 80%  
of GA residences for a clean energy  
future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



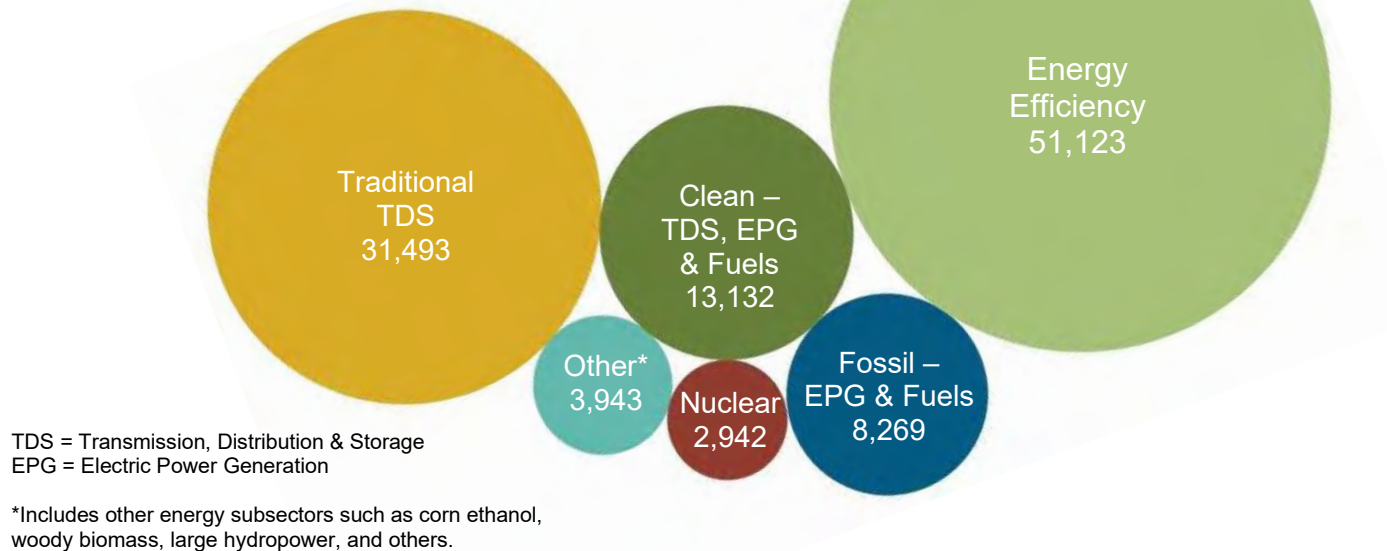
# Key EE Statistics for Georgia

## What are energy efficiency (EE) jobs?

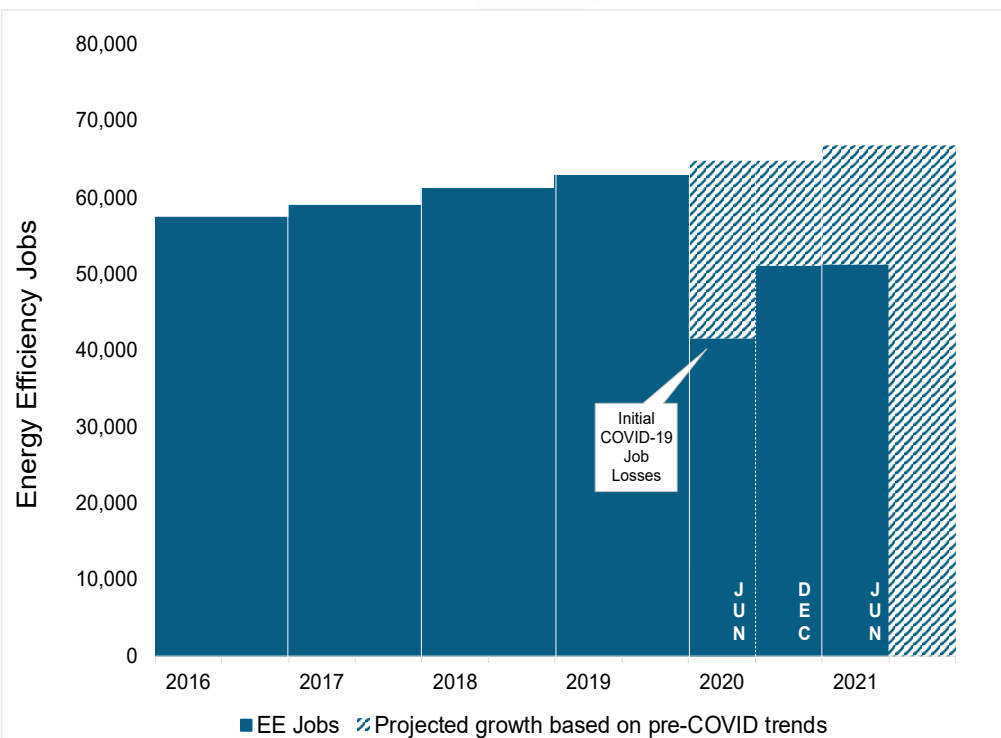
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Georgia's energy sectors compare?

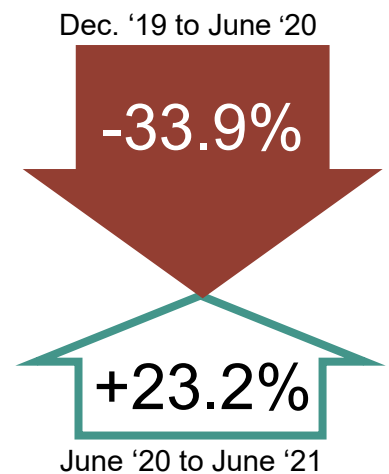
*Energy Efficiency is the **largest** energy sector in Georgia.*



## How is the EE industry recovering?



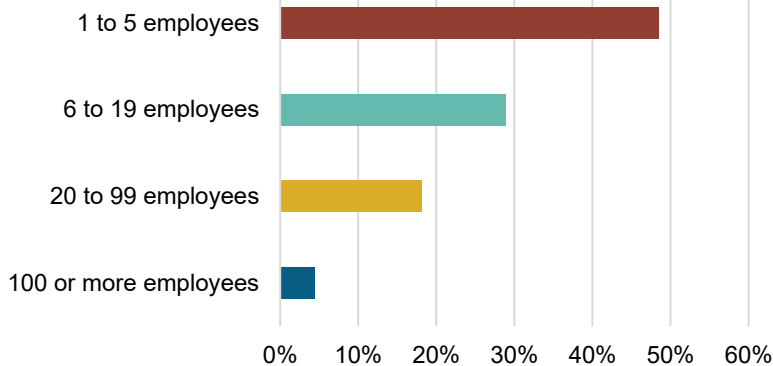
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in Georgia?

### 95.5% of GA EE Businesses Have Less Than 100 Employees



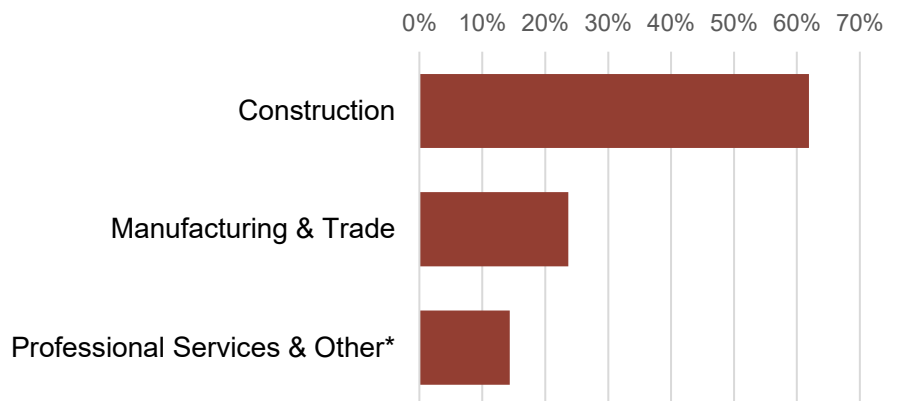
**13,277**  
EE businesses in  
Georgia



EE construction  
workers comprise  
**15%** of Georgia  
construction  
workers

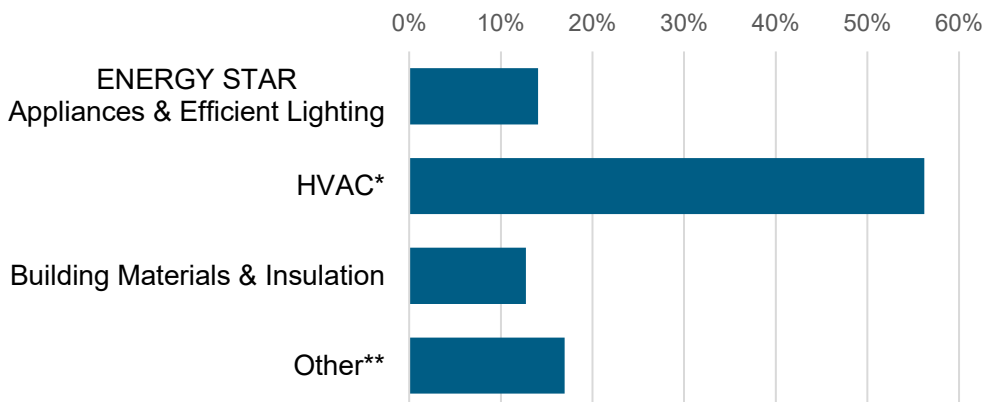


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services



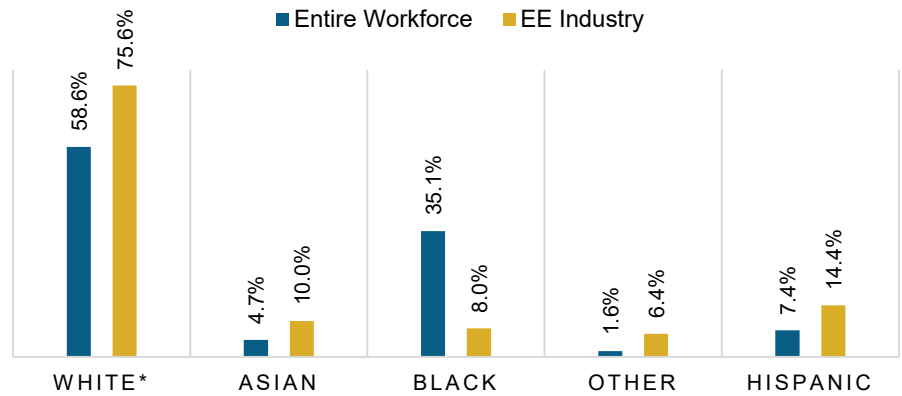
**13%** of  
Georgia  
EE workers are  
**Veterans**

## How is EE doing on diversity in Georgia?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Georgia communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Georgia EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Georgia's EE Potential

Decades of work, ready for Georgia's growing energy efficiency workforce.

Weatherization Assistance Program:



**668\*** units weatherized in 2018, out of **~520,000** total low-income households

**2,610,609**

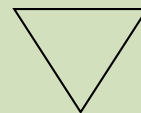
Georgia homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**42%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	3,231	Albany	710
2	3,837	Athens-Clark County	910
3	3,321	Atlanta-Sandy Springs-Marietta	33,338
4	5,558	Augusta-Richmond County	1,609
5	7,150	Brunswick	649
6	9,704	Chattanooga	479
7	3,151	Columbus	895
8	1,953	Dalton	545
9	3,472	Gainesville	865
10	1,580	Hinesville-Fort Stewart	129
11	3,201	Macon	1,429
12	2,393	Rome	404
13	1,043	Savannah	1,767
14	1,530	Valdosta	691
		Warner Robins	433
		Rural	6,269

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	1,319		15	793		29	222		43	398
2	440		16	1,486		30	785		44	14
3	870		17	740		31	364		45	452
4	760		18	1,276		32	1,285		46	846
5	3,363		19	307		33	721		47	188
6	5,935		20	205		34	782		48	<5
7	679		21	2,612		35	298		49	937
8	1,005		22	1,223		36	3,033		50	389
9	1,523		23	346		37	140		51	571
10	1,561		24	695		38	113		52	429
11	576		25	792		39	105		53	443
12	783		26	430		40	1,625		54	531
13	280		27	1,834		41	439			
14	2,613	28	1,207	42	358					

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	286	46	<5	91	276	136	<5
2	448	47	1,123	92	251	137	36
3	<5	48	<5	93	572	138	73
4	234	49	<5	94	172	139	183
5	241	50	<5	95	412	140	207
6	<5	51	1,058	96	<5	141	398
7	804	52	956	97	<5	142	191
8	308	53	1,126	98	651	143	393
9	155	54	861	99	<5	144	453
10	92	55	933	100	196	145	<5
11	20	56	1,273	101	256	146	20
12	256	57	312	102	<5	147	<5
13	25	58	280	103	160	148	134
14	486	59	258	104	130	149	105
15	386	60	601	105	78	150	139
16	151	61	285	106	<5	151	251
17	359	62	260	107	<5	152	709
18	239	63	643	108	<5	153	<5
19	263	64	398	109	51	154	9
20	849	65	43	110	227	155	362
21	155	66	<5	111	<5	156	121
22	1,384	67	34	112	200	157	185
23	<5	68	10	113	<5	158	333
24	252	69	524	114	149	159	191
25	1,439	70	104	115	<5	160	79
26	135	71	90	116	6	161	635
27	540	72	14	117	602	162	358
28	253	73	271	118	5	163	415
29	44	74	334	119	<5	164	164
30	506	75	20	120	193	165	59
31	273	76	261	121	501	166	55
32	288	77	<5	122	235	167	647
33	349	78	14	123	287	168	11
34	2,173	79	1,148	124	441	169	84
35	<5	80	195	125	59	170	90
36	<5	81	2,156	126	108	171	275
37	79	82	432	127	36	172	290
38	337	83	168	128	238	173	68
39	525	84	121	129	200	174	640
40	1,095	85	405	130	44	175	279
41	<5	86	41	131	336	176	<5
42	641	87	286	132	16	177	<5
43	<5	88	<5	133	305	178	80
44	<5	89	<5	134	547	179	<5
45	677	90	530	135	41	180	85



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# Hawaii

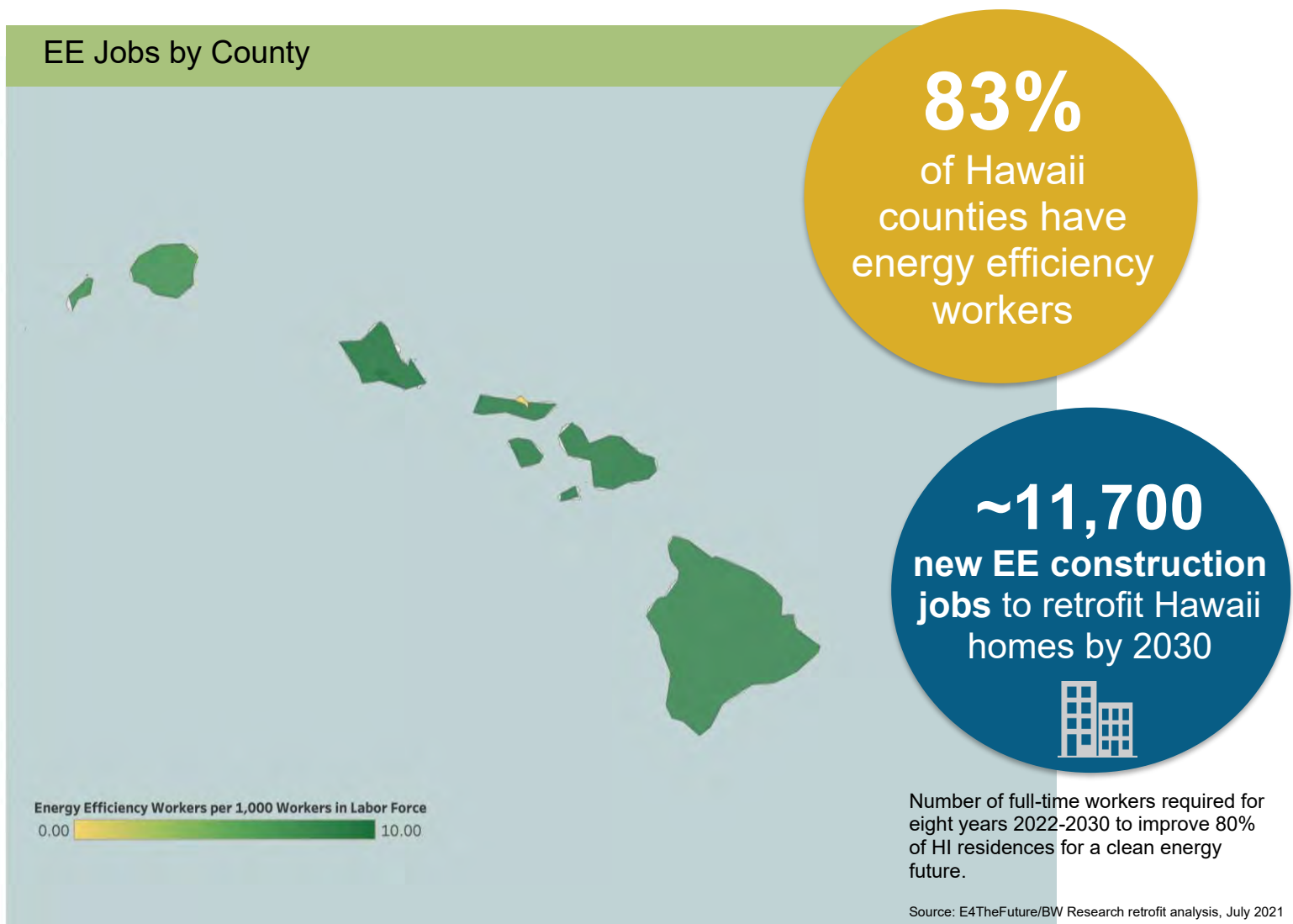
## Energy Efficiency Jobs in America

June 2021\*  
**5,129**  
Dec 2020  
**5,120**

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Hawaii, there are EE jobs in nearly every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



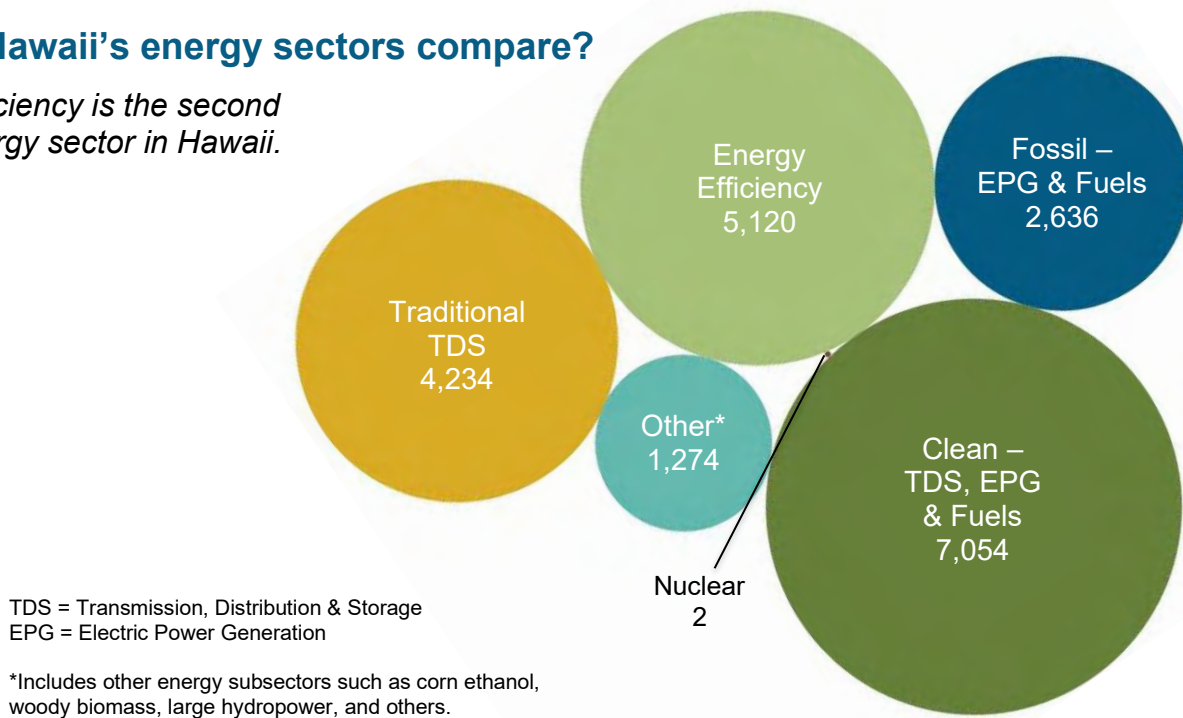
# Key EE Statistics for Hawaii

## What are energy efficiency (EE) jobs?

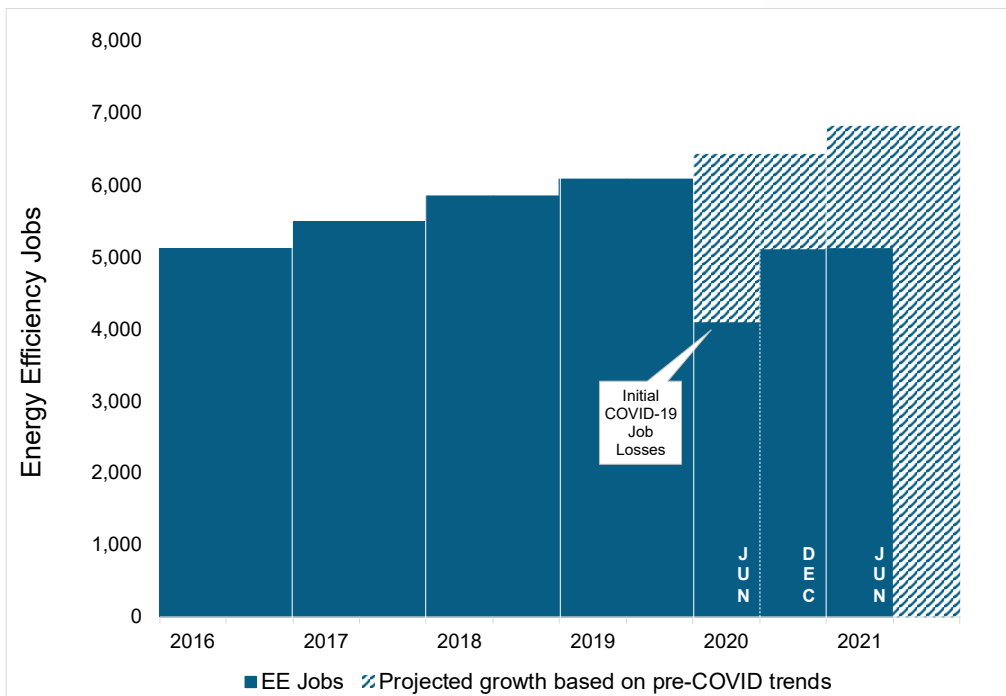
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Hawaii's energy sectors compare?

*Energy Efficiency is the second largest energy sector in Hawaii.*

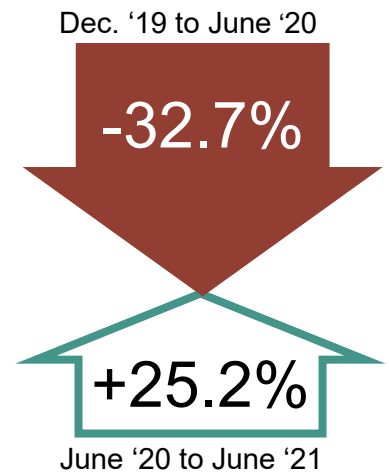


## How is the EE industry recovering?



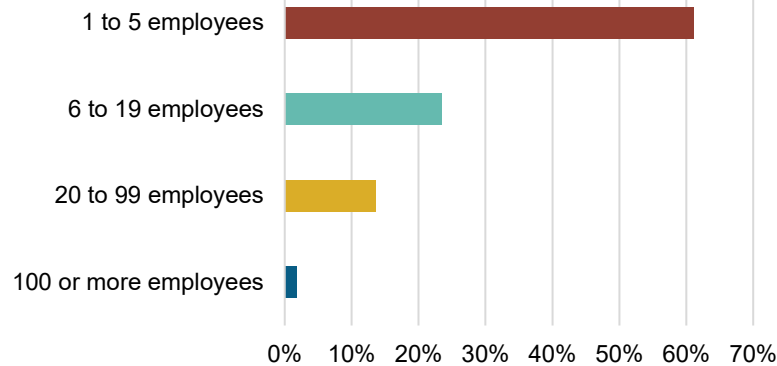
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



## What does EE look like in Hawaii?

### 98.1% of HI EE Businesses Have Less Than 100 Employees



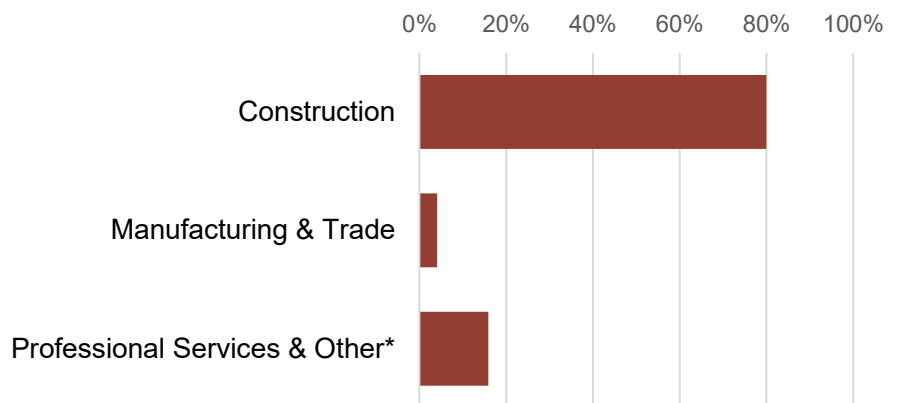
**1,460**  
EE businesses in  
Hawaii



EE construction  
workers comprise  
**11%** of Hawaii  
construction  
workers

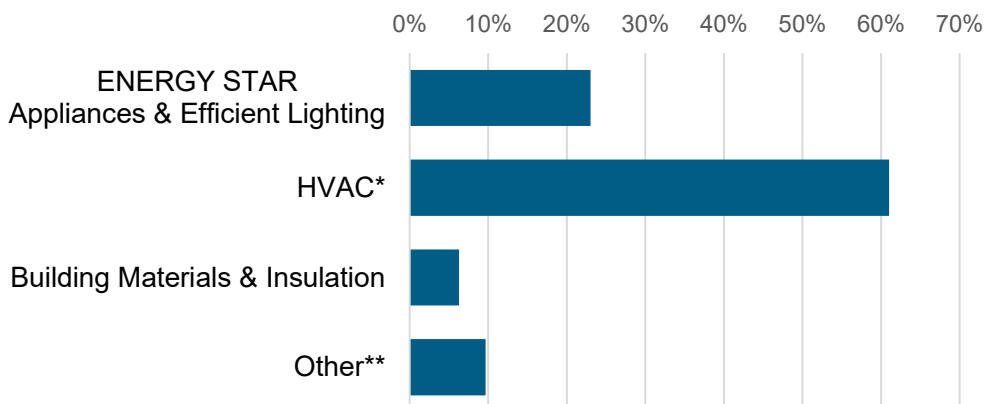


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services

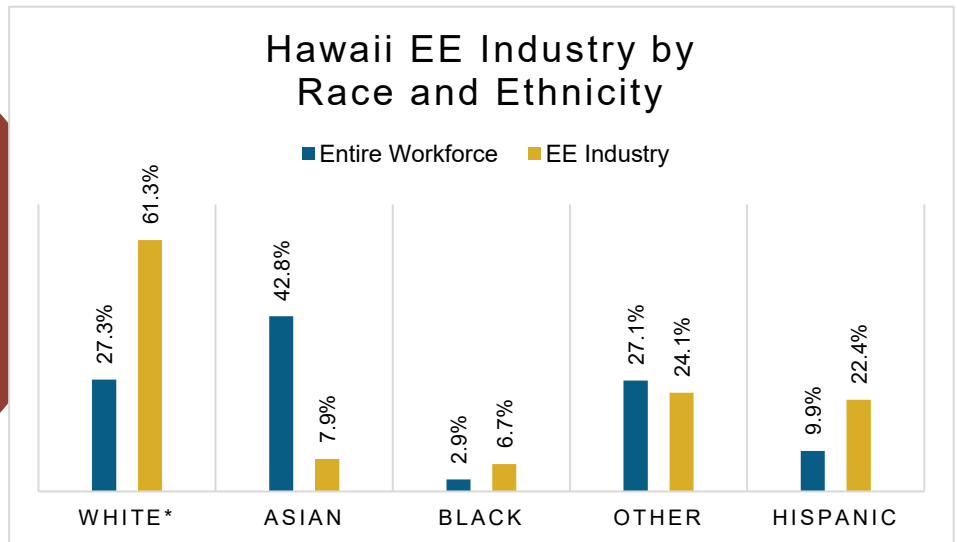


**8%** of  
Hawaii  
EE workers are  
**Veterans**

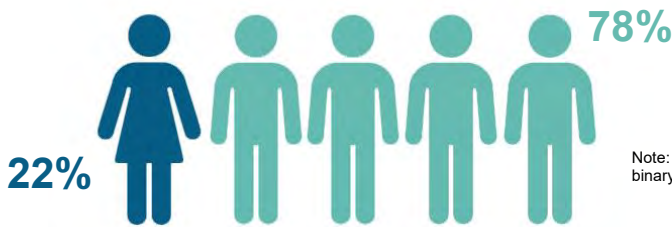
## How is EE doing on diversity in Hawaii?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Hawaii communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Hawaii's EE Potential

Decades of work, ready for Hawaii's growing energy efficiency workforce.

Weatherization Assistance Program:



**108\*** units weatherized in 2018, out of **~45,000** total low-income households

**403,578**

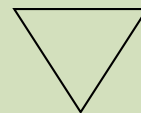
Hawaii homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**22%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional			Metropolitan Areas	
District	Jobs		Area	Jobs
1	3,590		Honolulu	3,834
2	1,530		Rural	1,286

State Senate							
District	Jobs		District	Jobs		District	Jobs
1	216		11	858		21	26
2	38		12	<5		22	23
3	213		13	155		23	94
4	116		14	370		24	102
5	242		15	1,502		25	10
6	165		16	62			
7	82		17	157			
8	217		18	73			
9	231		19	31			
10	66		20	71			

State House of Representatives				
District	Jobs		District	Jobs
1	296		28	263
2	<5		29	<5
3	38		30	199
4	<5		31	<5
5	216		32	<5
6	<5		33	<5
7	28		34	<5
8	241		35	161
9	<5		36	80
10	149		37	<5
11	13		38	<5
12	61		39	100
13	20		40	<5
14	60		41	<5
15	127		42	<5
16	26		43	25
17	56		44	<5
18	112		45	34
19	59		46	<5
20	<5		47	82
21	65		48	<5
22	2,320		49	101
23	27		50	<5
24	<5		51	10
25	154			
26	<5			
27	<5			



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# Idaho

## Energy Efficiency Jobs in America

June 2021\*

8,327

Dec 2020

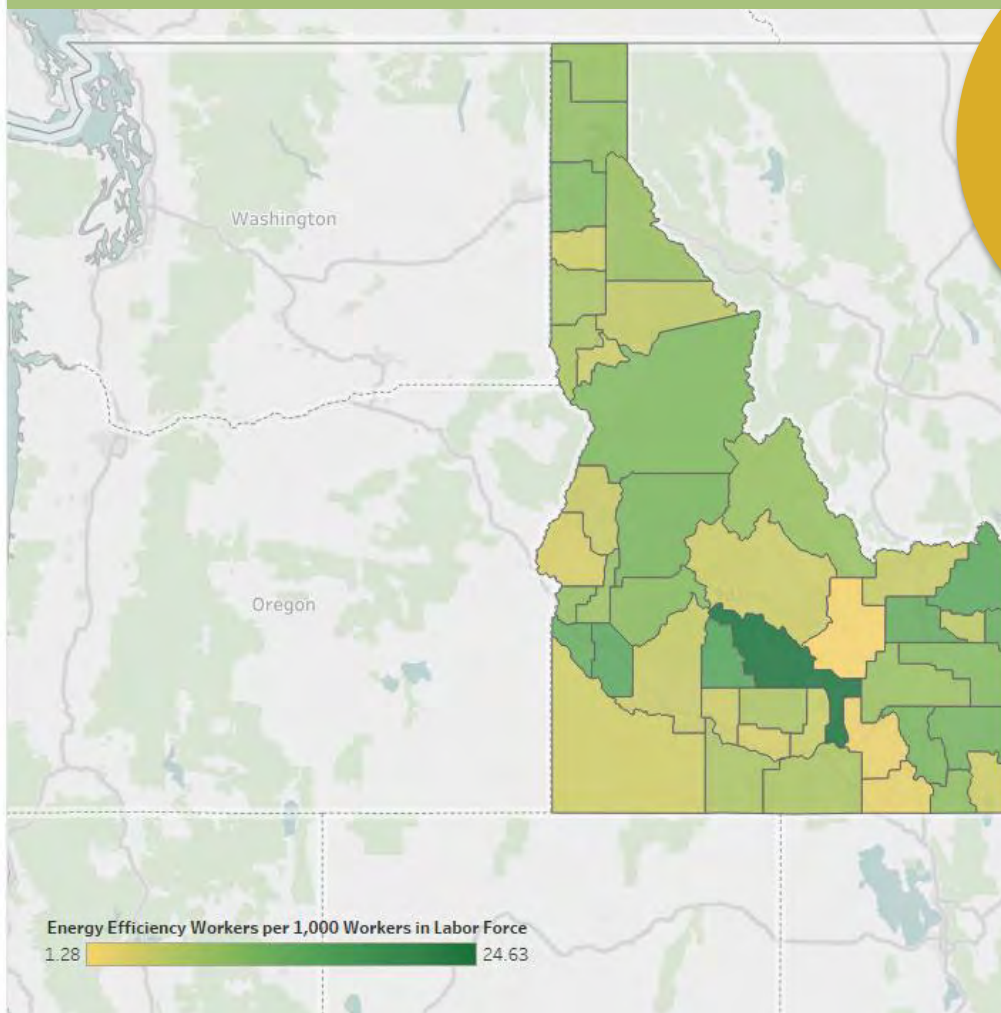
8,319

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Idaho, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



100%

of Idaho counties  
have energy  
efficiency  
workers

~6,900

new EE construction  
jobs to retrofit Idaho  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of ID residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:

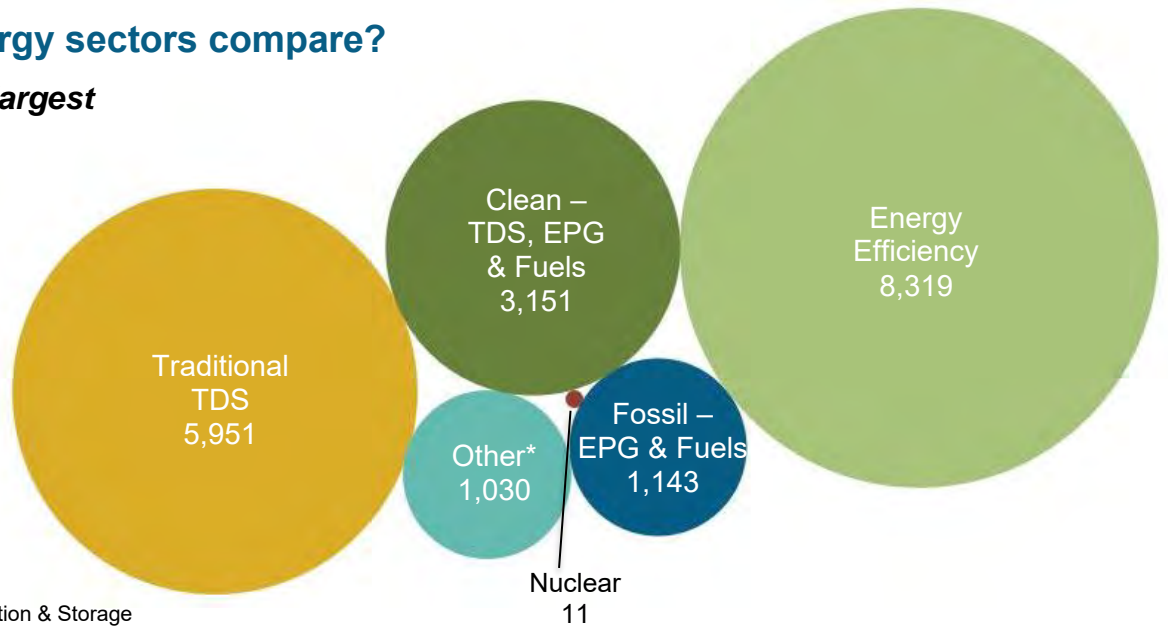


## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Idaho's energy sectors compare?

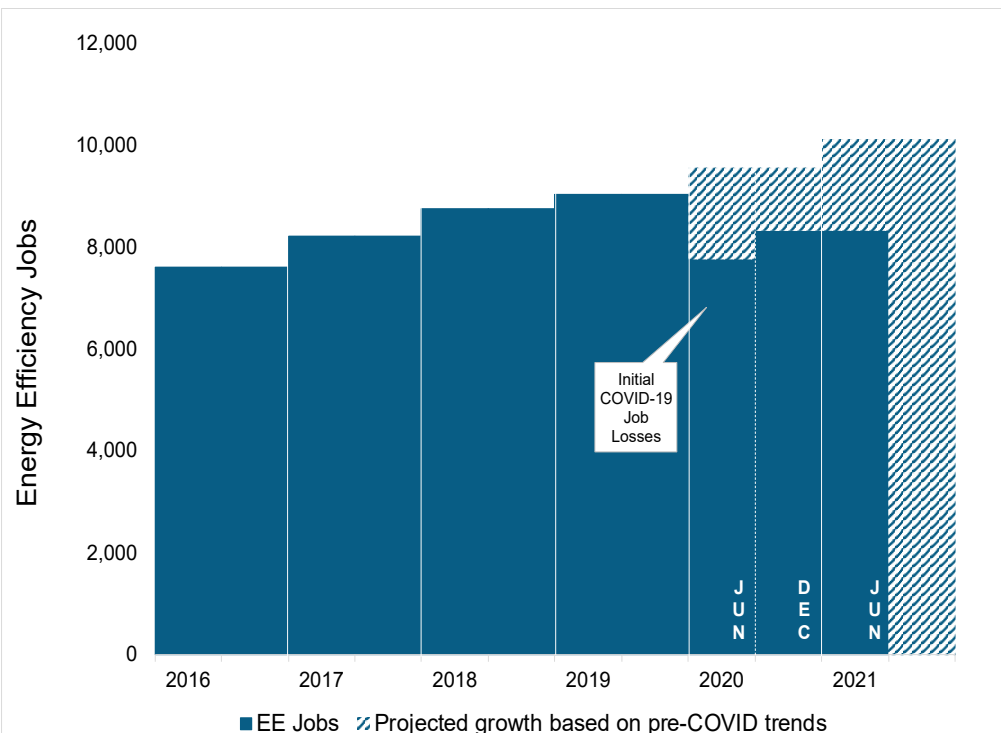
*Energy Efficiency is the **largest** energy sector in Idaho.*



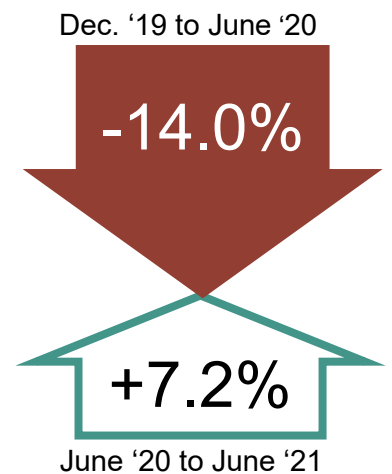
TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



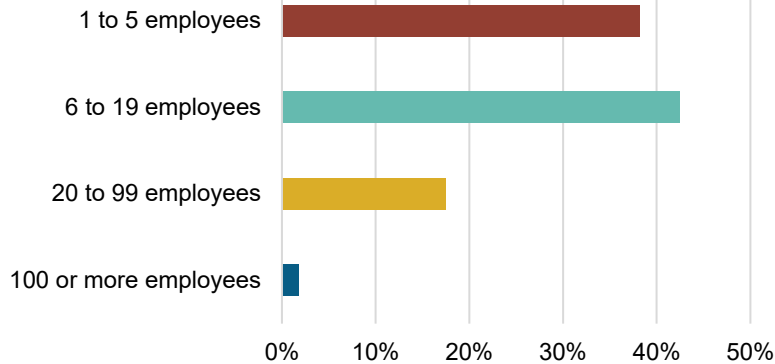
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in Idaho?

### 98% of ID EE Businesses Have Less Than 100 Employees



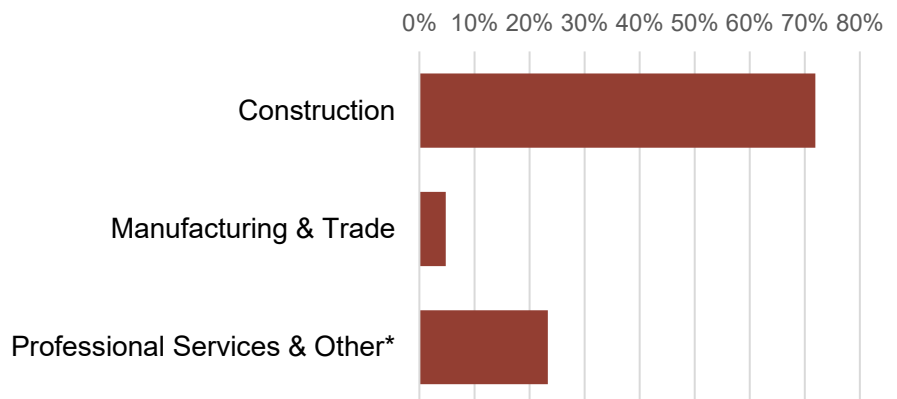
**1,274**  
EE businesses in  
Idaho



EE construction  
workers comprise  
**11%** of Idaho  
construction  
workers

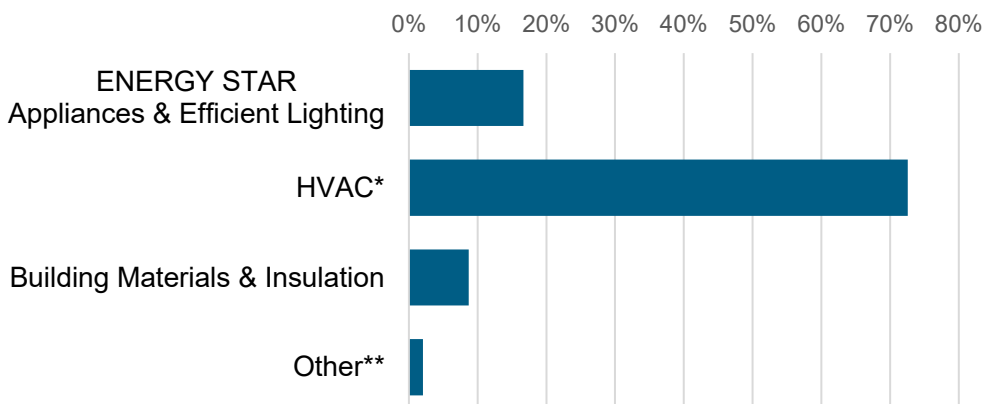


### What type of work do energy efficiency firms do?



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### What energy efficiency sectors employ the most workers?



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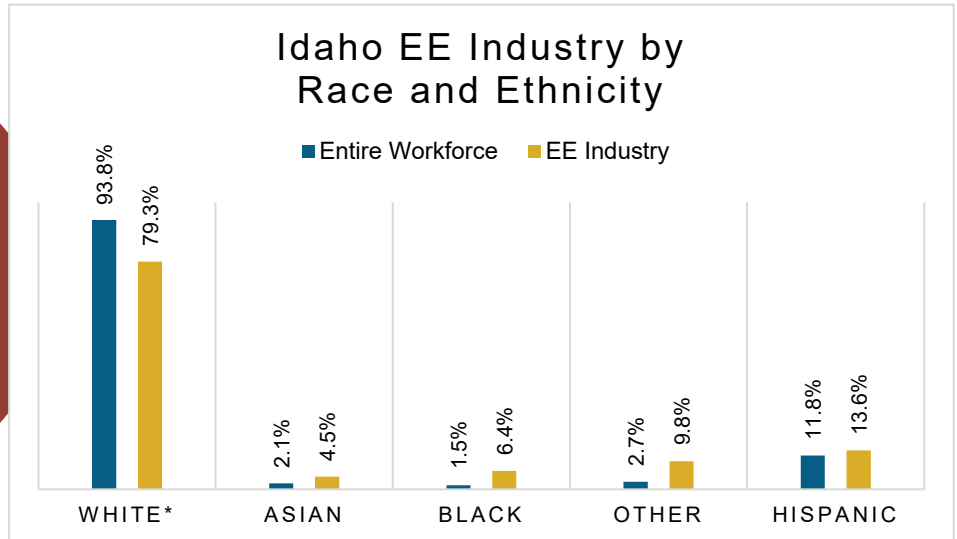


**6%** of  
Idaho  
EE workers are  
**Veterans**

## How is EE doing on diversity in Idaho?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Idaho communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Idaho's EE Potential

Decades of work, ready for Idaho's growing energy efficiency workforce.

Weatherization Assistance Program:

**730\*** units weatherized in 2018, out of **~75,000** total low-income households

**445,167**

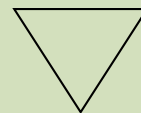
Idaho homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**27%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,969	Boise City-Nampa	3,419
2	3,350	Coeur d'Alene	832
		Idaho Falls	744
		Lewiston	248
		Logan	44
		Pocatello	470
		Rural	2,561

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	332		11	223		21	<5		31	92
2	839		12	<5		22	<5		32	172
3	<5		13	<5		23	145		33	-
4	<5		14	770		24	403		34	178
5	140		15	401		25	164		35	121
6	295		16	225		26	379			
7	207		17	175		27	177			
8	1,152		18	41		28	440			
9	170		19	<5		29	<5			
10	404		20	<5		30	675			

State House of Representatives							
District	Jobs		District	Jobs		District	Jobs
1	331		28	438		55	<5
2	837		29	<5		56	<5
3	<5		30	674		57	<5
4	<5		31	92		58	<5
5	140		32	172		59	<5
6	294		33	<5		60	<5
7	206		34	177		61	<5
8	1,173		35	121		62	<5
9	169		36	<5		63	<5
10	402		37	<5		64	<5
11	222		38	<5		65	<5
12	<5		39	<5		66	<5
13	<5		40	<5		67	<5
14	767		41	<5		68	<5
15	400		42	<5		69	<5
16	224		43	<5		70	<5
17	174		44	<5			
18	41		45	<5			
19	<5		46	<5			
20	<5		47	<5			
21	<5		48	<5			
22	<5		49	<5			
23	144		50	<5			
24	402		51	<5			
25	163		52	<5			
26	379		53	<5			
27	176		54	<5			



# Illinois

## Energy Efficiency Jobs in America

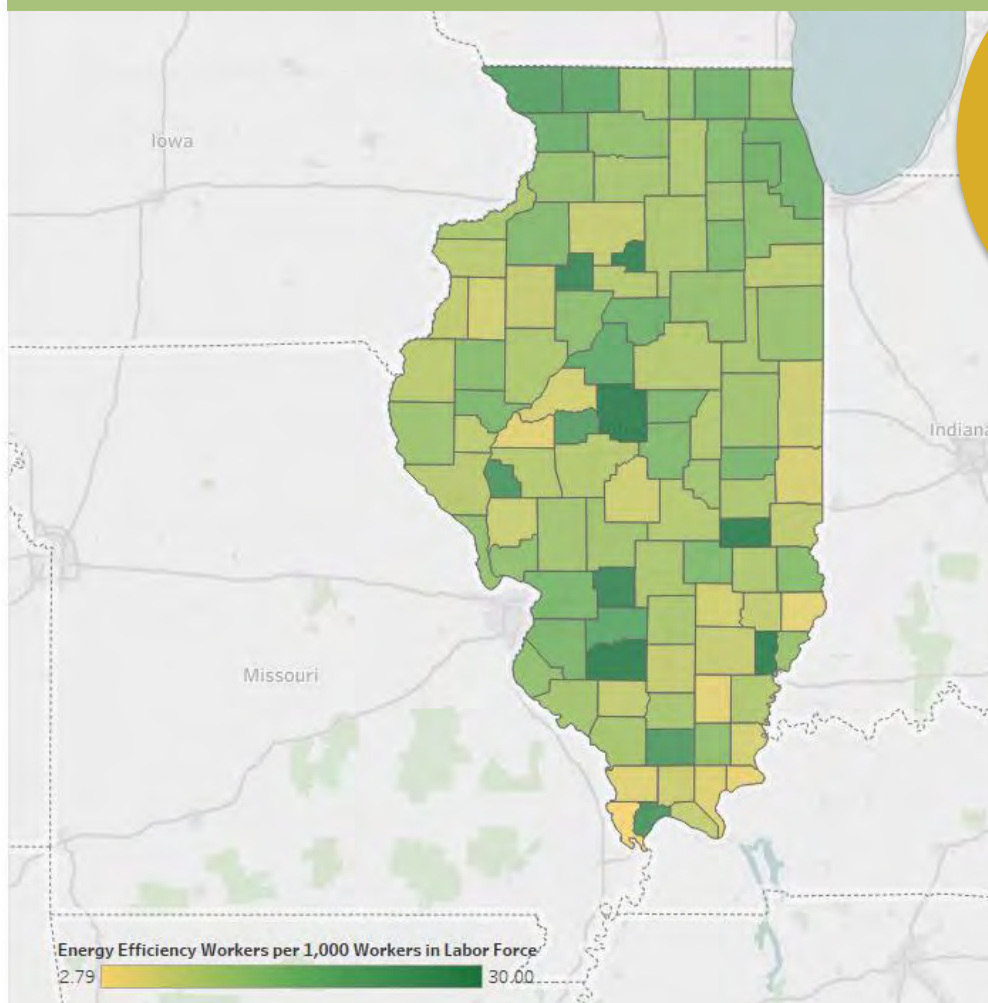


*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Illinois, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



**100%**  
of Illinois  
counties have  
energy efficiency  
workers

**~71,500**  
new EE construction  
jobs to retrofit Illinois  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of IL residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



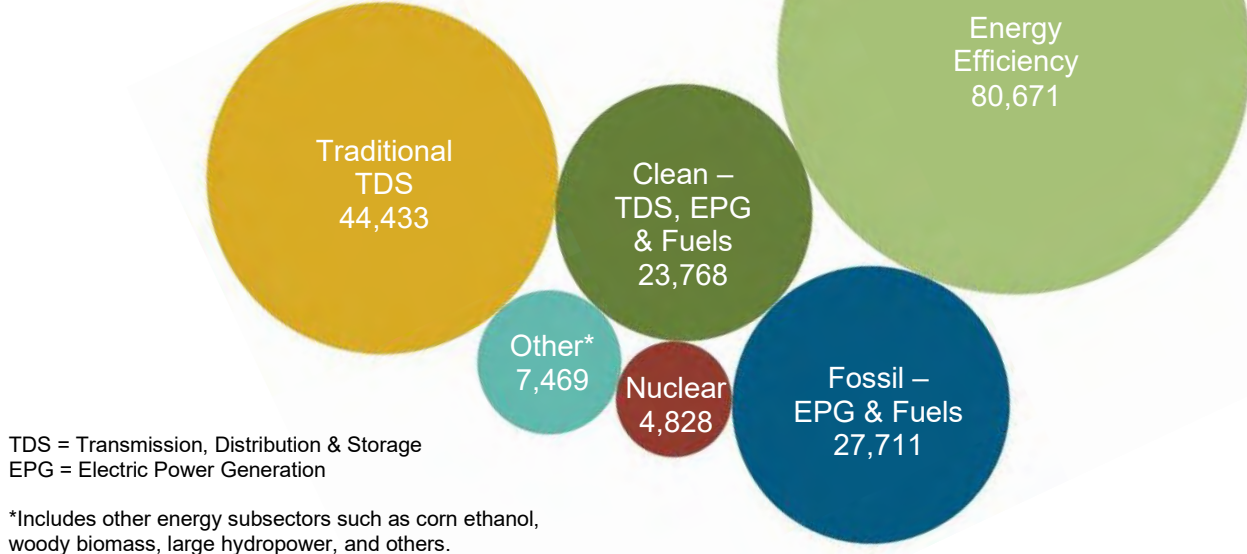
# Key EE Statistics for Illinois

## What are energy efficiency (EE) jobs?

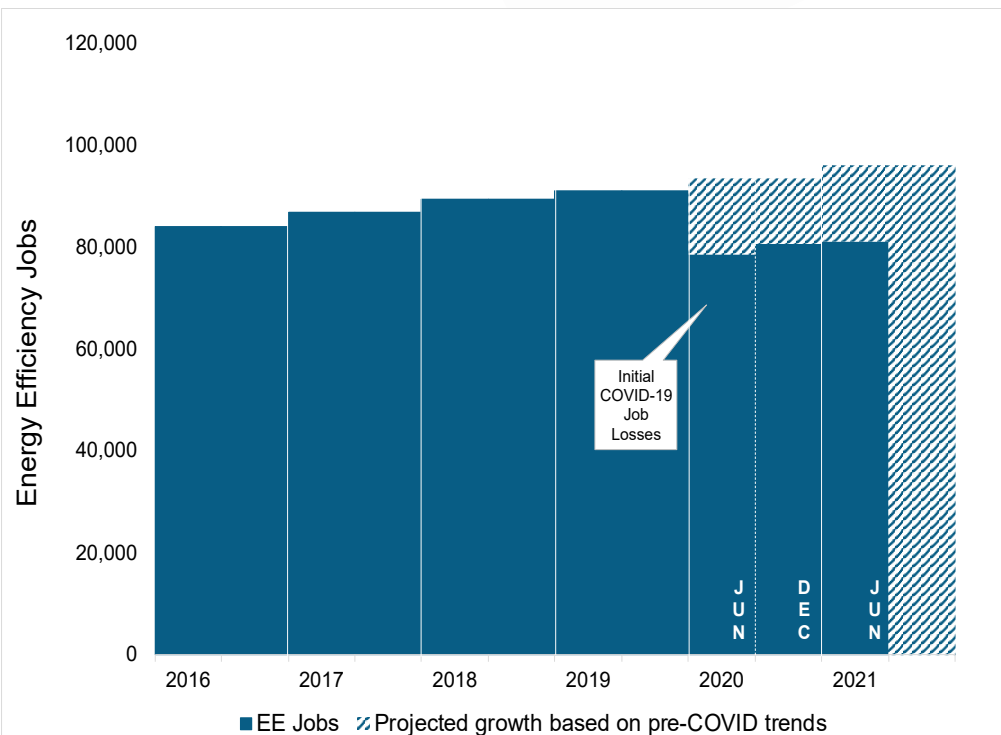
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Illinois's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Illinois.*



## How is the EE industry recovering?



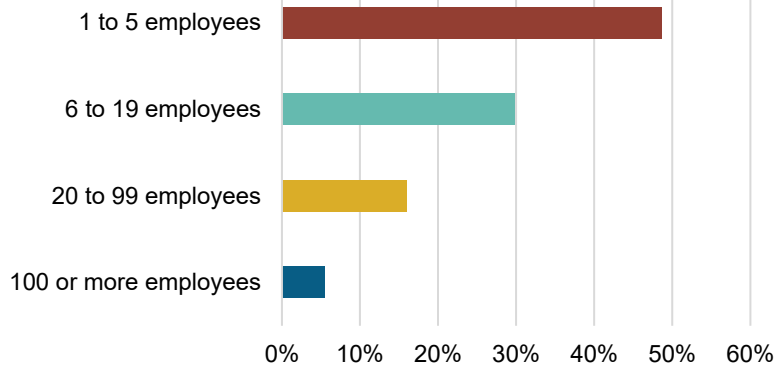
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in Illinois?

### 94.4% of IL EE Businesses Have Less Than 100 Employees



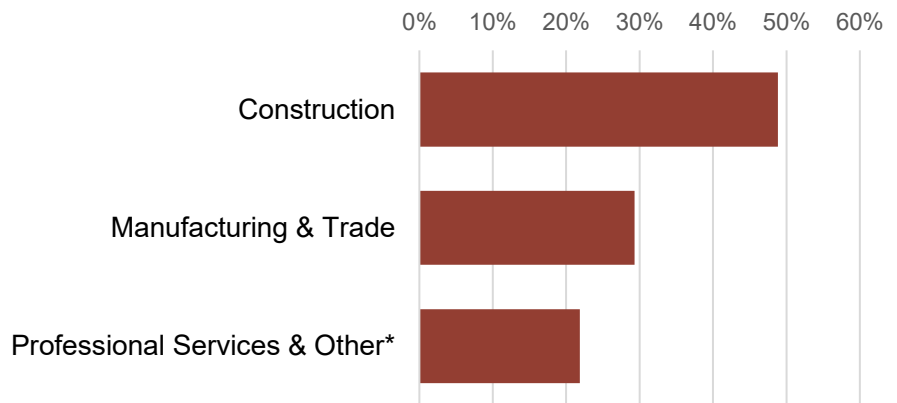
**15,240**  
EE businesses in  
Illinois



EE construction  
workers comprise  
**18%** of Illinois  
construction  
workers

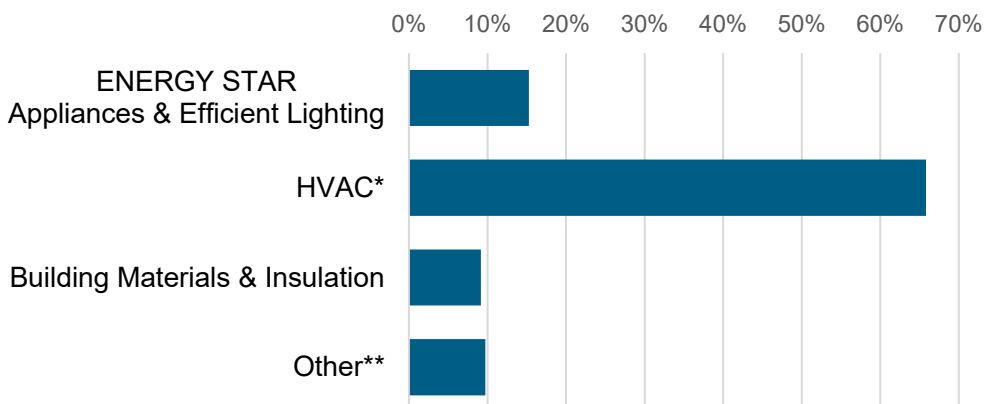


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

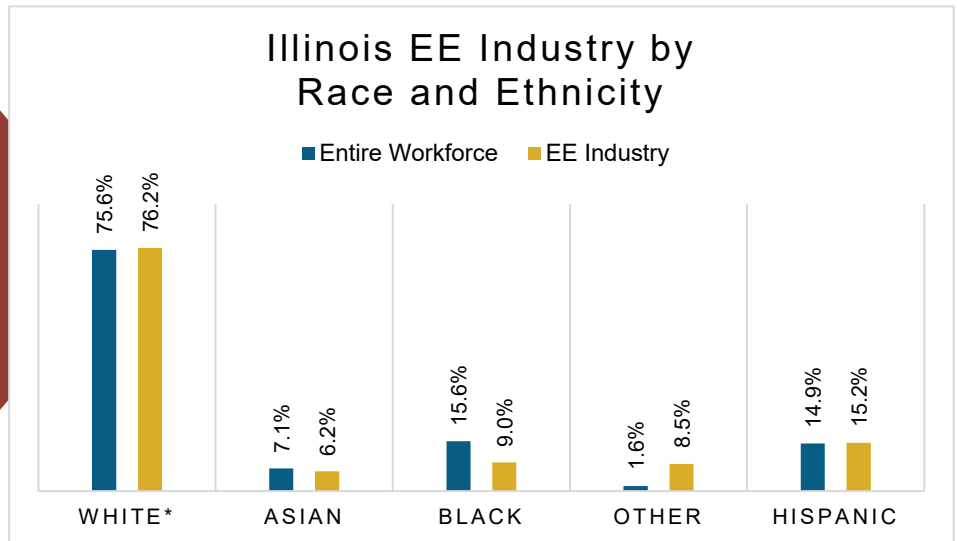


**7%** of  
Illinois  
EE workers are  
**Veterans**

## How is EE doing on diversity in Illinois?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Illinois communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Illinois's EE Potential

Decades of work, ready for Illinois's growing energy efficiency workforce.

Weatherization Assistance Program:



**2,633\*** units weatherized in 2018, out of **~570,000** total low-income households

**4,054,850**

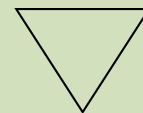
Illinois homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**18%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,641	Bloomington-Normal	820
2	1,916	Cape Girardeau-Jackson	13
3	3,727	Champaign-Urbana	1,273
4	3,705	Chicago-Naperville-Joliet	56,920
5	6,867	Danville	453
6	9,527	Davenport-Moline-Rock Island	1,180
7	11,750	Decatur	628
8	2,747	Kankakee-Bradley	546
9	3,821	Peoria	2,335
10	3,876	Rockford	2,055
11	2,543	Springfield	1,639
12	4,590	St. Louis	4,004
13	4,780	Rural	8,807
14	2,513		
15	3,242		
16	4,267		
17	3,843		
18	2,316		

State Senate							
District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	1,235	16	612	31	671	46	697
2	1,986	17	469	32	857	47	1,031
3	11,698	18	169	33	343	48	2,094
4	2,269	19	1,362	34	1,763	49	93
5	559	20	<5	35	696	50	721
6	1,250	21	3,030	36	1,369	51	1,633
7	588	22	2,466	37	2,144	52	875
8	2,543	23	3,608	38	1,503	53	504
9	2,447	24	1,945	39	347	54	1,679
10	1,037	25	2,602	40	203	55	1,220
11	259	26	3,406	41	584	56	767
12	230	27	2,335	42	6	57	588
13	129	28	<5	43	593	58	1,164
14	1,842	29	948	44	2,225	59	919
15	1,307	30	320	45	729		

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	806	32	<5	63	808	94	552
2	425	33	<5	64	47	95	1,004
3	1,113	34	450	65	342	96	1,088
4	867	35	168	66	<5	97	92
5	7,913	36	<5	67	1,139	98	<5
6	3,912	37	1,184	68	619	99	278
7	1,790	38	174	69	284	100	441
8	474	39	<5	70	406	101	663
9	558	40	<5	71	1,070	102	967
10	<5	41	1,768	72	297	103	449
11	1,000	42	1,258	73	1,510	104	425
12	253	43	1,657	74	630	105	135
13	401	44	803	75	1,077	106	367
14	188	45	2,371	76	418	107	721
15	2,243	46	1,232	77	7	108	959
16	304	47	1,941	78	340	109	776
17	2,003	48	<5	79	204	110	441
18	439	49	1,417	80	<5	111	361
19	236	50	1,183	81	428	112	405
20	798	51	2,430	82	154	113	426
21	65	52	975	83	<5	114	161
22	193	53	1,240	84	6	115	744
23	229	54	1,097	85	219	116	418
24	<5	55	<5	86	373	117	589
25	128	56	<5	87	1,404	118	327
26	<5	57	<5	88	819		
27	1,358	58	947	89	647		
28	480	59	178	90	80		
29	1,141	60	141	91	239		
30	162	61	464	92	460		
31	612	62	206	93	477		



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



E2 is a national, nonpartisan group of business leaders, investors, and other professionals from every sector of the economy who advocate for smart policies that are good for the environment and good for the economy. Visit [www.e2.org](http://www.e2.org)



BW Research Partnership is a full-service, economic and workforce research consulting firm with offices in Carlsbad, California and Wrentham, Massachusetts. It is the nation's leading provider of accurate, comprehensive energy and clean energy research studies. Visit [www.bwresearch.com](http://www.bwresearch.com)

Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

For questions on E4TheFuture analyses please email: [policy@e4thefuture.org](mailto:policy@e4thefuture.org).



# Indiana

## Energy Efficiency Jobs in America

June 2021\*

49,146

Dec 2020

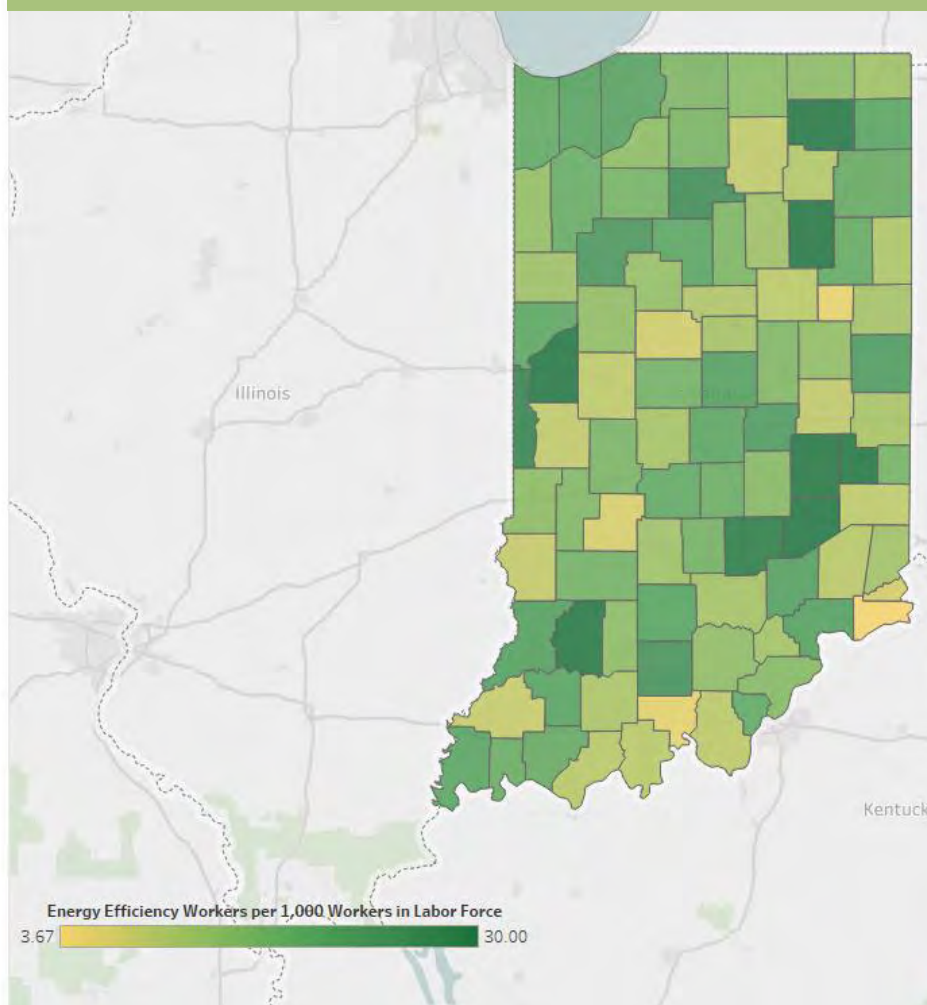
49,068

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Indiana, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



**100%**  
of Indiana  
counties have  
energy efficiency  
workers

**~26,700**  
new EE construction  
jobs to retrofit Indiana  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of IN residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



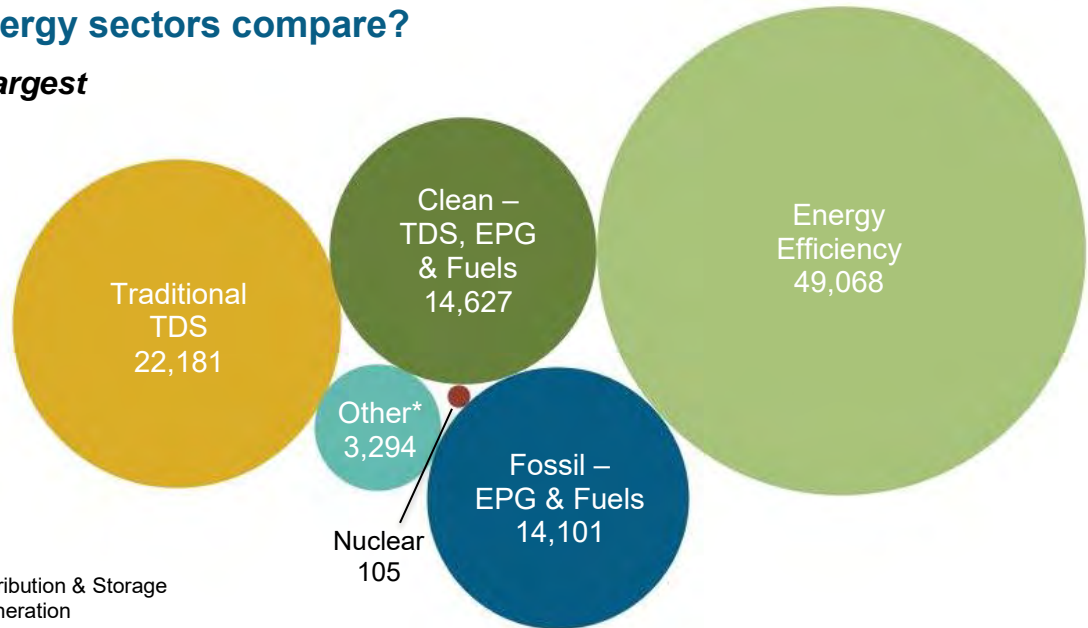
# Key EE Statistics for Indiana

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Indiana's energy sectors compare?

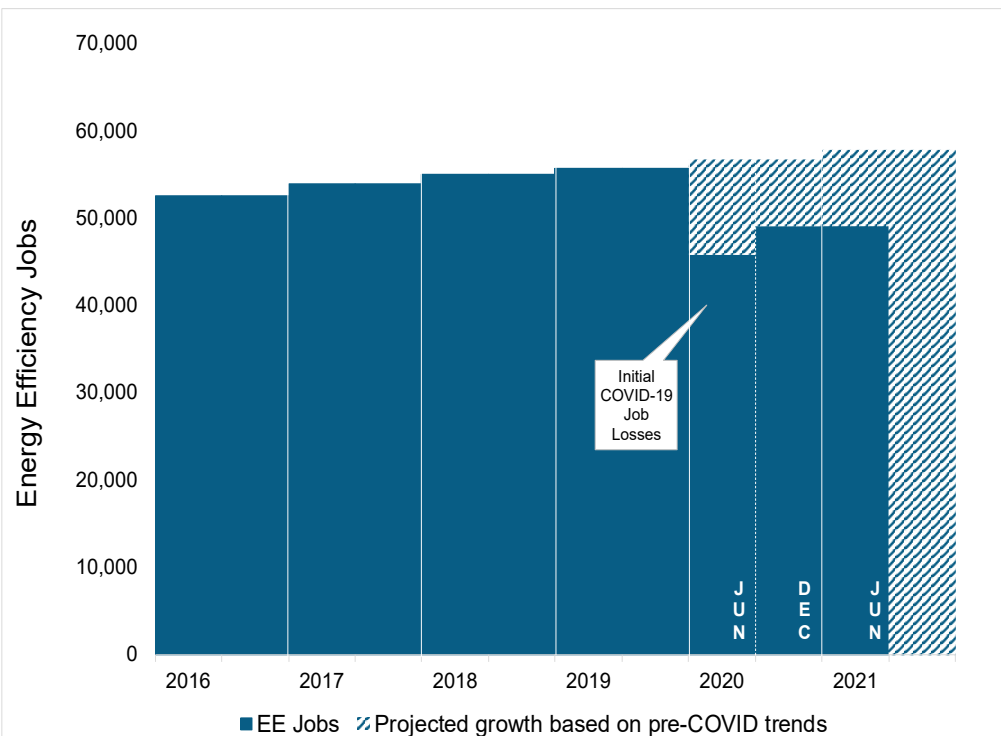
*Energy Efficiency is the **largest** energy sector in Indiana.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



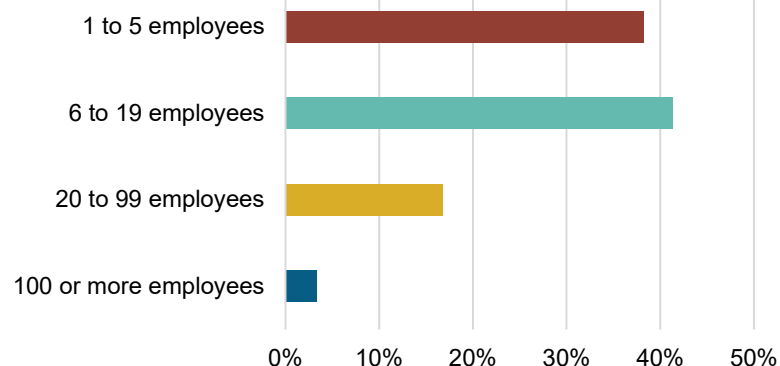
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



## What does EE look like in Indiana?

### 96.4% of IN EE Businesses Have Less Than 100 Employees



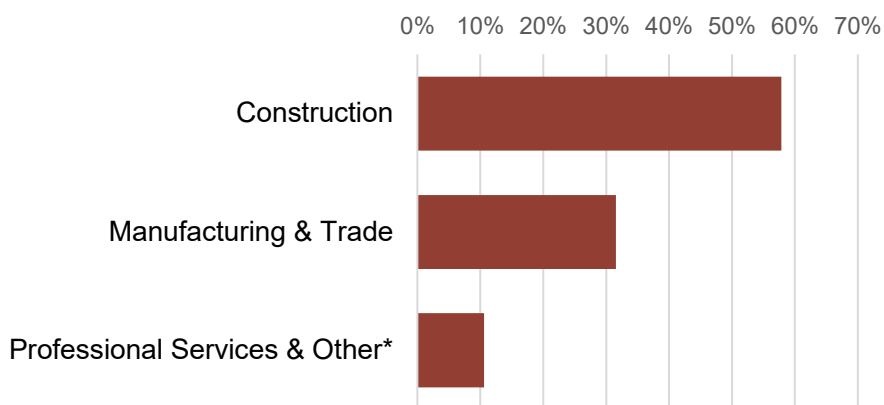
**8,157**  
EE businesses in  
Indiana



EE construction  
workers comprise  
**19%** of Indiana  
construction  
workers

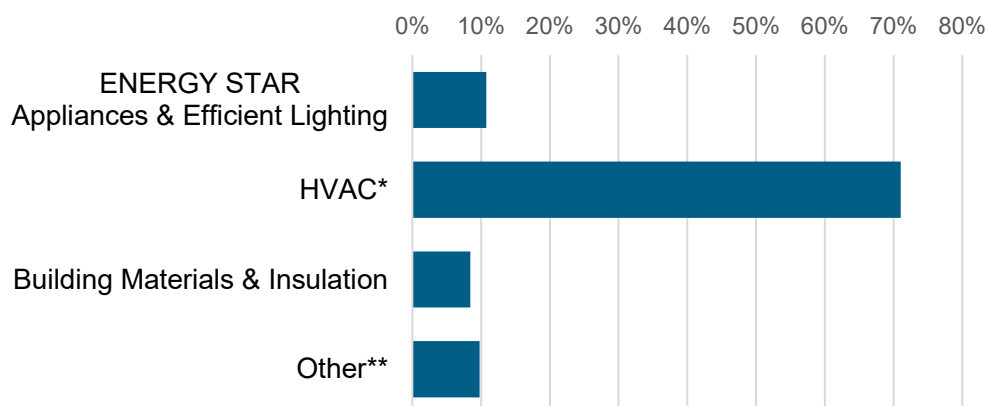


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services



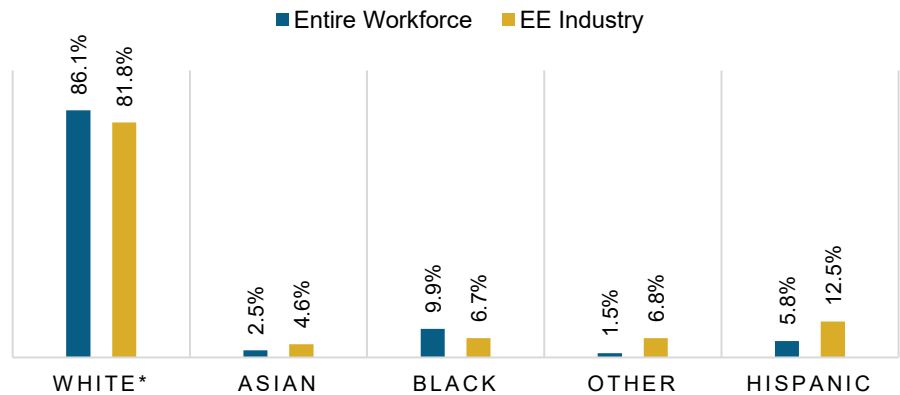
**7%** of  
Indiana  
EE workers are  
**Veterans**

## How is EE doing on diversity in Indiana?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Indiana communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Indiana EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.




Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Indiana's EE Potential

Decades of work, ready for Indiana's growing energy efficiency workforce.

Weatherization Assistance Program:



**1,000\*** units weatherized in 2018, out of **~320,000** total low-income households

**2,083,634**

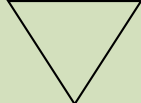
Indiana homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**18%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	5,087	Anderson	657
2	6,149	Bloomington	1,233
3	7,126	Chicago-Naperville-Joliet	5,854
4	5,084	Cincinnati-Middletown	523
5	6,862	Columbus	681
6	4,981	Elkhart-Goshen	1,451
7	3,969	Evansville	2,354
8	5,904	Fort Wayne	4,816
9	3,906	Indianapolis-Carmel	13,708
		Kokomo	707
		Lafayette	1,130
		Louisville/Jefferson County	2,261
		Michigan City-La Porte	659
		Muncie	562
		South Bend-Mishawaka	2,266
		Terre Haute	1,116
		Rural	9,089

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	1,548		16	1,010		31	259		46	109
2	1,158		17	1,047		32	937		47	873
3	173		18	1,617		33	1,799		48	705
4	1,888		19	534		34	<5		49	1,437
5	516		20	2,160		35	733		50	464
6	391		21	400		36	834			
7	2,022		22	77		37	696			
8	852		23	1,042		38	746			
9	1,991		24	954		39	1,627			
10	1,242		25	1,005		40	488			
11	578		26	469		41	763			
12	276		27	961		42	429			
13	2,917		28	1,506		43	814			
14	1,554		29	1,030		44	280			
15	598		30	2,211		45	1,350			

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	442	28	942	55	512	82	1,860
2	398	29	906	56	424	83	67
3	297	30	363	57	1,237	84	350
4	1,367	31	483	58	<5	85	76
5	942	32	213	59	240	86	771
6	1,016	33	321	60	434	87	209
7	432	34	106	61	207	88	182
8	888	35	196	62	211	89	939
9	<5	36	445	63	549	90	<5
10	352	37	957	64	1,033	91	531
11	682	38	44	65	257	92	339
12	404	39	1,045	66	479	93	<5
13	1,204	40	124	67	581	94	46
14	474	41	23	68	92	95	247
15	<5	42	550	69	44	96	1,845
16	544	43	506	70	882	97	184
17	380	44	611	71	1,085	98	<5
18	960	45	612	72	<5	99	<5
19	<5	46	476	73	170	100	<5
20	32	47	1,049	74	325		
21	1,067	48	60	75	381		
22	355	49	123	76	220		
23	630	50	1,734	77	844		
24	2,346	51	582	78	<5		
25	422	52	1,252	79	243		
26	15	53	403	80	283		
27	395	54	357	81	165		



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

For questions on E4TheFuture analyses please email: [policy@e4thefuture.org](mailto:policy@e4thefuture.org).



# Iowa

## Energy Efficiency Jobs in America

June 2021\*

18,263

Dec 2020

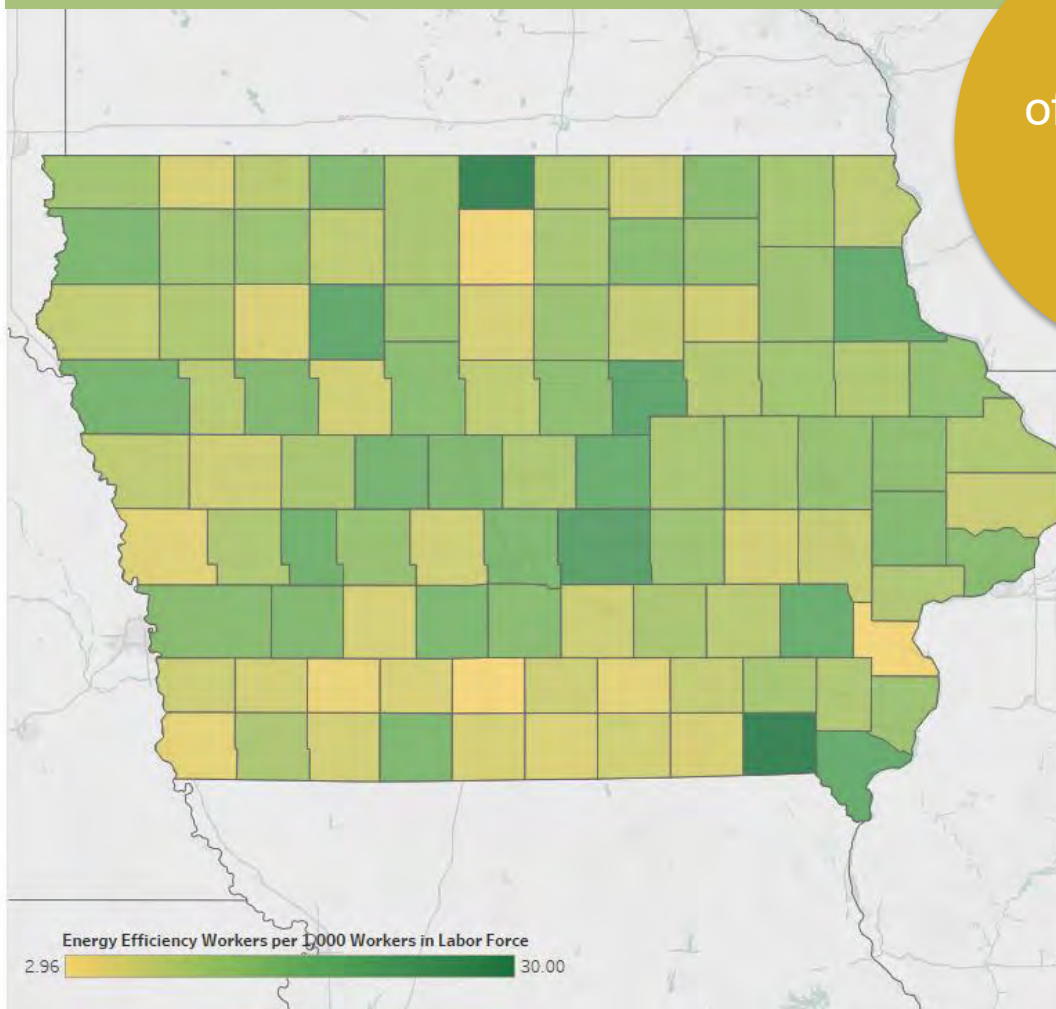
18,240

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Iowa, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



100%

of Iowa counties  
have energy  
efficiency  
workers

~12,100

new EE construction  
jobs to retrofit Iowa  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of IA residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



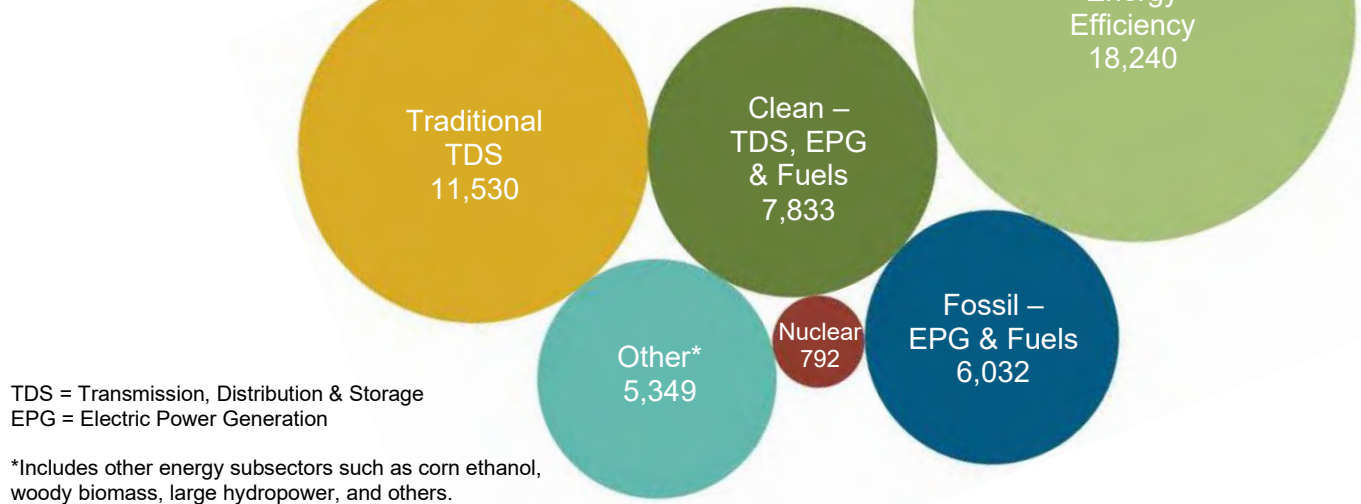
# Key EE Statistics for Iowa

## What are energy efficiency (EE) jobs?

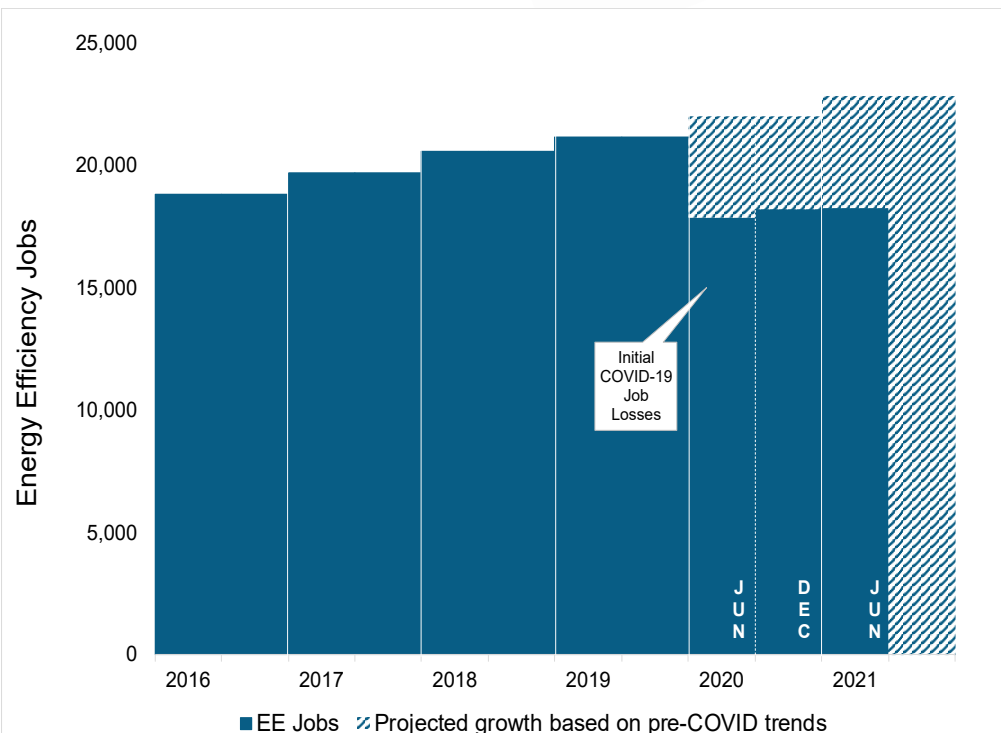
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Iowa's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Iowa.*



## How is the EE industry recovering?



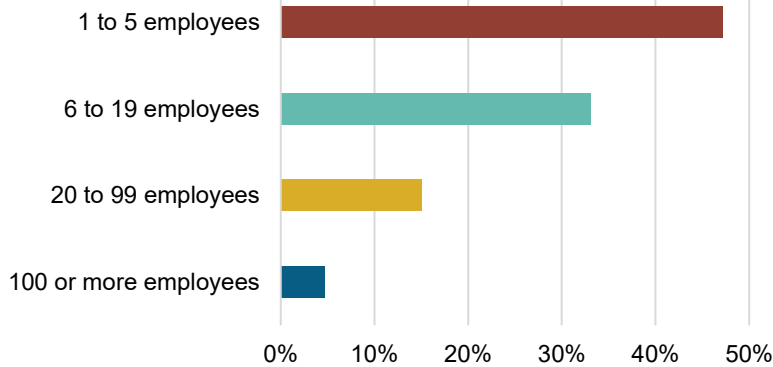
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in Iowa?

### 95.3% of IA EE Businesses Have Less Than 100 Employees



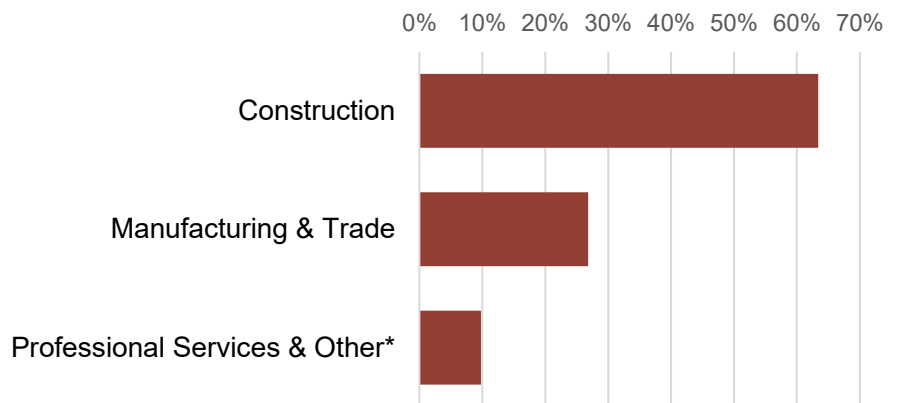
**3,014**  
EE businesses in Iowa



EE construction workers comprise **15%** of Iowa construction workers

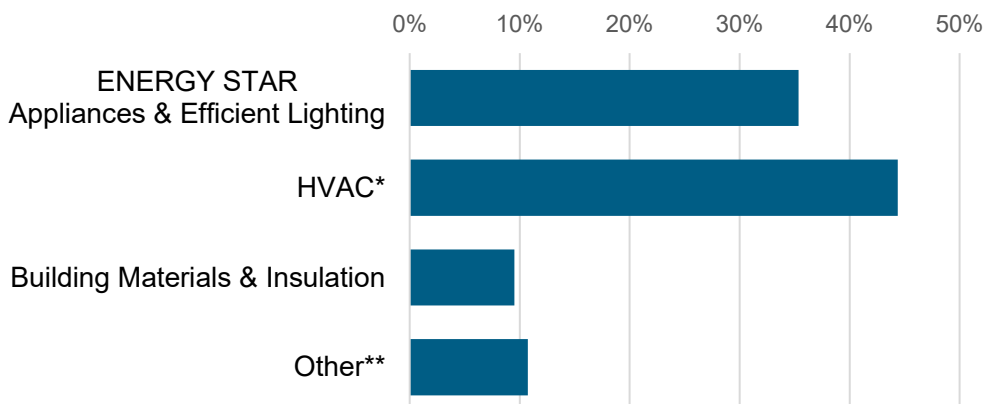


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

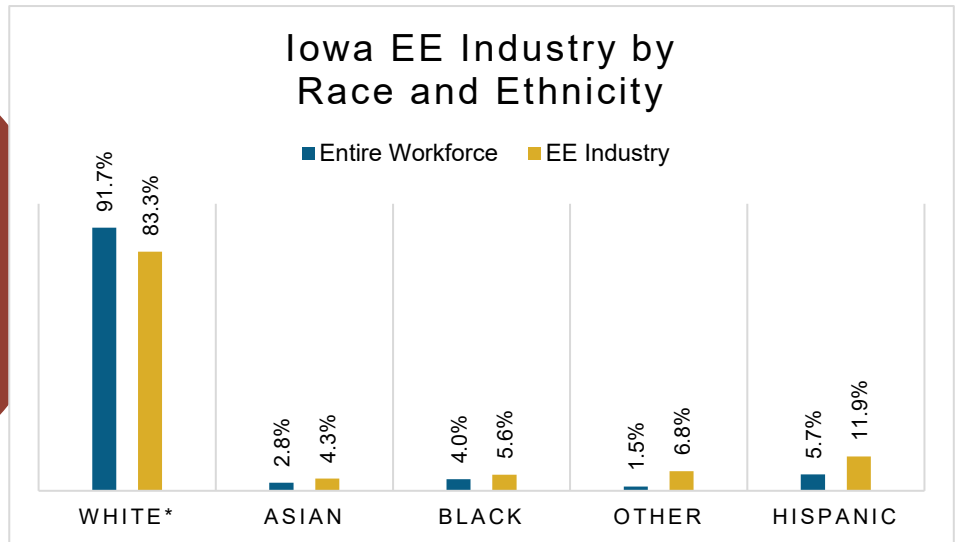


**8%** of Iowa EE workers are **Veterans**

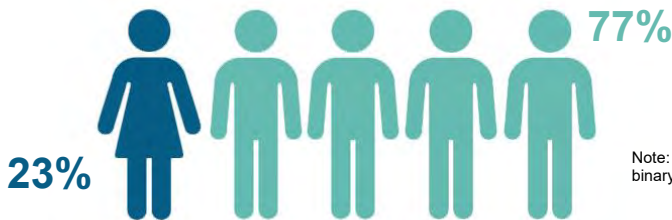
## How is EE doing on diversity in Iowa?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Iowa communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Iowa's EE Potential

Decades of work, ready for Iowa's growing energy efficiency workforce.

Weatherization Assistance Program:

**1,012\*** units weatherized in 2018, out of **~150,000** total low-income households

**1,012,393**

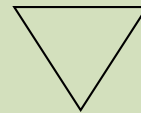
Iowa homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**25%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,764	Ames	545
2	3,939	Cedar Rapids	1,560
3	4,848	Davenport-Moline-Rock Island	873
4	4,689	Des Moines-West Des Moines	3,802
		Dubuque	500
		Iowa City	879
		Omaha-Council Bluffs	636
		Sioux City	524
		Waterloo-Cedar Falls	839
		Rural	8,082

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	774		14	477		27	106		40	283
2	385		15	412		28	303		41	384
3	574		16	764		29	844		42	257
4	567		17	159		30	262		43	<5
5	327		18	649		31	192		44	385
6	576		19	139		32	315		45	392
7	45		20	<5		33	1,027		46	255
8	271		21	442		34	160		47	223
9	313		22	59		35	63		48	109
10	1,176		23	468		36	302		49	210
11	232		24	274		37	841		50	<5
12	221		25	495		38	334			
13	241	26	745	39	200					

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	483	28	369	55	157	82	327
2	262	29	27	56	146	83	147
3	224	30	383	57	515	84	109
4	159	31	68	58	328	85	<5
5	138	32	699	59	<5	86	<5
6	434	33	90	60	261	87	166
7	409	34	68	61	191	88	220
8	157	35	277	62	<5	89	241
9	211	36	375	63	145	90	149
10	114	37	138	64	168	91	18
11	180	38	<5	65	852	92	236
12	398	39	<5	66	172	93	204
13	45	40	<5	67	146	94	18
14	<5	41	<5	68	14	95	32
15	270	42	441	69	63	96	77
16	<5	43	59	70	<5	97	205
17	165	44	<5	71	220	98	<5
18	147	45	465	72	82	99	<5
19	951	46	9	73	519	100	<5
20	223	47	178	74	341		
21	185	48	96	75	257		
22	46	49	79	76	100		
23	92	50	414	77	65		
24	128	51	293	78	134		
25	176	52	449	79	69		
26	64	53	<5	80	213		
27	106	54	106	81	77		



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# Kansas

## Energy Efficiency Jobs in America

June 2021\*

15,883

Dec 2020

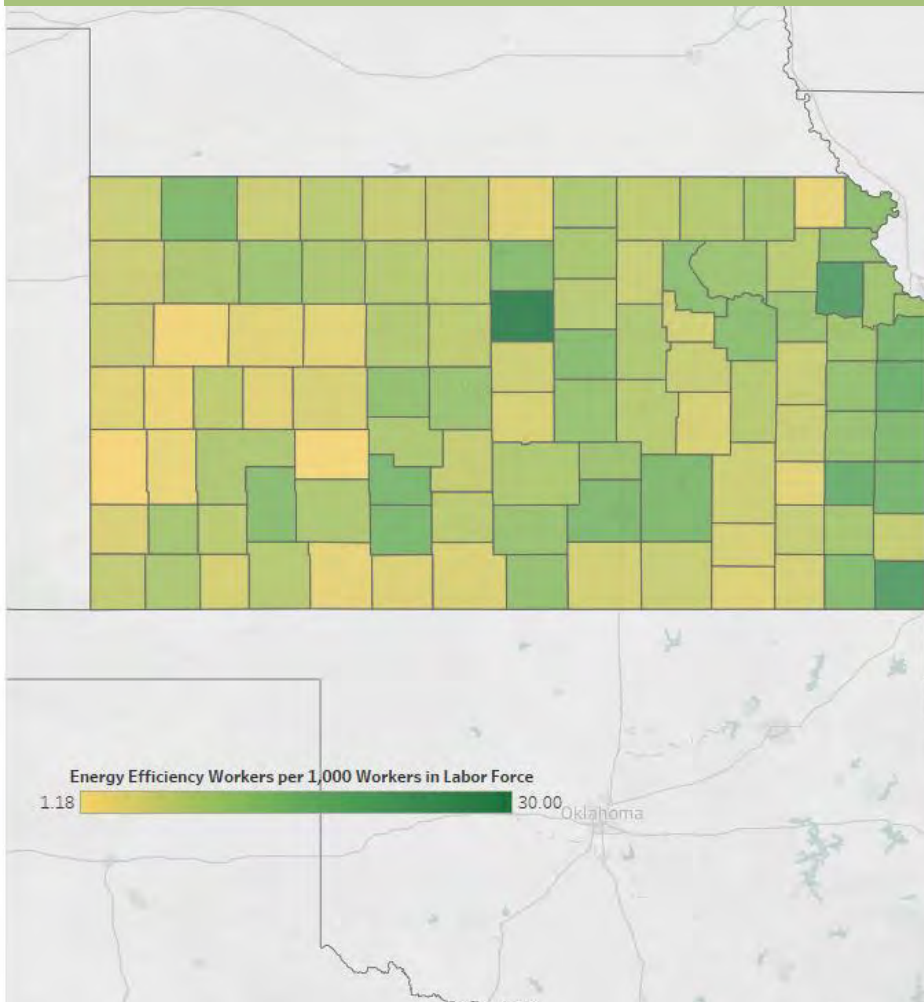
15,820

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Kansas, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Kansas  
counties have  
energy efficiency  
workers

**~11,200**  
new EE construction  
jobs to retrofit Kansas  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of KS residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



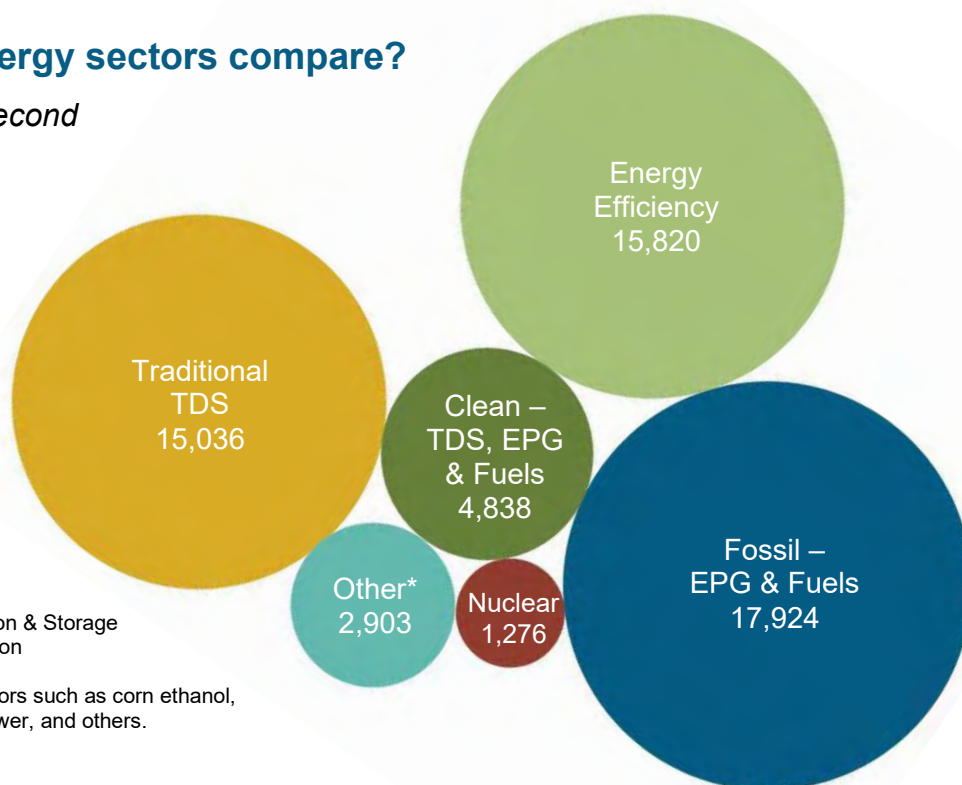
# Key EE Statistics for Kansas

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Kansas's energy sectors compare?

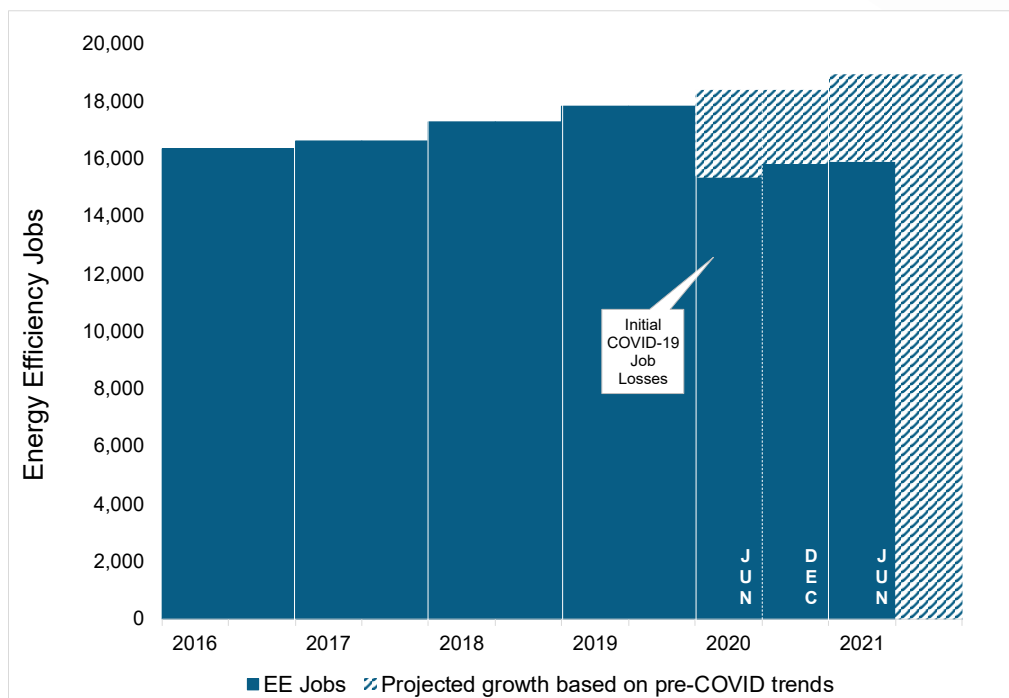
*Energy Efficiency is the second largest energy sector in Kansas.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



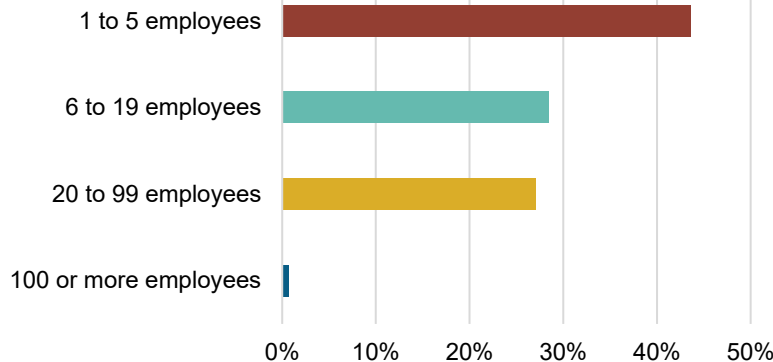
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



# What does EE look like in Kansas?

## 99.1% of KS EE Businesses Have Less Than 100 Employees



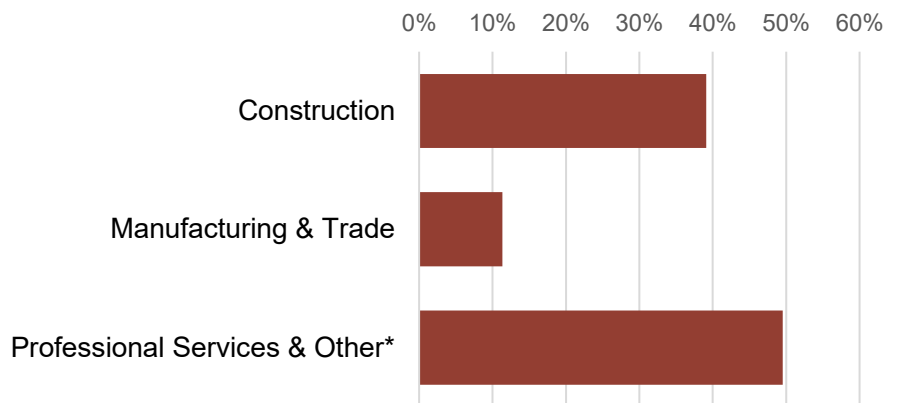
**1,967**  
EE businesses in  
Kansas



EE construction  
workers comprise  
**10%** of Kansas  
construction  
workers

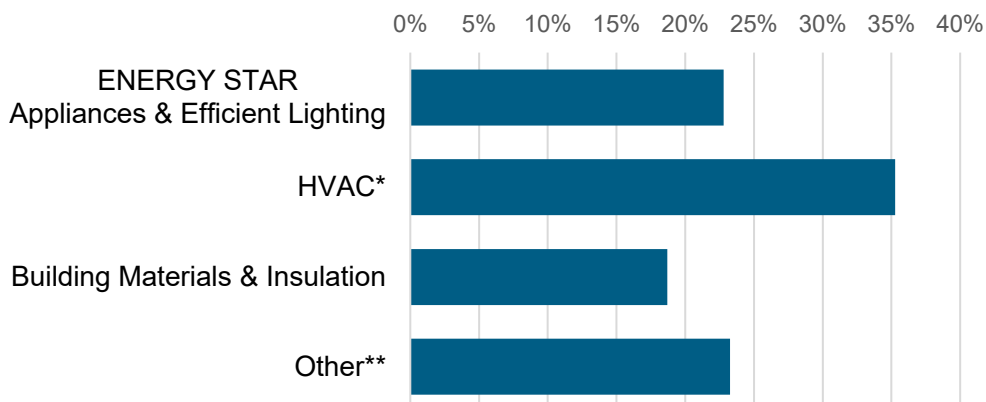


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

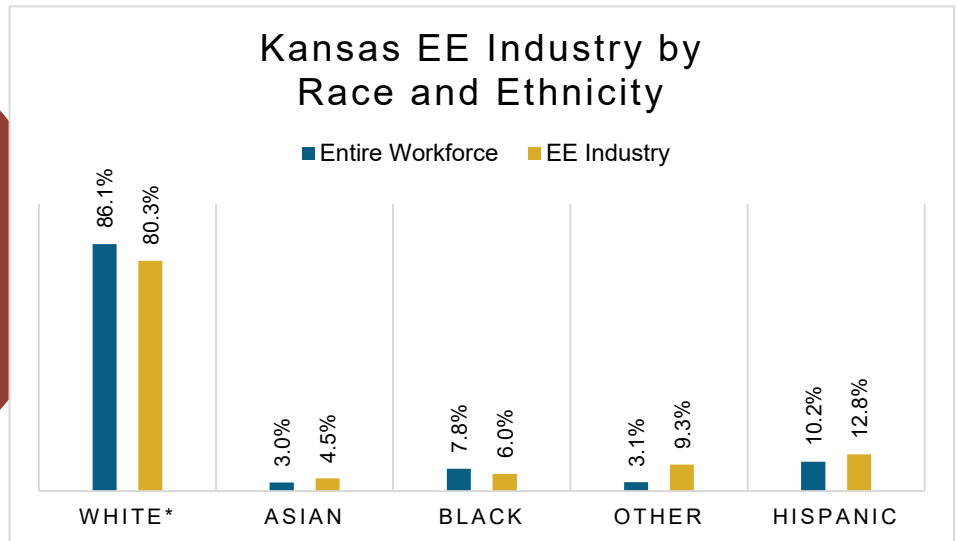


**7%** of  
Kansas  
EE workers are  
**Veterans**

# How is EE doing on diversity in Kansas?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Kansas communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Kansas's EE Potential

Decades of work, ready for Kansas's growing energy efficiency workforce.

Weatherization Assistance Program:



**872\*** units weatherized in 2018, out of **~130,000** total low-income households

**938,261**

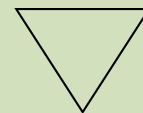
Kansas homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**23%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,550	Kansas City	5,405
2	3,144	Lawrence	565
3	4,669	Manhattan	525
4	3,456	St. Joseph	36
		Topeka	1,129
		Wichita	3,199
		Rural	4,960

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	764		14	774		27	117		40	603
2	580		15	146		28	59			
3	299		16	648		29	722			
4	294		17	298		30	<5			
5	40		18	643		31	83			
6	517		19	267		32	267			
7	626		20	24		33	706			
8	1,157		21	29		34	317			
9	1,305		22	196		35	310			
10	142		23	<5		36	353			
11	570		24	404		37	58			
12	450		25	865		38	332			
13	301		26	294		39	261			

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	238	33	156	65	<5	97	<5
2	234	34	25	66	<5	98	<5
3	<5	35	<5	67	<5	99	<5
4	59	36	<5	68	39	100	<5
5	219	37	<5	69	359	101	310
6	83	38	185	70	59	102	<5
7	151	39	15	71	<5	103	<5
8	447	40	5	72	182	104	<5
9	49	41	10	73	226	105	<5
10	248	42	311	74	73	106	137
11	25	43	<5	75	20	107	127
12	354	44	84	76	39	108	118
13	60	45	34	77	116	109	261
14	1,062	46	10	78	<5	110	331
15	<5	47	186	79	141	111	<5
16	872	48	<5	80	34	112	<5
17	102	49	<5	81	283	113	143
18	117	50	330	82	<5	114	26
19	501	51	583	83	342	115	379
20	478	52	<5	84	579	116	51
21	77	53	83	85	176	117	99
22	<5	54	69	86	156	118	237
23	<5	55	223	87	<5	119	<5
24	207	56	105	88	<5	120	148
25	53	57	<5	89	102	121	14
26	58	58	<5	90	132	122	172
27	170	59	15	91	68	123	<5
28	<5	60	<5	92	197	124	208
29	<5	61	44	93	263	125	<5
30	<5	62	146	94	285		
31	167	63	34	95	<5		
32	211	64	283	96	<5		



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# Kentucky

## Energy Efficiency Jobs in America

June 2021\*

21,977

Dec 2020

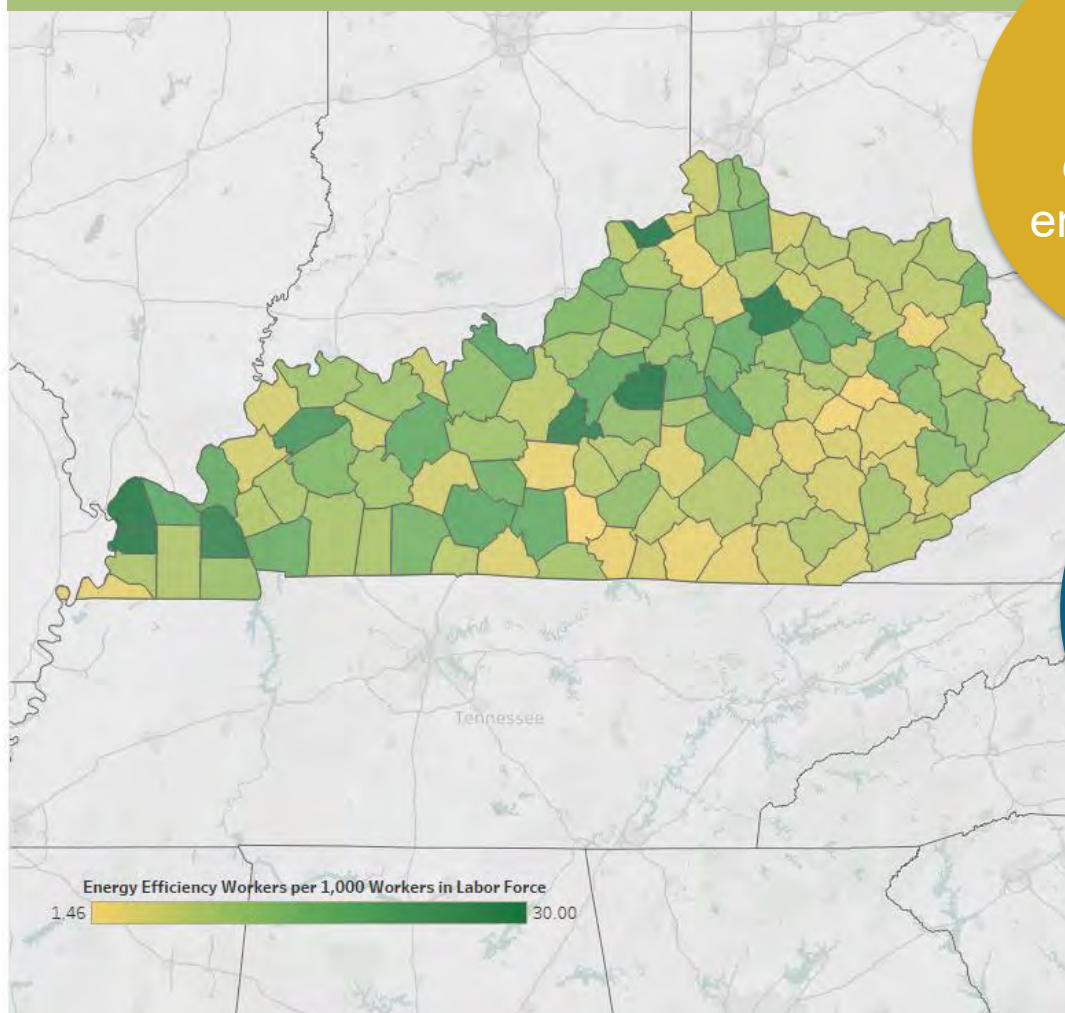
21,910

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Kentucky, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Kentucky  
counties have  
energy efficiency  
workers

**~15,100**  
new EE construction  
jobs to retrofit  
Kentucky homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of KY residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



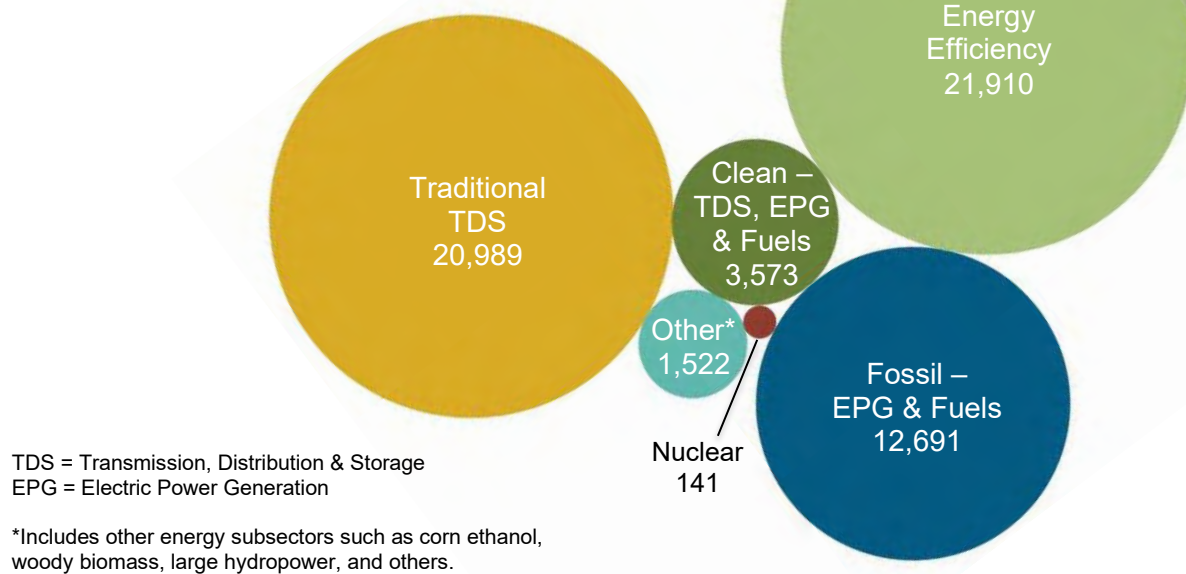
# Key EE Statistics for Kentucky

## What are energy efficiency (EE) jobs?

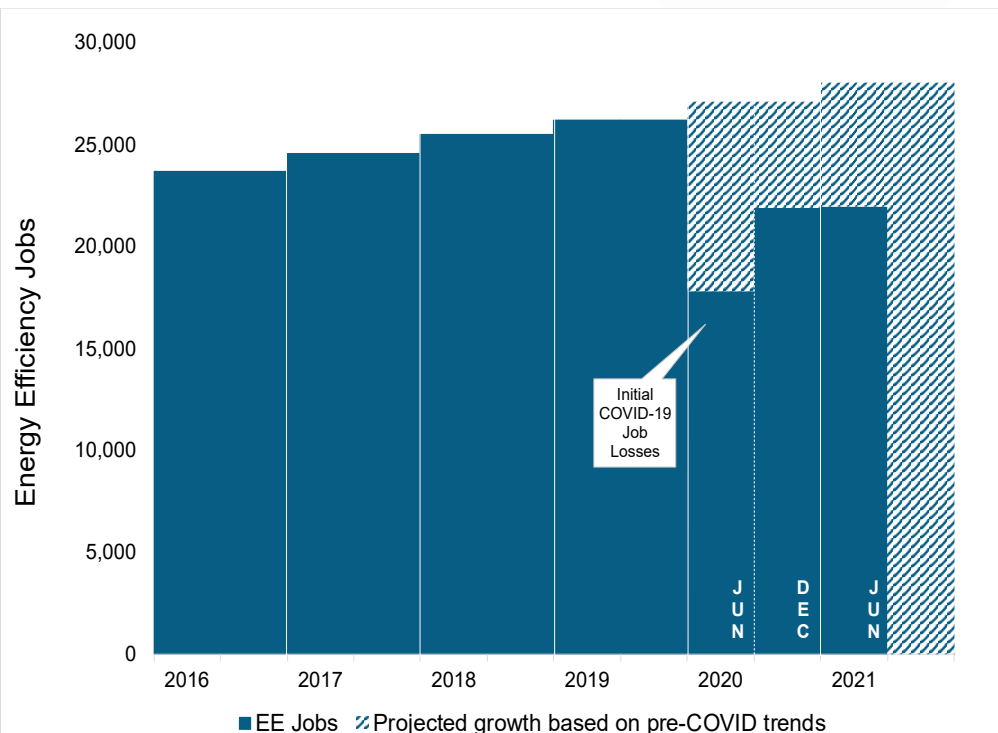
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Kentucky's energy sectors compare?

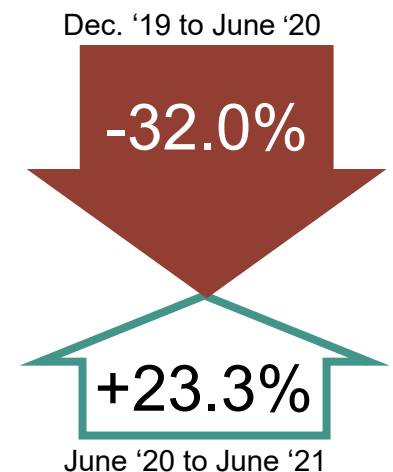
*Energy Efficiency is the **largest** energy sector in Kentucky.*



## How is the EE industry recovering?



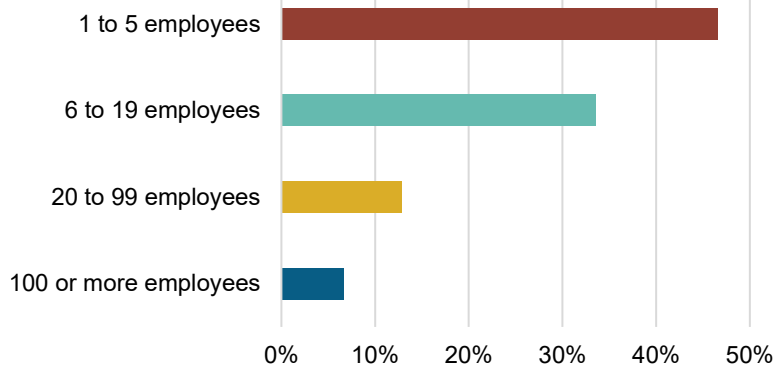
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in Kentucky?

### 93% of KY EE Businesses Have Less Than 100 Employees



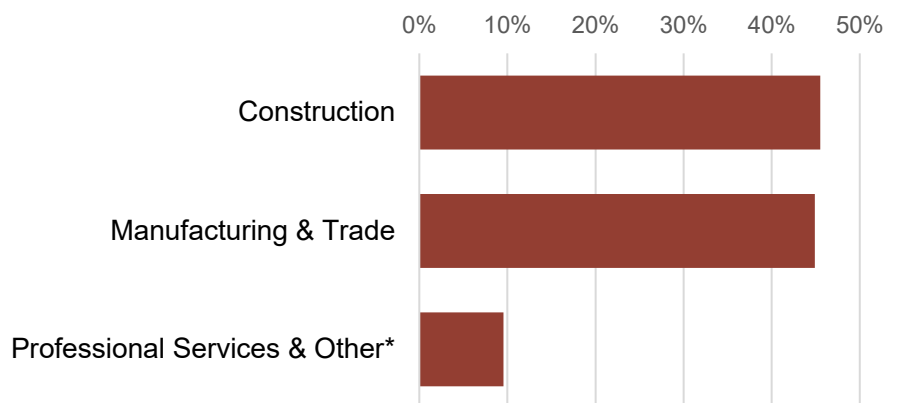
**5,366**  
EE businesses in  
Kentucky



EE construction  
workers comprise  
**13%** of Kentucky  
construction  
workers

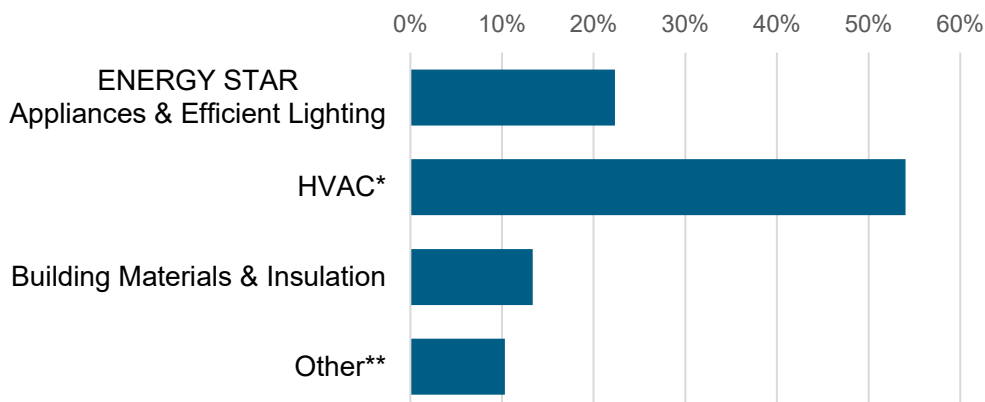


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
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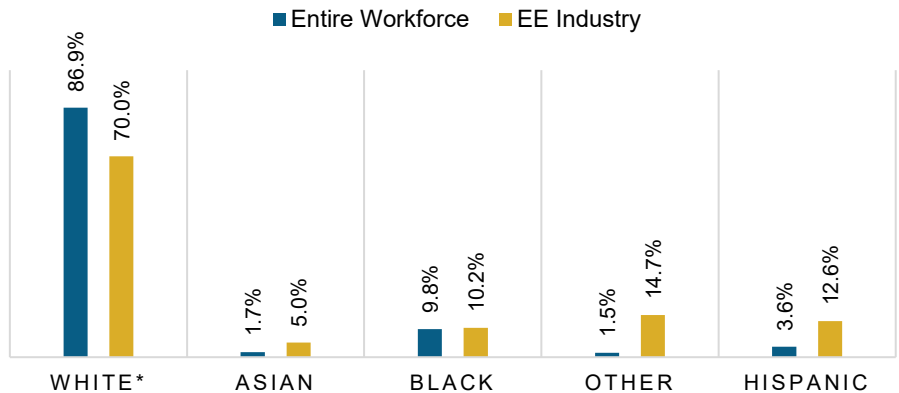
**10%** of  
Kentucky  
EE workers are  
**Veterans**

## How is EE doing on diversity in Kentucky?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Kentucky communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Kentucky EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Kentucky's EE Potential

Decades of work, ready for Kentucky's growing energy efficiency workforce.

Weatherization Assistance Program:



**414\*** units weatherized in 2018, out of **~290,000** total low-income households

**1,306,484**

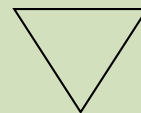
Kentucky homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**37%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,020	Bowling Green	766
2	4,062	Cincinnati-Middletown	2,055
3	4,688	Clarksville	347
4	3,534	Elizabethtown	624
5	2,341	Evansville	272
6	3,265	Huntington-Ashland	386
		Lexington-Fayette	2,995
		Louisville/Jefferson County	6,472
		Owensboro	582
		Rural	7,411

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	614		11	833		21	714		31	400
2	774		12	1,130		22	410		32	117
3	590		13	987		23	261		33	1,527
4	635		14	1,400		24	414		34	313
5	1,067		15	566		25	168		35	62
6	450		16	386		26	602		36	375
7	645		17	570		27	369		37	99
8	301		18	558		28	190		38	191
9	535		19	1,834		29	498			
10	555	20	557	30	216					

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	728	28	277	55	230	82	261
2	429	29	690	56	299	83	76
3	<5	30	694	57	<5	84	229
4	351	31	418	58	36	85	173
5	75	32	733	59	24	86	44
6	105	33	383	60	607	87	63
7	811	34	258	61	367	88	<5
8	27	35	128	62	13	89	13
9	210	36	17	63	676	90	55
10	742	37	24	64	138	91	107
11	<5	38	121	65	12	92	314
12	34	39	694	66	<5	93	87
13	<5	40	109	67	202	94	59
14	101	41	1,325	68	24	95	183
15	109	42	<5	69	<5	96	212
16	734	43	<5	70	256	97	126
17	322	44	<5	71	459	98	347
18	31	45	261	72	524	99	57
19	49	46	<5	73	190	100	<5
20	<5	47	598	74	78		
21	184	48	126	75	687		
22	56	49	54	76	270		
23	235	50	196	77	<5		
24	272	51	172	78	<5		
25	<5	52	541	79	<5		
26	457	53	245	80	30		
27	60	54	194	81	<5		



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# Louisiana

## Energy Efficiency Jobs in America

June 2021\*

19,177

Dec 2020

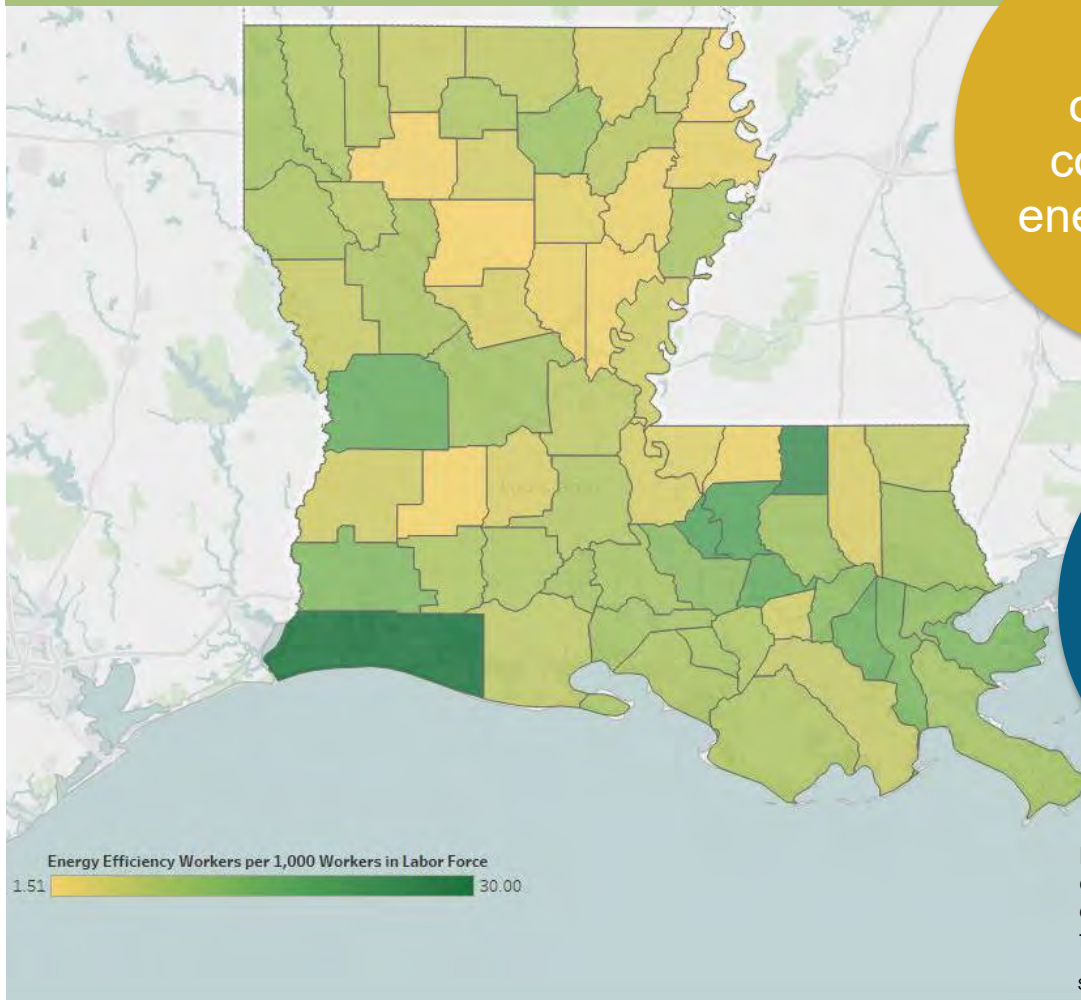
19,139

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Louisiana, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Louisiana  
counties have  
energy efficiency  
workers

**~15,700**  
new EE construction  
jobs to retrofit  
Louisiana homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of LA residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



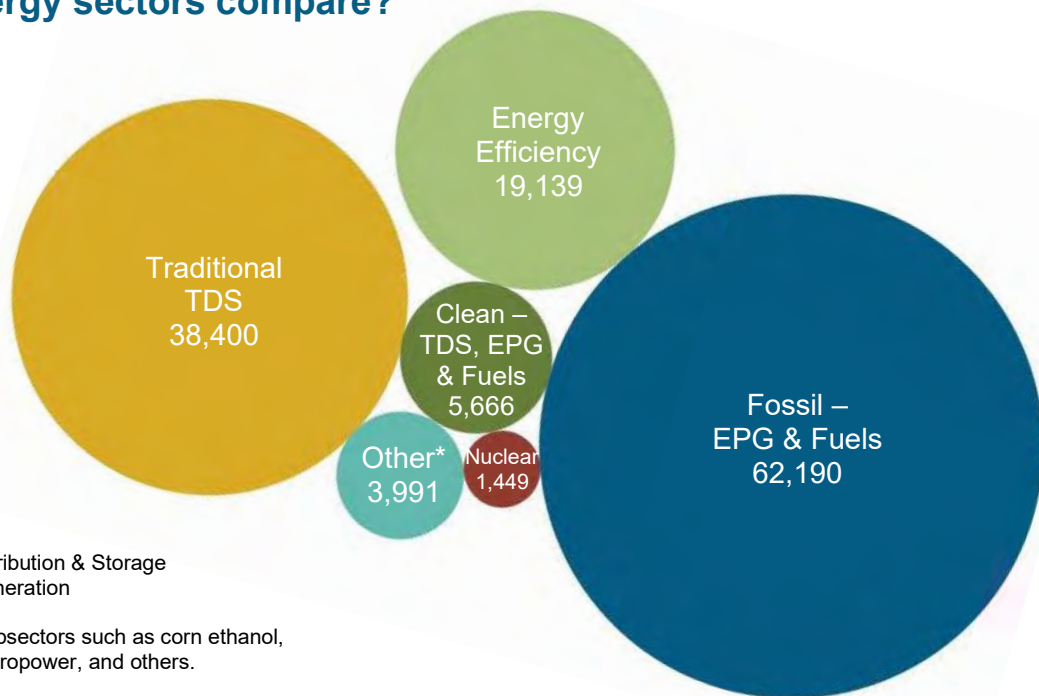
# Key EE Statistics for Louisiana

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Louisiana's energy sectors compare?

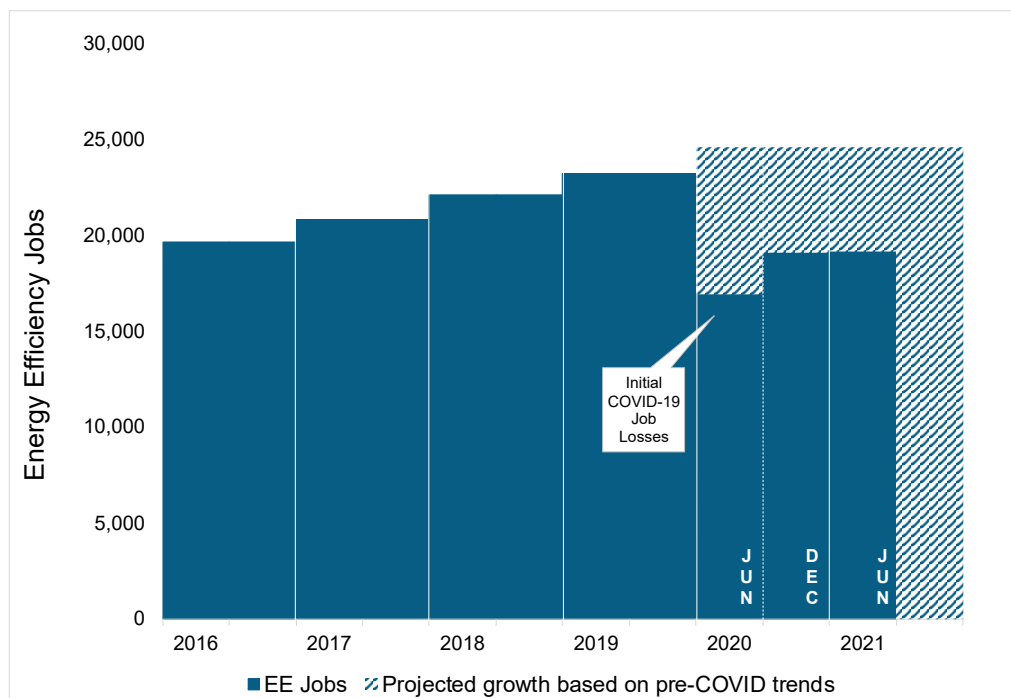
*Energy Efficiency is the third largest energy sector in Louisiana.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

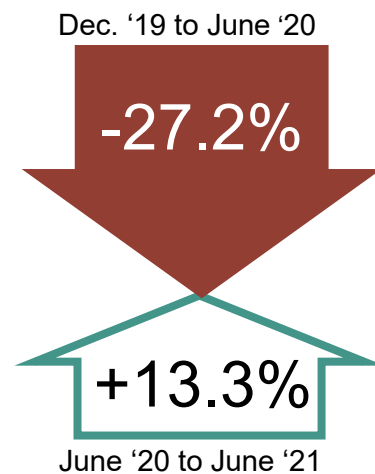
\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



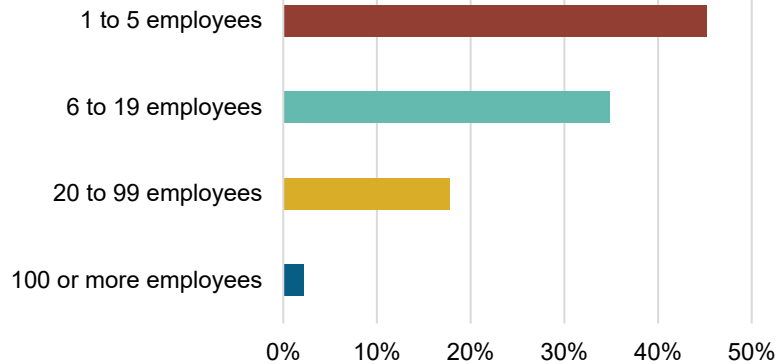
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



## What does EE look like in Louisiana?

### 97.8% of LA EE Businesses Have Less Than 100 Employees



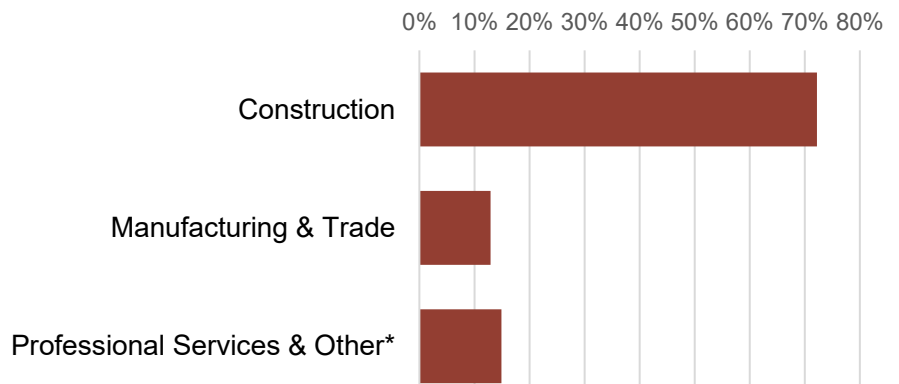
**3,027**  
EE businesses in  
Louisiana



EE construction  
workers comprise  
**11%** of Louisiana  
construction  
workers

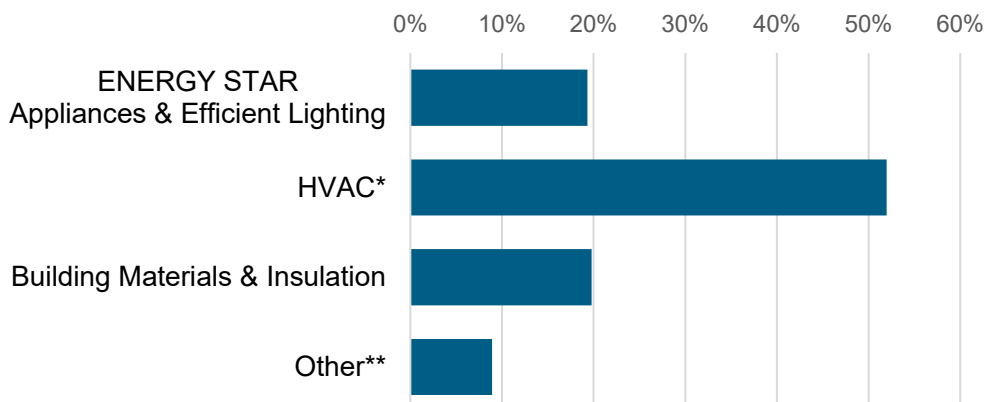


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services



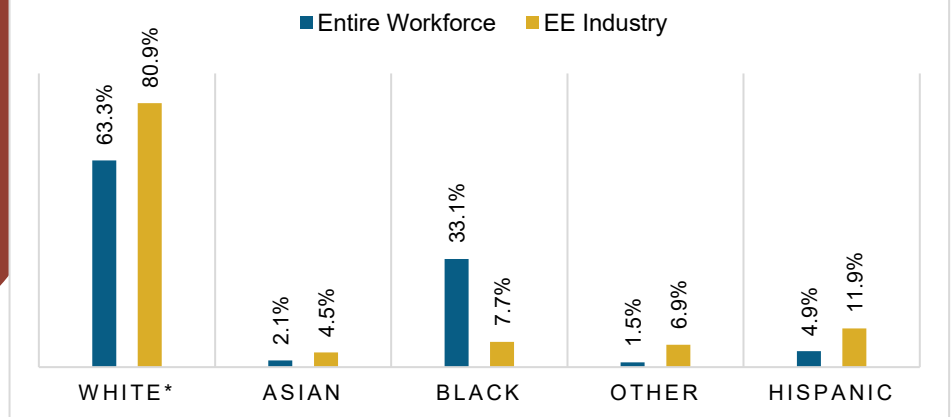
**9%** of  
Louisiana  
EE workers are  
**Veterans**

## How is EE doing on diversity in Louisiana?

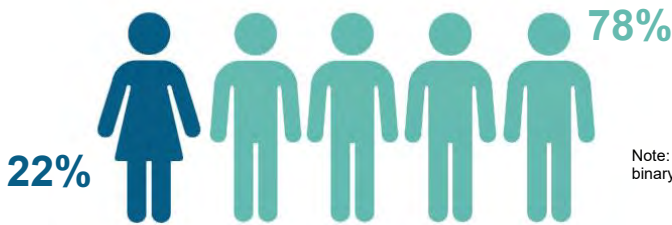
Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Louisiana communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Louisiana EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.




Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Louisiana's EE Potential

Decades of work, ready for Louisiana's growing energy efficiency workforce.

Weatherization Assistance Program:

  
**540\*** units weatherized in 2018, out of **~340,000** total low-income households

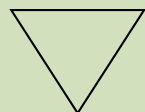
**1,265,130**

Louisiana homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**46%**  


\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	5,568	Alexandria	558
2	3,356	Baton Rouge	3,468
3	3,513	Houma-Bayou Cane-Thibodaux	839
4	2,624	Lafayette	1,579
5	1,979	Lake Charles	863
6	2,099	Monroe	654
		New Orleans-Metairie-Kenner	6,431
		Shreveport-Bossier City	1,700
		Rural	3,047

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	629		11	840		21	353		31	170
2	841		12	105		22	558		32	389
3	741		13	225		23	1,114		33	680
4	1,125		14	1,512		24	216		34	41
5	1,057		15	251		25	914		35	6
6	1,013		16	<5		26	115		36	530
7	236		17	279		27	235		37	921
8	22		18	184		28	158		38	279
9	786		19	234		29	841		39	78
10	626	20	637	30	197					

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	361	28	57	55	<5	82	269
2	949	29	295	56	236	83	111
3	211	30	<5	57	33	84	181
4	<5	31	977	58	330	85	173
5	28	32	52	59	129	86	10
6	<5	33	377	60	19	87	<5
7	92	34	237	61	408	88	<5
8	<5	35	13	62	125	89	136
9	<5	36	125	63	10	90	66
10	105	37	90	64	251	91	1,006
11	188	38	217	65	294	92	<5
12	56	39	191	66	786	93	426
13	258	40	<5	67	271	94	106
14	472	41	76	68	<5	95	7
15	17	42	7	69	<5	96	<5
16	<5	43	212	70	<5	97	28
17	57	44	157	71	<5	98	<5
18	226	45	<5	72	275	99	53
19	113	46	66	73	384	100	25
20	91	47	162	74	429	101	<5
21	35	48	228	75	<5	102	87
22	117	49	30	76	285	103	108
23	13	50	194	77	54	104	<5
24	217	51	682	78	640		
25	419	52	40	79	97		
26	<5	53	40	80	982		
27	54	54	66	81	82		



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



E2 is a national, nonpartisan group of business leaders, investors, and other professionals from every sector of the economy who advocate for smart policies that are good for the environment and good for the economy. Visit [www.e2.org](http://www.e2.org)



BW Research Partnership is a full-service, economic and workforce research consulting firm with offices in Carlsbad, California and Wrentham, Massachusetts. It is the nation's leading provider of accurate, comprehensive energy and clean energy research studies. Visit [www.bwresearch.com](http://www.bwresearch.com)

Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

For questions on E4TheFuture analyses please email: [policy@e4thefuture.org](mailto:policy@e4thefuture.org).



# Maine

## Energy Efficiency Jobs in America

June 2021\*

8,043

Dec. 2020

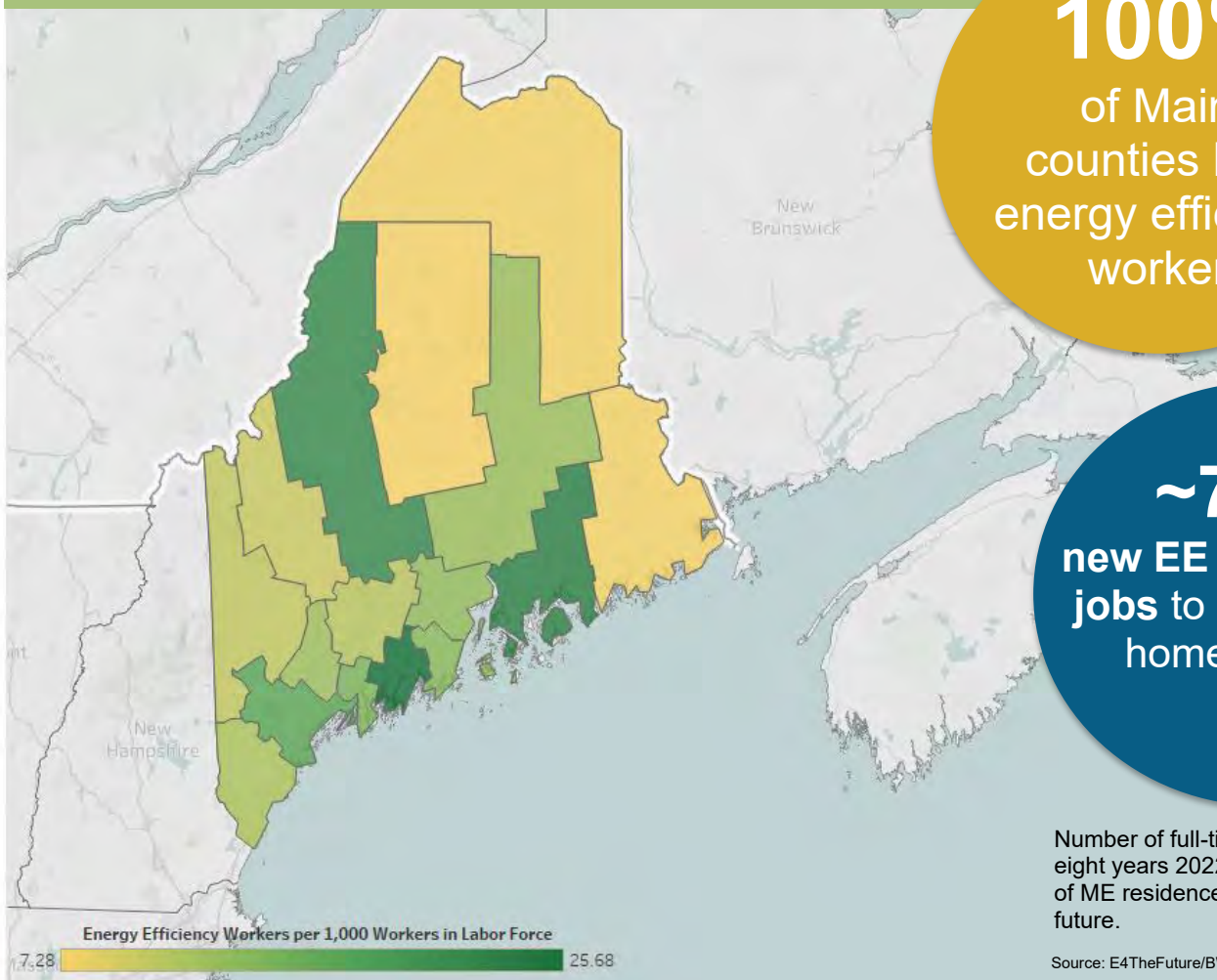
8,034

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Maine, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Maine  
counties have  
energy efficiency  
workers

**~7,400**  
new EE construction  
jobs to retrofit Maine  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of ME residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



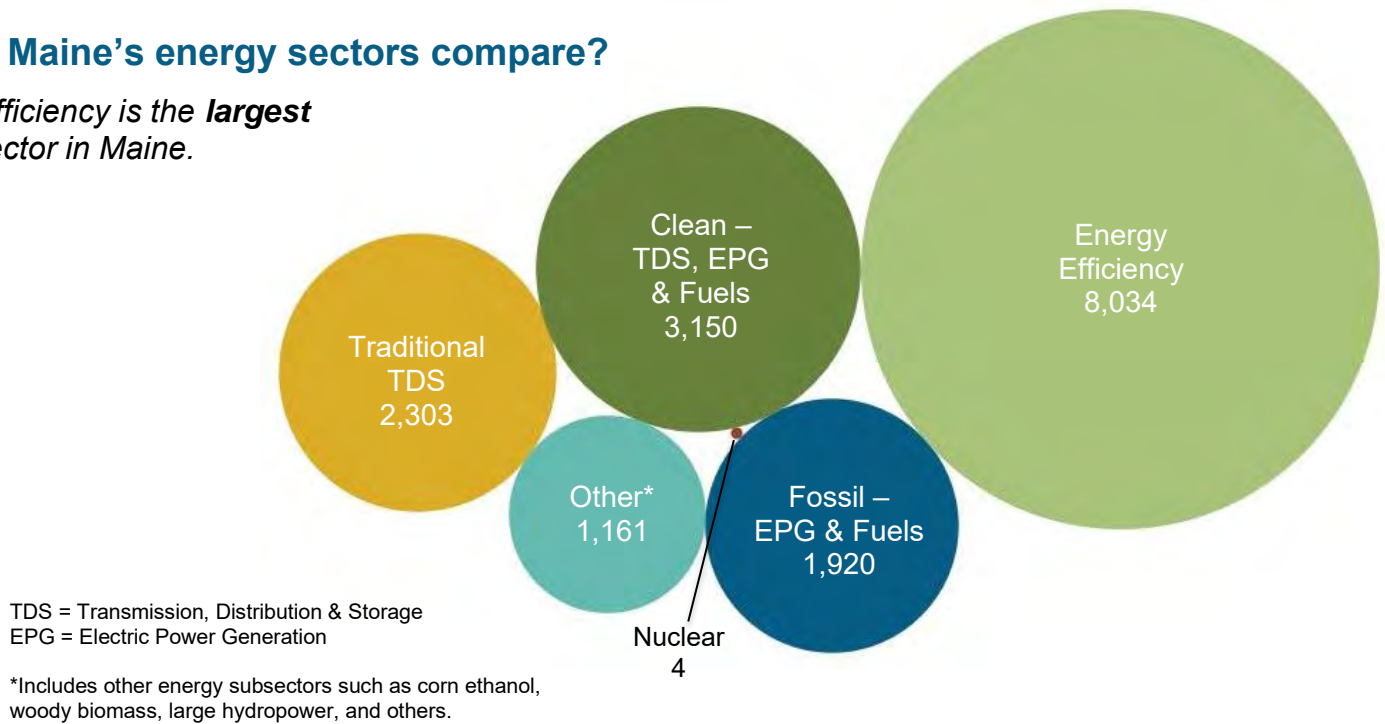
# Key EE Statistics for Maine

## What are energy efficiency (EE) jobs?

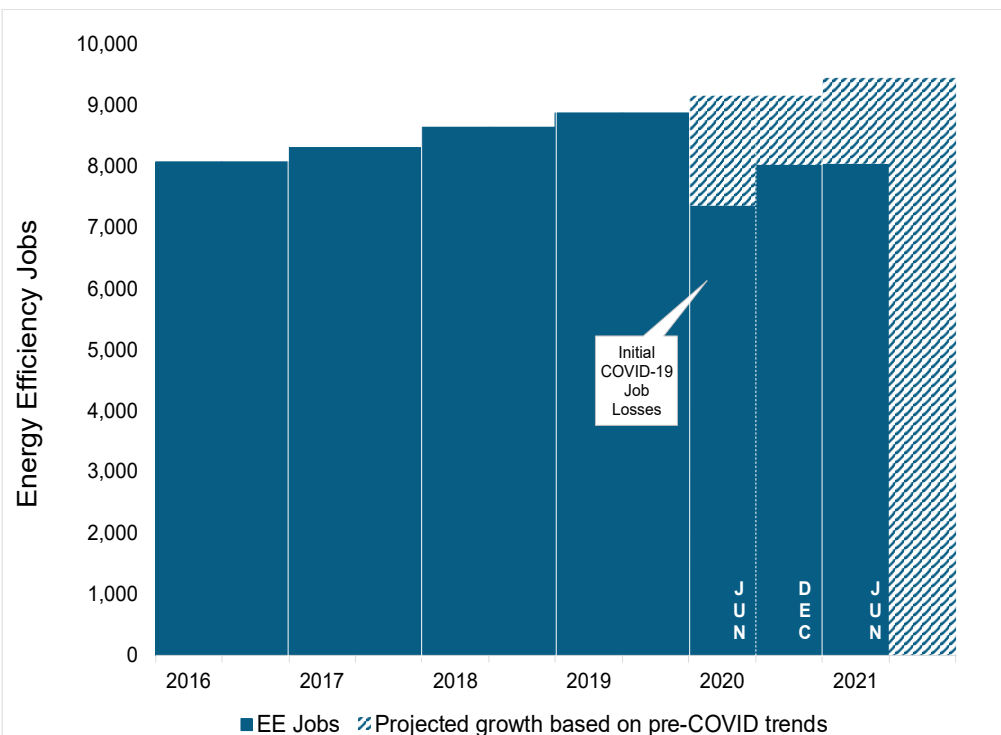
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Maine's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Maine.*



## How is the EE industry recovering?



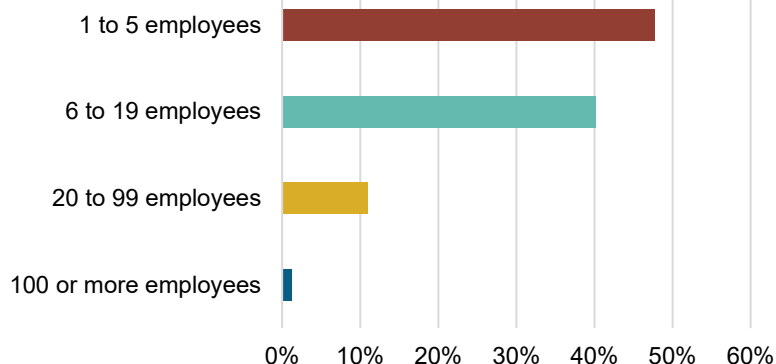
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



# What does EE look like in Maine?

## 98.8% of ME EE Businesses Have Less Than 100 Employees



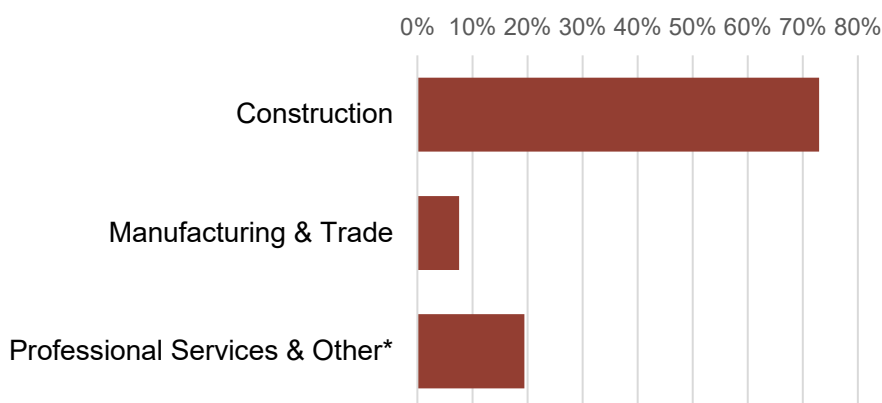
**1,611**  
EE businesses in  
Maine



EE construction  
workers comprise  
**18%** of Maine  
construction  
workers

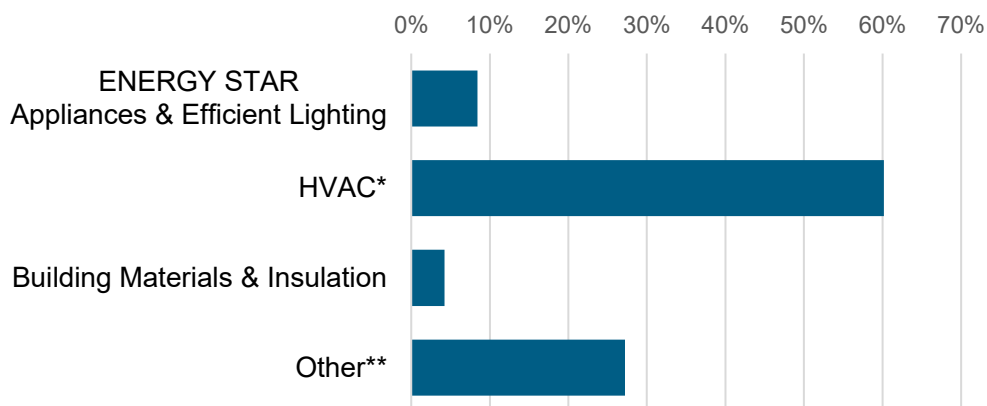


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

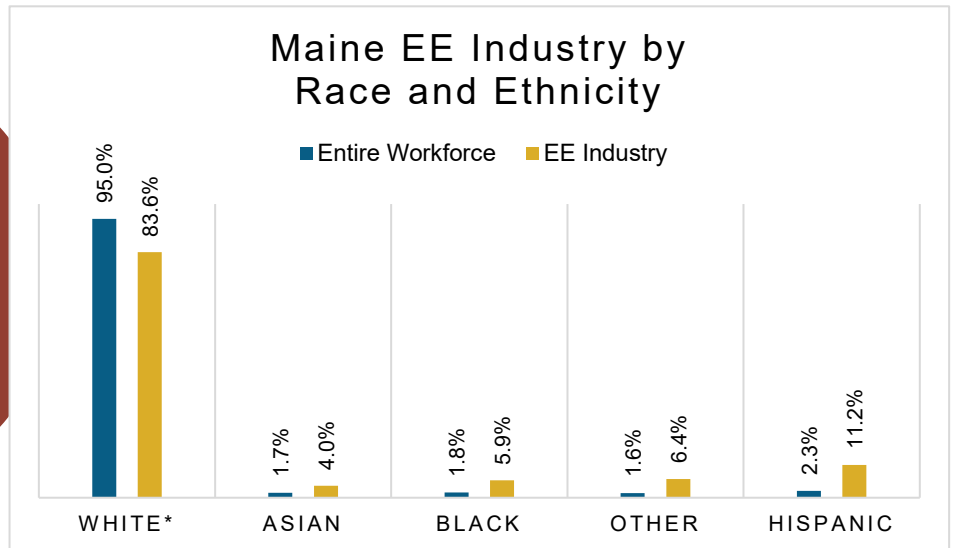


**8%** of  
Maine  
EE workers are  
**Veterans**

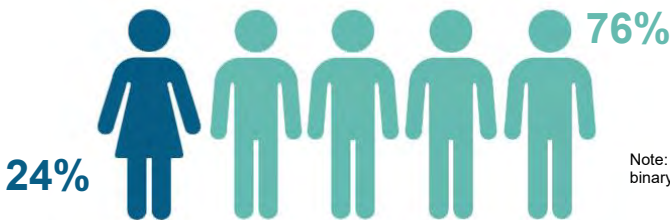
## How is EE doing on diversity in Maine?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Maine communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Maine's EE Potential

Decades of work, ready for Maine's growing energy efficiency workforce.

Weatherization Assistance Program:

**468\*** units weatherized in 2018, out of **~64,000** total low-income households

**563,318**

Maine homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**25%**

\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,636	Bangor	792
2	3,397	Lewiston-Auburn	489
		Portland- South Portland	3,524
		Rural	3,228

State Upper House										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	128		11	505		21	159		31	174
2	200		12	286		22	165		32	364
3	204		13	272		23	218		33	207
4	135		14	440		24	341		34	126
5	397		15	24		25	456		35	255
6	175		16	165		26	58			
7	393		17	159		27	672			
8	156		18	202		28	<5			
9	46		19	188		29	318			
10	123		20	191		30	135			

## State Lower House

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	116	40	<5	79	35	118	29
2	23	41	<5	80	23	119	68
3	116	42	<5	81	106	120	<5
4	151	43	73	82	5	121	27
5	57	44	<5	83	22	122	17
6	<5	45	127	84	17	123	19
7	<5	46	27	85	<5	124	<5
8	82	47	56	86	<5	125	<5
9	222	48	95	87	33	126	<5
10	55	49	121	88	12	127	<5
11	<5	50	<5	89	70	128	71
12	<5	51	82	90	108	129	42
13	26	52	<5	91	67	130	37
14	108	53	62	92	42	131	154
15	<5	54	59	93	79	132	<5
16	56	55	83	94	89	133	54
17	26	56	30	95	46	134	96
18	25	57	62	96	296	135	71
19	<5	58	157	97	80	136	66
20	58	59	<5	98	61	137	65
21	17	60	<5	99	20	138	29
22	61	61	<5	100	54	139	31
23	42	62	121	101	358	140	41
24	136	63	<5	102	53	141	40
25	<5	64	13	103	<5	142	<5
26	94	65	45	104	37	143	7
27	268	66	20	105	25	144	70
28	125	67	<5	106	51	145	15
29	<5	68	46	107	59	146	51
30	33	69	76	108	55	147	57
31	<5	70	56	109	<5	148	25
32	<5	71	32	110	<5	149	<5
33	<5	72	35	111	<5	150	52
34	<5	73	45	112	97	151	6
35	<5	74	36	113	39	152	<5
36	453	75	44	114	<5	153	<5
37	<5	76	63	115	25		
38	298	77	233	116	15		
39	5	78	105	117	53		



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# Maryland

## Energy Efficiency Jobs in America

June 2021\*

65,493

Dec 2020

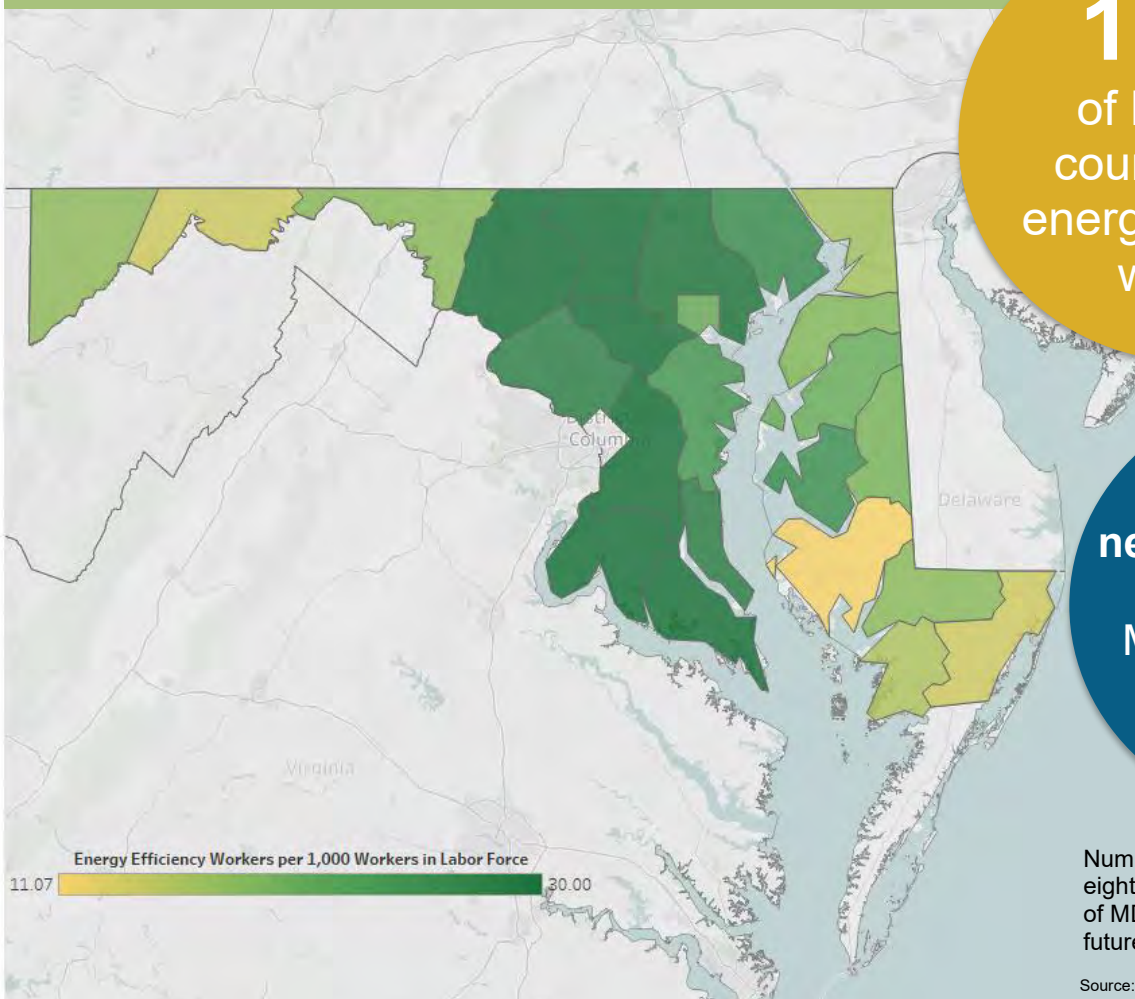
65,412

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Maryland, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Maryland  
counties have  
energy efficiency  
workers

**~20,800**  
new EE construction  
jobs to retrofit  
Maryland homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of MD residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



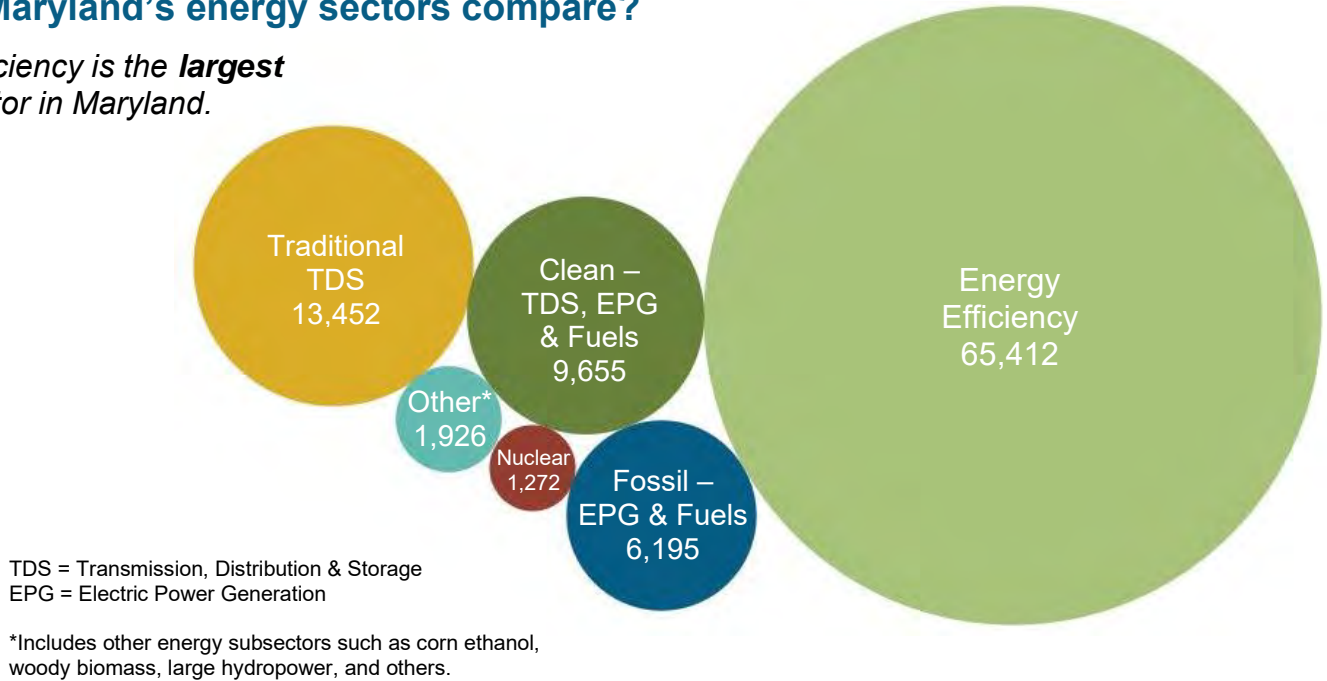
# Key EE Statistics for Maryland

## What are energy efficiency (EE) jobs?

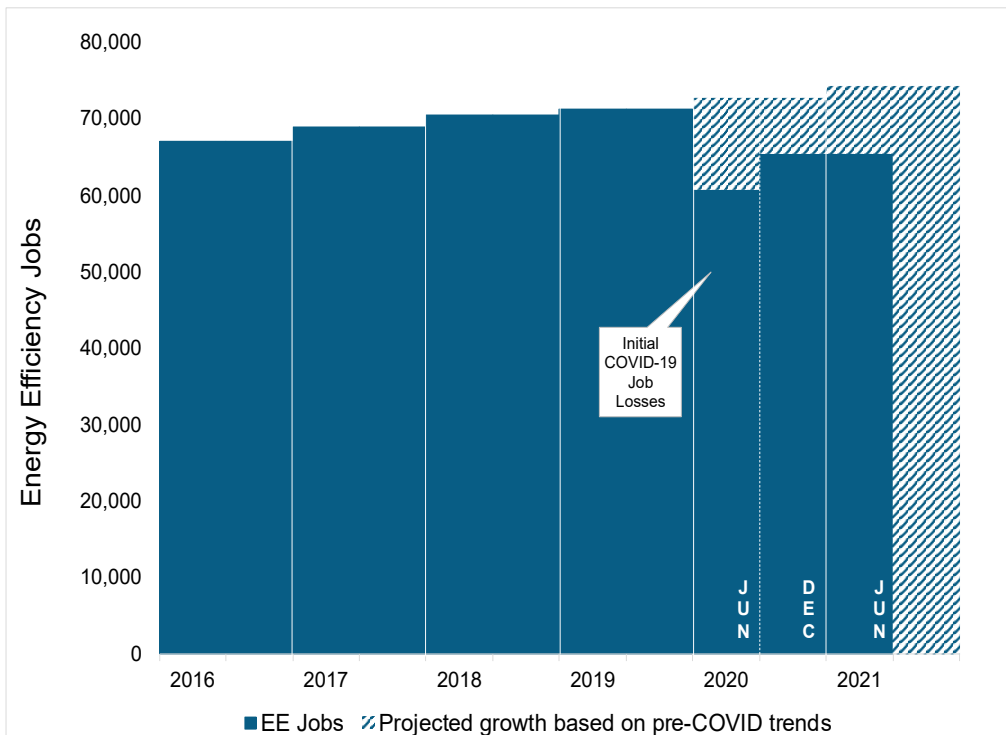
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Maryland's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Maryland.*

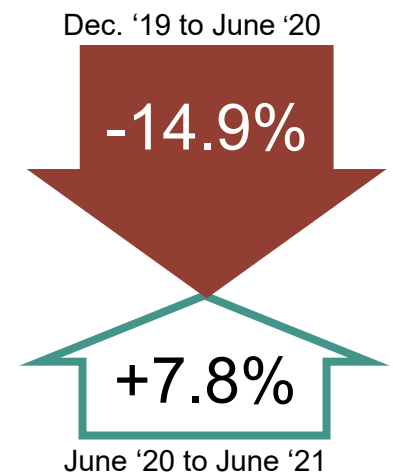


## How is the EE industry recovering?



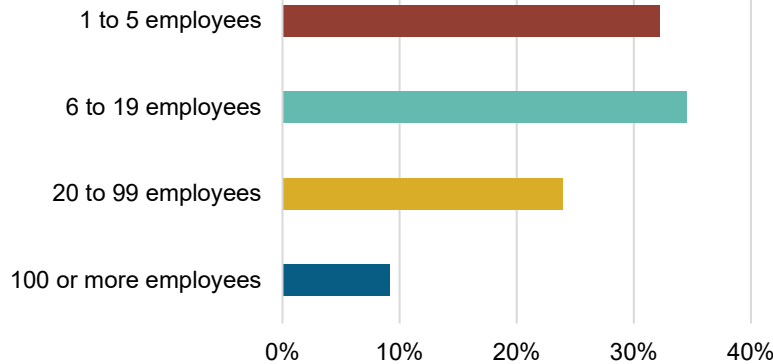
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



# What does EE look like in Maryland?

## 90.7% of MD EE Businesses Have Less Than 100 Employees



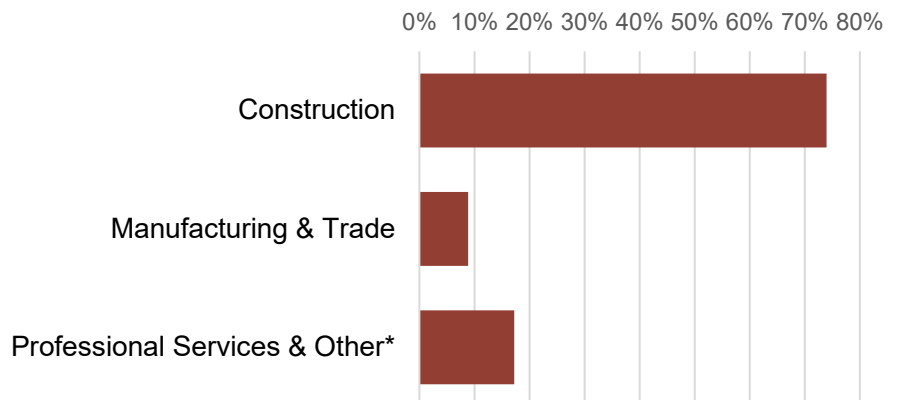
**7,119**  
EE businesses in Maryland



EE construction workers comprise **29%** of Maryland construction workers

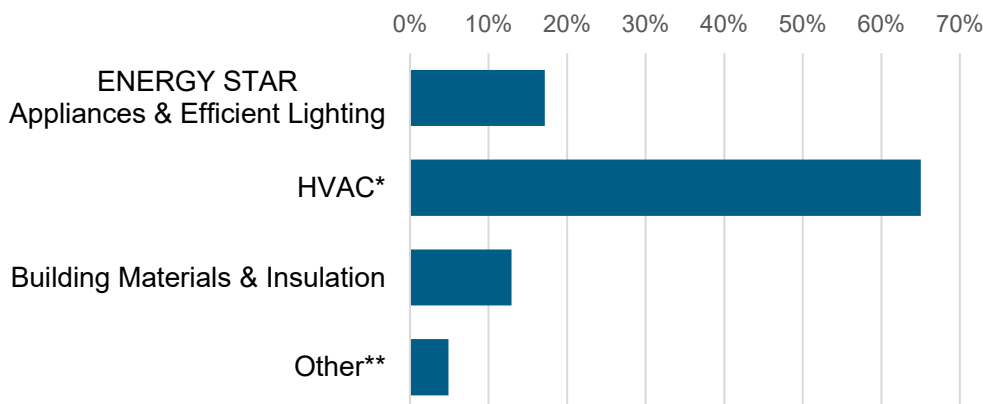


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

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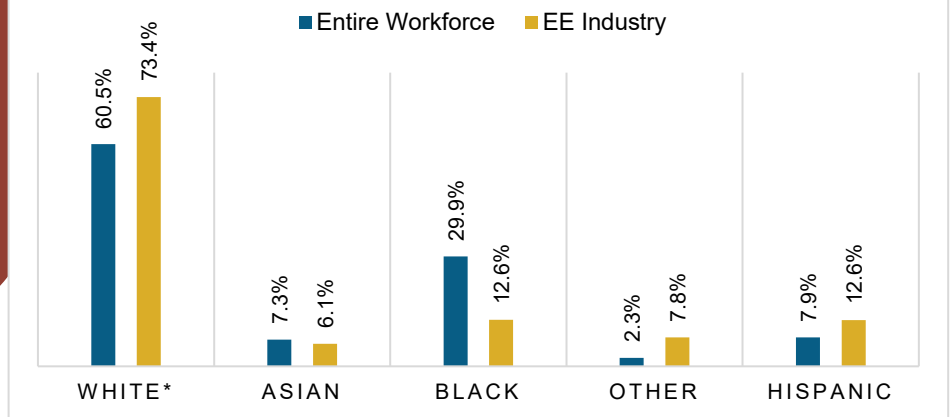
**8%** of  
Maryland  
EE workers are  
**Veterans**

## How is EE doing on diversity in Maryland?

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The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Maryland EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Maryland's EE Potential

Decades of work, ready for Maryland's growing energy efficiency workforce.

Weatherization Assistance Program:

**6,596\*** units weatherized in 2018, out of **~200,000** total low-income households

**1,839,365**

Maryland homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**39%**

\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	12,269	Baltimore-Towson	29,912
2	11,819	Cumberland	597
3	12,962	Hagerstown-Martinsburg	1,385
4	5,576	Philadelphia-Camden-Wilmington	1,894
5	4,476	Salisbury	1,131
6	11,574	Washington-Arlington-Alexandria	26,582
7	1,586	Rural	3,911
8	5,150		

State Upper House										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	1,990		15	3,915		29	696		43	241
2	567		16	3,413		30	2,625		44	<5
3	2,627		17	1,989		31	2,674		45	221
4	2,025		18	1,216		32	37		46	<5
5	1,479		19	172		33	332		47	117
6	1,927		20	1,362		34	543			
7	2,743		21	1,867		35	799			
8	904		22	1,857		36	1,595			
9	2,749		23	884		37	2,248			
10	1,829		24	656		38	927			
11	3,261		25	623		39	<5			
12	2,292		26	336		40	3,942			
13	1,303		27	961		41	<5			
14	2,046		28	1,272		42	151			

## State House of Delegates

District	Jobs		District	Jobs		District	Jobs		District	Jobs
4	4,757		22	1,869		03B	14		37B	1,021
5	1,457		24	648		09A	72		38A	418
6	1,943		25	1,124		23A	179		38B	117
7	2,702		26	331		23B	184		38C	382
8	888		28	1,384		27A	72		42A	12
10	1,983		32	1,419		27B	384		42B	132
11	3,328		33	2,707		27C	449		47A	116
12	4,320		36	2,132		29A	245			
13	1,650		40	3,883		29B	420			
14	2,112		43	242		29C	25			
15	3,934		45	217		30A	316			
16	3,370		46	270		30B	236			
17	1,965		01A	899		31A	682			
18	1,229		01B	23		34A	535			
19	170		01C	1,048		35A	143			
20	1,530		02A	265		35B	101			
21	1,853		03A	288		37A	1,217			



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# Massachusetts

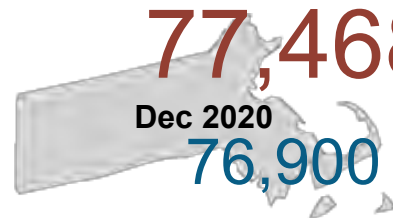
## Energy Efficiency Jobs in America

June 2021\*

77,468

Dec 2020

76,900

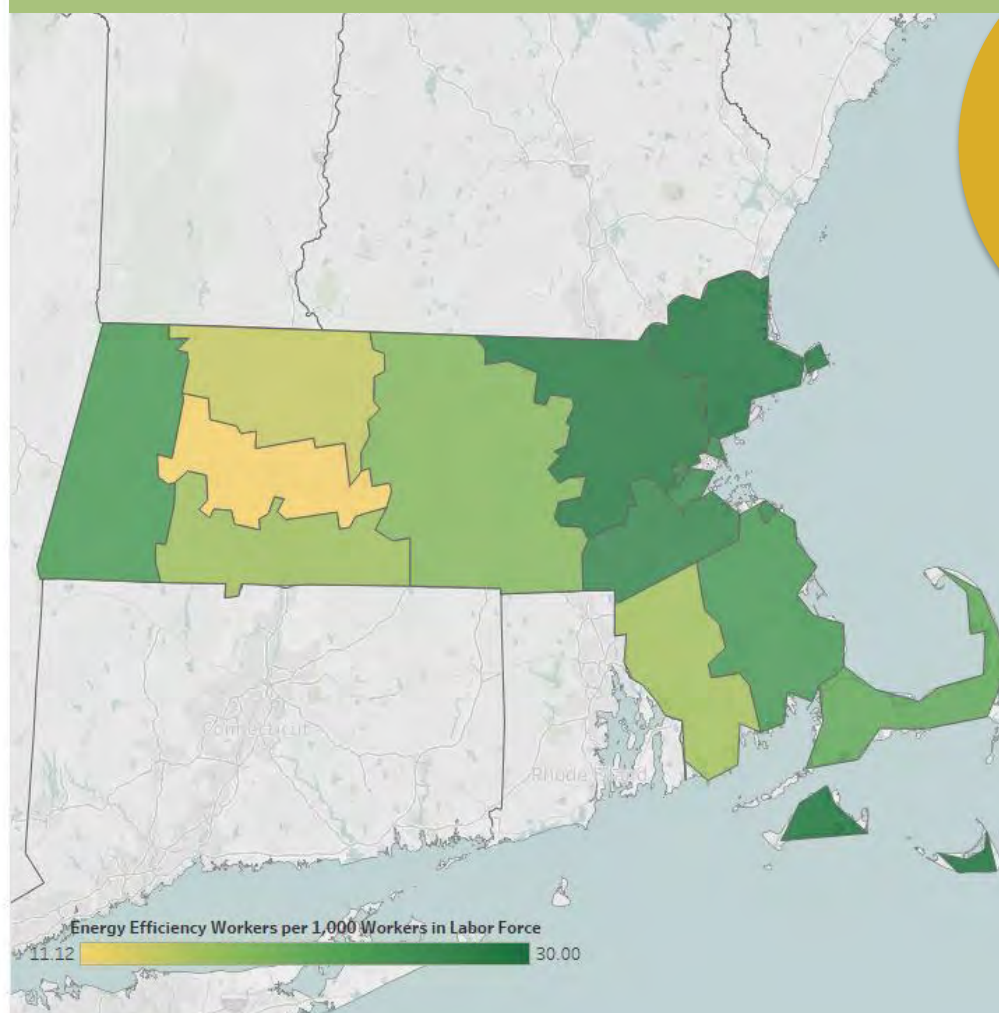


*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Massachusetts, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



100%

of Massachusetts  
counties have  
energy efficiency  
workers

~35,600

new EE construction  
jobs to retrofit  
Massachusetts homes  
by 2030



Number of full-time workers required for  
eight years 2022-2030 to improve 80%  
of MA residences for a clean energy  
future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



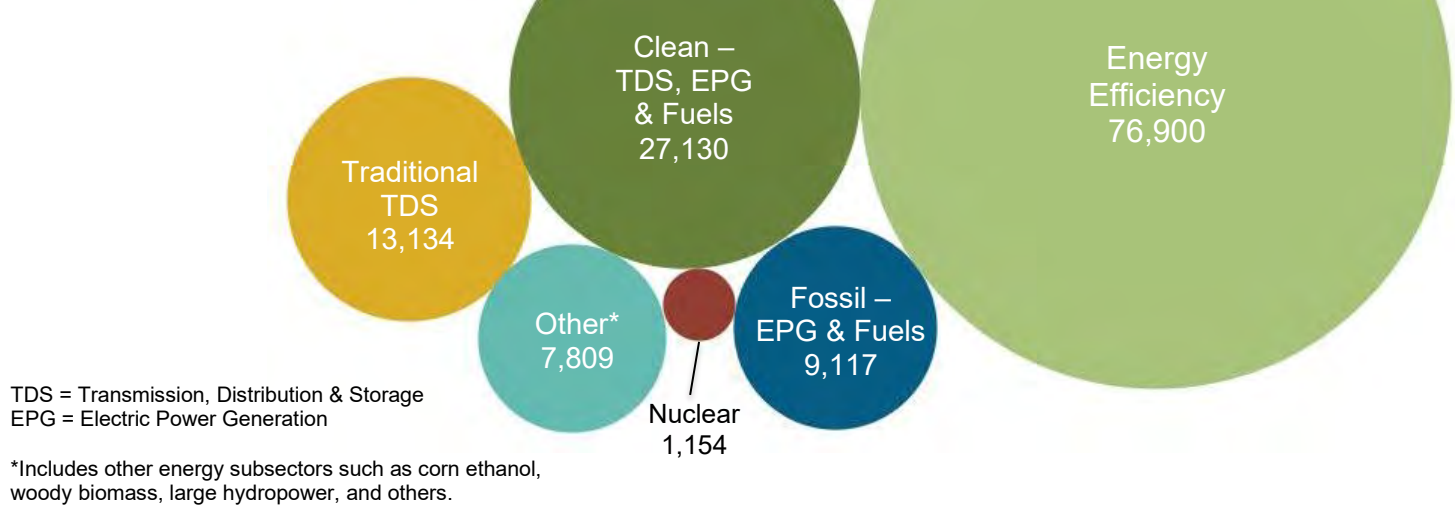
# Key EE Statistics for Massachusetts

## What are energy efficiency (EE) jobs?

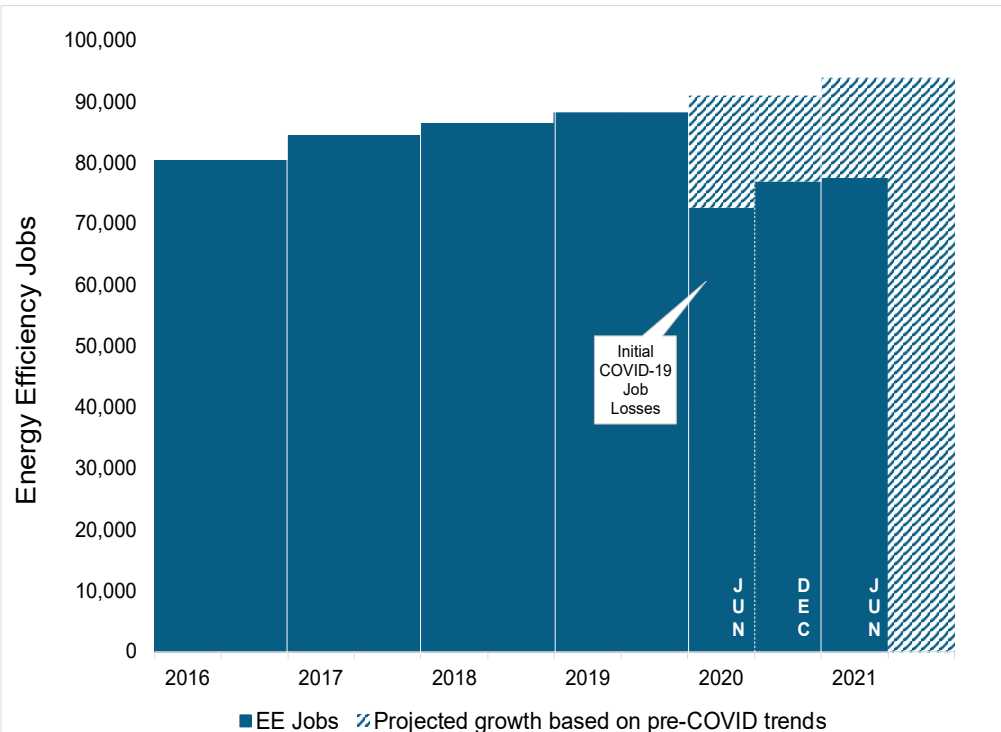
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Massachusetts's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Massachusetts.*



## How is the EE industry recovering?



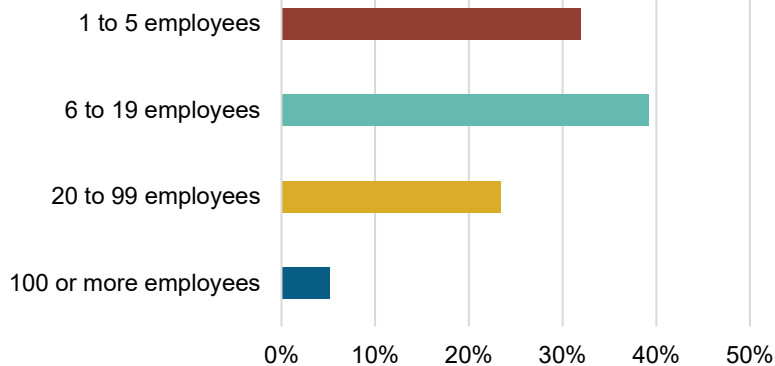
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in Massachusetts?

### 94.7% of MA EE Businesses Have Less Than 100 Employees



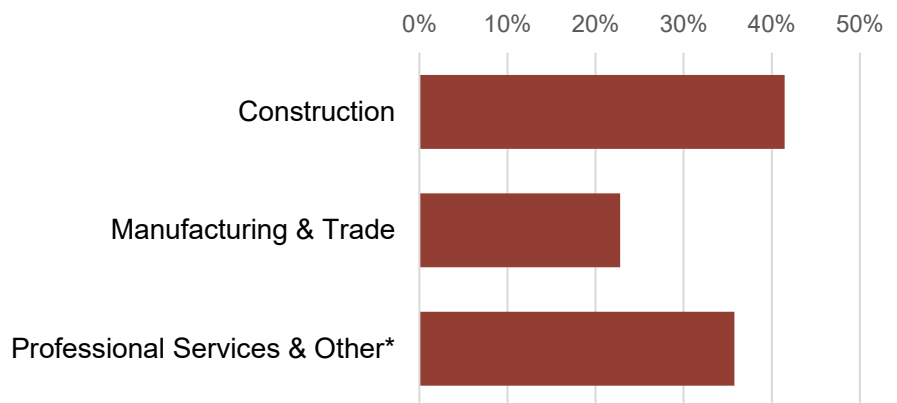
**9,621**  
EE businesses in  
Massachusetts



EE construction workers comprise  
**20%** of  
Massachusetts  
construction  
workers

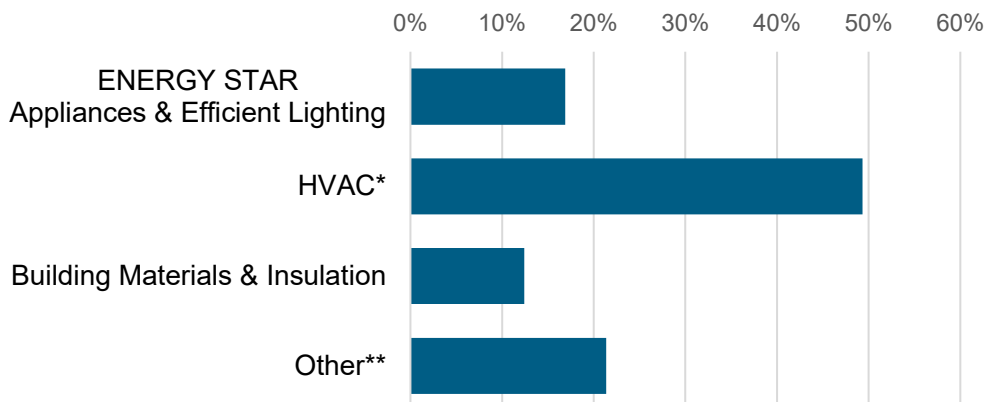


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services

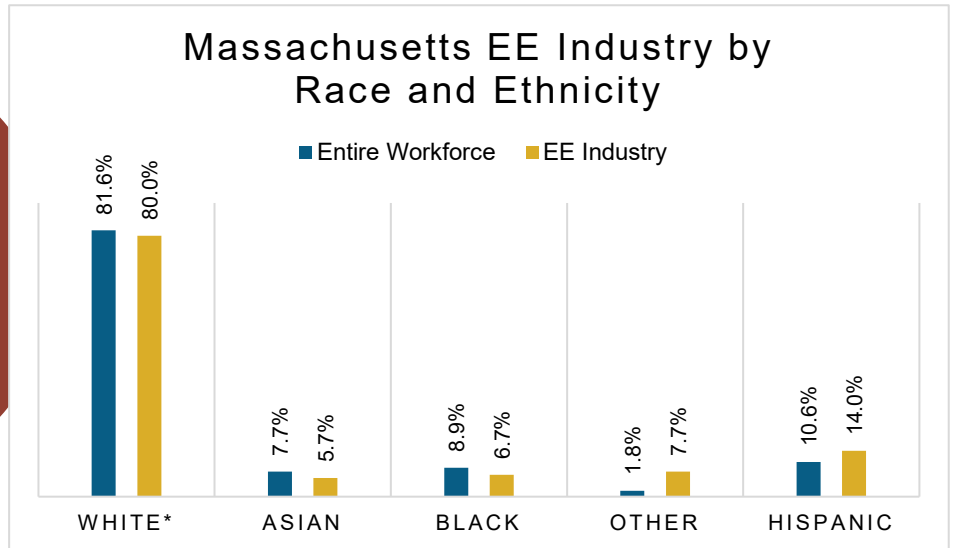


**7%** of  
Massachusetts  
EE workers are  
**Veterans**

## How is EE doing on diversity in Massachusetts?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Massachusetts communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Massachusetts's EE Potential

Decades of work, ready for Massachusetts's growing energy efficiency workforce.

Weatherization Assistance Program:

**18,189\*** units weatherized in 2018, out of **~260,000** total low-income households

**2,329,800**

Massachusetts homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**16%**

\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	6,560	Barnstable Town	3,255
2	6,654	Boston-Cambridge-Quincy	54,814
3	10,537	Pittsfield	1,348
4	9,422	Providence-New Bedford-Fall River	4,721
5	9,059	Springfield	6,051
6	9,416	Worcester	6,228
7	8,277	Rural	483
8	9,533		
9	7,443		

State Upper House										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	2,289		12	820		23	3,124		34	1,528
2	2,286		13	2,231		24	1,377		35	992
3	1,815		14	3,687		25	1,370		36	1,957
4	1,740		15	2,807		26	2,633		37	1,249
5	851		16	3,045		27	4,984		38	1,042
6	1,620		17	2,231		28	753		39	2,095
7	1,058		18	3,679		29	1,526		40	2,360
8	1,063		19	2,086		30	1,171			
9	1,091		20	2,529		31	1,422			
10	2,148		21	2,476		32	2,381			
11	989		22	825		33	1,572			

## State Lower House

District	Jobs	District	Jobs	District	Jobs	District	Jobs
60	1,252	101	394	143	790	189	652
61	209	102	566	144	189	190	200
62	664	103	393	145	500	192	388
63	412	104	316	147	167	193	124
64	798	105	294	148	198	200	361
65	799	106	204	149	149	201	<5
66	559	107	728	153	367	203	282
68	482	108	318	154	453	204	109
69	620	109	182	155	247	206	399
70	308	110	141	156	1,184	207	166
71	917	111	794	157	1,304	208	283
72	353	114	212	159	453	209	630
73	103	115	720	160	427	210	425
74	815	116	231	161	456	211	489
75	33	117	<5	162	971	212	78
76	435	118	445	164	365	213	364
77	479	119	1,244	165	539	214	261
78	364	120	481	166	466	215	573
79	42	121	1,722	167	624	216	85
80	411	122	1,031	168	369	217	496
81	33	123	581	169	555	218	100
82	220	124	265	170	786	219	39
83	680	125	919	171	417		
84	863	126	1,379	172	<5		
85	107	127	684	173	293		
86	351	128	809	174	340		
87	666	129	80	175	245		
88	519	130	275	176	770		
89	765	131	842	177	343		
90	366	132	1,726	178	288		
91	1,010	133	671	179	248		
92	116	134	884	180	535		
93	8	136	1,040	181	151		
94	591	137	488	183	191		
95	555	138	813	184	337		
96	2,263	139	305	185	419		
98	119	140	628	186	7,839		
99	1,274	141	963	187	618		
100	569	142	581	188	320		



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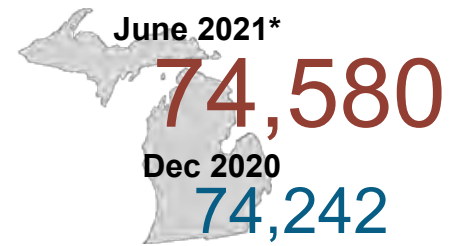
Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# Michigan

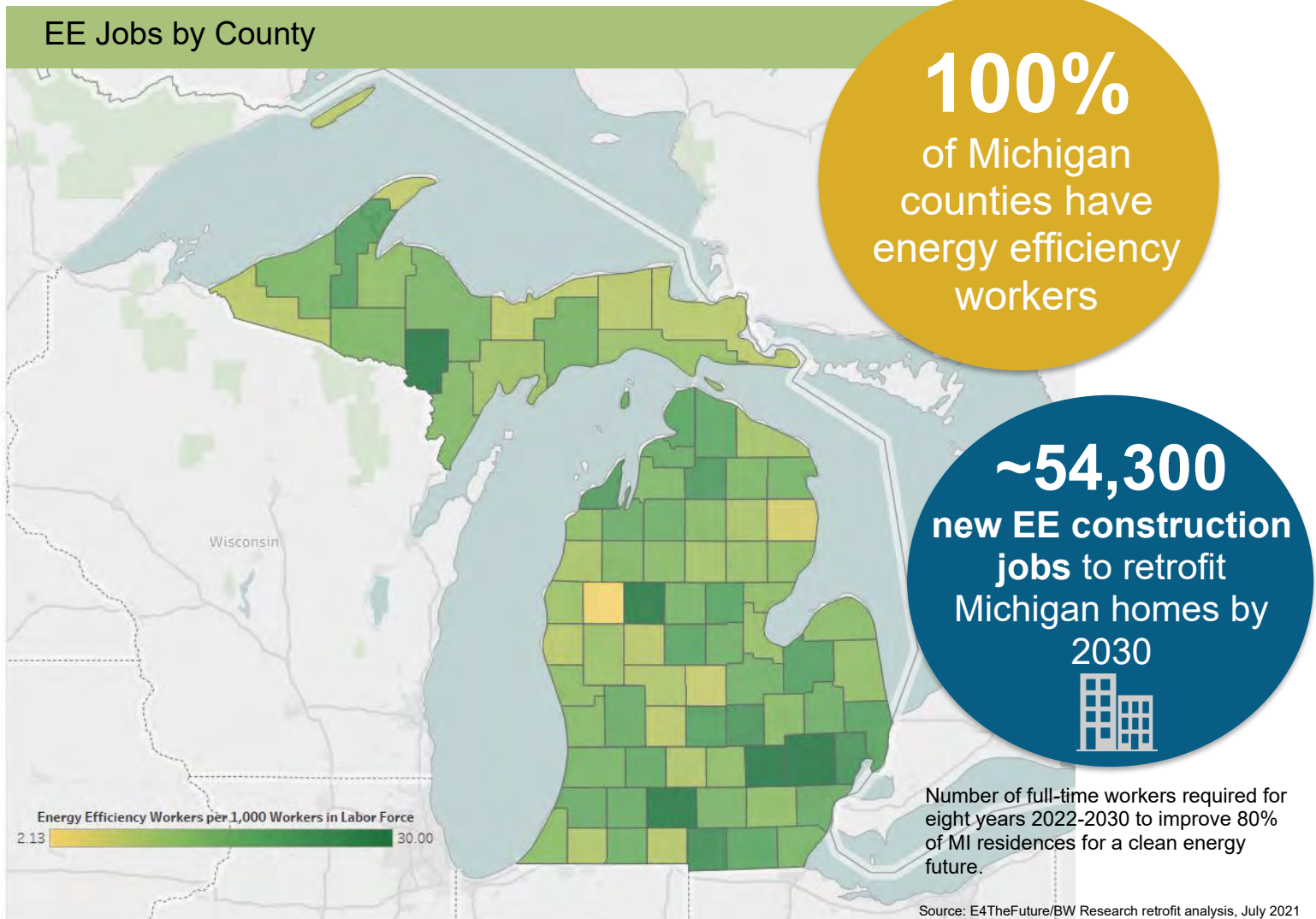
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Michigan, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



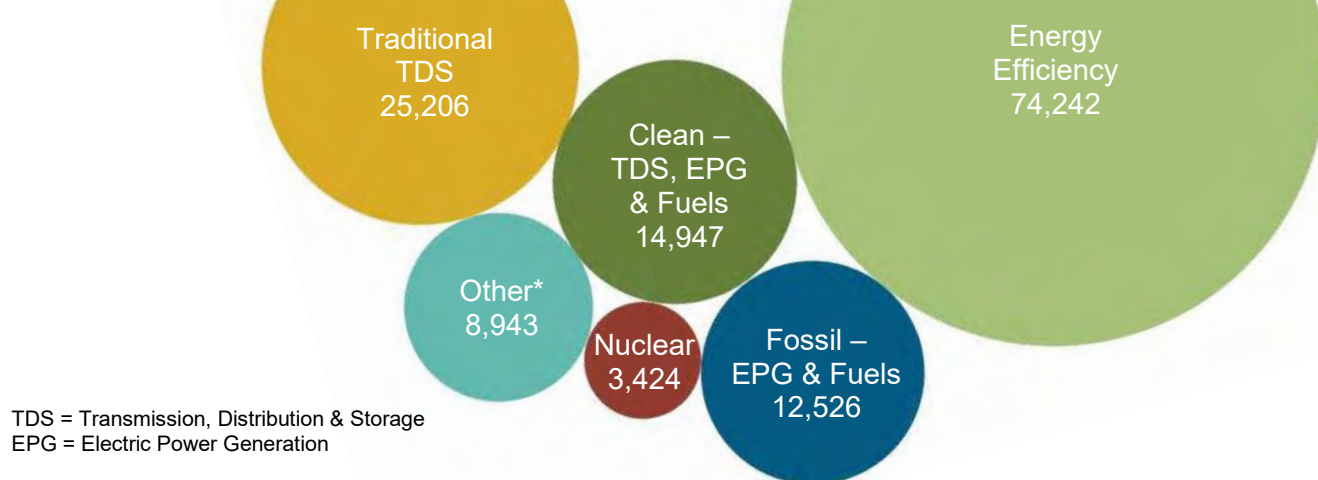
# Key EE Statistics for Michigan

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

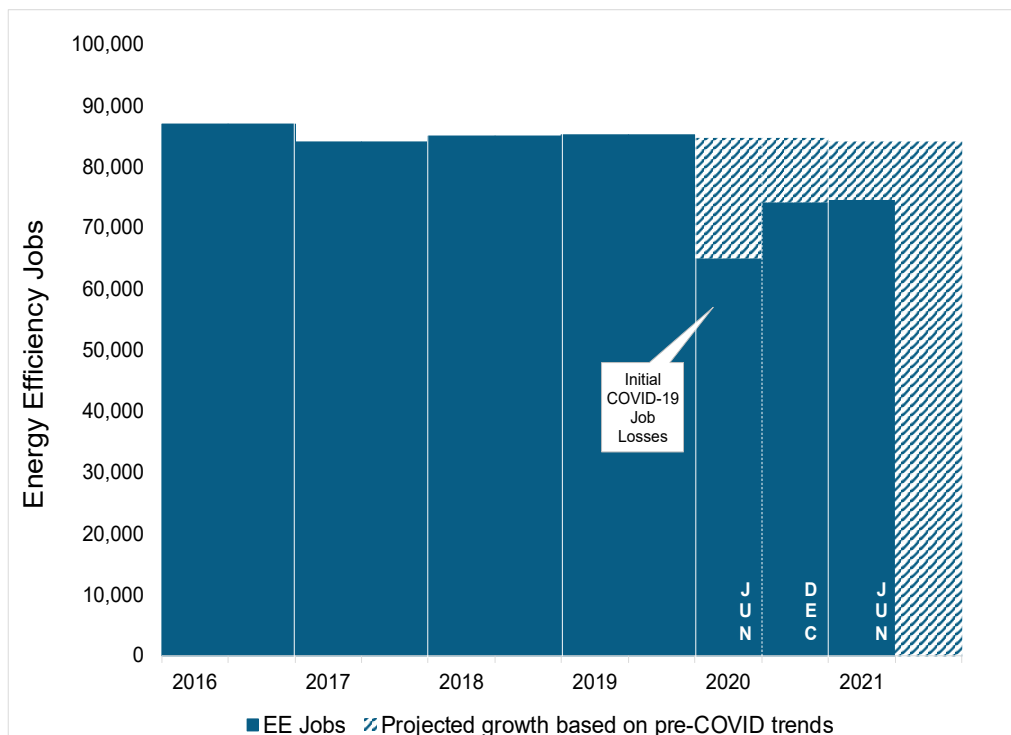
## How do Michigan's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Michigan.*



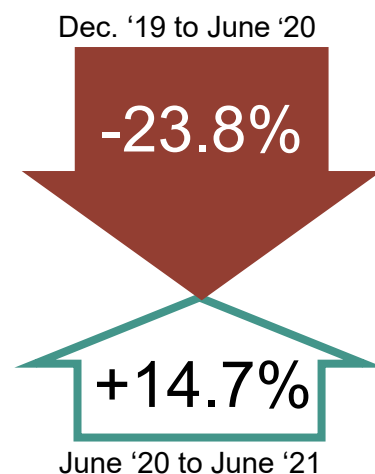
\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



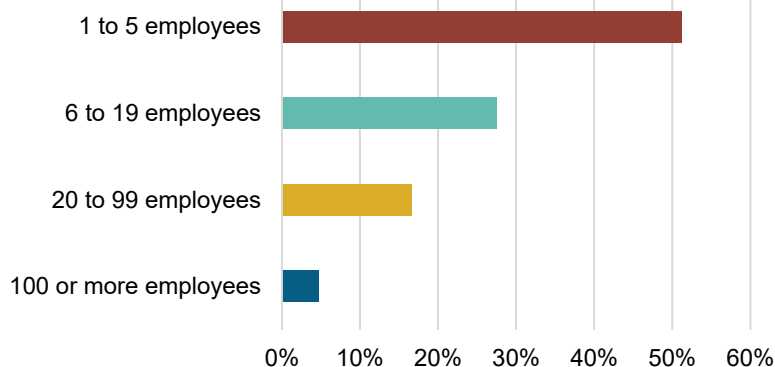
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



# What does EE look like in Michigan?

## 95.3% of MI EE Businesses Have Less Than 100 Employees



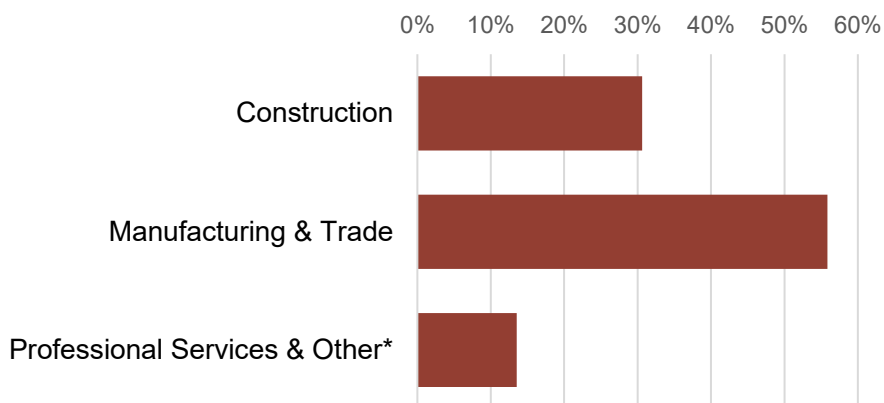
**17,513**  
EE businesses in Michigan



EE construction workers comprise **14%** of Michigan construction workers

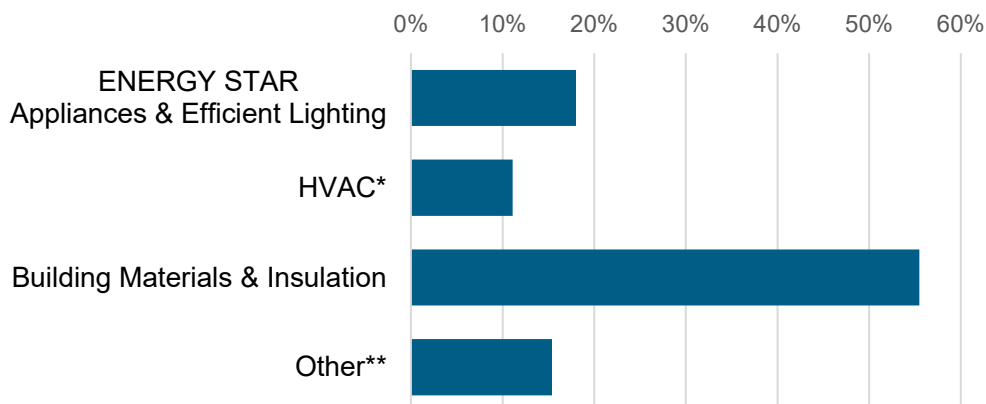


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services



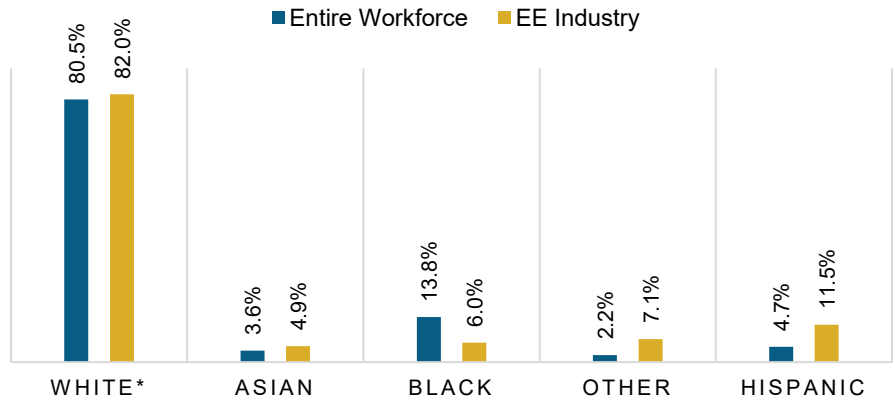
**7%** of Michigan EE workers are **Veterans**

## How is EE doing on diversity in Michigan?

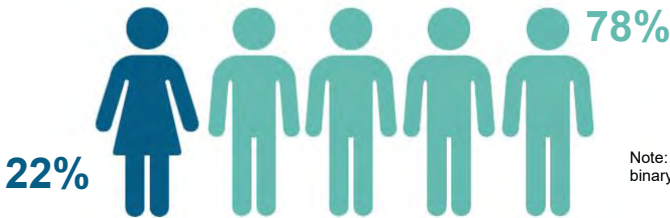
Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Michigan communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Michigan EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Michigan's EE Potential

Decades of work, ready for Michigan's growing energy efficiency workforce.

Weatherization Assistance Program:



**861\*** units weatherized in 2018, out of **~530,000** total low-income households

**3,479,745**

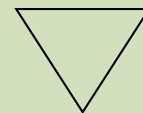
Michigan homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**18%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	7,395	Ann Arbor	2,890
2	7,846	Battle Creek	876
3	3,800	Bay City	575
4	5,623	Detroit-Warren-Livonia	32,651
5	3,434	Flint	2,263
6	5,041	Grand Rapids-Wyoming	6,299
7	7,265	Holland-Grand Haven	2,118
8	4,828	Jackson	969
9	8,870	Kalamazoo-Portage	2,394
10	4,618	Lansing-East Lansing	3,165
11	5,446	Monroe	809
12	3,338	Muskegon-Norton Shores	996
13	3,557	Niles-Benton Harbor	1,606
14	3,182	Saginaw-Saginaw Township North	1,494
		South Bend-Mishawaka	305
		Rural	14,831

State Upper House										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	2,951		11	4,937		21	2,276		31	1,877
2	611		12	3,860		22	1,916		32	1,087
3	1,710		13	2,651		23	2,411		33	1,556
4	295		14	1,711		24	912		34	1,272
5	606		15	1,888		25	1,982		35	2,771
6	1,108		16	1,971		26	3,348		36	1,572
7	2,387		17	1,694		27	1,066		37	2,119
8	3,242		18	2,267		28	3,536		38	2,240
9	1,571		19	2,235		29	358			
10	1,133	20	1,909	30	1,206					

## State Lower House

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	520	35	2,000	69	47	103	858
2	258	36	512	70	700	104	430
3	501	37	1,707	71	213	105	1,231
4	576	38	1,680	72	1,989	106	907
5	716	39	361	73	2,212	107	568
6	839	40	1,230	74	1,205	108	843
7	88	41	1,156	75	329	109	669
8	481	42	1,255	76	<5	110	736
9	170	43	490	77	101		
10	<5	44	347	78	490		
11	1,057	45	405	79	389		
12	1,044	46	429	80	1,124		
13	696	47	799	81	881		
14	426	48	520	82	508		
15	84	49	92	83	415		
16	<5	50	322	84	522		
17	695	51	136	85	606		
18	1,086	52	1,728	86	254		
19	561	53	743	87	200		
20	1,335	54	401	88	661		
21	<5	55	<5	89	544		
22	534	56	400	90	<5		
23	118	57	757	91	886		
24	896	58	661	92	109		
25	700	59	1,037	93	354		
26	1,761	60	1,597	94	1,105		
27	643	61	82	95	249		
28	471	62	965	96	331		
29	1,714	63	358	97	678		
30	847	64	763	98	644		
31	449	65	147	99	399		
32	479	66	988	100	499		
33	307	67	1,310	101	1,498		
34	1,028	68	1,058	102	345		



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# Minnesota

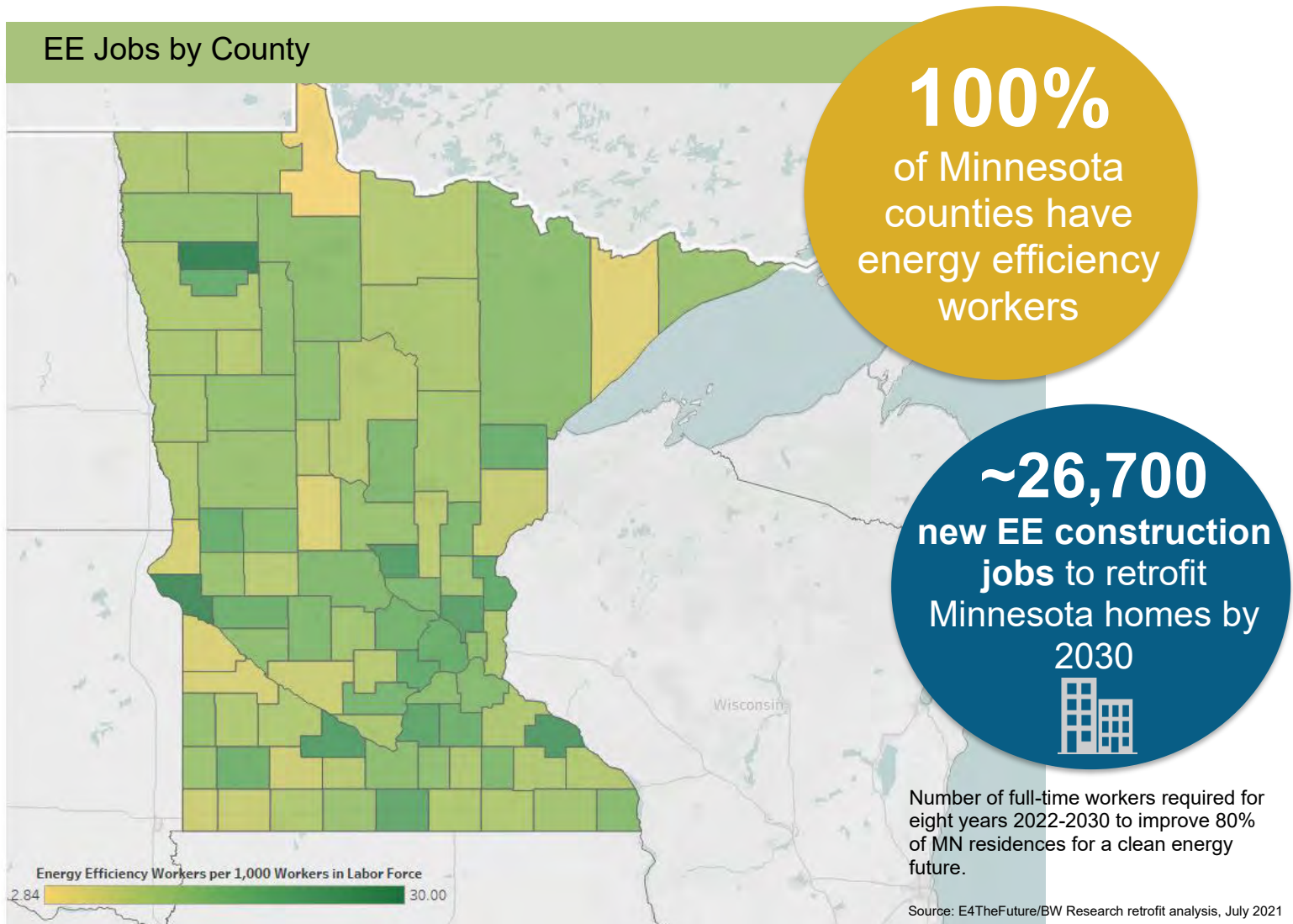
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Minnesota, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



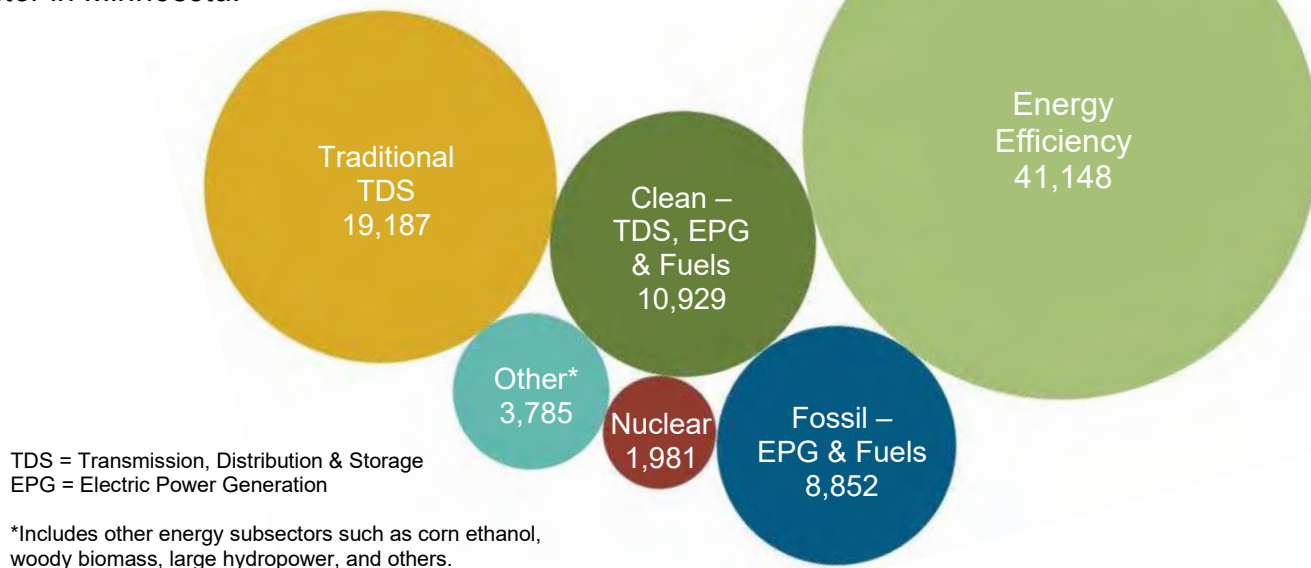
# Key EE Statistics for Minnesota

## What are energy efficiency (EE) jobs?

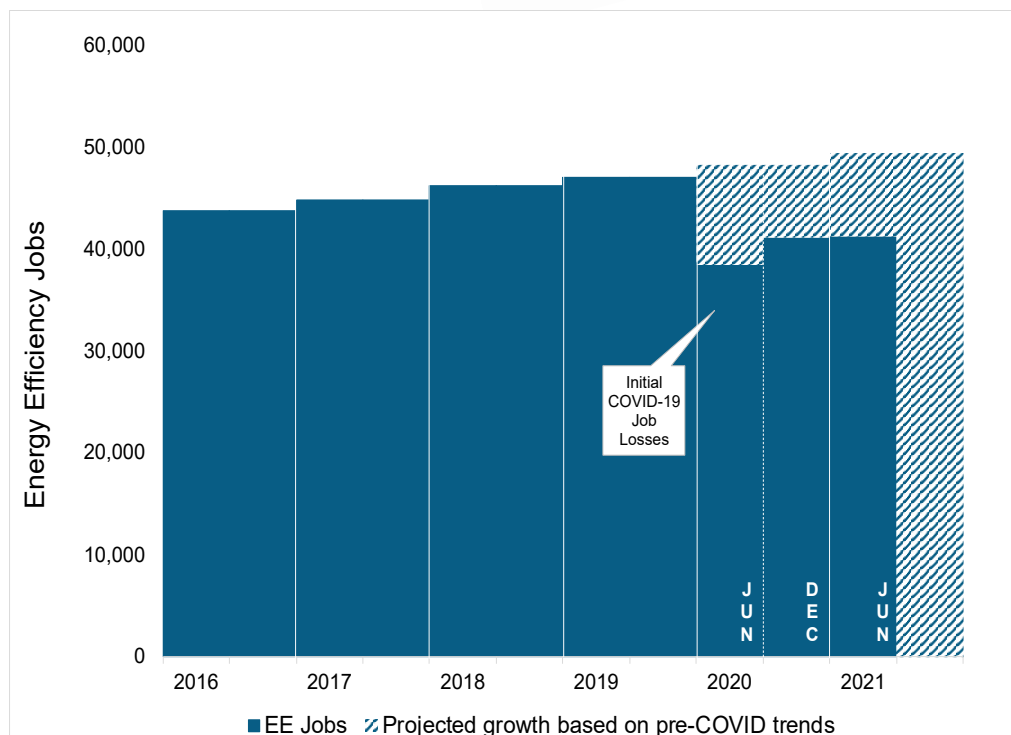
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Minnesota's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Minnesota.*

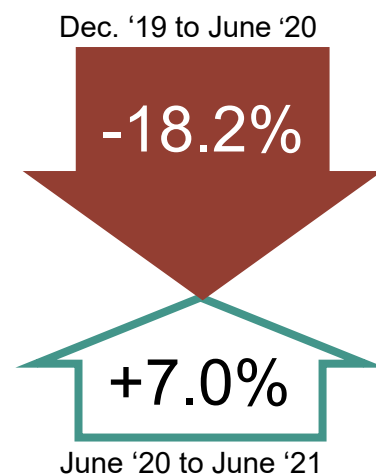


## How is the EE industry recovering?



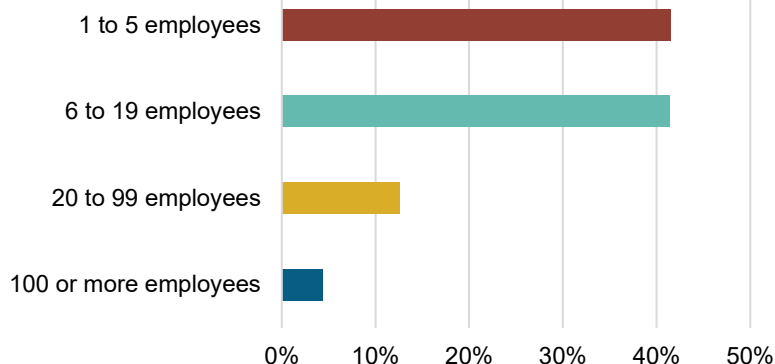
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



# What does EE look like in Minnesota?

## 95.5% of MN EE Businesses Have Less Than 100 Employees



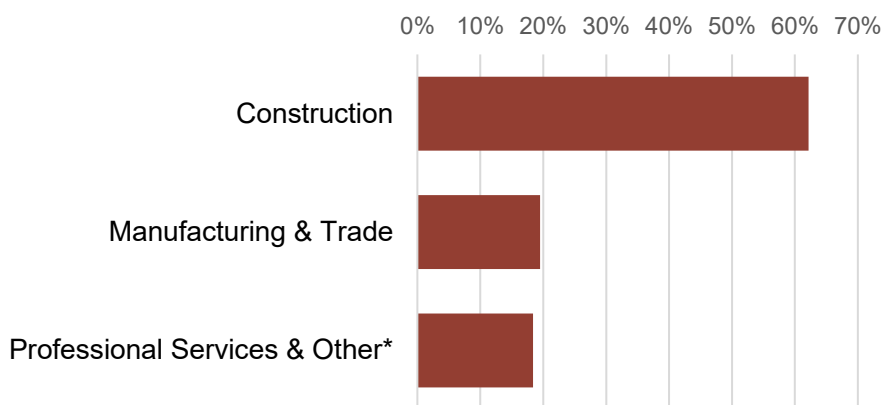
**6,748**  
EE businesses in  
Minnesota



EE construction workers comprise  
**20%** of Minnesota construction workers

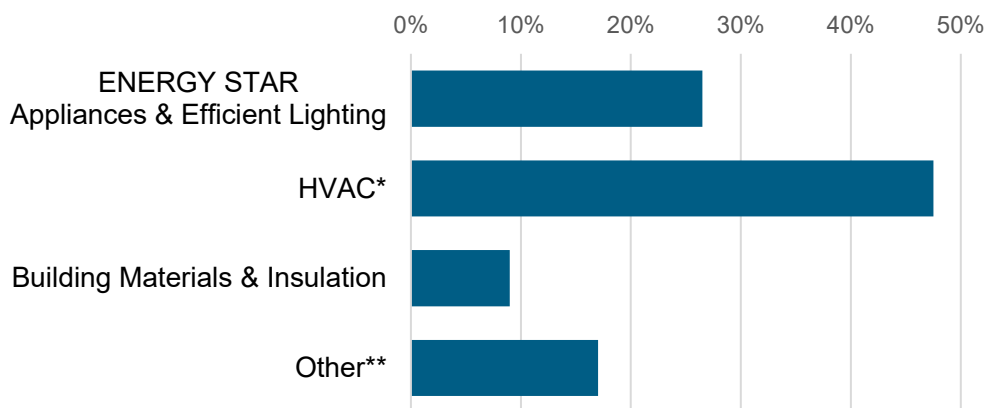


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
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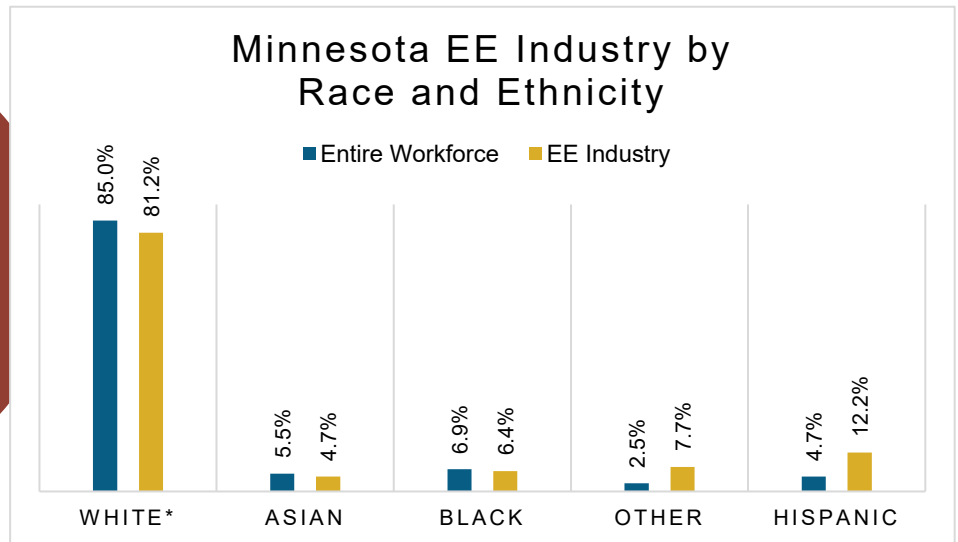


**8%** of  
Minnesota  
EE workers are  
**Veterans**

## How is EE doing on diversity in Minnesota?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Minnesota communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Minnesota's EE Potential

Decades of work, ready for Minnesota's growing energy efficiency workforce.

Weatherization Assistance Program:

**1,227\*** units weatherized in 2018, out of **~200,000** total low-income households

**1,796,412**

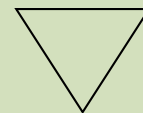
Minnesota homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**25%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	5,314	Duluth	1,323
2	3,013	Fargo	368
3	9,449	Grand Forks	194
4	5,059	La Crosse	130
5	5,722	Mankato-North Mankato	644
6	4,146	Minneapolis-St. Paul-Bloomington	25,182
7	5,082	Rochester	1,237
8	3,361	St. Cloud	2,123
		Rural	9,948

State Upper House							
District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	528	18	458	35	117	52	449
2	812	19	547	36	484	53	176
3	744	20	1,041	37	613	54	116
4	377	21	1,020	38	578	55	292
5	480	22	721	39	557	56	97
6	370	23	722	40	2,775	57	385
7	331	24	353	41	675	58	6
8	876	25	541	42	690	59	2,046
9	722	26	327	43	164	60	496
10	275	27	451	44	1,801	61	338
11	312	28	269	45	230	62	85
12	1,346	29	566	46	537	63	13
13	1,065	30	1,389	47	286	64	1,169
14	<5	31	990	48	710	65	597
15	711	32	223	49	1,642	66	<5
16	946	33	1,308	50	376	67	<5
17	784	34	334	51	709		

## State Lower House

District	Jobs	District	Jobs	District	Jobs	District	Jobs
01A	268	18A	176	36A	211	53A	145
01B	256	18B	279	36B	273	53B	30
02A	385	19A	544	37A	496	54A	103
02B	426	20A	616	37B	115	54B	12
03A	357	20B	423	38A	459	55A	290
03B	384	21A	446	38B	116	55B	<5
04A	205	21B	574	39A	262	56A	<5
04B	164	22A	413	39B	294	56B	96
05A	174	22B	304	40A	307	57A	383
05B	304	23A	446	40B	1,893	58B	6
06A	295	23B	272	41A	532	59A	12
06B	74	24A	255	41B	139	59B	2,031
07A	280	24B	96	42A	<5	60A	325
07B	49	25A	551	42B	725	60B	176
08A	335	26A	187	43A	97	61A	154
08B	561	26B	139	43B	66	61B	205
09A	501	27A	304	44A	722	62A	85
09B	217	27B	106	44B	1,005	62B	<5
10A	121	28A	91	45A	181	63A	<5
10B	152	28B	176	45B	49	63B	13
11A	79	29A	355	46A	420	64A	1,057
11B	231	29B	254	46B	135	64B	84
12A	461	30A	<5	47A	285	65A	73
12B	1,034	30B	1,388	47B	<5	65B	527
13A	772	31A	542	48A	752	66A	<5
13B	301	31B	444	48B	<5	66B	<5
14A	<5	32A	108	49A	923	67A	<5
14B	<5	32B	115	49B	652	67B	<5
15A	355	33A	1,642	50A	405		
15B	352	33B	153	50B	<5		
16A	371	34A	302	51A	706		
16B	569	34B	30	51B	<5		
17A	479	35A	<5	52A	332		
17B	301	35B	117	52B	131		



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

For questions on E4TheFuture analyses please email: [policy@e4thefuture.org](mailto:policy@e4thefuture.org).



# Mississippi

## Energy Efficiency Jobs in America

June 2021\*

13,637

Dec 2020

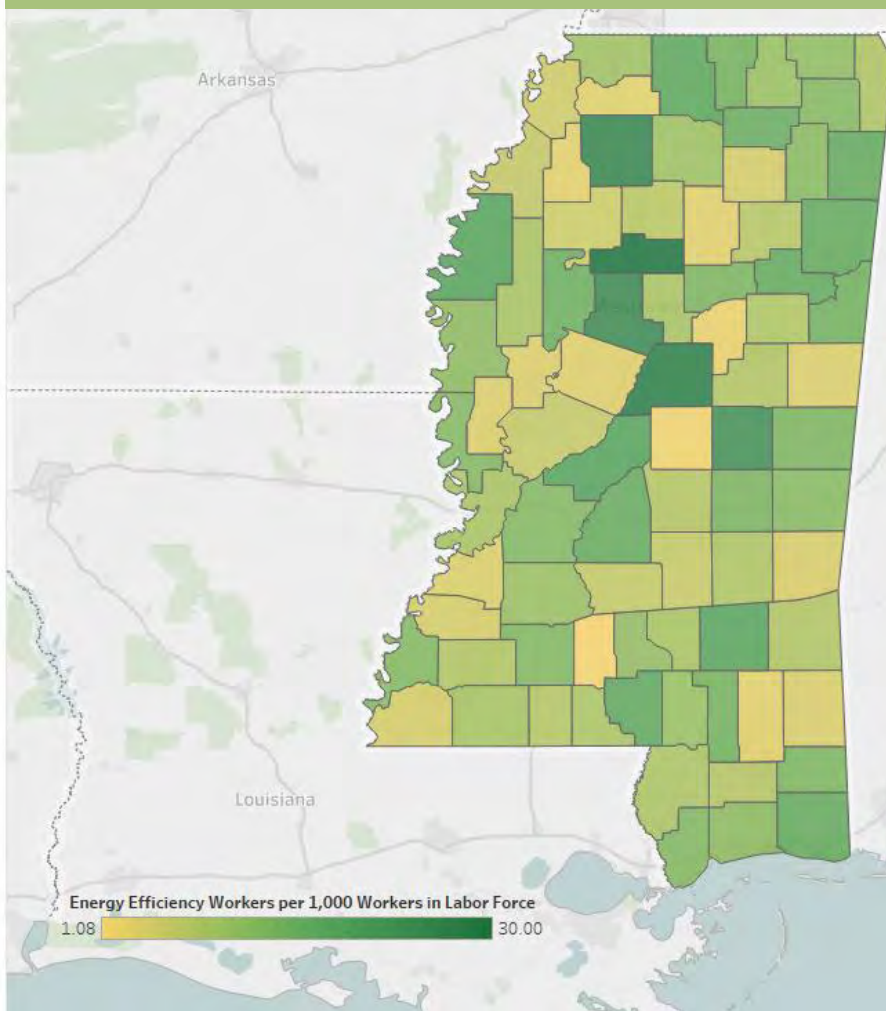
13,611

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Mississippi, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



100%

of Mississippi  
counties have  
energy efficiency  
workers

~8,400

new EE construction  
jobs to retrofit  
Mississippi homes by  
2030



Number of full-time workers required for  
eight years 2022-2030 to improve 80%  
of MS residences for a clean energy  
future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



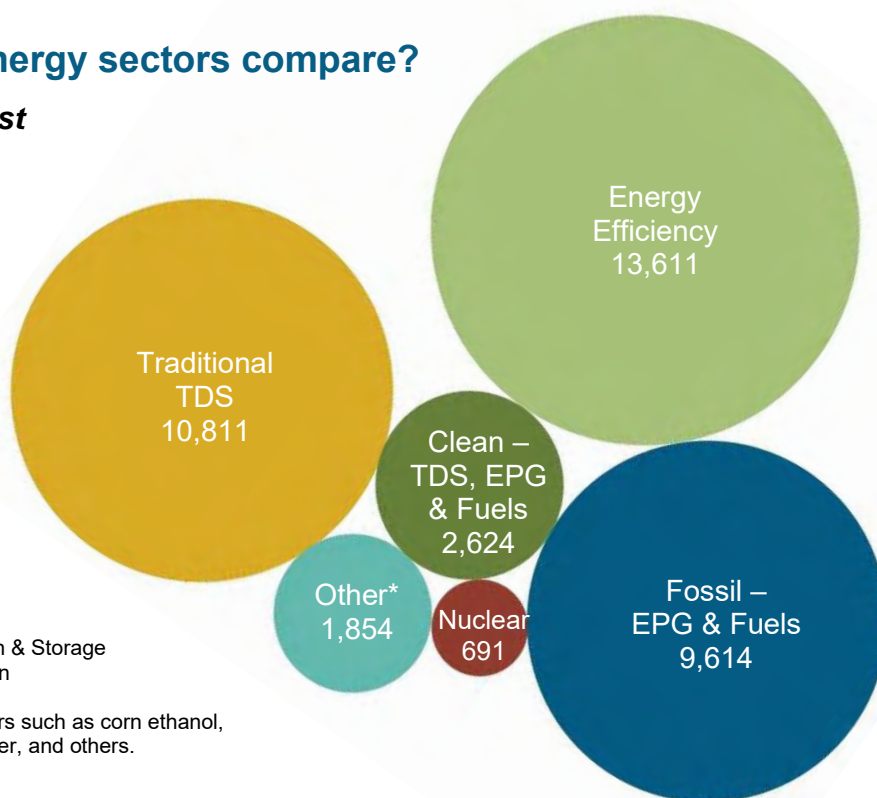
# Key EE Statistics for Mississippi

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Mississippi's energy sectors compare?

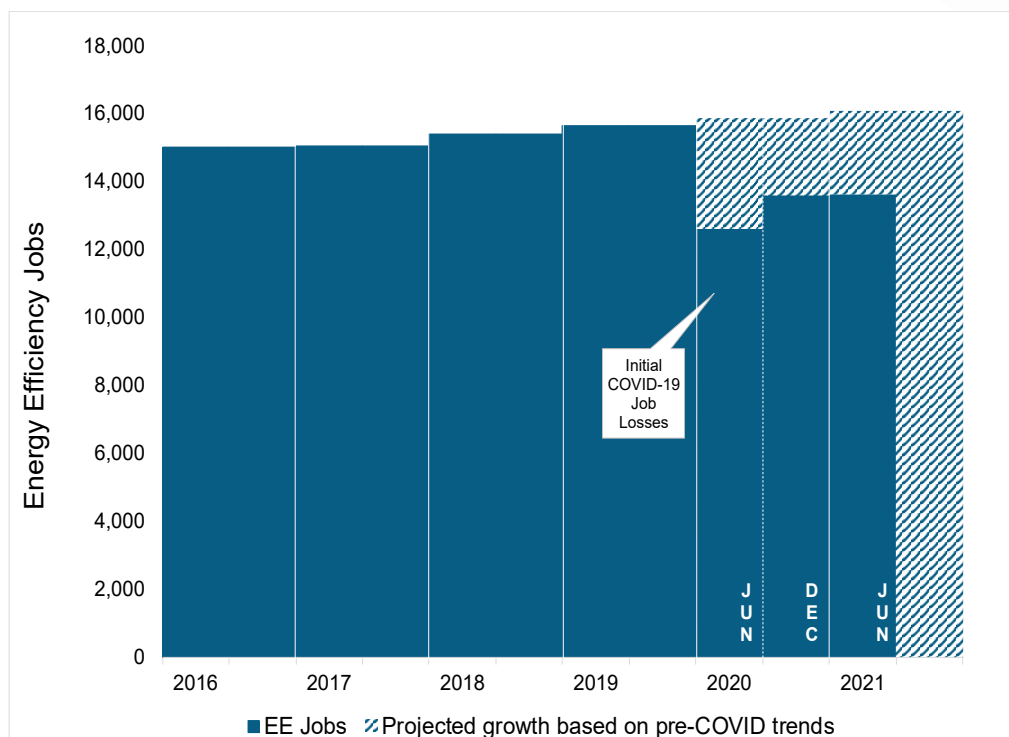
*Energy Efficiency is the **largest** energy sector in Mississippi.*



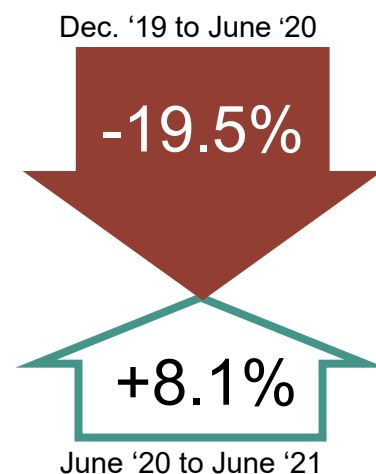
TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



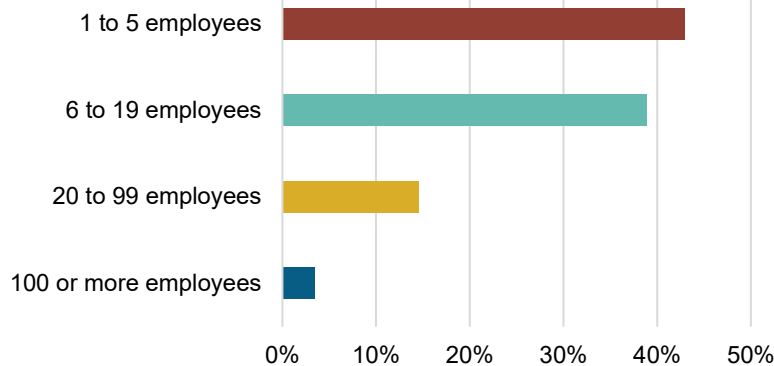
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Mississippi?

## 96.4% of MS EE Businesses Have Less Than 100 Employees



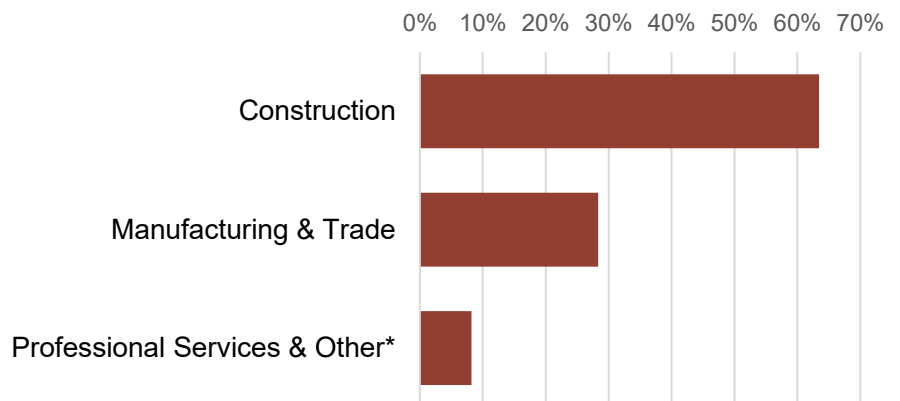
**2,680**  
EE businesses in  
Mississippi



EE construction  
workers comprise  
**19%** of Mississippi  
construction  
workers

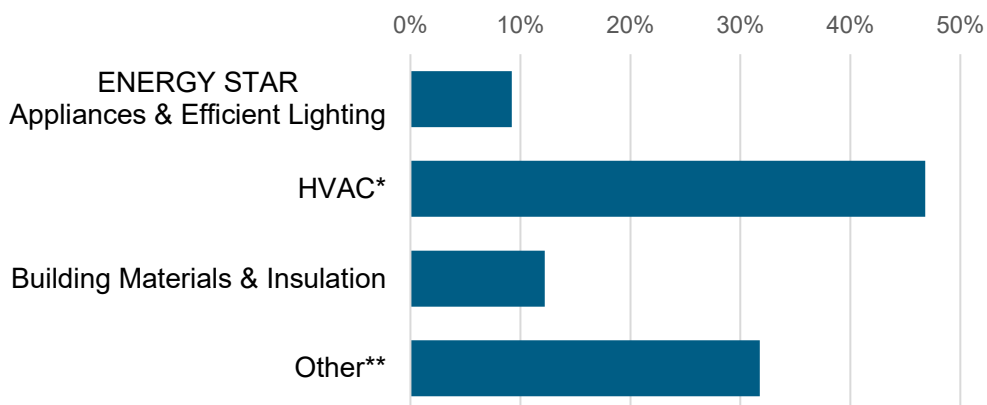


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services

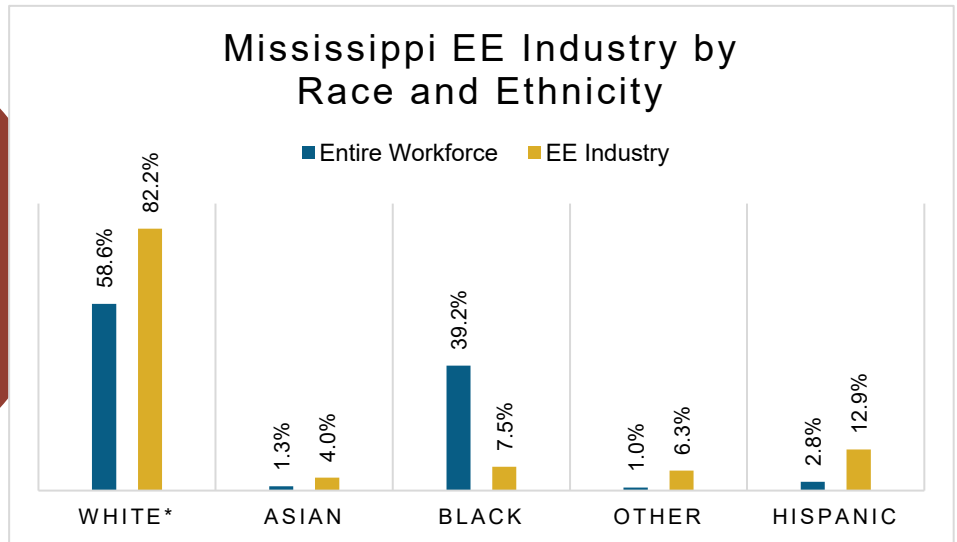


**9%** of  
Mississippi  
EE workers are  
**Veterans**

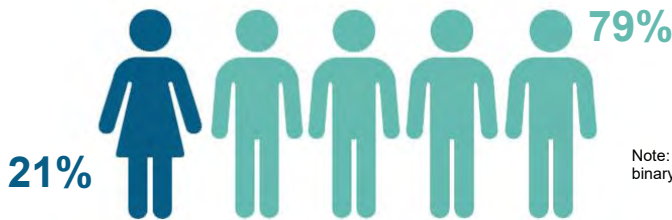
## How is EE doing on diversity in Mississippi?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Mississippi communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Mississippi's EE Potential

Decades of work, ready for Mississippi's growing energy efficiency workforce.

Weatherization Assistance Program:



**68\*** units weatherized in 2018, out of **~220,000** total low-income households

**806,922**

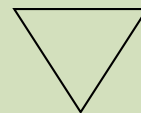
Mississippi homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**37%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	3,445	Gulfport-Biloxi	1,661
2	3,970	Hattiesburg	792
3	2,981	Jackson	3,196
4	3,216	Memphis	1,135
		Pascagoula	760
		Rural	6,065

State Upper House										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	758		15	215		29	490		43	158
2	<5		16	408		30	174		44	53
3	570		17	28		31	191		45	80
4	209		18	214		32	343		46	681
5	86		19	<5		33	108		47	487
6	230		20	644		34	1,009		48	555
7	219		21	425		35	128		49	104
8	127		22	208		36	322		50	65
9	364		23	239		37	381		51	362
10	124		24	10		38	39		52	<5
11	143		25	579		39	59			
12	309		26	440		40	374			
13	78		27	<5		41	78			
14	442		28	190		42	110			

## State Lower House

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	154	32	126	63	120	94	194
2	7	33	8	64	254	95	613
3	83	34	44	65	133	96	145
4	61	35	213	66	148	97	<5
5	453	36	72	67	<5	98	<5
6	261	37	550	68	267	99	28
7	189	38	<5	69	<5	100	<5
8	36	39	16	70	108	101	<5
9	220	40	<5	71	<5	102	6
10	65	41	<5	72	<5	103	<5
11	12	42	7	73	<5	104	<5
12	<5	43	7	74	<5	105	120
13	79	44	42	75	72	106	<5
14	17	45	368	76	83	107	<5
15	86	46	32	77	83	108	<5
16	431	47	47	78	54	109	204
17	<5	48	<5	79	191	110	159
18	79	49	128	80	248	111	295
19	61	50	20	81	75	112	<5
20	104	51	<5	82	<5	113	<5
21	18	52	<5	83	<5	114	184
22	41	53	397	84	<5	115	289
23	177	54	242	85	23	116	<5
24	235	55	<5	86	35	117	354
25	27	56	765	87	713	118	<5
26	10	57	<5	88	185	119	80
27	227	58	323	89	<5	120	<5
28	<5	59	470	90	89	121	<5
29	109	60	251	91	25	122	41
30	11	61	<5	92	<5		
31	144	62	160	93	287		



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# Missouri

## Energy Efficiency Jobs in America

June 2021\*

37,944

Dec 2020

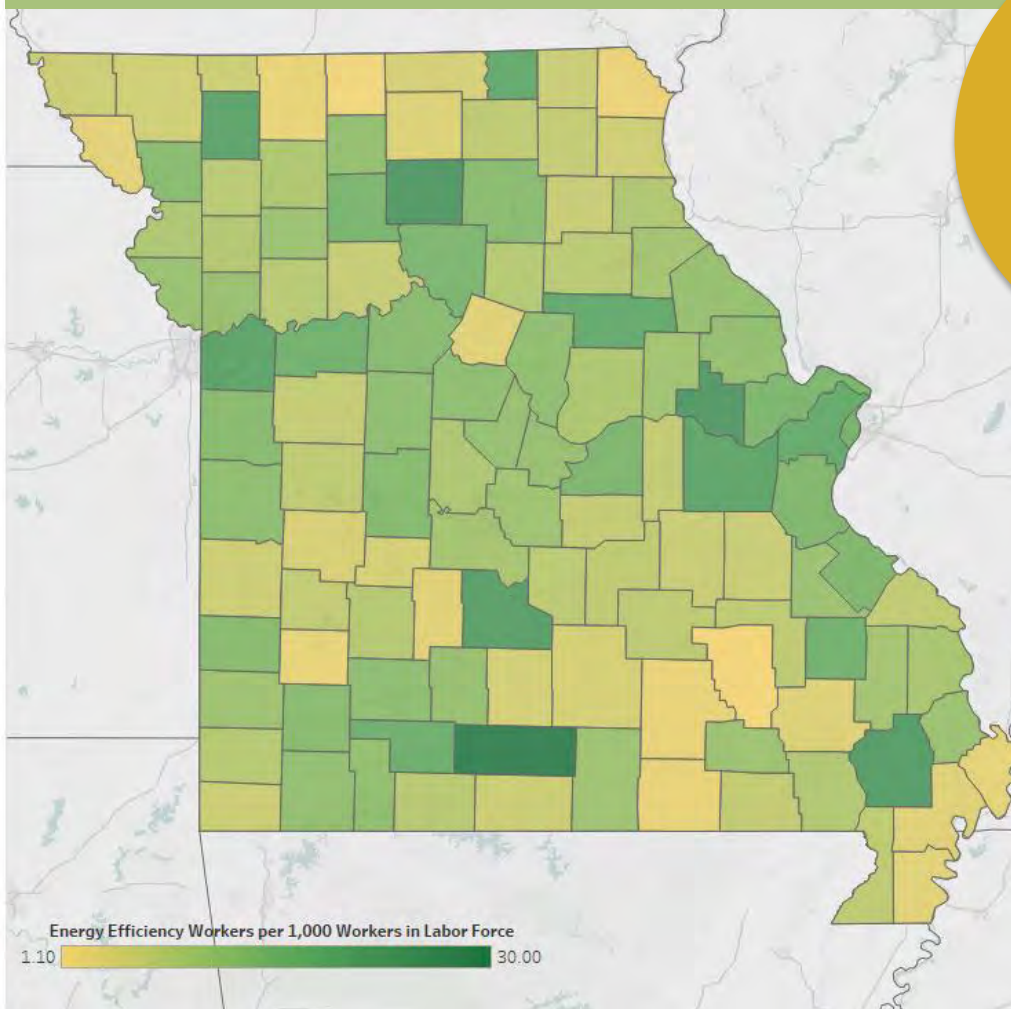
37,866

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Missouri, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Missouri  
counties have  
energy efficiency  
workers

**~24,400**  
new EE construction  
jobs to retrofit  
Missouri homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of MO residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



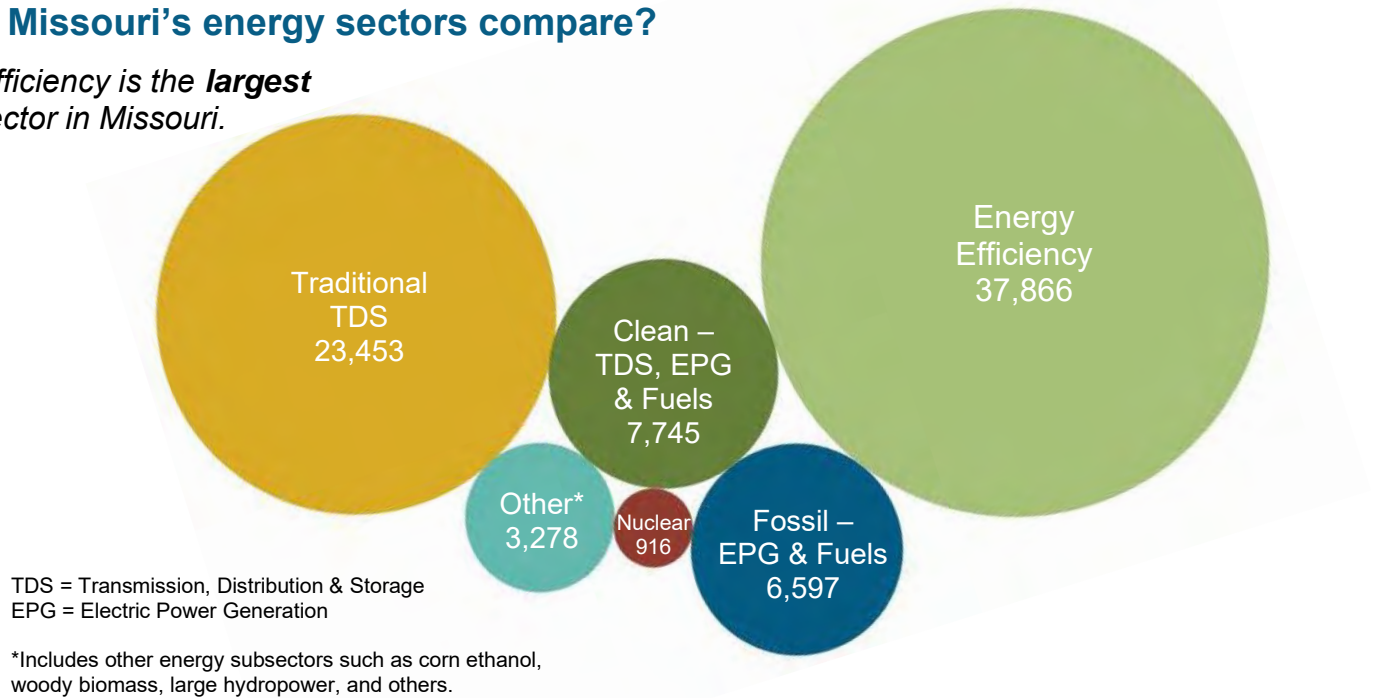
# Key EE Statistics for Missouri

## What are energy efficiency (EE) jobs?

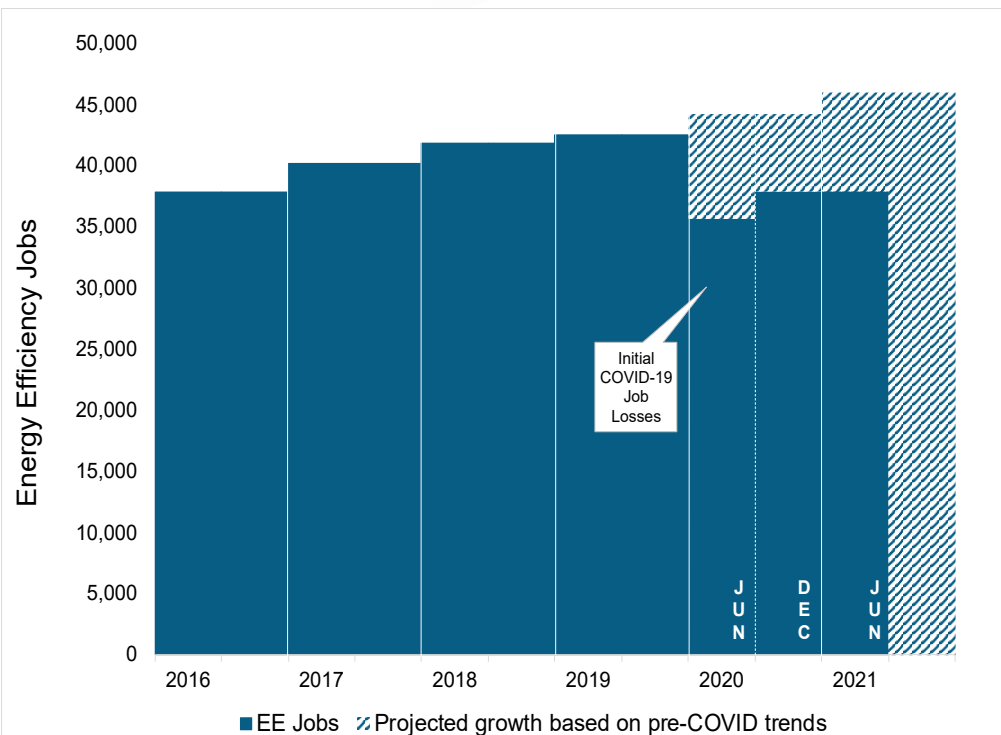
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Missouri's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Missouri.*

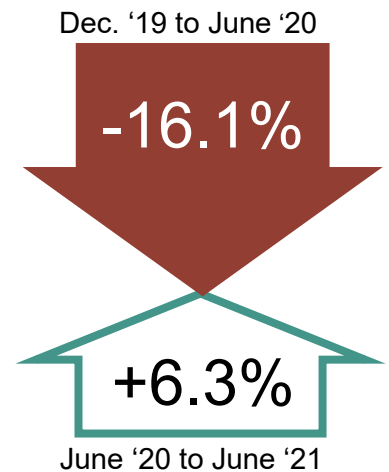


## How is the EE industry recovering?



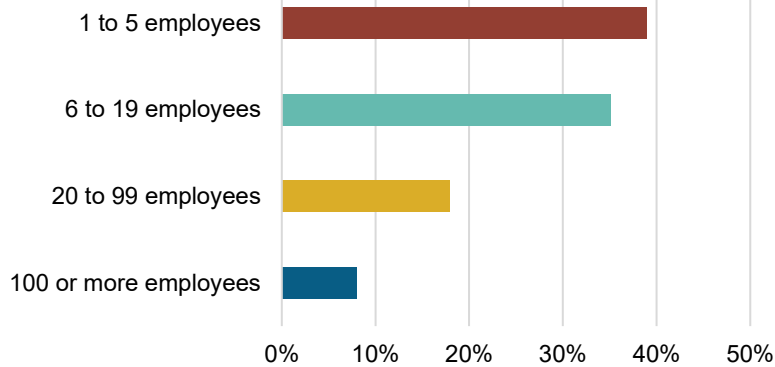
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



## What does EE look like in Missouri?

### 92% of MO EE Businesses Have Less Than 100 Employees



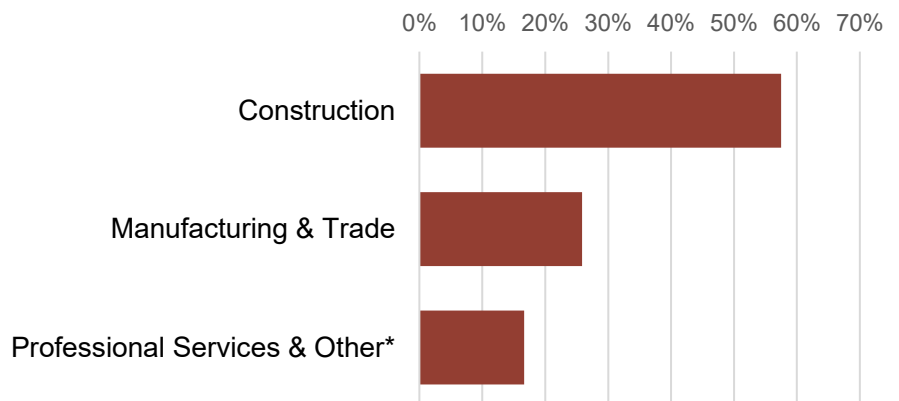
**5,847**  
EE businesses in  
Missouri



EE construction  
workers comprise  
**17%** of Missouri  
construction  
workers

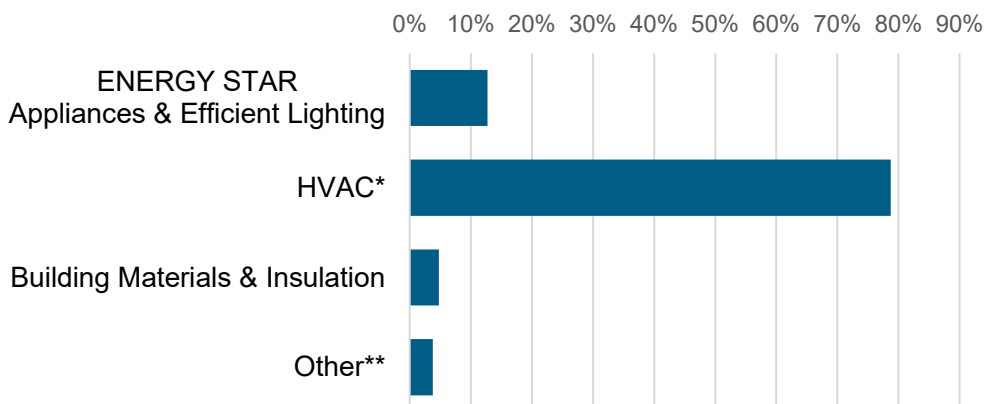


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services



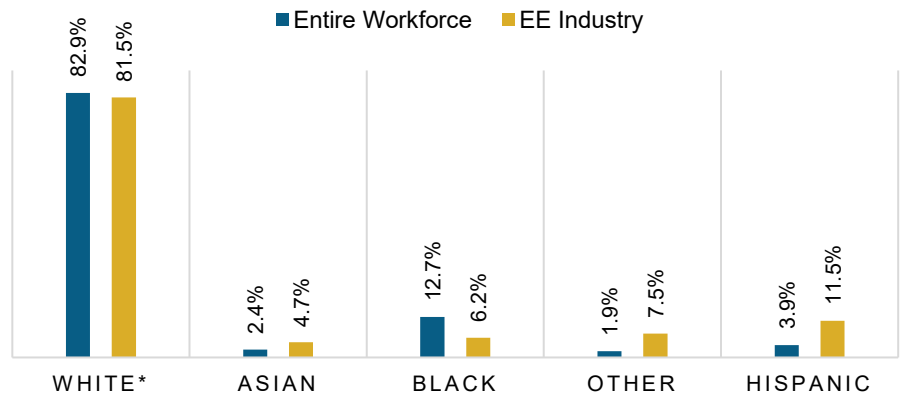
**8%** of  
Missouri  
EE workers are  
**Veterans**

## How is EE doing on diversity in Missouri?

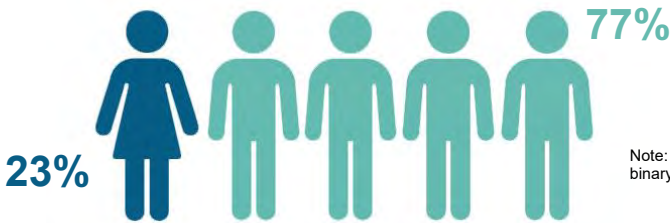
Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Missouri communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Missouri EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.




Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Missouri's EE Potential

Decades of work, ready for Missouri's growing energy efficiency workforce.

Weatherization Assistance Program:

  
**1,059\*** units weatherized in 2018, out of **~325,000** total low-income households

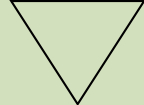
**1,972,874**

Missouri homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**25%**  


\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	7,707	Cape Girardeau-Jackson	641
2	4,409	Columbia	1,105
3	4,591	Fayetteville-Springdale-Rogers	121
4	3,837	Jefferson City	920
5	6,203	Joplin	973
6	3,188	Kansas City	8,018
7	4,664	Springfield	3,052
8	3,267	St. Joseph	563
		St. Louis	14,066
		Rural	8,407

State Upper House										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	2,609		10	1,651		19	451		28	838
2	1,641		11	381		20	2,641		29	1,009
3	1,028		12	1,574		21	900		30	257
4	2,020		13	451		22	570		31	741
5	1,671		14	1,167		23	<3		32	774
6	1,876		15	1,872		24	867		33	663
7	2,919		16	703		25	991		34	786
8	1,524		17	711		26	480			
9	500		18	833		27	767			

## State Lower House

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	236	43	743	85	<5	127	434
2	288	44	<5	86	<5	128	191
3	267	45	307	87	<5	129	20
4	196	46	<5	88	206	130	1,254
5	205	47	112	89	334	131	<5
6	201	48	460	90	170	132	916
7	370	49	650	91	128	133	53
8	167	50	79	92	174	134	<5
9	358	51	219	93	102	135	52
10	131	52	14	94	168	136	196
11	128	53	189	95	<5	137	126
12	458	54	36	96	421	138	587
13	352	55	207	97	279	139	19
14	874	56	34	98	163	140	23
15	107	57	237	99	32	141	179
16	34	58	320	100	<5	142	199
17	103	59	13	101	21	143	307
18	<5	60	<5	102	162	144	45
19	744	61	508	103	<5	145	81
20	567	62	401	104	<5	146	439
21	155	63	33	105	<5	147	189
22	285	64	993	106	<5	148	281
23	545	65	<5	107	<5	149	118
24	989	66	182	108	<5	150	81
25	434	67	189	109	141	151	145
26	40	68	<5	110	<5	152	228
27	144	69	312	111	235	153	<5
28	<5	70	1,501	112	85	154	19
29	193	71	1,134	113	<5	155	77
30	263	72	62	114	184	156	20
31	62	73	162	115	385	157	220
32	71	74	<5	116	246	158	107
33	589	75	<5	117	39	159	271
34	245	76	129	118	170	160	155
35	<5	77	1,113	119	57	161	305
36	166	78	874	120	106	162	59
37	34	79	<5	121	68	163	<5
38	72	80	137	122	53		
39	213	81	90	123	435		
40	374	82	462	124	217		
41	357	83	943	125	184		
42	355	84	1,077	126	206		



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# Montana

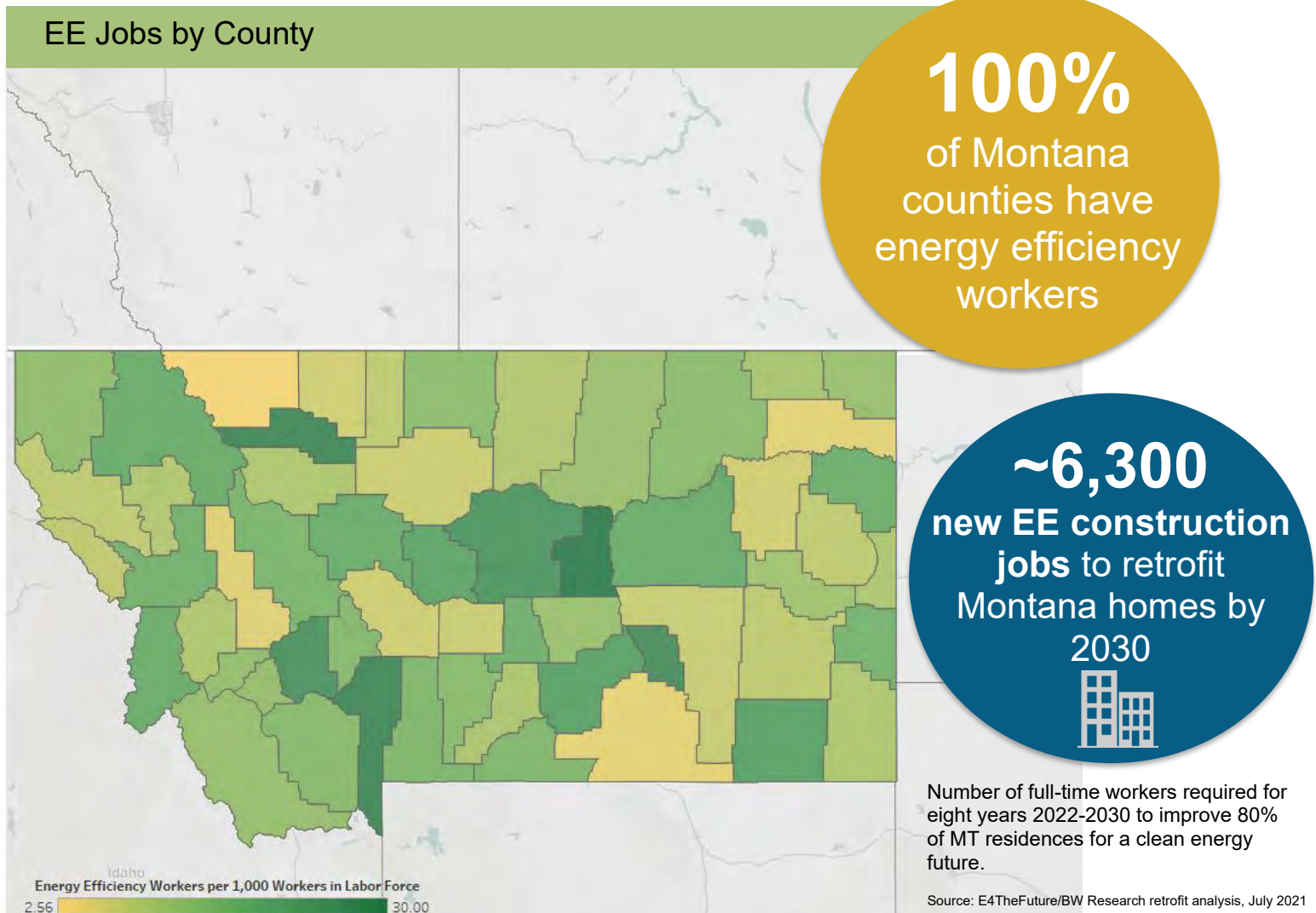
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Montana, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



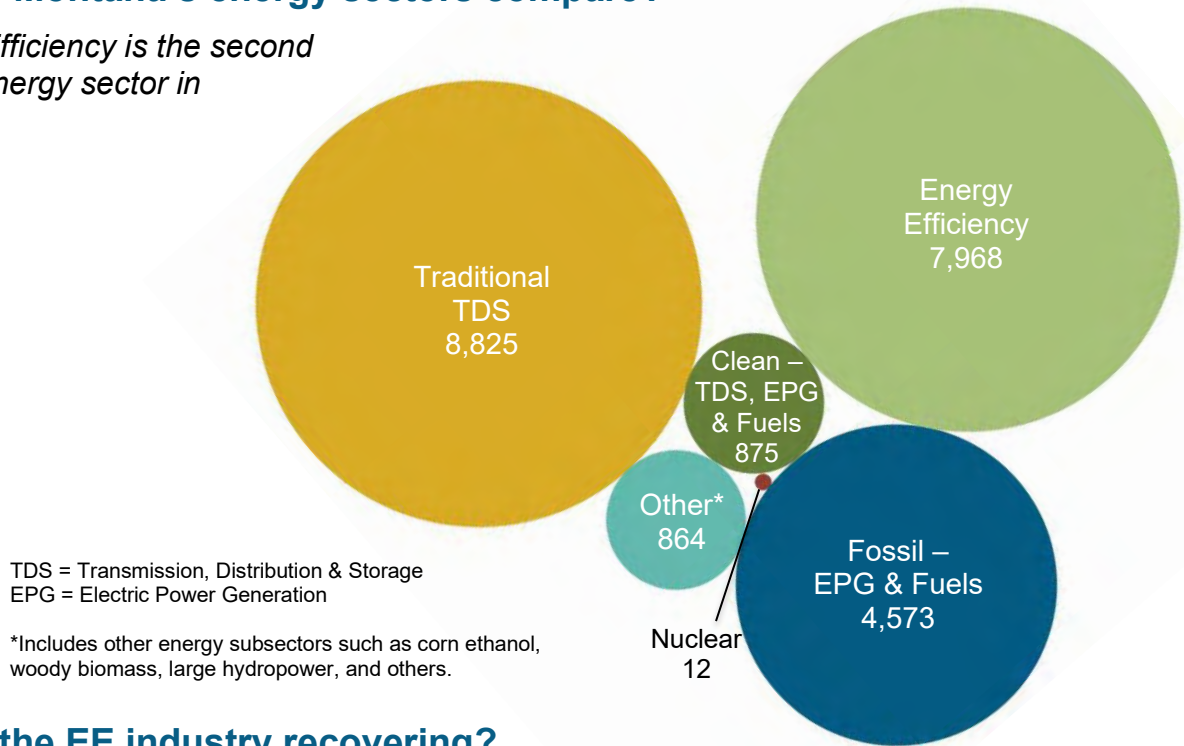
# Key EE Statistics for Montana

## What are energy efficiency (EE) jobs?

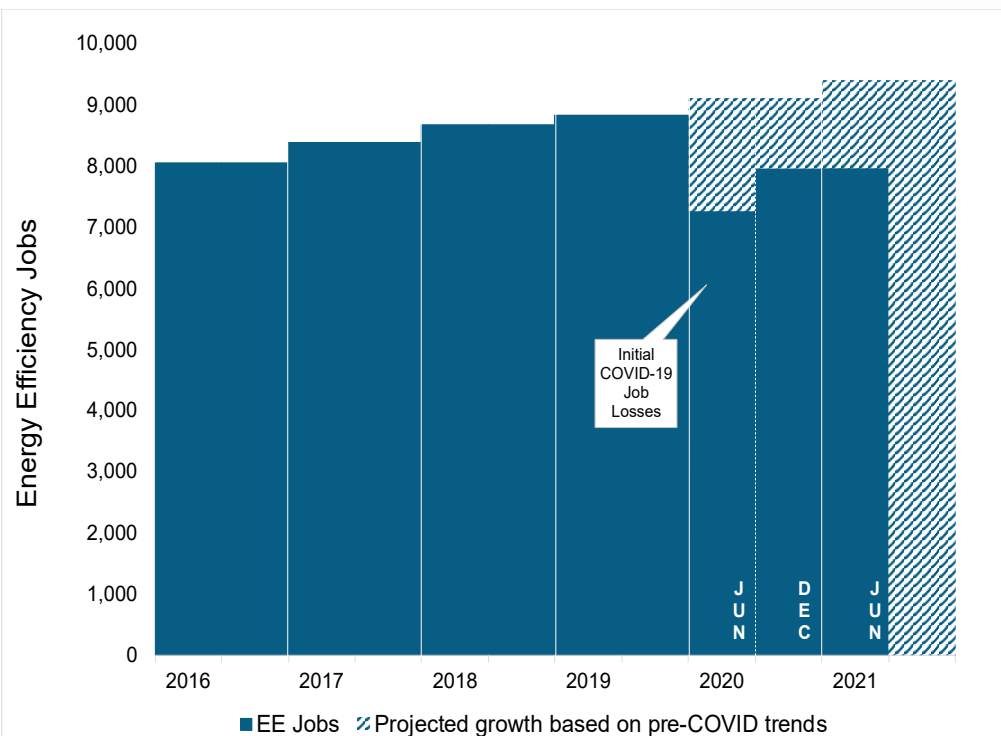
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Montana's energy sectors compare?

*Energy Efficiency is the second largest energy sector in Montana.*



## How is the EE industry recovering?



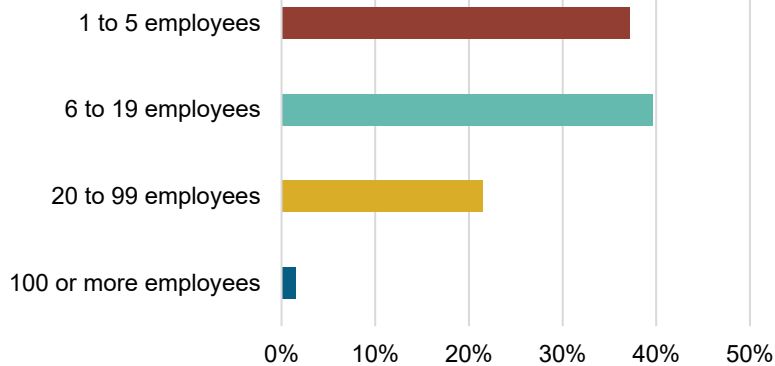
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in Montana?

### 98.3% of MT EE Businesses Have Less Than 100 Employees



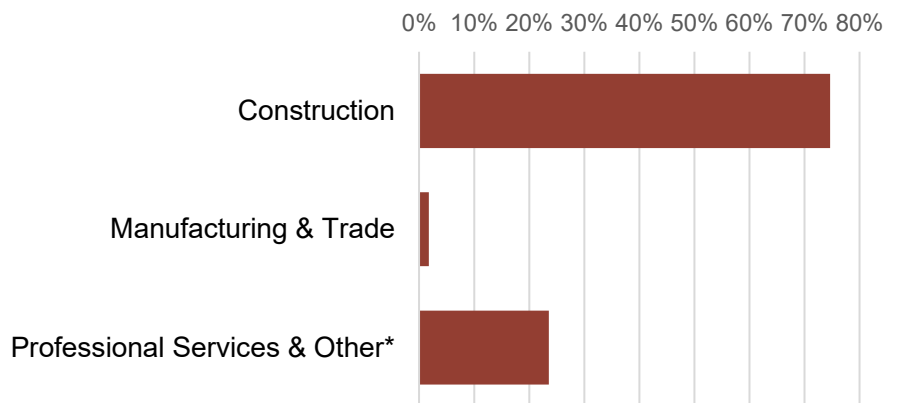
**1,384**  
EE businesses in  
Montana



EE construction  
workers comprise  
**18%** of Montana  
construction  
workers

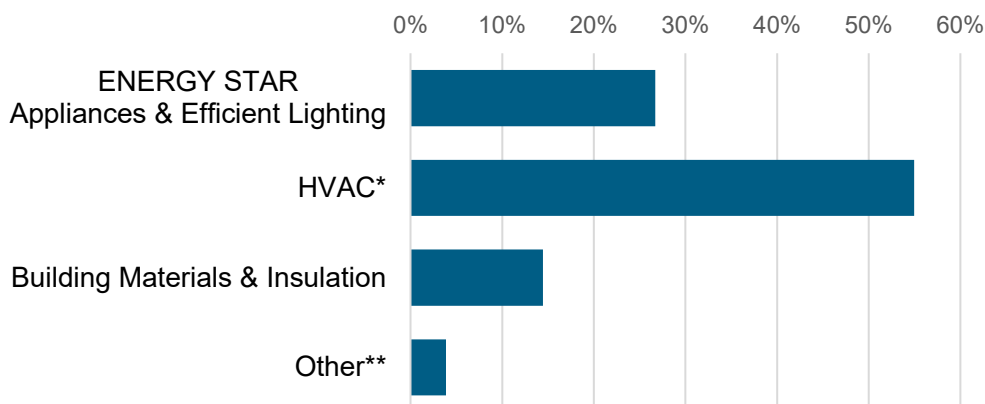


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services



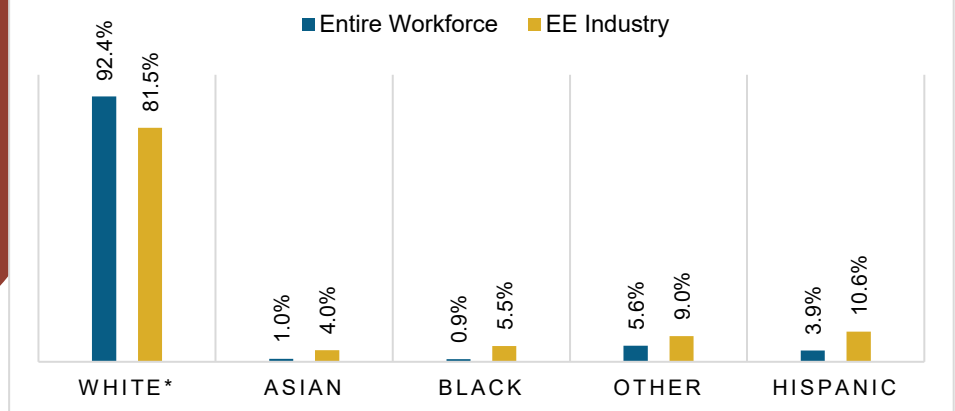
**8%** of  
Montana  
EE workers are  
**Veterans**

## How is EE doing on diversity in Montana?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Montana communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Montana EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.




Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Montana's EE Potential

Decades of work, ready for Montana's growing energy efficiency workforce.

Weatherization Assistance Program:

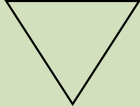
  
**876\*** units weatherized in 2018, out of **~57,000** total low-income households

**342,792**

Montana homes are due for energy tune-ups

  
(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**29%**  


\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas		
District	Jobs		Area	Jobs
1	7,968		Billings	1,670
			Great Falls	478
			Missoula	944
			Rural	4,877

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	154		16	127		31	262		46	208
2	818		17	56		32	87		47	<5
3	5		18	196		33	<5		48	31
4	<5		19	135		34	<5		49	<5
5	116		20	420		35	117		50	<5
6	81		21	730		36	396			
7	116		22	<5		37	<5			
8	108		23	513		38	460			
9	133		24	<5		39	52			
10	243		25	<5		40	36			
11	220		26	<5		41	<5			
12	<5		27	<5		42	<5			
13	<5		28	20		43	293			
14	172		29	154		44	31			
15	160		30	686		45	632			

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	77	26	<5	51	<5	76	<5
2	76	27	171	52	<5	77	31
3	216	28	<5	53	<5	78	21
4	601	29	114	54	<5	79	<5
5	<5	30	46	55	20	80	35
6	5	31	79	56	<5	81	<5
7	16	32	47	57	96	82	<5
8	<5	33	5	58	57	83	<5
9	<5	34	50	59	689	84	<5
10	116	35	140	60	<5	85	297
11	<5	36	55	61	262	86	<5
12	81	37	135	62	<5	87	<5
13	63	38	<5	63	<5	88	31
14	36	39	58	64	87	89	635
15	77	40	361	65	<5	90	<5
16	30	41	33	66	<5	91	<5
17	95	42	696	67	<5	92	209
18	37	43	<5	68	<5	93	<5
19	242	44	<5	69	10	94	<5
20	<5	45	<5	70	107	95	31
21	220	46	514	71	336	96	<5
22	<5	47	<5	72	61	97	<5
23	<5	48	<5	73	<5	98	<5
24	<5	49	<5	74	<5	99	<5
25	<5	50	<5	75	459	100	<5



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# Nebraska

## Energy Efficiency Jobs in America

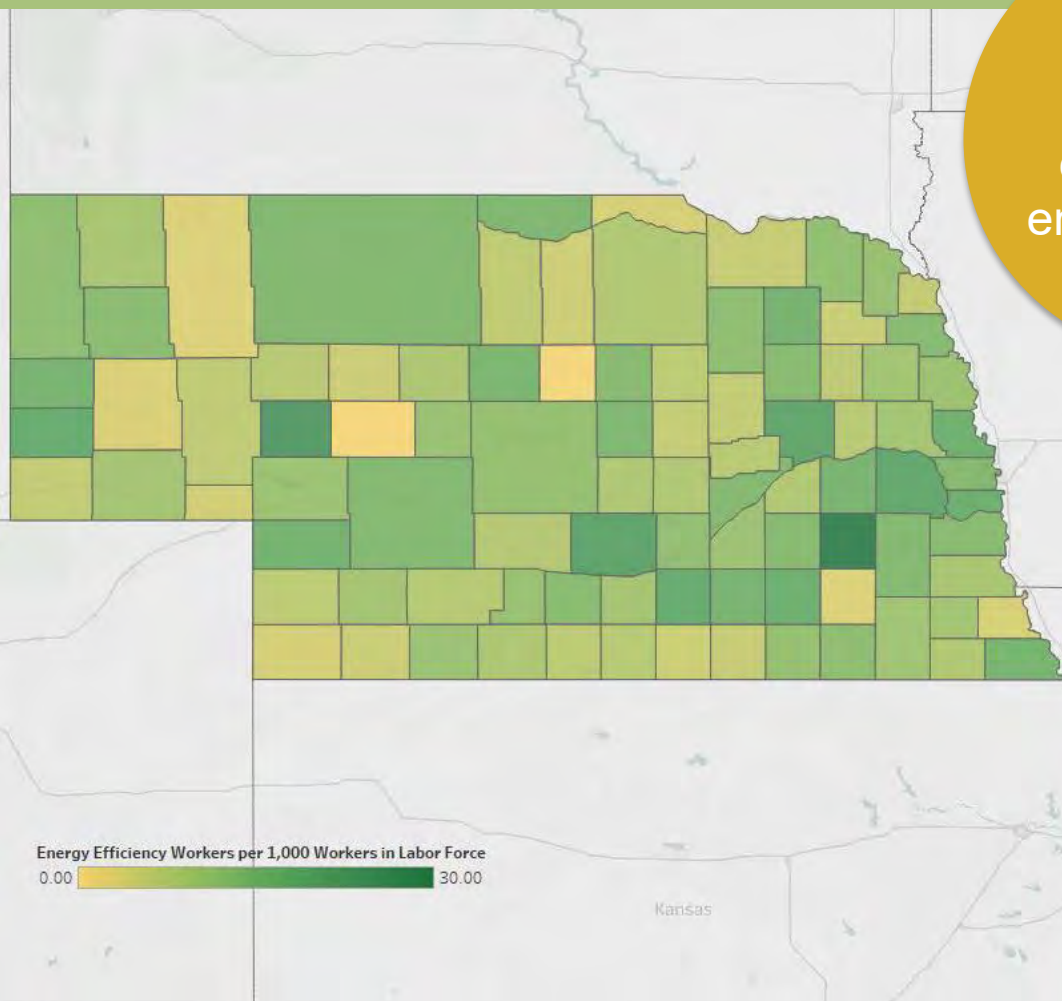


*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Nebraska, there are EE jobs in nearly every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**98%**  
of Nebraska  
counties have  
energy efficiency  
workers

**~7,100**  
new EE construction  
jobs to retrofit  
Nebraska homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of NE residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:



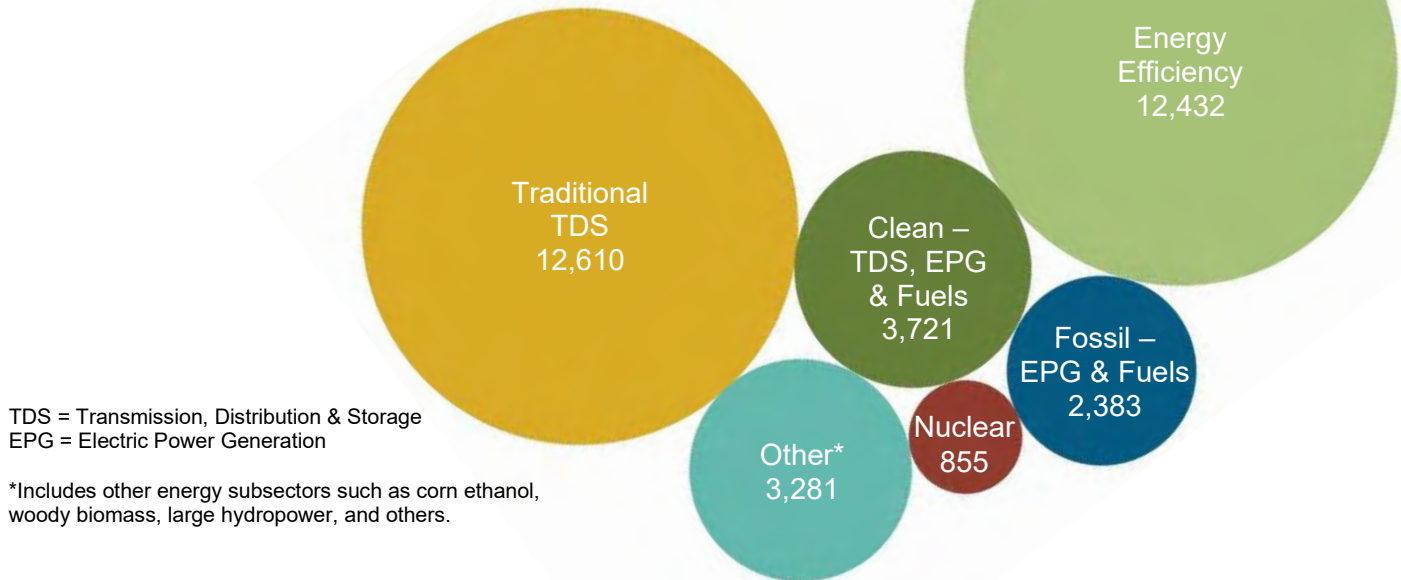
# Key EE Statistics for Nebraska

## What are energy efficiency (EE) jobs?

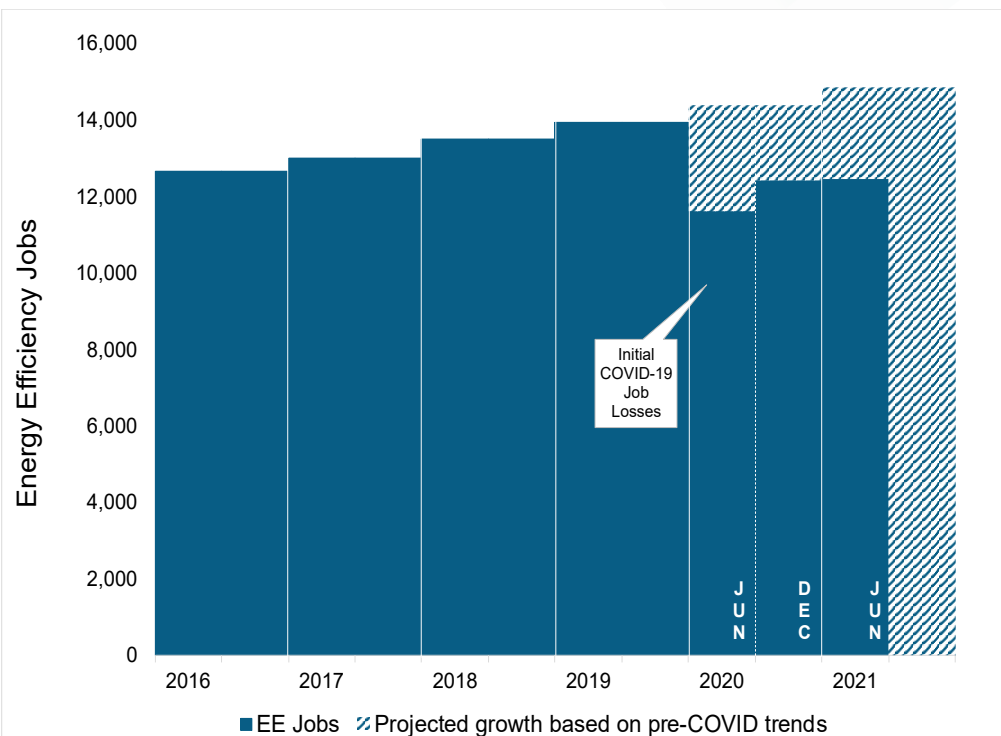
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Nebraska's energy sectors compare?

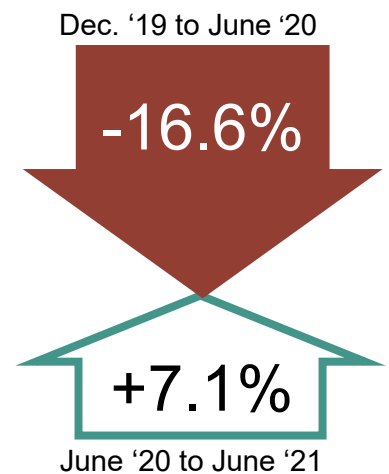
*Energy Efficiency is the second largest energy sector in Nebraska.*



## How is the EE industry recovering?



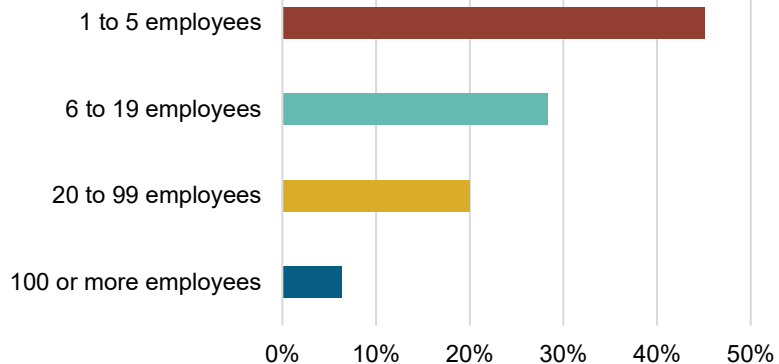
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in Nebraska?

### 93.5% of NE EE Businesses Have Less Than 100 Employees



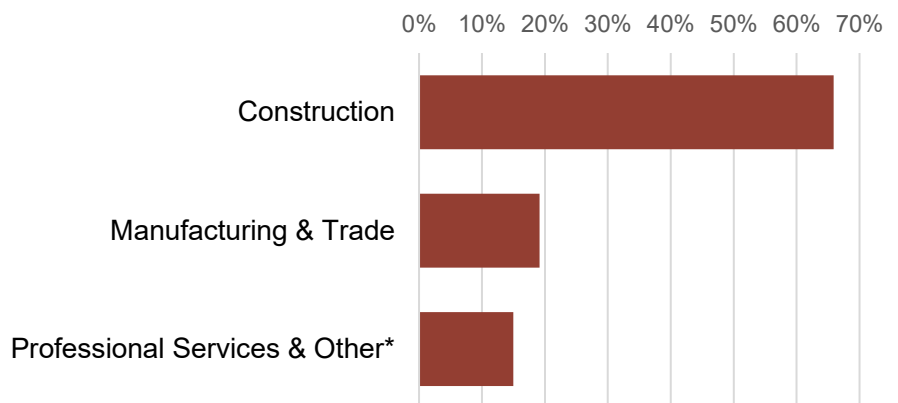
**2,029**  
EE businesses in  
Nebraska



EE construction  
workers comprise  
**14%** of Nebraska  
construction  
workers

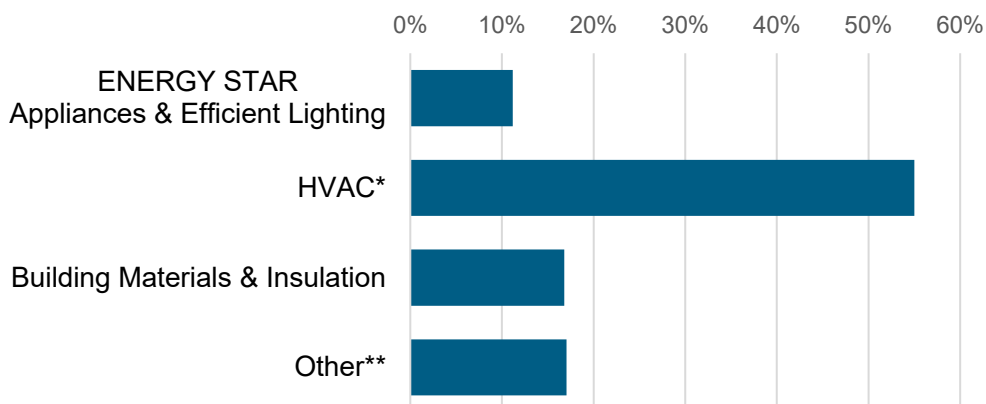


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services



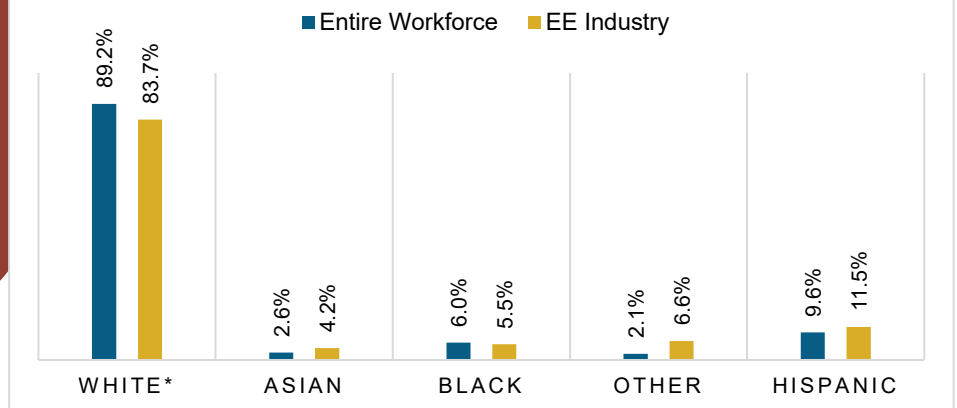
**8%** of  
Nebraska  
EE workers are  
**Veterans**

## How is EE doing on diversity in Nebraska?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Nebraska communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Nebraska EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.




Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Nebraska's EE Potential

Decades of work, ready for Nebraska's growing energy efficiency workforce.

Weatherization Assistance Program:

  
**323\*** units weatherized in 2018, out of **~78,000** total low-income households

**617,052**

Nebraska homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**22%**  


\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

# Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,201	Lincoln	2,063
2	4,198	Omaha-Council Bluffs	4,963
3	4,033	Sioux City	95
		Rural	5,310

State Senate							
District	Jobs		District	Jobs		District	Jobs
1	296		14	162		27	247
2	486		15	282		28	<5
3	100		16	286		29	21
4	1,192		17	185		30	236
5	613		18	<5		31	46
6	830		19	346		32	197
7	526		20	<5		33	303
8	81		21	831		34	503
9	<5		22	291		35	<5
10	199		23	158		36	327
11	<5		24	291		37	322
12	254		25	643		38	173
13	79		26	121		39	43
						40	234
						41	251
						42	244
						43	250
						44	230
						45	62
						46	<5
						47	436
						48	6
						49	53



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# Nevada

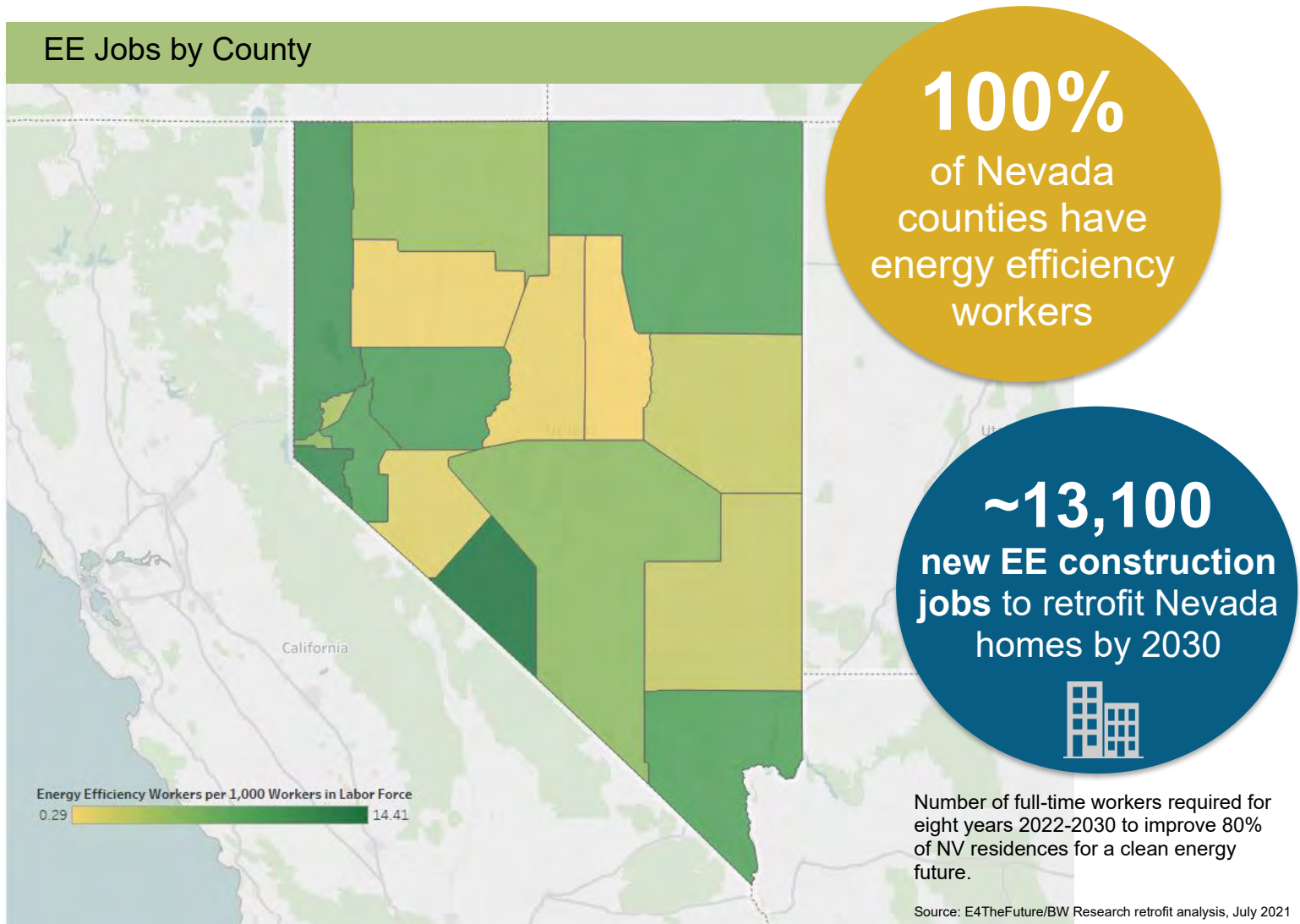
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Nevada, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





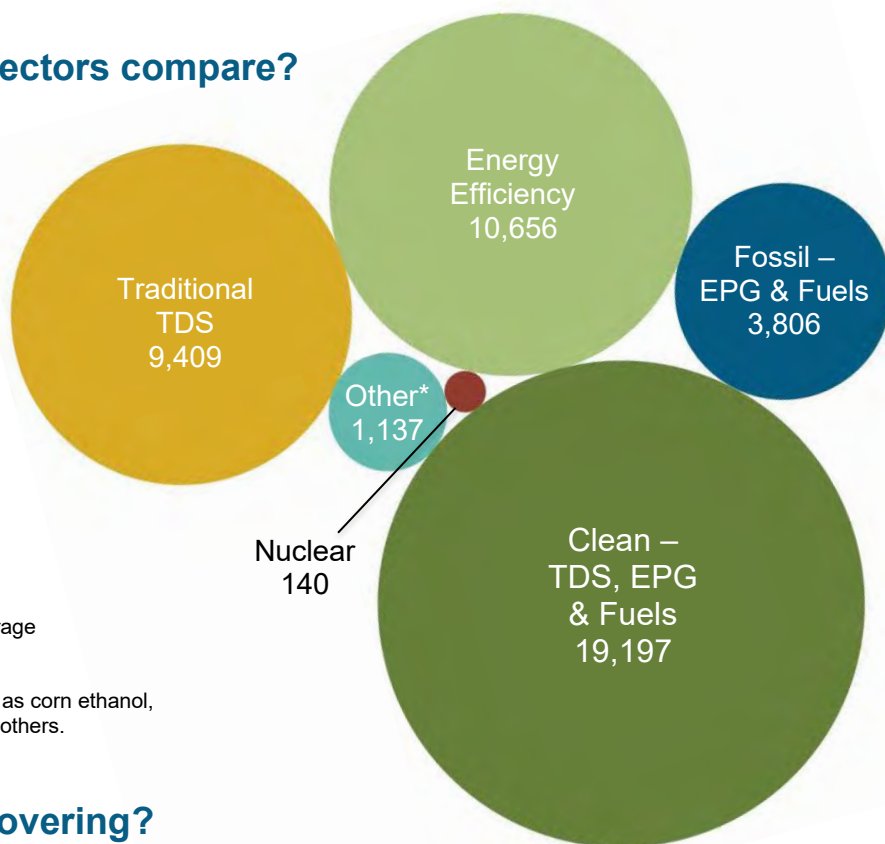
# Key EE Statistics for Nevada

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Nevada's energy sectors compare?

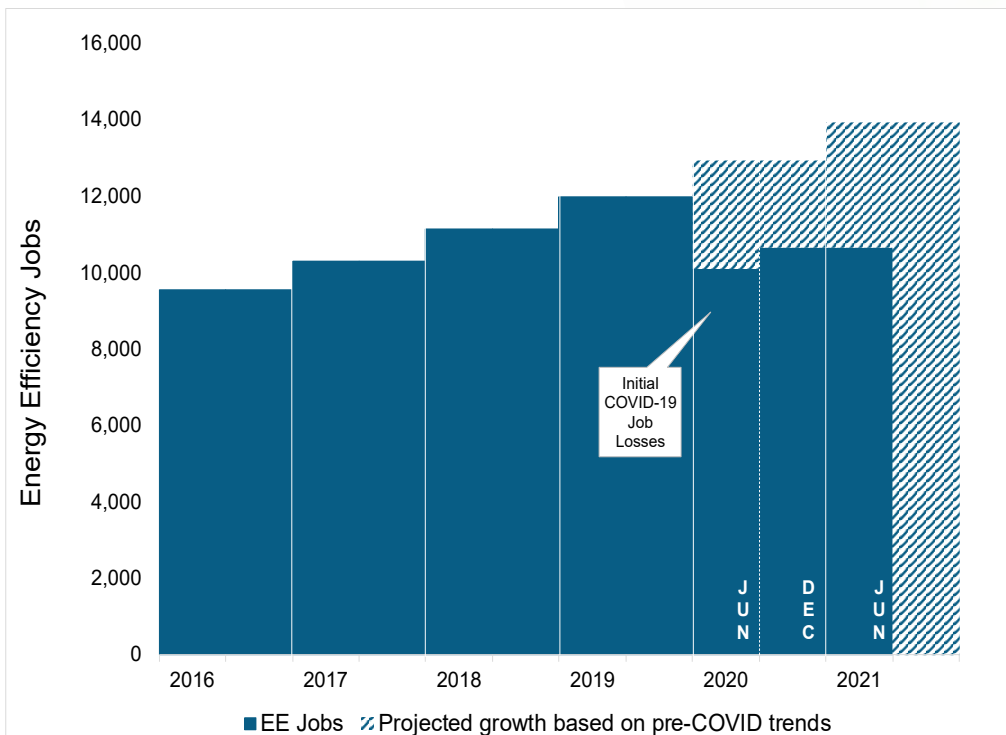
*Energy Efficiency is the second largest energy sector in Nevada.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



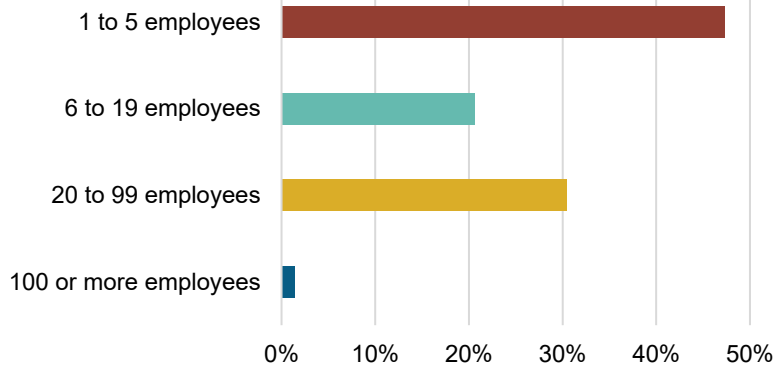
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in Nevada?

### 98.3% of NV EE Businesses Have Less Than 100 Employees



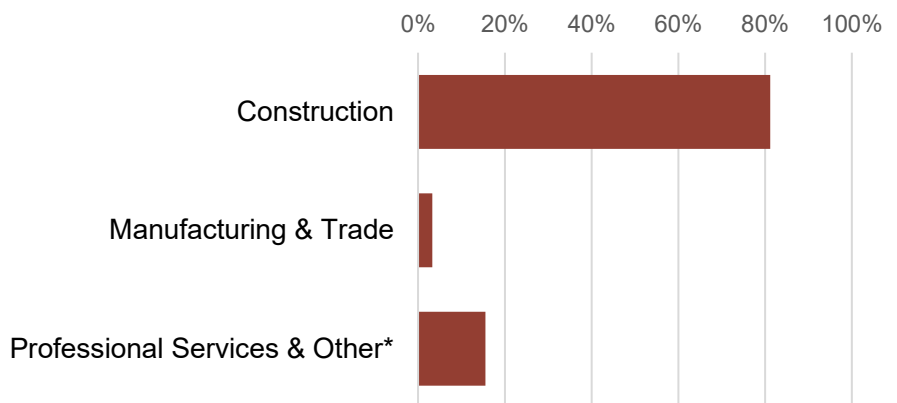
**2,197**  
EE businesses in  
Nevada



EE construction  
workers comprise  
**9%** of Nevada  
construction  
workers

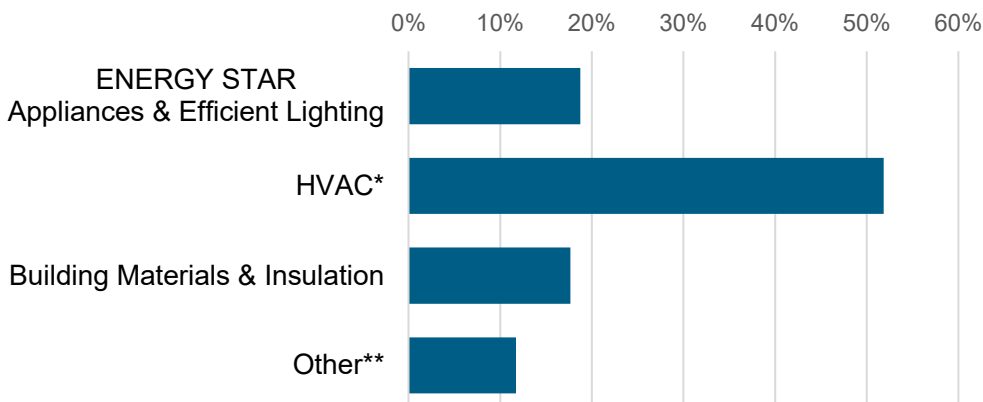


### What type of work do energy efficiency firms do?



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### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

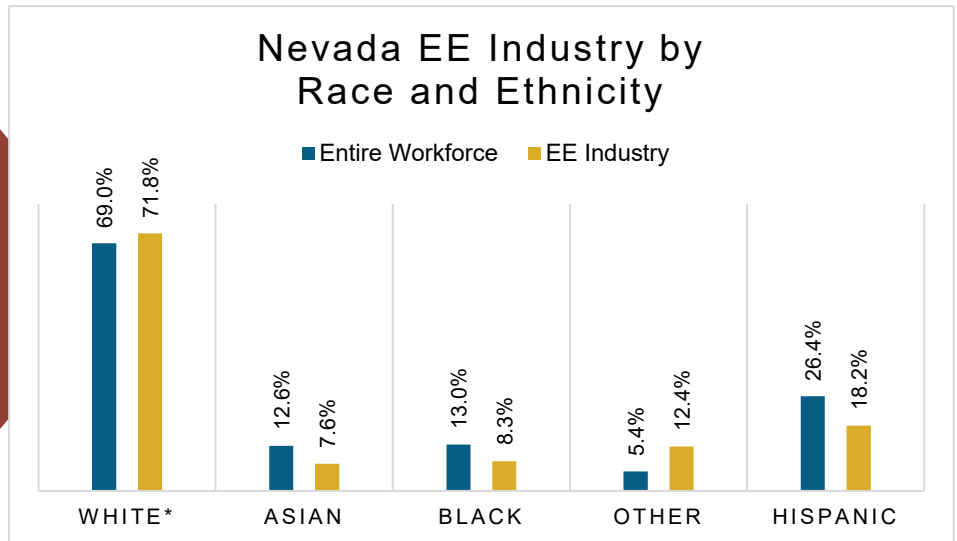


**7%** of  
Nevada  
EE workers are  
**Veterans**

# How is EE doing on diversity in Nevada?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Nevada communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Nevada's EE Potential

Decades of work, ready for Nevada's growing energy efficiency workforce.

Weatherization Assistance Program:



**195\*** units weatherized in 2018, out of **~140,000** total low-income households

**698,735**

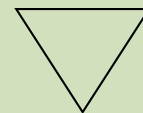
Nevada homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**37%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	6,167	Carson City	207
2	2,420	Las Vegas-Paradise	6,345
3	1,420	Reno-Sparks	3,654
4	648	Rural	449

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	642		7	407		13	1,204		19	226
2	803		8	437		14	159		20	50
3	1,405		9	423		15	165		21	14
4	<5		10	890		16	442			
5	1,929		11	184		17	337			
6	563		12	369		18	6			

## State Assembly

District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	223		13	<5		25	465		37	<5
2	562		14	<5		26	182		38	138
3	496		15	971		27	28		39	359
4	176		16	<5		28	<5		40	243
5	85		17	<5		29	<5		41	<5
6	713		18	431		30	312		42	<5
7	255		19	159		31	<5			
8	1,260		20	142		32	104			
9	167		21	215		33	216			
10	628		22	209		34	191			
11	237		23	60		35	41			
12	479		24	864		36	40			



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# New Hampshire

## Energy Efficiency Jobs in America

June 2021\*

10,855

Dec 2020

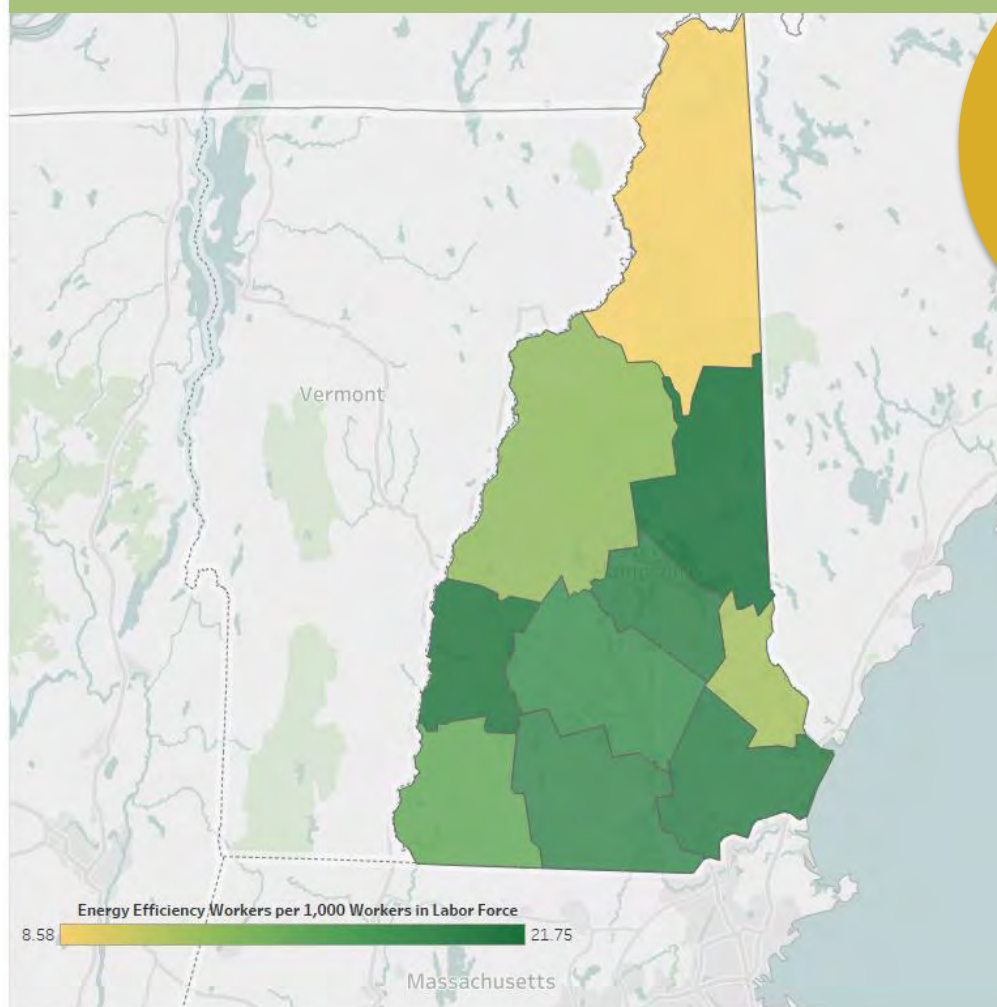
10,838

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In New Hampshire, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



100%

of New Hampshire  
counties have  
energy efficiency  
workers

~6,800

new EE construction  
jobs to retrofit New  
Hampshire homes by  
2030



Number of full-time workers required for  
eight years 2022-2030 to improve 80%  
of NH residences for a clean energy  
future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





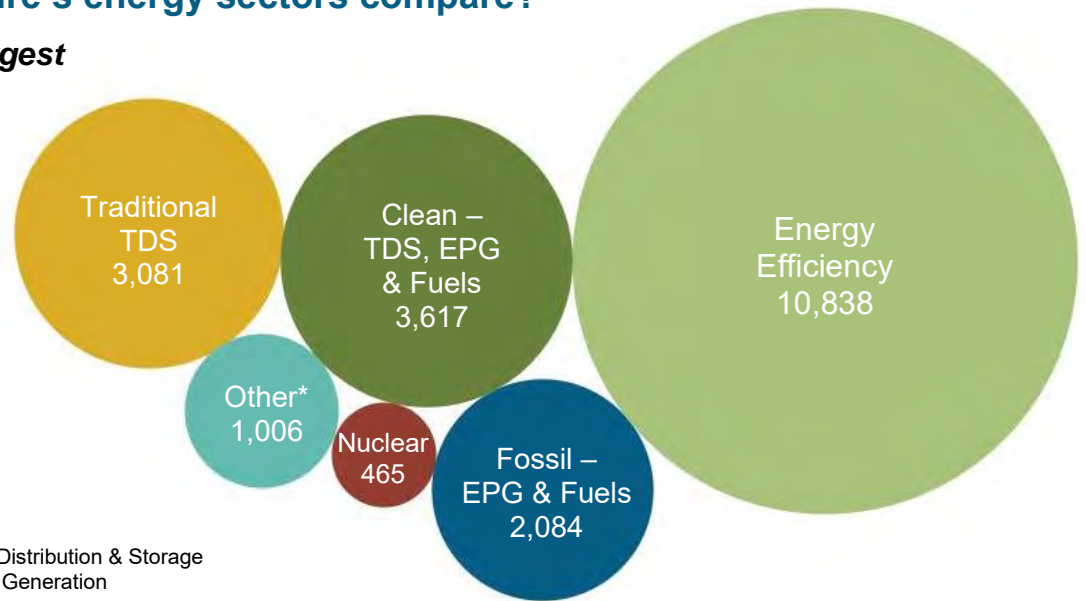
# Key EE Statistics for New Hampshire

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do New Hampshire's energy sectors compare?

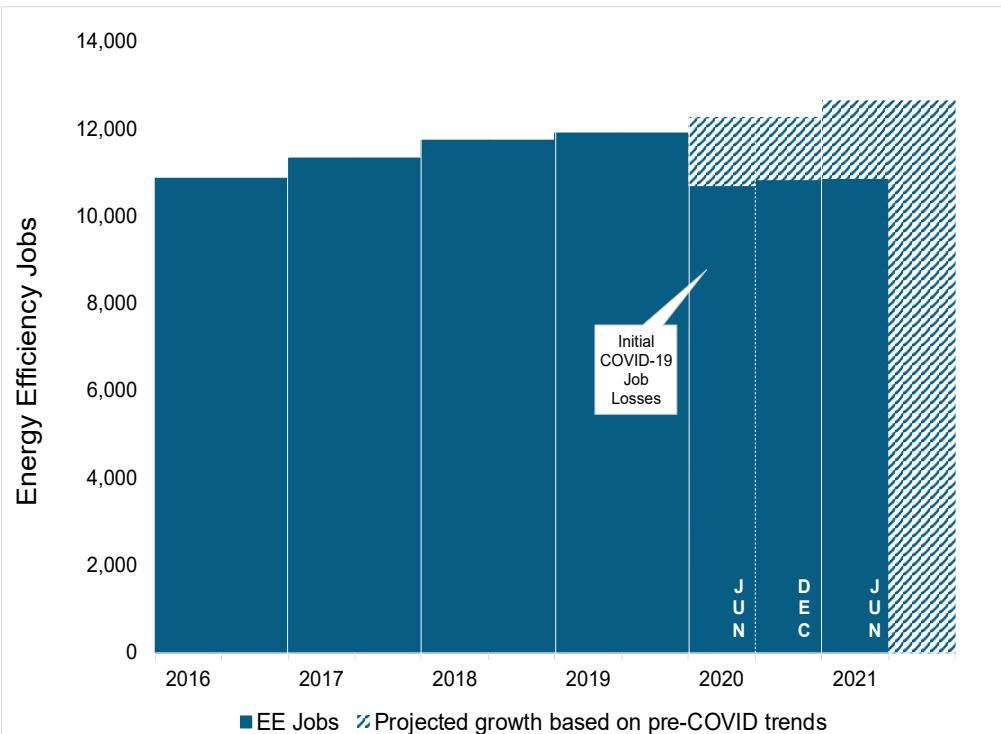
*Energy Efficiency is the **largest** energy sector in New Hampshire.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



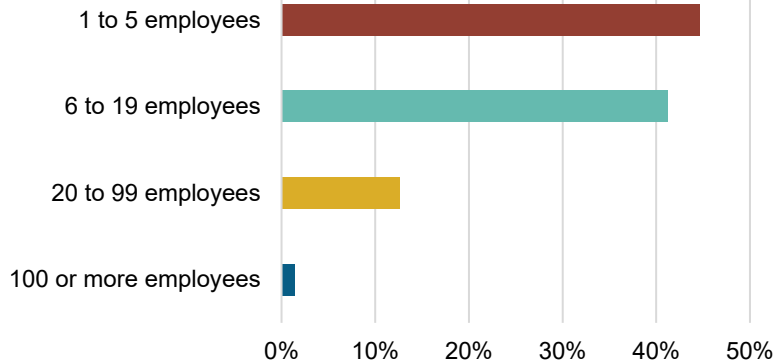
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



# What does EE look like in New Hampshire?

## 98.5% of NH EE Businesses Have Less Than 100 Employees



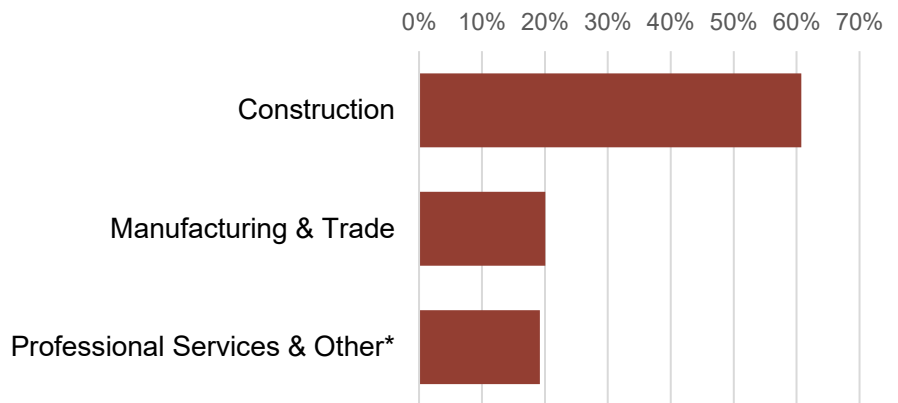
**2,033**  
EE businesses in New Hampshire



EE construction workers comprise **22%** of New Hampshire construction workers

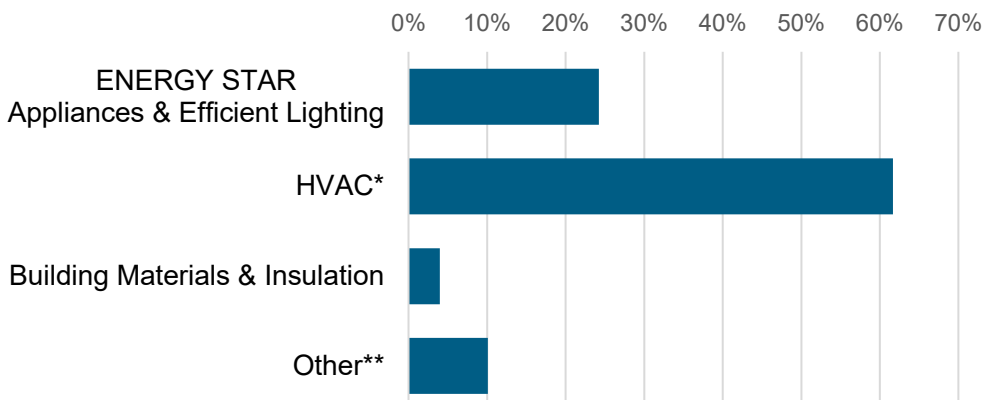


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

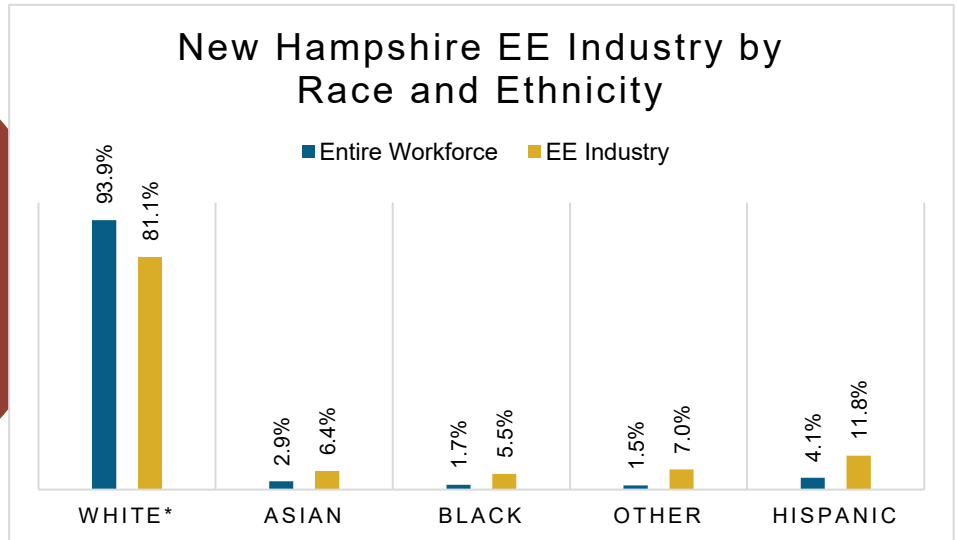


**8%** of New Hampshire EE workers are **Veterans**

# How is EE doing on diversity in New Hampshire?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all New Hampshire communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## New Hampshire's EE Potential

Decades of work, ready for New Hampshire's growing energy efficiency workforce.

Weatherization Assistance Program:

**139\*** units weatherized in 2018, out of **~40,000** total low-income households

**497,478**

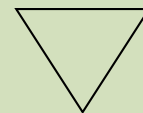
New Hampshire homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**18%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	5,885	Boston-Cambridge-Quincy	4,869
2	4,953	Manchester-Nashua	2,607
		Rural	3,362

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	414		7	531		13	276		19	228
2	503		8	486		14	998		20	303
3	519		9	525		15	556		21	556
4	417		10	335		16	511		22	497
5	357		11	516		17	367		23	452
6	260		12	560		18	168		24	503

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	111	405	32	602	8	722	65
2	253	406	98	604	110	723	408
4	80	408	70	605	<5	724	53
5	47	409	68	606	47	801	20
6	74	410	119	607	65	802	36
7	20	412	58	609	88	803	46
101	90	413	37	610	515	804	108
102	105	501	97	620	145	805	22
103	59	502	73	623	103	806	271
104	159	503	36	624	123	807	141
105	78	504	183	701	47	817	64
117	7	505	15	702	144	818	27
201	82	506	220	704	197	901	58
202	181	507	227	705	440	902	105
203	22	508	134	706	41	903	80
209	173	510	422	707	73	906	34
211	56	512	180	708	297	907	21
212	75	520	260	709	93		
301	50	521	362	710	321		
302	34	523	113	712	31		
303	45	525	11	713	50		
304	18	526	112	714	89		
305	13	528	151	715	37		
306	26	529	60	716	34		
401	87	530	273	717	17		
402	49	531	112	719	123		
403	36	537	108	720	116		
404	16	601	130	721	113		



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E2 is a national, nonpartisan group of business leaders, investors, and other professionals from every sector of the economy who advocate for smart policies that are good for the environment and good for the economy. Visit [www.e2.org](http://www.e2.org)



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

For questions on E4TheFuture analyses please email: [policy@e4thefuture.org](mailto:policy@e4thefuture.org).

# New Jersey

## Energy Efficiency Jobs in America

June 2021\*

32,936

Dec 2020

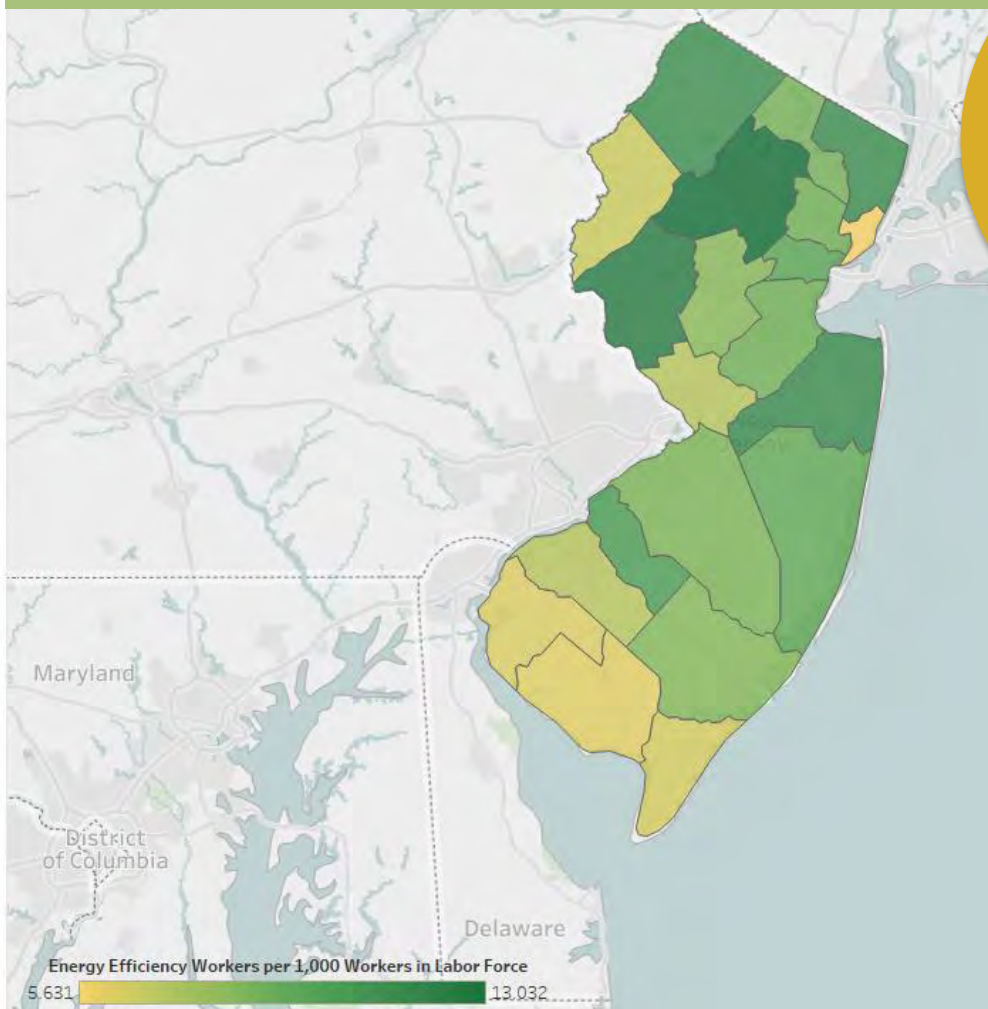
32,880

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In New Jersey, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



100%

of New Jersey  
counties have  
energy efficiency  
workers

~41,500

new EE construction  
jobs to retrofit New  
Jersey homes by  
2030



Number of full-time workers required for  
eight years 2022-2030 to improve 80%  
of NJ residences for a clean energy  
future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





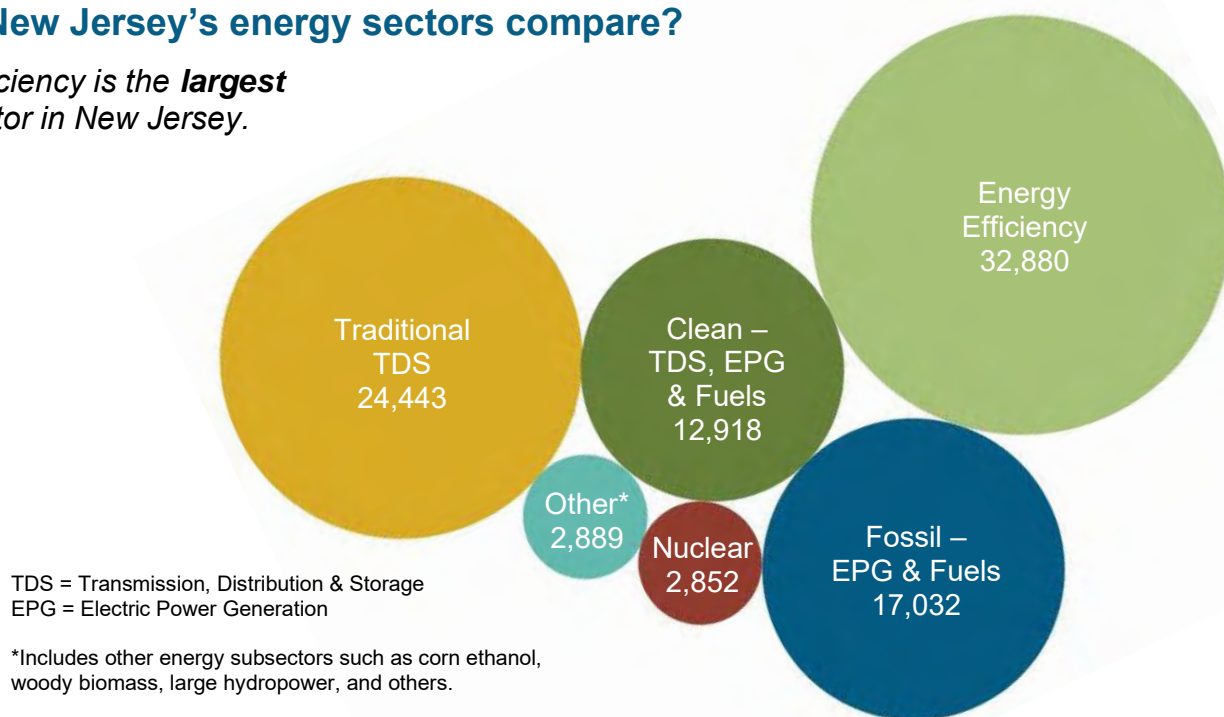
# Key EE Statistics for New Jersey

## What are energy efficiency (EE) jobs?

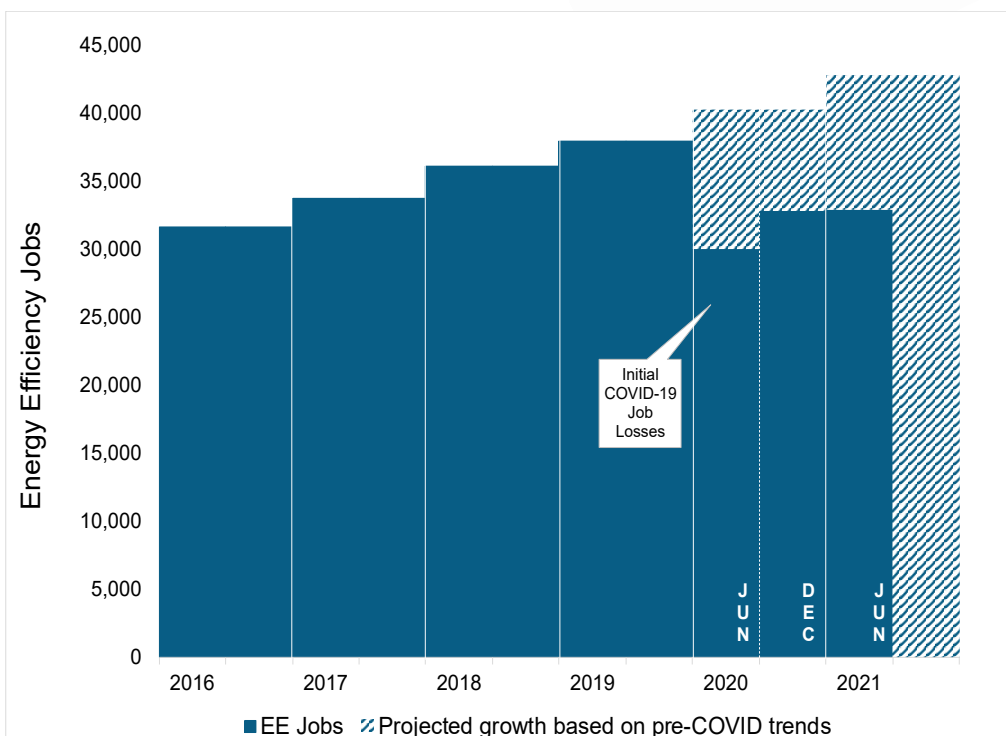
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do New Jersey's energy sectors compare?

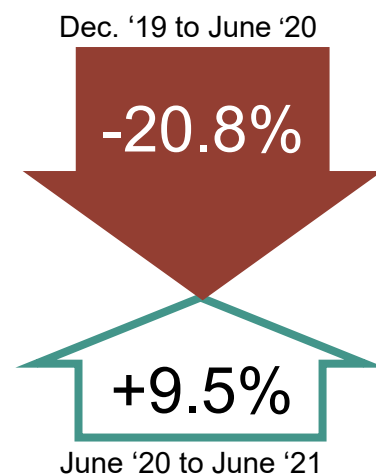
*Energy Efficiency is the **largest** energy sector in New Jersey.*



## How is the EE industry recovering?



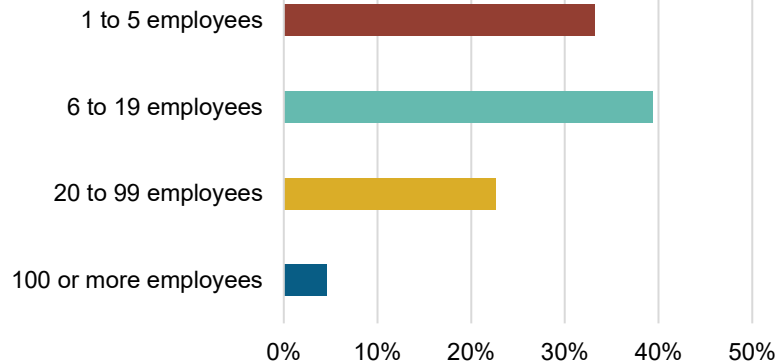
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in New Jersey?

## 95.1% of NJ EE Businesses Have Less Than 100 Employees



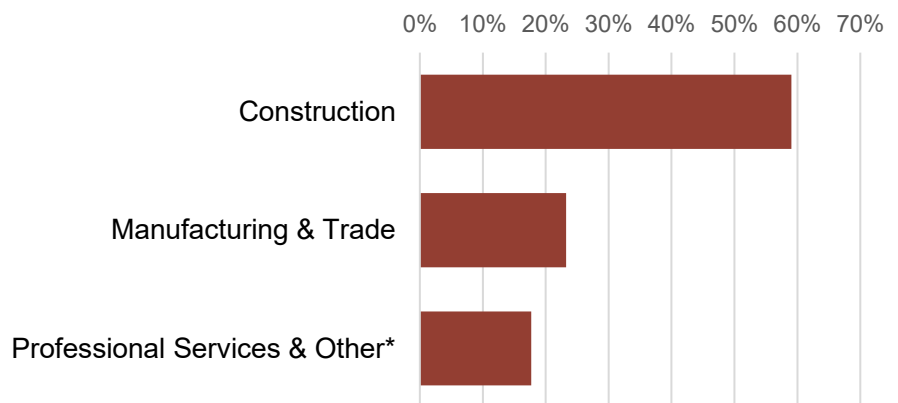
**4,765**  
EE businesses in  
New Jersey



EE construction  
workers comprise  
**12%** of New  
Jersey construction  
workers

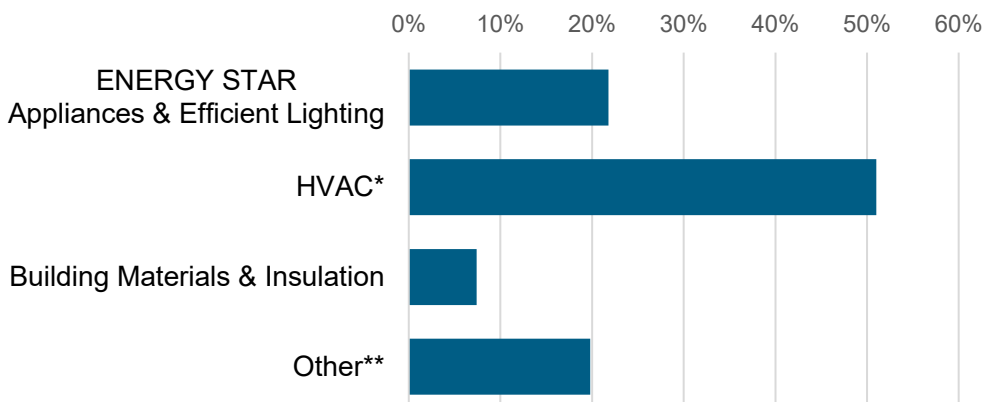


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

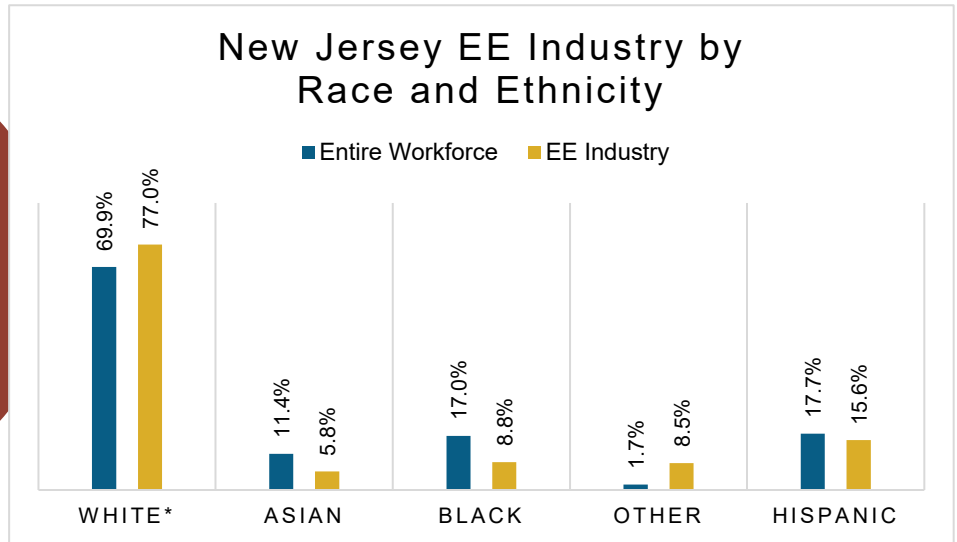


**7%** of  
New Jersey  
EE workers are  
**Veterans**

## How is EE doing on diversity in New Jersey?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all New Jersey communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## New Jersey's EE Potential

Decades of work, ready for New Jersey's growing energy efficiency workforce.

Weatherization Assistance Program:

**1,655\*** units weatherized in 2018, out of **~310,000** total low-income households

**2,841,102**

New Jersey homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**15%**

\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	2,419	Allentown-Bethlehem-Easton	408
2	2,142	Atlantic City	671
3	3,357	New York-Northern New Jersey-Long Island	25,082
4	3,572	Ocean City	400
5	3,612	Philadelphia-Camden-Wilmington	4,581
6	2,058	Trenton-Ewing	1,437
7	4,718	Vineland-Millville-Bridgeton	302
8	2,415		
9	2,682		
10	845		
11	3,097		
12	1,964		

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	843		11	1,667		21	1,263		31	608
2	788		12	1,022		22	662		32	487
3	575		13	585		23	768		33	394
4	546		14	954		24	878		34	596
5	689		15	822		25	1,268		35	740
6	612		16	1,410		26	1,368		36	597
7	992		17	820		27	780		37	1,236
8	737		18	546		28	516		38	890
9	1,005		19	462		29	615		39	1,145
10	1,134	20	532	30	500	40	831			

## State General Assembly

District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	821		11	1,954		21	1,225		31	583
2	843		12	1,036		22	635		32	476
3	555		13	562		23	767		33	396
4	567		14	957		24	900		34	539
5	684		15	842		25	1,217		35	721
6	594		16	1,359		26	1,386		36	599
7	1,030		17	897		27	753		37	1,244
8	750		18	523		28	494		38	896
9	972		19	438		29	591		39	1,098
10	1,177		20	509		30	493		40	795



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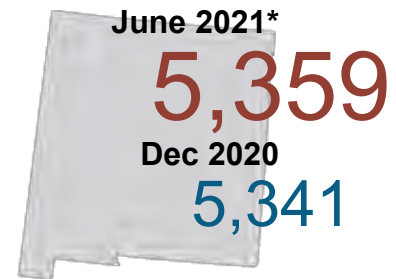
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# New Mexico

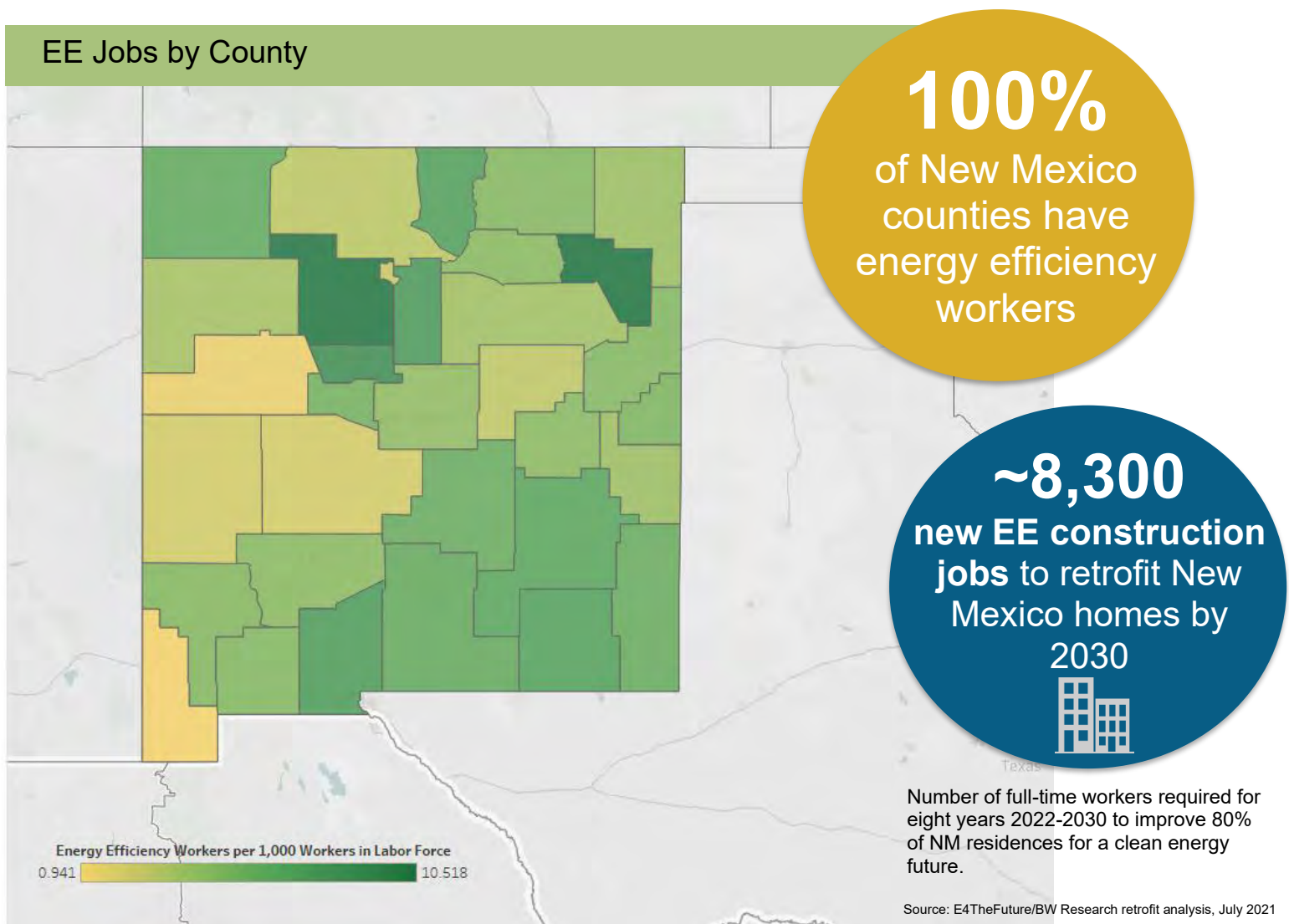
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In New Mexico, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





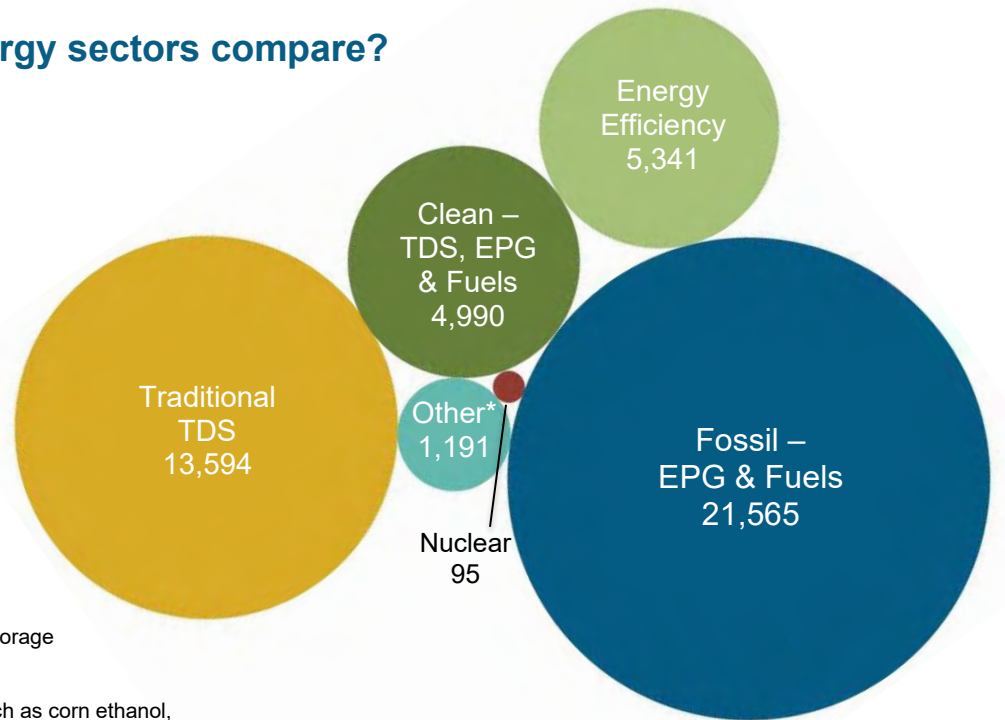
# Key EE Statistics for New Mexico

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do New Mexico's energy sectors compare?

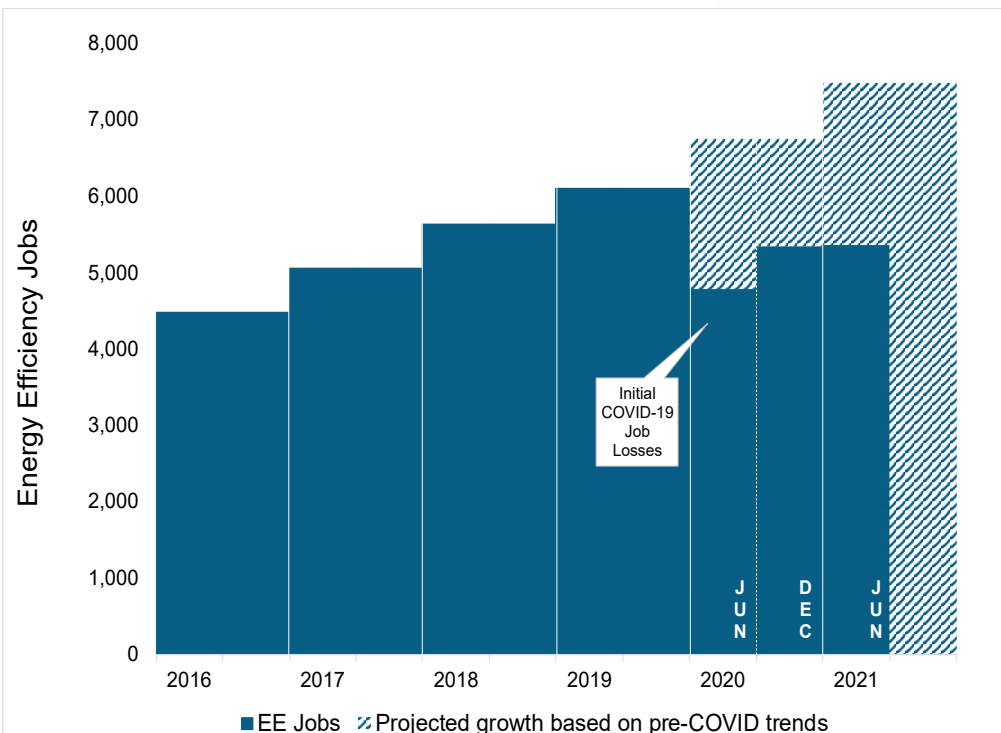
*Energy Efficiency is the third largest energy sector in New Mexico.*



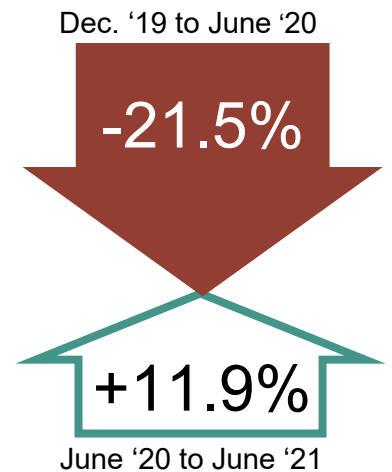
TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



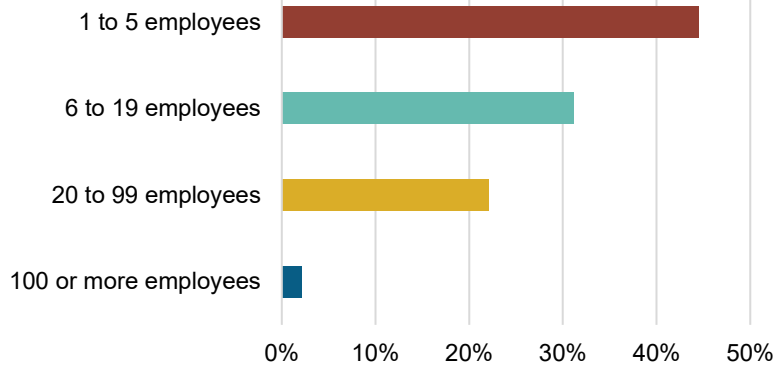
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in New Mexico?

## 97.7% of NM EE Businesses Have Less Than 100 Employees



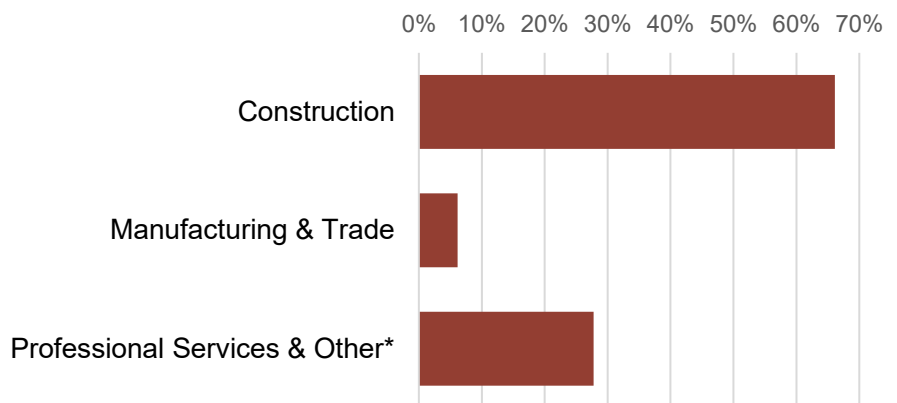
**1,021**  
EE businesses in  
New Mexico



EE construction workers comprise **7%** of New Mexico construction workers

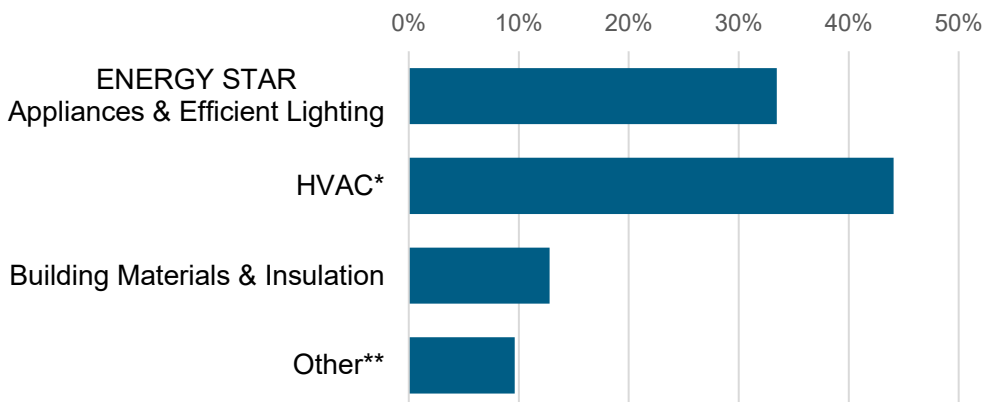


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

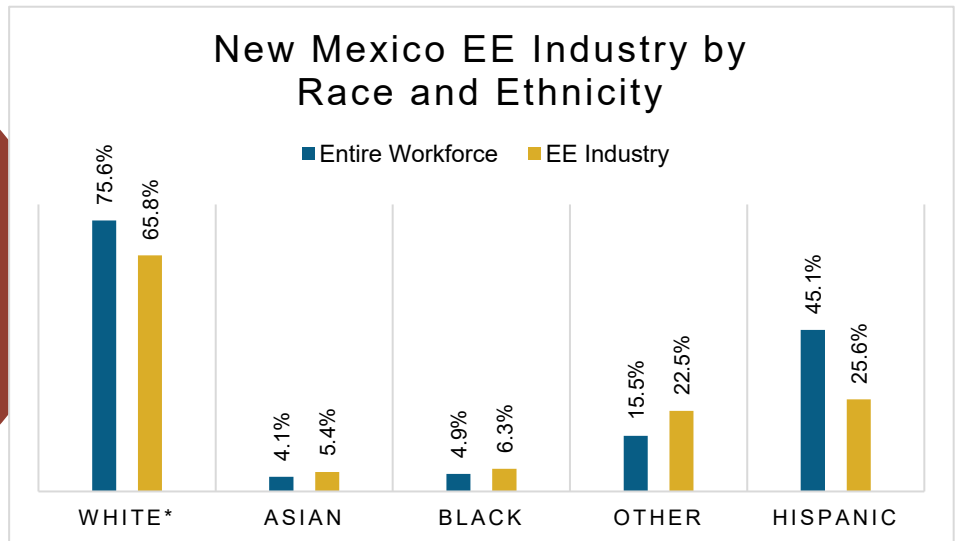


**8%** of  
New Mexico  
EE workers are  
**Veterans**

# How is EE doing on diversity in New Mexico?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all New Mexico communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## New Mexico's EE Potential

Decades of work, ready for New Mexico's growing energy efficiency workforce.

Weatherization Assistance Program:

**735\*** units weatherized in 2018, out of **~150,000** total low-income households

**610,590**

New Mexico homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**40%**

\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	2,877	Albuquerque	3,012
2	1,038	Farmington	291
3	1,426	Las Cruces	263
		Santa Fe	671
		Rural	1,103

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	251		12	815		23	<5		34	94
2	50		13	775		24	623		35	74
3	55		14	<5		25	6		36	16
4	44		15	299		26	<5		37	<5
5	72		16	131		27	181		38	<5
6	106		17	<5		28	76		39	10
7	98		18	<5		29	71		40	<5
8	78		19	57		30	<5		41	151
9	311		20	34		31	214		42	13
10	310		21	<5		32	54			
11	135		22	9		33	128			

## State House of Representatives

District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	245		19	<5		37	<5		55	8
2	31		20	128		38	22		56	39
3	<5		21	<5		39	<5		57	<5
4	13		22	63		40	108		58	78
5	65		23	122		41	79		59	18
6	30		24	180		42	7		60	<5
7	67		25	<5		43	285		61	172
8	<5		26	<5		44	27		62	<5
9	<5		27	33		45	262		63	96
10	881		28	<5		46	131		64	<5
11	263		29	<5		47	<5		65	<5
12	<5		30	<5		48	<5		66	11
13	<5		31	<5		49	25		67	33
14	<5		32	60		50	18		68	<5
15	1,013		33	206		51	78		69	<5
16	<5		34	32		52	<5		70	<5
17	<5		35	13		53	12			
18	194		36	7		54	166			



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# New York

## Energy Efficiency Jobs in America

June 2021\*

122,083

Dec 2020

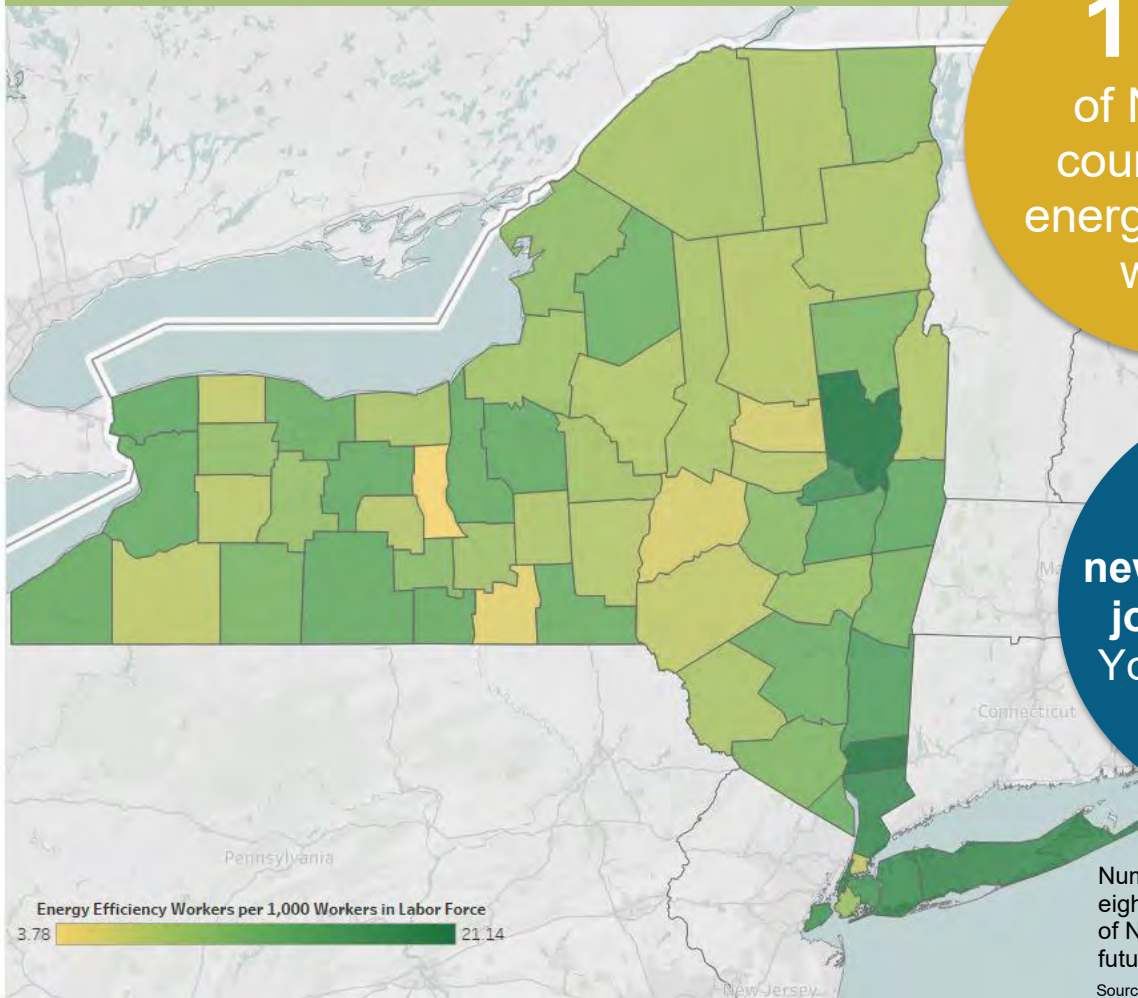
120,961

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In New York, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of New York  
counties have  
energy efficiency  
workers

**~80,700**  
new EE construction  
jobs to retrofit New  
York homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of NY residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





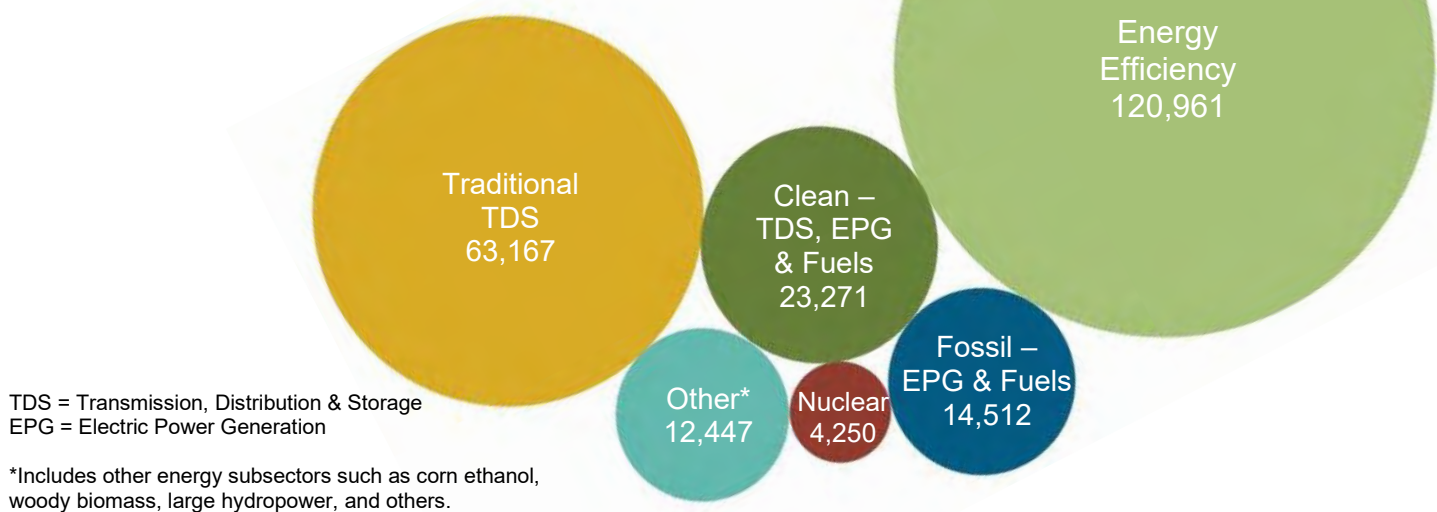
# Key EE Statistics for New York

## What are energy efficiency (EE) jobs?

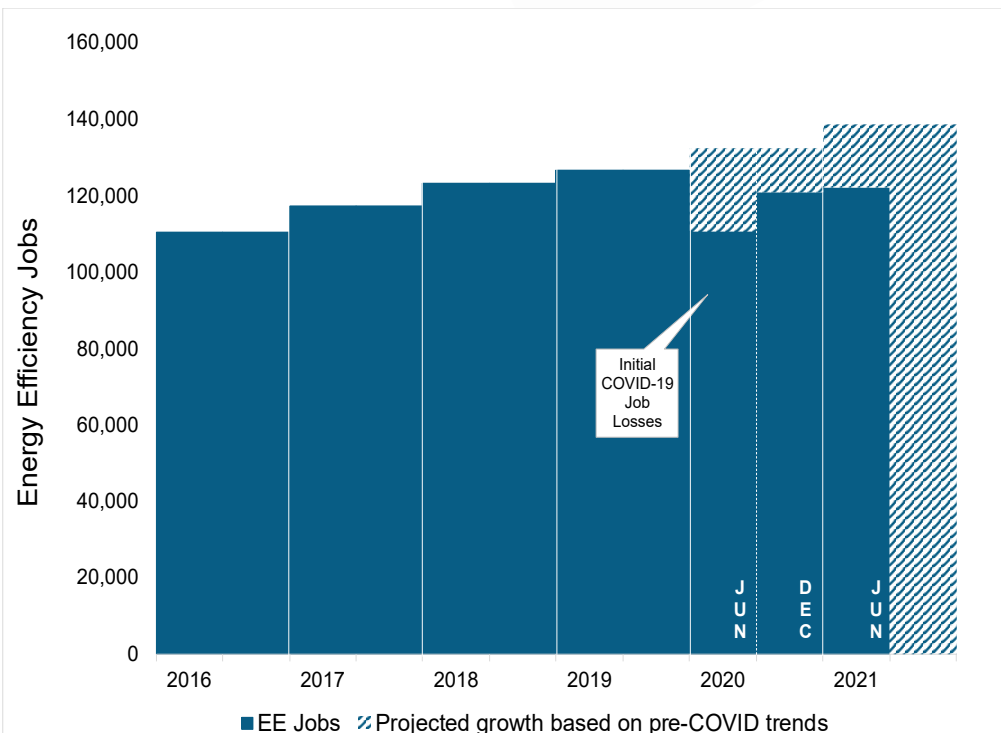
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do New York's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in New York.*



## How is the EE industry recovering?



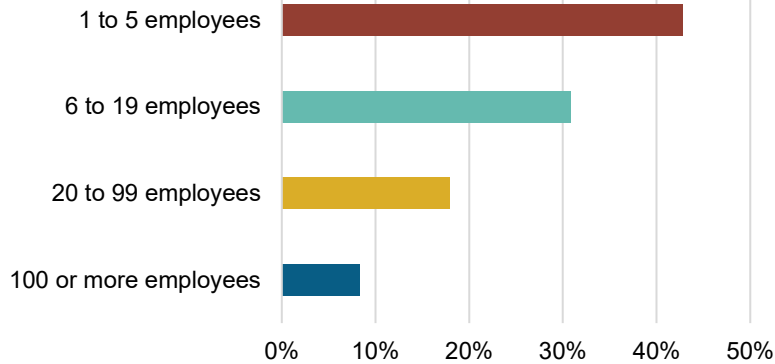
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in New York?

### 91.4% of NY EE Businesses Have Less Than 100 Employees



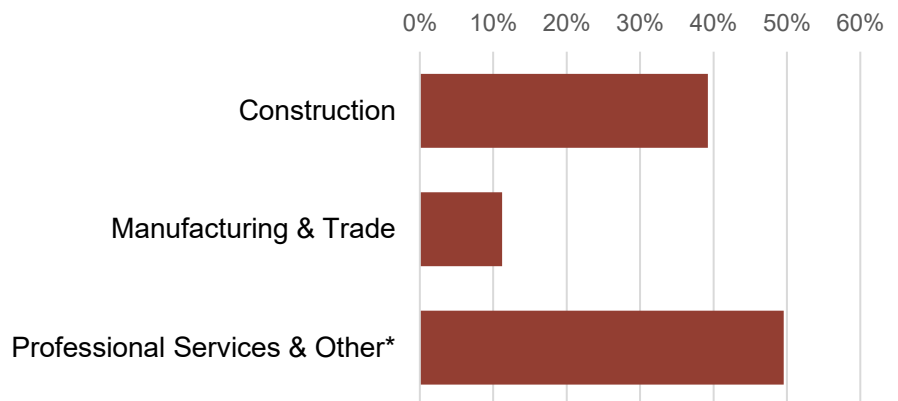
**20,816**  
EE businesses in  
New York



EE construction  
workers comprise  
**13%** of New  
York construction  
workers

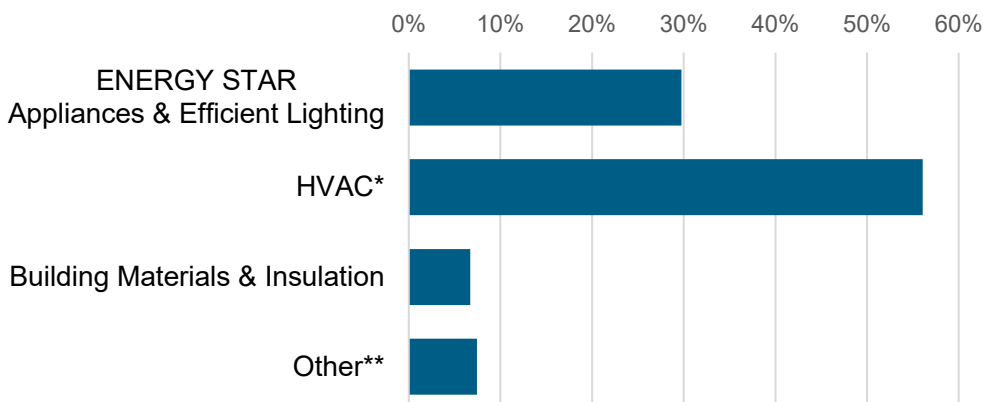


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services



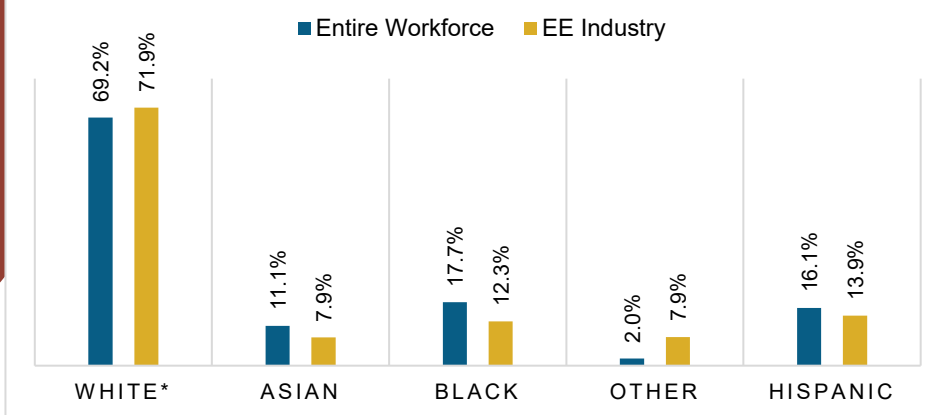
**7%** of  
New York  
EE workers are  
**Veterans**

## How is EE doing on diversity in New York?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all New York communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### New York EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.




Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## New York's EE Potential

Decades of work, ready for New York's growing energy efficiency workforce.

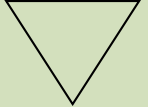
Weatherization Assistance Program:

  
**4,586\*** units weatherized in 2018, out of **~1,000,000** total low-income households

**6,587,735**  
New York homes are due for energy tune-ups

  
(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**14%**  


\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	8,533	Albany-Schenectady-Troy	5,758
2	4,313	Binghamton	1,259
3	7,031	Buffalo-Niagara Falls	6,755
4	5,280	Elmira	446
5	1,574	Glens Falls	1,425
6	2,704	Ithaca	788
7	7,463	Kingston	1,239
8	1,868	New York-Northern New Jersey-Long Island	79,612
9	847	Poughkeepsie-Newburgh-Middletown	4,386
10	10,056	Rochester	6,413
11	2,175	Syracuse	4,022
12	11,019	Utica-Rome	1,426
13	789	Rural	7,432
14	1,551		
15	1,436		
16	3,293		
17	7,127		
18	5,171		
19	4,888		
20	5,441		
21	3,934		
22	3,576		
23	4,121		
24	4,864		
25	4,153		
26	5,113		
27	2,639		

State Senate							
District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	3,369	18	1,753	35	4,278	52	1,355
2	5,458	19	360	36	526	53	368
3	2,725	20	1,155	37	2,178	54	2,048
4	849	21	<5	38	2,465	55	1,798
5	3,166	22	377	39	2,300	56	2,333
6	4,468	23	1,240	40	2,114	57	1,692
7	2,041	24	748	41	1,806	58	973
8	1,052	25	824	42	1,889	59	2,915
9	1,053	26	6,235	43	3,117	60	2,284
10	1,264	27	14,414	44	2,675	61	1,001
11	1,888	28	1,087	45	2,345	62	1,120
12	2,442	29	1,215	46	1,579	63	206
13	671	30	537	47	1,850		
14	359	31	316	48	751		
15	304	32	1,214	49	738		
16	175	33	158	50	3,522		
17	3,075	34	978	51	1,763		

## State Assembly

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	1,972	39	<5	77	549	115	837
2	798	40	<5	78	578	116	616
3	886	41	1,478	79	176	117	585
4	647	42	355	80	286	118	278
5	1,712	43	318	81	252	119	131
6	1,716	44	759	82	148	120	623
7	1,072	45	490	83	<5	121	494
8	976	46	374	84	732	122	1,230
9	1,596	47	<5	85	119	123	204
10	2,129	48	<5	86	<5	124	669
11	129	49	202	87	<5	125	971
12	45	50	997	88	2,123	126	818
13	3,289	51	435	89	789	127	1,051
14	987	52	1,032	90	527	128	1,445
15	435	53	305	91	1,388	129	101
16	2,218	54	435	92	1,993	130	1,383
17	153	55	98	93	1,292	131	1,141
18	1,664	56	<5	94	865	132	552
19	238	57	<5	95	331	133	983
20	1,031	58	236	96	2,224	134	1,170
21	534	59	<5	97	242	135	204
22	92	60	22	98	1,125	136	586
23	547	61	1,183	99	1,233	137	1,014
24	871	62	732	100	516	138	43
25	736	63	7	101	1,424	139	485
26	493	64	<5	102	1,165	140	868
27	1,072	65	5,789	103	1,193	141	1,783
28	505	66	915	104	662	142	973
29	422	67	3,021	105	642	143	1,429
30	1,676	68	456	106	368	144	611
31	37	69	8	107	1,349	145	464
32	<5	70	108	108	1,384	146	216
33	61	71	185	109	946	147	583
34	199	72	76	110	684	148	528
35	<5	73	7,684	111	437	149	106
36	323	74	759	112	1,557	150	726
37	15	75	4,003	113	1,102		
38	74	76	129	114	716		



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



E2 is a national, nonpartisan group of business leaders, investors, and other professionals from every sector of the economy who advocate for smart policies that are good for the environment and good for the economy. Visit [www.e2.org](http://www.e2.org)



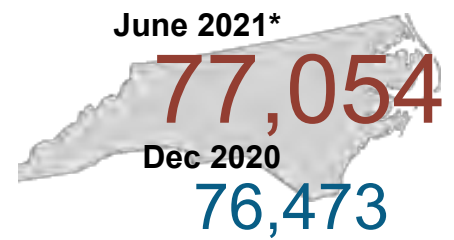
BW Research Partnership is a full-service, economic and workforce research consulting firm with offices in Carlsbad, California and Wrentham, Massachusetts. It is the nation's leading provider of accurate, comprehensive energy and clean energy research studies. Visit [www.bwresearch.com](http://www.bwresearch.com)

Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

For questions on E4TheFuture analyses please email: [policy@e4thefuture.org](mailto:policy@e4thefuture.org).

# North Carolina

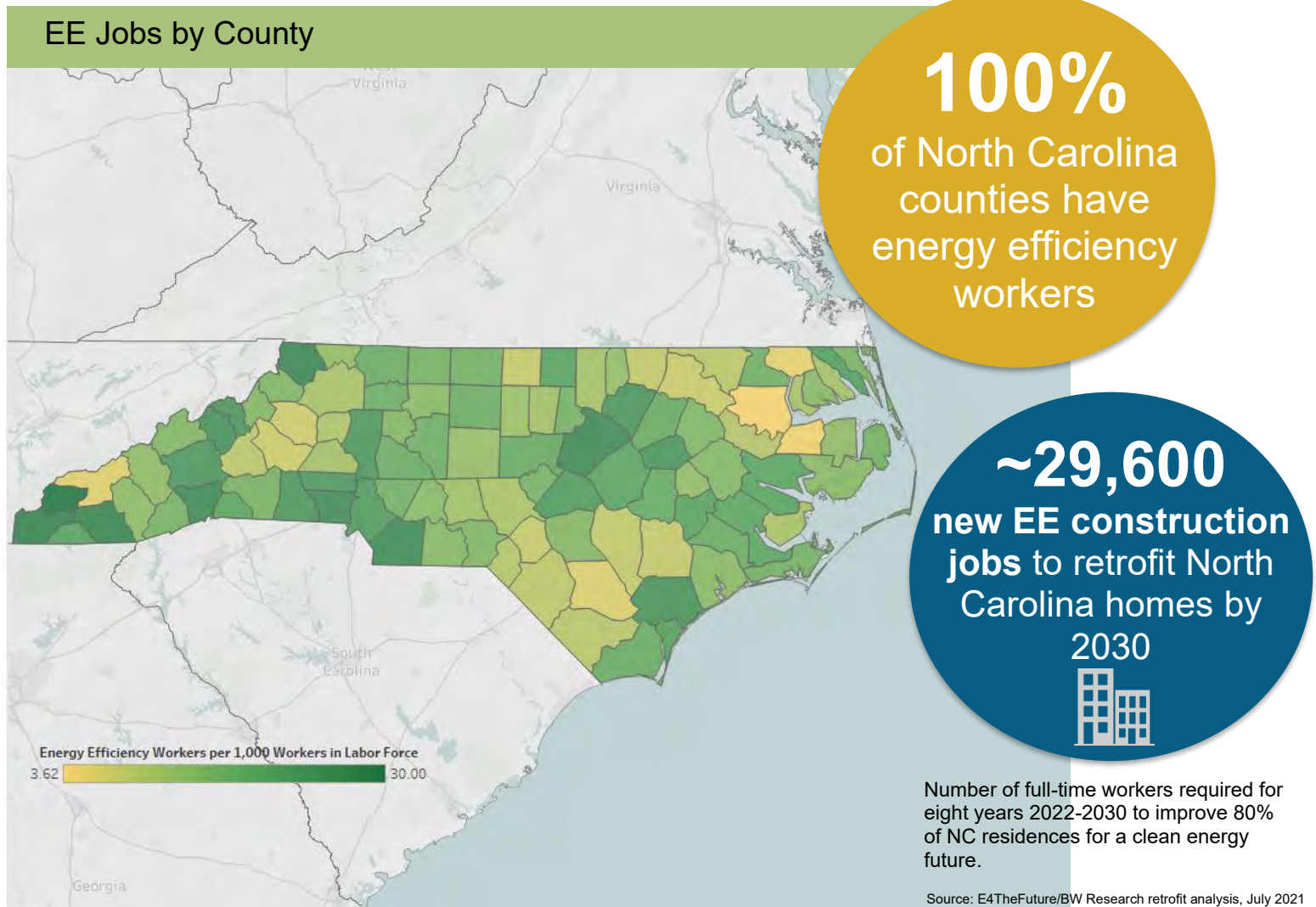
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In North Carolina, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





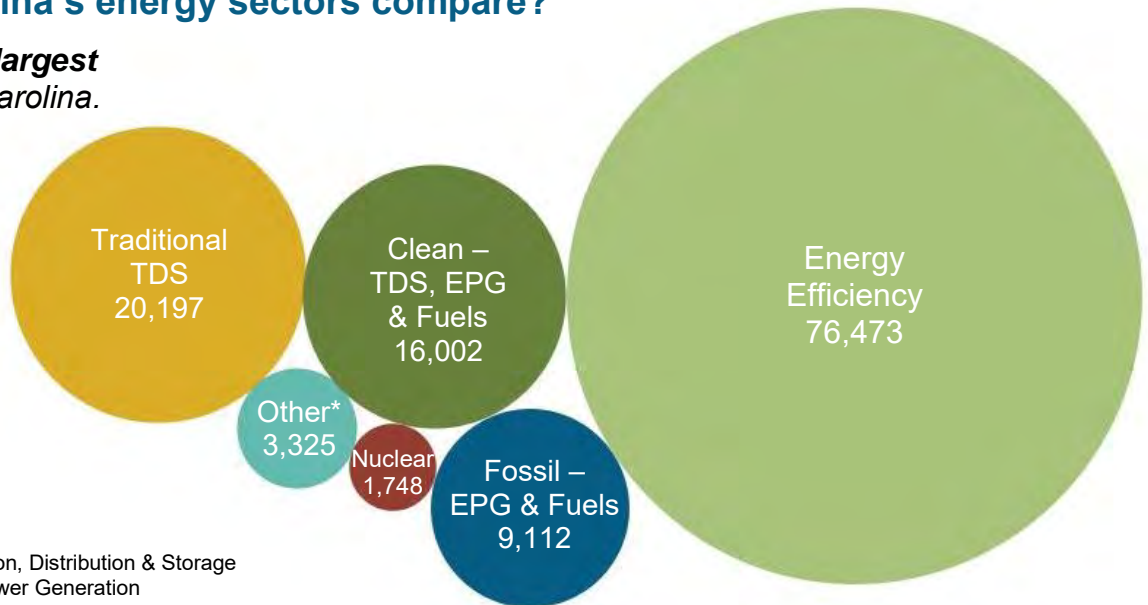
# Key EE Statistics for North Carolina

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do North Carolina's energy sectors compare?

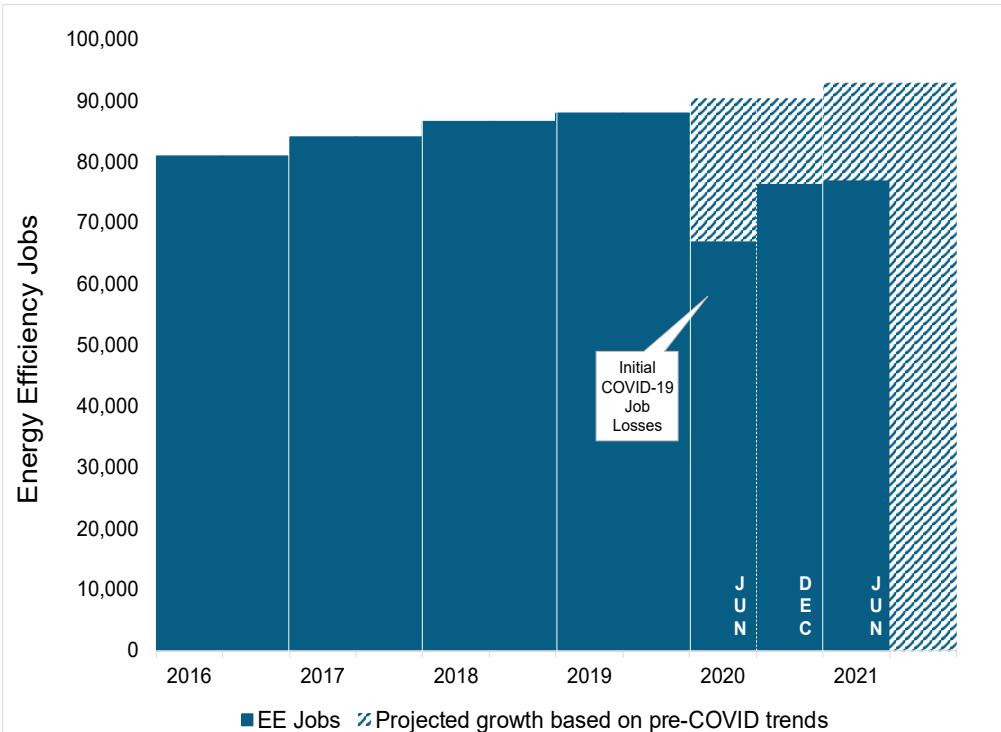
*Energy Efficiency is the **largest** energy sector in North Carolina.*



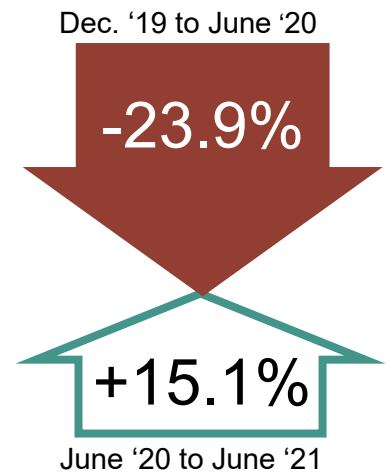
TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



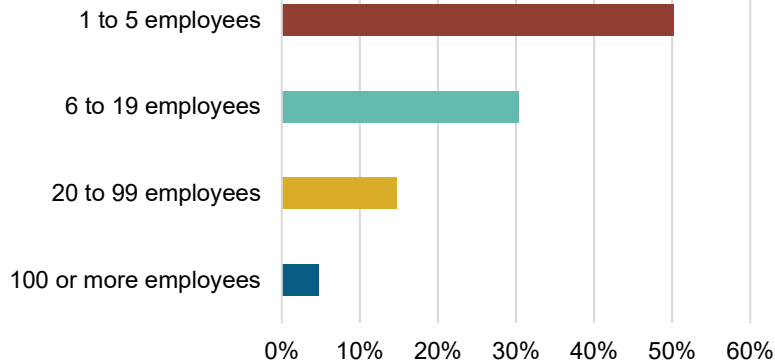
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in North Carolina?

### 95.3% of NC EE Businesses Have Less Than 100 Employees



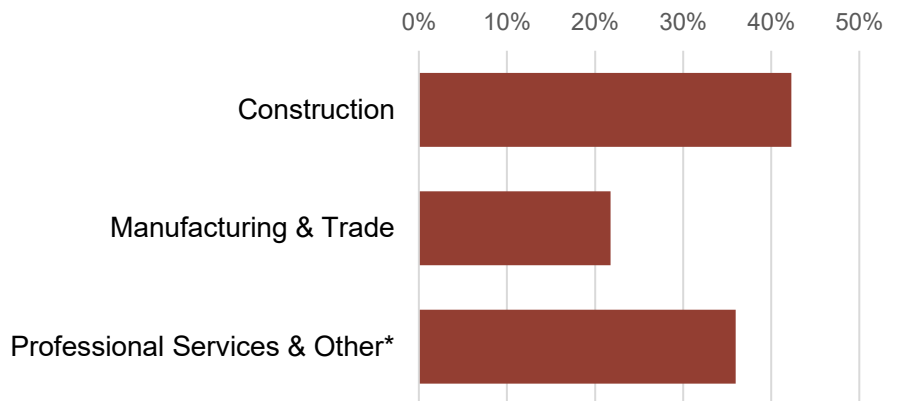
**15,514**  
EE businesses in  
North Carolina



EE construction workers comprise **14%** of North Carolina construction workers

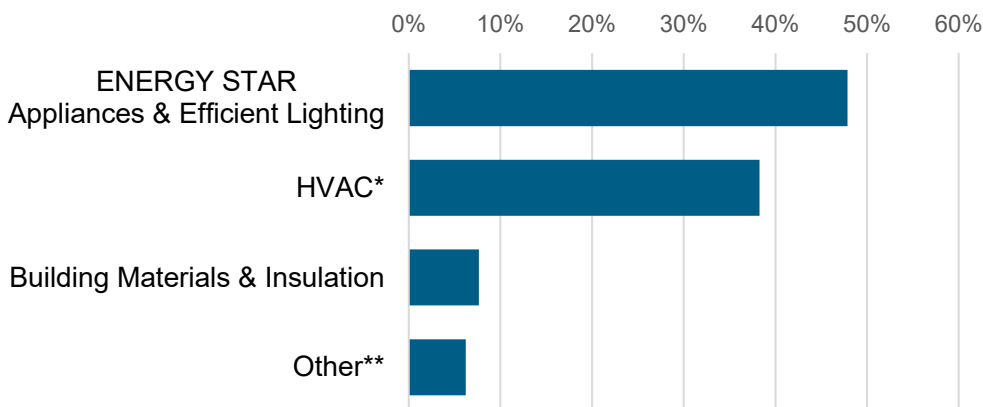


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

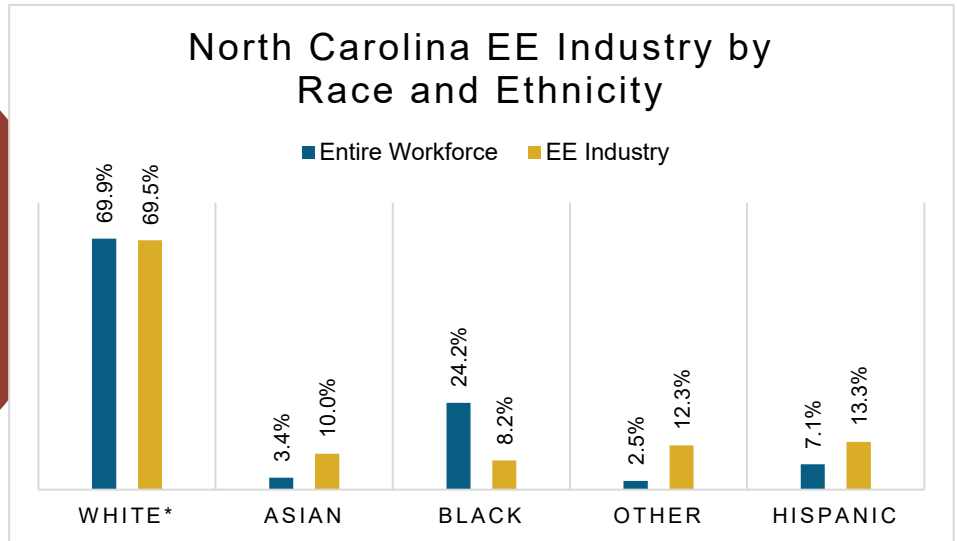


**10%** of  
North Carolina  
EE workers are  
**Veterans**

# How is EE doing on diversity in North Carolina?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all North Carolina communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## North Carolina's EE Potential

Decades of work, ready for North Carolina's growing energy efficiency workforce.

Weatherization Assistance Program:

**1,213\*** units weatherized in 2018, out of **~57,000** total low-income households

**3,343,493**

North Carolina homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**41%**

\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	8,812	Asheville	4,792
2	8,912	Burlington	1,019
3	5,364	Charlotte-Gastonia-Concord	15,18
4	7,549	Durham	4,720
5	8,361	Fayetteville	1,924
6	4,545	Goldsboro	566
7	4,186	Greensboro-High Point	5,405
8	5,216	Greenville	1,185
9	10,887	Hickory-Lenoir-Morganton	2,306
10	7,153	Jacksonville	806
11	3,885	Raleigh-Cary	10,94
12	434	Rocky Mount	953
13	1,169	Virginia Beach-Norfolk-Newport News	521
		Wilmington	3,574
		Winston-Salem	3,081
		Rural	19,49

State Senate					
District	Jobs	District	Jobs	District	Jobs
1	2,116	18	325	35	1,675
2	1,574	19	1,434	36	2,975
3	865	20	1,982	37	7,416
4	1,439	21	171	38	172
5	1,686	22	1,911	39	621
6	890	23	1,002	40	<5
7	147	24	1,261	41	466
8	2,746	25	1,771	42	2,099
9	1,781	26	2,848	43	1,520
10	2,284	27	1,931	44	985
11	750	28	<5	45	1,216
12	1,984	29	1,196	46	1,345
13	844	30	1,242	47	1,547
14	4,049	31	2,312	48	2,378
15	2,455	32	<5	49	1,639
16	1,693	33	184	50	1,487
17	315	34	1,741		

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	786	39	<5	77	436	115	401
2	1,085	40	396	78	360	116	199
3	960	41	17	79	338	117	<5
4	1,017	42	693	80	156	118	538
5	223	43	788	81	8	119	562
6	1,112	44	<5	82	2,283	120	497
7	1,115	45	20	83	<5		
8	626	46	714	84	1,418		
9	505	47	110	85	1,224		
10	461	48	588	86	656		
11	2,609	49	<5	87	71		
12	9	50	925	88	5,103		
13	935	51	637	89	870		
14	599	52	655	90	494		
15	88	53	98	91	20		
16	497	54	392	92	1,831		
17	855	55	1,551	93	565		
18	1,762	56	92	94	118		
19	545	57	1,944	95	<5		
20	<5	58	942	96	<5		
21	220	59	699	97	151		
22	1,800	60	1,179	98	487		
23	225	61	426	99	607		
24	9	62	85	100	489		
25	163	63	386	101	<5		
26	1,049	64	<5	102	121		
27	324	65	298	103	<5		
28	206	66	28	104	<5		
29	2,227	67	503	105	<5		
30	1,575	68	376	106	<5		
31	105	69	359	107	<5		
32	169	70	654	108	1,154		
33	973	71	1,668	109	<5		
34	2,864	72	207	110	1,013		
35	673	73	1,485	111	73		
36	727	74	200	112	383		
37	29	75	195	113	1,476		
38	<5	76	1,305	114	2,625		



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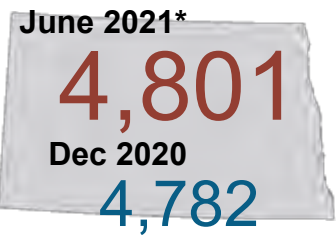
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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# North Dakota

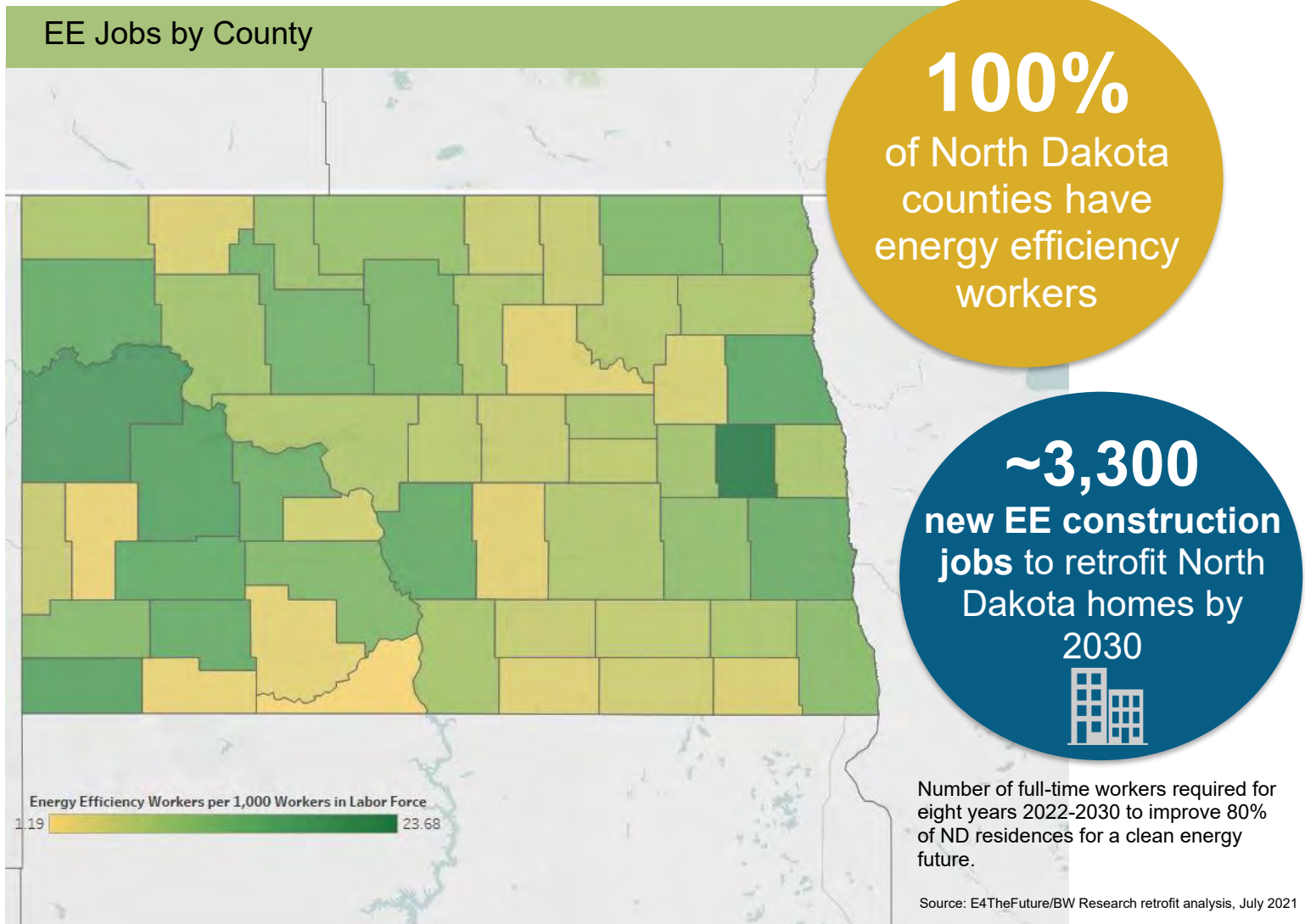
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In North Dakota, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





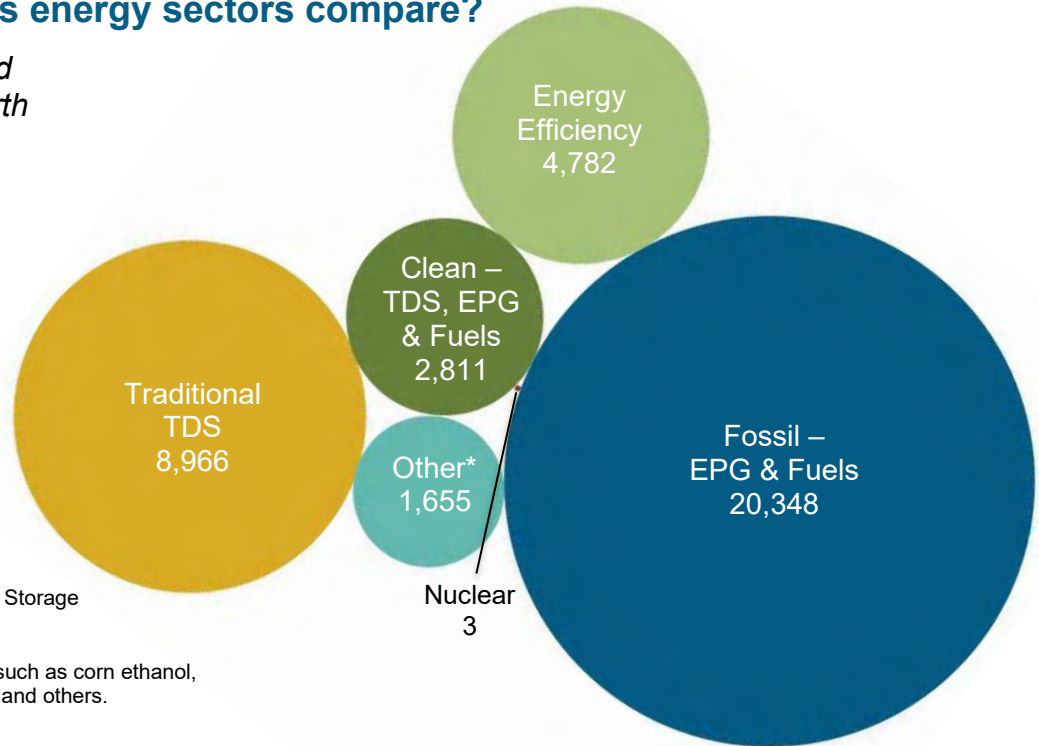
# Key EE Statistics for North Dakota

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do North Dakota's energy sectors compare?

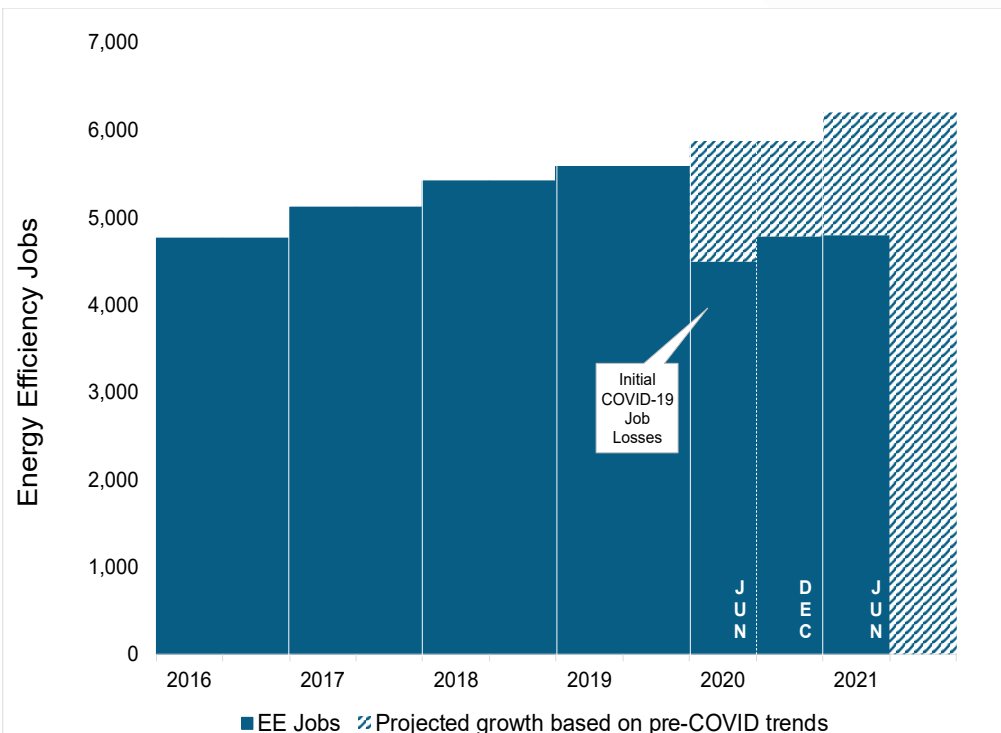
*Energy Efficiency is the third largest energy sector in North Dakota.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*

Dec. '19 to June '20

-19.4%

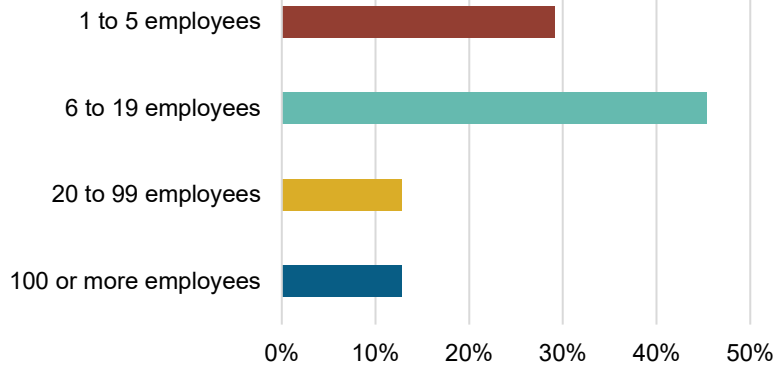
+6.7%

June '20 to June '21

Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in North Dakota?

### 87.2% of ND EE Businesses Have Less Than 100 Employees



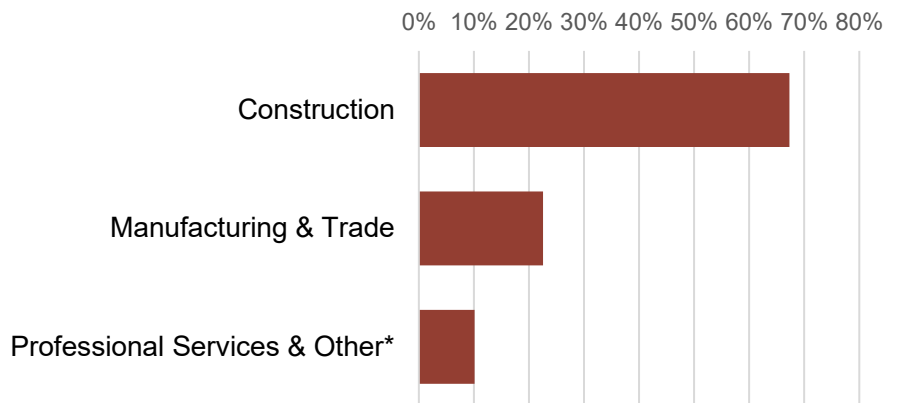
**721**  
EE businesses in  
North Dakota



EE construction workers comprise  
**13%** of North Dakota construction workers

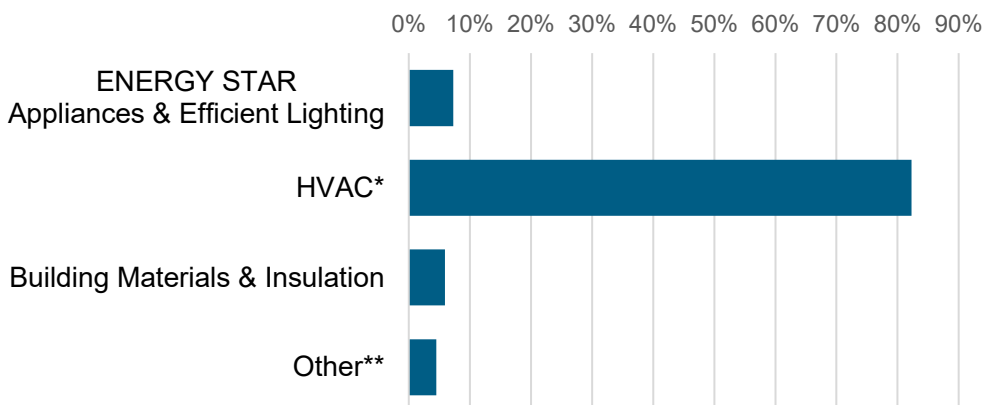


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

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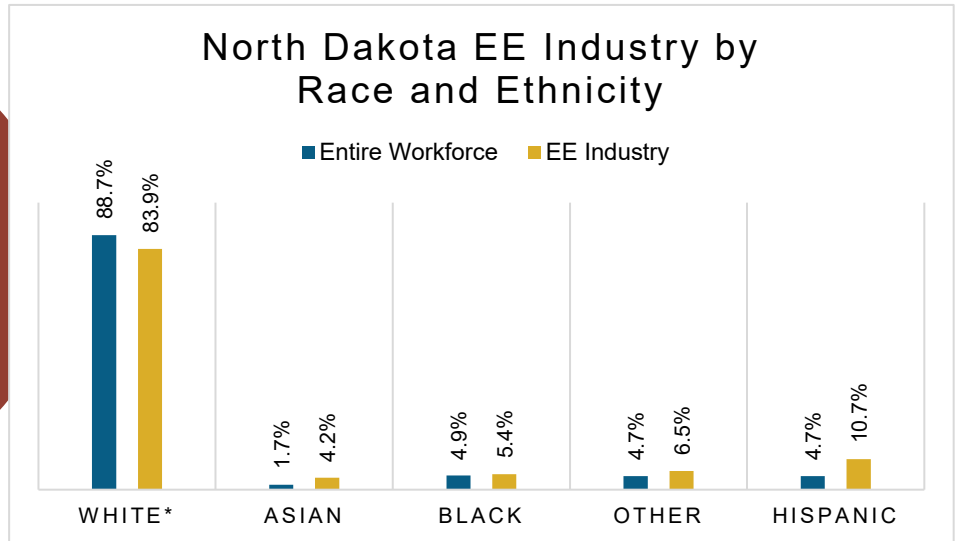


**7%** of  
North Dakota  
EE workers are  
**Veterans**

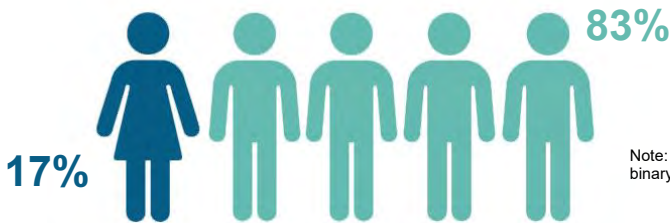
## How is EE doing on diversity in North Dakota?

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The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## North Dakota's EE Potential

Decades of work, ready for North Dakota's growing energy efficiency workforce.

Weatherization Assistance Program:

**521\*** units weatherized in 2018, out of **~35,000** total low-income households

**240,603**

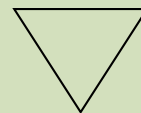
North Dakota homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**29%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,782	Bismarck	692
		Fargo	1,166
		Grand Forks	349
		Rural	2,576

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	325		13	293		25	107		37	<5
2	119		14	131		26	101		38	<5
3	384		15	83		27	<5		39	221
4	126		16	139		28	56		40	<5
5	8		17	300		29	21		41	<5
6	103		18	8		30	<5		42	8
7	513		19	76		31	212		43	<5
8	32		20	51		32	<5		44	<5
9	27		21	303		33	24		45	<5
10	95		22	98		34	<5		46	<5
11	321		23	22		35	<5		47	<5
12	87		24	125		36	266			

## State House of Representatives

District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	321		25	107		49	<5		73	<5
2	120		26	101		50	<5		74	<5
3	384		27	<5		51	<5		75	<5
4	126		28	56		52	<5		76	<5
5	8		29	21		53	<5		77	<5
6	103		30	<5		54	<5		78	<5
7	513		31	212		55	<5		79	<5
8	32		32	<5		56	<5		80	<5
9	27		33	24		57	<5		81	<5
10	95		34	<5		58	<5		82	<5
11	321		35	<5		59	<5		83	<5
12	87		36	266		60	<5		84	<5
13	293		37	<5		61	<5		85	<5
14	132		38	<5		62	<5		86	<5
15	83		39	222		63	<5		87	<5
16	139		40	<5		64	<5		88	<5
17	301		41	<5		65	<5		89	<5
18	8		42	8		66	<5		90	<5
19	76		43	<5		67	<5		91	<5
20	51		44	<5		68	<5		92	<5
21	303		45	<5		69	<5		93	<5
22	98		46	<5		70	<5		94	<5
23	22		47	<5		71	<5			
24	125		48	<5		72	<5			



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



E2 is a national, nonpartisan group of business leaders, investors, and other professionals from every sector of the economy who advocate for smart policies that are good for the environment and good for the economy. Visit [www.e2.org](http://www.e2.org)



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# Ohio

## Energy Efficiency Jobs in America

June 2021\*

73,453

Dec 2020

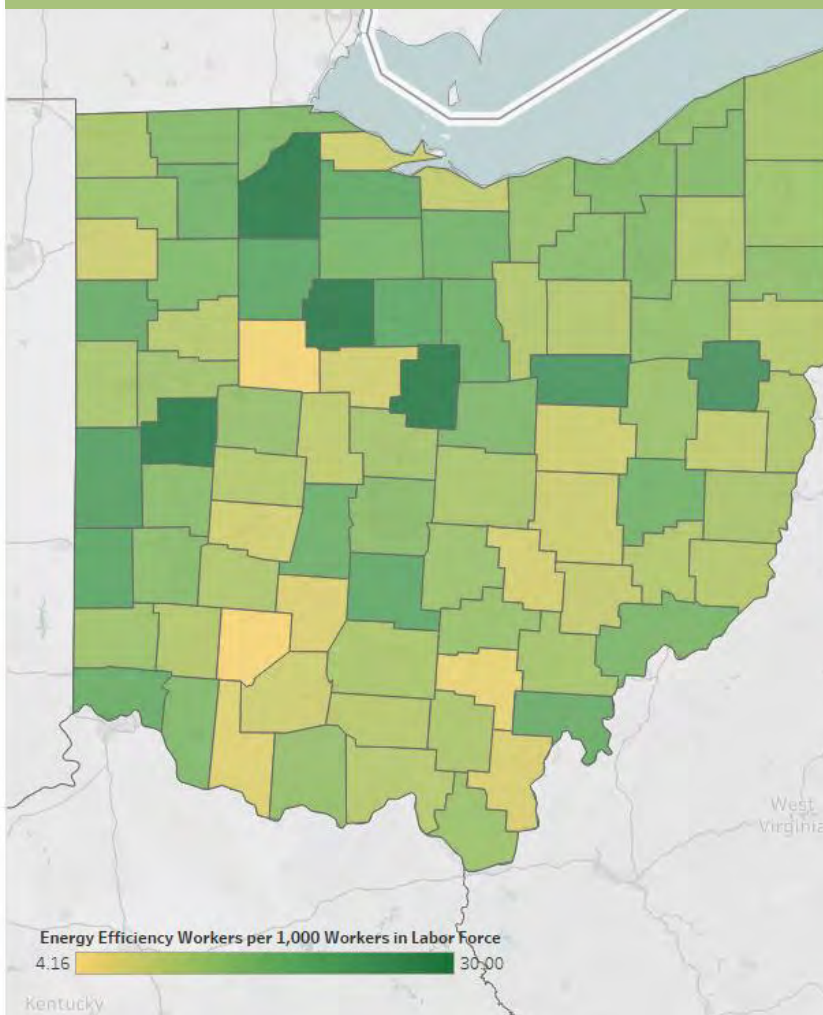
73,291

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Ohio, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Ohio counties  
have energy  
efficiency  
workers

**~45,700**  
new EE construction  
jobs to retrofit Ohio  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of OH residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





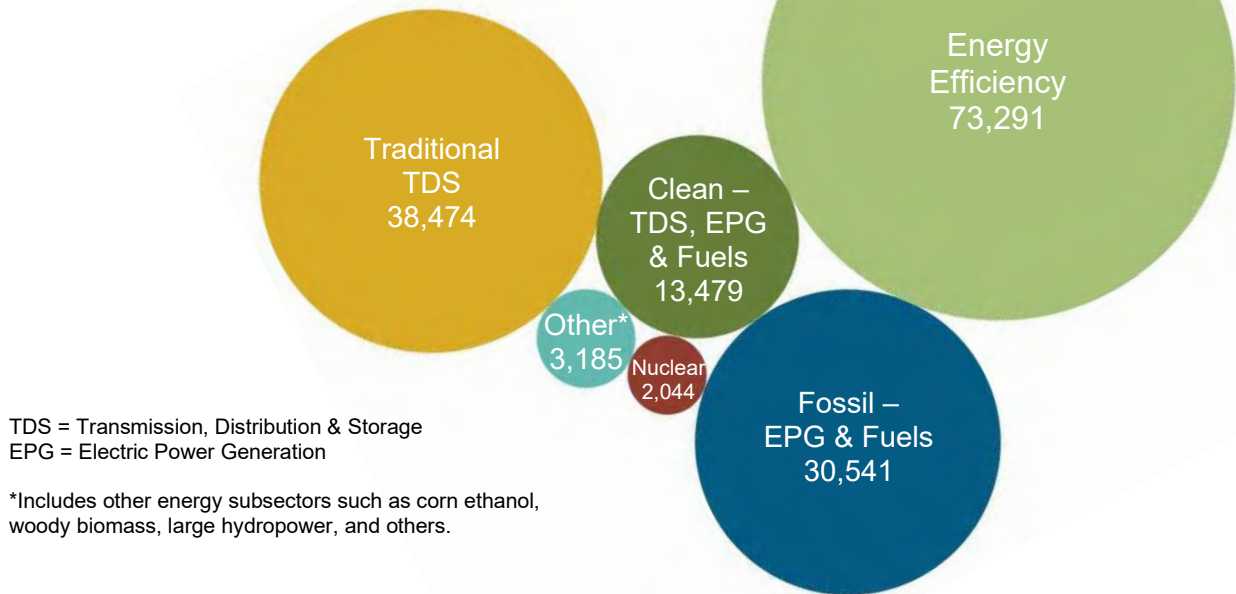
# Key EE Statistics for Ohio

## What are energy efficiency (EE) jobs?

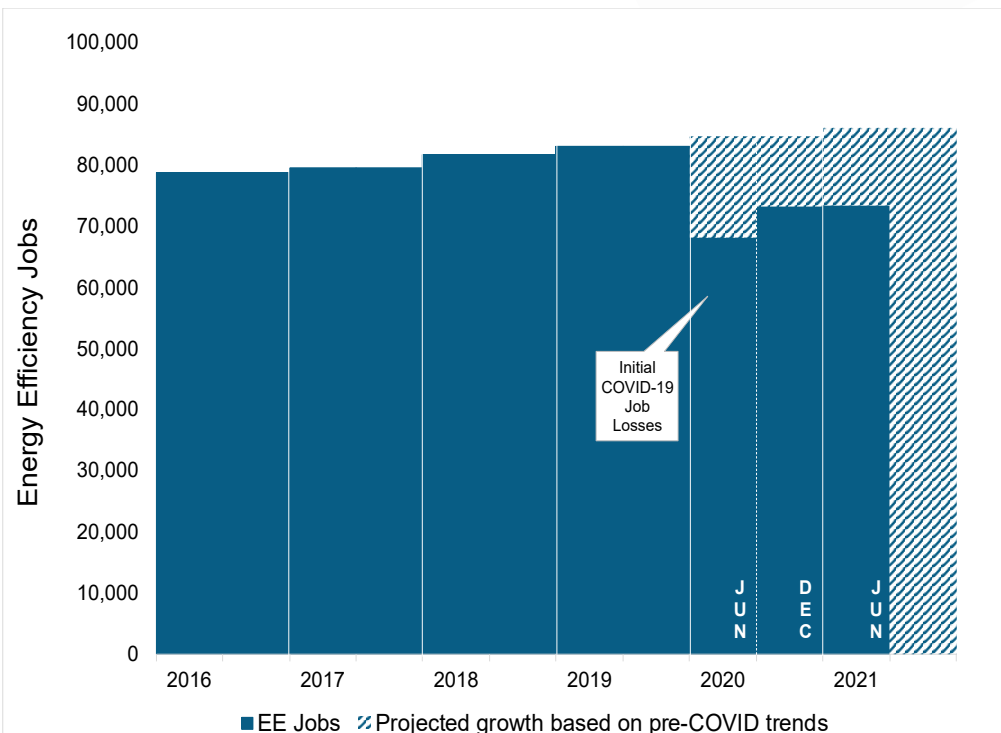
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Ohio's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Ohio.*



## How is the EE industry recovering?



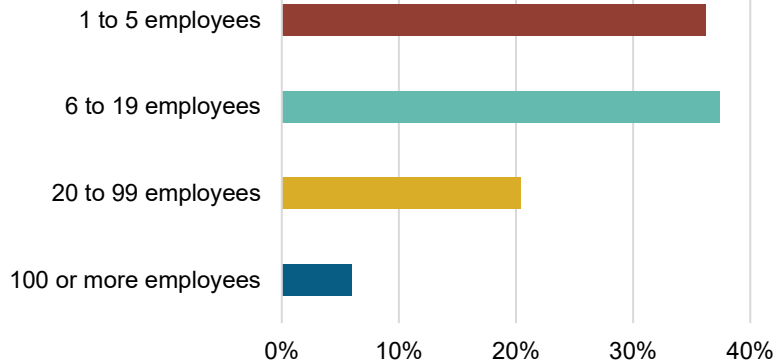
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

## What does EE look like in Ohio?

### 94% of OH EE Businesses Have Less Than 100 Employees



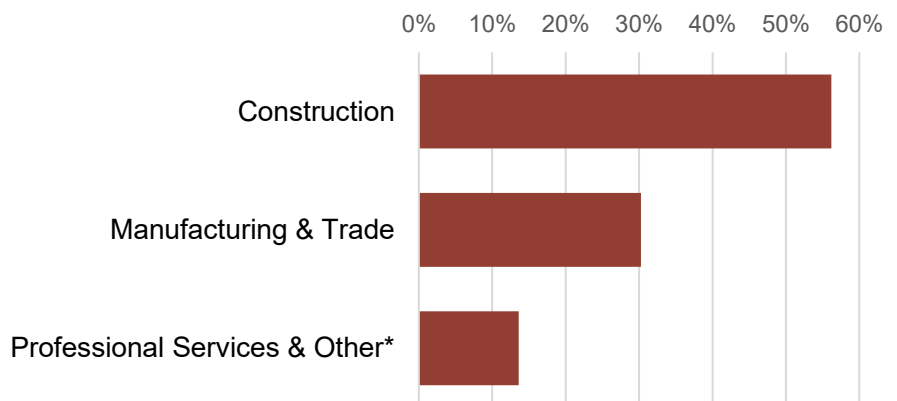
**10,479**  
EE businesses in  
Ohio



EE construction  
workers comprise  
**19%** of Ohio  
construction  
workers

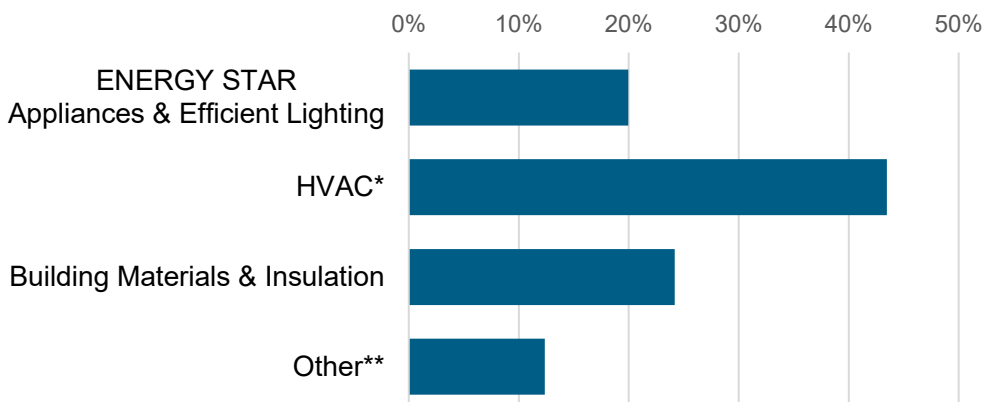


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services

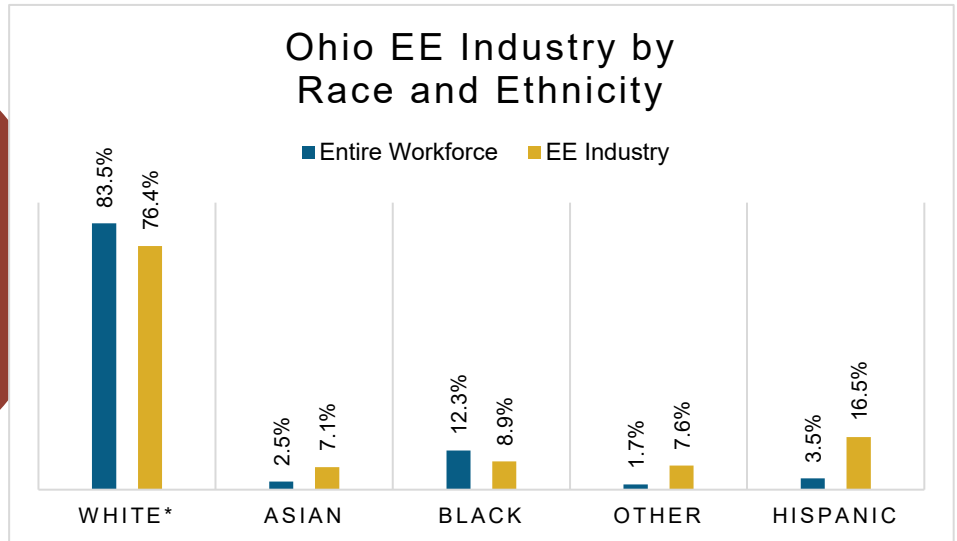


**7%** of  
Ohio  
EE workers are  
**Veterans**

## How is EE doing on diversity in Ohio?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Ohio communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Ohio's EE Potential

Decades of work, ready for Ohio's growing energy efficiency workforce.

Weatherization Assistance Program:



**2,596\*** units weatherized in 2018, out of **~640,000** total low-income households

**3,886,807**

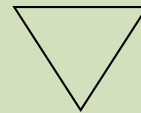
Ohio homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**18%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	7,820	Akron	4,972
2	2,606	Canton-Massillon	2,387
3	6,668	Cincinnati-Middletown	10,351
4	6,942	Cleveland-Elyria-Mentor	14,402
5	7,751	Columbus	11,191
6	4,689	Dayton	4,811
7	5,845	Huntington-Ashland	192
8	2,998	Lima	637
9	3,115	Mansfield	926
10	3,435	Parkersburg-Marietta-Vienna	391
11	8,841	Sandusky	433
12	2,309	Springfield	634
13	3,920	Toledo	7,113
14	3,596	Weirton-Steubenville	235
15	1,484	Wheeling	298
16	1,274	Youngstown-Warren-Boardman	2,784
		Rural	11,533

State Senate			
District	Jobs	District	Jobs
1	2,937	18	4,370
2	5,698	19	1,600
3	5,541	20	1,767
4	2,246	21	4,540
5	3,225	22	3,169
6	1,543	23	2,192
7	4,100	24	2,564
8	2,242	25	205
9	801	26	1,150
10	2,068	27	1,945
11	1,114	28	1,560
12	1,346	29	1,723
13	2,234	30	1,557
14	1,317	31	1,254
15	612	32	1,549
16	1,596	33	2,167
17	1,357		

[illegible]

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# Oklahoma

## Energy Efficiency Jobs in America

June 2021\*

12,763

Dec 2020

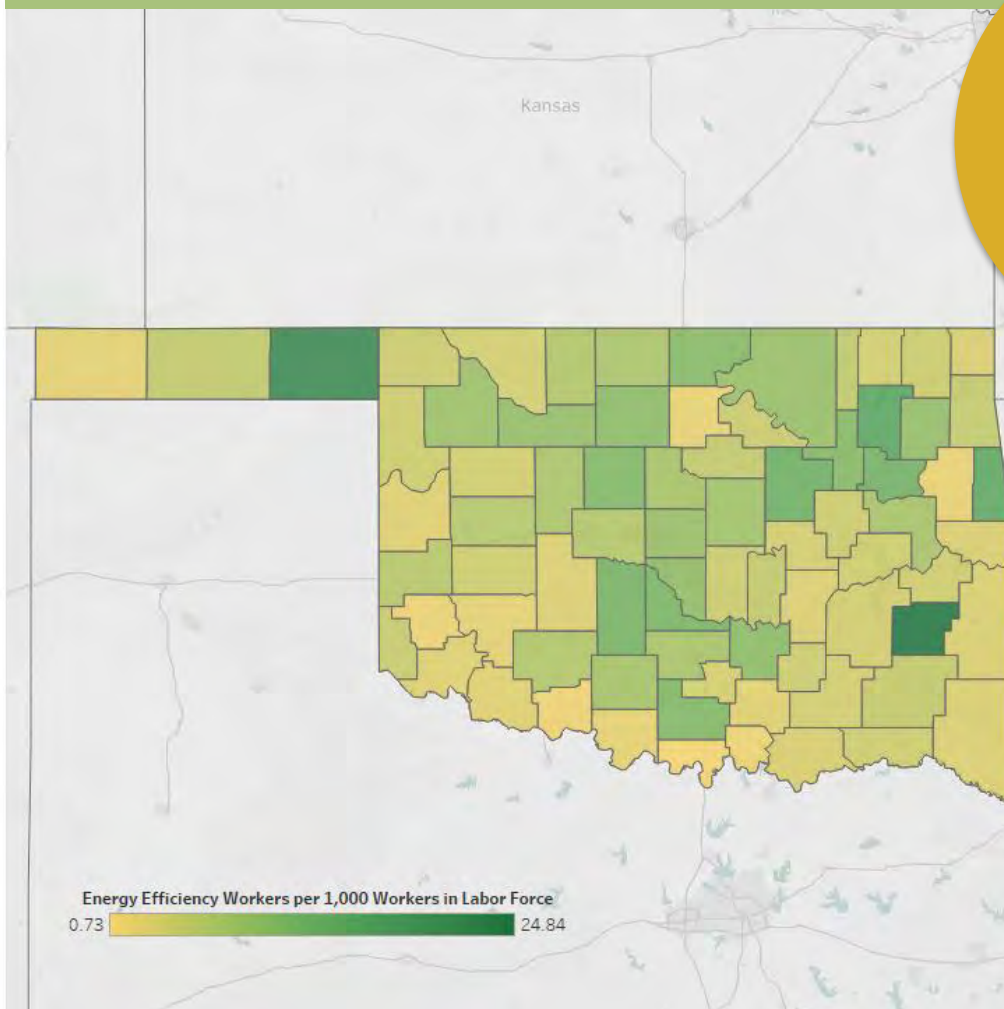
12,741

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Oklahoma, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Oklahoma  
counties have  
energy efficiency  
workers

**~13,400**  
new EE construction  
jobs to retrofit  
Oklahoma homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of OK residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





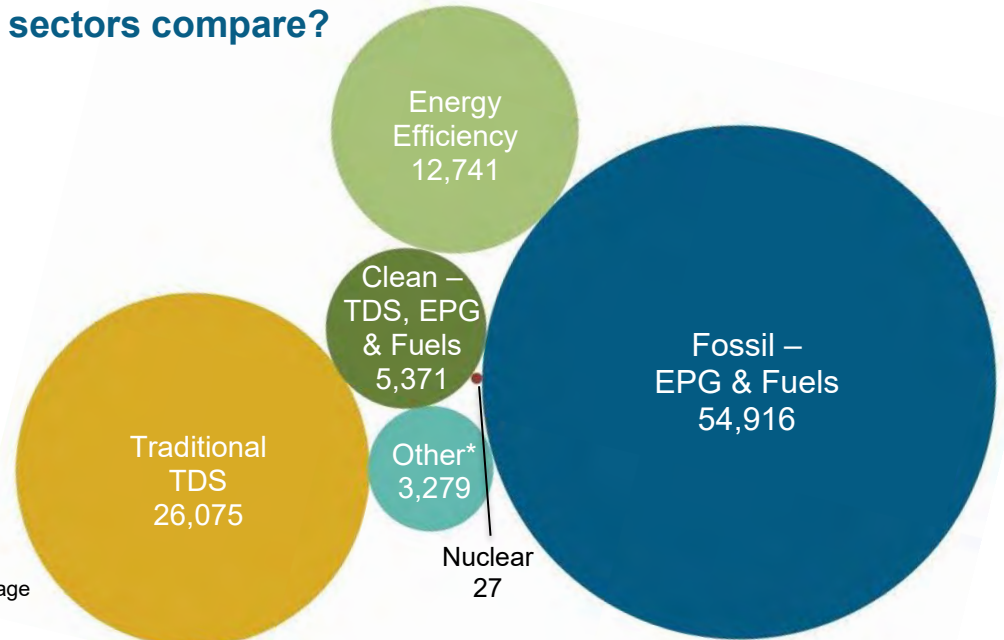
# Key EE Statistics for Oklahoma

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Oklahoma's energy sectors compare?

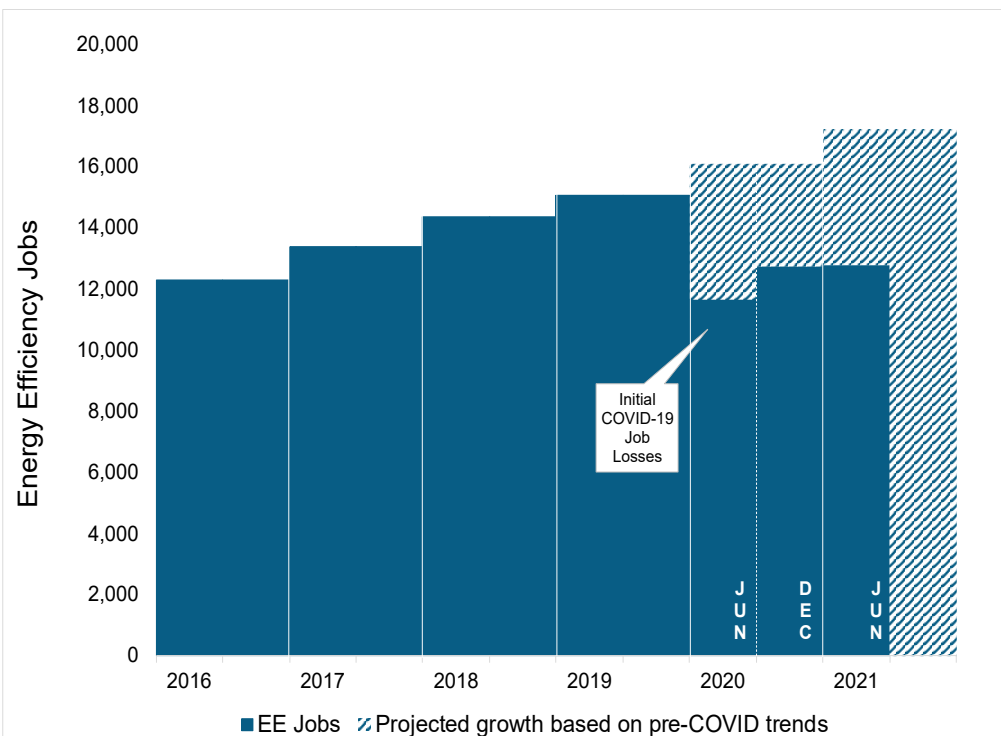
*Energy Efficiency is the third largest energy sector in Oklahoma.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



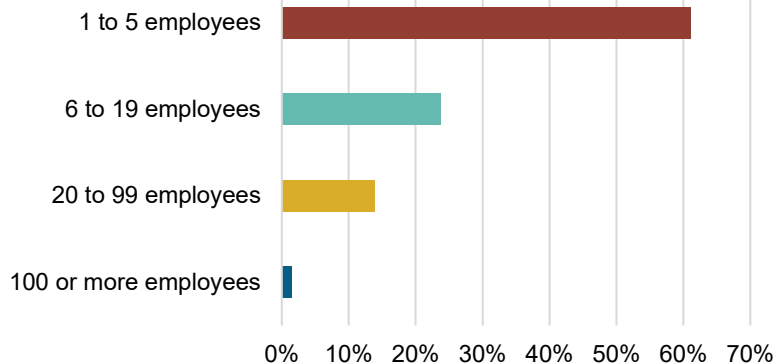
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Oklahoma?

## 98.6% of OK EE Businesses Have Less Than 100 Employees



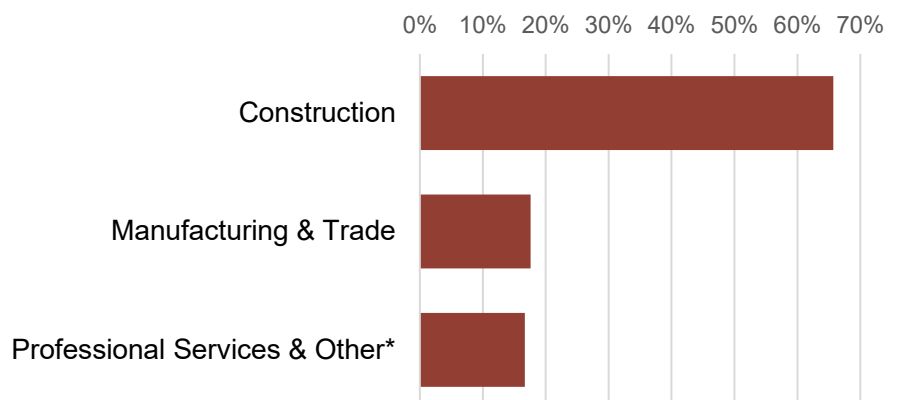
**3,736**  
EE businesses in  
Oklahoma



EE construction  
workers comprise  
**10%** of Oklahoma  
construction  
workers

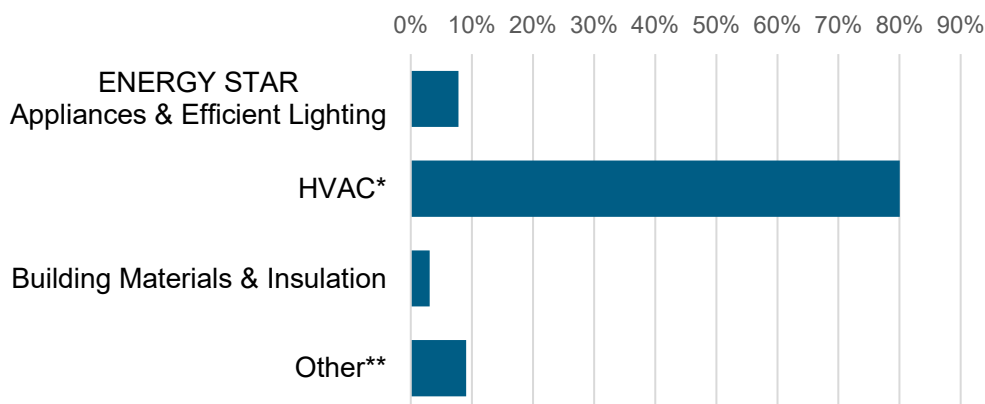


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services



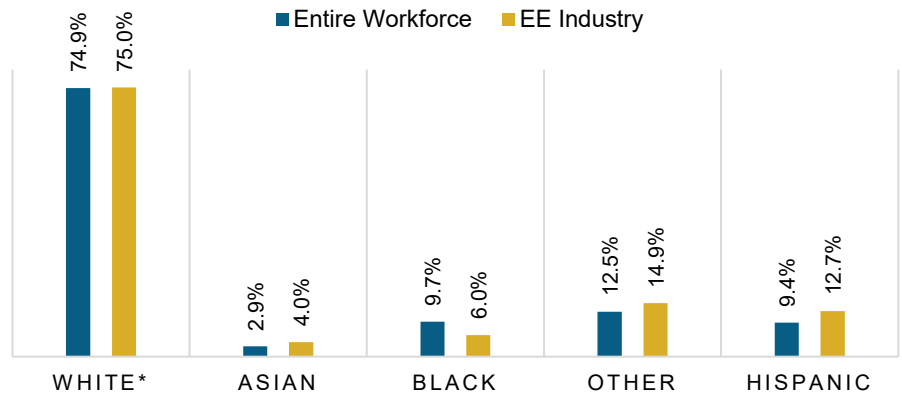
**9%** of  
Oklahoma  
EE workers are  
**Veterans**

## How is EE doing on diversity in Oklahoma?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Oklahoma communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Oklahoma EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Oklahoma's EE Potential

Decades of work, ready for Oklahoma's growing energy efficiency workforce.

Weatherization Assistance Program:



**255\*** units weatherized in 2018, out of **~23,000** total low-income households

**1,350,168**

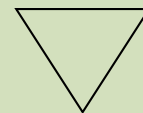
Oklahoma homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**43%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	3,570	Fort Smith	110
2	1,842	Lawton	234
3	2,551	Oklahoma City	4,832
4	1,800	Tulsa	3,599
5	2,977	Rural	3,966

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	382		13	347		25	683		37	<5
2	450		14	263		26	294		38	100
3	142		15	652		27	283		39	<5
4	101		16	<5		28	65		40	369
5	134		17	525		29	130		41	<5
6	155		18	371		30	886		42	95
7	268		19	314		31	360		43	81
8	179		20	458		32	11		44	919
9	91		21	194		33	<5		45	18
10	420		22	410		34	40		46	63
11	815		23	330		35	734		47	51
12	263		24	86		36	22		48	184

## State House of Representatives

District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	68		27	278		53	57		79	<5
2	37		28	118		54	312		80	<5
3	52		29	194		55	235		81	122
4	137		30	40		56	60		82	204
5	306		31	291		57	59		83	249
6	203		32	99		58	184		84	410
7	18		33	208		59	9		85	248
8	135		34	10		60	7		86	8
9	165		35	49		61	135		87	<5
10	266		36	37		62	181		88	461
11	<5		37	147		63	58		89	206
12	130		38	307		64	<5		90	32
13	105		39	351		65	19		91	<5
14	7		40	<5		66	426		92	<5
15	70		41	290		67	676		93	<5
16	143		42	46		68	38		94	85
17	156		43	176		69	<5		95	43
18	52		44	200		70	337		96	10
19	148		45	<5		71	<5		97	169
20	366		46	<5		72	307		98	<5
21	8		47	160		73	267		99	37
22	367		48	40		74	<5		100	<5
23	536		49	37		75	<5		101	<5
24	55		50	102		76	<5			
25	<5		51	119		77	<5			
26	169		52	85		78	<5			



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# Oregon

## Energy Efficiency Jobs in America

June 2021\*

38,369

Dec 2020

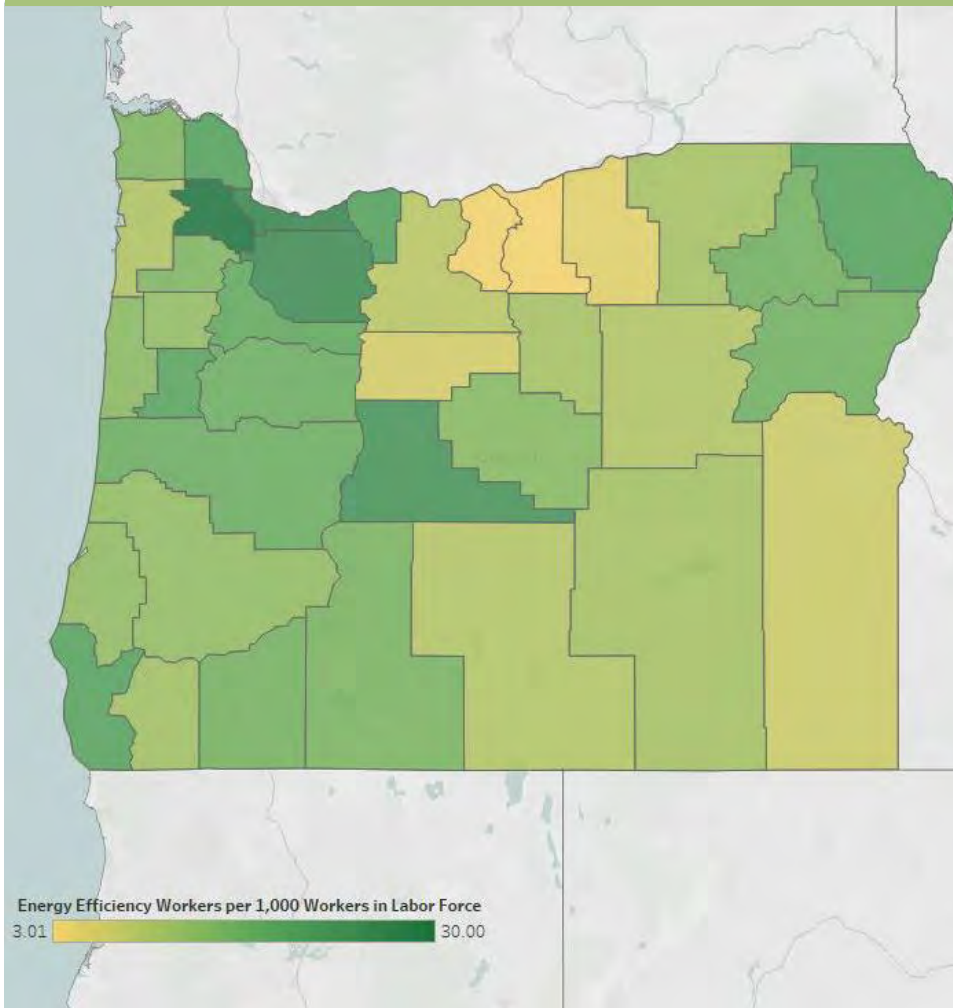
38,262

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Oregon, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



**100%**  
of Oregon  
counties have  
energy efficiency  
workers

**~18,300**  
new EE construction  
jobs to retrofit Oregon  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of OR residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





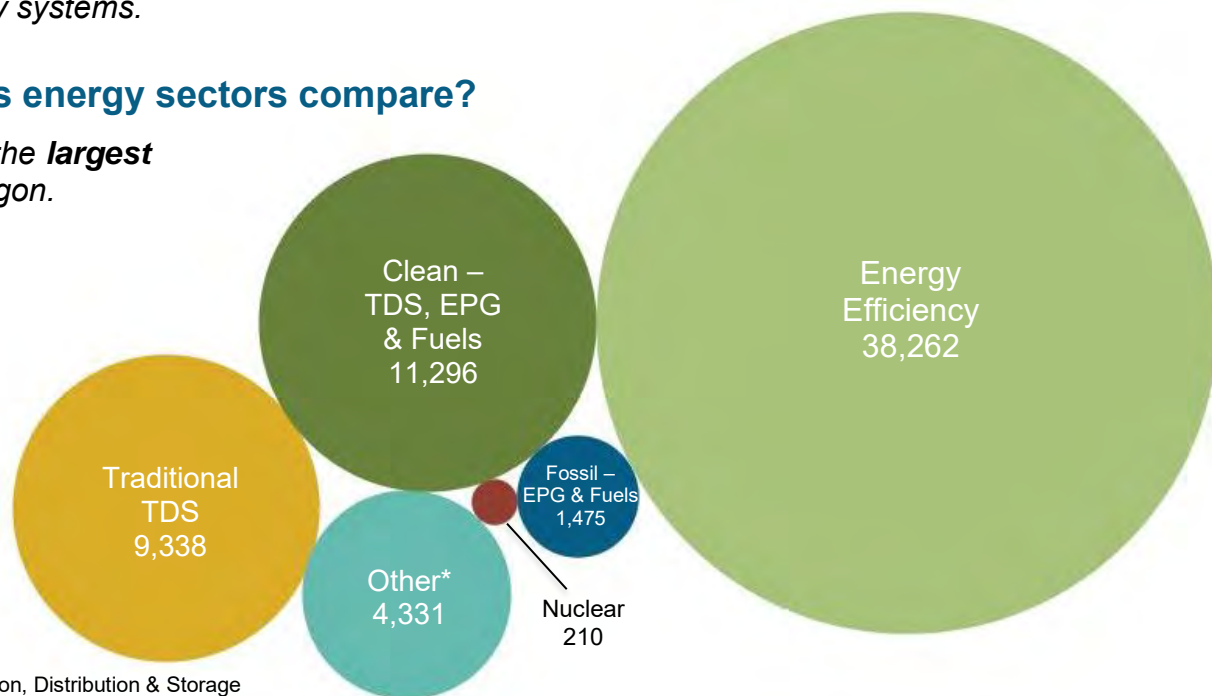
# Key EE Statistics for Oregon

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Oregon's energy sectors compare?

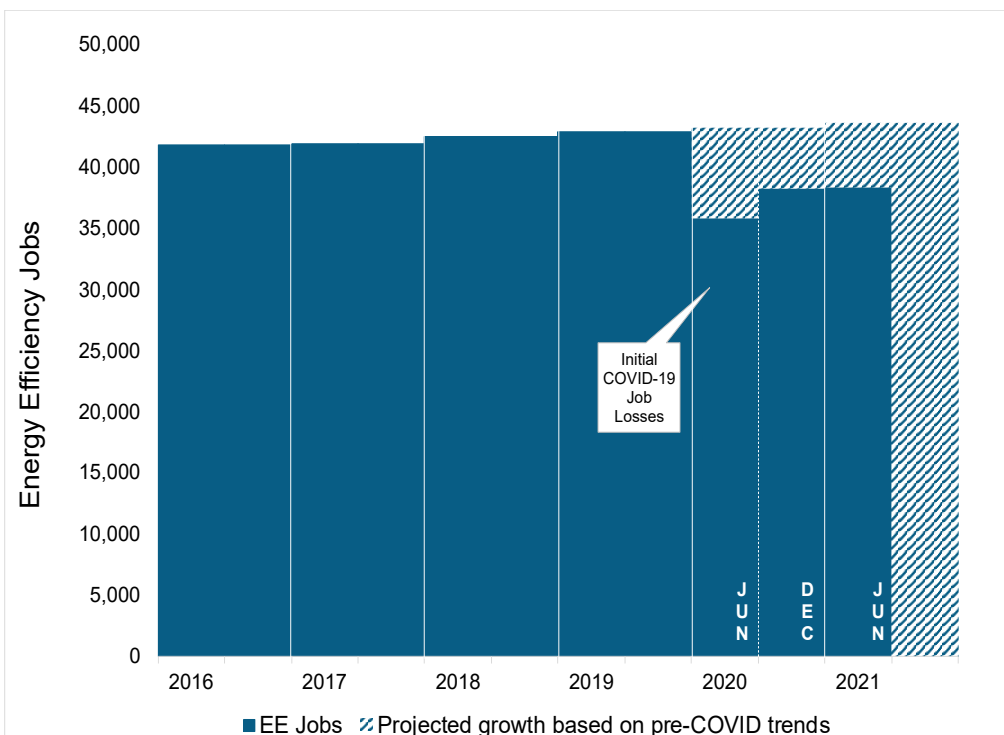
*Energy Efficiency is the **largest** energy sector in Oregon.*



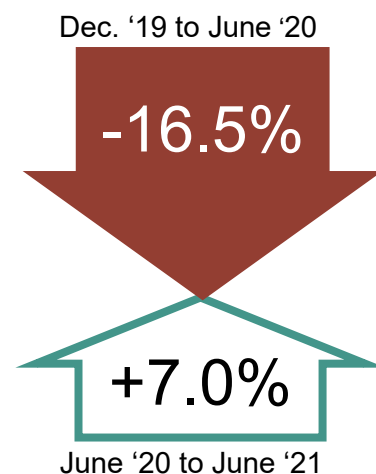
TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



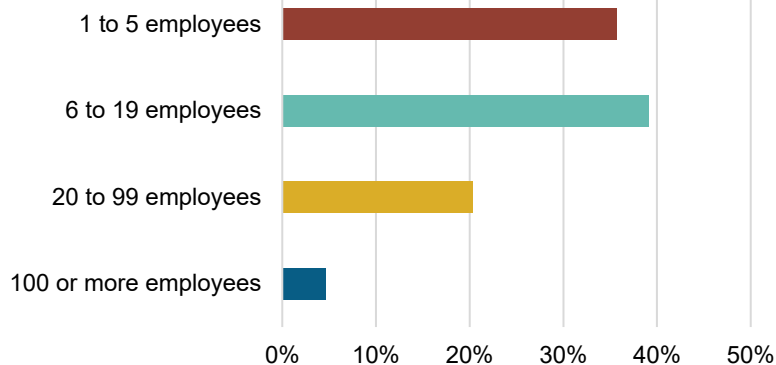
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Oregon?

## 95.3% of OR EE Businesses Have Less Than 100 Employees



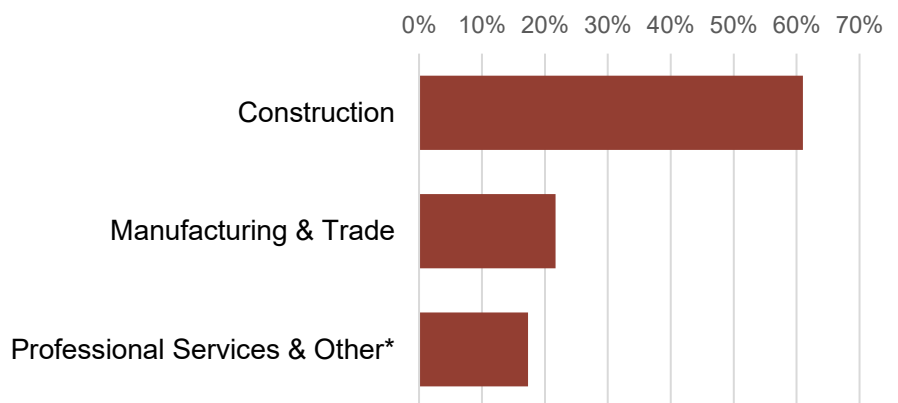
**7,176**  
EE businesses in  
Oregon



EE construction  
workers comprise  
**21%** of Oregon  
construction  
workers

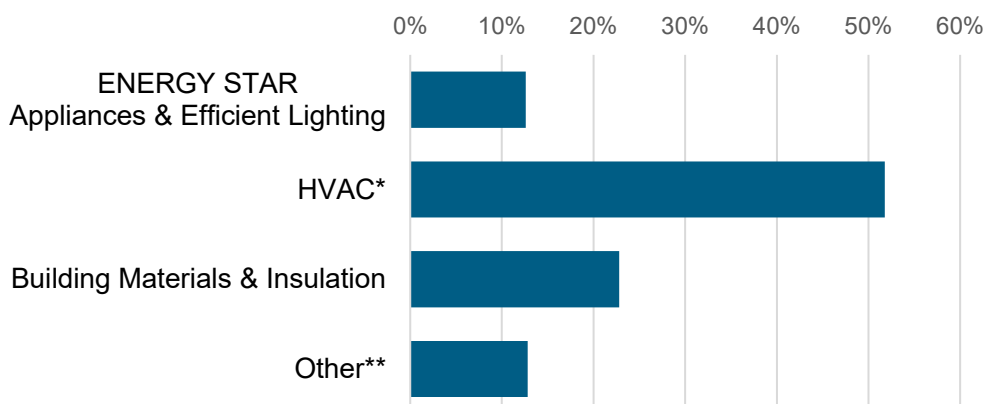


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

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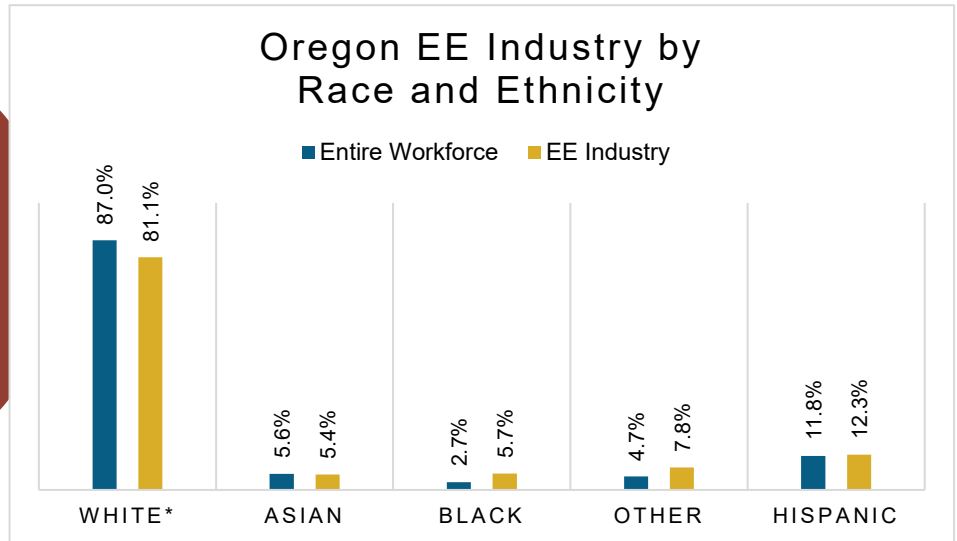


**7%** of  
Oregon  
EE workers are  
**Veterans**

## How is EE doing on diversity in Oregon?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Oregon communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Oregon's EE Potential

Decades of work, ready for Oregon's growing energy efficiency workforce.

Weatherization Assistance Program:



**1,326\*** units weatherized in 2018, out of **~190,000** total low-income households

**1,245,442**

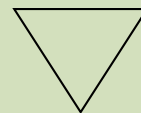
Oregon homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**20%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	11,597	Bend	1,840
2	7,625	Corvallis	673
3	8,059	Eugene-Springfield	3,551
4	7,179	Medford	2,375
5	3,801	Portland-Vancouver-Beaverton	19,717
		Salem	2,764
		Rural	7,342

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	2,382		9	1,909		17	584		25	562
2	1,149		10	1,454		18	2,830		26	259
3	1,058		11	239		19	1,173		27	1,566
4	2,885		12	1,165		20	1,283		28	989
5	951		13	1,974		21	1,811		29	1,184
6	1,022		14	1,081		22	1,819		30	534
7	139		15	3,065		23	579			
8	1,234		16	1,103		24	278			

## State House of Representatives

District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	1,818		16	46		31	544		46	260
2	560		17	612		32	543		47	172
3	17		18	1,204		33	582		48	105
4	1,128		19	1,214		34	<5		49	462
5	1,063		20	235		35	386		50	98
6	<5		21	<5		36	2,452		51	<5
7	576		22	238		37	1,171		52	258
8	2,314		23	419		38	<5		53	1,576
9	224		24	748		39	1,113		54	<5
10	775		25	12		40	169		55	703
11	1,020		26	1,962		41	835		56	282
12	<5		27	1,078		42	980		57	788
13	137		28	<5		43	836		58	392
14	<5		29	2,797		44	1,002		59	165
15	1,185		30	323		45	318		60	368



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# Pennsylvania

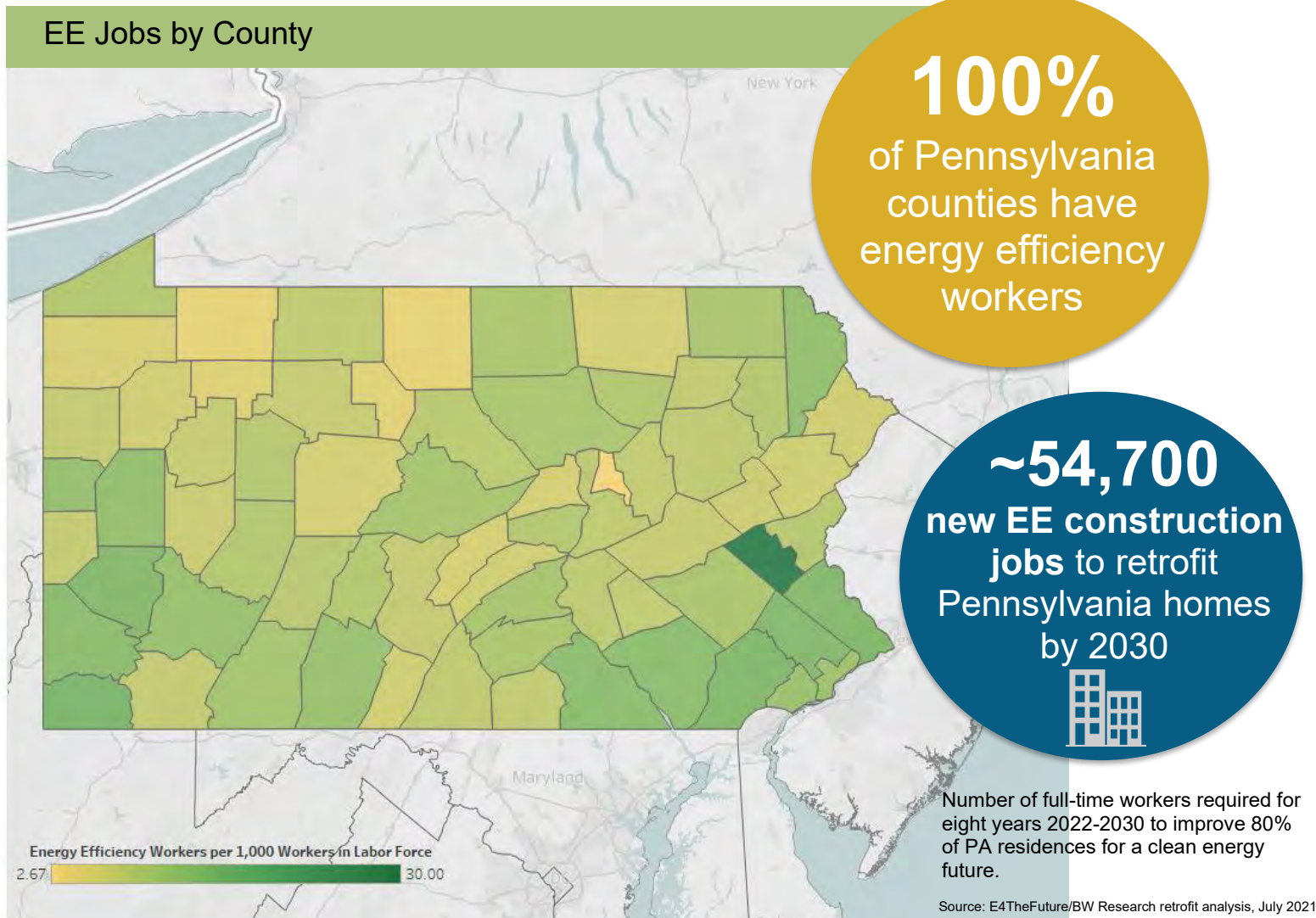
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Pennsylvania, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





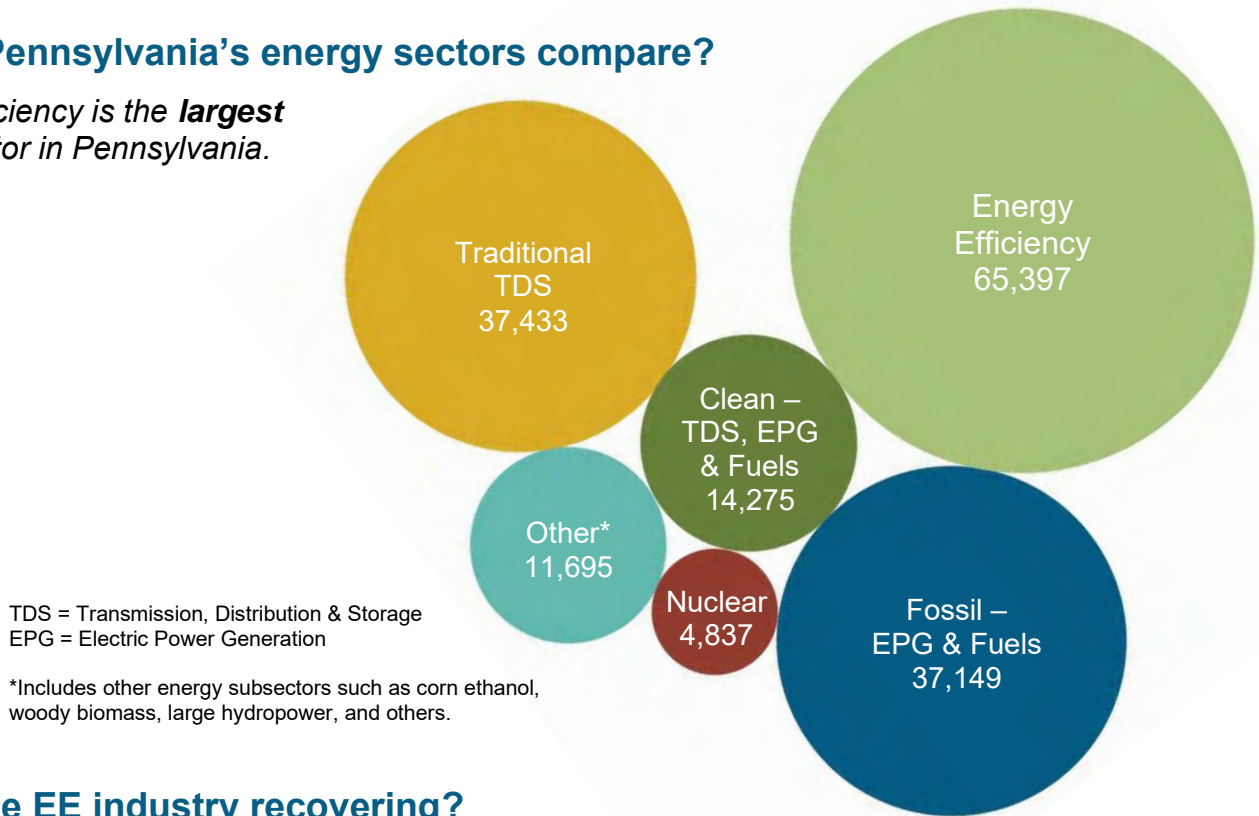
# Key EE Statistics for Pennsylvania

## What are energy efficiency (EE) jobs?

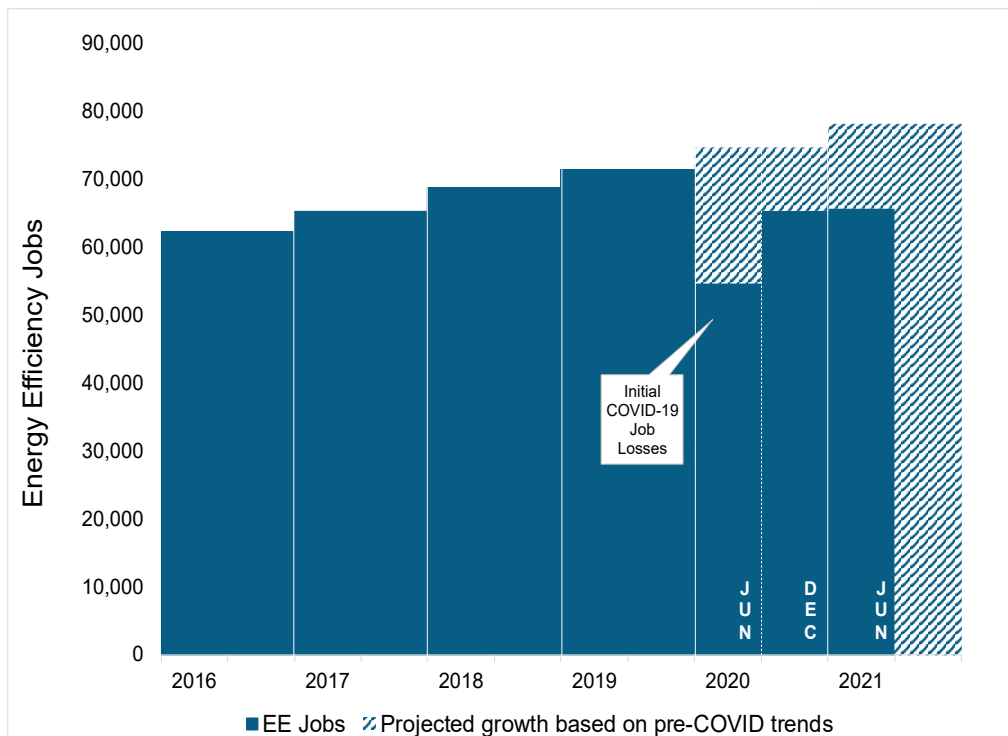
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Pennsylvania's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Pennsylvania.*

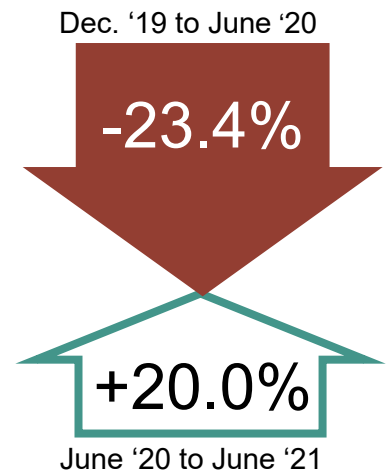


## How is the EE industry recovering?



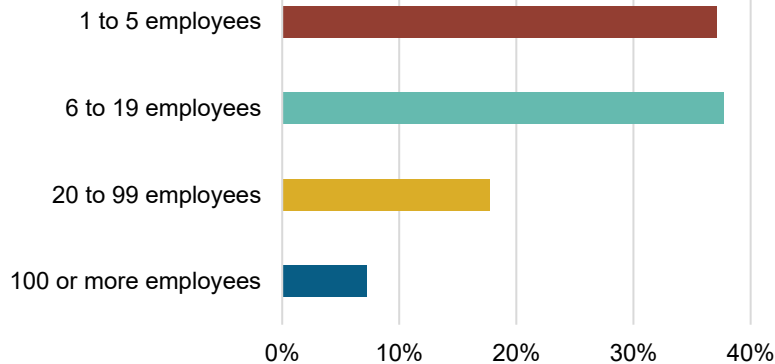
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



# What does EE look like in Pennsylvania?

## 92.5% of PA EE Businesses Have Less Than 100 Employees



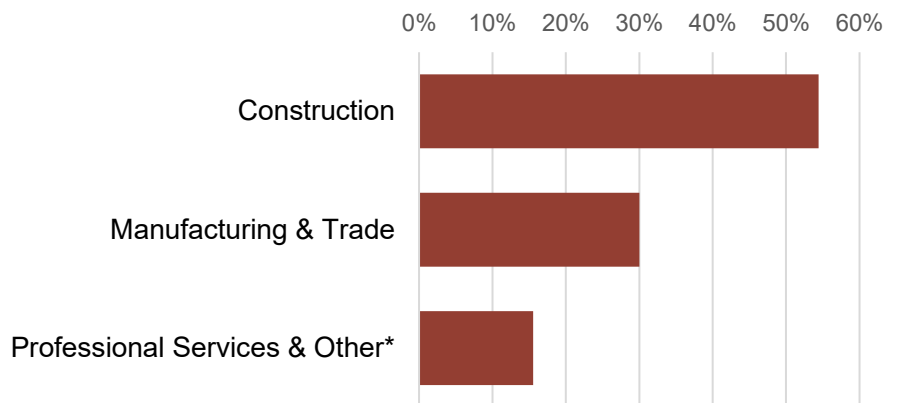
**10,290**  
EE businesses in  
Pennsylvania



EE construction  
workers comprise  
**14%** of  
Pennsylvania  
construction  
workers

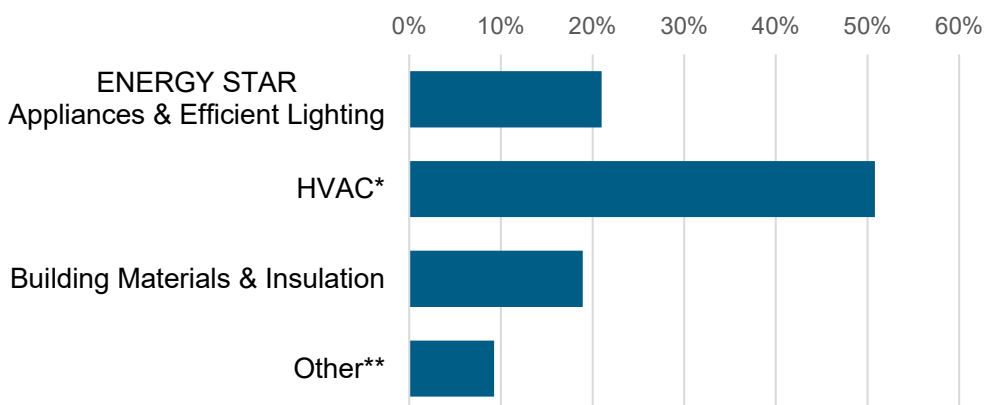


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services

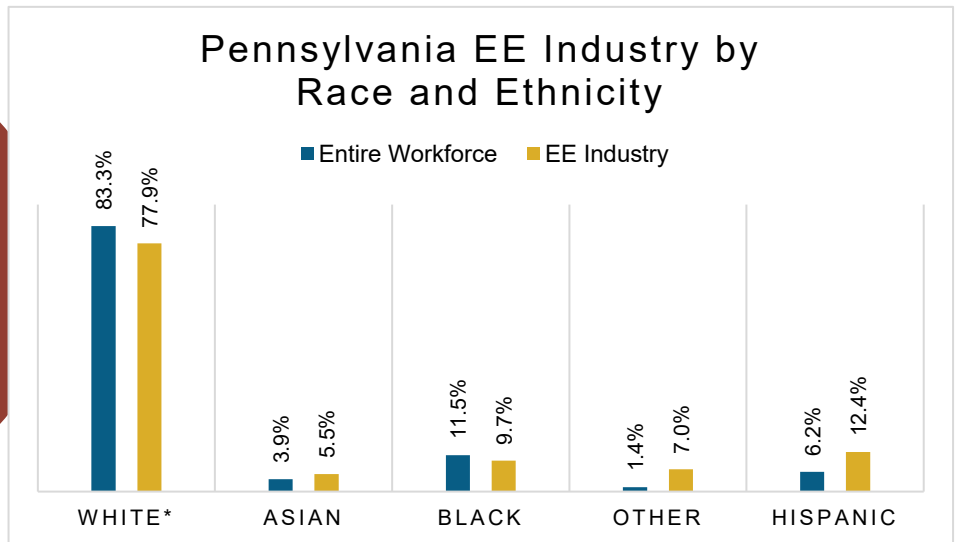


**11%** of  
Pennsylvania  
EE workers are  
**Veterans**

# How is EE doing on diversity in Pennsylvania?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Pennsylvania communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Pennsylvania's EE Potential

Decades of work, ready for Pennsylvania's growing energy efficiency workforce.

Weatherization Assistance Program:

**4,312\*** units weatherized in 2018, out of **~63,000** total low-income households

**4,993,961**

Pennsylvania homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**14%**

\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,382	Allentown-Bethlehem-Easton	3,209
2	3,112	Altoona	613
3	4,218	Erie	1,234
4	4,117	Harrisburg-Carlisle	2,707
5	2,535	Johnstown	445
6	6,722	Lancaster	2,724
7	4,632	Lebanon	556
8	5,075	New York-Northern New Jersey-Long	3,389
9	3,588	Philadelphia-Camden-Wilmington	21,303
10	3,870	Pittsburgh	12,403
11	2,620	Reading	2,688
12	4,635	Scranton--Wilkes-Barre	2,680
13	1,008	State College	630
14	4,590	Williamsport	585
15	4,430	York-Hanover	1,788
16	2,288	Youngstown-Warren-Boardman	387
17	1,642	Rural	8,055
18	1,932		

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	3,548		14	1,569		27	846		40	694
2	896		15	1,652		28	1,712		41	1,291
3	262		16	1,818		29	716		42	2,176
4	1,296		17	2,373		30	1,773		43	525
5	173		18	1,089		31	1,159		44	285
6	2,903		19	1,269		32	1,092		45	346
7	1,233		20	1,122		33	593		46	1,090
8	384		21	1,653		34	906		47	990
9	3,255		22	1,282		35	795		48	532
10	1,817		23	1,443		36	795		49	1,275
11	2,208		24	760		37	3,302		50	739
12	908		25	1,022		38	1,418			
13	2,142	26	492	39	1,778					

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	549	52	173	103	762	154	134
2	473	53	830	104	332	155	344
3	215	54	1,055	105	<5	156	1,621
4	87	55	380	106	<5	157	326
5	762	56	29	107	538	158	258
6	347	57	80	108	35	159	443
7	341	58	81	109	112	160	41
8	520	59	282	110	228	161	697
9	377	60	205	111	452	162	376
10	285	61	924	112	726	163	506
11	228	62	297	113	325	164	<5
12	434	63	219	114	98	165	315
13	565	64	239	115	461	166	<5
14	300	65	208	116	438	167	<5
15	457	66	298	117	257	168	13
16	288	67	160	118	347	169	40
17	13	68	559	119	397	170	170
18	615	69	218	120	20	171	24
19	2,175	70	824	121	73	172	368
20	703	71	278	122	221	173	<5
21	382	72	155	123	281	174	<5
22	626	73	222	124	174	175	1,854
23	138	74	284	125	158	176	113
24	274	75	270	126	297	177	124
25	556	76	789	127	29	178	58
26	746	77	46	128	284	179	151
27	786	78	364	129	45	180	<5
28	244	79	516	130	187	181	53
29	817	80	49	131	715	182	1,555
30	23	81	118	132	384	183	123
31	840	82	453	133	555	184	184
32	329	83	505	134	192	185	71
33	145	84	181	135	110	186	53
34	247	85	233	136	304	187	1,120
35	448	86	348	137	244	188	70
36	180	87	790	138	225	189	24
37	1,597	88	154	139	210	190	53
38	53	89	377	140	708	191	<5
39	510	90	12	141	74	192	18
40	582	91	488	142	451	193	270
41	323	92	288	143	901	194	214
42	<5	93	429	144	59	195	<5
43	568	94	47	145	17	196	6
44	326	95	<5	146	151	197	<5
45	35	96	<5	147	92	198	43
46	119	97	<5	148	946	199	<5
47	958	98	242	149	918	200	<5
48	46	99	102	150	17	201	23
49	491	100	132	151	479	202	<5
50	100	101	492	152	330	203	<5
51	182	102	76	153	280		



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For questions on E4TheFuture analyses please email: [policy@e4thefuture.org](mailto:policy@e4thefuture.org).

# Rhode Island

## Energy Efficiency Jobs in America

June 2021\*

10,679

Dec 2020

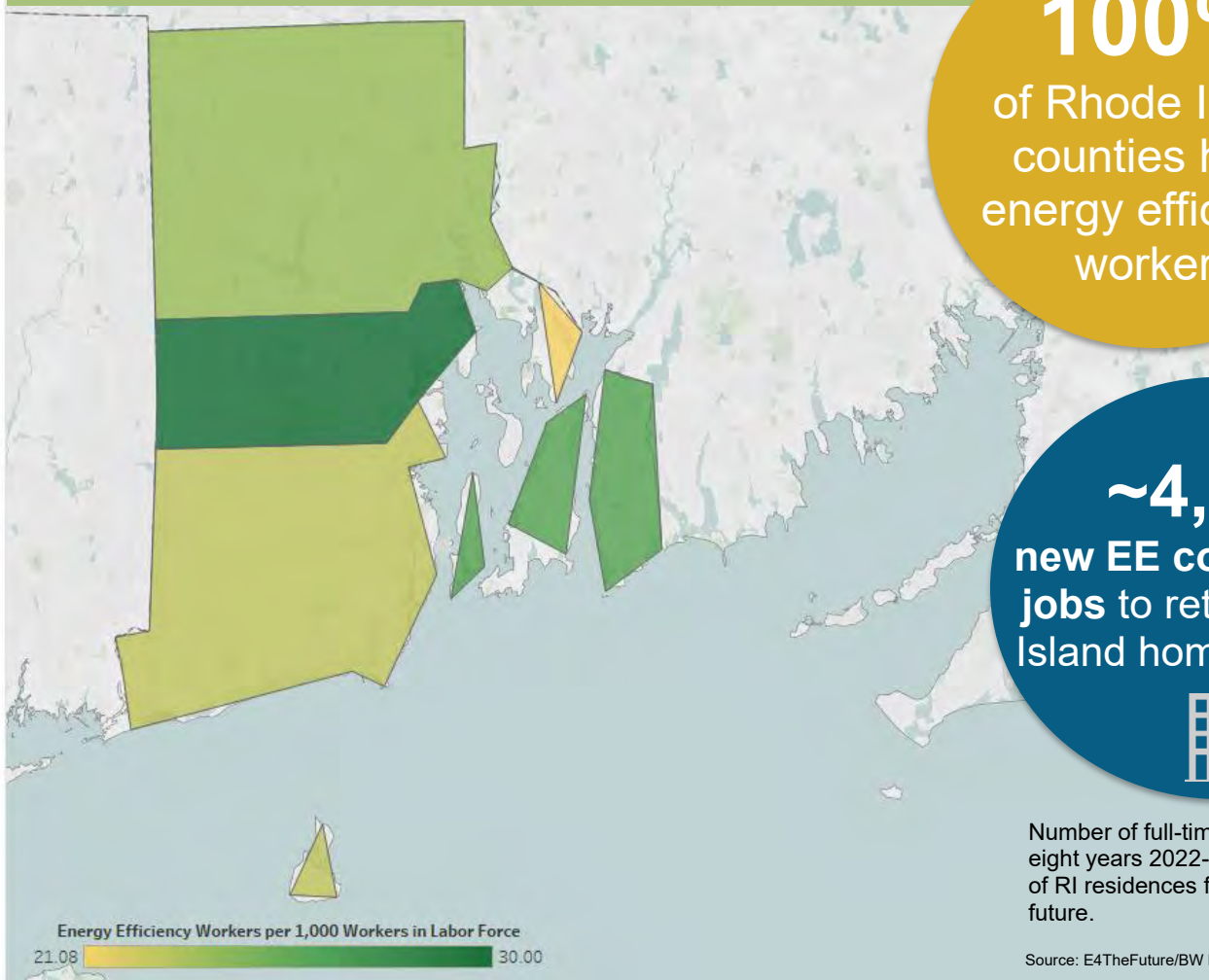
10,627

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Rhode Island, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



100%

of Rhode Island  
counties have  
energy efficiency  
workers

~4,700

new EE construction  
jobs to retrofit Rhode  
Island homes by 2030



Number of full-time workers required for  
eight years 2022-2030 to improve 80%  
of RI residences for a clean energy  
future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





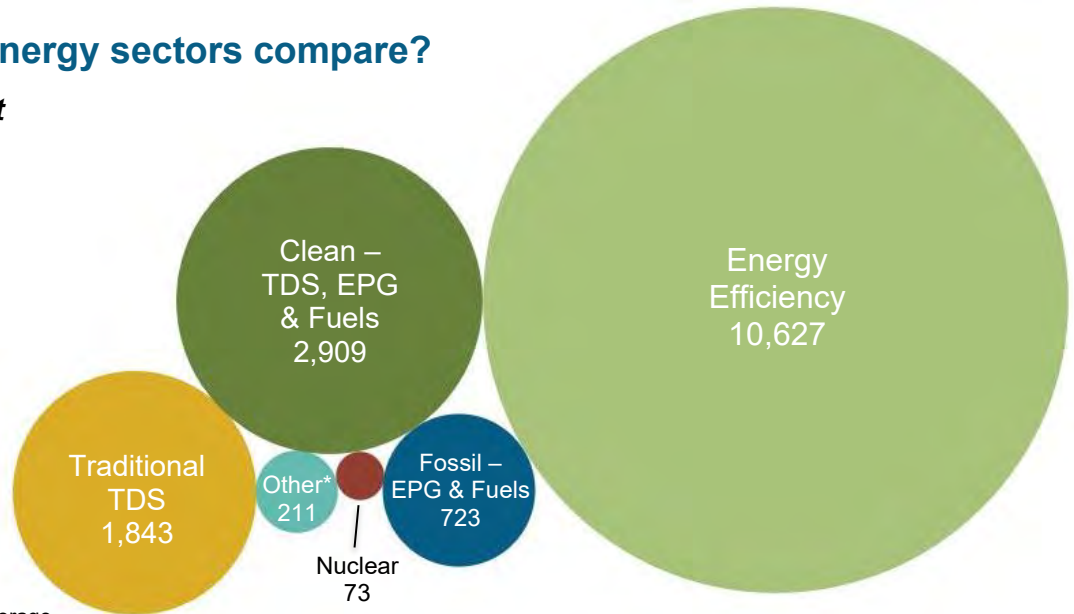
# Key EE Statistics for Rhode Island

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Rhode Island's energy sectors compare?

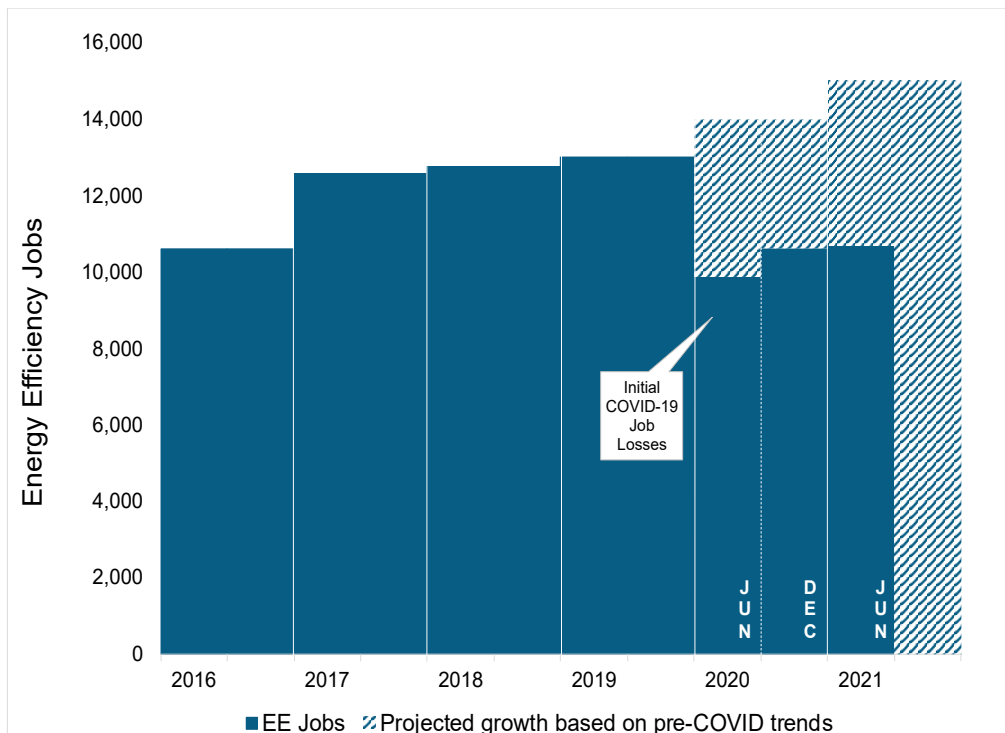
*Energy Efficiency is the **largest** energy sector in Rhode Island.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*

Dec. '19 to June '20

-24.2%

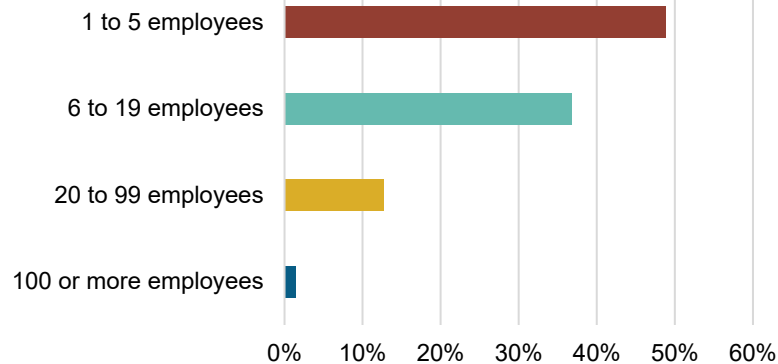
+8.1%

June '20 to June '21

Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Rhode Island?

## 98.4% of RI EE Businesses Have Less Than 100 Employees



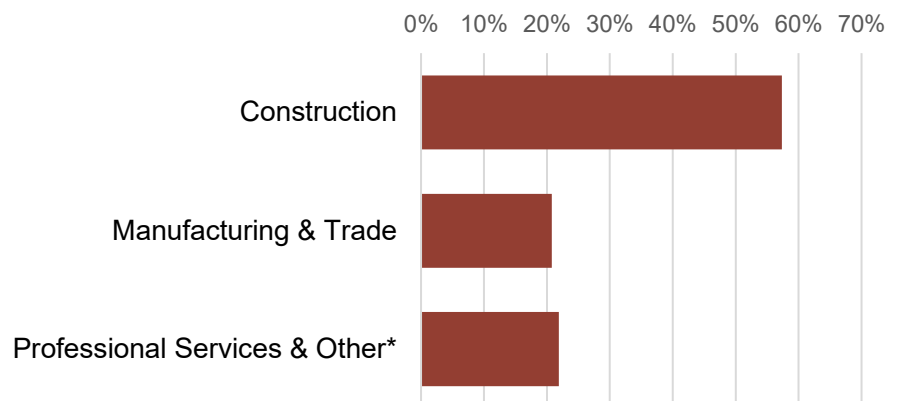
**3,304**  
EE businesses in  
Rhode Island



EE construction  
workers comprise  
**31%** of Rhode  
Island construction  
workers

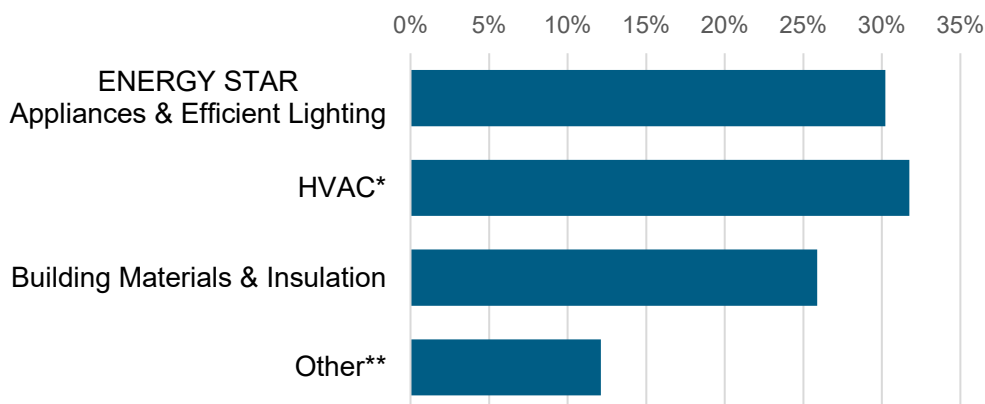


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

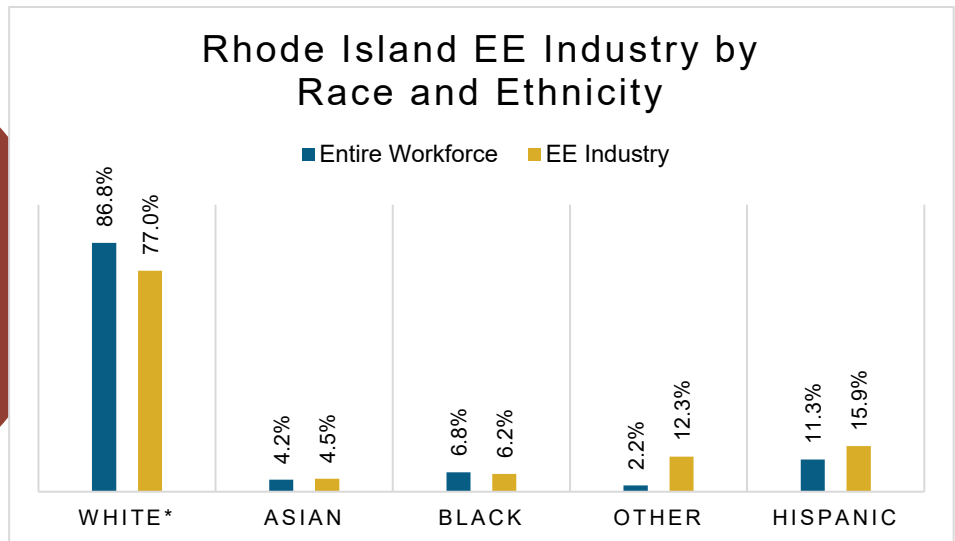


**7%** of  
Rhode Island  
EE workers are  
**Veterans**

## How is EE doing on diversity in Rhode Island?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Rhode Island communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Rhode Island's EE Potential

Decades of work, ready for Rhode Island's growing energy efficiency workforce.

Weatherization Assistance Program:

**639\*** units weatherized in 2018, out of **~46,000** total low-income households

**390,900**

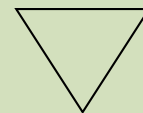
Rhode Island homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**15%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	5,828	Rhode Island	10,627
2	4,799		

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	1,218		11	198		21	834		31	<5
2	621		12	631		22	336		32	101
3	538		13	71		23	118		33	<5
4	83		14	452		24	<5		34	451
5	<5		15	<5		25	<5		35	758
6	<5		16	55		26	159		36	<5
7	686		17	852		27	<5		37	38
8	<5		18	<5		28	<5		38	265
9	228		19	<5		29	1,026			
10	516	20	219	30	174					

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	1,207	20	544	39	32	58	<5
2	398	21	161	40	261	59	<5
3	<5	22	<5	41	<5	60	<5
4	363	23	<5	42	<5	61	<5
5	<5	24	400	43	<5	62	<5
6	587	25	523	44	593	63	325
7	<5	26	<5	45	295	64	123
8	<5	27	<5	46	<5	65	<5
9	351	28	66	47	86	66	116
10	219	29	79	48	132	67	123
11	<5	30	<5	49	217	68	221
12	<5	31	477	50	<5	69	197
13	<5	32	<5	51	<5	70	281
14	<5	33	459	52	<5	71	80
15	158	34	<5	53	<5	72	221
16	<5	35	<5	54	<5	73	326
17	<5	36	422	55	<5	74	70
18	<5	37	<5	56	55	75	<5
19	334	38	122	57	<5	76	<5



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# South Carolina

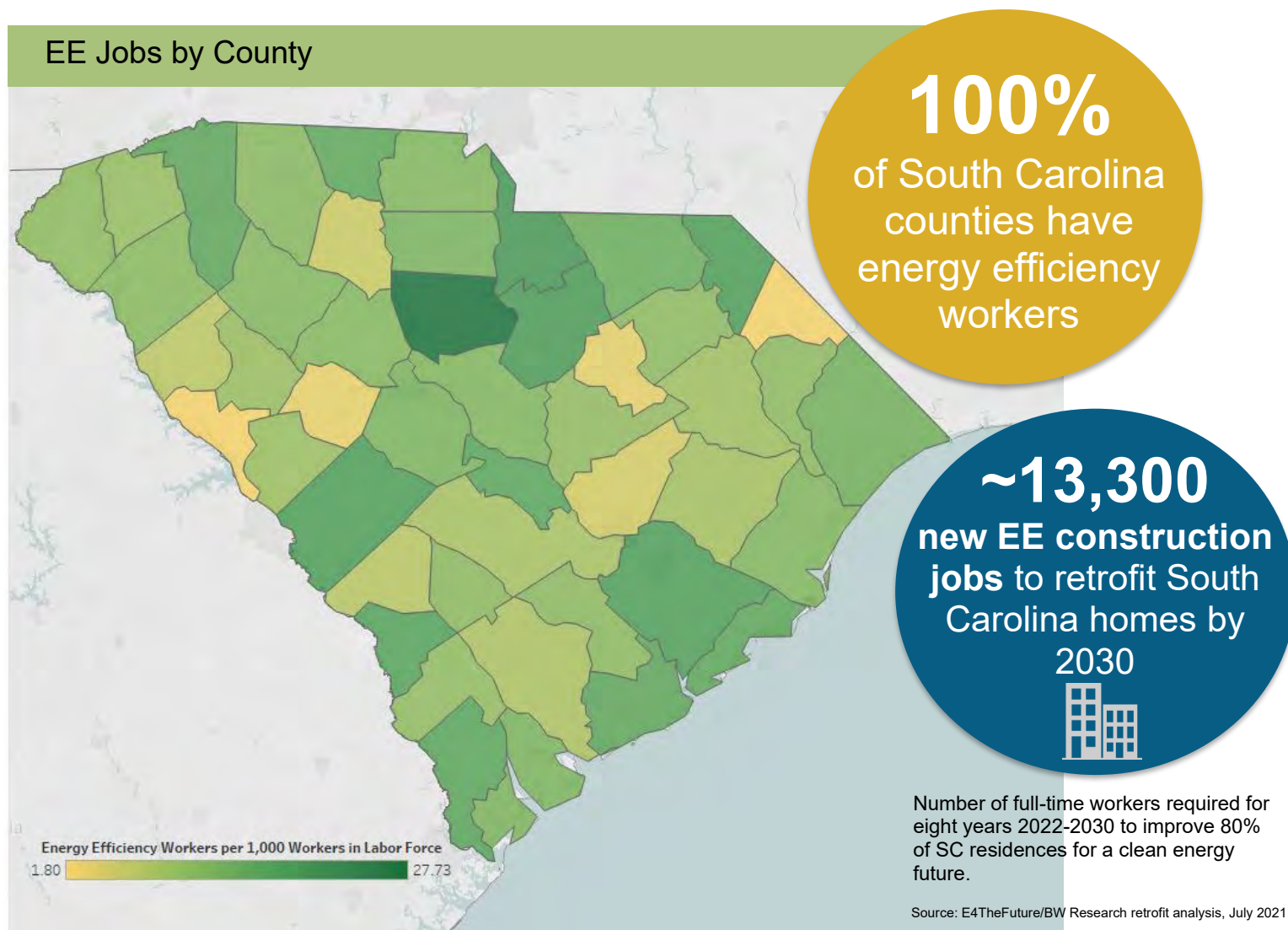
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In South Carolina, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





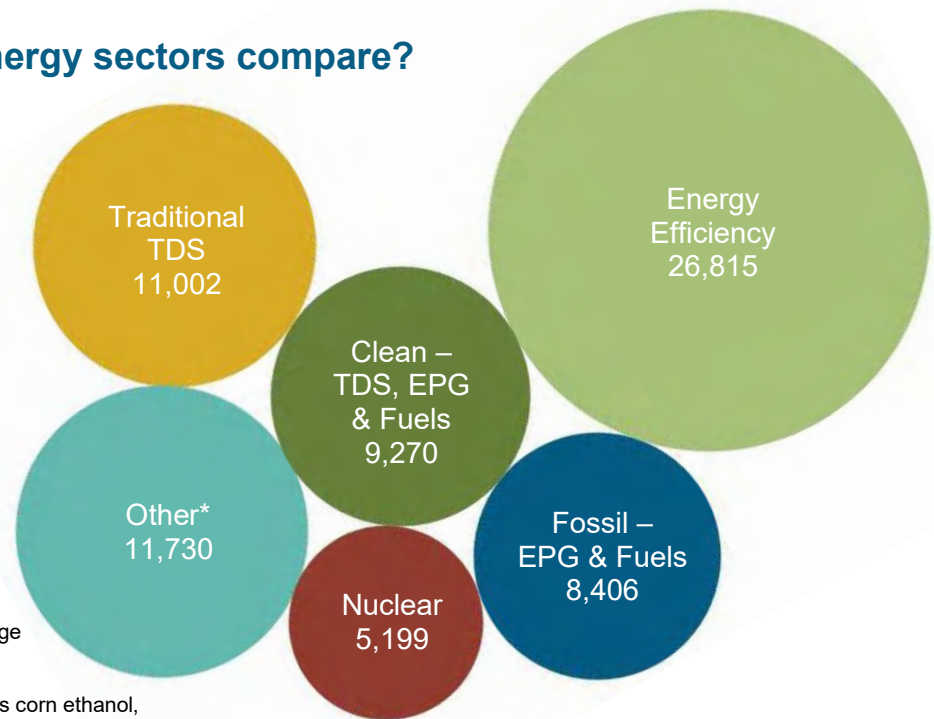
# Key EE Statistics for South Carolina

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do South Carolina's energy sectors compare?

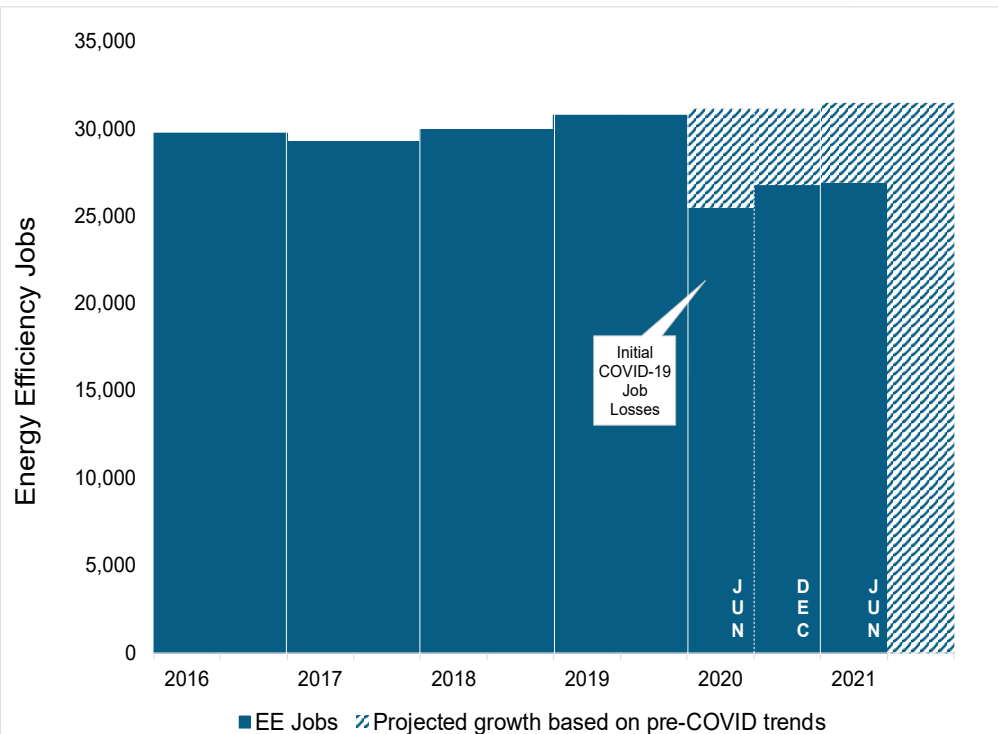
*Energy Efficiency is the **largest** energy sector in South Carolina.*



TDS = Transmission, Distribution & Storage  
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\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



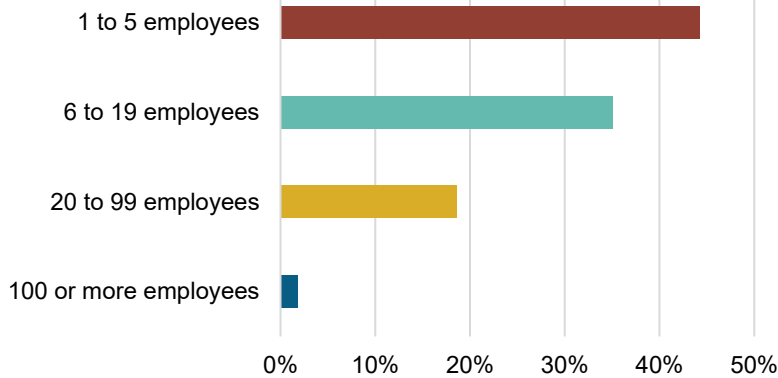
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



# What does EE look like in South Carolina?

## 98% of SC EE Businesses Have Less Than 100 Employees



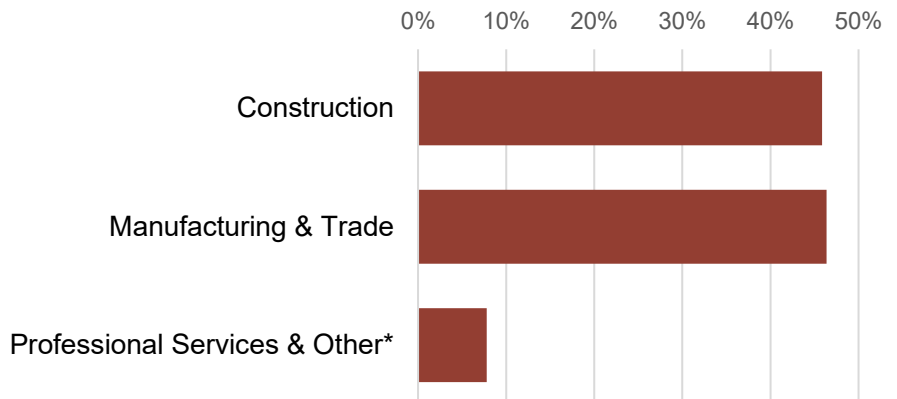
**4,731**  
EE businesses in  
South Carolina



EE construction  
workers comprise  
**12%** of  
South Carolina  
construction  
workers

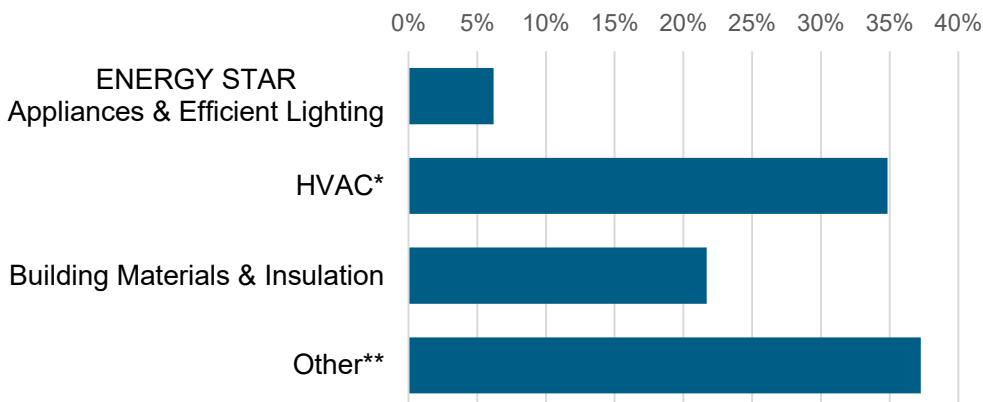


## What type of work do energy efficiency firms do?



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## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

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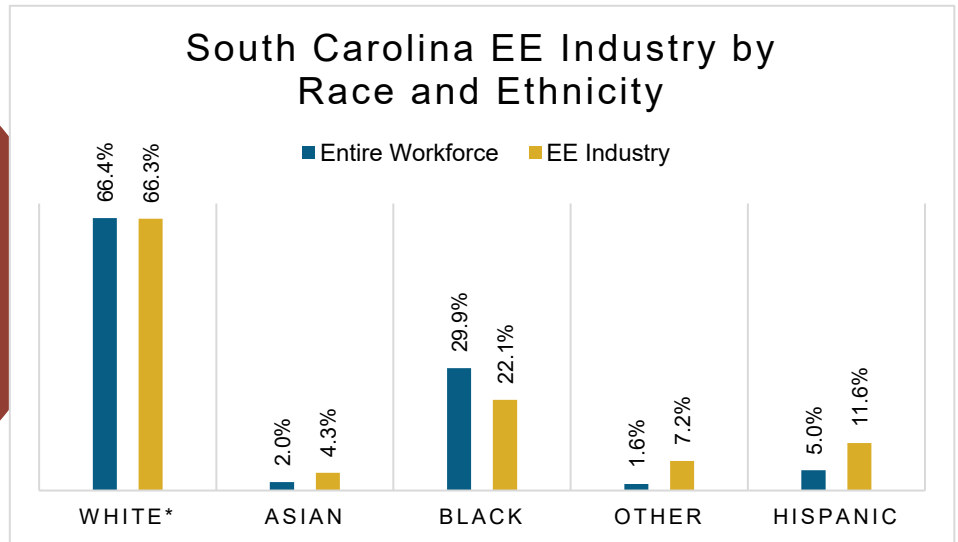


**8%** of  
South Carolina  
EE workers are  
**Veterans**

# How is EE doing on diversity in South Carolina?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all South Carolina communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## South Carolina's EE Potential

Decades of work, ready for South Carolina's growing energy efficiency workforce.

Weatherization Assistance Program:

**315\*** units weatherized in 2018, out of **~280,000** total low-income households

**1,368,050**

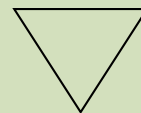
South Carolina homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**42%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	6,041	Anderson	825
2	4,014	Augusta-Richmond County	655
3	3,514	Charleston-North Charleston	4,932
4	4,417	Charlotte-Gastonia-Concord	1,576
5	2,715	Columbia	4,349
6	2,529	Florence	986
7	3,584	Greenville-Mauldin-Easley	4,655
		Myrtle Beach-Conway-North Myrtle Beach	1,986
		Spartanburg	1,432
		Sumter	454
		Rural	4,965

State Senate							
District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	401	13	211	25	26	37	1,500
2	745	14	440	26	188	38	740
3	880	15	994	27	498	39	609
4	400	16	254	28	1,218	40	196
5	1,235	17	218	29	804	41	1,068
6	1,877	18	945	30	134	42	658
7	423	19	1,809	31	133	43	747
8	222	20	461	32	349	44	<5
9	255	21	220	33	796	45	550
10	280	22	66	34	1,204	46	360
11	951	23	491	35	371		
12	168	24	600	36	120		

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	283	32	<5	63	<5	94	191
2	22	33	<5	64	132	95	<5
3	425	34	83	65	<5	96	9
4	196	35	<5	66	317	97	145
5	80	36	134	67	<5	98	347
6	805	37	<5	68	545	99	971
7	35	38	<5	69	984	100	56
8	69	39	411	70	177	101	136
9	<5	40	196	71	154	102	7
10	215	41	231	72	1,462	103	273
11	404	42	109	73	<5	104	289
12	59	43	44	74	238	105	<5
13	51	44	253	75	<5	106	300
14	273	45	<5	76	220	107	<5
15	645	46	<5	77	<5	108	42
16	262	47	<5	78	<5	109	473
17	874	48	<5	79	<5	110	520
18	262	49	<5	80	<5	111	595
19	<5	50	409	81	390	112	<5
20	450	51	348	82	53	113	<5
21	633	52	74	83	139	114	276
22	690	53	145	84	42	115	233
23	273	54	118	85	<5	116	53
24	82	55	312	86	36	117	<5
25	<5	56	570	87	<5	118	569
26	721	57	97	88	94	119	<5
27	<5	58	310	89	72	120	631
28	<5	59	597	90	311	121	306
29	885	60	86	91	117	122	35
30	24	61	103	92	443	123	<5
31	983	62	<5	93	62	124	37



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



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# South Dakota

## Energy Efficiency Jobs in America

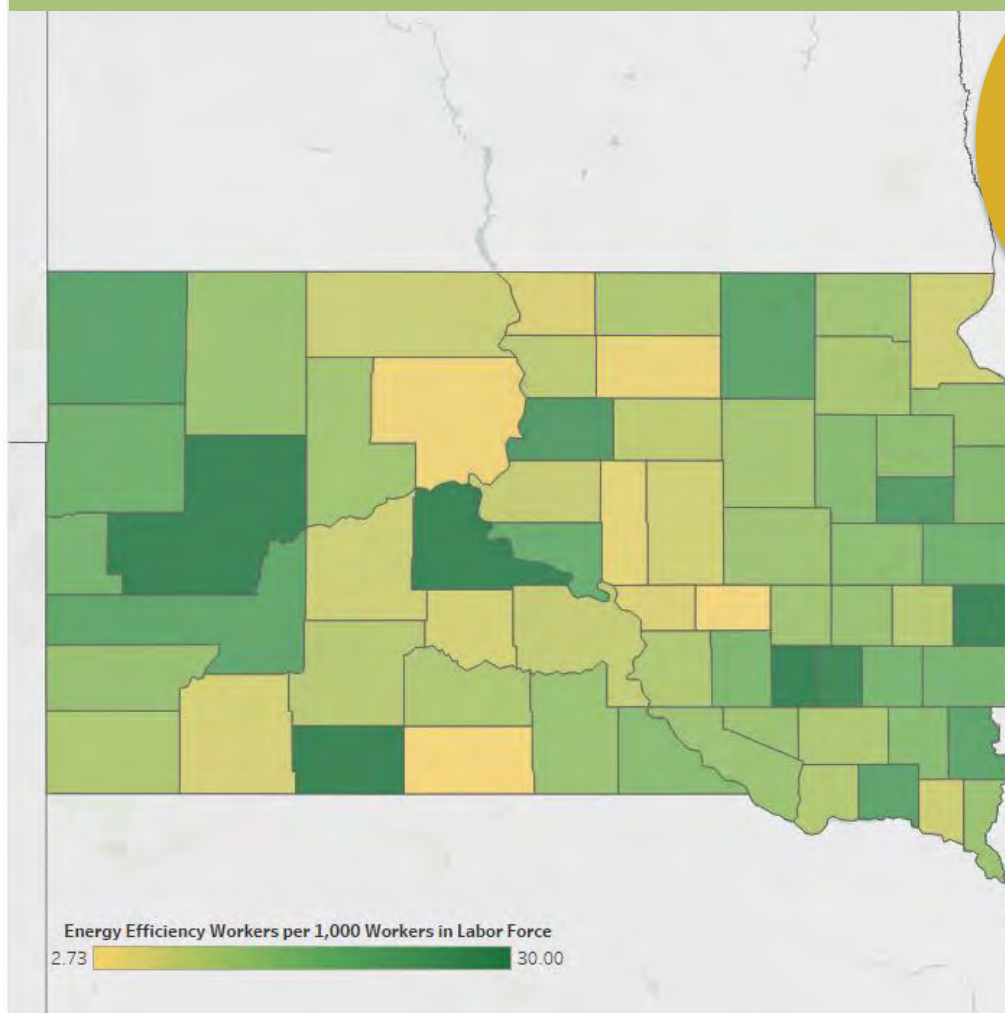


*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In South Dakota, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of South Dakota  
counties have  
energy efficiency  
workers

**~3,100**  
new EE construction  
jobs to retrofit South  
Dakota homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of SD residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





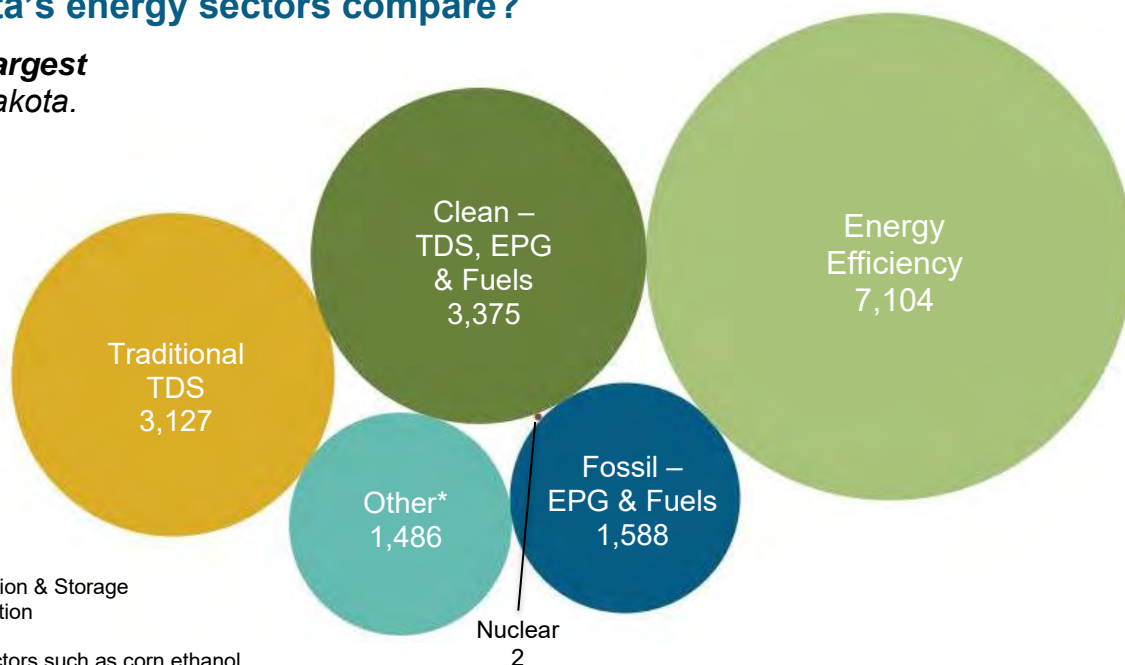
# Key EE Statistics for South Dakota

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do South Dakota's energy sectors compare?

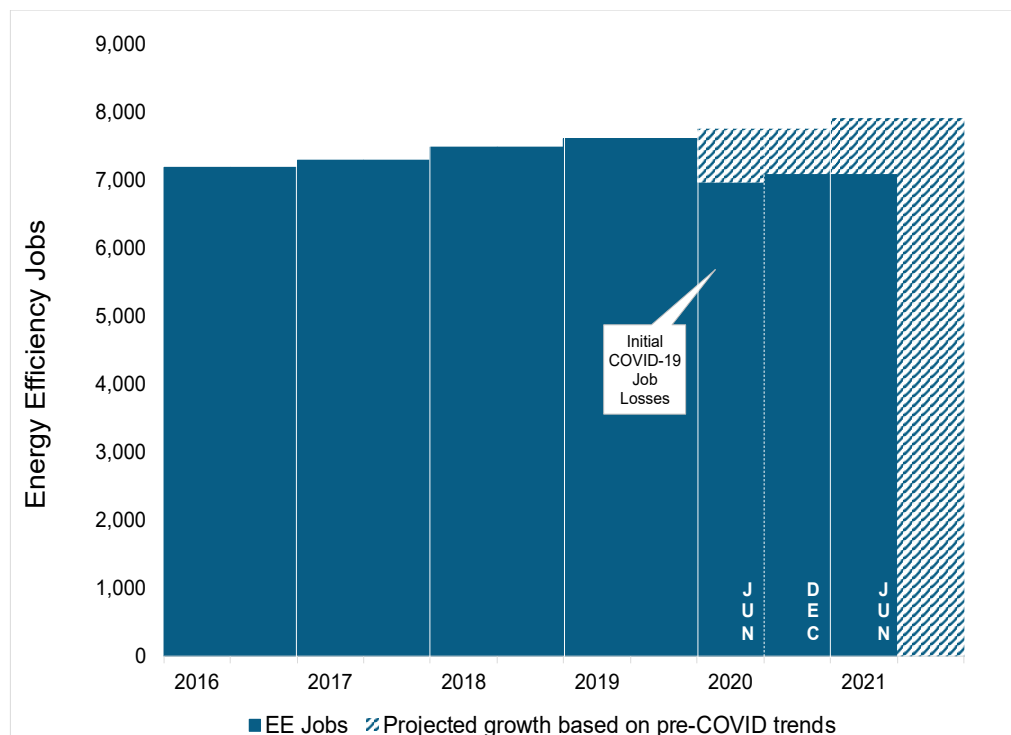
*Energy Efficiency is the **largest** energy sector in South Dakota.*



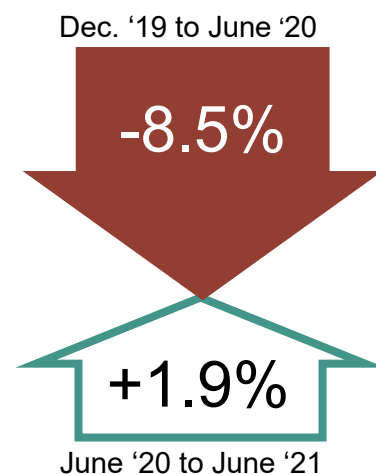
TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



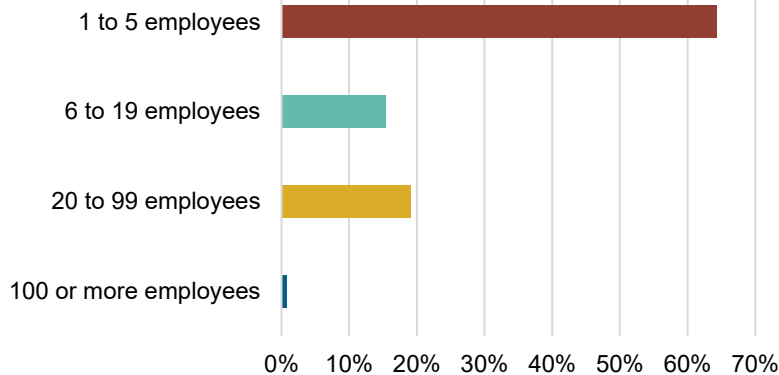
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in South Dakota?

## 98.9% of SD EE Businesses Have Less Than 100 Employees



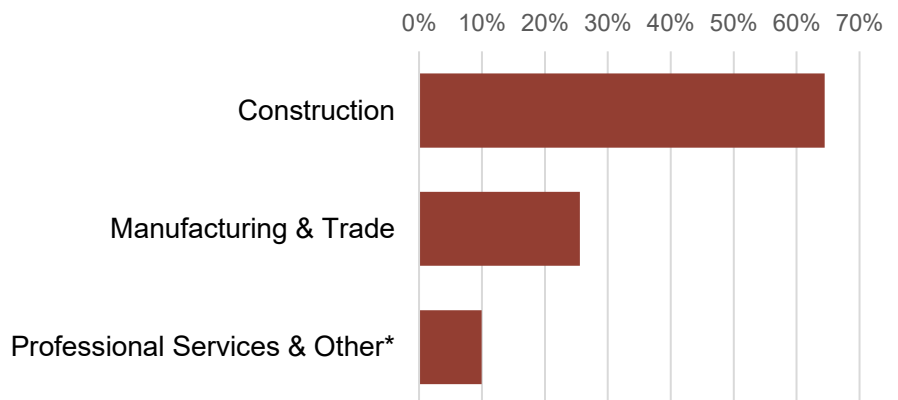
**2,453**  
EE businesses in  
South Dakota



EE construction workers comprise  
**18%** of South Dakota construction workers

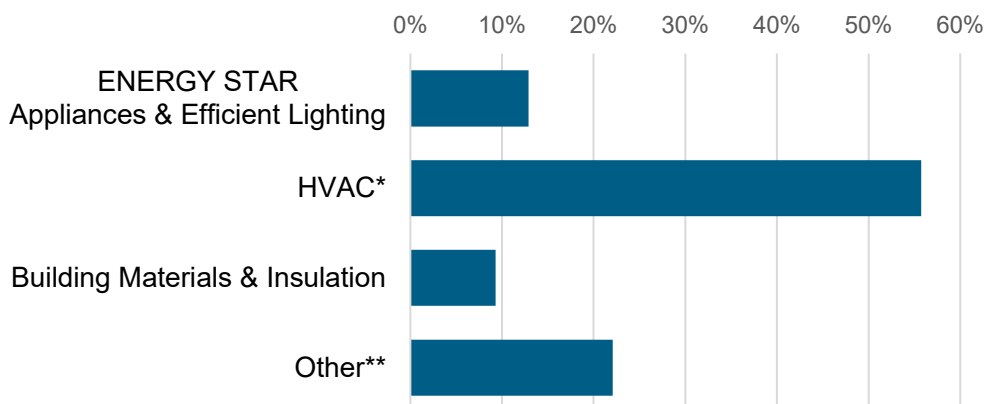


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

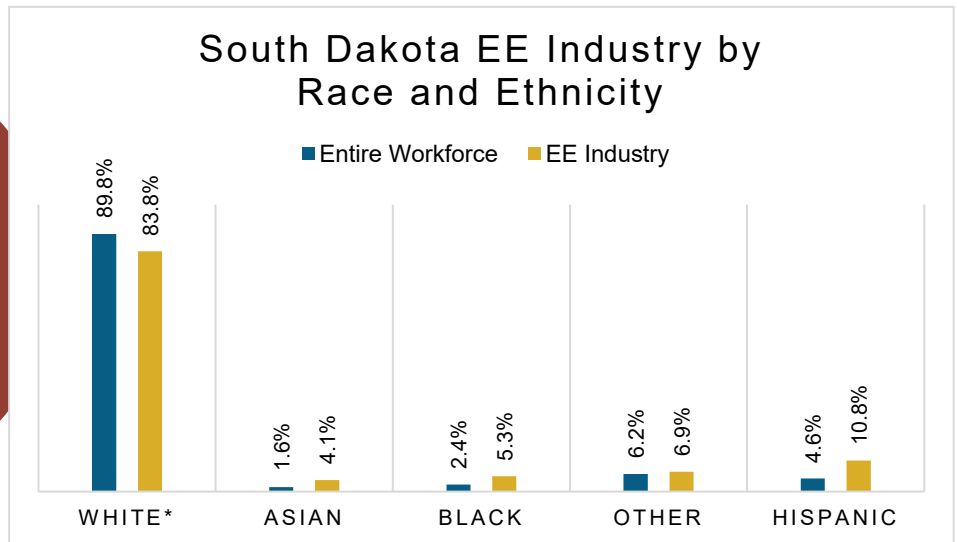


**10%** of  
South Dakota  
EE workers are  
**Veterans**

## How is EE doing on diversity in South Dakota?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all South Dakota communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## South Dakota's EE Potential

Decades of work, ready for South Dakota's growing energy efficiency workforce.

Weatherization Assistance Program:

**116\*** units weatherized in 2018, out of **~44,000** total low-income households

**262,333**

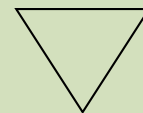
South Dakota homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**26%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	7,104	Rapid City	1,158
		Sioux City	125
		Sioux Falls	2,758
		Rural	3,063

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	515		10	226		19	324		28	227
2	177		11	<5		20	39		29	1,005
3	<5		12	181		21	138		30	205
4	500		13	<5		22	184		31	92
5	<5		14	<5		23	162		32	<5
6	479		15	<5		24	265		33	<5
7	<5		16	140		25	13		34	<5
8	142		17	132		26	82		35	<5
9	1,766		18	35		27	76			

## State House of Representatives

District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	513		19	323		37	<5		55	<5
2	176		20	39		38	<5		56	<5
3	<5		21	138		39	<5		57	<5
4	499		22	155		40	<5		58	<5
5	<5		23	162		41	<5		59	<5
6	478		24	265		42	<5		60	<5
7	<5		25	13		43	<5		61	<5
8	142		26	<5		44	<5		62	<5
9	1,766		27	77		45	<5		63	<5
10	226		28	<5		46	<5		64	<5
11	<5		29	1,101		47	<5		65	<5
12	180		30	205		48	<5		66	<5
13	<5		31	212		49	<5		67	<5
14	<5		32	<5		50	<5		68	<5
15	<5		33	<5		51	<5		69	<5
16	140		34	<5		52	<5		70	<5
17	132		35	<5		53	<5			
18	162		36	<5		54	<5			



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# Tennessee

## Energy Efficiency Jobs in America

June 2021\*

48,080

Dec 2020

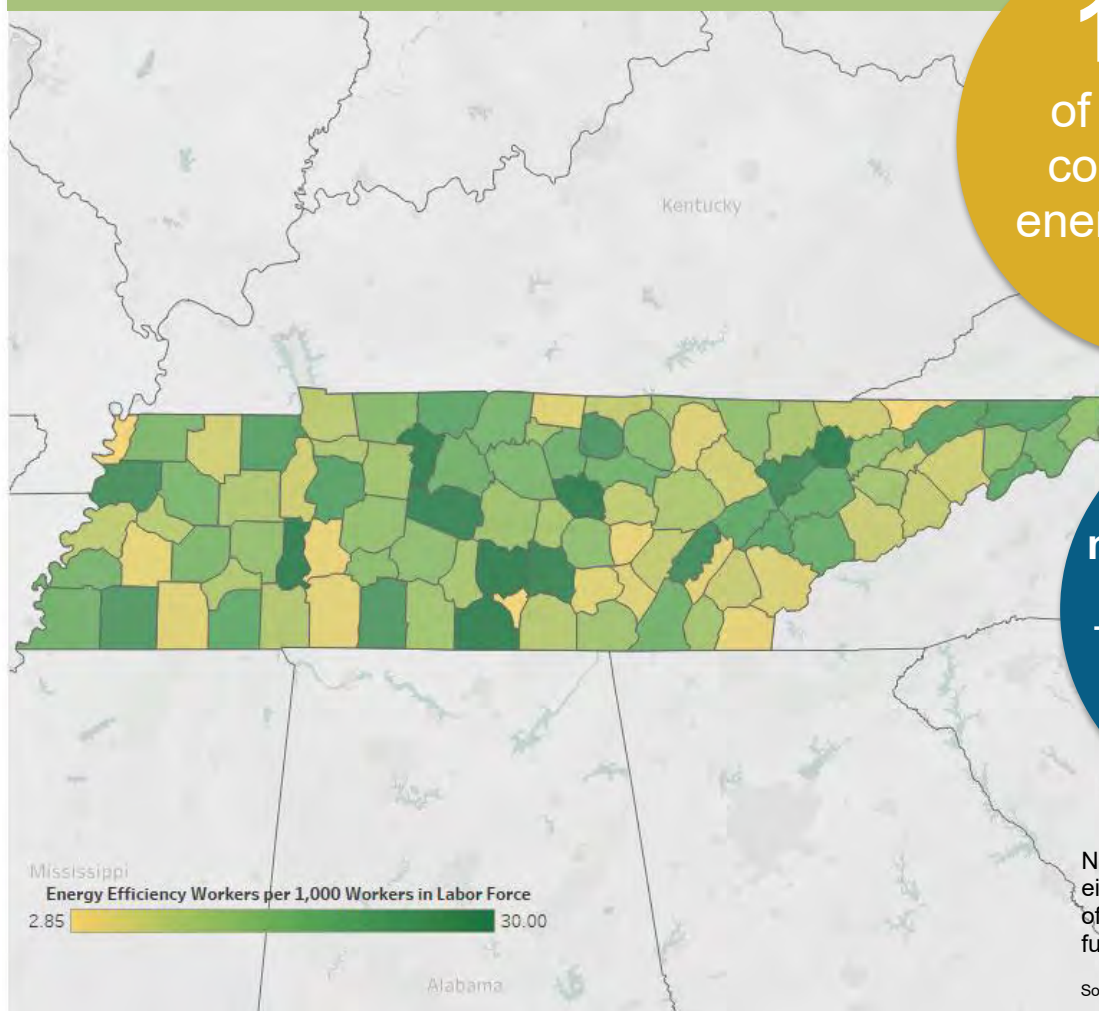
47,976

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Tennessee, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



**100%**  
of Tennessee  
counties have  
energy efficiency  
workers

**~20,000**  
new EE construction  
jobs to retrofit  
Tennessee homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of TN residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





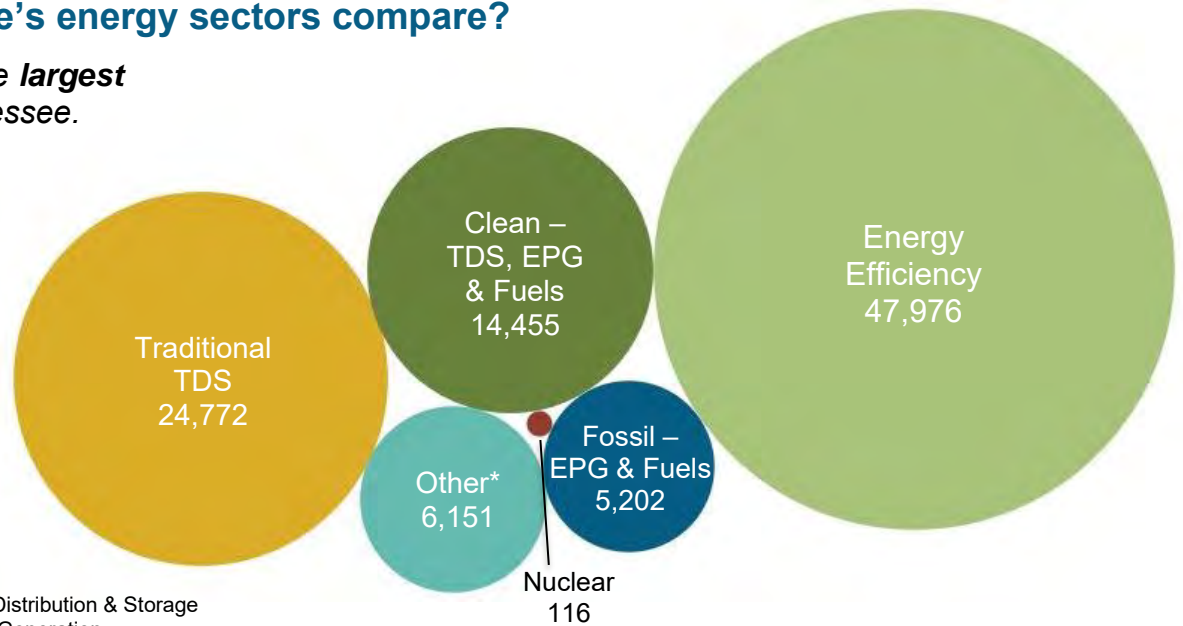
# Key EE Statistics for Tennessee

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Tennessee's energy sectors compare?

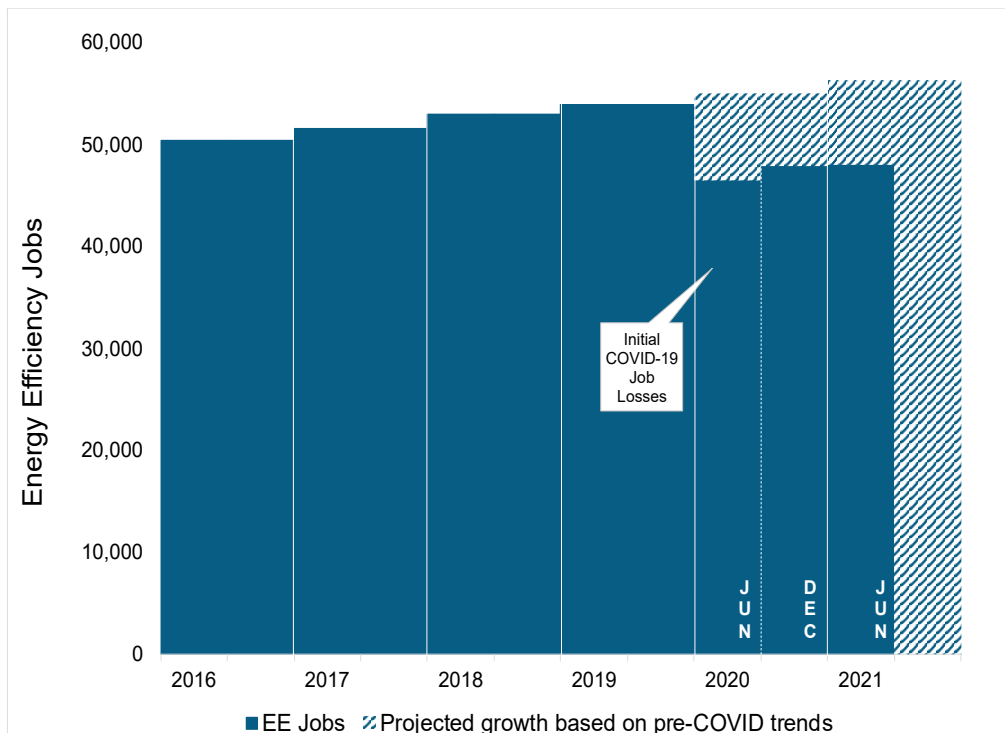
*Energy Efficiency is the **largest** energy sector in Tennessee.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



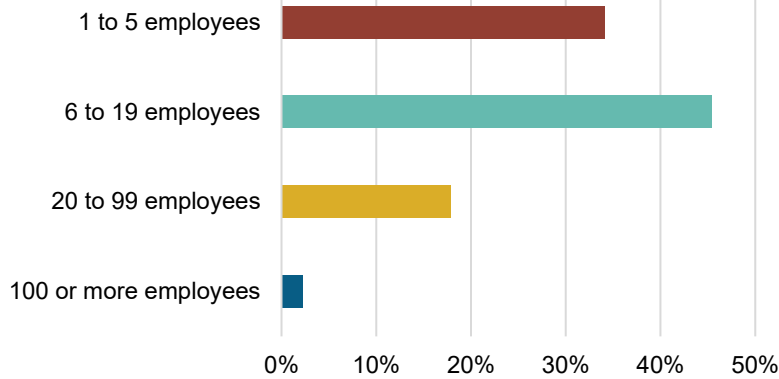
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



# What does EE look like in Tennessee?

## 97.5% of TN EE Businesses Have Less Than 100 Employees



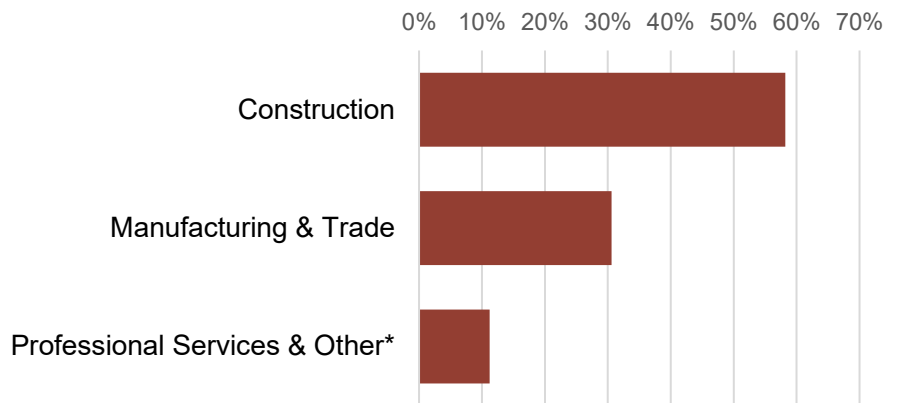
**5,686**  
EE businesses in  
Tennessee



EE construction  
workers comprise  
**21%** of Tennessee  
construction  
workers

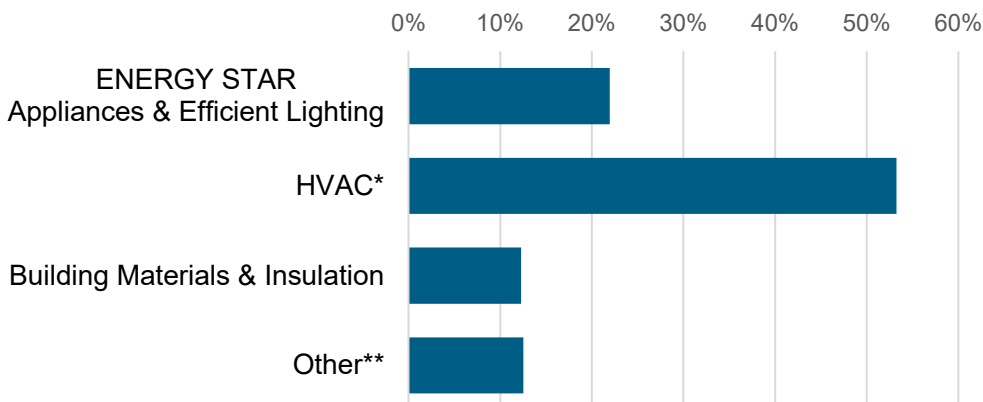


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

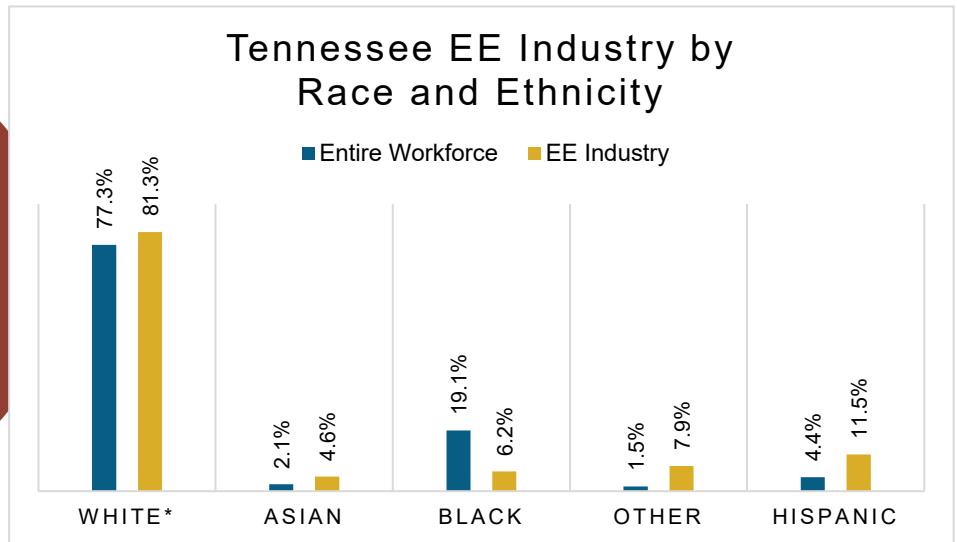


**7%** of  
Tennessee  
EE workers are  
**Veterans**

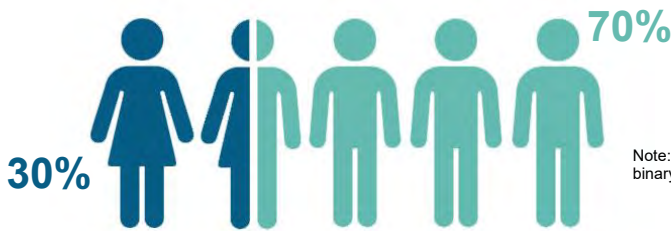
# How is EE doing on diversity in Tennessee?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Tennessee communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



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## Tennessee's EE Potential

Decades of work, ready for Tennessee's growing energy efficiency workforce.

Weatherization Assistance Program:

**206\*** units weatherized in 2018, out of **~380,000** total low-income households

**1,888,390**

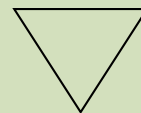
Tennessee homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**37%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,886	Chattanooga	3,348
2	6,508	Clarksville	855
3	5,673	Cleveland	1,488
4	4,705	Jackson	1,014
5	8,775	Johnson City	1,284
6	4,075	Kingsport-Bristol-Bristol	1,456
7	3,264	Knoxville	6,431
8	6,888	Memphis	7,758
9	3,201	Morristown	848
		Nashville-Davidson-Murfreesboro-Franklin	14,435
		Rural	9,060

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	1,911		10	2,631		19	5,094		28	561
2	1,351		11	476		20	2,524		29	3,007
3	1,512		12	889		21	<5		30	2,050
4	1,180		13	1,987		22	1,015		31	1,293
5	2,676		14	1,490		23	1,271		32	219
6	2,249		15	1,461		24	1,801		33	315
7	432		16	781		25	796			
8	346		17	1,005		26	1,692			
9	1,522		18	1,795		27	644			

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	1,076	26	1,998	51	3,250	76	446
2	358	27	240	52	1,010	77	291
3	689	28	732	53	1,194	78	100
4	435	29	8	54	<5	79	251
5	493	30	108	55	531	80	136
6	142	31	366	56	69	81	318
7	<5	32	561	57	<5	82	161
8	1,218	33	184	58	73	83	2,811
9	116	34	1,499	59	<5	84	1,089
10	566	35	156	60	<5	85	133
11	396	36	211	61	1,041	86	1,177
12	469	37	451	62	140	87	228
13	1,883	38	379	63	182	88	935
14	1,484	39	884	64	523	89	<5
15	570	40	2,189	65	29	90	<5
16	219	41	647	66	317	91	25
17	63	42	8	67	786	92	9
18	142	43	131	68	34	93	<5
19	101	44	23	69	417	94	260
20	53	45	358	70	436	95	315
21	324	46	46	71	253	96	123
22	1,559	47	168	72	320	97	272
23	274	48	8	73	1,032	98	<5
24	<5	49	42	74	77	99	<5
25	967	50	1,791	75	397		



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# Texas

## Energy Efficiency Jobs in America

June 2021\*

152,709

Dec 2020

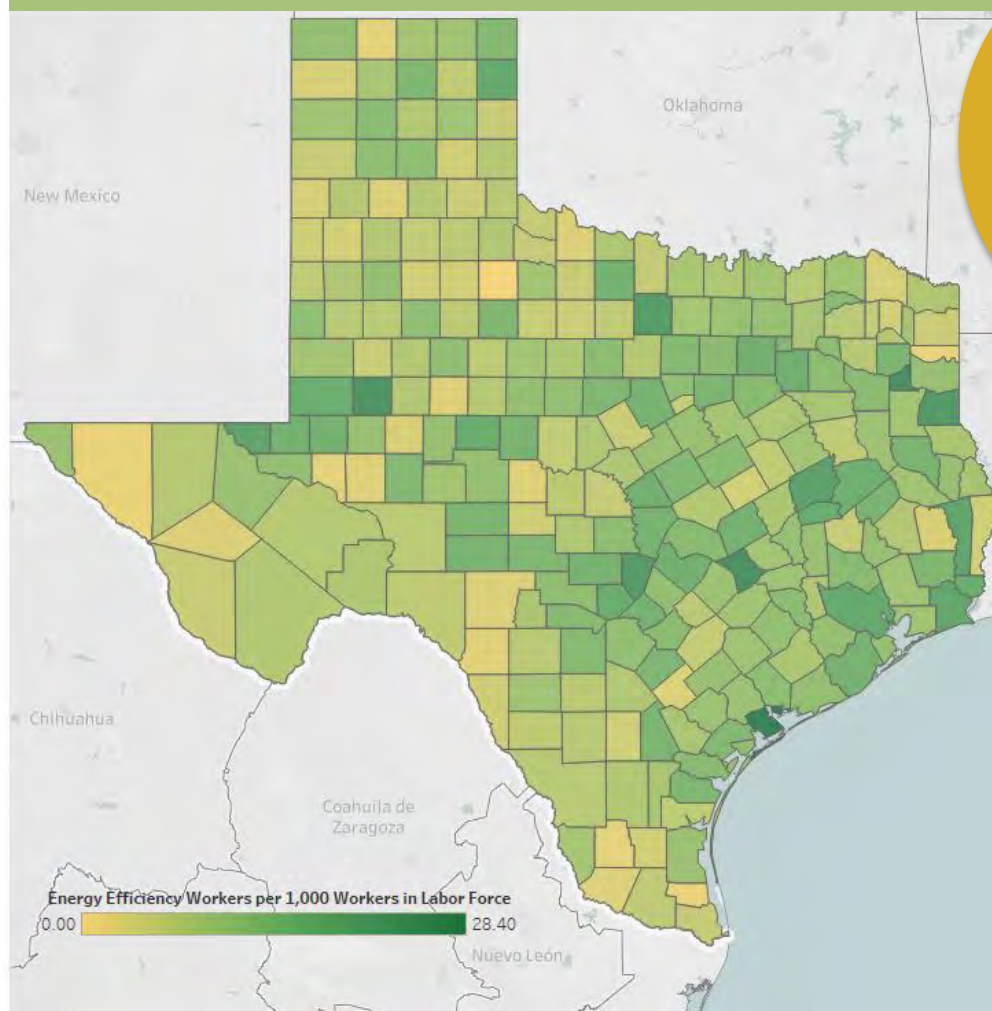
152,111

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Texas, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**99%**  
of Texas  
counties have  
energy efficiency  
workers

**~61,500**  
new EE construction  
jobs to retrofit Texas  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of TX residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





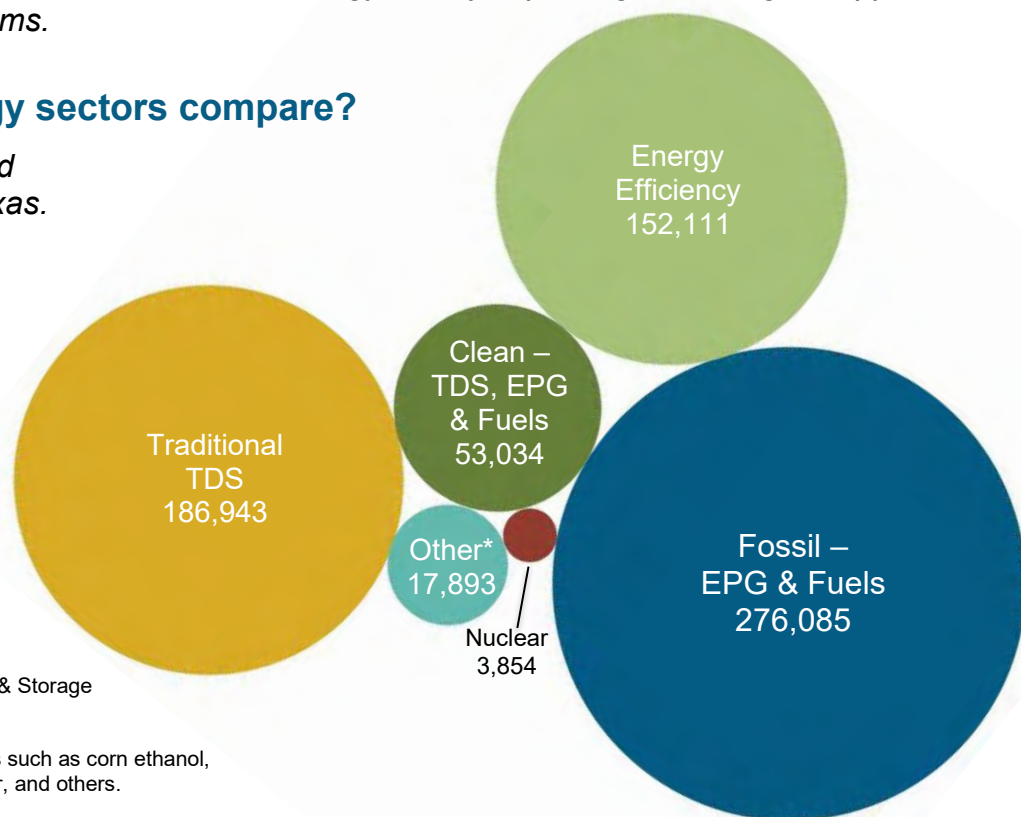
# Key EE Statistics for Texas

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Texas's energy sectors compare?

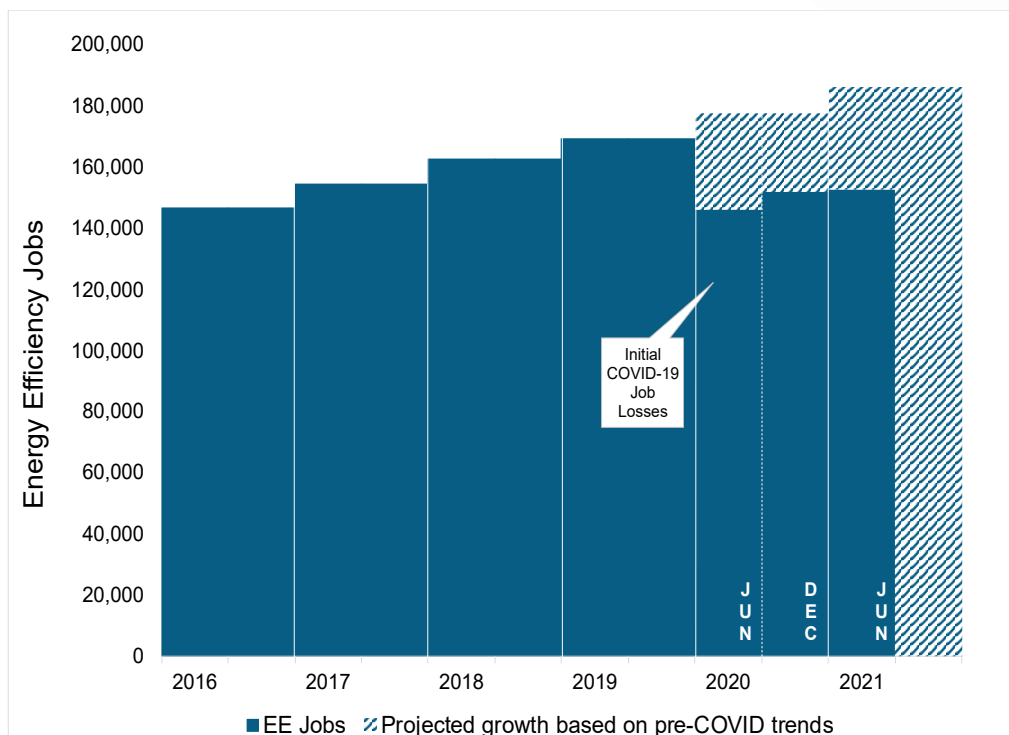
*Energy Efficiency is the third largest energy sector in Texas.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*

Dec. '19 to June '20

-13.6%

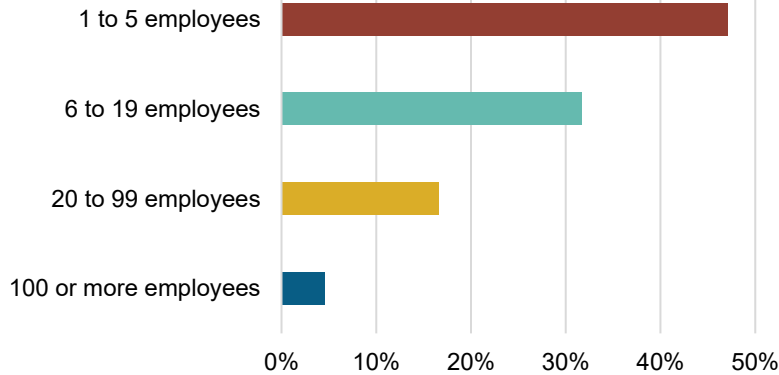
+4.4%

June '20 to June '21

Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Texas?

## 95.4% of TX EE Businesses Have Less Than 100 Employees



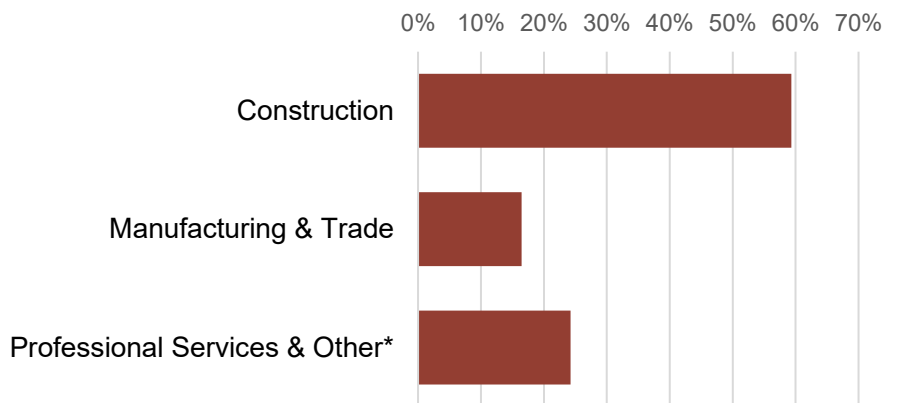
**31,017**  
EE businesses in  
Texas



EE construction  
workers comprise  
**12%** of Texas  
construction  
workers

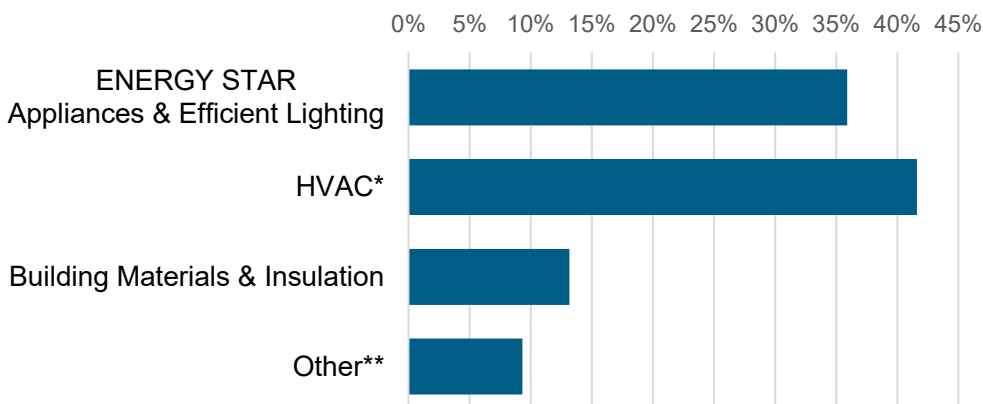


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

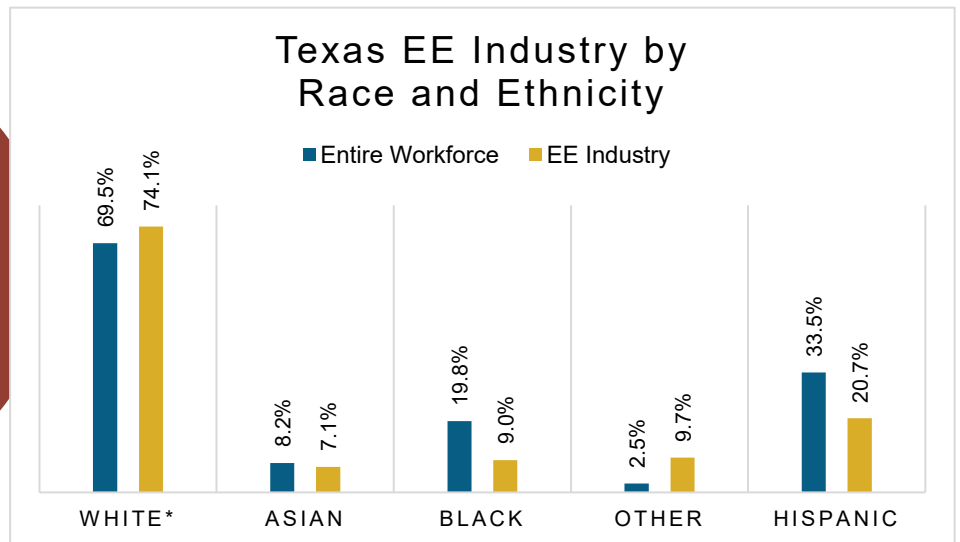


**7%** of  
Texas  
EE workers are  
**Veterans**

## How is EE doing on diversity in Texas?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Texas communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Texas's EE Potential

Decades of work, ready for Texas's growing energy efficiency workforce.

Weatherization Assistance Program:

**3,186\*** units weatherized in 2018, out of **~1,400,000** total low-income households

**6,309,825**

Texas homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**44%**

\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,962	Abilene	957
2	14,777	Amarillo	1,755
3	5,359	Austin-Round Rock	15,857
4	3,573	Beaumont-Port Arthur	2,192
5	4,054	Brownsville-Harlingen	1,078
6	4,924	College Station-Bryan	1,067
7	7,353	Corpus Christi	2,487
8	3,987	Dallas-Fort Worth-Arlington	37,617
9	2,554	El Paso	3,432
10	8,423	Houston-Sugar Land-Baytown	40,925
11	6,250	Killeen-Temple-Fort Hood	1,540
12	5,851	Laredo	901
13	4,830	Longview	1,369
14	4,006	Lubbock	1,823
15	4,319	McAllen-Edinburg-Mission	2,183
16	3,406	Midland	1,334
17	3,443	Odessa	1,108
18	4,393	San Angelo	608
19	3,003	San Antonio	12,846
20	5,224	Sherman-Denison	576
21	9,993	Texarkana	574
22	2,687	Tyler	1,716
23	1,845	Victoria	822
24	7,756	Waco	1,237
25	2,343	Wichita Falls	887
26	1,394	Rural	15,219
27	4,127		
28	1,844		
29	1,094		
30	4,463		
31	2,182		
32	2,330		
33	116		
34	1,345		
35	1,323		
36	2,580		

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	5,171		9	6,565		17	4,570		25	6,597
2	4,934		10	4,498		18	3,734		26	1,477
3	4,423		11	3,141		19	5,750		27	1,461
4	6,422		12	3,191		20	3,541		28	4,559
5	6,230		13	6,132		21	2,745		29	3,478
6	9,496		14	9,898		22	3,719		30	3,264
7	8,163		15	2,549		23	2,051		31	5,663
8	6,680		16	7,317		24	4,691			

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	1,126	39	28	77	1,265	115	<5
2	1,067	40	222	78	167	116	2,331
3	2,789	41	<5	79	95	117	556
4	763	42	908	80	296	118	836
5	1,050	43	168	81	1,335	119	637
6	1,207	44	1,357	82	1,461	120	1,860
7	1,069	45	701	83	1,658	121	3,272
8	926	46	2,894	84	373	122	202
9	751	47	3,860	85	325	123	<5
10	773	48	2,564	86	1,252	124	122
11	711	49	2,664	87	1,074	125	<5
12	1,341	50	425	88	765	126	3,077
13	986	51	162	89	120	127	987
14	266	52	227	90	3,248	128	1,356
15	1,149	53	1,353	91	1,302	129	957
16	299	54	734	92	1,562	130	128
17	1,440	55	628	93	749	131	2,009
18	691	56	606	94	1,068	132	833
19	886	57	657	95	161	133	4,686
20	2,155	58	1,424	96	67	134	7,744
21	1,372	59	734	97	340	135	1,737
22	456	60	1,299	98	<5	136	<5
23	1,563	61	1,487	99	92	137	124
24	494	62	732	100	4,231	138	626
25	924	63	1,391	101	255	139	1,051
26	2,401	64	817	102	2,711	140	1,454
27	441	65	1,339	103	2,586	141	264
28	313	66	967	104	41	142	697
29	252	67	1,539	105	575	143	576
30	1,091	68	1,199	106	74	144	423
31	1,032	69	857	107	570	145	364
32	1,804	70	378	108	2,415	146	<5
33	2,456	71	377	109	500	147	414
34	409	72	935	110	48	148	<5
35	1,418	73	1,133	111	161	149	<5
36	853	74	639	112	187	150	447
37	675	75	637	113	<5		
38	<5	76	1,187	114	582		



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# Utah

## Energy Efficiency Jobs in America

June 2021\*

30,173

Dec 2020

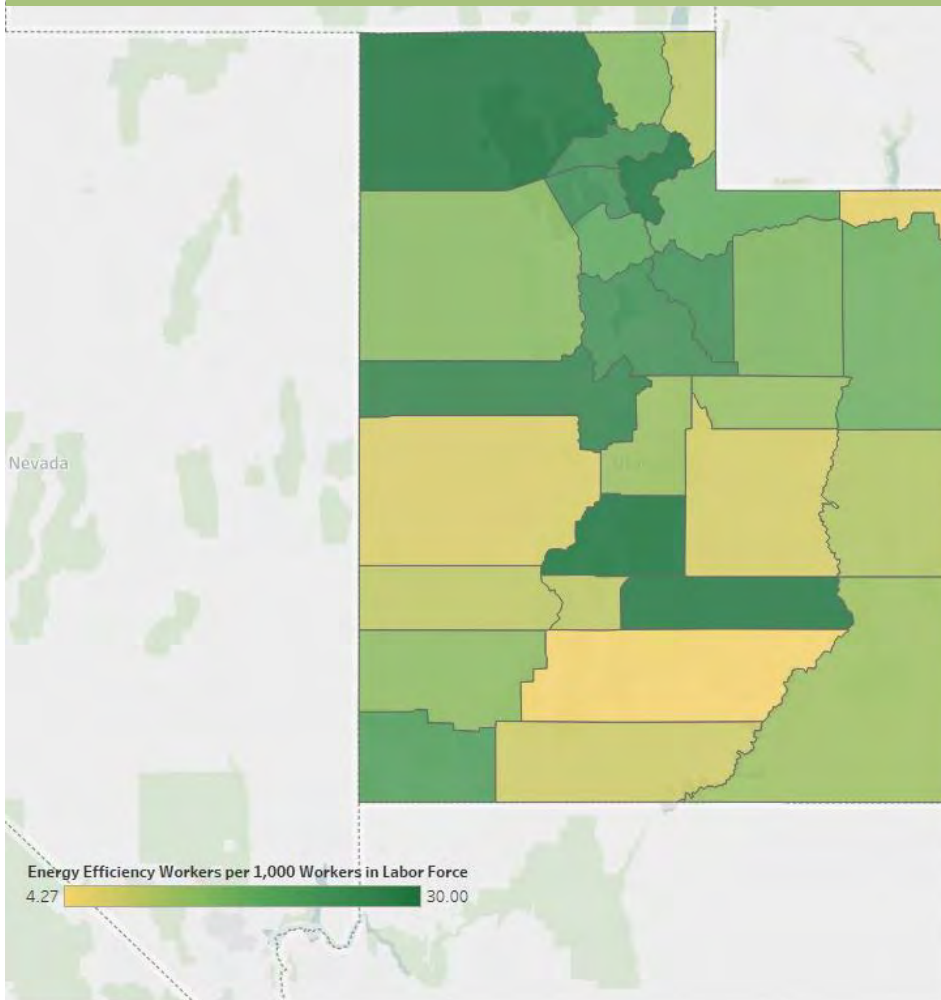
30,150

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Utah, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Utah counties  
have energy  
efficiency  
workers

**~10,500**  
new EE construction  
jobs to retrofit Utah  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of UT residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





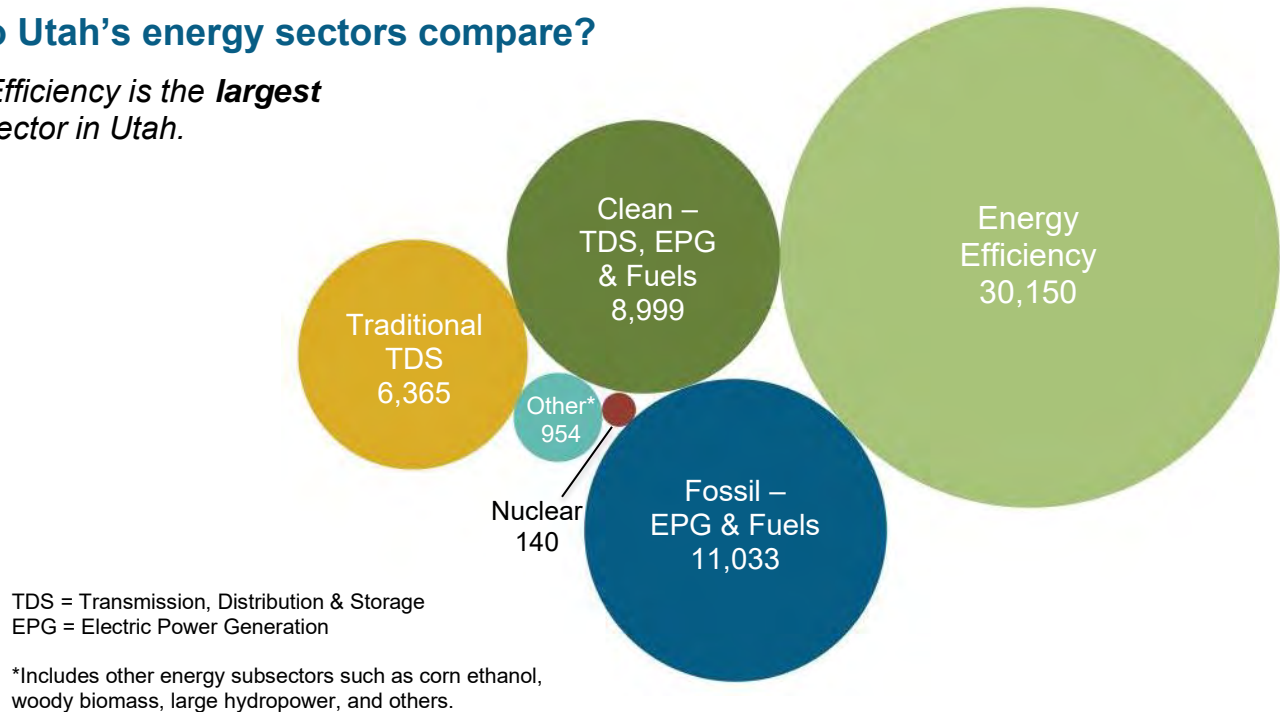
# Key EE Statistics for Utah

## What are energy efficiency (EE) jobs?

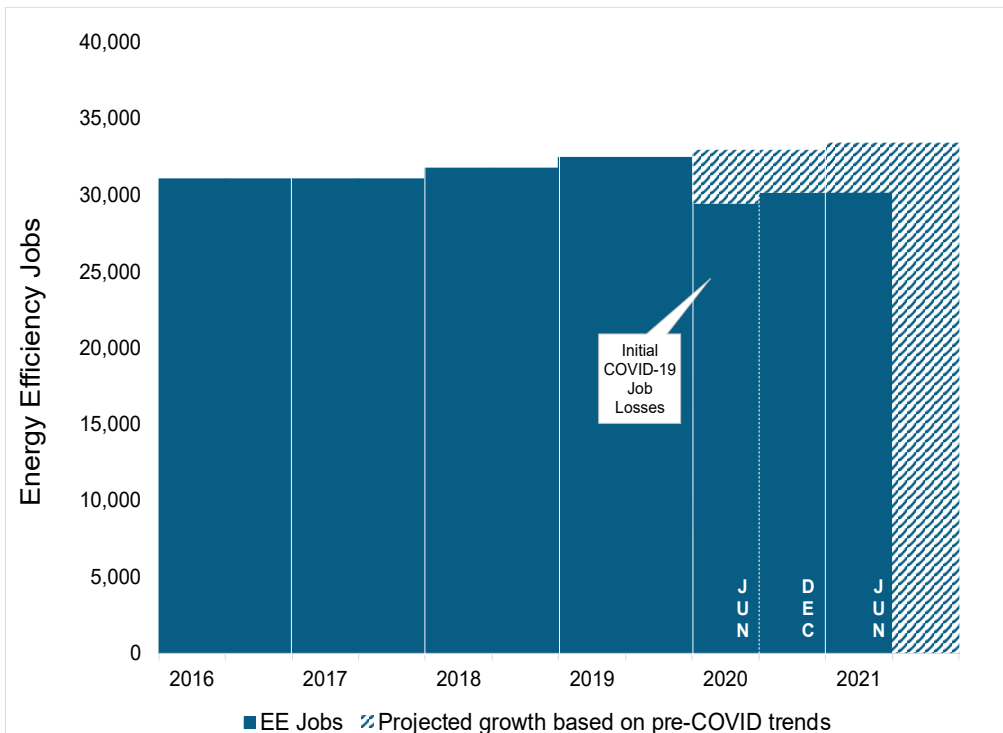
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Utah's energy sectors compare?

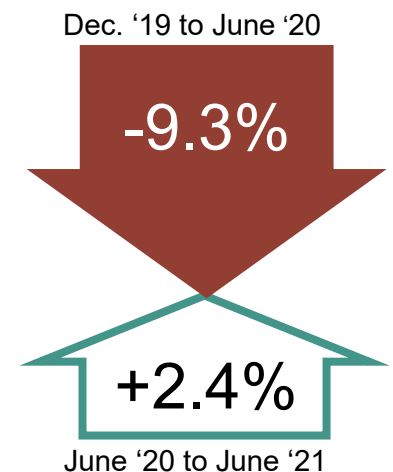
*Energy Efficiency is the **largest** energy sector in Utah.*



## How is the EE industry recovering?



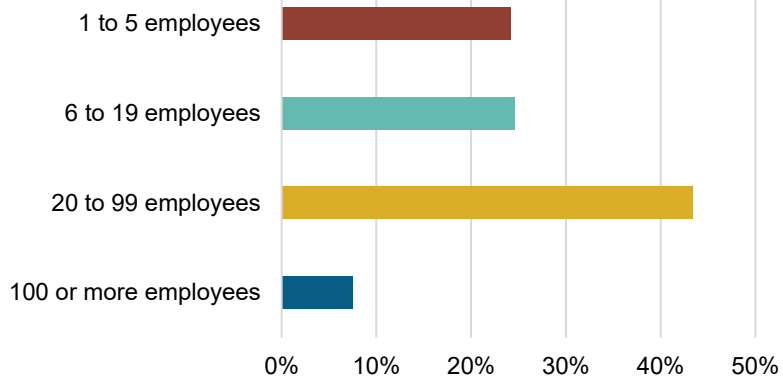
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Utah?

## 92.2% of UT EE Businesses Have Less Than 100 Employees



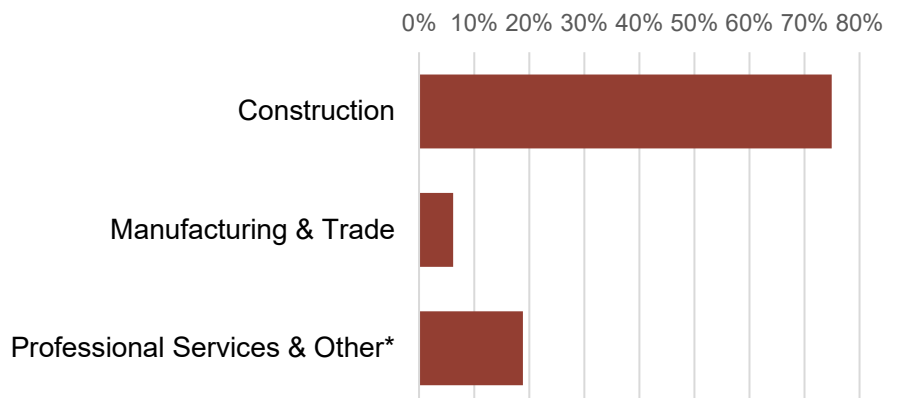
**5,759**  
EE businesses in  
Utah



EE construction  
workers comprise  
**18%** of Utah  
construction  
workers

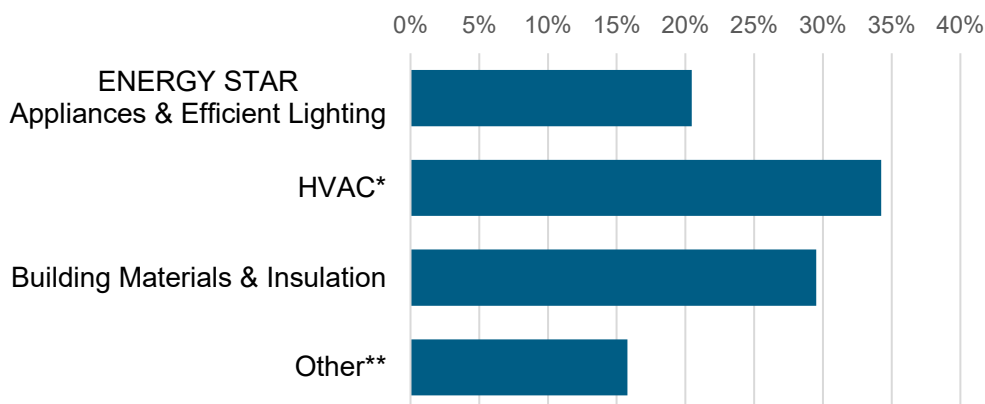


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services



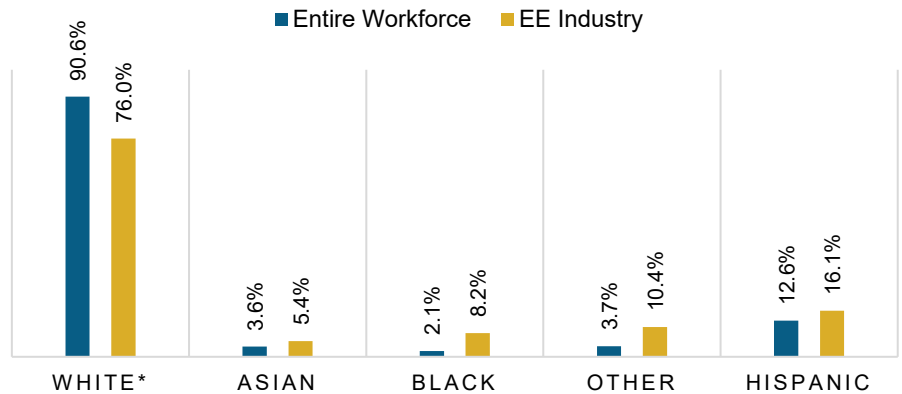
**7%** of  
Utah  
EE workers are  
**Veterans**

## How is EE doing on diversity in Utah?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Utah communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Utah EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.




Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Utah's EE Potential

Decades of work, ready for Utah's growing energy efficiency workforce.

Weatherization Assistance Program:

  
**361\*** units weatherized in 2018, out of **~93,000** total low-income households

**671,982**

Utah homes are due for energy tune-ups

  
(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**24%**  


\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	4,967	Logan	729
2	9,388	Ogden-Clearfield	3,546
3	13,678	Provo-Orem	8,603
4	2,117	Salt Lake City	13,210
		St. George	1,253
		Rural	2,809

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	2,309		9	323		17	871		25	342
2	3,509		10	499		18	1,508		26	1,261
3	2,364		11	4,702		19	803		27	427
4	539		12	205		20	37		28	1,815
5	75		13	207		21	573		29	80
6	1,429		14	2,221		22	381			
7	1,505		15	<5		23	658			
8	764		16	47		24	695			

## State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	370	20	267	39	<5	58	207
2	5,069	21	200	40	<5	59	798
3	534	22	690	41	233	60	<5
4	46	23	637	42	226	61	406
5	64	24	2,103	43	<5	62	1,076
6	1,921	25	1,510	44	514	63	318
7	433	26	707	45	152	64	<5
8	955	27	1,169	46	<5	65	186
9	254	28	353	47	<5	66	<5
10	37	29	293	48	507	67	20
11	533	30	127	49	<5	68	179
12	77	31	22	50	<5	69	225
13	<5	32	1,214	51	<5	70	226
14	<5	33	345	52	<5	71	548
15	200	34	805	53	971	72	16
16	29	35	<5	54	417	73	178
17	62	36	1,022	55	11	74	56
18	611	37	<5	56	<5	75	17
19	<5	38	<5	57	<5		



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# Vermont

## Energy Efficiency Jobs in America

June 2021\*

10,100

Dec 2020

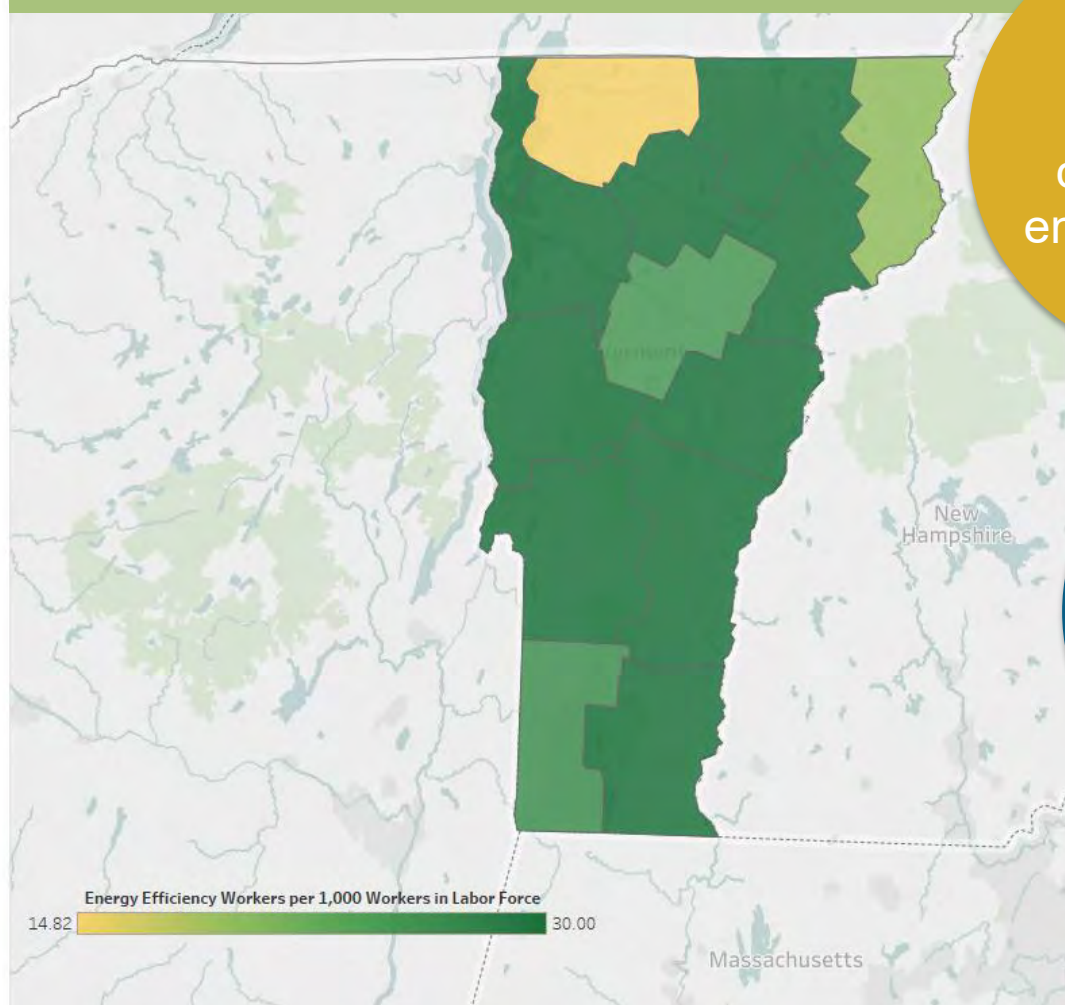
10,069

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Vermont, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

## Energy Efficiency Jobs are Everywhere

### EE Jobs by County



**100%**  
of Vermont  
counties have  
energy efficiency  
workers

**~3,300**  
new EE construction  
jobs to retrofit  
Vermont homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of VT residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





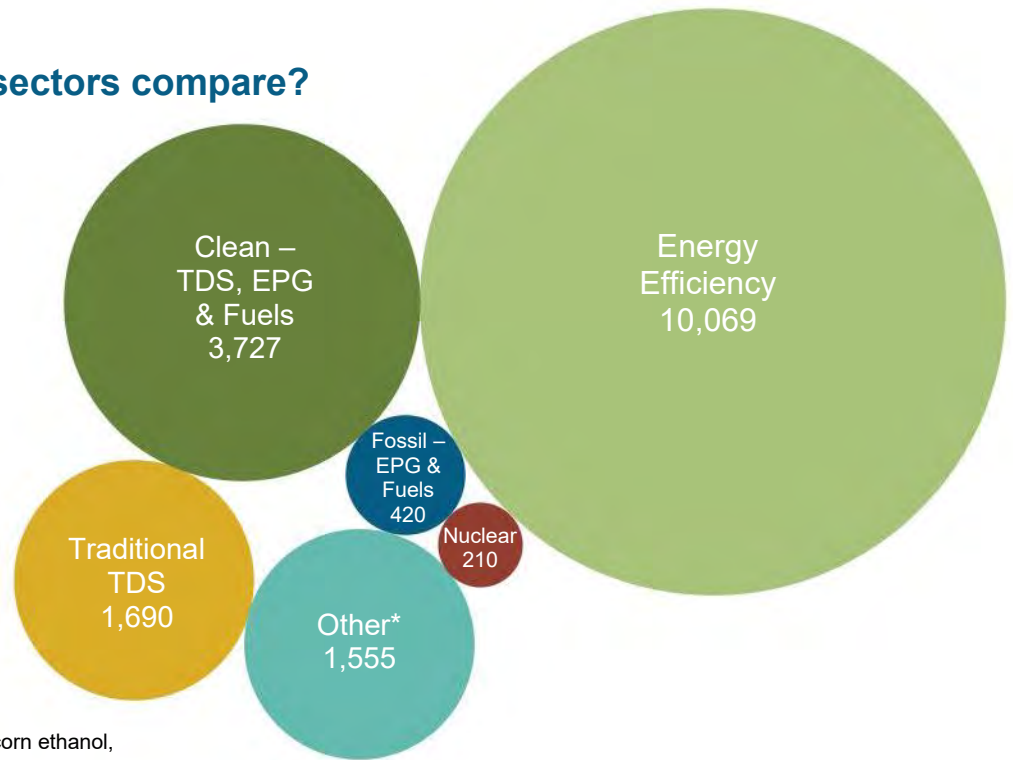
# Key EE Statistics for Vermont

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Vermont's energy sectors compare?

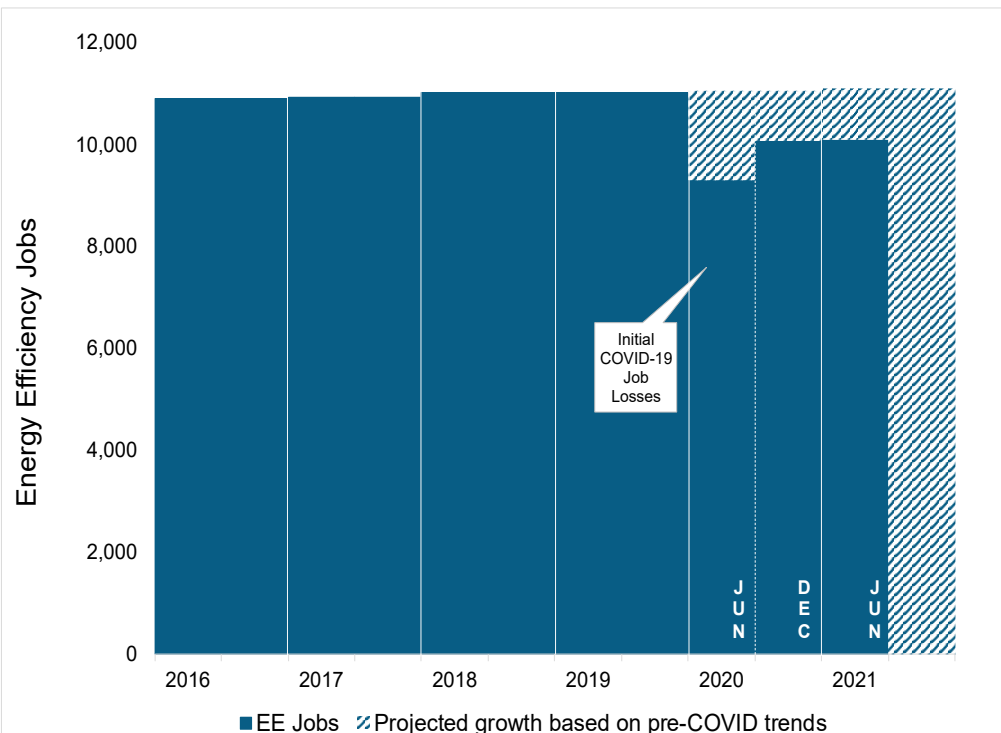
*Energy Efficiency is the **largest** energy sector in Vermont.*



TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



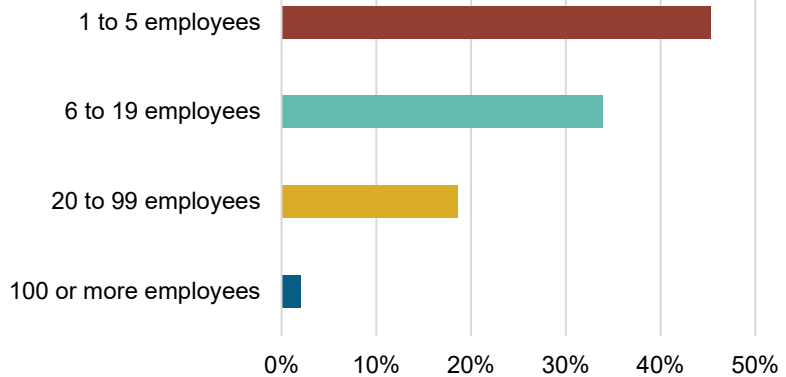
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



## What does EE look like in Vermont?

### 97.9% of VT EE Businesses Have Less Than 100 Employees



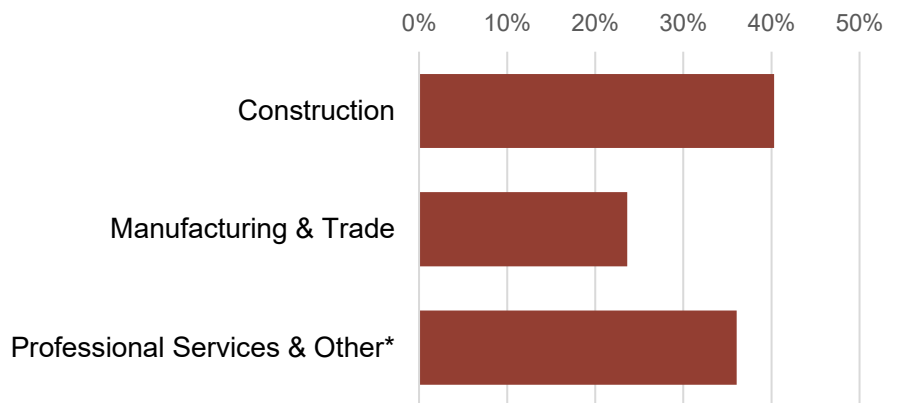
**1,568**  
EE businesses in  
Vermont



EE construction  
workers comprise  
**28%** of Vermont  
construction  
workers

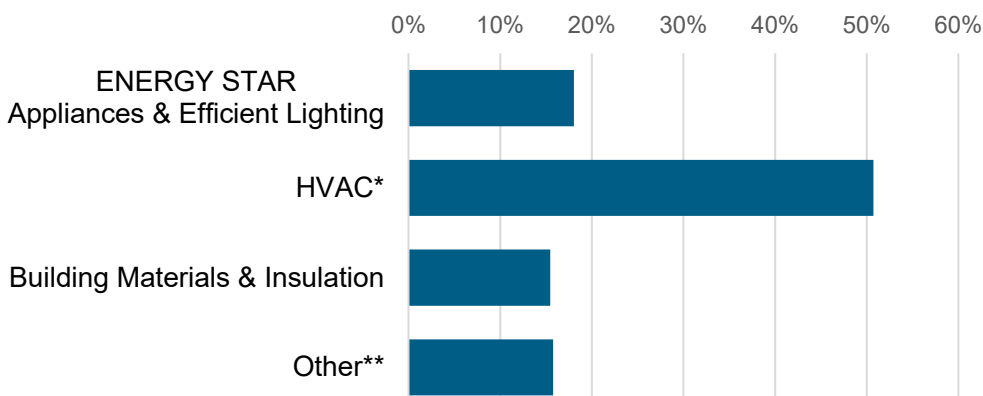


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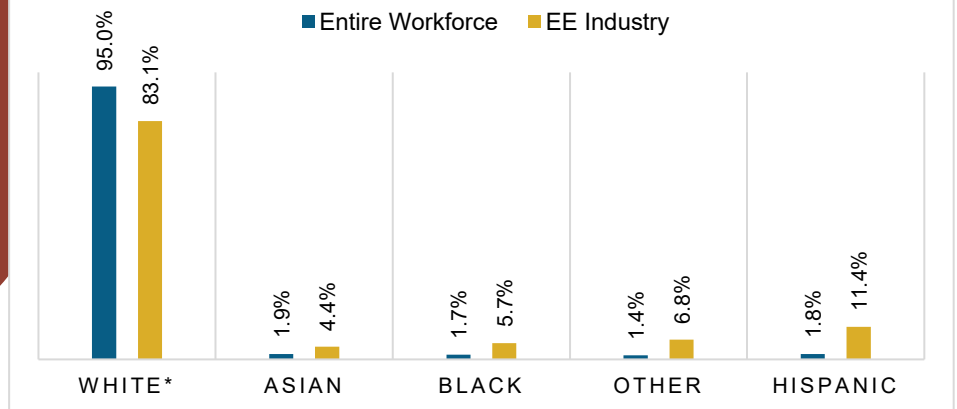
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Vermont  
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### Vermont EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.




Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Vermont's EE Potential

Decades of work, ready for Vermont's growing energy efficiency workforce.

Weatherization Assistance Program:

  
**649\*** units weatherized in 2018, out of **~28,000** total low-income households

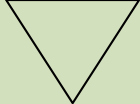
**256,254**

Vermont homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**18%**  


\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	10,069	Burlington-South Burlington	3,357
		Rural	6,712

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
ADD	718		CHI	2,227		ORA	310		WSR	779
BEN	609		E-O	507		RUT	894			
CAL	773		FRA	495		WAS	924			
CGI	824		LAM	315		WDM	693			

## State House of Representatives

District	Jobs		District	Jobs		District	Jobs		District	Jobs
A-1	145		C71	471		LM2	238		W-1	298
A-2	93		C81	262		LMW	12		W-3	286
A-3	146		C83	20		O-1	169		W-5	55
A-4	231		C91	<5		O-2	80		W-6	31
A-R	101		CA1	178		O-C	76		WA1	316
B-1	194		CA2	58		O-L	18		WA5	48
B-3	116		CA4	112		OLC	33		WA6	6
B-4	101		CAW	101		OR1	383		WA7	670
B-R	159		E-C	48		OR2	15		WAC	187
C-1	114		ECO	82		OWA	132		WBW	62
C10	153		F-1	240		R-1	100		WIB	50
C-2	445		F-2	36		R-2	53		Y-1	222
C-3	95		F-4	146		R-3	18		Y-2	151
C41	71		F-5	29		R-4	398		Y31	22
C51	92		F-6	69		R-6	51		Y41	25
C61	58		F-7	11		R-B	57		YO2	83
C62	567		GIC	95		R-W	186		Y-R	111
C67	350		LM1	109		RW2	130			



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# Virginia

## Energy Efficiency Jobs in America

June 2021\*

71,735

Dec 2020

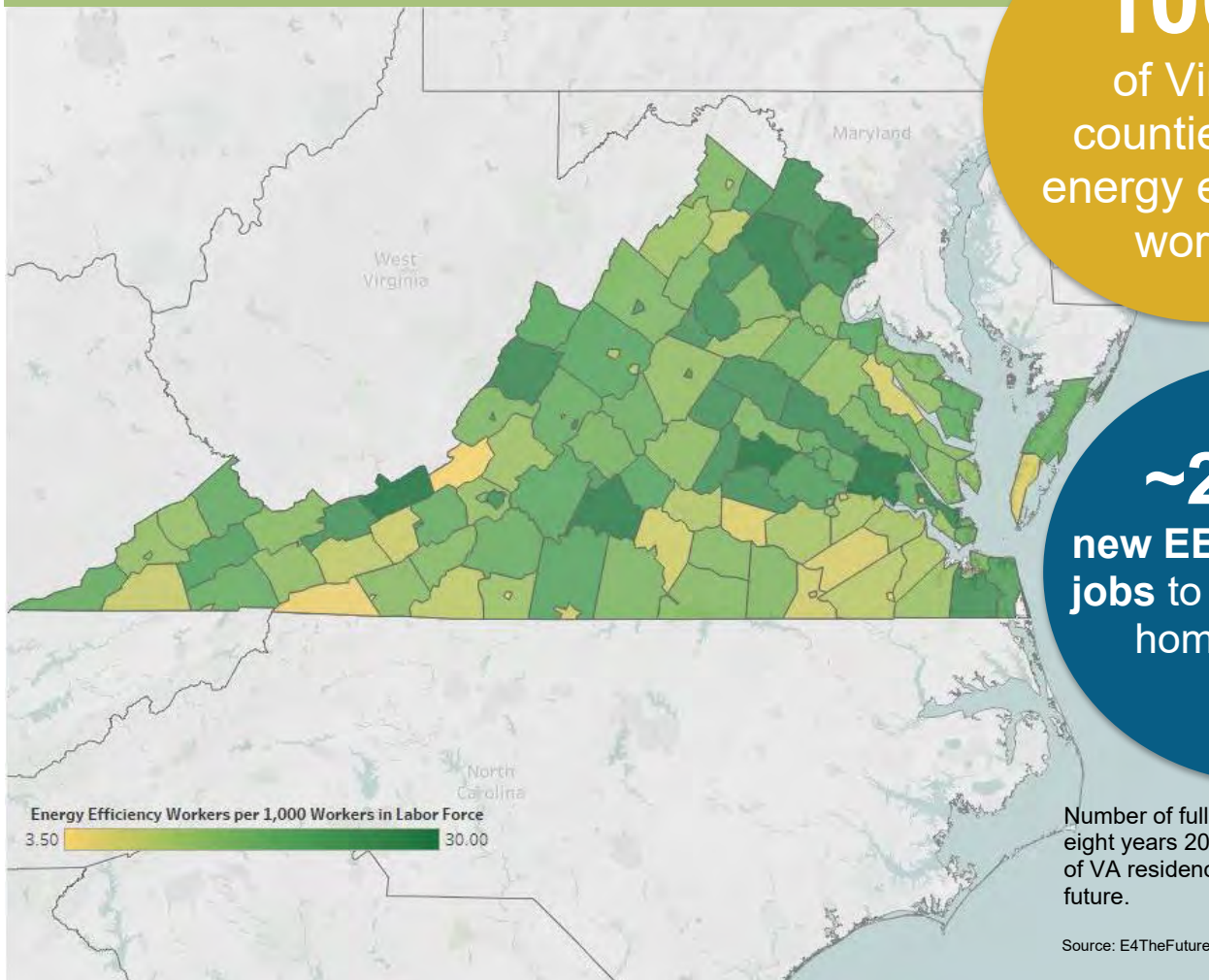
71,505

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Virginia, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Virginia  
counties have  
energy efficiency  
workers

**~27,300**  
**new EE construction**  
**jobs** to retrofit Virginia  
homes by 2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of VA residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





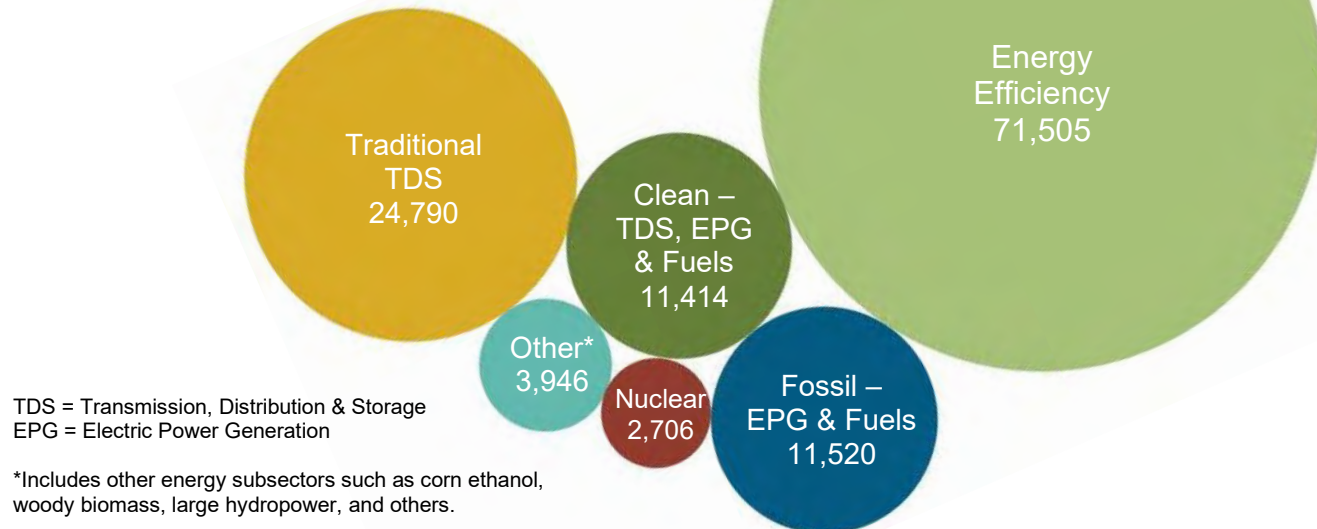
# Key EE Statistics for Virginia

## What are energy efficiency (EE) jobs?

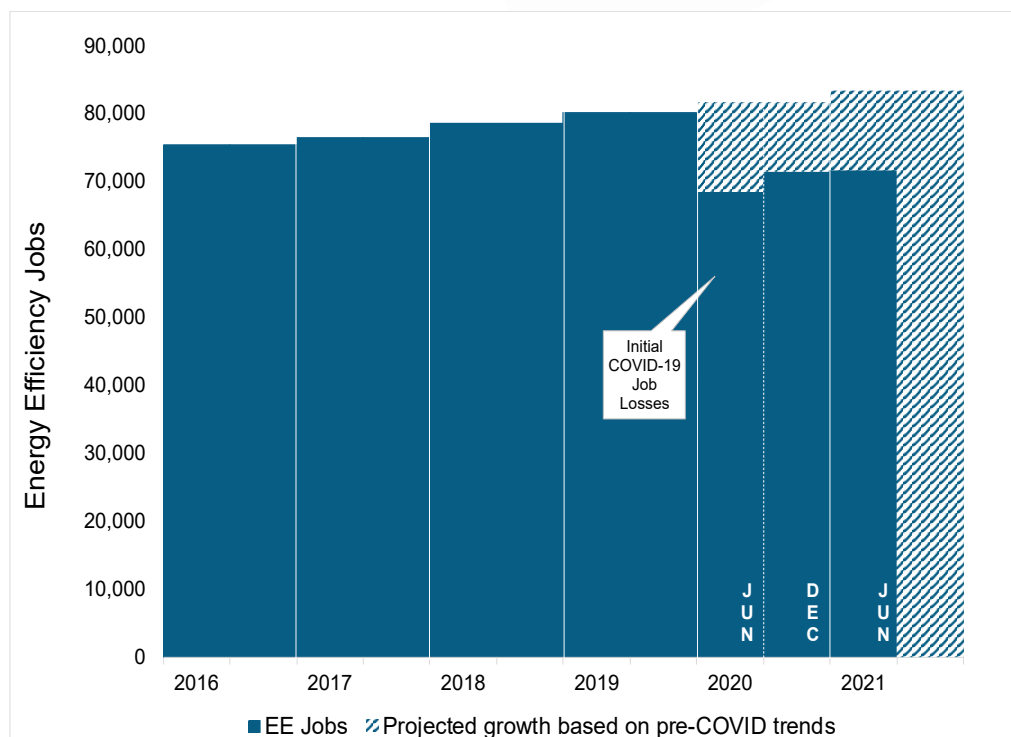
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Virginia's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Virginia.*



## How is the EE industry recovering?



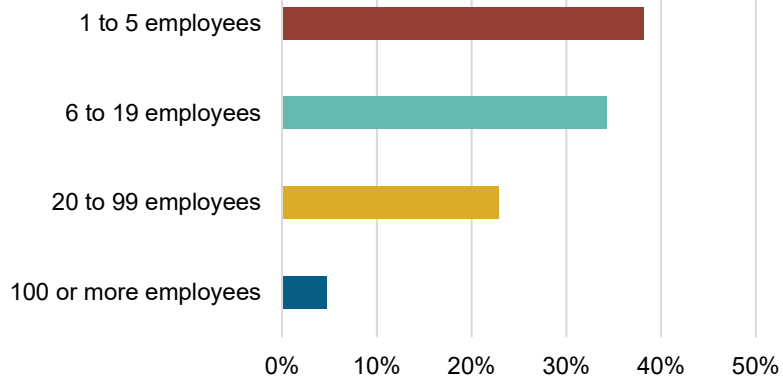
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



## What does EE look like in Virginia?

### 95.2% of VA EE Businesses Have Less Than 100 Employees



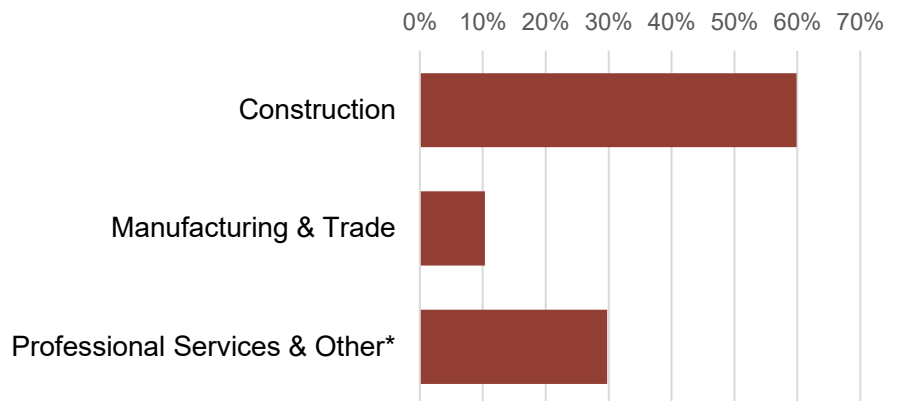
**9,005**  
EE businesses in  
Virginia



EE construction  
workers comprise  
**21%** of Virginia  
construction  
workers

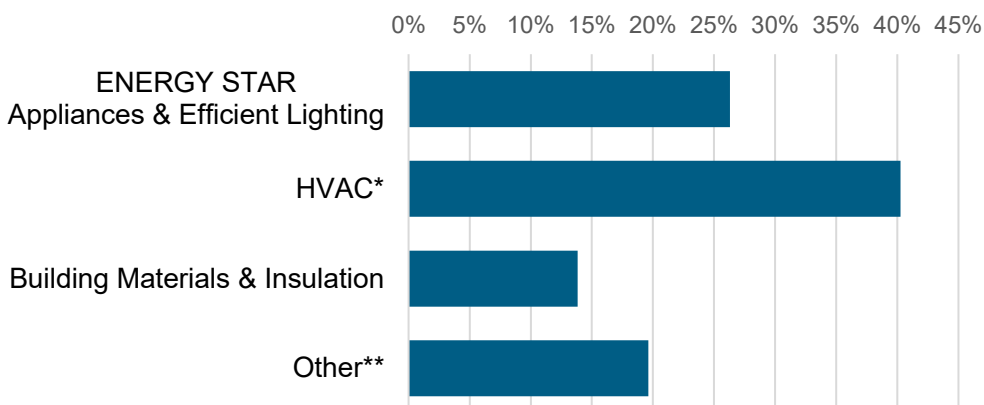


### What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

### What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services

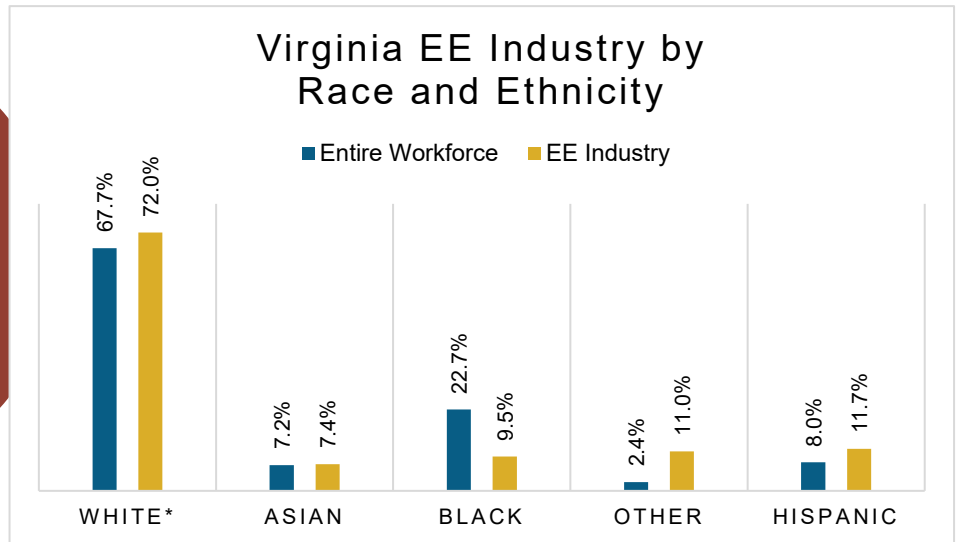


**8%** of  
Virginia  
EE workers are  
**Veterans**

## How is EE doing on diversity in Virginia?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Virginia communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Virginia's EE Potential

Decades of work, ready for Virginia's growing energy efficiency workforce.

Weatherization Assistance Program:

**691\*** units weatherized in 2018, out of **~33,000** total low-income households

**2,728,913**

Virginia homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**41%**

\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	7,733	Blacksburg-Christiansburg-Radford	1,025
2	6,954	Charlottesville	2,977
3	6,753	Danville	650
4	5,408	Harrisonburg	1,029
5	9,298	Kingsport-Bristol-Bristol	767
6	5,576	Lynchburg	2,039
7	4,919	Richmond	12,004
8	9,193	Roanoke	2,810
9	3,798	Virginia Beach-Norfolk-Newport News	13,083
10	10,600	Washington-Arlington-Alexandria	27,017
11	1,272	Winchester	990
		Rural	7,116

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	2,840		11	929		21	1,235		31	5,487
2	958		12	891		22	1,511		32	2,973
3	1,004		13	4,100		23	420		33	<5
4	2,778		14	1,293		24	2,286		34	2,920
5	3,138		15	2,292		25	2,199		35	1,247
6	699		16	11		26	967		36	587
7	2,746		17	1,915		27	2,237		37	362
8	1,114		18	578		28	1,458		38	1,050
9	4,451		19	3,482		29	950		39	<5
10	3,517		20	536		30	3,329		40	1,017

## State House of Delegates

District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	446		26	33		51	<5		76	642
2	928		27	2,357		52	21		77	113
3	595		28	733		53	<5		78	466
4	539		29	712		54	750		79	1,449
5	550		30	357		55	1,513		80	61
6	406		31	966		56	1,321		81	1,110
7	916		32	1,174		57	1,440		82	<5
8	1,012		33	171		58	259		83	1,088
9	978		34	3,642		59	460		84	<5
10	2,055		35	2,146		60	385		85	<5
11	1,406		36	1,516		61	656		86	<5
12	84		37	503		62	1,218		87	<5
13	1,644		38	1,479		63	256		88	10
14	587		39	1,450		64	953		89	138
15	913		40	352		65	61		90	<5
16	187		41	153		66	62		91	883
17	97		42	187		67	820		92	243
18	1,191		43	413		68	2,011		93	687
19	741		44	170		69	1,613		94	1,221
20	1,061		45	2,045		70	<5		95	<5
21	3,656		46	<5		71	276		96	160
22	1,035		47	1,689		72	548		97	467
23	154		48	531		73	<5		98	418
24	358		49	<5		74	630		99	593
25	1,626		50	73		75	231		100	251



E4TheFuture is dedicated to bringing clean, efficient energy home for every American and promotes energy solutions to advance climate protection and economic fairness. Visit [www.E4TheFuture.org](http://www.E4TheFuture.org)



E2 is a national, nonpartisan group of business leaders, investors, and other professionals from every sector of the economy who advocate for smart policies that are good for the environment and good for the economy. Visit [www.e2.org](http://www.e2.org)



BW Research Partnership is a full-service, economic and workforce research consulting firm with offices in Carlsbad, California and Wrentham, Massachusetts. It is the nation's leading provider of accurate, comprehensive energy and clean energy research studies. Visit [www.bwresearch.com](http://www.bwresearch.com)

Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

For questions on E4TheFuture analyses please email: [policy@e4thefuture.org](mailto:policy@e4thefuture.org).

# Washington

## Energy Efficiency Jobs in America

June 2021\*

56,853

Dec 2020

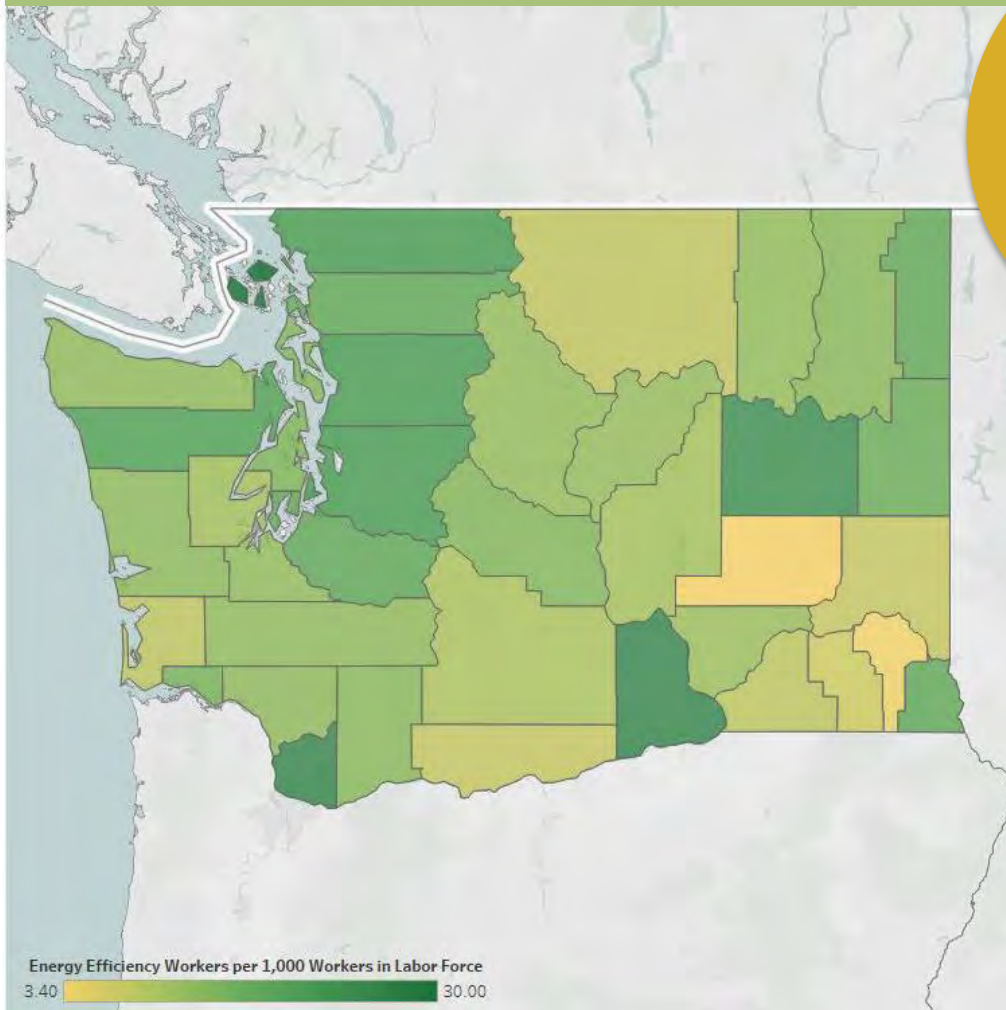
56,721

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Washington, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Washington  
counties have  
energy efficiency  
workers

**~30,300**  
new EE construction  
jobs to retrofit  
Washington homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of WA residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





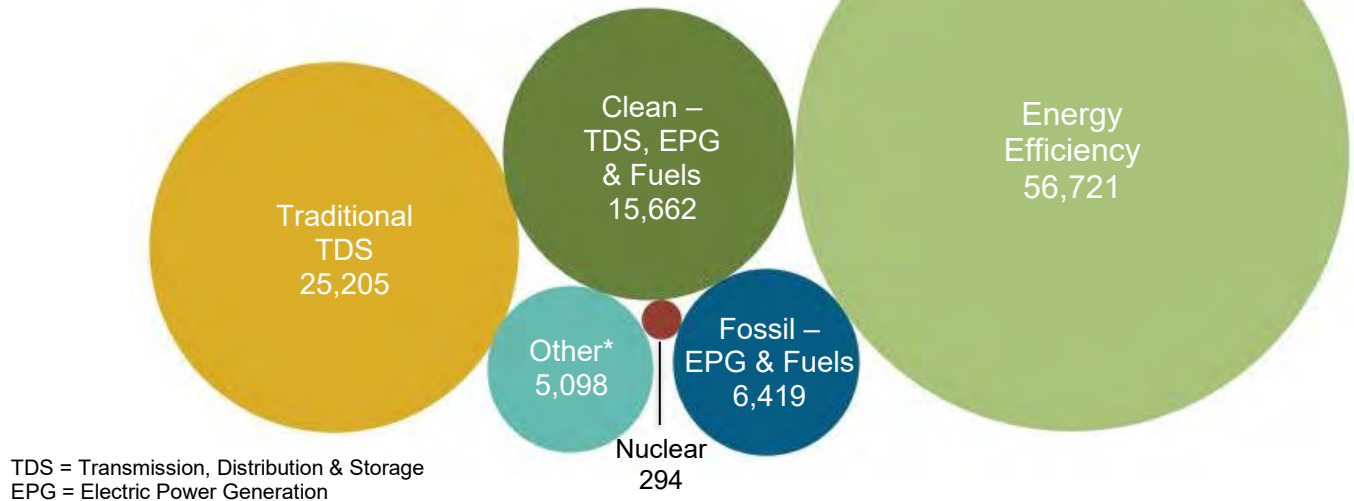
# Key EE Statistics for Washington

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

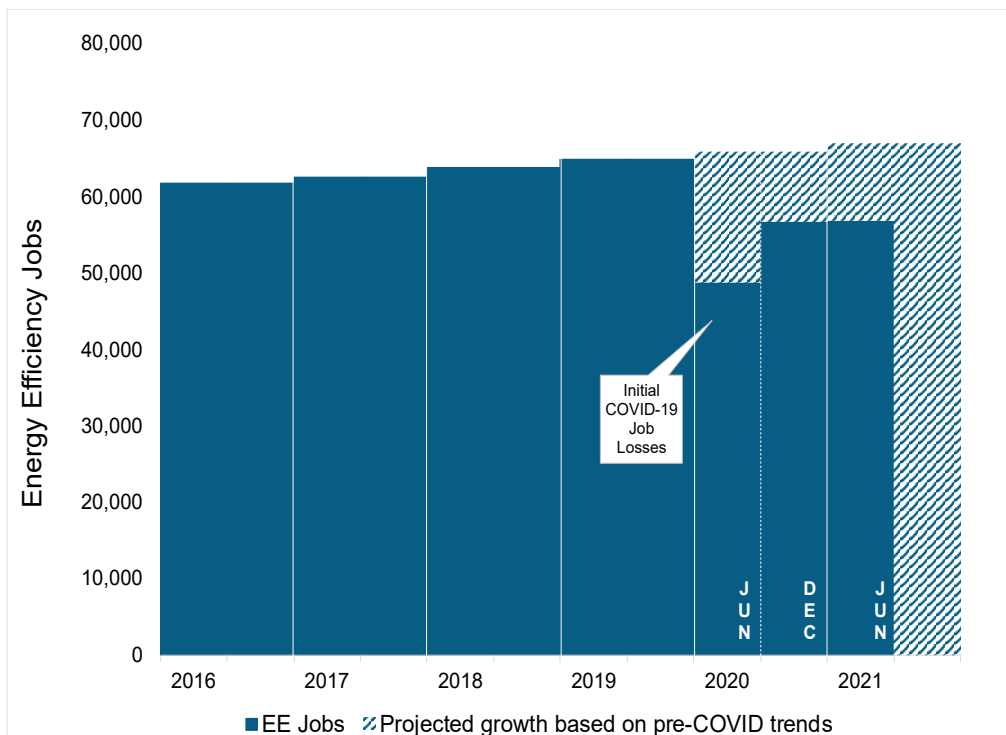
## How do Washington's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Washington.*



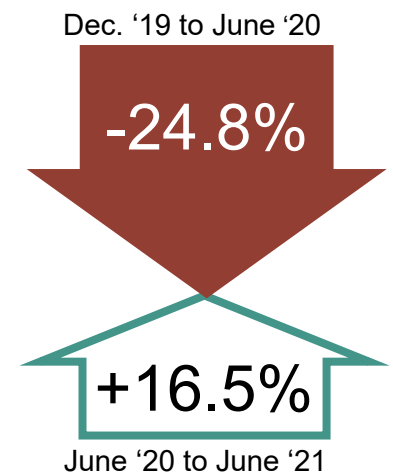
\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



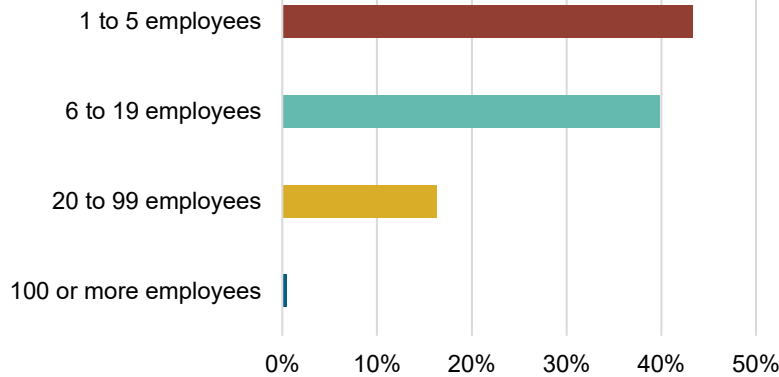
Source: E4TheFuture/BW Research job analysis, July 2021

*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



# What does EE look like in Washington?

## 99.4% of WA EE Businesses Have Less Than 100 Employees



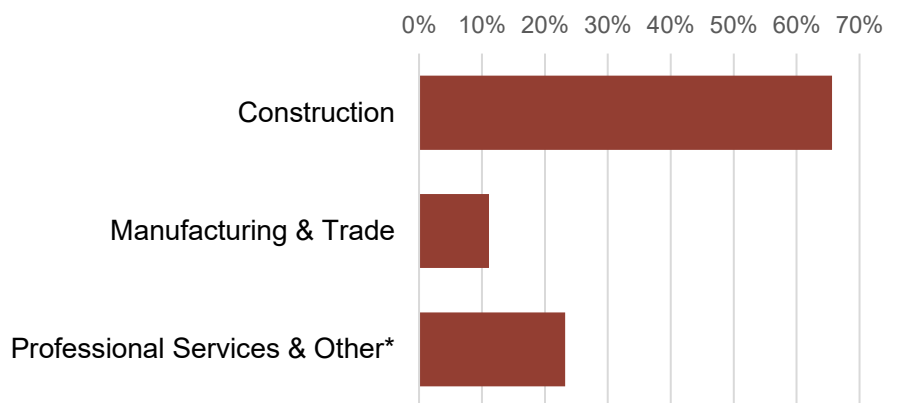
**10,911**  
EE businesses in  
Washington



EE construction workers comprise  
**18%** of Washington construction workers

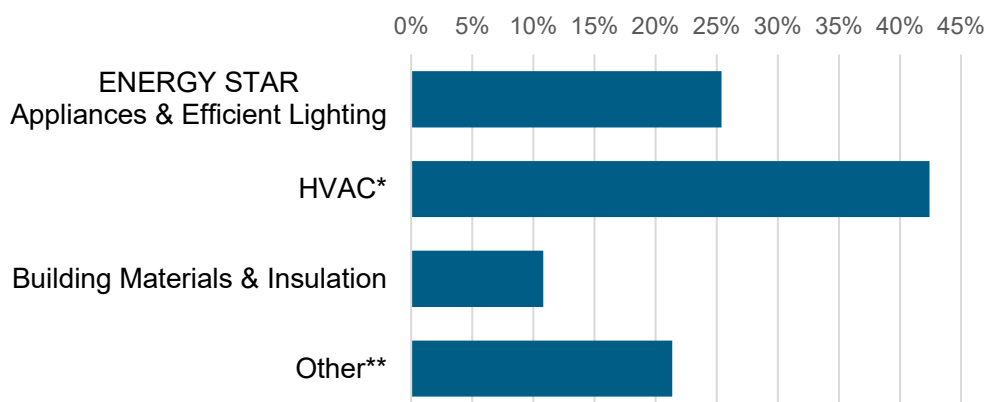


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services

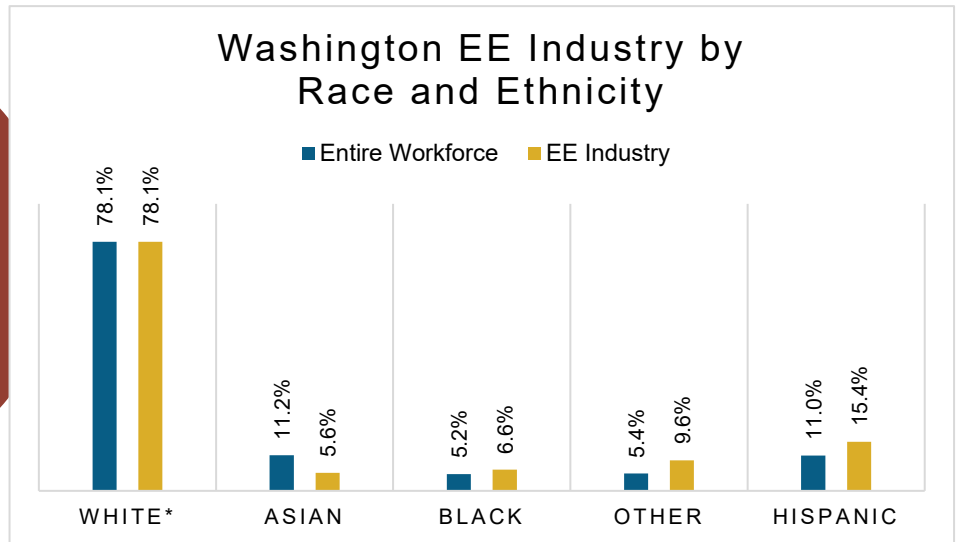


**8%** of  
Washington  
EE workers are  
**Veterans**

# How is EE doing on diversity in Washington?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Washington communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Washington's EE Potential

Decades of work, ready for Washington's growing energy efficiency workforce.

Weatherization Assistance Program:

**1,922\*** units weatherized in 2018, out of **~290,000** total low-income households

**2,139,286**

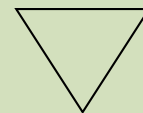
Washington homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**20%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	10,420	Bellingham	2,271
2	4,653	Bremerton-Silverdale	1,905
3	5,296	Kennewick-Richland-Pasco	1,439
4	3,989	Lewiston	121
5	4,974	Longview	634
6	6,146	Mount Vernon-Anacortes	887
7	10,619	Olympia	1,955
8	5,510	Portland-Vancouver-Beaverton	3,818
9	2,739	Seattle-Tacoma-Bellevue	31,719
10	2,375	Spokane	4,168
		Wenatchee	838
		Yakima	1,343
		Rural	5,623

State Senate										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	2,595		14	1,392		27	1,424		40	2,022
2	1,389		15	99		28	731		41	3,030
3	2,670		16	163		29	330		42	621
4	966		17	2,014		30	1,260		43	1,082
5	2,100		18	606		31	87		44	<5
6	398		19	1,313		32	603		45	1,307
7	722		20	1,162		33	330		46	246
8	1,195		21	1,259		34	653		47	<5
9	960		22	489		35	422		48	<5
10	2,357		23	1,694		36	4,337		49	523
11	3,517		24	874		37	1,832			
12	1,013		25	1,130		38	1,169			
13	884	26	840	39	912					

## State House of Representatives

District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	2,595		14	1,411		27	1,425		40	2,008
2	1,389		15	100		28	731		41	3,031
3	2,680		16	163		29	<5		42	623
4	969		17	2,047		30	1,259		43	1,096
5	2,102		18	609		31	87		44	<5
6	399		19	1,317		32	603		45	1,308
7	725		20	1,171		33	340		46	246
8	1,200		21	1,259		34	656		47	<5
9	963		22	491		35	424		48	<5
10	2,389		23	1,700		36	4,409		49	524
11	3,603		24	877		37	1,839			
12	1,017		25	1,129		38	1,169			
13	887		26	840		39	912			



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# West Virginia

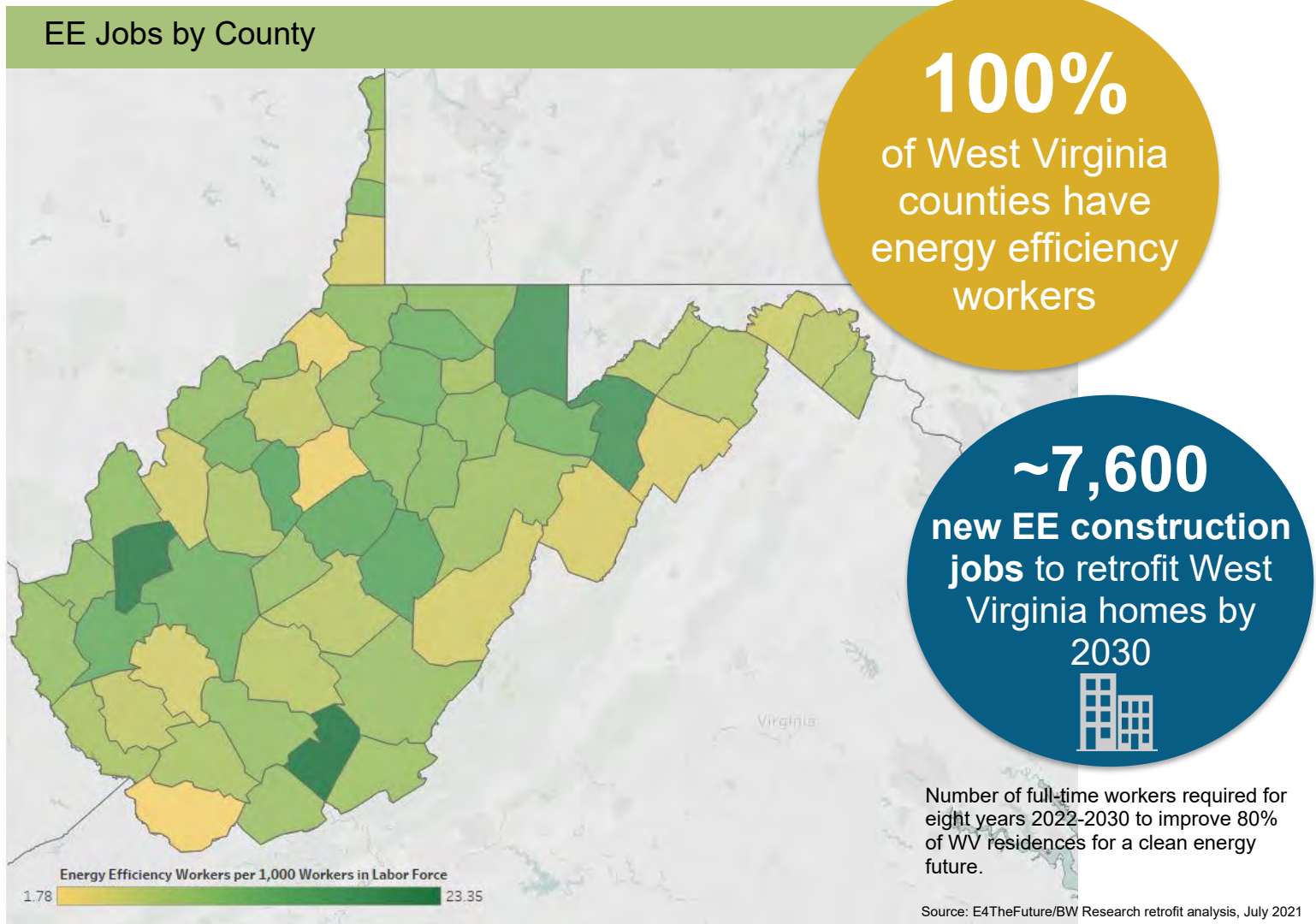
## Energy Efficiency Jobs in America



*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In West Virginia, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere



\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





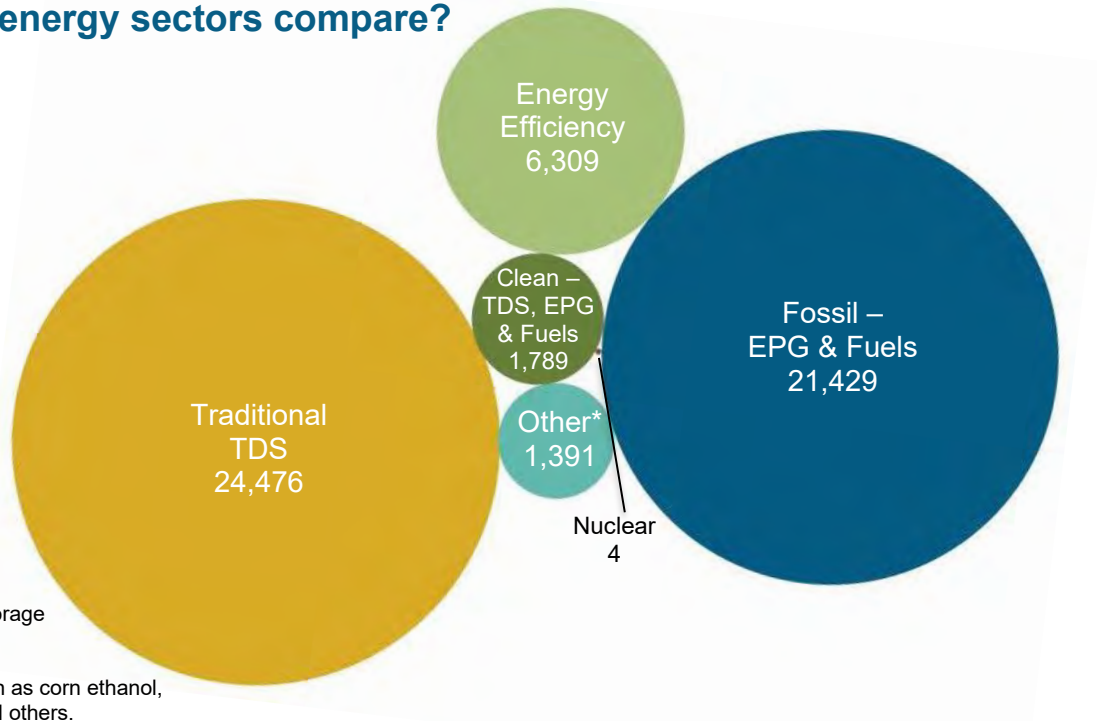
# Key EE Statistics for West Virginia

## What are energy efficiency (EE) jobs?

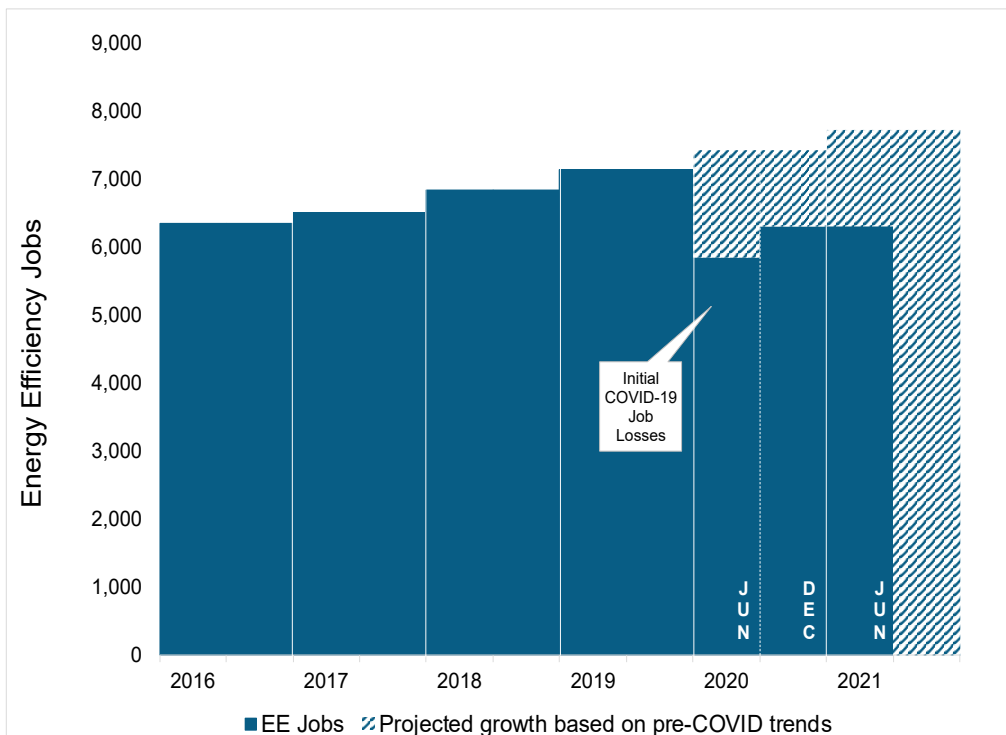
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do West Virginia's energy sectors compare?

*Energy Efficiency is the third largest energy sector in West Virginia.*



## How is the EE industry recovering?



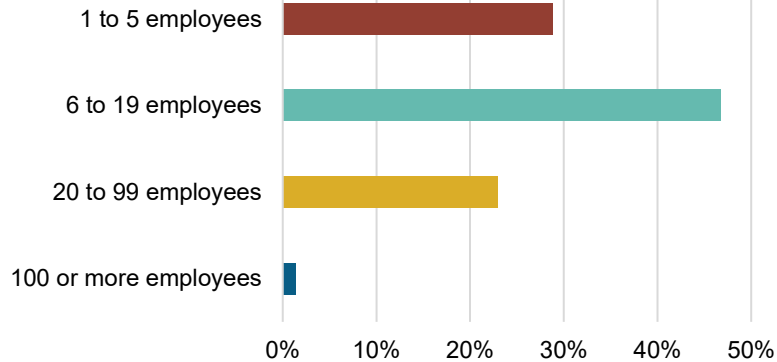
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in West Virginia?

## 98.5% of WV EE Businesses Have Less Than 100 Employees



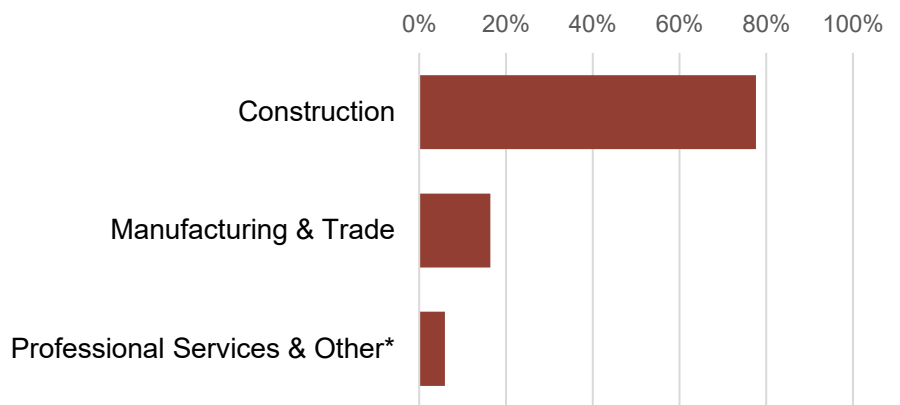
**707**  
EE businesses in  
West Virginia



EE construction workers comprise  
**16%** of West Virginia construction workers

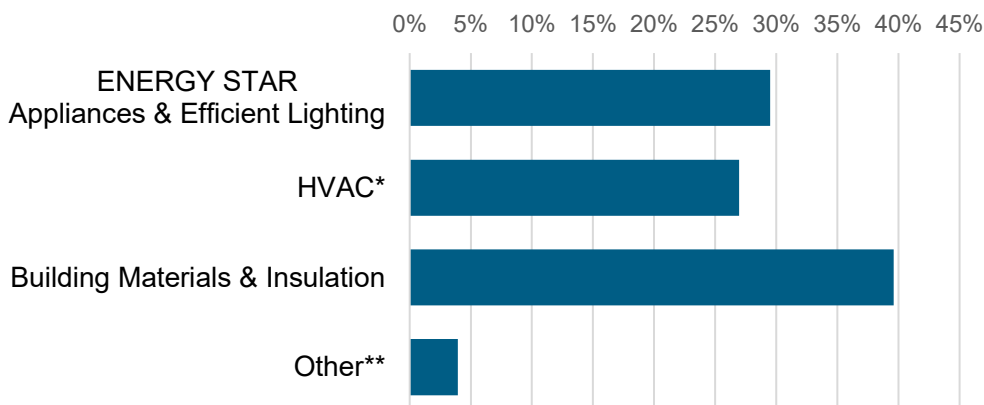


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

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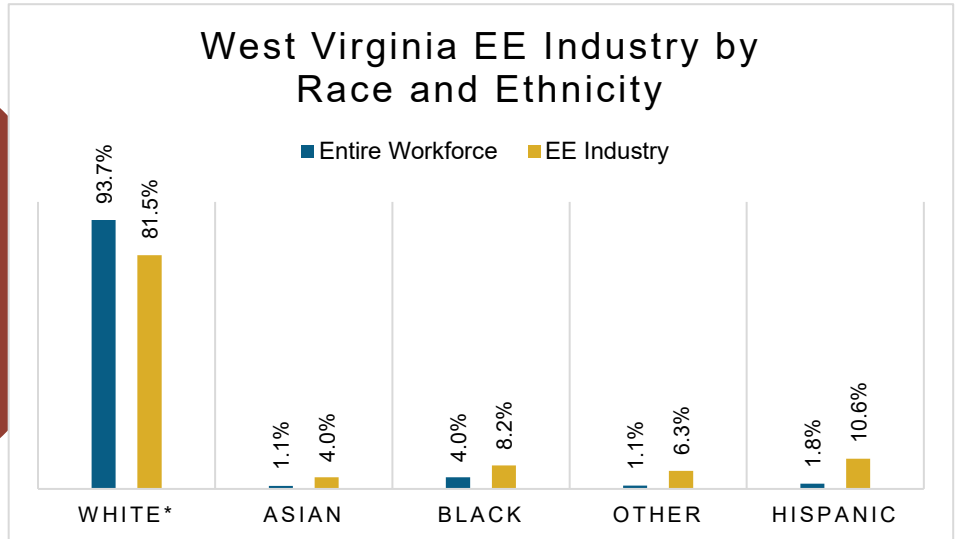


**17%** of  
West Virginia  
EE workers are  
**Veterans**

## How is EE doing on diversity in West Virginia?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all West Virginia communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## West Virginia's EE Potential

Decades of work, ready for West Virginia's growing energy efficiency workforce.

Weatherization Assistance Program:



**511\*** units weatherized in 2018, out of **~120,000** total low-income households

**648,265**

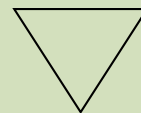
West Virginia homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**43%**



\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	2,464	Charleston	906
2	2,179	Cumberland	49
3	1,667	Hagerstown-Martinsburg	282
		Huntington-Ashland	341
		Morgantown	386
		Parkersburg-Marietta-Vienna	301
		Washington-Arlington-Alexandria	1,742
		Weirton-Steubenville	116
		Wheeling	237
		Winchester	68
		Rural	1,881

State Upper House										
District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	443		11	398		21	<5		31	<5
2	870		12	457		22	<5		32	<5
3	452		13	30		23	<5		33	<5
4	474		14	257		24	<5		34	<5
5	390		15	393		25	<5			
6	284		16	264		26	<5			
7	144		17	30		27	<5			
8	751		18	<5		28	<5			
9	374		19	<5		29	<5			
10	298		20	<5		30	<5			

## State Lower House

District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	132		28	297		55	55		82	<5
2	245		29	32		56	28		83	<5
3	22		30	<5		57	68		84	<5
4	99		31	37		58	115		85	<5
5	31		32	190		59	145		86	<5
6	62		33	44		60	105		87	<5
7	40		34	59		61	25		88	<5
8	145		35	661		62	<5		89	<5
9	248		36	130		63	65		90	<5
10	<5		37	<5		64	<5		91	<5
11	152		38	<5		65	97		92	<5
12	14		39	11		66	13		93	<5
13	117		40	<5		67	<5		94	<5
14	161		41	21		68	<5		95	<5
15	52		42	122		69	<5		96	<5
16	306		43	154		70	<5		97	<5
17	56		44	122		71	<5		98	<5
18	<5		45	<5		72	<5		99	<5
19	66		46	73		73	<5		100	<5
20	81		47	171		74	<5			
21	22		48	437		75	<5			
22	48		49	171		76	<5			
23	18		50	9		77	<5			
24	29		51	286		78	<5			
25	117		52	76		79	<5			
26	89		53	13		80	<5			
27	24		54	100		81	<5			



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Data Source: Unless otherwise stated, all data are from the U.S. Energy and Employment Report, July 2021, by the U.S. Department of Energy (see Appendix A for methodology details). This methodology -- adopted by the U.S. Dept. of Energy for its 2017 U.S. Energy and Employment Report, approved by the Office of Management and Budget and grounded on data collected by the Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.

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# Wisconsin

## Energy Efficiency Jobs in America

June 2021\*

56,113

Dec 2020

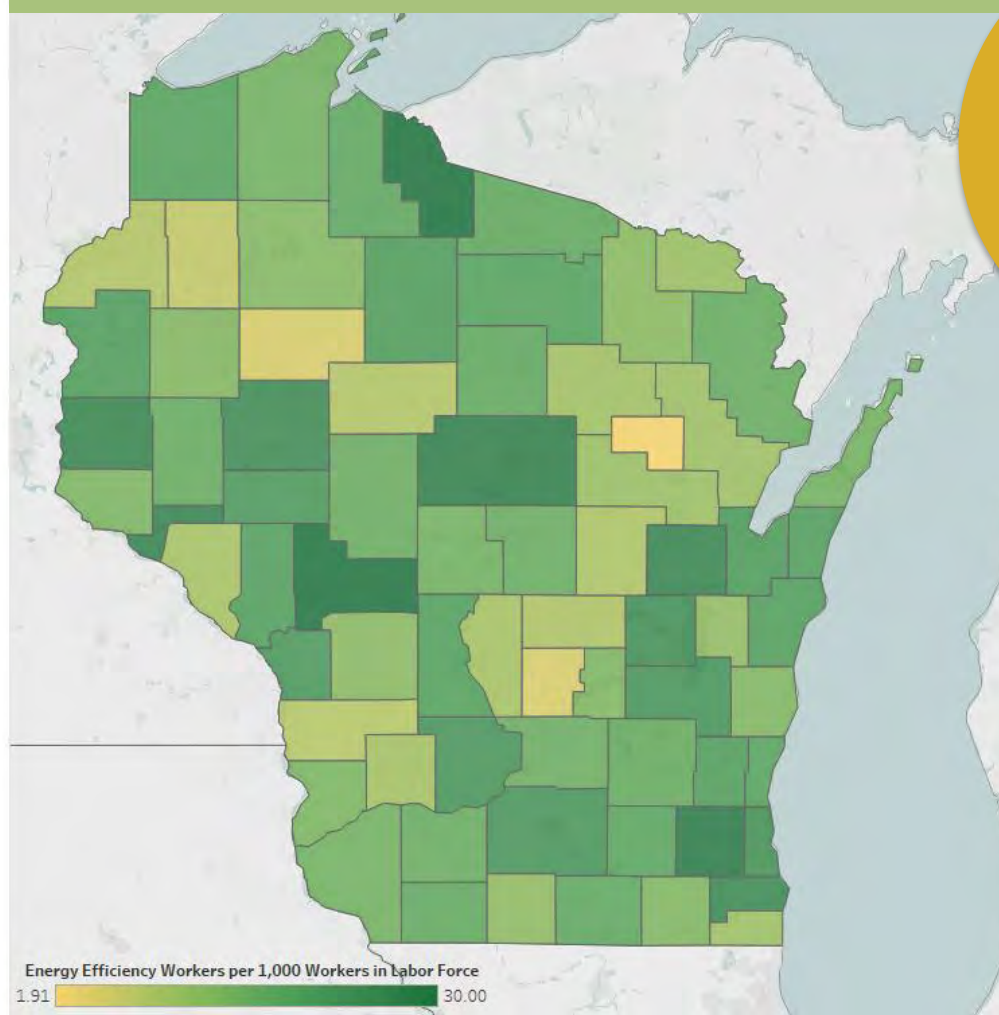
55,986

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Wisconsin, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



**100%**  
of Wisconsin  
counties have  
energy efficiency  
workers

**~28,400**  
new EE construction  
jobs to retrofit  
Wisconsin homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of WI residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





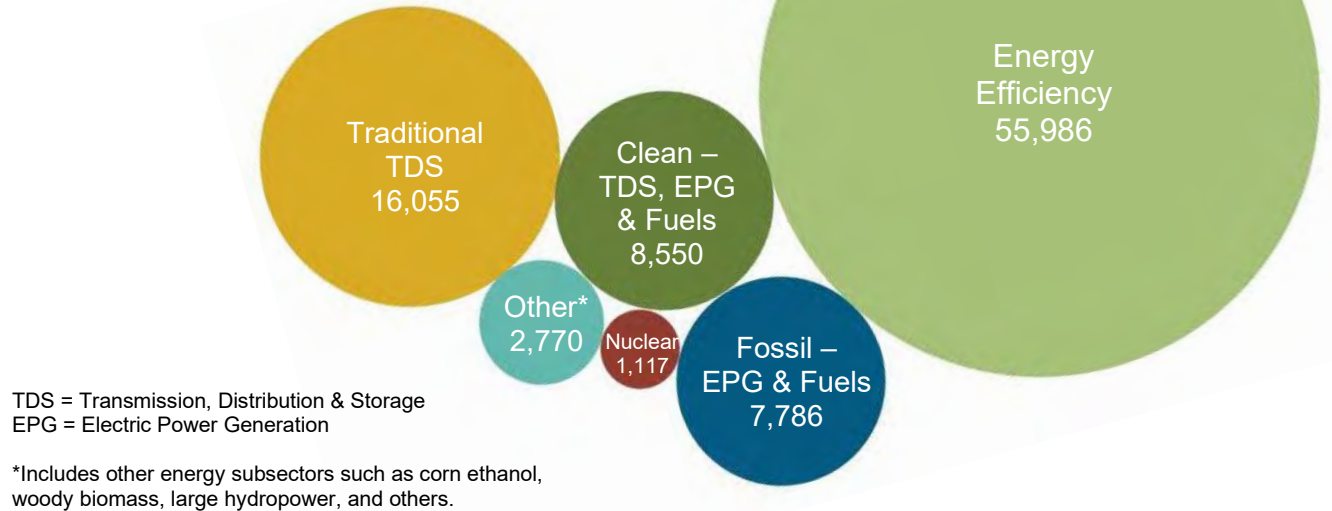
# Key EE Statistics for Wisconsin

## What are energy efficiency (EE) jobs?

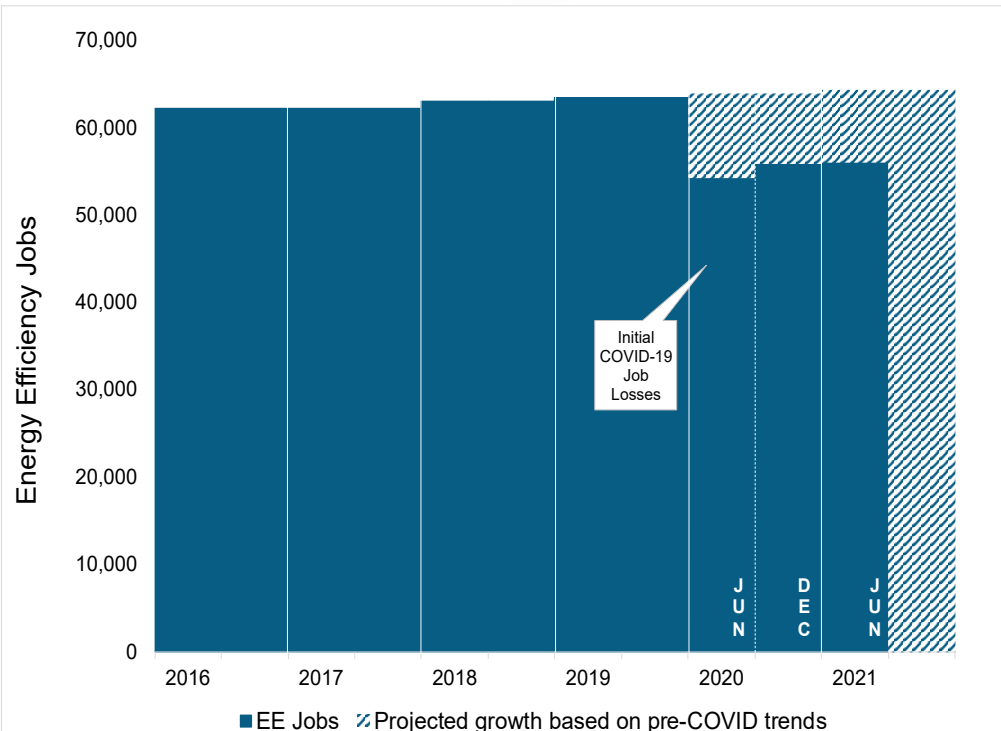
*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Wisconsin's energy sectors compare?

*Energy Efficiency is the **largest** energy sector in Wisconsin.*



## How is the EE industry recovering?



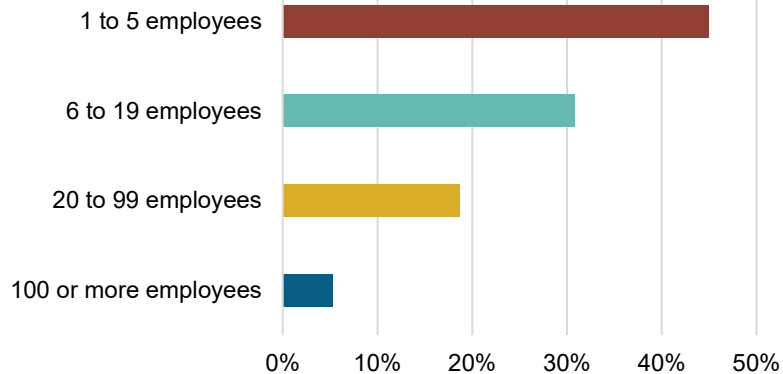
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Wisconsin?

## 94.5% of WI EE Businesses Have Less Than 100 Employees



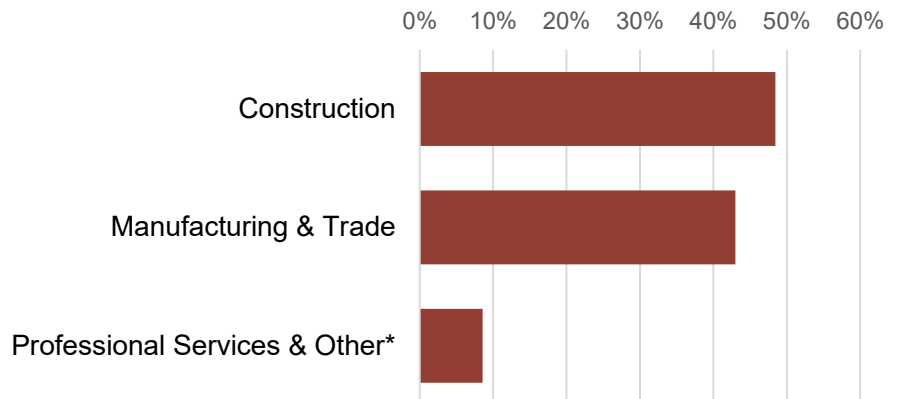
**9,255**  
EE businesses in  
Wisconsin



EE construction  
workers comprise  
**22%** of Wisconsin  
construction  
workers

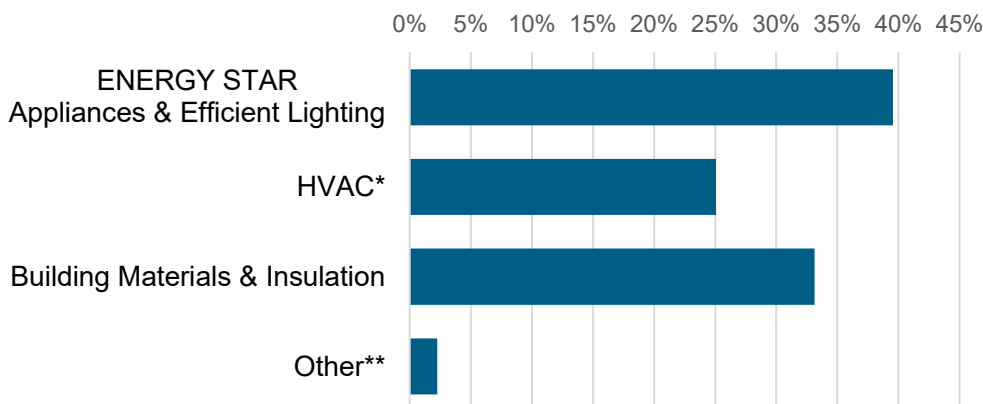


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling  
\*\*Other such as energy audits, building certifications, and software services



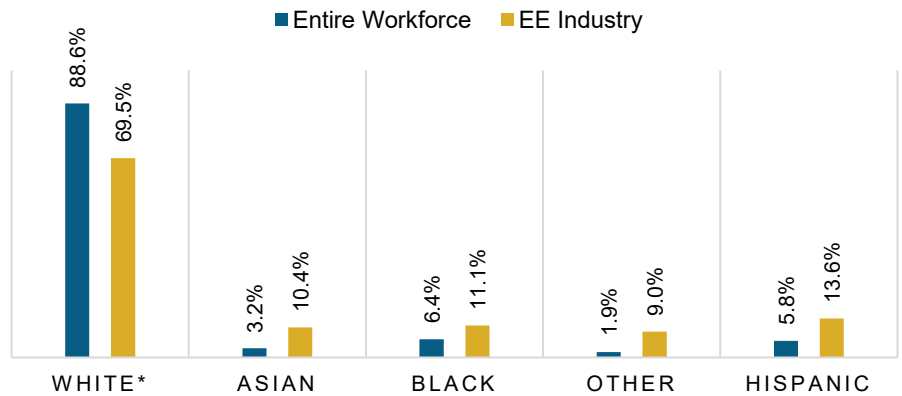
**8%** of  
Wisconsin  
EE workers are  
**Veterans**

## How is EE doing on diversity in Wisconsin?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Wisconsin communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Wisconsin EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.




Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Wisconsin's EE Potential

Decades of work, ready for Wisconsin's growing energy efficiency workforce.

Weatherization Assistance Program:

  
**5,753\*** units weatherized in 2018, out of **~250,000** total low-income households

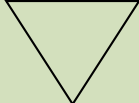
**2,006,226**

Wisconsin homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**19%**  


\*National Association for State community Services Programs (NASCS) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas	
District	Jobs	Area	Jobs
1	7,902	Appleton	2,187
2	8,160	Chicago-Naperville-Joliet	2,713
3	6,837	Duluth	268
4	6,744	Eau Claire	1,420
5	5,694	Fond du Lac	834
6	8,314	Green Bay	2,679
7	7,004	Janesville	1,122
8	5,331	La Crosse	984
		Madison	6,385
		Milwaukee-Waukesha-West Allis	14,714
		Minneapolis-St. Paul-Bloomington	2,281
		Oshkosh-Neenah	2,493
		Racine	1,470
		Sheboygan	905
		Wausau	1,163
		Rural	14,368

State Senate							
District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	3,528	11	3,027	21	2,134	31	637
2	2,588	12	2,997	22	233	32	1,402
3	1,846	13	2,077	23	2,448	33	634
4	1,977	14	1,925	24	1,454		
5	3,749	15	647	25	1,733		
6	1,320	16	2,832	26	1,953		
7	804	17	1,936	27	335		
8	2,974	18	1,506	28	439		
9	1,132	19	2,026	29	576		
10	2,006	20	890	30	220		

## State Assembly

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	952	28	941	55	2,013	82	200
2	1,370	29	618	56	9	83	238
3	1,208	30	438	57	<5	84	<5
4	1,398	31	1,860	58	511	85	269
5	526	32	637	59	87	86	<5
6	661	33	543	60	287	87	305
7	1,053	34	1,296	61	1,173	88	130
8	777	35	1,172	62	946	89	90
9	<5	36	521	63	9	90	<5
10	1,132	37	1,494	64	232	91	<5
11	679	38	279	65	<5	92	409
12	158	39	317	66	<5	93	226
13	2,519	40	598	67	998	94	1,187
14	558	41	670	68	970	95	<5
15	656	42	685	69	472	96	213
16	1,316	43	285	70	1,141	97	547
17	<5	44	<5	71	308	98	18
18	<5	45	359	72	11	99	151
19	<5	46	585	73	565		
20	434	47	2,044	74	700		
21	366	48	191	75	462		
22	1,382	49	704	76	1,083		
23	1,007	50	608	77	284		
24	572	51	616	78	582		
25	157	52	682	79	76		
26	802	53	820	80	203		
27	179	54	<5	81	50		



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# Wyoming

## Energy Efficiency Jobs in America

June 2021\*

6,896

Dec 2020

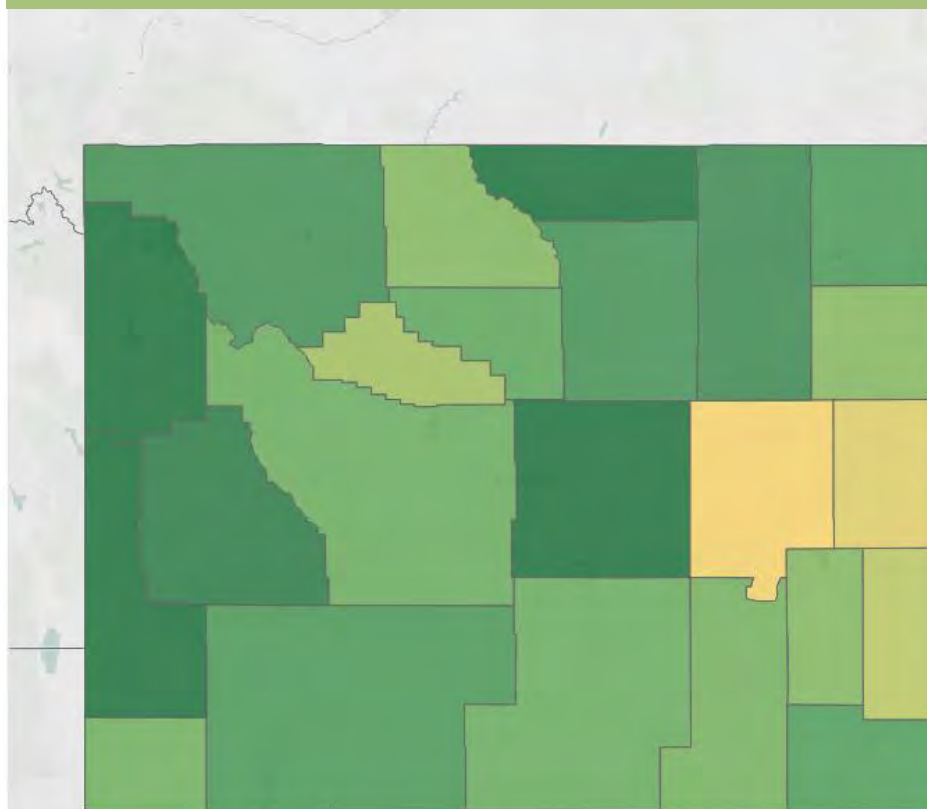
6,900

*Energy efficiency (EE) workers are a crucial part of America's workforce. EE jobs are everywhere – in rural, urban, and suburban communities. In Wyoming, there are EE jobs in every county.*

*Investments in EE are the best possible energy investment. Energy efficiency measures are a highly cost-effective way to improve the reliability of the electric grid, reduce emissions, and make other renewable energy resources, such as solar and wind, more valuable. Efficiency also saves households money while creating high-quality, local jobs that cannot be outsourced.*

### Energy Efficiency Jobs are Everywhere

#### EE Jobs by County



Energy Efficiency Workers per 1,000 Workers in Labor Force  
13.42 30.00

**100%**  
of Wyoming  
counties have  
energy efficiency  
workers

**~2,500**  
new EE construction  
jobs to retrofit  
Wyoming homes by  
2030



Number of full-time workers required for eight years 2022-2030 to improve 80% of WY residences for a clean energy future.

Source: E4TheFuture/BW Research retrofit analysis, July 2021

\*Source: E4TheFuture/BW Research job analysis, July 2021

Presented by:





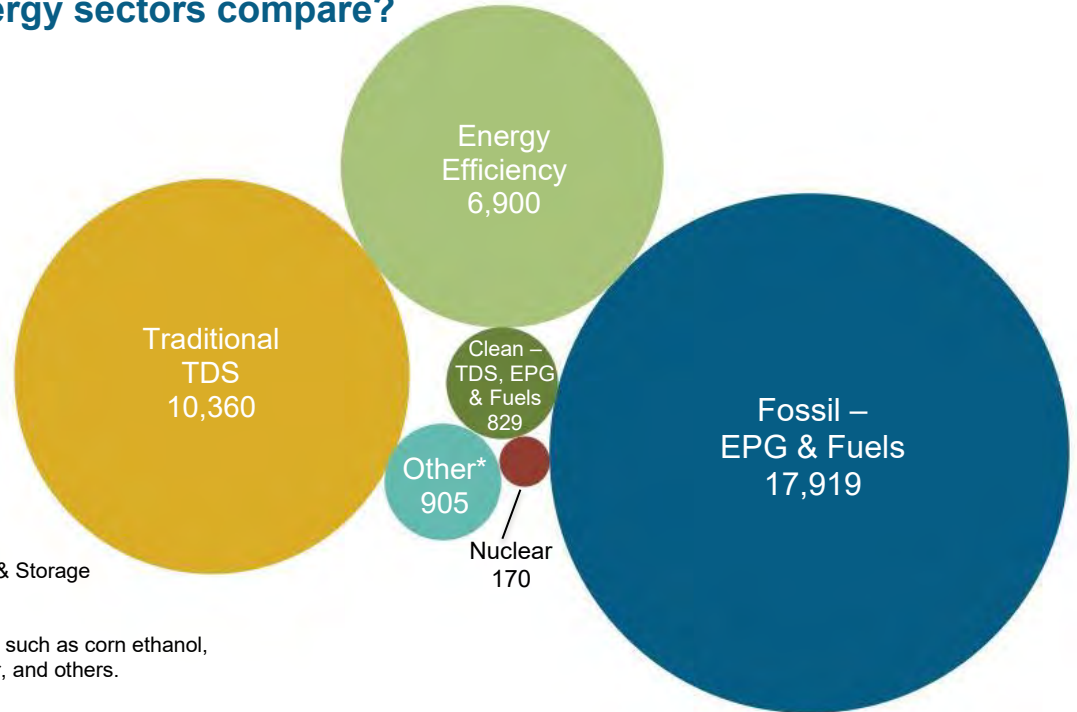
# Key EE Statistics for Wyoming

## What are energy efficiency (EE) jobs?

*Jobs that deliver goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.*

## How do Wyoming's energy sectors compare?

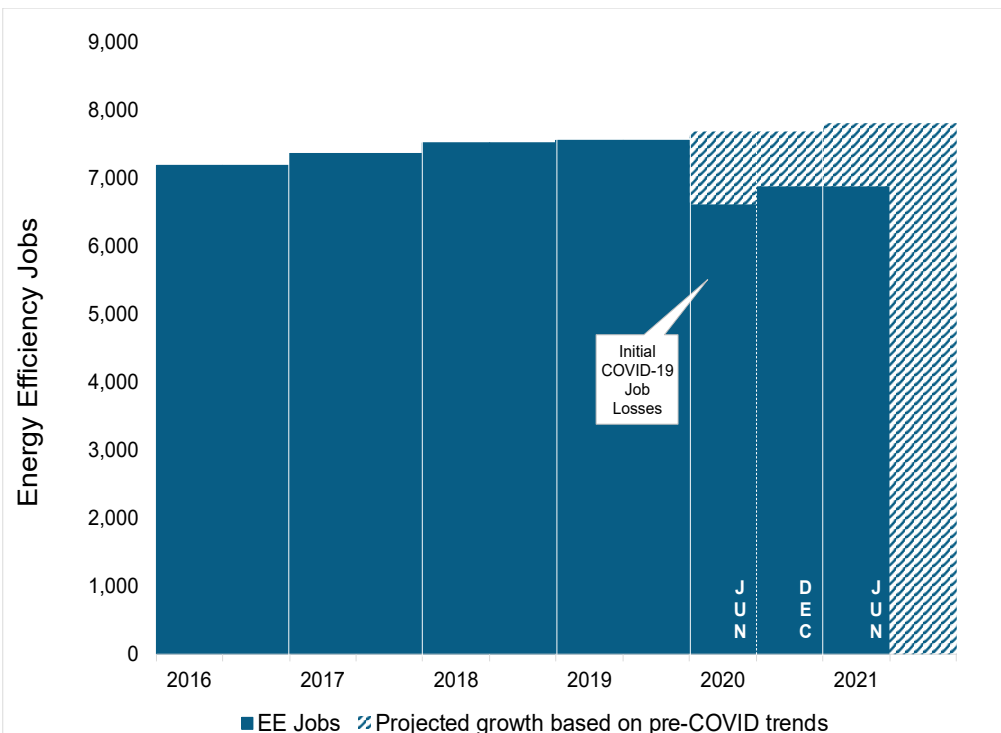
*Energy Efficiency is the third largest energy sector in Wyoming.*



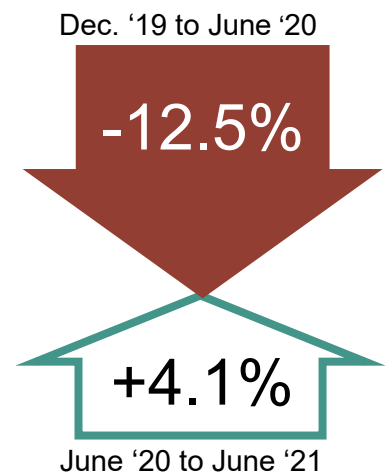
TDS = Transmission, Distribution & Storage  
EPG = Electric Power Generation

\*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

## How is the EE industry recovering?



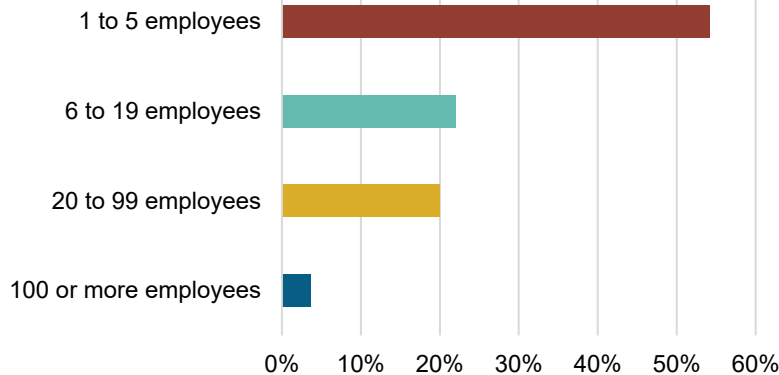
*Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.*



Source: E4TheFuture/BW Research job analysis, July 2021

# What does EE look like in Wyoming?

## 96.2% of WY EE Businesses Have Less Than 100 Employees



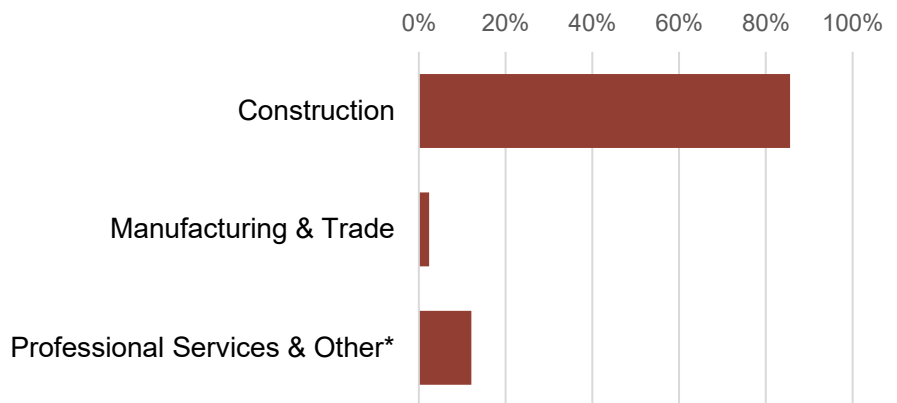
**1,479**  
EE businesses in Wyoming



EE construction workers comprise **28%** of Wyoming construction workers

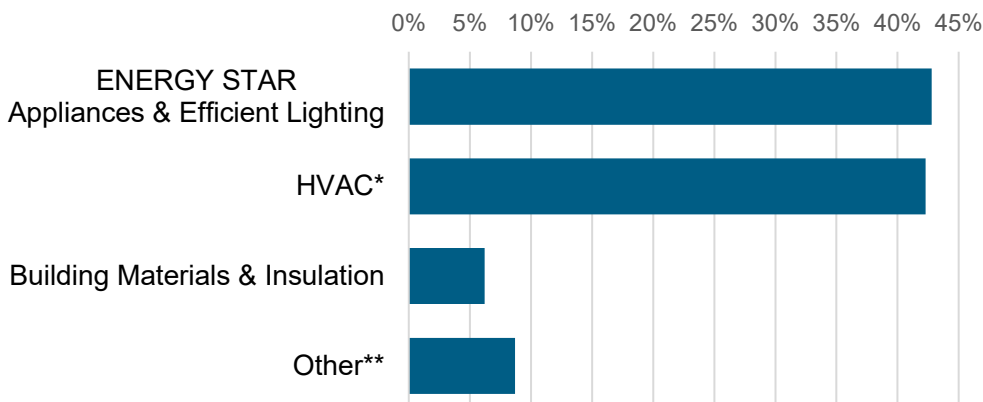


## What type of work do energy efficiency firms do?



\*Professional services include finance/accounting, architecture, engineering, R&D, etc. and other includes maintenance, and business and nonprofit organizations.

## What energy efficiency sectors employ the most workers?



\*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling

\*\*Other such as energy audits, building certifications, and software services



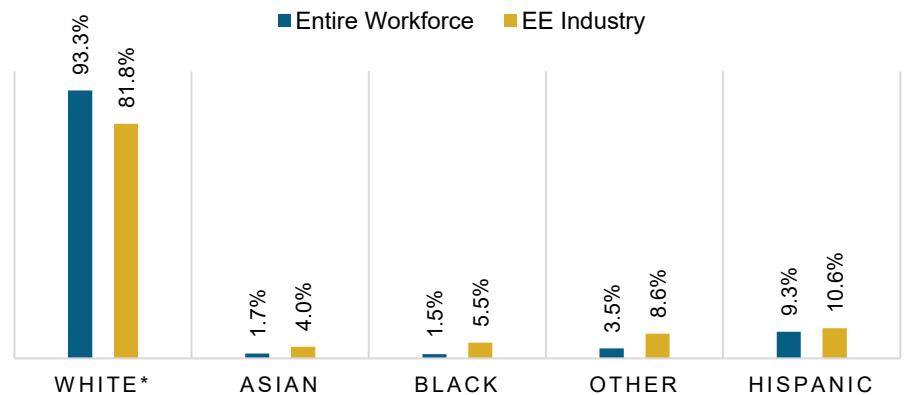
**10%** of Wyoming EE workers are **Veterans**

## How is EE doing on diversity in Wyoming?

Demographic data is crucial for benchmarks and to measure progress in the energy efficiency (EE) industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring all Wyoming communities are represented in the EE sector.

The EE industry needs to do more to prioritize minorities and women for training and support that enables access to employment at EE businesses.

### Wyoming EE Industry by Race and Ethnicity



\*Includes non-Hispanic and Hispanic whites.



Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

## Wyoming's EE Potential

Decades of work, ready for Wyoming's growing energy efficiency workforce.

Weatherization Assistance Program:



**389\*** units weatherized in 2018, out of **~24,000** total low-income households

**195,706**

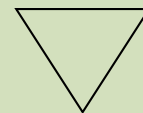
Wyoming homes are due for energy tune-ups



(Non low-income families whose residences are 20+ years old)

Potential to **reduce** residential electricity consumption by

**26%**



\*National Association for State community Services Programs (NASCP) [Weatherization Assistance Program Annual Funding Survey](#)  
Source: E4TheFuture/BW Research retrofit analysis, July 2021, [U.S. Census Bureau QuickFacts](#) and [State and Local Planning for Energy \(SLOPE\) Platform](#)

## Energy Efficiency Jobs by Location

Congressional		Metropolitan Areas		
District	Jobs		Area	Jobs
1	6,900		Casper	1,249
			Cheyenne	1,101
			Rural	4,551

State Senate							
District	Jobs		District	Jobs		District	Jobs
1	560		11	826		21	465
2	217		12	80		22	89
3	105		13	<5		23	9
4	879		14	168		24	<5
5	0		15	70		25	154
6	180		16	687		26	165
7	<5		17	31		27	845
8	<5		18	500		28	<5
9	336		19	78		29	39
10	8		20	353		30	56

## State House of Representatives

District	Jobs		District	Jobs		District	Jobs		District	Jobs
1	72		16	579		31	<5		46	<5
2	213		17	412		32	15		47	77
3	476		18	40		33	156		48	<5
4	72		19	69		34	<5		49	<5
5	<5		20	131		35	828		50	15
6	31		21	106		36	<5		51	15
7	859		22	103		37	303		52	7
8	<5		23	30		38	9		53	162
9	<5		24	314		39	<5		54	<5
10	192		25	160		40	87		55	<5
11	<5		26	76		41	425		56	<5
12	<5		27	62		42	<5		57	<5
13	328		28	283		43	<5		58	38
14	7		29	<5		44	<5		59	<5
15	85		30	61		45	<5		60	<5



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