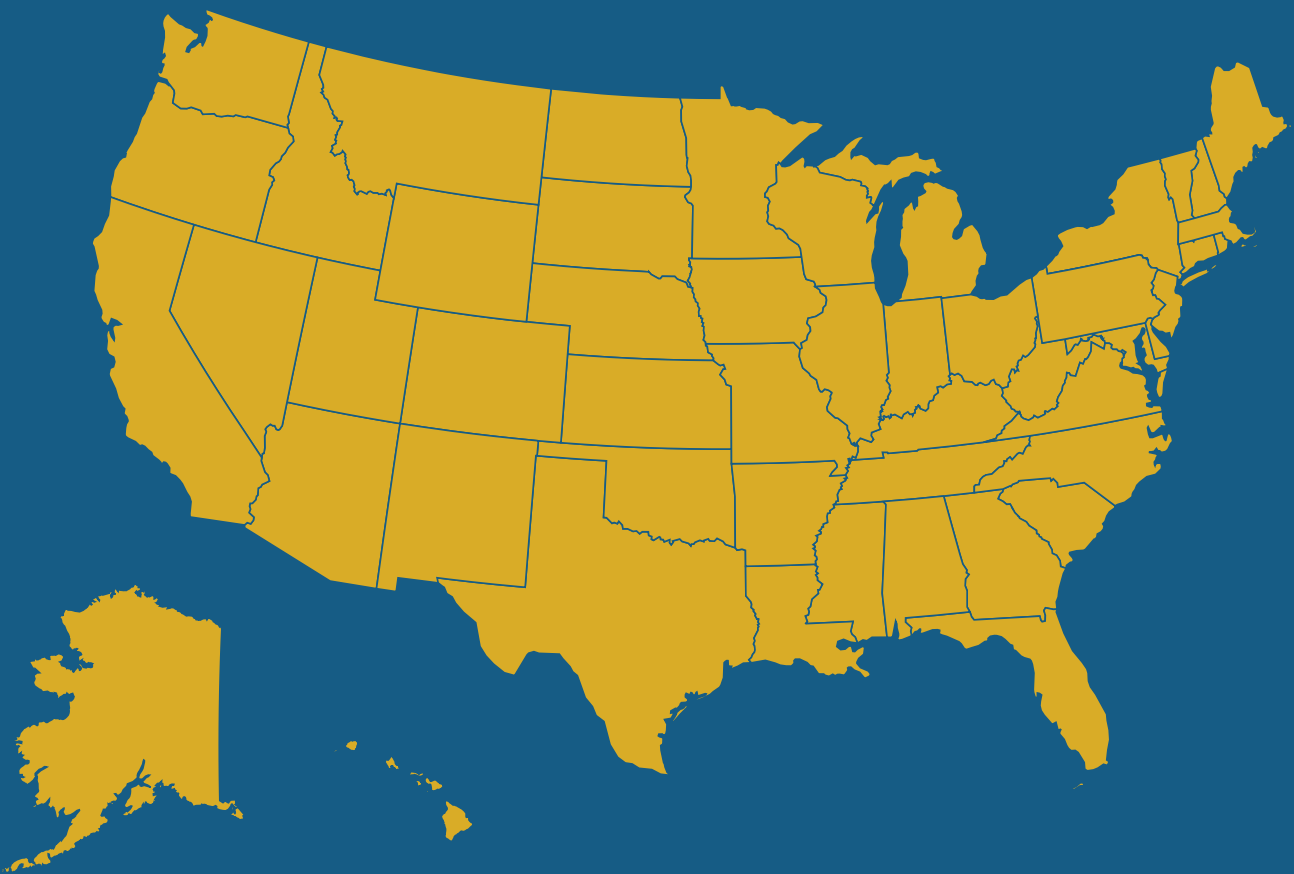


# ENERGY EFFICIENCY JOBS IN AMERICA

2.25 MILLION AMERICANS WORK IN ENERGY EFFICIENCY



SEPTEMBER 2018



#EEJOBSINAMERICA

#Faces  
Of EE

# ENERGY EFFICIENCY JOBS IN AMERICA<sup>1</sup>

## 2.25 MILLION AMERICANS WORK IN ENERGY EFFICIENCY

### ENERGY EFFICIENCY—AMERICA’S JOB POWERHOUSE

Across every time zone, state, county, and even zip code, energy efficiency solutions are creating new economic opportunities. Whether it’s new efficient technologies spurring brand-new companies or established businesses expanding, America’s job growth is being powered by energy efficiency.

Energy efficiency added the most new jobs in 2017 of the entire energy sector. Its workers now outnumber elementary and middle school teachers and are nearly double those in U.S. law enforcement. In fact, there are now as many energy efficiency workers as there are waitstaff in U.S. bars and restaurants.

### A BIGGER PICTURE

This report focuses solely on the energy sector of the economy. Jobs in retail trade, vehicle efficiency-related work, and the 4.2 million jobs related to efficient manufacturing processes are excluded from these numbers.

#### IN PERSPECTIVE

**No. 1** Energy efficiency is the fastest growing jobs sector in energy, accounting for half of the entire energy industry’s job growth (133,000) in 2017

**11%** of energy efficiency jobs held by veterans, greater than the national average of veterans in the workforce (6%)

**315,578** manufacturing jobs in energy efficiency, an increase of nearly 10% in 2017 alone

**2X** Energy efficiency employs twice as many workers in the USA as all fossil fuel sectors combined

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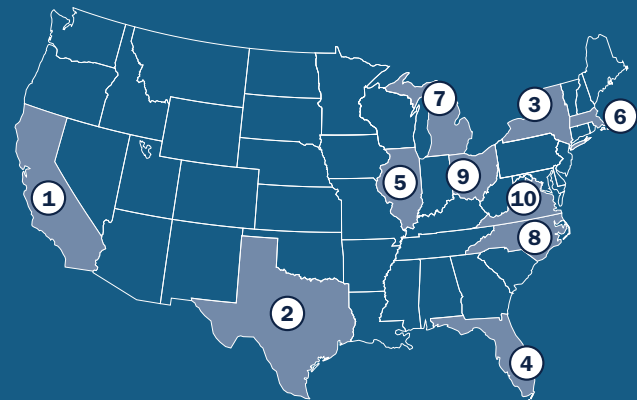
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### TOP 10 STATES FOR ENERGY EFFICIENCY JOBS

RANK	STATE	TOTAL	ENERGY STAR & EFFICIENT LIGHTING	HVAC, RENEWABLE HEATING & COOLING	ADVANCED BUILDING MATERIALS/ INSULATION	OTHER*
1	California	310,433	69,011	183,278	18,677	39,468
2	Texas	154,565	57,203	63,074	20,152	14,135
3	New York	117,339	35,184	38,030	7,305	12,666
4	Florida	112,620	30,757	66,614	31,167	8,236
5	Illinois	86,916	12,416	7,619	7,440	13,782
6	Massachusetts	84,556	13,637	58,558	10,811	8,501
7	Michigan	84,052	14,009	41,252	48,643	18,856
8	North Carolina	84,020	42,223	34,206	5,885	10,243
9	Ohio	79,653	15,487	31,034	19,718	4,878
10	Virginia	76,621	19,939	30,092	10,568	16,022

### ENERGY EFFICIENCY NOW EMPLOYS MORE WORKERS THAN THE FOSSIL FUEL INDUSTRY IN 40 STATES AND THE DISTRICT OF COLUMBIA



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

**POLICY LEADERSHIP**

To continue creating hundreds of thousands of jobs for Americans across all states and counties,

**CONGRESS MUST:**

1. Properly fund smart efficiency policies (which historically enjoy robust bipartisan support)
2. Invest in infrastructure, e.g., interval meters to enable data analytics and boost grid resilience
3. Renew the Commercial and Residential building tax credits
4. Fund strong State Energy Program and Weatherization Assistance Programs
5. Maintain and protect high quality ENERGY STAR brand

State leadership on energy efficiency plays a vital role in driving America’s energy economy.

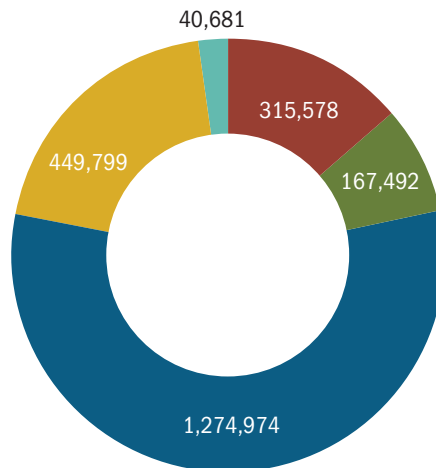
**STATE POLICYMAKERS MUST SUPPORT:**

1. Strong energy efficiency standards with consistent funding
2. Broader use of performance contracting in public buildings
3. Innovative commercial and residential PACE programs
4. Modernization of utility regulation with revenue protection, decoupling, performance rates and ability to earn a profit on procurement of energy efficiency as a service.

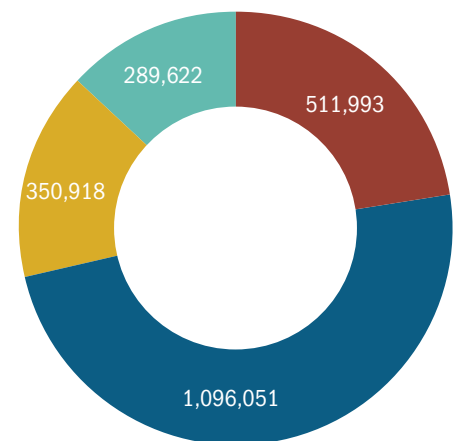
**ENERGY EFFICIENCY JOBS—WHERE ARE THEY?**

Energy efficiency workers do much more than reduce energy use. They improve operations of existing buildings, and they design and build a better future. Consumers, municipalities, and business owners incorporate lower energy consumption options into everyday procurement decisions; in homes, offices, schools, and municipal infrastructure. Squeezing out waste drives EE job creation.

**ACROSS INDUSTRIES BY SUPPLY CHAIN**



**ACROSS TECHNOLOGIES BY SECTOR**



- Manufacturing - 14%
- Sales & Distribution - 7%
- Construction & Repairs - 57%
- Professional Services\* - 20%
- Other\*\* - 2%

- ENERGY STAR Appliances & Efficient Lighting - 23%
- HVAC\* - 49%
- Building Materials & Insulation - 16%
- Other\*\* - 13%

\*Professional Services includes finance/accounting, architecture, engineering, R&D, etc

\*\*Other such as maintenance, and business and nonprofit organizations

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

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

**#FacesOfEE**

To meet “real people” working in energy efficiency jobs around the country, follow #FacesOfEE on social media channels, and tweets by @FacesOfEE

## MORE ENERGY EFFICIENCY = MORE CONSTRUCTION JOBS



More than 1 out of every 6 US construction workers spend 50% or more of their time on Energy Efficiency (18%)



Nearly 60% of energy efficiency's 2.25 million employees work in construction (1.27 million)

# 80%

of energy efficiency construction businesses say employees spend a majority of time on energy efficiency—an increase from last year (74%)

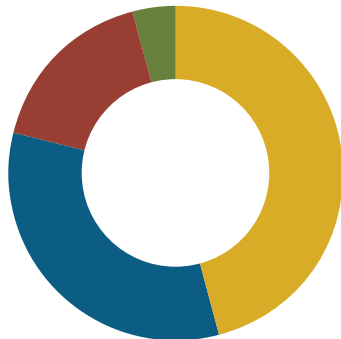
### EE JOBS ACROSS THE COUNTRY

- // These jobs are local. **99.7%** of U.S. counties have energy efficiency jobs
- // Energy efficiency now employs workers in more than **3,000** of America's **3,007** counties
- // More than **300,000** Americans living in rural areas work in energy efficiency
- // America's Top 25 metro areas employ **900,000** workers in energy efficiency
- // **35%** of U.S. energy workers are involved in energy efficiency

### GROWTH ACROSS AMERICA

There are **353,269** energy efficiency businesses in America

#### SMALL EE BUSINESS BY EMPLOYEE COUNT

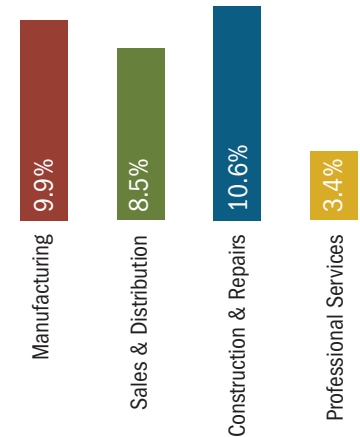


■ 100 + (4%) ■ 20-99 (17%) ■ 6-19 (33%) ■ 1-5 (46%)

### GROWTH FOR THE FUTURE

Energy efficiency businesses are projecting **9% growth in jobs** for 2018

...and the job growth is expected across all major industries



## WHAT DO ENERGY EFFICIENCY WORKERS DO?

Among other vital tasks and endeavors that are essential across the U.S., energy efficiency workers:

- // Manufacture and install high efficiency systems, windows, and insulation in existing & new homes, commercial & industrial buildings
- // Construct high performance buildings meeting LEED Certification
- // Upgrade and repair heating, air conditioning and ventilation (HVAC) and water heating equipment
- // Install energy-saving LED lighting
- // Manufacture and install ENERGY STAR-certified appliances, lighting, ceiling fans, commercial cooking equipment, refrigerators, boilers
- // Save money for businesses, homeowners, schools, states, counties, municipalities, U.S. armed forces, and more

## 511,933 JOBS

### ENERGY STAR Appliances & Efficient Lighting

- // **+7%** growth rate
- // Includes household and commercial appliances, e.g., refrigerators, dishwashers, ceiling fans, and various advanced lighting types; ENERGY STAR market penetration continues to increase
- // More jobs than real estate brokers and sales agents combined

## 350,918 JOBS

### Building Materials & Insulation

- // **270,000+** jobs in construction and manufacturing
- // Advanced materials create higher-performance buildings; recycled materials mitigate waste stream issues, among other benefits
- // Outnumbers all U.S. pharmacists

## 1,096,051 JOBS

### HVAC (Heating Ventilation & Air Conditioning)

- // **+5.6%** growth rate
- // Heating, Ventilation, Air Conditioning of higher than standard efficiency. Includes renewable heating and cooling technologies
- // More than all of America's legal workers combined, including lawyers, court reporters, judges, and paralegals

## 289,622 JOBS

### Vital Energy Efficiency Services

- // **208,000** jobs in construction and manufacturing
- // Includes energy audits, building certifications, and software services
- // More than all athletes, coaches, umpires and referees, scouts, and other sports officials combined

#### ABOUT THE REPORT

The job numbers come from the national [2018 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. In addition, the 2018 USEER relies on a unique supplemental survey of 23,000 business representatives across the U.S. Created and conducted by BW Research and approved by the Office of Management and Budget and U.S. Department of Energy (DOE), 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.

For further questions regarding this report, visit the Energy Efficiency Jobs in America FAQ at [www.e2.org/eejobsamerica/faq](http://www.e2.org/eejobsamerica/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 others who advocate for smart policies that are good for the environment and good for the economy. 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, and Missouri, among others.

#### ENDNOTES

1 Unless otherwise stated, all data are from the 2018 U.S. Energy and Employment Report, May 2018, by NASEO and EFI (see Pages 15-17 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.