



**EEWV**

# ENERGY EXPERTS FOR WEST VIRGINIA


## Who we are, What we do

- ✓ Stakeholder outreach
- ✓ EE project advisors
- ✓ Cooperative connectors
- ✓ Certified professionals
- ✓ We move the conversation forward



JUST  
TRANSITION  
FUND





IS AMERICA'S **FASTEST GROWING AND LARGEST** ENERGY JOBS SECTOR  
EMPLOYS WORKERS IN **3,000 OF AMERICA'S 3,007 COUNTIES** (99.7%)  
**OUTNUMBERS** LANDSCAPING PROFESSIONALS AND GROUNDSKEEPERS COMBINED  
**HAS TWICE AS MANY** WORKERS AS ALL FOSSIL FUEL SECTORS COMBINED  
BUSINESSES NOW TOTAL **OVER 350,000**, DOMINATED BY SMALL BUSINESSES (**79%**)  
EMPLOYS MORE THAN **300,000 RURAL AMERICANS**, AND **900,000 IN AMERICA'S TOP 25 METRO AREAS**  
ACCOUNTED FOR **1/2 OF THE ENTIRE ENERGY SECTOR'S JOB GROWTH** IN 2017  
WORKERS MAKE UP **35 PERCENT** OF ALL U.S. ENERGY WORKERS  
ACCOUNTS FOR MORE THAN **1 OUT OF EVERY 6 U.S. CONSTRUCTION** WORKERS

<https://www.e2.org/eejobsamerica/>

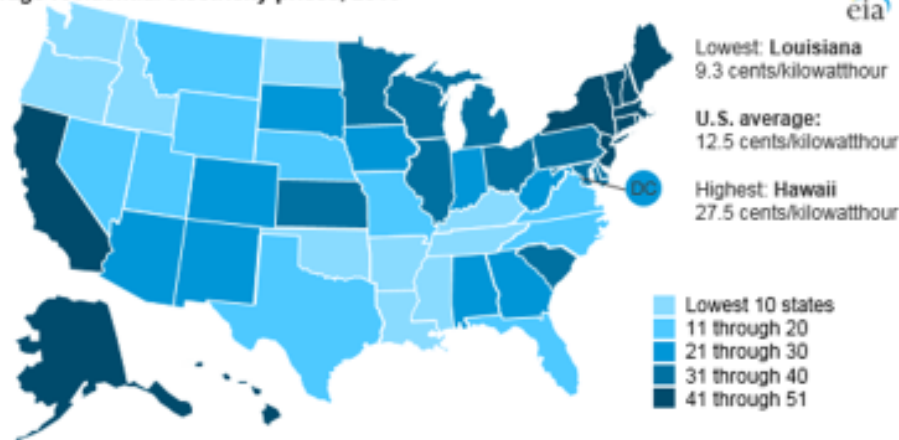


# West Virginia Quick Stats

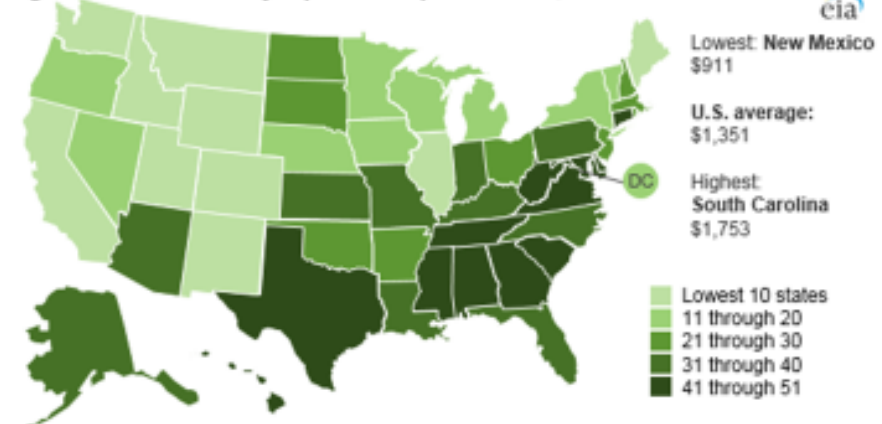
## OPPORTUNITY

- #47 on the ACEEE list of most efficiency-friendly states.
- #10 on the EIA list of states that use the most energy per capita

Average residential electricity prices, 2016



Average residential electricity expenditures per customer, 2016



# West Virginia

Energy Efficiency Jobs - 6,352



## What are EE Jobs?

Delivery of goods and services that lower energy use by improving technologies, appliances, buildings, and energy systems.

### **In West Virginia, EE Jobs are:**

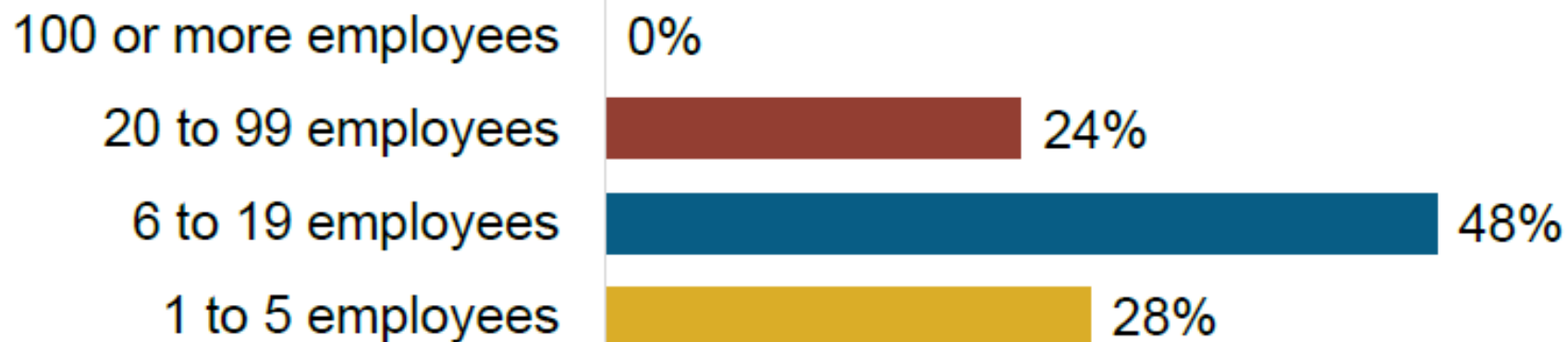
16% of All Construction Jobs

11% of All Energy Sector Jobs

17% of West Virginia residents employed in EE are Veterans

# 652 Energy Efficiency Businesses

## Firm Size



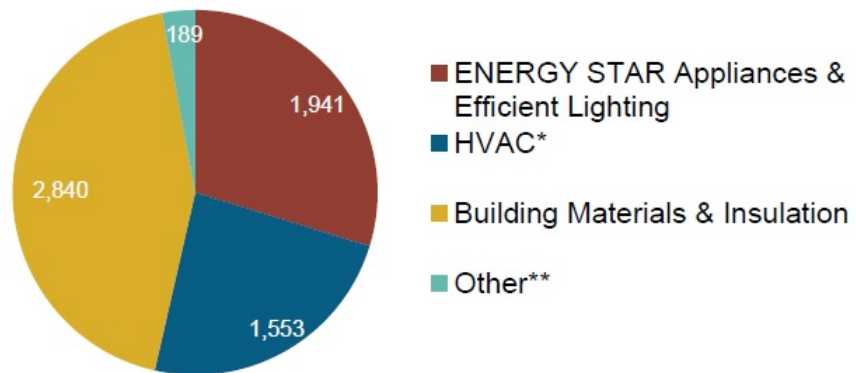
**E4** THE  
FUTURE

**E2**

Good for the Economy.  
Good for the Environment.



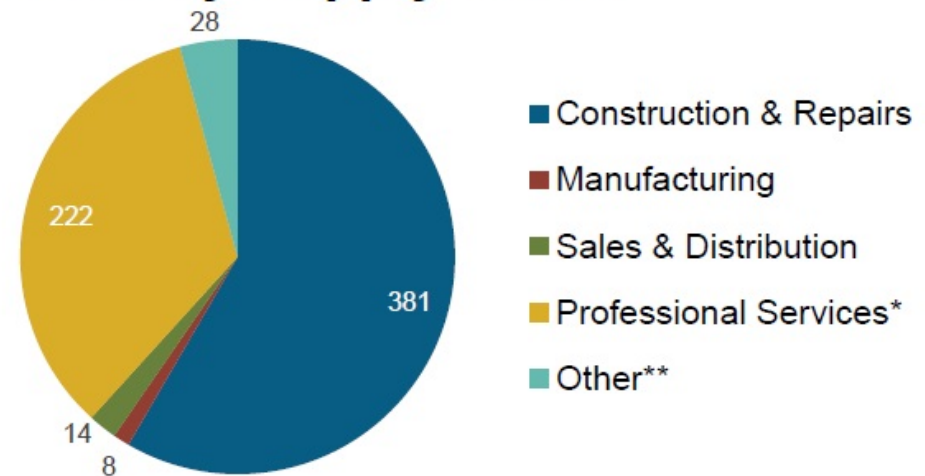
## Jobs by Sector



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



## Firms by Supply Chain



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

# Market Opportunity Snapshot

## WEST VIRGINIA



## Residential Energy Efficiency Potential



Energy used by West Virginia single-family homes that can be saved through cost-effective improvements



West Virginia existing jobs in energy efficiency (2016)<sup>1</sup>

Cost-effective package savings potential in West Virginia single-family homes

 **466.3**  
million

dollars per year utility bill savings

 **15.3**  
trillion

Btu per year gas, propane, and fuel oil savings

 **2.2**  
billion

kWh per year electricity savings

 **571,877**

cars of pollution reduction

*\*2017 NREL WV Fact Sheet*

 **NREL**  
NATIONAL RENEWABLE ENERGY LABORATORY



# How many EE jobs are in your District?

/kən'stitʃuənt/ - con-stit-u-ent

## Constituent

(1) (noun) an artifact that is one of the individual parts of which a composite entity is made up; especially a part that can be separated from or attached to a system; (2) (noun) an abstract part of something; (3) (noun) something

The you can create your own flashcards by adding this video to your favorite list.

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### West Virginia State Senate

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	465	11	424	21	-	31	-
2	881	12	464	22	-	32	-
3	482	13	33	23	-	33	-
4	502	14	277	24	-	34	-
5	400	15	426	25	-		
6	292	16	270	26	-		
7	142	17	28	27	-		
8	804	18	-	28	-		
9	372	19	-	29	-		
10	261	20	-	30	-		

### West Virginia House of Delegates

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	139	28	294	55	58	82	-
2	257	29	33	56	30	83	-
3	23	30	-	57	75	84	-
4	101	31	40	58	122	85	-
5	31	32	142	59	155	86	-
6	60	33	40	60	114	87	-
7	40	34	52	61	27	88	-
8	158	35	708	62	-	89	-
9	262	36	134	63	57	90	-
10	-	37	1	64	-	91	-
11	159	38	-	65	104	92	-
12	14	39	11	66	14	93	-
13	125	40	-	67	1	94	-
14	169	41	21	68	-	95	-
15	55	42	131	69	-	96	-
16	312	43	162	70	-	97	-
17	58	44	131	71	-	98	-
18	3	45	1	72	-	99	-
19	68	46	77	73	-	100	-
20	83	47	188	74	-		
21	18	48	428	75	-		
22	48	49	183	76	-		
23	16	50	10	77	-		
24	28	51	304	78	-		
25	123	52	80	79	-		
26	91	53	13	80	-		
27	26	54	111	81	-		

## West Virginia joined the nationwide conversation



Northeast Energy Efficiency Partnerships



**Opens our state up to best practices, resources, and funding.**

# INITIATIVES

- Expand industry opportunities/lead generation
  - Improved energy code enforcement
- Increased energy codes standards (2015 IECC)
  - Statewide, improved utility EE programs
- Improved state energy efficiency policies
  - Energy efficiency expert training



# Free Energy Audits



[WWW.TAKECHARGE WV.COM](http://WWW.TAKECHARGE WV.COM)



## Rebates and Incentives



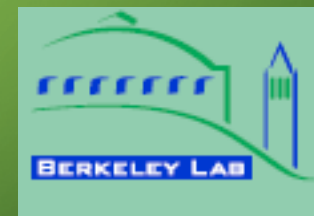


“ Utility-funded gas efficiency programs helped customers reduce their typical annual natural gas usage [nationwide] by an average 17 percent and save \$137 on their annual energy bill.”

**Table B - 3. Gas Efficiency Program Spending Projections by State (\$M, nominal)**

State	2010*	Low			Medium			High		
		2015	2020	2025	2015	2020	2025	2015	2020	2025
WA	29	14	3	3	15	17	3	18	49	53
WI	24	21	25	30	21	25	30	104	122	132
WV	0	0	0	0	0	0	0	1	1	3
WY	0	1	0	1	2	1	1	2	7	8
<b>Total</b>	<b>838</b>	<b>1,313</b>	<b>957</b>	<b>982</b>	<b>1,335</b>	<b>1,376</b>	<b>1,458</b>	<b>1,721</b>	<b>2,968</b>	<b>3,346</b>

\* Source of 2010 spending data: CEE (2012), with minor modifications

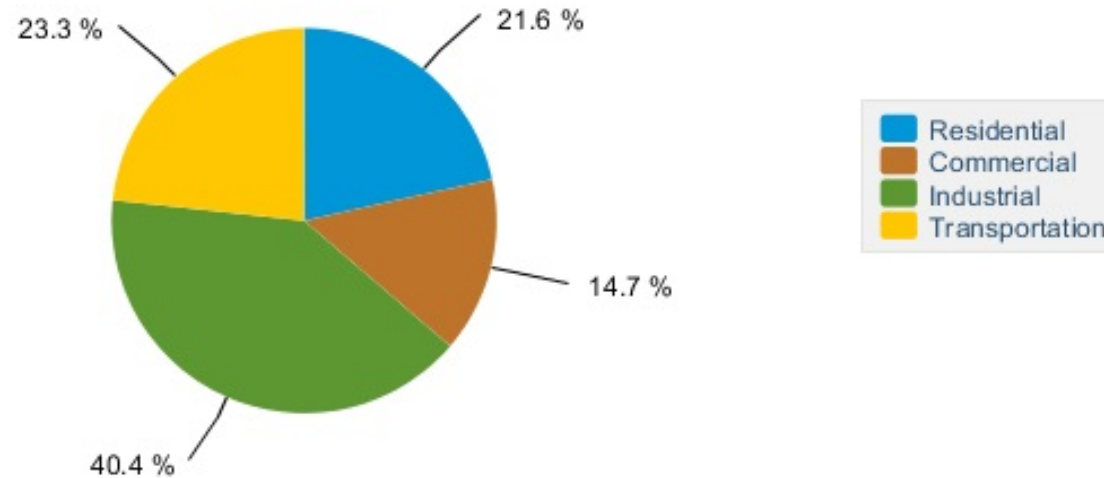


**Table B - 1. Electric Energy Efficiency Program Spending Projections by State (\$M, nominal)**

State	2010*	Low			Medium			High		
		2015	2020	2025	2015	2020	2025	2015	2020	2025
WA	218	167	229	192	209	287	317	295	428	466
WI	74	83	92	99	83	126	135	255	264	268
WV	-	6	9	10	13	15	17	16	24	27
WY	3	11	12	12	12	13	14	14	23	25
<b>Total</b>	<b>3,948</b>	<b>4,757</b>	<b>5,202</b>	<b>5,536</b>	<b>6,522</b>	<b>7,398</b>	<b>8,062</b>	<b>8,336</b>	<b>10,769</b>	<b>12,222</b>

\* Source of 2010 spending data: CEE (2012), with minor modifications

## West Virginia Energy Consumption by End-Use Sector, 2015



Source: Energy Information Administration, State Energy Data System

# EVERYONE PAYS

THE COMPANY PAYS THE PRODUCER, THE USER PAYS THE COMPANY, EXPENSIVE  
INFRASTRUCTURE IN-BETWEEN, SAVINGS OPPORTUNITIES ARE EVERYWHERE.



# EE IS EVERYWHERE





An abstract graphic on the left side of the slide, consisting of a network of thin, light green lines and small circles, resembling a circuit board or a neural network. The lines are vertical and horizontal, with some diagonal connections, and the circles are small and white with green outlines.

# WHAT IS NEXT?

WHERE DOES ENERGY EFFICIENCY FIT INTO YOUR LIFE AND CAREER?



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*Thank you!*