West Virginia
Energy Efficiency Jobs in America

Oct 2020
6,177*
Dec 2019
7,144

Clean energy workers are a huge and important part of America's workforce. We know from our country's last economic crisis that clean energy can lead the way to recovery.

Hundreds of thousands of workers are ready to return to work to build a better, cleaner, more equitable economy for tomorrow. With innovative policies we could get these workers back on the job today. Congress can start by spurring investments in energy efficiency (EE) and help the economy recover and grow for years to come.

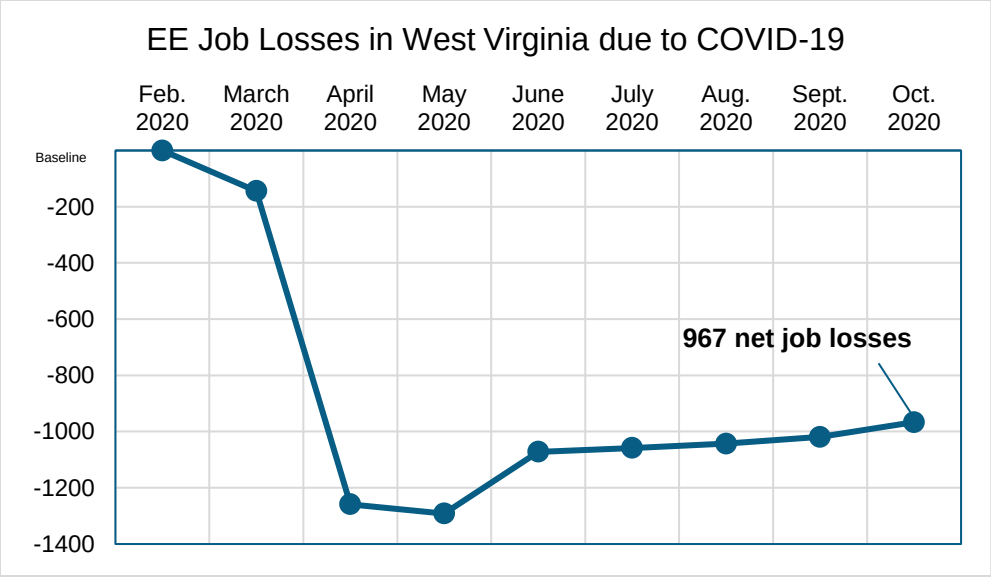
COVID-19 Impacts on the EE Job Sector

The 2020 pandemic shocked our nation's labor market with massive job losses. West Virginia's energy efficiency industry lost as many as 967 jobs since its onset, a 13.5% decrease compared to total jobs in December 2019—wiping out the last 3 years of gains.

This disruption continues to ripple throughout the supply chain, slowing or halting the manufacture of efficiency equipment and components including insulation; windows; heating, ventilation, and air conditioning (HVAC) equipment; and other building systems technologies.

The energy efficiency workforce has the skills and expertise to meet this moment. Historically the West Virginia EE workforce grew steadily, gaining 12.5% since 2016.**

As the U.S. advances our economic recovery, policy solutions must create conditions to return to work laid-off/furloughed EE workers and to create a pathway for new workers to join this vital sector.



13.5% DECLINE in Employment since COVID-19

Presented by:

*Source: Clean Energy Employment Initial Impacts from the COVID-19 Economic Crisis, March 2020-October 2020.
**first available sector-specific data

What are EE Jobs?

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

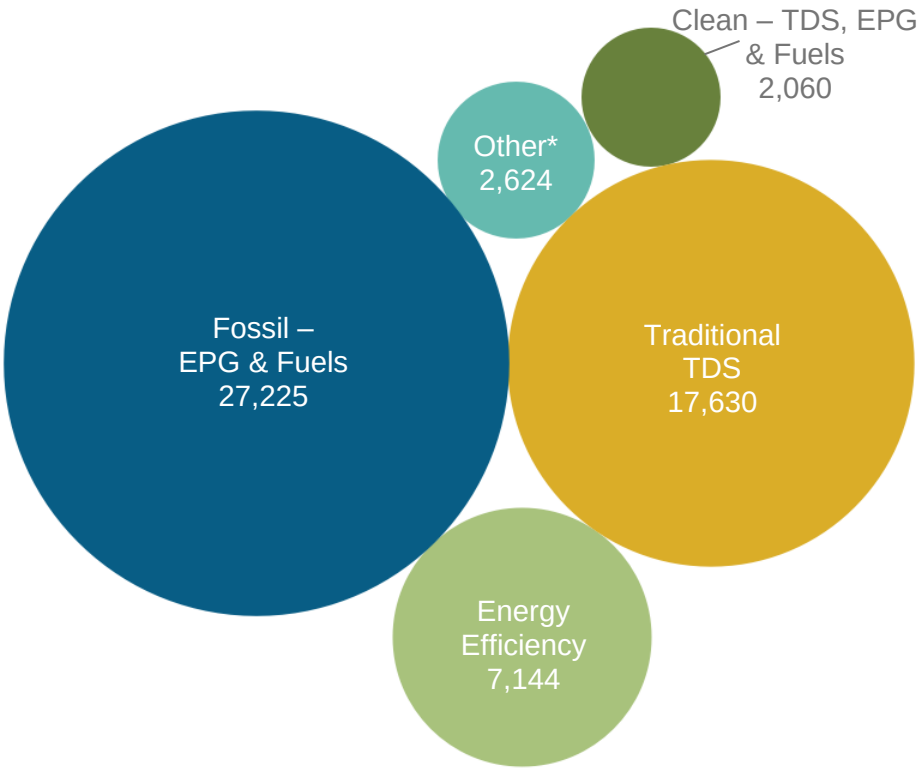
What type of work are EE workers doing?

- Manufacture and install high efficiency systems, controls, windows, insulation and ENERGY STAR-certified appliances and products in existing and new homes, commercial & industrial buildings
- Design and construct high performance buildings such as those earning LEED certification
- Upgrade and repair heating, air conditioning and ventilation (HVAC) and water heating equipment
- Educate property owners and managers on building improvements to unlock savings for businesses, homeowners, schools, states, municipalities, military bases and more
- Analyze building energy data using software to maximize savings through targeted performance improvements and behavioral changes
- Review and approve loans to finance energy savings performance contracts to improve the comfort, health and operational costs of buildings

All EE jobs counted in this report enhance energy efficiency. The above descriptions provide illustrative examples of what some EE workers do, and should not be considered an exhaustive list of all efficiency work.

How does EE compare in West Virginia?

Energy efficiency is the third largest energy sector in West Virginia.



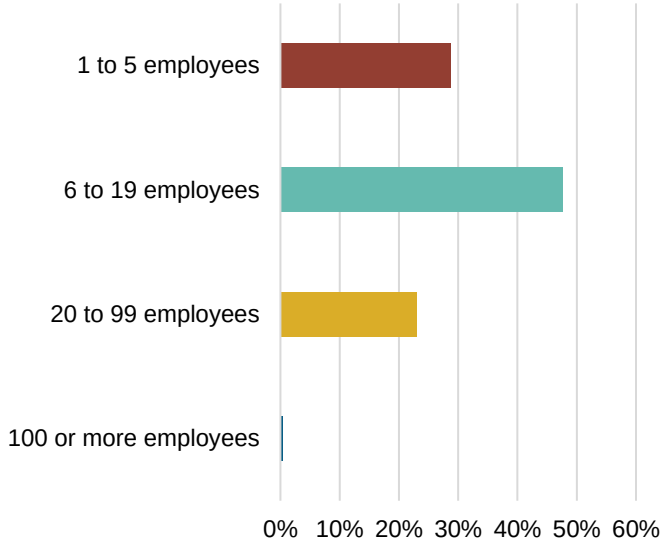
*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

Fossil fuel jobs are historically key to West Virginia's energy economy, but the current job total doesn't tell the full story. The number of fossil fuel jobs has faced consistent downward pressure for decades and continues to fall. By contrast, before COVID-19, energy efficiency has grown by 12.5% from 2016-2019, adding 792 jobs.

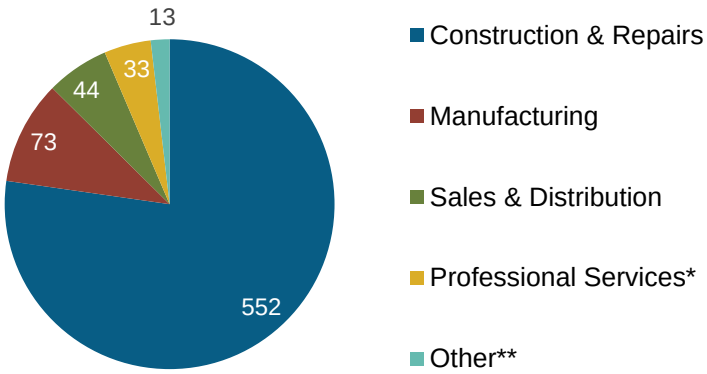
What do the EE businesses look like in West Virginia?

EE Sector =
714
Businesses in WV
(Dec. 2019)
↑ **30** over 2018

99.5% of WV Businesses Have Less Than 100 Employees



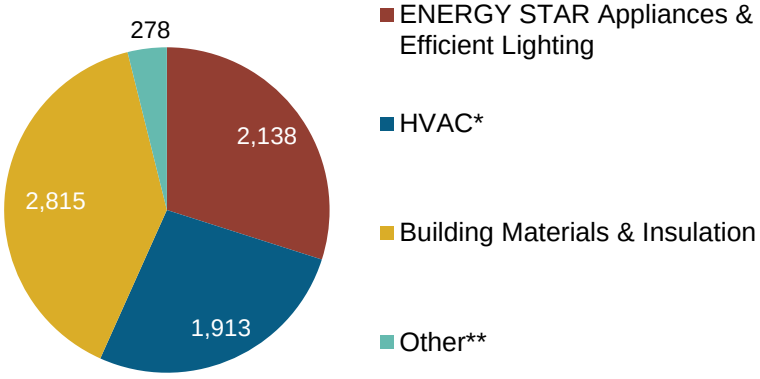
Firms by Supply Chain



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

17.4%
of West Virginia residents employed in EE are **Veterans**

Jobs by Sector



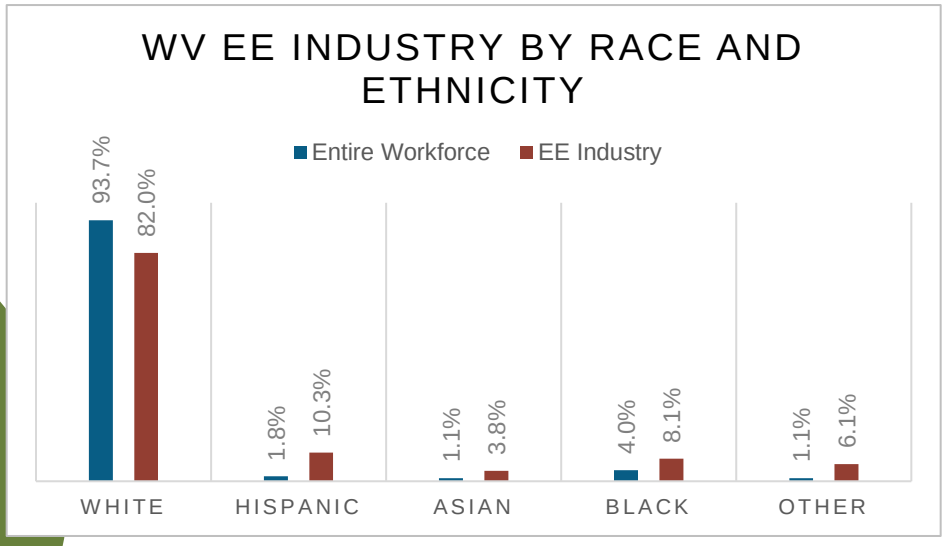
* Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling
** Other such as energy audits, building certifications, and software services

Energy Efficiency Construction Workers Make Up 14% of WV Construction Workers

How is EE Doing regarding Diversity in West Virginia?

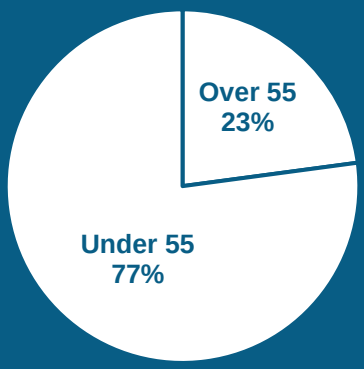
Demographic data is crucial for benchmarks and to measure progress in the energy efficiency industry. In striving for more diversity in EE jobs, we can create a stronger and more inclusive industry. Promoting diversity in hiring is key to maintaining a future workforce of talented professionals and ensuring 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 will enable them to obtain and/or retain 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.

WEST VIRGINIA'S EE WORKERS BY AGE



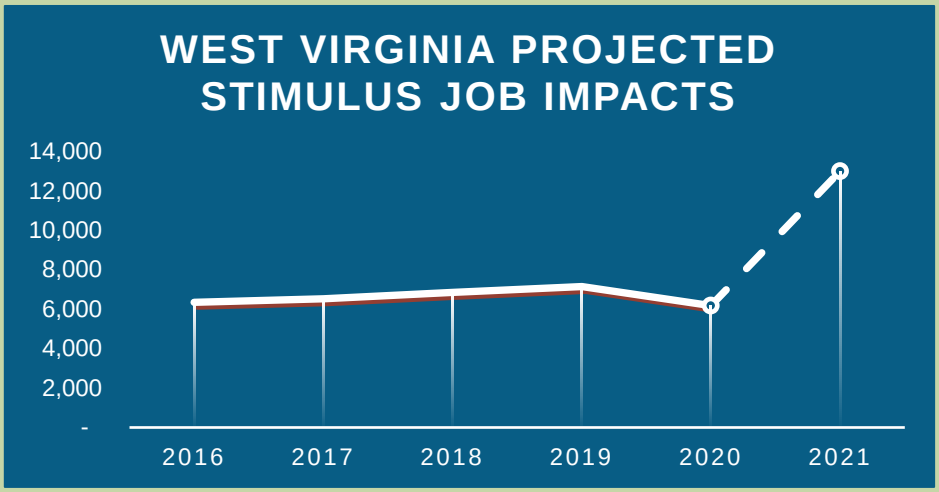
West Virginia's percentage of "55+" workers is the highest for any state's EE workforce. 23% of the energy efficiency workers are likely to retire within the next ten years, providing career growth opportunities for both current and future professionals.

Why invest in EE?

Economic benefits of a federal energy efficiency stimulus package include high-quality jobs for U.S. residents, worker income, boosts to local, state, and federal tax revenues, contributions to Gross Domestic Product (GDP), and energy cost savings.

All these benefits ultimately translate to greater cash flow and stronger local economies. Energy efficiency jobs are proven to be sustainable wage positions that are accessible to all localities nationwide — regardless of geography or politics — providing new jobs that cannot be outsourced.

Updates to U.S. energy infrastructure are investments in the collective economic future of Americans; the creation of a more resilient energy system is vital to economic growth and security.

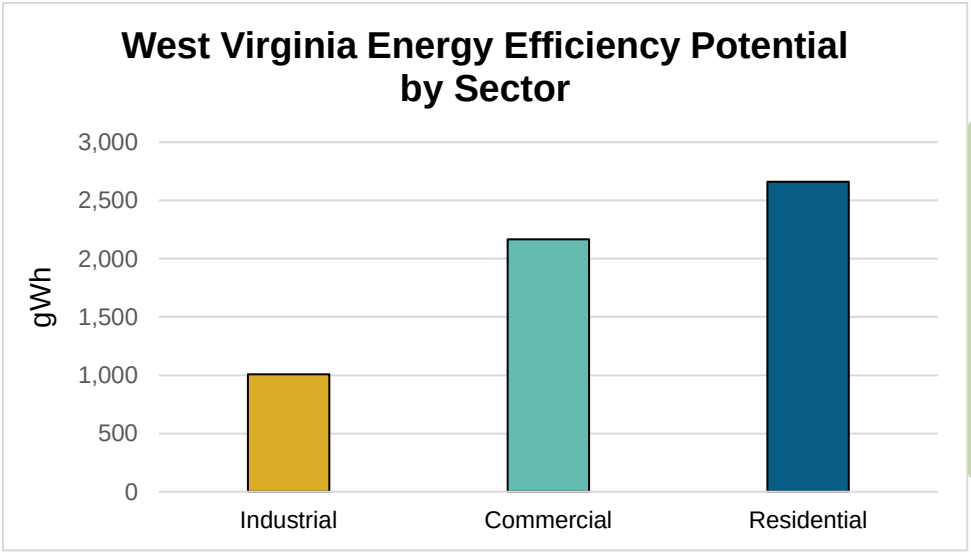


Source: Build Back Better, Faster.

Modeling finds that federal investment would create **6,817 full-time direct, indirect, and induced WV jobs** that will last for at least five years: Over **34,084 job-years** total.

A stimulus of this level and the jobs it would create would also generate more than **$396 million in GDP** each year for the next five years – resulting in **$2.0 billion in economic activity**, more than 3 times the investment.

How much energy efficiency is untapped in your state?



Combined, this would displace the annual electricity consumption of **448,593** homes.

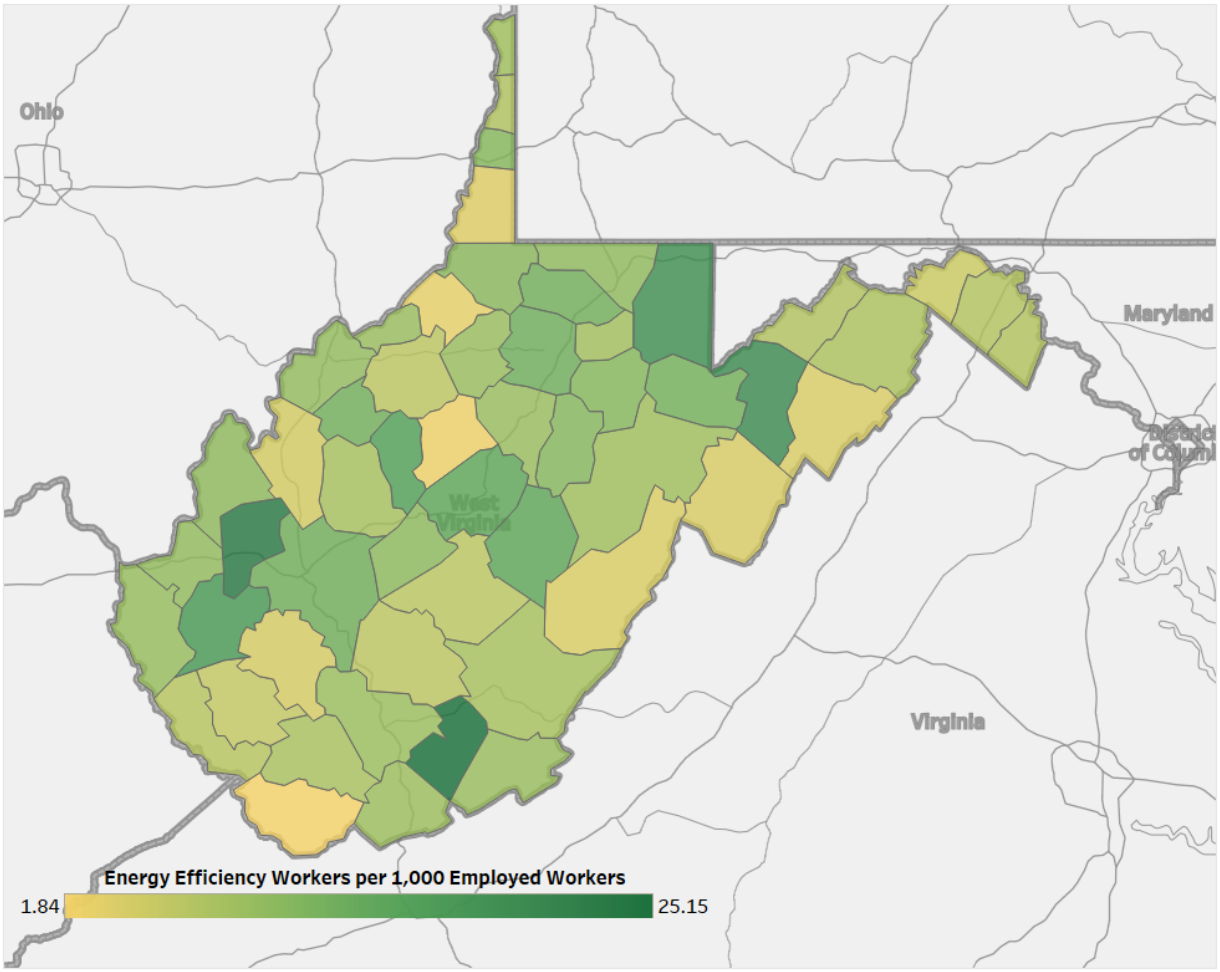
Source: State and Local Planning for Energy (SLOPE) Platform.

Where are EE Jobs?

Congressional	
District	Jobs
1	2,790
2	2,467
3	1,887

Metropolitan Areas	
Area	Jobs
Charleston	1,026
Cumberland	56
Hagerstown-Martinsburg	320
Huntington-Ashland	386
Morgantown	437
Parkersburg-Marietta-Vienna	341
Washington-Arlington-Alexandria	1,972
Weirton-Steubenville	132
Wheeling	269
Winchester	77
Rural	2,130

Energy Efficiency Jobs by County



State Upper House

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	502	11	451	21	<5	31	<5
2	985	12	517	22	<5	32	<5
3	512	13	34	23	<5	33	<5
4	537	14	291	24	<5	34	<5
5	442	15	445	25	<5		
6	321	16	299	26	<5		
7	163	17	34	27	<5		
8	851	18	<5	28	<5		
9	424	19	<5	29	<5		
10	338	20	<5	30	<5		

State Lower House

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	150	28	336	55	63	82	<5
2	277	29	37	56	31	83	<5
3	24	30	<5	57	76	84	<5
4	112	31	42	58	130	85	<5
5	36	32	215	59	164	86	<5
6	70	33	49	60	119	87	<5
7	45	34	67	61	28	88	<5
8	164	35	748	62	<5	89	<5
9	280	36	147	63	73	90	<5
10	<5	37	<5	64	<5	91	<5
11	173	38	<5	65	110	92	<5
12	15	39	12	66	14	93	<5
13	133	40	<5	67	<5	94	<5
14	182	41	24	68	<5	95	<5
15	59	42	138	69	<5	96	<5
16	347	43	175	70	<5	97	<5
17	64	44	138	71	<5	98	<5
18	<5	45	<5	72	<5	99	<5
19	74	46	83	73	<5	100	<5
20	92	47	194	74	<5		
21	25	48	495	75	<5		
22	54	49	193	76	<5		
23	21	50	11	77	<5		
24	32	51	323	78	<5		
25	133	52	86	79	<5		
26	101	53	14	80	<5		
27	27	54	113	81	<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

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

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Data Source: Unless otherwise stated, all data are from the 2020 U.S. Energy and Employment Report, March 2020, by NASEO and EFI (see Appendix A, pages 201-206 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 U.S. Bureau of Labor Statistics -- provides the broadly accepted best accounting of all U.S. energy workers.