

Pennsylvania

Energy Efficiency Jobs in America

June 2021*

65,687

Dec 2020

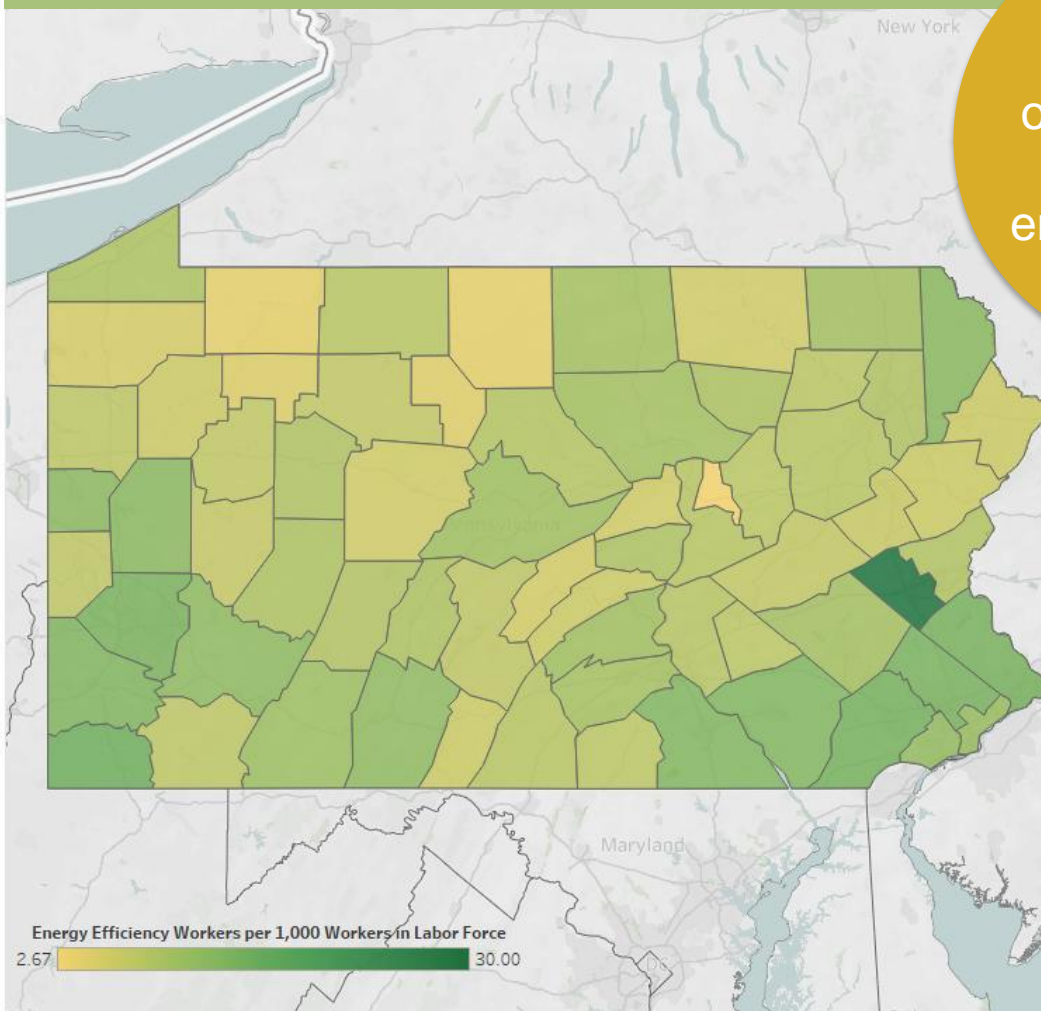
65,397

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

EE Jobs by County



100%
of Pennsylvania
counties have
energy efficiency
workers

~54,700
new EE construction
jobs to retrofit
Pennsylvania homes
by 2030



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

Source: E4TheFuture/BW Research retrofit analysis, July 2021

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

Presented by:



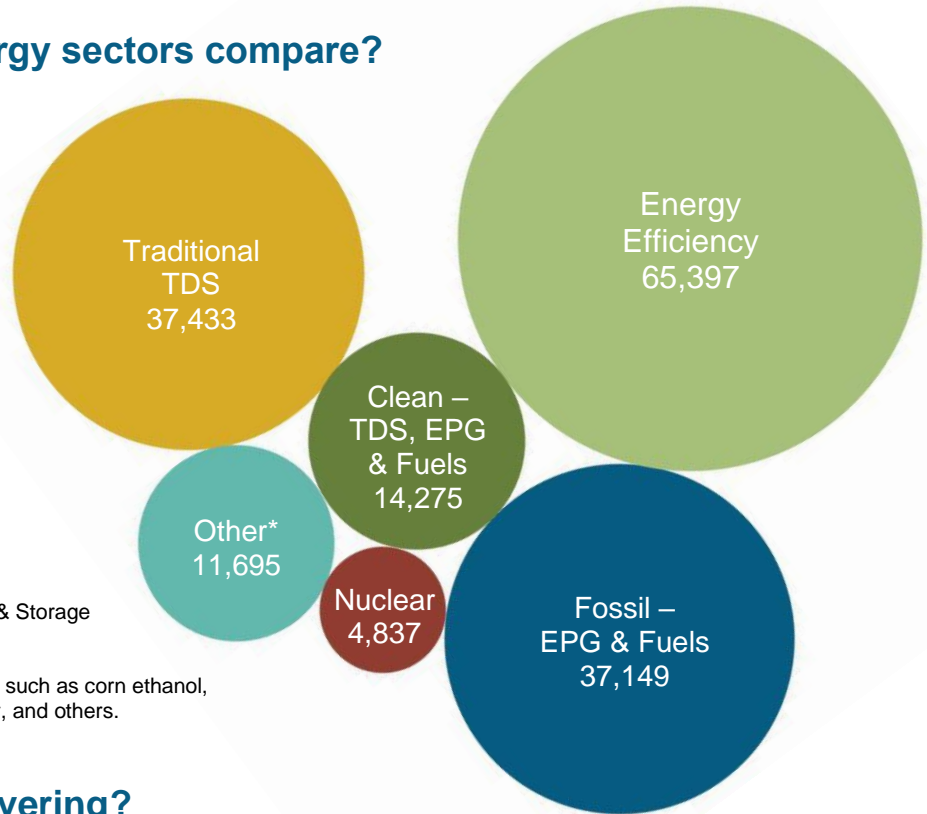
Key EE Statistics for Pennsylvania

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?

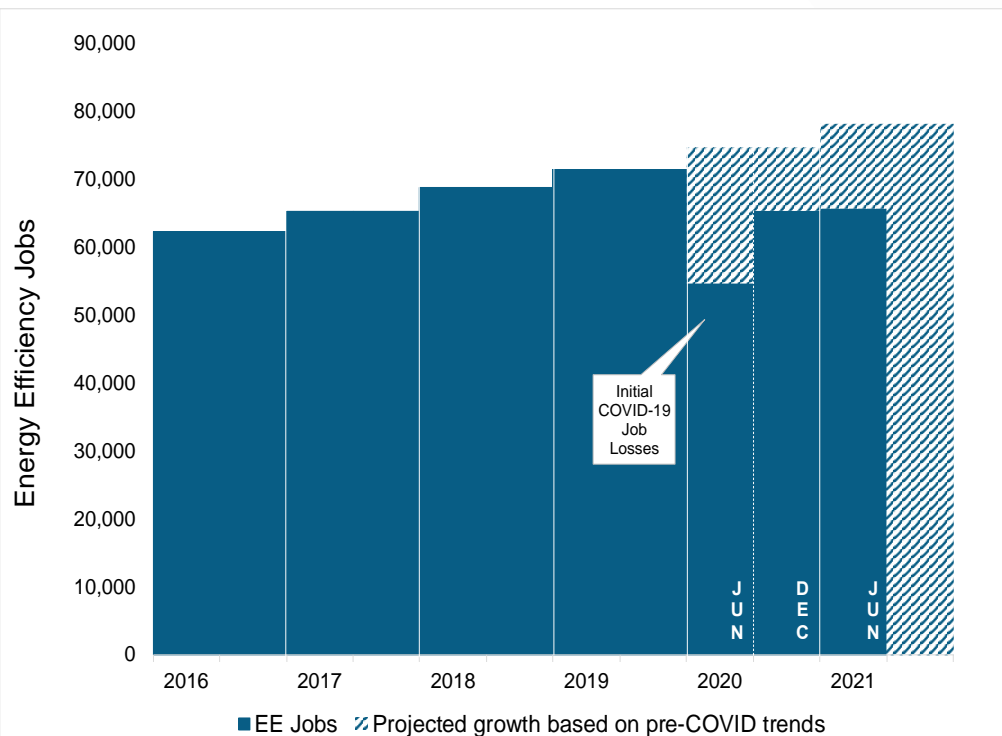
Energy Efficiency is the **largest** energy sector in Pennsylvania.



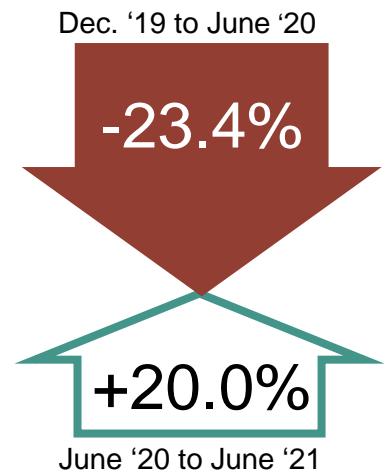
TDS = Transmission, Distribution & Storage
EPG = Electric Power Generation

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

How is the EE industry recovering?



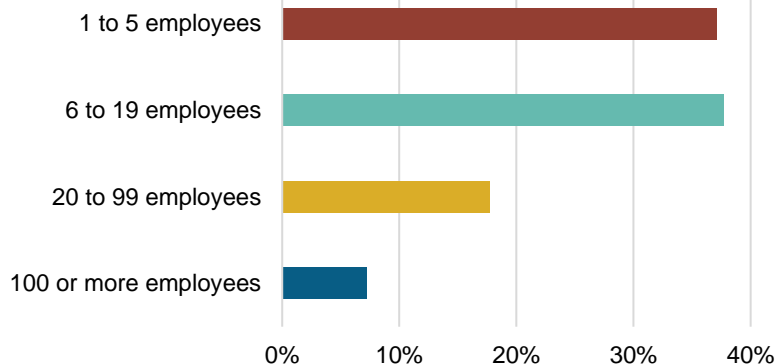
Recovery from COVID-19 has fallen short of Dec. 2019 levels and is significantly below pre-pandemic projections.



Source: E4TheFuture/BW Research job analysis, July 2021

What does EE look like in Pennsylvania?

92.5% of PA EE Businesses Have Less Than 100 Employees



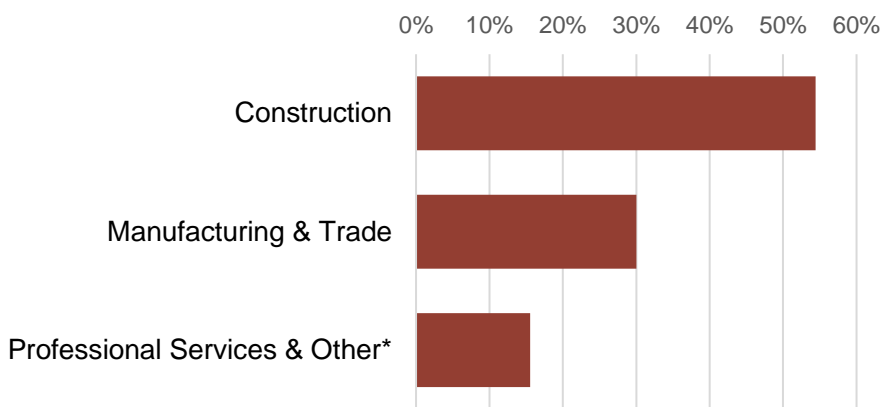
10,290
EE businesses in
Pennsylvania



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

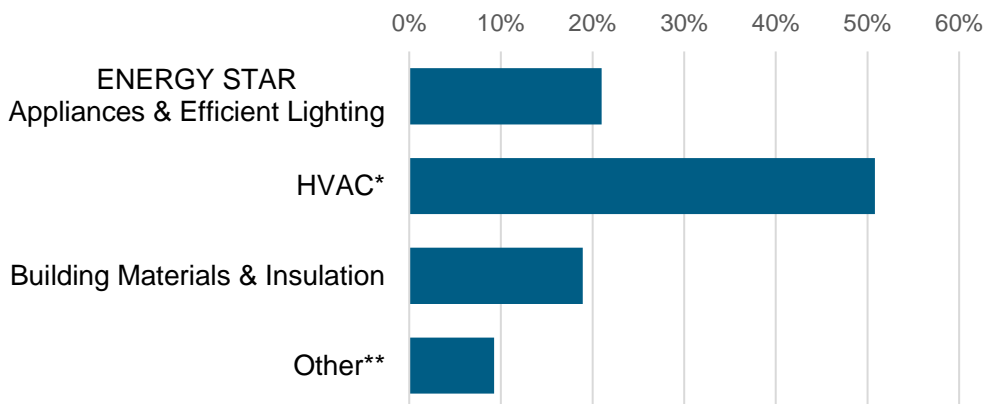


What type of work do energy efficiency firms do?



*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

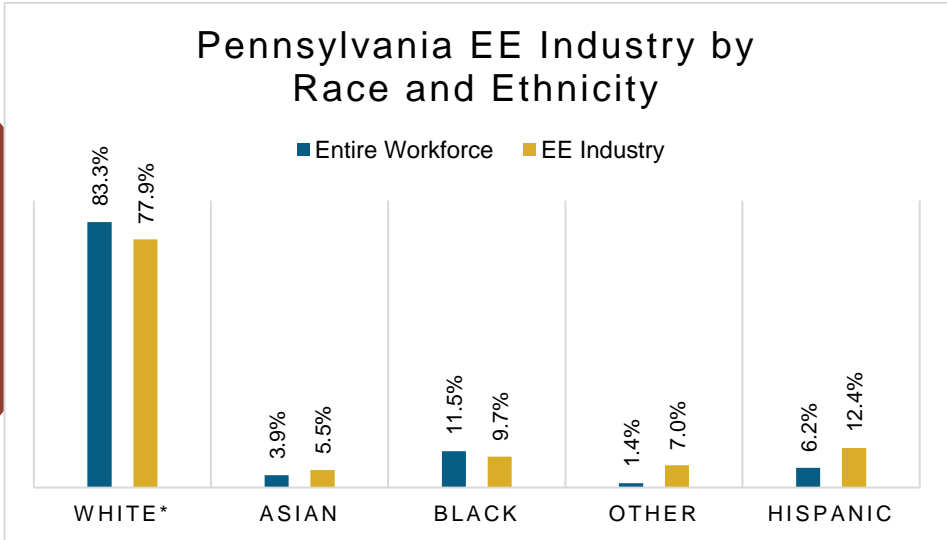


11% of
Pennsylvania
EE workers are
Veterans

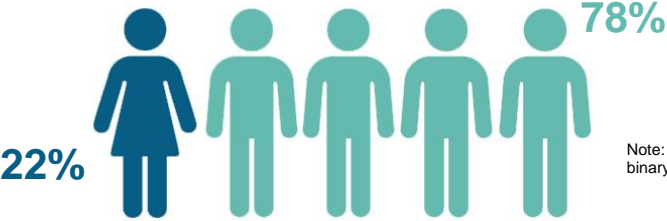
How is EE doing on diversity in Pennsylvania?

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		



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 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



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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.