

Pennsylvania

Energy Efficiency Jobs in America

69,990

Total Jobs

What are EE Jobs?

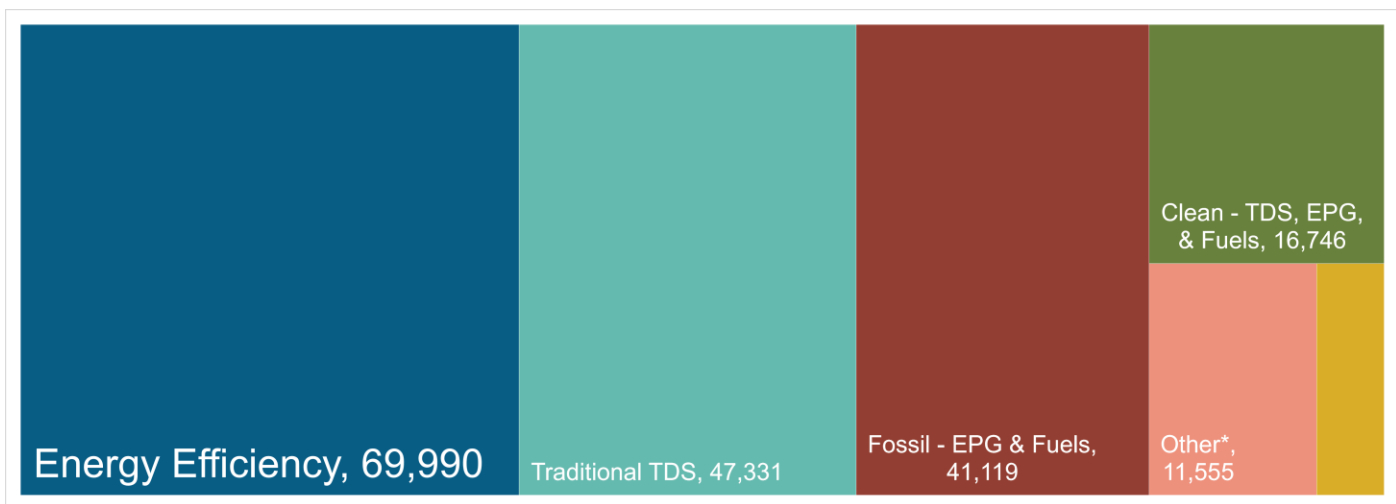
Jobs that deliver goods and services that lower energy use by improving energy efficiency – with a focus on appliances, buildings, data systems, financing, new technologies, and more.

What do EE workers do?

- **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 data** using software to maximize energy 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.

How does EE compare in Pennsylvania?

Energy Efficiency is the largest energy sector in Pennsylvania.



TDS = Transmission, Distribution & Storage

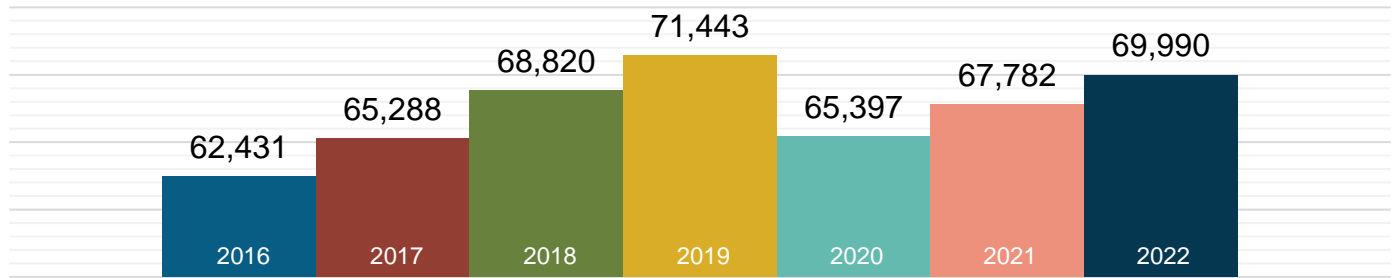
EPG = Electric Power Generation

Nuclear (EPG & Fuels) = 4,671

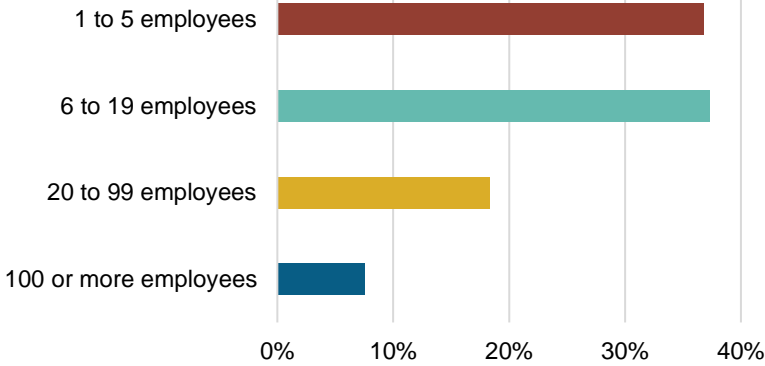
*Includes other energy subsectors such as corn ethanol, woody biomass, large hydropower, and others.

What does EE look like in Pennsylvania?

EE Workers Employed in PA



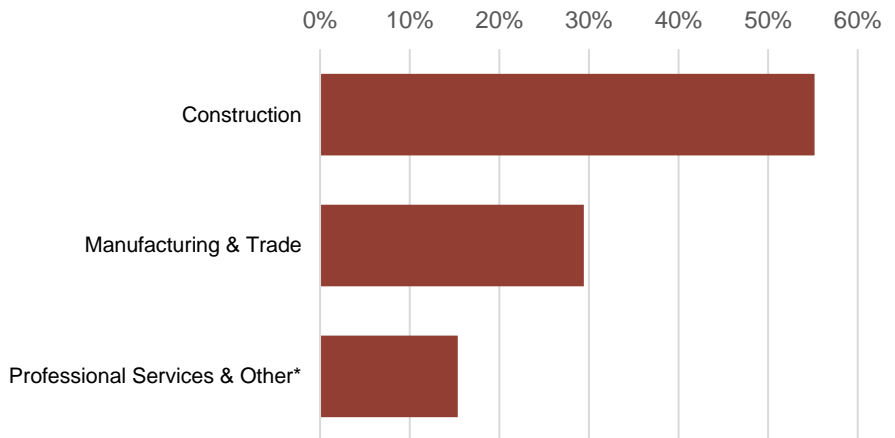
92.4% of PA EE Businesses Have Fewer Than 100 Employees



EE construction workers comprise **15%** of Pennsylvania's construction workforce

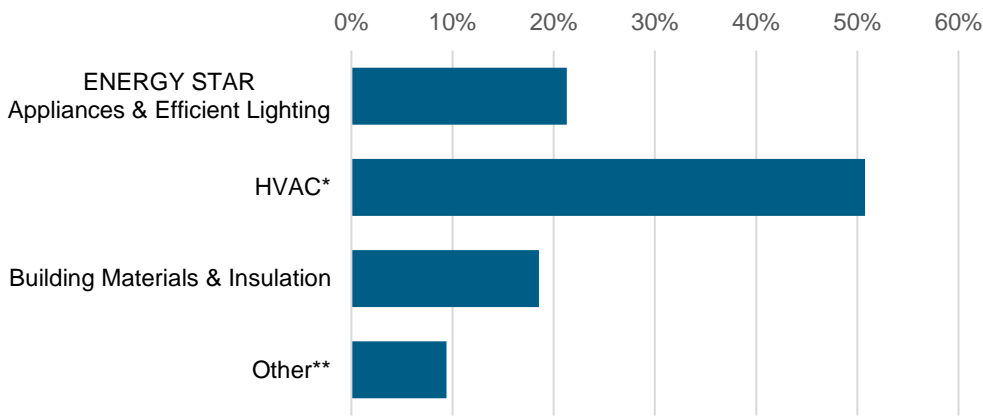


What type of work do energy efficiency firms do?



*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?



10%
of Pennsylvania
EE workers are
Veterans

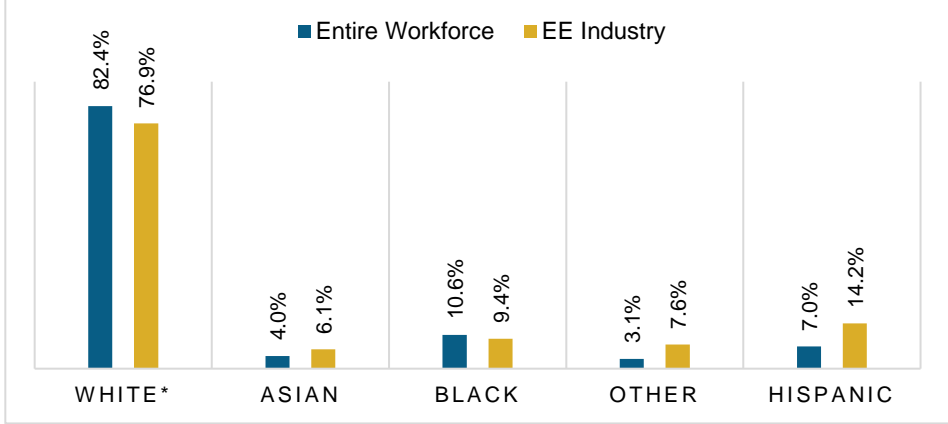
*Heating, Ventilation, Air Conditioning of higher than standard efficiency/renewable heating & cooling
**Other such as energy audits, building certifications, and software services

How is EE doing on diversity in Pennsylvania?

Demographic data is critical to measure progress in expanding the diversity of the EE industry. A more inclusive industry that reflects the communities it serves is a stronger one that better meets the needs of all U.S. residents. Promoting diversity in hiring is key to maintaining a future workforce of qualified 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.

Pennsylvania EE Industry by Race and Ethnicity



*Includes non-Hispanic and Hispanic whites.

Gender in the Pennsylvania EE Workforce

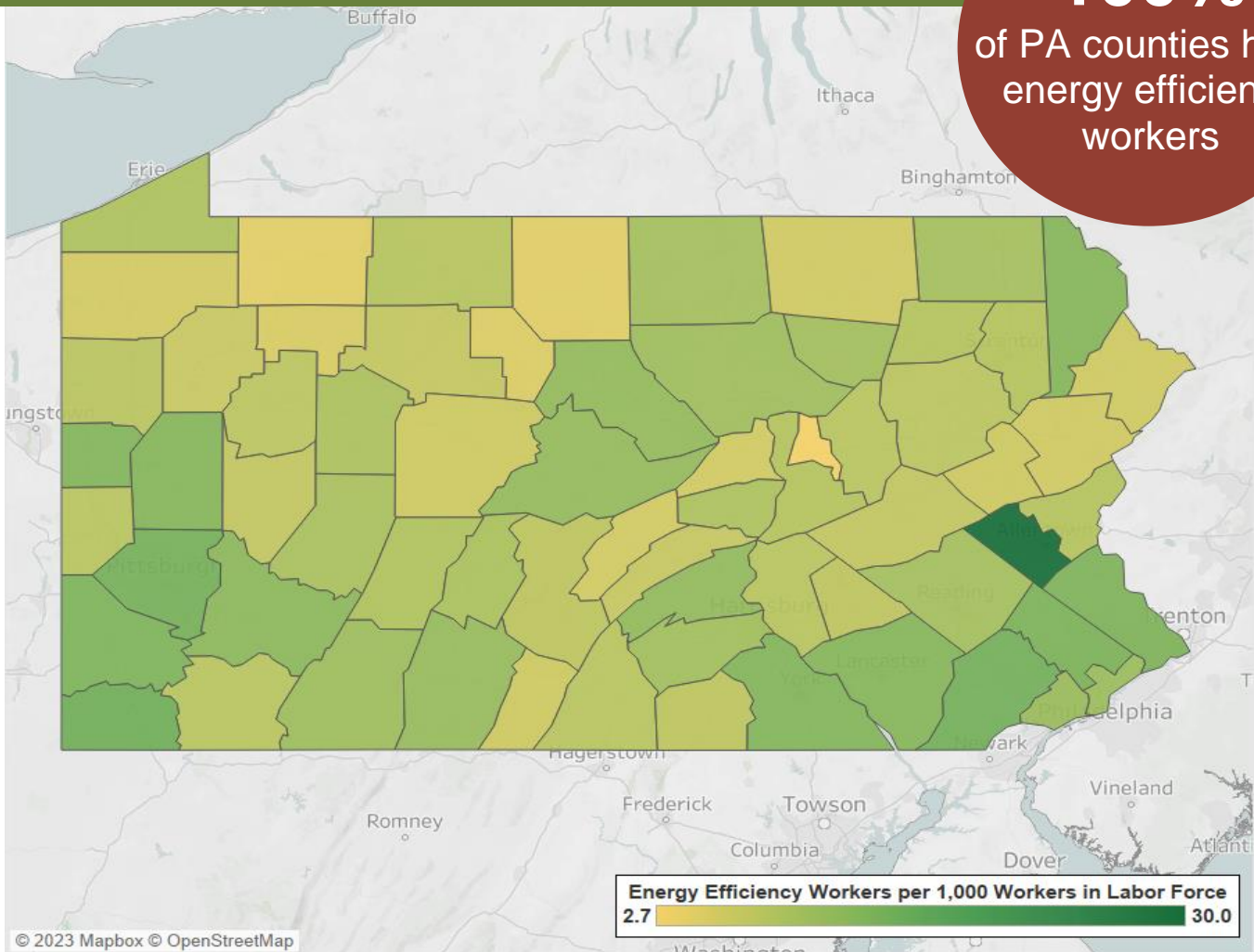


Note: The U.S. Bureau of Labor Statistics (BLS) only includes two genders in their survey. Non-binary gender data is missing from this document due to this limitation.

Energy Efficiency Jobs are Everywhere

EE Jobs by County

100%
of PA counties have
energy efficiency
workers



The energy efficiency job concentration displayed above is capped at thirty jobs per thousand in order to maintain observable differences between the majority of counties within the state. This is done to eliminate the influence outliers have on the overall color gradient. For a full list of energy efficiency jobs by county, please visit the Department of Energy's (DOE) United States Energy and Employment Report (USEER) County-Level data site at <https://www.energy.gov/policy/2023-useer-county-level-data-faq>.

Metropolitan Areas

Area	Jobs	Area	Jobs
Allentown-Bethlehem-Easton	7,885	Pittsburgh	14,306
Altoona	530	Reading	1,684
Erie	1,065	Scranton--Wilkes-Barre--Hazleton	2,013
Harrisburg-Carlisle	2,973	State College	752
Johnstown	425	Williamsport	505
Lancaster	3,222	York-Hanover	2,377
Lebanon	391	Youngstown-Warren-Boardman	342
New York-Newark-Jersey City	68	Rural	7,468
Philadelphia-Camden-Wilmington	23,984		

State Senate

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	3,797	14	1,680	27	905	40	743
2	959	15	1,768	28	1,832	41	1,381
3	280	16	1,945	29	767	42	2,329
4	1,387	17	2,539	30	1,897	43	562
5	185	18	1,165	31	1,241	44	305
6	3,107	19	1,358	32	1,169	45	371
7	1,320	20	1,201	33	635	46	1,166
8	411	21	1,769	34	970	47	1,060
9	3,483	22	1,372	35	851	48	569
10	1,944	23	1,545	36	851	49	1,365
11	2,363	24	813	37	3,534	50	791
12	972	25	1,094	38	1,518		
13	2,293	26	527	39	1,903		

State House of Representatives

District	Jobs	District	Jobs	District	Jobs	District	Jobs
1	587	52	185	103	816	154	143
2	506	53	888	104	355	155	369
3	230	54	1,129	105	<10	156	1,734
4	93	55	407	106	<10	157	349
5	815	56	31	107	576	158	277
6	372	57	86	108	38	159	474
7	365	58	86	109	120	160	44
8	557	59	302	110	244	161	746
9	404	60	220	111	484	162	402
10	305	61	989	112	777	163	542
11	244	62	318	113	348	164	<10
12	465	63	234	114	105	165	337
13	604	64	256	115	493	166	<10
14	321	65	223	116	469	167	<10
15	489	66	319	117	275	168	14
16	308	67	171	118	372	169	43
17	14	68	598	119	425	170	182
18	658	69	233	120	22	171	25
19	2,327	70	882	121	78	172	393
20	752	71	297	122	236	173	<10
21	409	72	166	123	300	174	<10
22	670	73	238	124	186	175	1,984
23	148	74	304	125	169	176	121
24	293	75	289	126	317	177	133
25	595	76	845	127	31	178	62
26	798	77	49	128	304	179	162
27	841	78	390	129	48	180	<10
28	261	79	552	130	200	181	56
29	874	80	52	131	766	182	1,664
30	24	81	126	132	411	183	132
31	899	82	485	133	594	184	196
32	352	83	540	134	206	185	76
33	155	84	194	135	118	186	56
34	265	85	249	136	325	187	1,198
35	479	86	373	137	261	188	75
36	192	87	845	138	241	189	26
37	1,709	88	165	139	225	190	56
38	57	89	403	140	758	191	<10
39	546	90	13	141	79	192	19
40	622	91	523	142	483	193	289
41	345	92	309	143	964	194	229
42	<10	93	459	144	63	195	<10
43	608	94	50	145	19	196	<10
44	349	95	<10	146	162	197	<10
45	37	96	<10	147	99	198	45
46	128	97	<10	148	1,013	199	<10
47	1,025	98	259	149	982	200	<10
48	49	99	109	150	19	201	25
49	526	100	142	151	513	202	<10
50	107	101	527	152	353	203	<10
51	195	102	81	153	299		

Congressional	
District	Jobs
1	4,690
2	3,331
3	4,514
4	4,406
5	2,713
6	7,194
7	4,958
8	5,432
9	3,840
10	4,142
11	2,804
12	4,961
13	1,079
14	4,913
15	4,741
16	2,449
17	1,758
18	2,068



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Data Source: Except for county data on page 4, all data are from the U.S. Energy and Employment Report, June 2023, by the U.S. Department of Energy (see Appendix B 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