CLEAN JOBS AMERICA 2026[1]

11TH ANNUAL REPORT ON U.S. CLEAN ENERGY EMPLOYMENT









EXECUTIVE SUMMARY

CLEAN JOBS AMERICA 2026[1]

CLEAN ENERGY EMPLOYMENT DECLINED AFTER FOUR YEARS OF GROWTH

At a time when America needs more affordable power and the workers to produce, deliver, and conserve it, clean energy businesses lost nearly 37,000 jobs in 2025—the industry's first annual decline after four consecutive years of growth. The sector still employed 3.52 million Americans, but its losses were part of a broader downturn that erased approximately 86,650 jobs across the nation's energy economy.

Against this backdrop, this year's 11th annual Clean Jobs America analysis examines that reversal within clean energy, identifying where jobs were lost, where growth continued, and how those changes affected industries and communities nationwide.

The losses in solar, wind, electric vehicles, and other industries show the workforce stakes of the Trump administration's efforts to curtail clean energy development. Federal policy rollbacks and restrictions on projects have added uncertainty for businesses investing in new facilities and hiring workers. Since January 2025, nearly 400 large-scale clean energy projects have been canceled, closed, or downsized, according to separate E2 research.

Clean energy employment fell by 1 percent, slightly less than the percentage job declines in fossil fuel generation and vehicles employment. The broader downturn challenges promises that the administration's energy agenda would deliver more jobs.

The decline also comes amid rising energy demand and costs, and the nation's need for more cheap, clean, fast-to-deploy power. U.S. electricity demand hit a record high in 2025,[2] and prices rose about seven percent nationwide,[3] underscoring the need to expand energy supplies, improve efficiency, and support the workforce that makes both possible.

Energy efficiency remained the largest clean energy employer, supporting 2.36 million jobs, or roughly two-thirds of the entire workforce. It also recorded the largest absolute loss, shedding approximately 21,440 jobs.

NATIONAL EMPLOYMENT SNAPSHOT

3.52M	~37,000	16%	42%	1 IN 45
3.52 MILLION JOBS; 3.3X AS MANY JOBS AS FOSSIL FUELS	JOBS LOST SINCE Q4 2024	GROWTH SINCE 2020	OF TOTAL ENERGY EMPLOYMENT	US JOBS ARE IN CLEAN ENERGY[4]

Renewable generation lost about 11,580 jobs, driven primarily by declines in solar and wind, while clean vehicles lost approximately 9,620 jobs in a second consecutive year of contraction.

There were notable gains in some areas. High-efficiency HVAC and renewable heating and cooling added approximately 9,480 jobs despite the broader efficiency downturn. Storage and grid modernization grew 3 percent—the fastest rate among the five major clean energy sectors—with smart grid employment increasing 17 percent. Biofuels employment also edged up, albeit by less than a percentage point.

The slowdown reached **34 states and the District of Columbia**. California's loss of approximately 20,650 jobs accounted for about 56 percent of the national net decline—though employment across the rest of the country also fell.

The South was the only region to record a net annual gain in clean energy jobs, with Florida leading the way with 3,800 new positions. New Mexico had the fastest percentage growth at more than 5 percent.

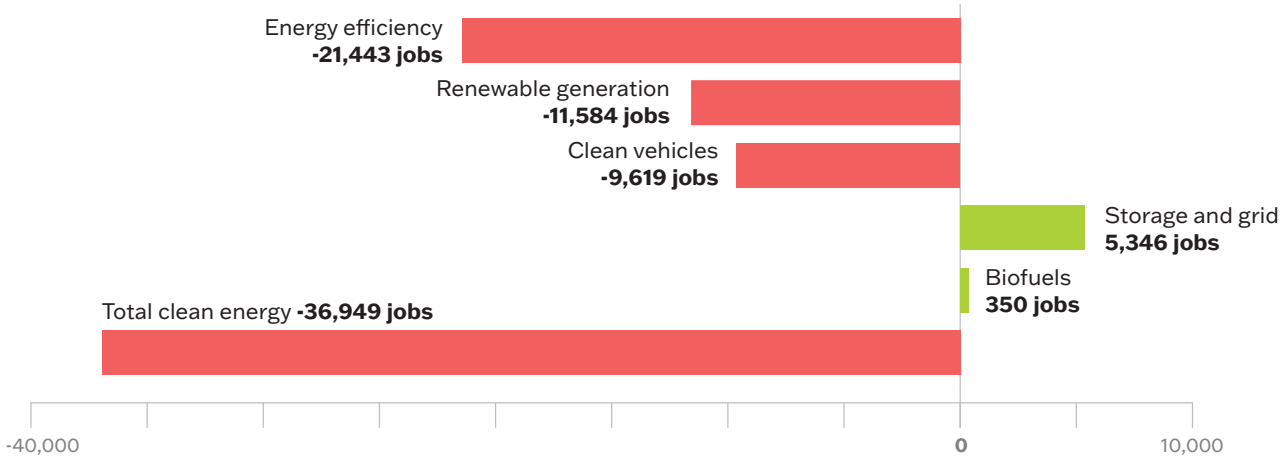
Clean energy's economic reach extends well beyond electricity generation. **Construction and manufacturing accounted for roughly three in five clean energy jobs**, alongside substantial employment in professional services, trade, and other industries. The mix varied considerably by state: manufacturing represented more than half of Michigan's clean energy workforce, while construction dominated in Florida and professional services in Colorado.

Despite the annual setback, clean energy remained a substantial and growing part of the economy over the longer term. Total employment grew 16 percent from 2020, outpacing the growth rate of overall U.S. workforce during that period.

Clean energy accounted for approximately 42 percent of total energy employment and supported about 3.3 times as many jobs as fossil fuel extraction, processing, and electric generation combined. Clean energy employment exceeded those fossil fuel categories in 42 states and DC.

ES1 // WHICH SECTORS DROVE THE 2025 DECLINE

Net change of approximately -36,950 jobs.



KEY FINDINGS

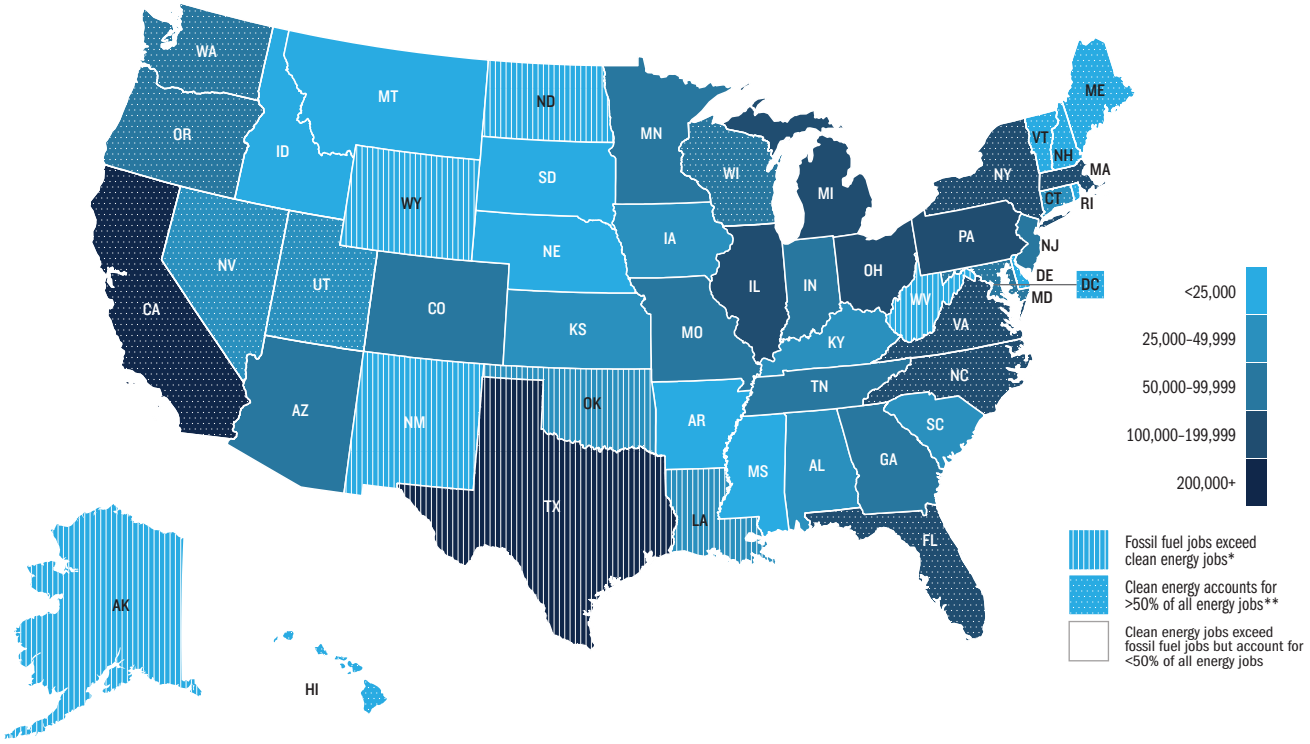
- **Clean energy lost nearly 37,000 jobs in 2025**, ending four consecutive years of growth. Employment fell 1.0 percent even as total U.S. employment increased approximately 0.5 percent.[5]
- **The three largest clean energy sectors all contracted**. Energy efficiency lost approximately 21,440 jobs, renewable generation lost 11,580, and clean vehicles lost 9,620. Gains in storage and grid modernization and biofuels partially offset those losses.
- **Job losses reached 34 states and the District of Columbia**. California lost approximately 20,650 jobs, accounting for 56 percent of the national net decline. Illinois, Maryland, Massachusetts, and Michigan recorded the next-largest losses.
- **Florida led job gains; New Mexico led percentage growth**. Florida added approximately 3,800 jobs, while New Mexico's workforce expanded 5.4 percent. Sixteen states added jobs, and the South was the only region with a net annual gain.
- **Selected technologies continued to grow** despite the broader downturn. Storage and grid modernization expanded 3.2 percent, led by 17.4 percent growth in smart grid jobs. High-efficiency HVAC and renewable heating and cooling added approximately 9,480 jobs within the otherwise declining efficiency sector.
- **Clean energy remained a major employer across industries and states.** Its 3.52 million workers represented 42 percent of total energy employment, with construction and manufacturing accounting for roughly three in five clean energy jobs.
- **Longer-term gains remained intact.** Clean energy employment was 16 percent above its 2020 level—an increase of approximately 486,000 jobs—and every state and DC remained above its 2020 total. Clean energy supported more jobs than fossil fuel extraction, processing, and electric generation combined in 42 states and DC.

CLEAN ENERGY JOBS ACROSS THE STATES

California, Texas, Florida, and New York remained the nation's largest clean energy employers at the end of 2025, together supporting approximately 1.18 million jobs—about one-third of the national clean energy workforce. Illinois, Michigan, Massachusetts, Ohio, North Carolina, and Pennsylvania rounded out the top 10, reflecting the industry's reach across regions.

Clean energy employment exceeded fossil fuel extraction, mining, processing, and generation employment in 42 states and the District of Columbia. In 20 states, clean energy accounted for at least half of all energy sector jobs. Even in states with substantial fossil fuel industries, clean energy supported significant workforces: Texas ranked second nationally with approximately 281,540 clean energy jobs, despite being one of the eight states where fossil fuel employment remained larger.

1 // TOTAL CLEAN ENERGY JOBS with fossil fuel comparison



* Fossil fuel jobs cover fuels and fossil electricity generation; exclude fossil transmission, distribution, storage, and gasoline/diesel vehicles.
** Total clean energy jobs includes total employment across electric power generation, fuels extraction and mining, energy efficiency, transmission, storage and grid, and all motor vehicles.

To explore clean energy jobs maps, visit www.cleanjobsamerica.e2.org.

2 // THE LARGEST CLEAN ENERGY WORKFORCES

TOP 10 STATES

1	California: **531,671**	6	Michigan: **125,845**
2	Texas: **281,541**	7	Massachusetts: **124,400**
3	Florida: **187,752**	8	Ohio: **119,172**
4	New York: **179,383**	9	North Carolina: **109,723**
5	Illinois: **129,281**	10	Pennsylvania: **104,495**

Honorable mentions

11	Virginia: **101,416**
12	Indiana: **88,419**
13	Tennessee: **88,270**
14	Georgia: **86,365**
15	Maryland: **82,444**

CLEAN ENERGY IN THE NATIONAL WORKFORCE

The clean energy workforce declined at approximately the same rate as total energy employment in 2025. Total energy jobs fell from 8.47 million to 8.38 million, a loss of about 86,650 jobs, or 1 percent. Clean energy accounted for roughly 43 percent of that net decline.

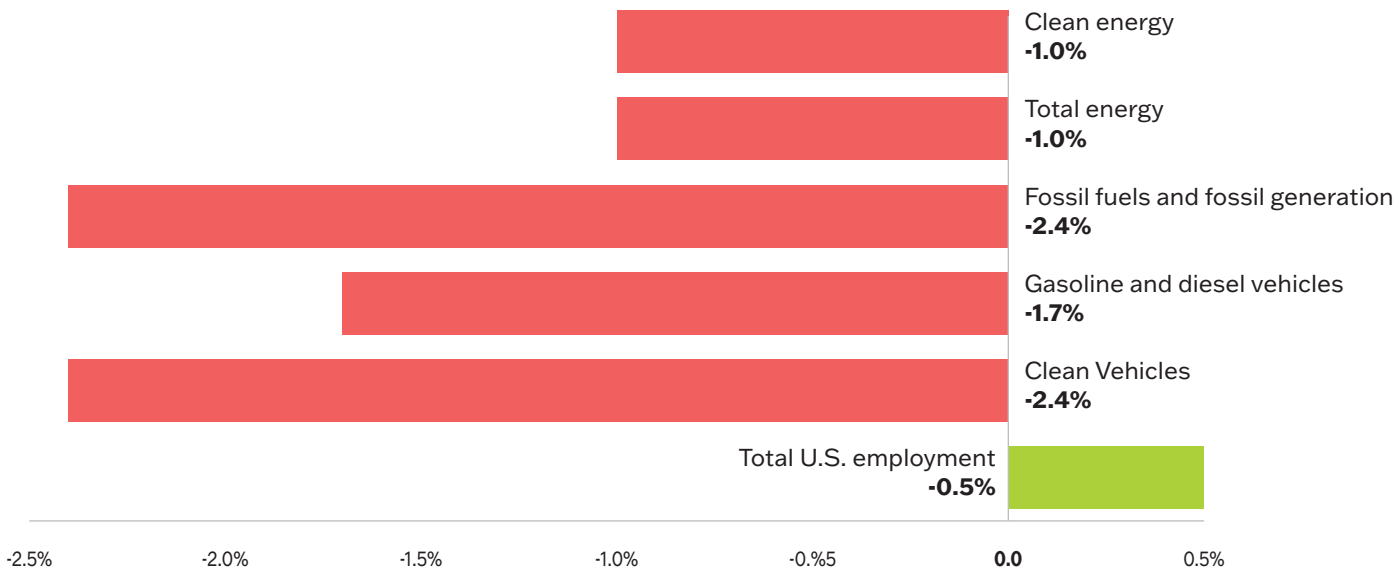
Fossil fuel extraction, mining, processing, and electric generation together employed about 1.06 million workers, down 2.4 percent from Q4 2024—more than twice the pace of clean energy sector's losses. Clean energy employed about 3.3 times as many people as these fossil fuel categories.

3 // NATIONAL EMPLOYMENT COMPARISONS

Employment category	Q4 2025	Annual change	Annual rate
Clean energy	3,522,101	-36,949	-1.0%
Total energy	8,380,049	-86,646	-1.0%
Fossil fuels and fossil generation	1,056,813	-25,833	-2.4%
Gasoline and diesel vehicles	1,975,614	-34,474	-1.7%
Clean Vehicles	388,415	-9,619	-2.4%
Total U.S. employment[6]	157,114,057	+713,014	+0.5%

Clean energy represented approximately 2.24 percent of total U.S. employment in Q4 2025, or about one in every 45 jobs.[7] Nationwide employment increased by approximately 713,010 jobs, or 0.5 percent, while clean energy employment declined.

4 // ANNUAL EMPLOYMENT GROWTH COMPARISON



THE LONGER TERM EMPLOYMENT PICTURE

Despite the losses in 2025, clean energy employment remained substantially above its 2020 level. The industry added approximately **486,000 jobs over five years, growing 16 percent**—faster than total U.S. employment, which grew 11.4 percent, total energy employment at 11.3 percent, and fossil fuel extraction, processing, and electric generation at 8.6 percent.

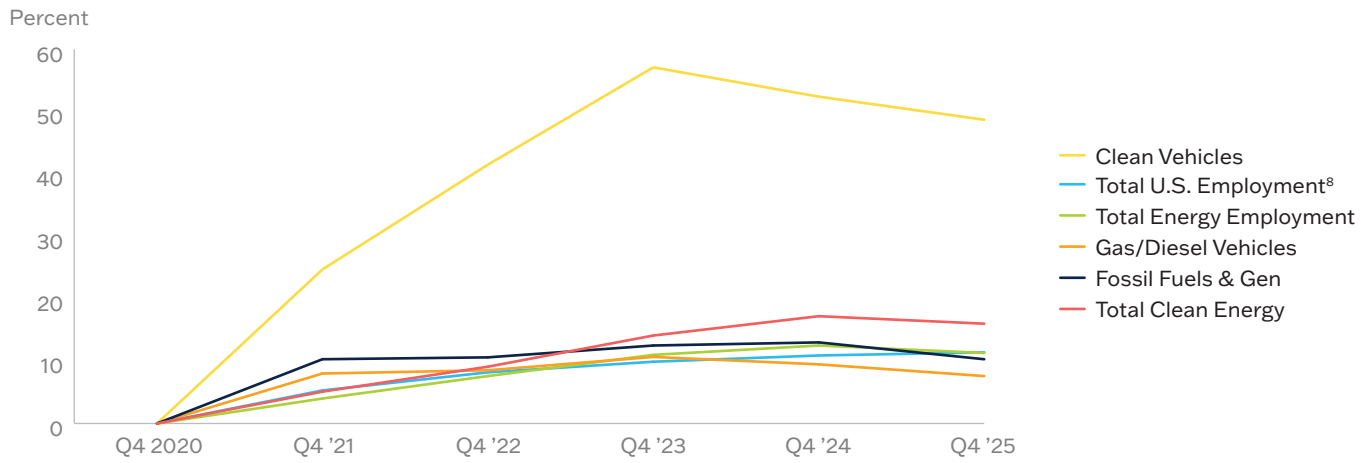
All five major clean energy sectors employed more workers in 2025 than in 2020. Clean vehicles led with nearly 49 percent growth, followed by storage and grid modernization at approximately 26 percent. Biofuels grew 14 percent, renewable generation 13 percent, and energy efficiency 12 percent. Energy efficiency added more than 253,000 jobs, accounting for over half of the industry's net five-year gain.

The longer-term record shows substantial gains, but the recent direction is more uneven. Clean vehicles retained the strongest five-year growth despite two consecutive years of job losses, while storage and grid modernization continued to expand in 2025. Restoring broad employment growth will depend on renewed hiring across the larger sectors as well as continued gains in emerging technologies.

5 // SECTOR EMPLOYMENT AND GROWTH

Sector	Q4 2025 jobs	2025 change	Annual rate	Since 2020
Energy efficiency	2,360,303	-21,443	-0.9%	+12.0%
Renewable generation	557,725	-11,584	-2.0%	+13.2%
Clean vehicles	388,415	-9,619	-2.4%	+48.7%
Storage and grid	173,388	+5,346	+3.2%	+25.8%
Biofuels	42,270	+350	+0.8%	+14.1%
Total clean energy	3,522,101	-36,949	-1.0%	+16.0%

6 // EMPLOYMENT GROWTH SINCE 2020



ENERGY EFFICIENCY

2,360,303 jobs

-21,443 in 2025

-0.9% annually

+12.0% since 2020

Energy efficiency remained the largest clean energy employer, accounting for about two-thirds of the workforce. Employment fell by about 21,440 jobs in 2025, the largest absolute decline among the five sectors and approximately 58 percent of the overall net clean energy job loss.

Traditional HVAC with an efficiency component accounted for the largest reduction, losing about 26,960 jobs. This was partly offset by high-efficiency HVAC and renewable heating and cooling, adding about 9,480 jobs. Smaller declines in lighting, advanced materials, and other efficiency work contributed to the sector's net loss.

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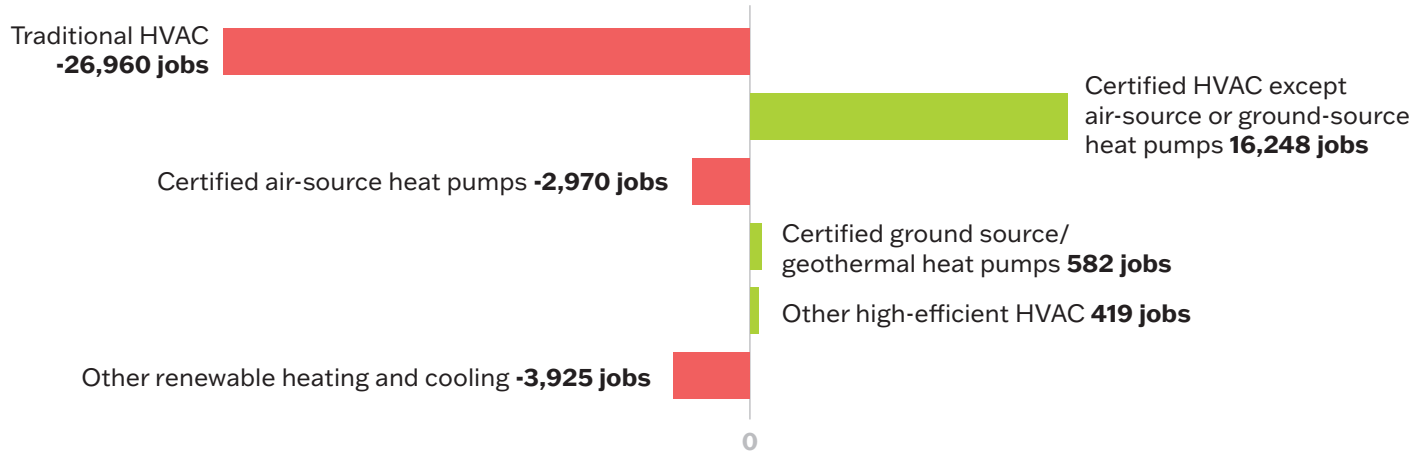
7 // ENERGY EFFICIENCY SUBSECTORS

Subsector	Q4 2025 jobs	Jobs changed	2024–Q4 2025	2020–Q4 2025*
Certified Appliances (not including HVAC)	**141,826**	(385)	-0.3%	12.5%
Certified Heating, Ventilation, and Cooling (HVAC), except for air-source or ground-source heat pumps*	**218,968**	16,248	8.0%	19.0%
Certified air-source heat pumps*	**67,583**	(2,970)	-4.2%	7.6%
Certified ground-source or geothermal heat pumps*	**7,660**	582	8.2%	22.0%
Other high efficiency HVAC that are out of scope for certification (e.g. indirect evaporative coolers, air to water heat pumps, energy recovery systems, etc.)	**152,069**	419	0.3%	11.4%
Traditional HVAC goods, control systems, and services (including for building retrofits)	**582,351**	(26,965)	-4.4%	9.5%
Certified water heaters	**21,218**	(872)	-3.9%	11.2%
Certified Electronics (TVs, Telephones, Audio/Video, etc.)	**7,208**	(45)	-0.6%	15.0%
Certified Windows, Doors and Skylights	**25,613**	(539)	-2.1%	9.1%
Certified Roofing	**34,305**	(25)	-0.1%	11.3%
Certified Insulation	**114,687**	(772)	-0.7%	11.6%
Air sealing	**70,347**	(825)	-1.2%	8.8%
Certified Commercial Food Service Equipment	**30,581**	(912)	-2.9%	16.0%
Certified Data Center Equipment	**13,664**	1,078	8.6%	36.9%
Certified LED lighting	**147,174**	(5,203)	-3.4%	7.3%
Other LED, CFL, and efficient lighting	**226,870**	4,809	2.2%	12.7%
Other renewable heating and cooling (geothermal, biomass, heat pumps, solar heating, etc.)	**107,579**	(3,925)	-3.5%	12.6%
Advanced building materials/insulation	**116,644**	1,173	1.0%	14.0%
Recycled building materials	**78,245**	(1,264)	-1.6%	6.1%
Reduced water consumption products and appliances	**93,473**	(1,808)	-1.9%	13.5%
Energy auditing services*	**3,048**	362	13.5%	27.2%
Other	**99,192**	399	0.4%	10.8%

* Data only available back to 2021 before subsector got reorganized

California remained the largest efficiency employer, with about 303,340 jobs, followed by Texas, New York, and Florida. Construction accounted for approximately 1.28 million efficiency jobs, or 54 percent of the sector. Manufacturers employed about 343,840 workers. Efficiency employment was 12.0 percent above 2020 but remained about 18,590 jobs below 2019.

8 // DIFFERENT DIRECTIONS WITHIN HVAC



RENEWABLE GENERATION

557,725 jobs

-11,584 in 2025

-2.0% annually

+13.2% since 2020

Renewable generation employment fell by about 11,580 jobs in 2025. Solar accounted for most of the decline, losing approximately 11,180 jobs, while wind lost about 2,700. Growth in bioenergy and combined heat and power and in low-impact hydropower, marine, and hydrokinetic technologies partly offset those losses.

Solar remained the largest renewable generation employer, with approximately 359,370 jobs, followed by wind with 130,290. Together, the two technologies accounted for nearly 88 percent of the sector's workforce.

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9 // RENEWABLE GENERATION SUBSECTORS

Subsector	Q4 2025 jobs	Jobs changed	2024–25	2020–25
Solar	359,373	-11,183	-3.0%	+13.5%
Wind	130,287	-2,698	-2.0%	+11.5%
Low-impact hydro, marine, and hydrokinetics	13,147	+1,036	+8.6%	+16.9%
Geothermal electricity	8,634	-344	-3.8%	+7.9%
Bioenergy and combined heat and power	46,284	+1,605	+3.6%	+15.3%

California employed about 128,310 renewable generation workers, followed by Texas with 50,220 and Florida with 30,860. Construction accounted for about 233,730 jobs, or 42 percent of the national sector workforce; manufacturing accounted for about 75,790. National renewable generation employment remained 13.2 percent above 2020. Renewable generation supported about 2.8 times as many jobs as fossil fuel electric generation alone in 2025.

10 // GENERATION EMPLOYMENT COMPARISON



CLEAN VEHICLES

388,415 jobs

-9,619 in 2025

-2.4% annually

+48.7% since 2020

Clean vehicle employment declined for the second consecutive year, falling about 9,620 jobs in 2025 after a decline of more than 12,000 in 2024. Despite these declines the sector's workforce remained nearly 49 percent higher than in 2020. The multi-year decline in clean vehicles is part of an overall contraction in the U.S. auto sector. Gas and diesel vehicle workforce has shrunk almost 3 percent since Q3 2023, losing more 56,000, including 34,000 in 2025 alone.

All four vehicle categories lost jobs. Hybrid electric vehicles accounted for roughly half of the sector's net decline, losing about 4,910 jobs. Battery electric vehicles lost about 2,890 jobs; plug-in hybrids and hydrogen and fuel-cell vehicles also declined.

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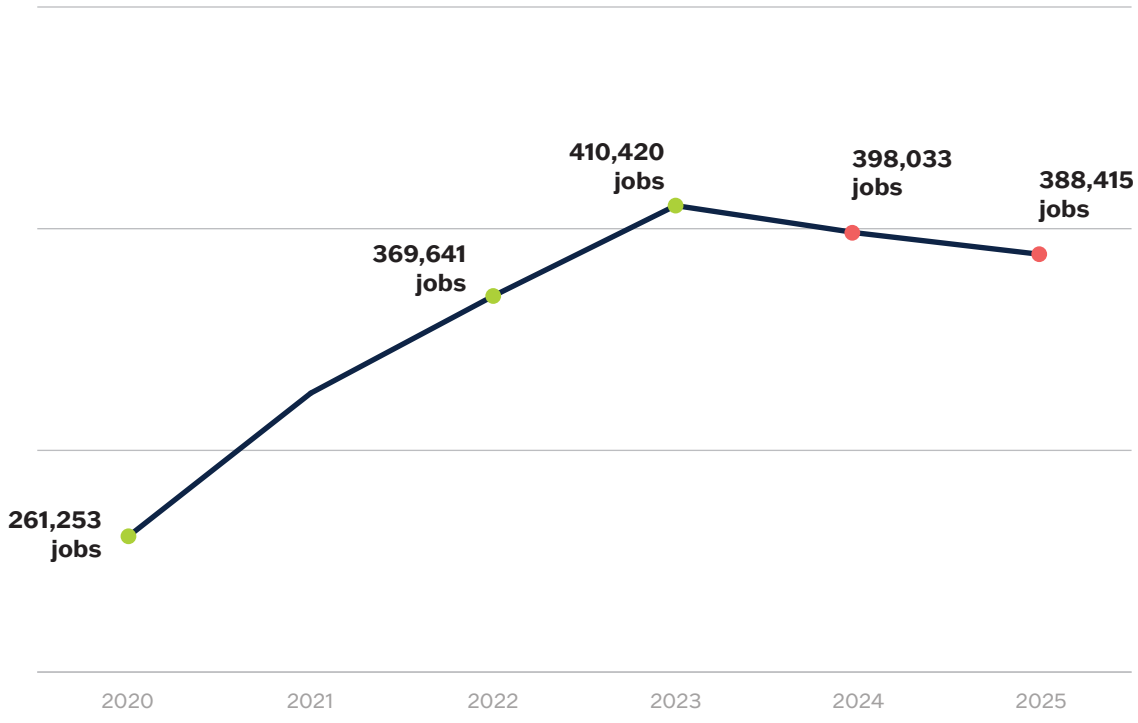
11 // CLEAN VEHICLE SUBSECTORS

Subsector	Q4 2025 jobs	Jobs changed	2024–25	2020–25
Hybrid electric vehicles	156,304	-4,907	-3.0%	+30.6%
Plug-in hybrid electric vehicles	68,955	-1,300	-1.9%	+44.1%
Battery electric vehicles	145,391	-2,886	-1.9%	+73.6%
Hydrogen and fuel-cell vehicles	17,765	-526	-2.9%	+76.9%

California remained the largest clean vehicle employer, with about 68,020 jobs, followed by Michigan with 30,520, Texas with 28,450, and Ohio with 22,290.

Declines went beyond electric and hybrid vehicles however. Gasoline and diesel vehicle employment fell 34,470 jobs, or 1.7 percent, to approximately 1.98 million. Clean vehicles had a smaller absolute loss but a larger percentage decline. Since 2020, clean vehicle employment grew 48.7 percent, compared with 7.6 percent for gasoline and diesel vehicles. Clean vehicles accounted for approximately 15.0 percent of the full motor vehicle industry's 2.58 million jobs in 2025.

12 // TWO YEARS OF CLEAN VEHICLE LOSSES



STORAGE AND GRID MODERNIZATION

173,388 jobs

+5,346 in 2025

+3.2% annually

+25.8% since 2020

Storage and grid modernization was the fastest-growing major clean energy sector in 2025, adding approximately 5,350 jobs. Employment rose 3.2 percent to about 173,390, extending the sector's gains to 25.8 percent since 2020.

Smart grid employment increased 17.4 percent, adding about 4,730 jobs. Clean storage added about 2,010 jobs and microgrids added about 370. Other grid modernization, which includes work such as upgrades to the U.S. electricity grid and EV charging, declined by approximately 1,770 jobs, partly offsetting those gains.

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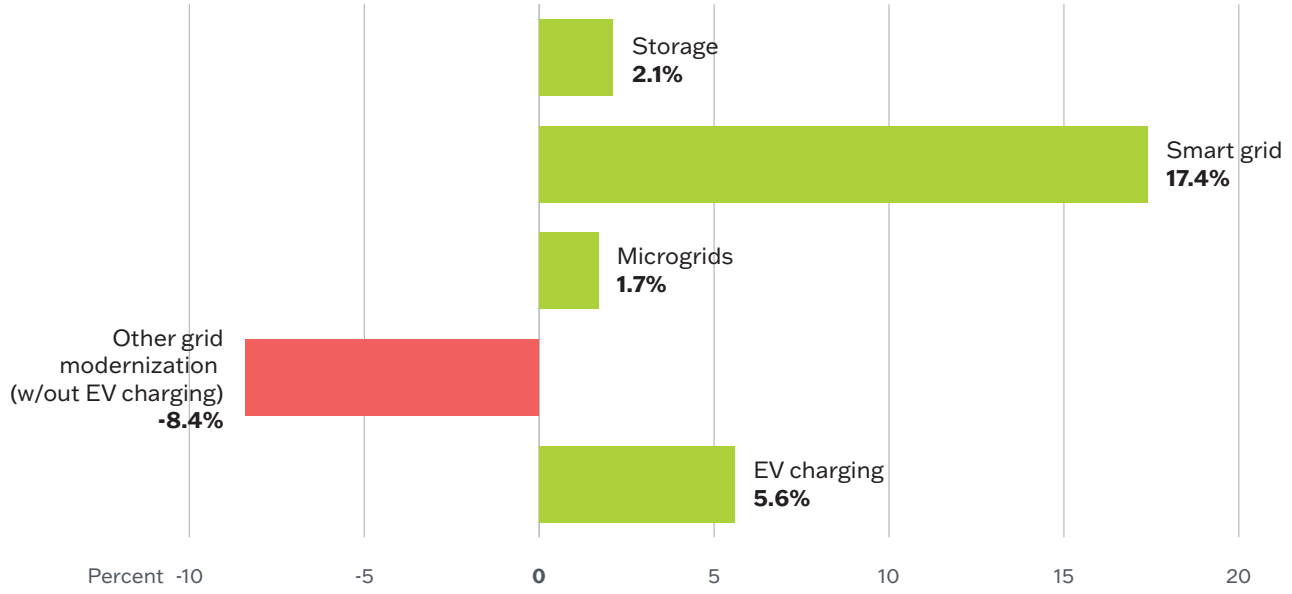


13 // STORAGE AND GRID SUBSECTORS

Subsector	Q4 2025 jobs	Jobs changed	2024–25	2020–25
Clean storage	95,505	+2,008	+2.1%	+22.4%
Smart grid	31,955	+4,735	+17.4%	+38.4%
Microgrids	21,843	+373	+1.7%	+17.7%
Other grid modernization (w/ EV charging)	24,086	-1,770	-6.8%	+32.4%

California led storage and grid employment with about 25,780 jobs, followed by Texas with 16,240, Nevada with 10,110, and Tennessee with 9,300. Construction accounted for approximately 55 percent of the sector's jobs, with manufacturing accounting for 16 percent. Batteries supported about 80,930 jobs and added approximately 2,120 in 2025, offsetting declines in some other storage technologies.

14 // SMART GRID DRIVES EMPLOYMENT GAINS



BIOFUELS

42,270 jobs

+350 in 2025

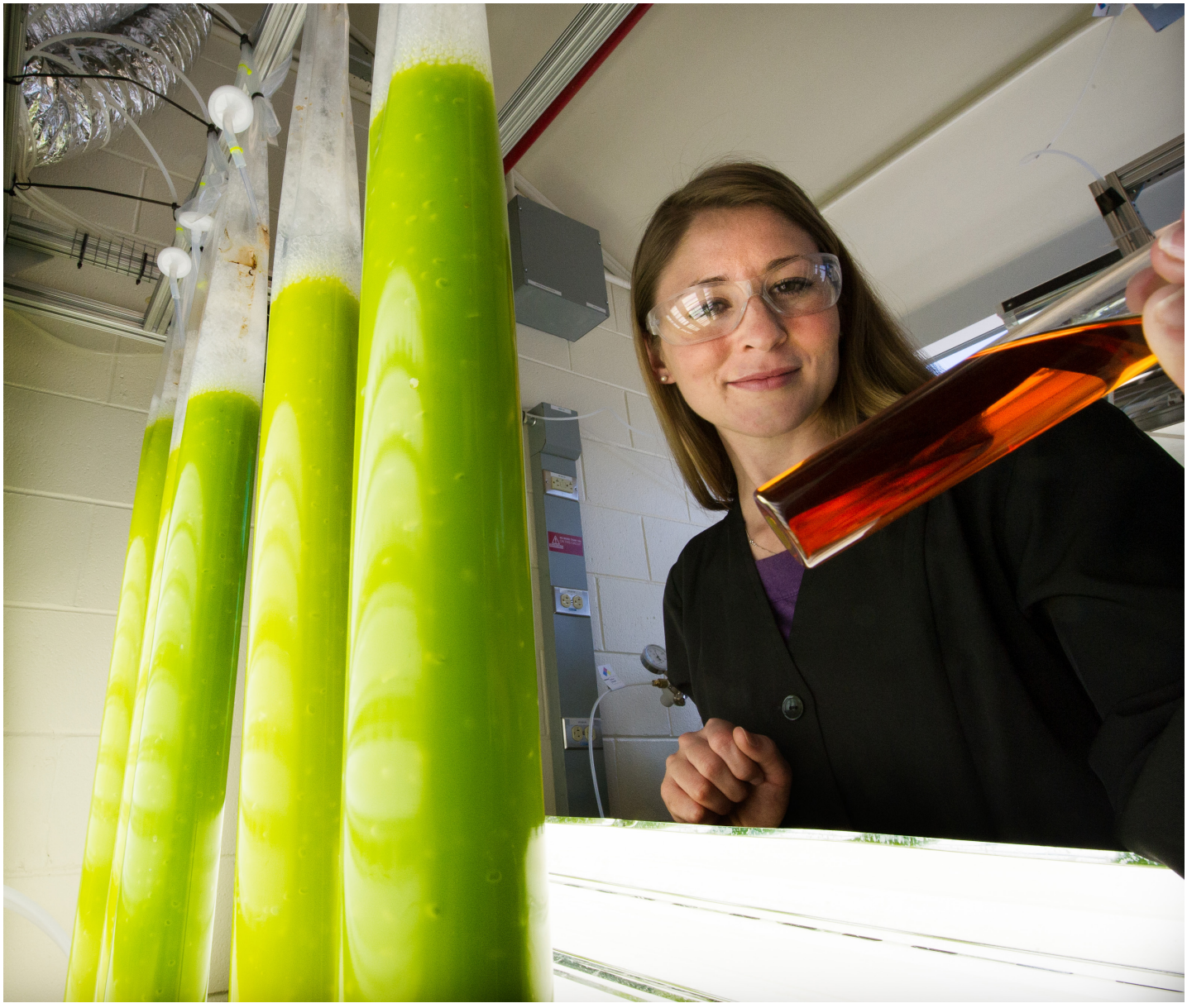
+0.8% annually

+14.1% since 2020

Biofuels employment increased modestly in 2025, adding about 350 jobs, or 0.8 percent, to reach approximately 42,270. The small net gain masked larger changes within the sector.

The "Other biofuels"—which includes biomatter fuels such as waste fuels, algae biofuel, biodiesel, and renewable biodiesel fuels—added about 2,990 jobs. "Other ethanol/non-woody biomass"—which include fuels made from other materials such as straw, manure, vegetable oil, animal fats, etc.—about 2,640. Biodiesel fuels accounted for approximately 2,840 of the other-biofuels gain; renewable diesel, waste fuels, and other biofuels made smaller contributions.

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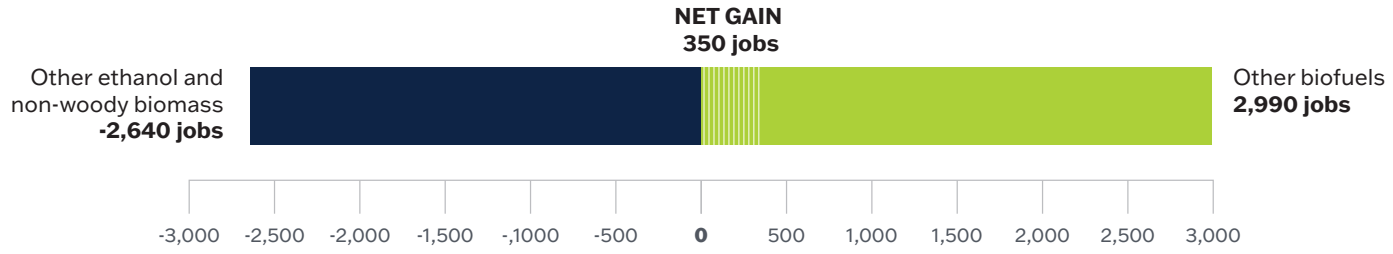


15 // BIOFUEL SUBSECTORS

Subsector	Q4 2025 jobs	Jobs changed	2024–25	2020–25
Other ethanol/non-woody biomass	19,059	-2,641	-12.2%	-2.0%
Other biofuels	23,211	+2,991	+14.8%	+32.0%

California led storage and grid employment with about 25,780 jobs, followed by Texas with 16,240, Nevada with 10,110, and Tennessee with 9,300. Construction accounted for approximately 55 percent of the sector's jobs, with manufacturing accounting for 16 percent. Batteries supported about 80,930 jobs and added approximately 2,120 in 2025, offsetting declines in some other storage technologies.

16 // OFFSETTING CHANGES IN BIOFUELS



CLEAN ENERGY JOBS ACROSS INDUSTRIES

Construction and manufacturing accounted for roughly **three in five clean energy jobs nationwide in 2025**, underscoring the industry's importance to workers building, installing, and producing energy technologies.

Construction supported approximately 1.28 million energy efficiency jobs, 233,730 renewable generation jobs, and 95,570 storage and grid modernization jobs. It represented more than half of employment in both energy efficiency and storage and grid modernization.

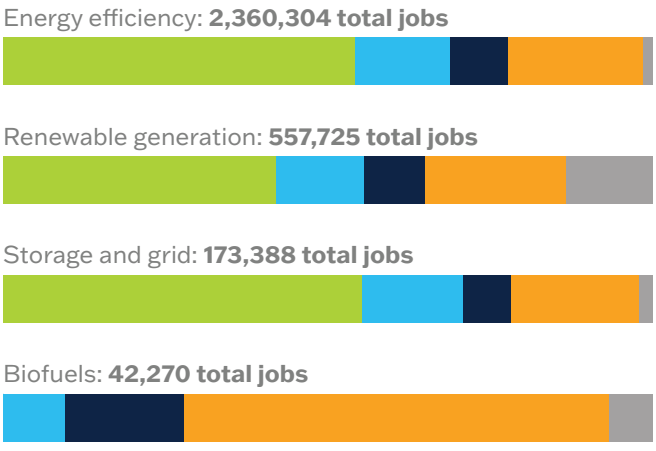
Manufacturers employed approximately 343,840 workers in energy efficiency, 75,790 in renewable generation, and 27,180 in storage and grid modernization. Clean energy also supported jobs in engineering, consulting, wholesale trade, and other services. Professional services accounted for about 65 percent of biofuels employment, while wholesale trade represented another 18 percent.


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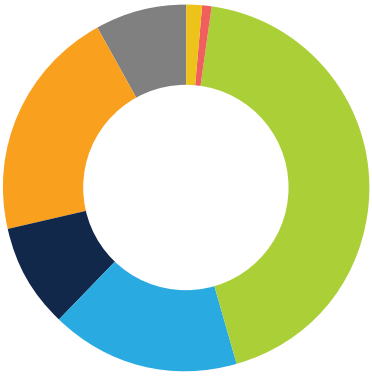
17 // INDUSTRY COMPOSITION BY CLEAN ENERGY SECTOR

Sector	Construction	Manufacturing	Wholesale trade	Professional services	Other industries
Energy efficiency	1,278,169	343,843	210,847	491,908	35,537
Renewable generation	233,733	75,792	52,418	121,073	74,709
Storage and grid	95,572	27,177	12,773	34,150	3,716
Biofuels	0	4,015	7,723	27,678	2,854

18 // INDUSTRY MIX WITHIN CLEAN ENERGY SECTORS

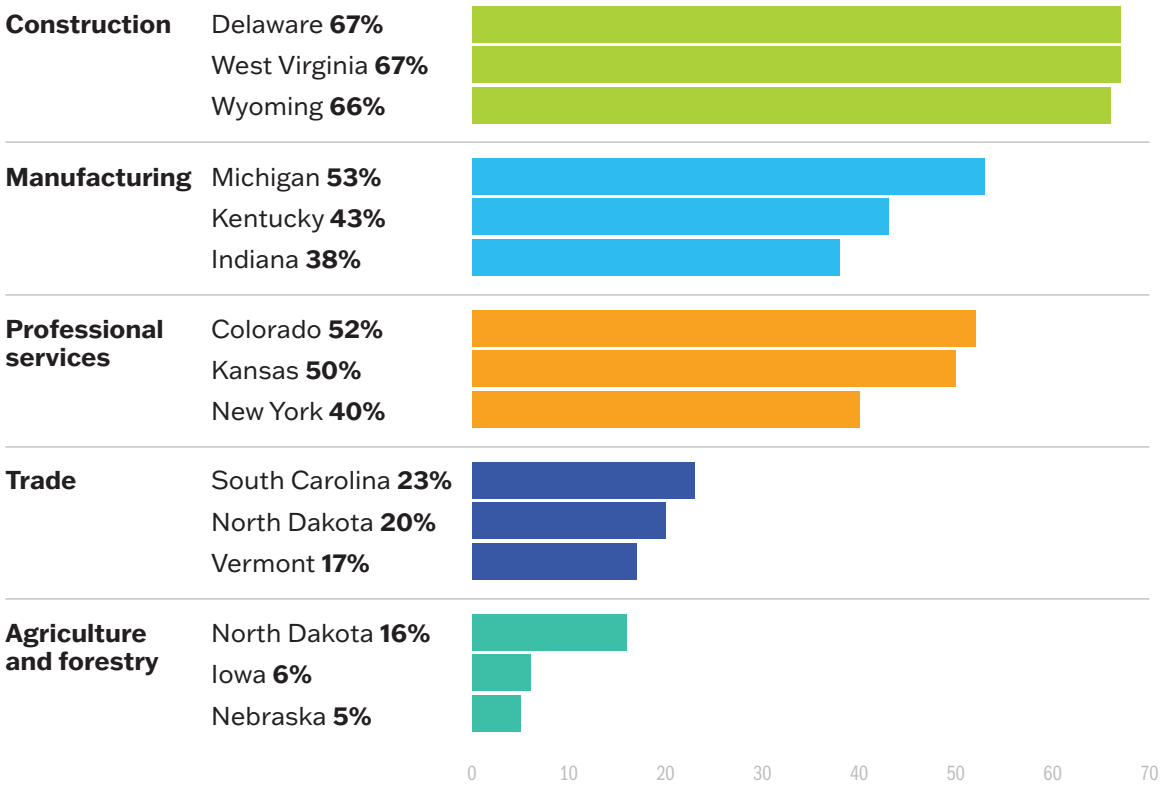


19 // OVERALL SHARE IN CLEAN ENERGY



- Utilities **1.5%**
- Agriculture **0.9%**
- Construction **43.3%**
- Manufacturing **16.6%**
- Wholesale trade **9.4%**
- Professional services **20.4%**
- Other services, incl. repair services **8.0%**

20 // LEADING STATES BY EACH INDUSTRY'S SHARE OF CLEAN ENERGY EMPLOYMENT Q4 2025



Construction accounted for **64%** of clean energy jobs in Maryland and **63%** in Florida.

Michigan was the only state where manufacturing represented more than half of clean energy employment.

STATE EMPLOYMENT GAINS AND LOSSES

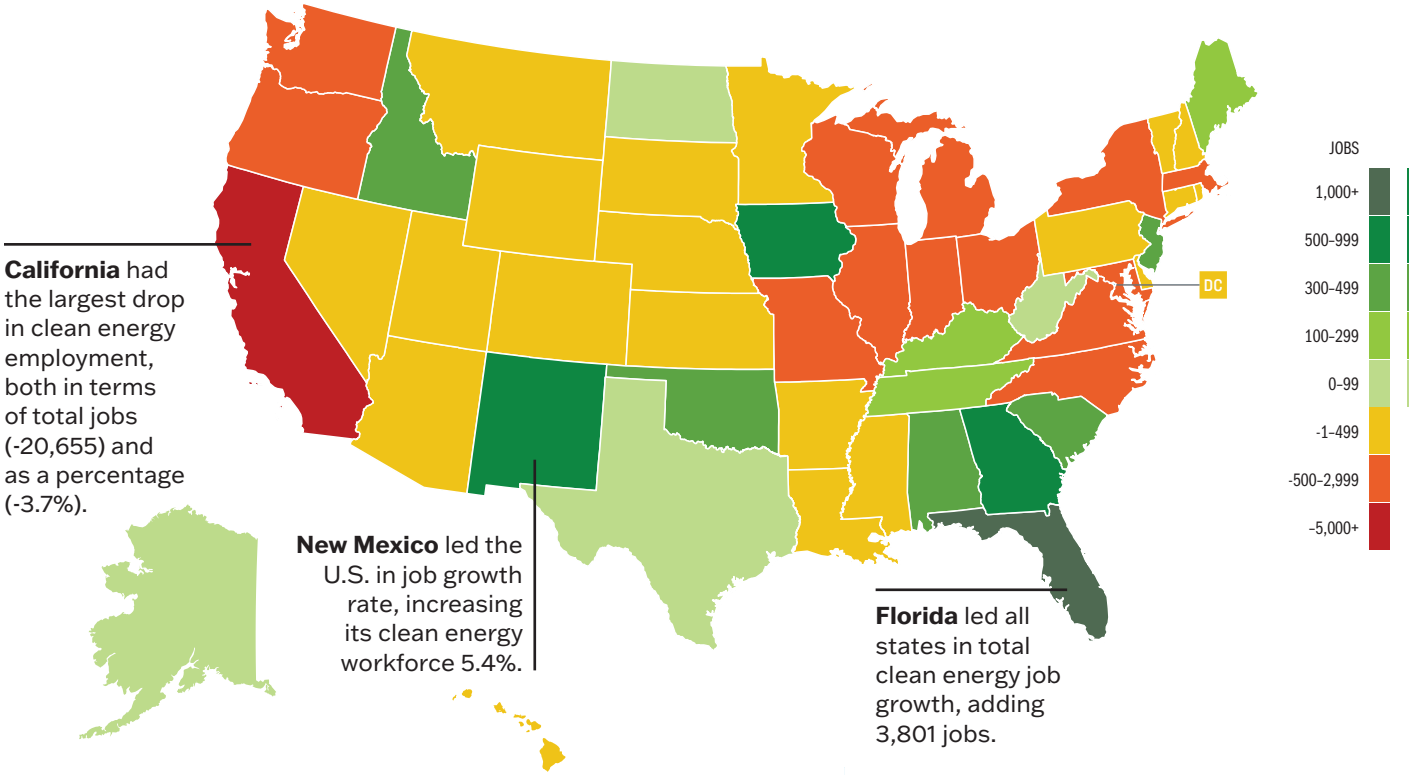
Clean energy employment declined in 34 states and the District of Columbia in 2025, with losses concentrated in several of the nation's largest clean energy workforces. California lost approximately 20,650 jobs, a 3.7 percent decline that accounted for about 56 percent of the national net decrease. Illinois, Maryland, Massachusetts, and Michigan recorded the next-largest losses. Together, these five states accounted for approximately 30,150 jobs lost.

The slowdown extends beyond California. Combined employment in the rest of the country fell by approximately 16,290 jobs, or 0.5 percent. Texas, the second-largest clean energy employer, was essentially unchanged, while New York's workforce declined 0.3 percent. California, Texas, Florida, and New York nevertheless remained the four largest clean energy employers.

Sixteen states added clean energy jobs, gaining approximately 8,760 positions combined. Florida led with about 3,800 new jobs—more than four times the gains of any other state—and expanded its workforce by 2.1 percent. Georgia, Iowa, New Mexico, and Idaho rounded out the five largest job gains.

Smaller workforces posted some of the fastest growth rates. New Mexico led at 5.4 percent, followed by Idaho at 3.3 percent and Iowa at 2.4 percent. Despite the widespread annual declines, every state and DC remained above its 2020 clean energy employment level. Florida's workforce was approximately 26 percent larger than in 2020, while New Mexico's was 34 percent larger and Idaho's was 29 percent larger.

21 // ANNUAL CLEAN ENERGY EMPLOYMENT CHANGE



22 // LARGEST ANNUAL STATE GAINS AND LOSSES

Subsector	Q4 2025 jobs	Jobs changed	Annual rate	2020–Q4 2025
Florida	187,752	**+3,801**	+2.1%	+25.9%
Georgia	86,365	**+830**	+1.0%	+22.0%
Iowa	34,407	**+797**	+2.4%	+19.4%
New Mexico	14,835	**+754**	+5.4%	+33.9%
Idaho	16,108	**+518**	+3.3%	+28.9%
California	531,671	**-20,655**	-3.7%	+9.9%
Illinois	129,281	**-2,958**	-2.2%	+12.8%
Maryland	82,444	**-2,395**	-2.8%	+6.1%
Massachusetts	124,400	**-2,212**	-1.7%	+14.4%
Michigan	125,845	**-1,926**	-1.5%	+12.1%

REGIONAL TRENDS AND EMPLOYMENT CONCENTRATION

The South had the largest clean energy workforce in 2025 and was the only region with a net annual gain. It added about 3,540 jobs, or 0.3 percent, reaching 1.11 million. The West lost about 22,680 jobs, the Midwest lost 11,560, and the Northeast lost 6,240.

Employment remained above 2020 levels in every region. The South led that growth at 22.0 percent, followed by the Northeast at 15.4 percent, the Midwest at 13.3 percent, and the West at 12.1 percent.

Statewide employment shares provide another view of clean energy's economic importance. In Q4 2025, clean energy accounted for approximately 5.1 percent of employment in Vermont (or 1 in every 19 jobs), 3.4 percent in Massachusetts (or 1 in every 29 jobs), and 3.1 percent in Wyoming and Maryland (or 1 in every 33 jobs), compared with 2.24 percent nationwide (or 1 in every 45 jobs).

Clean energy employment exceeded the combined fossil fuel extraction, mining, processing, and generation categories in 42 states and DC. The eight exceptions were Alaska, Louisiana, New Mexico, North Dakota, Oklahoma, Texas, West Virginia, and Wyoming.

23 // REGIONAL EMPLOYMENT TRENDS

Subsector	Q4 2025 jobs	Jobs changed	Annual rate	Since 2020
Northeast[1]	689,375	**-6,244**	-0.9%	+15.4%
Midwest[2]	763,277	**-11,562**	-1.5%	+13.3%
South[3]	1,108,771	**+3,540**	+0.3%	+22.0%
West[4]	960,678	**-22,684**	-2.3%	+12.1%

1 The Northeast region contains CT, DE, DC, ME, MD, MA, NH, NJ, NY, PA, RI, VT
2 The Midwest region contains IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI
3 The South region contains AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV
4 The West region contains AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY

New Jersey had the lowest concentration at 1.4% (or 1 in every 69 jobs), followed by Oklahoma at 1.51% (or in every 66 jobs) and West Virginia at 1.54% (or 1 in every 65 jobs). These figures show clean energy's relative importance within each state's workforce, rather than total job counts or annual growth.

24 // CLEAN ENERGY SHARE OF STATEWIDE EMPLOYMENT

Vermont:
1 in every **19 jobs**



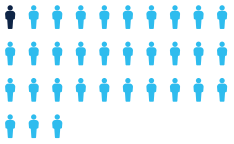
Massachusetts:
1 in every **29 jobs**



Wyoming:
1 in every **33 jobs**



Maryland:
1 in every **33 jobs**



Rhode Island:
1 in every **34 jobs**



Arkansas:
1 in every **59 jobs**



Louisiana:
1 in every **60 jobs**



West Virginia:
1 in every **65 jobs**



Oklahoma:
1 in every **66 jobs**



New Jersey:
1 in every **69 jobs**



National average:
1 in every **45 jobs**



HIGHEST-SHARE STATES

State	Clean Jobs per capita	Share of Total Employment
Vermont	1 in every 19 jobs	5.1%
Massachusetts	1 in every 29 jobs	3.4%
Maryland	1 in every 33 jobs	3.1%
Wyoming	1 in every 33 jobs	3.0%
Rhode Island	1 in every 34 jobs	3.0%
California	1 in every 35 jobs	2.9%
Michigan	1 in every 35 jobs	2.9%
Oregon	1 in every 35 jobs	2.8%
Utah	1 in every 36 jobs	2.8%
Indiana	1 in every 36 jobs	2.7%

LOWEST-SHARE STATES

State	Clean Jobs per capita	Share of Total Employment
New Jersey	1 in every 69 jobs	1.4%
Oklahoma	1 in every 66 jobs	1.5%
West Virginia	1 in every 65 jobs	1.5%
Louisiana	1 in every 60 jobs	1.7%
Arkansas	1 in every 59 jobs	1.7%
New Mexico	1 in every 59 jobs	1.7%
Alaska	1 in every 58 jobs	1.7%
Pennsylvania	1 in every 58 jobs	1.7%
Georgia	1 in every 57 jobs	1.8%
Idaho	1 in every 55 jobs	1.8%

STATE CLEAN ENERGY (CE) EMPLOYMENT AT A GLANCE

State	CE jobs	CE growth 2020–25	CE growth 2024–25	Energy efficiency	Biofuels	Clean vehicles	Renewable generation	Storage & grid	Total employment	Gas/ diesel vehicles	Fossil fuel jobs
Alabama	48,226	+23.1%	+1.0%	31,448	323	9,709	4,256	2,490	2,135,338	64,905	11,790
Alaska*	5,515	+14.0%	+0.2%	4,333	51	281	492	357	319,188	2,032	11,785
Arizona	66,402	+17.8%	-0.4%	46,180	436	4,358	12,626	2,802	3,279,888	30,873	10,135
Arkansas	22,389	+19.6%	-0.3%	15,988	677	2,268	2,403	1,052	1,317,868	16,162	6,638
California	531,671	+9.9%	-3.7%	303,336	6,218	68,025	128,311	25,782	18,439,669	142,584	78,712
Colorado	69,812	+20.3%	-0.1%	40,954	1,760	5,161	18,248	3,690	2,891,293	25,115	28,863
Connecticut	45,096	+13.3%	-0.8%	35,582	431	3,400	4,510	1,174	1,712,292	13,587	5,025
Delaware	12,739	+6.5%	-1.8%	10,833	88	545	970	302	483,016	3,127	1,699
District of Col.	15,822	+16.6%	-1.0%	12,545	75	542	2,261	399	728,165	40	1,238
Florida	187,752	+25.9%	+2.1%	133,859	2,809	12,992	30,857	7,235	10,026,768	82,397	33,191
Georgia	86,365	+22.0%	+1.0%	61,584	610	7,820	11,291	5,060	4,933,680	70,039	9,765
Hawaii	13,305	+6.2%	-2.6%	6,224	1,478	511	4,511	582	649,754	3,052	3,404
Idaho	16,108	+28.9%	+3.3%	10,532	294	1,297	2,665	1,320	880,554	9,837	1,635
Illinois	129,281	+12.8%	-2.2%	88,033	1,596	14,923	18,813	5,916	6,117,654	75,852	27,935
Indiana	88,419	+10.8%	-1.8%	52,474	791	20,145	11,567	3,441	3,219,082	126,147	14,651
Iowa	34,407	+19.4%	+2.4%	21,659	797	4,131	6,029	1,790	1,569,798	24,035	6,020
Kansas	26,926	+19.8%	-0.3%	18,515	322	2,714	4,068	1,307	1,447,133	15,615	17,334
Kentucky	40,672	+24.1%	+0.3%	25,571	342	9,933	3,174	1,652	2,013,792	67,888	13,964
Louisiana*	32,409	+23.2%	-0.3%	23,099	382	2,096	4,895	1,936	1,935,063	15,051	62,978
Maine	14,211	+19.6%	+1.3%	9,638	243	908	2,830	593	646,809	6,090	2,247
Maryland	82,444	+6.1%	-2.8%	67,095	428	3,013	9,354	2,554	2,757,547	20,619	6,891
Massachusetts	124,400	+14.4%	-1.7%	85,410	989	9,133	21,356	7,513	3,650,871	13,595	11,358
Michigan	125,845	+12.1%	-1.5%	77,990	803	30,518	12,105	4,429	4,432,579	191,652	14,080
Minnesota	63,397	+14.9%	-0.6%	45,813	774	4,578	9,016	3,217	2,966,975	26,069	9,463
Mississippi	22,412	+20.3%	-0.3%	15,403	779	3,221	2,003	1,007	1,184,347	20,656	9,894
Missouri	59,864	+16.8%	-2.0%	41,075	874	9,021	6,420	2,475	2,932,067	50,674	7,242
Montana	10,910	+15.7%	-1.5%	8,611	88	730	956	525	511,240	4,988	5,665
Nebraska	20,995	+18.2%	-0.7%	14,409	225	2,288	3,403	669	1,028,020	13,605	2,765
Nevada	36,257	+16.5%	-0.0%	14,414	157	1,935	9,640	10,111	1,598,857	11,486	4,130
New Hampshire	17,358	+13.6%	-0.4%	12,103	162	1,212	3,452	429	687,728	6,374	2,396
New Jersey	62,703	+25.7%	+0.5%	41,250	580	6,168	12,476	2,229	4,336,364	31,975	16,619
New Mexico*	14,835	+33.9%	+5.4%	7,255	219	1,062	5,342	957	879,027	6,152	29,396
New York	179,383	+17.4%	-0.3%	134,814	1,874	14,361	22,691	5,643	9,912,231	54,285	16,761
North Carolina	111,955	+12.7%	-1.0%	82,218	1,517	9,199	14,254	4,767	5,005,094	60,730	10,152
North Dakota*	9,562	+16.3%	+0.5%	5,663	190	892	2,223	596	435,089	5,175	30,274
Ohio	119,172	+16.1%	-1.6%	80,368	1,299	22,286	11,443	3,777	5,580,080	122,779	28,236
Oklahoma*	25,992	+29.8%	+1.8%	16,362	738	2,715	4,303	1,874	1,718,520	17,892	55,449
Oregon	56,745	+9.1%	-1.9%	40,401	797	3,754	7,890	3,903	1,986,479	19,259	2,157
Pennsylvania	104,495	+20.2%	-0.0%	76,132	1,468	9,990	12,231	4,673	6,098,410	61,242	39,850
Rhode Island	14,984	+8.1%	-1.8%	11,385	240	490	2,253	615	502,204	3,871	1,146

State	CE jobs	CE growth 2020–25	CE growth 2024–25	Energy efficiency	Biofuels	Clean vehicles	Renewable generation	Storage & grid	Total employment	Gas/ diesel vehicles	Fossil fuel jobs
South Carolina	48,540	+16.7%	+0.6%	31,700	598	6,825	7,040	2,376	2,348,149	51,598	8,603
South Dakota	12,283	+8.1%	-2.1%	7,759	186	1,108	2,692	537	460,309	7,157	1,599
Tennessee	88,270	+21.9%	+0.1%	53,075	1,117	17,462	7,319	9,297	3,304,060	80,625	6,198
Texas*	281,541	+26.5%	+0.0%	183,943	2,687	28,455	50,215	16,242	14,277,655	168,434	295,759
Utah	48,590	+17.4%	-0.1%	33,937	197	3,450	9,581	1,425	1,765,184	18,285	13,054
Vermont	15,741	+3.4%	-2.7%	10,218	541	1,804	2,237	941	306,620	1,445	824
Virginia	101,416	+15.1%	-1.2%	78,043	576	8,360	10,920	3,517	4,176,133	37,923	13,845
Washington	82,032	+8.6%	-1.2%	60,595	1,807	4,566	11,005	4,060	3,590,418	26,332	8,037
West Virginia*	10,834	+21.0%	+0.2%	7,271	73	1,159	1,379	953	702,247	7,084	27,932
Wisconsin	73,123	+5.8%	-2.5%	56,413	470	6,458	7,103	2,679	2,954,645	36,499	7,994
Wyoming*	8,496	+5.9%	-2.7%	6,793	93	443	646	520	278,104	2,726	20,035
United States	**3,522,101**	**+16.0%**	**-1.0%**	**2,360,303**	**42,270**	**388,415**	**557,725**	**173,388**	**157,114,057**	**1,975,614**	**1,056,813**

* Fossil fuel jobs exceed clean energy jobs. Fossil fuel jobs include coal, oil, and natural gas fuels and electric generation; exclude fossil transmission, distribution, storage, and gas/diesel vehicles. Total employment covers the whole economy. The five clean energy sectors sum to clean energy jobs, subject to rounding; EV charging is included within storage and grid. Growth is percentage change from Q4 of the indicated base year. Sources: main sector and total-employment sheets; separate fossil fuel and motor vehicle workbooks.

CONCLUSIONS

Clean energy remained a major source of American jobs in 2025, employing more than 3.5 million people across every state. But the loss of nearly 37,000 jobs marked a reversal after four consecutive years of growth. Declines across energy efficiency, renewable generation, and clean vehicles outweighed continued gains in storage, grid modernization, and biofuels.

The setback was widespread, reaching 34 states and the District of Columbia. Its effects extended across a workforce in which construction and manufacturing account for roughly three in five jobs. These are workers making equipment, improving buildings, modernizing the grid, and installing technologies that power homes and businesses.

Even after those losses, clean energy employment remained 16 percent above its 2020 level, outpacing growth in the overall U.S. workforce and the fossil fuel industries examined in this report. Every state still had more clean energy jobs than in 2020. That longer-term progress underscores the industry's economic importance—and the stakes of a sustained slowdown.

The challenge now is to restore broad-based growth. Predictable policies, sustained investment, and support for workforce development can help businesses plan, build, and hire. Strengthening those conditions would help protect existing jobs and expand opportunities in the industries delivering America's energy future.

1 Unless otherwise stated, all employment data is based on the 2026 U.S. Energy and Employment Report (USEER), September 2026, Department of Energy (DOE).
2 Clean Energy Works Project Tracker, E2, October 2026. Available at https://e2.org/project-tracker.
3 U.S. electricity generation in 2025 hit a record, again, U.S. Energy Information Administration, March 5, 2026, available at https://www.eia.gov/todayinenergy/detail.php?id=67284
U.S. wholesale day-ahead electricity prices rose in 2025 with higher natural gas prices, U.S. Energy Information Administration, February 2, 2026, available at https://www.eia.gov/todayinenergy/detail.php?id=67106#
4 Quarterly Census of Employment and Wages, United States Bureau of Labor Statistics (BLS) 2025 Q4 employment, all ownerships (accessed October 2026)
5 Unless otherwise stated, all employment data is based on the 2026 U.S. Energy and Employment Report (USEER), September 2026, Department of Energy (DOE).
6 Quarterly Census of Employment and Wages, United States Bureau of Labor Statistics (BLS) 2024 and 2025 Q4 employment, all ownerships (accessed October 2026)
7 Unless otherwise stated, all employment data is based on the 2026 U.S. Energy and Employment Report (USEER), September 2026, Department of Energy (DOE).
8 Quarterly Census of Employment and Wages, United States Bureau of Labor Statistics (BLS) 2020, 2021, 2022, 2023, 2024 and 2025 Q4 employment, all ownerships (accessed October 2026)

METHODOLOGY

The analysis is based on employment data collected and analyzed by the BW Research Partnership for the 2026 U.S. Energy and Employment Report (USEER). 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.

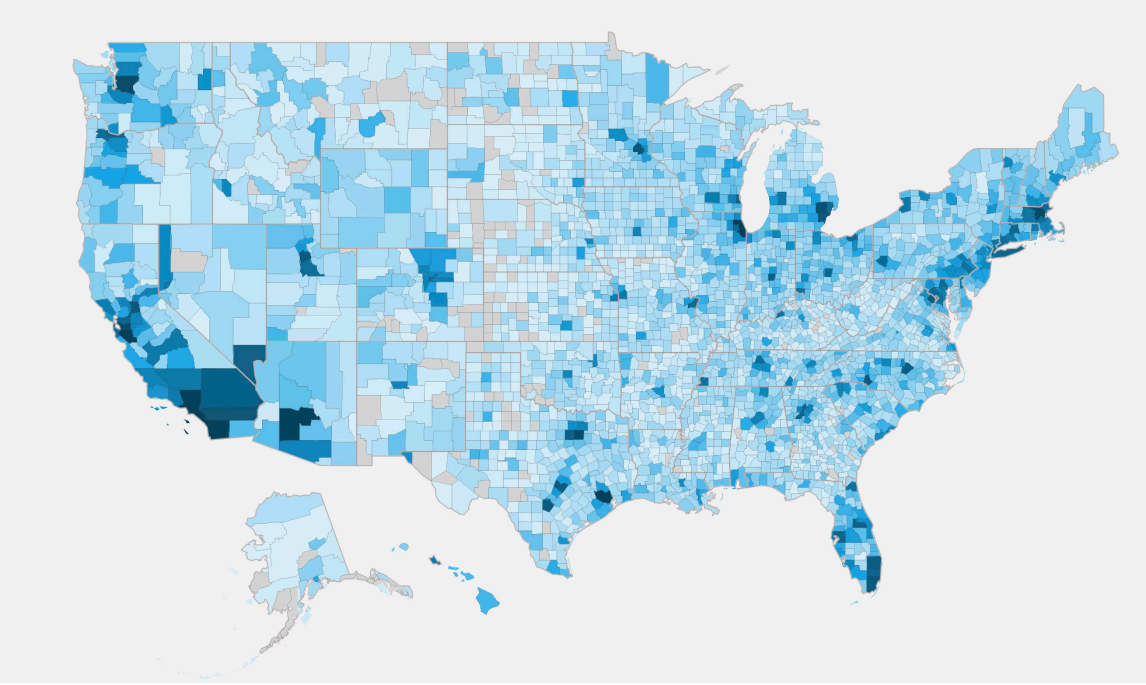
In addition, the 2026 USEER relies on a unique supplemental survey of 41,800 business representatives across the United States. Created and conducted by BW Research, the methodology has been approved by the Office of Management and Budget (OMB) and U.S. Department of Energy (DOE). This survey is used 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 more information, read the methodology sections in the 2026 USEER on pages 8-19, available at https://www.energy.gov/documents/2026-useer-national-report.

ABOUT THIS REPORT

This is the tenth annual Clean Jobs America report produced by E2 based on analysis of the USEER, which was first released by the DOE in 2016. E2 was an original proponent of the DOE producing the USEER, and was a partner on the 2018, 2019, and 2020 reports produced by the Energy Futures Initiative (EFI) and National Association of State Energy Officials (NASEO) when the DOE decided not to produce the USEER after 2017.

For additional insight into E2's Clean Jobs America 2025, including exploring the data via an interactive map, visit cleanjobsamerica.e2.org.



What we include are jobs in solar energy, wind energy, combined heat and power, bioenergy, non-woody biomass, low-impact hydro power, hydrokinetic and wave energy, geothermal, electric vehicles, hybrid electric vehicles, plug-in hybrid vehicles, hydrogen and fuel-cell vehicles, clean energy storage, smart grid, micro grid, grid modernization, advanced biofuels, and energy efficiency including ENERGYSTAR and high efficiency appliances, efficient lighting, HVAC, renewable heating and cooling, and advanced building materials. The clean energy occupations covered in this report span economic sectors including agriculture, utilities, construction, manufacturing, wholesale trade, professional services, other services.

What we do not include are jobs of workers who may spend some of their time in clean energy but a plurality in another energy sector. For example, workers employed by an excavation business might spend the majority of their time grading and preparing drilling pads for oil or gas rigs, but they also might spend a portion of their time preparing sites for wind turbines or large solar installations. If clean energy does not account for a plurality of their work, those workers would not be counted as being employed in the clean energy economy but would instead be counted as part of another energy sector. We also does not include any jobs in traditional transmission and distribution due to an inability to accurately segment out workers by electricity source, despite many of those jobs being critical to the increased electricity from Renewable Generation used by the grid. Lastly, we do not include jobs in corn ethanol, woody biomass, large or traditional hydroelectric, and nuclear because of environmental issues associated with those industries. Jobs in retail trade, repair services, water or waste management, and indirect employment or induced employment are also not included.

ABOUT THE JOB SECTORS ANALYZED

// **Renewable Generation:** jobs in solar energy, wind energy, combined heat and power, bioenergy, low-impact hydroelectric and hydrokinetic energy, and geothermal energy.

// **Energy Efficiency:** jobs in ENERGY STAR® appliances; LED, CFL, and other efficient lighting; traditional heating, ventilation, and air-conditioning systems (HVAC); high-efficiency HVAC; renewable heating and cooling; advanced building materials/insulation; and other services not specific to a detailed technology.

// **Clean Vehicles:** jobs in plug-in hybrid vehicles, all-electric vehicles, hybrid electric vehicles, natural gas vehicles, and hydrogen and fuel-cell vehicles.

// **Storage & Grid:** jobs in clean energy and battery storage technologies as well as microgrids, smart grids, and overall modernization of the U.S. electricity transmission and distribution system.

// **Biofuels:** jobs in biofuels and biomass, but not including corn ethanol or woody biomass.

Other energy employment sectors analyzed in this report include:

// **U.S. Energy and Motor Vehicles:** all employment in the U.S. energy industry as defined by the USEER, including both clean and traditional energy jobs across fuels; electric power generation; motor vehicles; energy efficiency; and transmission, distribution, and storage (TDS).

// **Fossil Fuel Generation:** jobs in coal, natural gas, or petroleum electric power generation.

// **Fossil Fuel Extraction:** all jobs related to fuel extraction, mining, and processing, including petroleum refineries and firms that support coal mining, oil, and gas field machinery manufacturing.

// **Fossil Fuel Transmission, Distribution, and Storage (TDS):** all jobs related to the direct distribution, transmission and storage of coal, natural gas, and petroleum.

// **Gas & Diesel Vehicles:** jobs in vehicles that run on gasoline and diesel internal combustion engines.

ENERGY TECHNOLOGY DEFINITIONS

Solar: Generating electricity using solar radiation (PV generation), solar thermal energy, or concentrated sunlight.

Wind: Generating electricity from wind's kinetic energy.

Geothermal: Using steam natural produced found below the Earth's surface to produce electricity.

Low-Impact Hydroelectric/Hydrokinetic and Wave Energy: Similar to traditional hydroelectric, but certification criteria are aimed at ensuring that the certified dam adequately protects or mitigates its impacts to river flows, water quality, fish passage and protection, watersheds, threatened and endangered species, cultural resources, and public access and recreation.

Biomass/Bioenergy: Electricity from materials derived from biological sources or any organic material.

Combined Heat and Power (CHP): Generating electricity and useful thermal energy in a single, integrated system. Heat that is normally wasted in conventional power generation is recovered as useful energy.

Storage: Includes pumped hydro storage, battery storage, thermal storage, and mechanical storage detailed technologies.

Microgrid: Group of interconnected distributed energy resources that acts as a single controllable entity with respect to the grid.

Smart Grid: An electricity supply network that uses communications technology to detect and react to local changes in usage.

Grid Modernization: Other modernization of the U.S. electricity transmission and distribution grid system. This also includes jobs in EV charging except for when an EV charging employment figure can be pulled out separately.

EV Charging: Stations that charge vehicles which use one or more electric motors for propulsion with no onboard generator or non-electric motor.

Advanced Building Materials/Insulation: all materials that represent advances in efficiency over traditional materials.

Air Sealing: Processes and products that reduce the amount of air that leaks in and out of a building by sealing cracks and openings.

Certified Air-Source Heat Pumps: air-source heat pumps that meet the international standard for energy-efficient consumer products originating in the U.S.

Certified Appliances: appliances that meet the international standard for energy-efficient consumer products originating in the U.S.

Certified Commercial Food Service Equipment: commercial kitchen equipment, including refrigerators, dishwashers, and ovens, that meets the international standard for energy-efficient consumer products originating in the U.S. 2402026 United States Energy & Employment Report.

Certified Data Center Equipment: information technology equipment, such as servers, uninterruptible power supplies, data storage, and network equipment, that meets the international standard for energy-efficient consumer products originating in the U.S.

Certified Electronics: electronic appliances such as televisions, telephones, and audio/video devices that meet the international standard for energy-efficient consumer products originating in the U.S.

Certified Ground-Source or Geothermal Heat Pumps: heat pumps that use the Earth's natural heat to provide heating and cooling and meet the international standard for energy-efficient consumer products originating in the U.S.

Certified/High AFUE HVAC: HVAC that meets the international standard for energy-efficient consumer products originated in the U.S. or has a high Average Fuel Utilization Efficiency (AFUE) rating of 90 or greater, or 15 Seasonal Energy Efficiency Ratio or greater.

Certified Insulation: insulation products, including blankets, foam boards, and loose fill, that meet the international standard for energy-efficient consumer products originating in the U.S.

Certified LED Lighting: LED light bulbs that meet the international standard for energy-efficient consumer products originating in the U.S.

Certified Roofing: certified roof products that reflect more of the sun's rays and decrease the amount of heat transferred into a building.

Certified Water Heaters: water heaters, which can come with gas, solar, or electric heat pump technology, that meet the international standard for energy-efficient consumer products originating in the U.S.

Certified Windows, Doors, and Skylights: windows, doors, and skylights that meet the international standard for energy-efficient consumer products originating in the U.S.

Energy Auditing Services: professional inspection services of buildings to analyze energy usage, pinpoint inefficiency, and identify opportunities for comfort, safety, and efficiency improvements.

LED, CFL, and Other Efficient Lighting: energy-efficient lighting sources.

Other Energy Efficiency: any energy efficiency that is not captured in the categories listed or a category that is used when unable to split employment into a single energy efficiency category where employees spend "more of their time"

with one technology over another.

Other High-Efficiency HVAC Out of Scope for Certification (e.g., indirect evaporative coolers, air-to-water heat pumps, energy recovery systems) : this includes products and services for high-efficiency HVAC systems that are large capacity, custom, or otherwise fall outside certified product categories and cannot be rated by standardized prescriptive metrics.

Other LED, CFL, and Efficient Lighting: other efficient lighting that does not meet certification. 2412026 United States Energy & Employment Report.

Recycled Building Materials: building materials sourced from construction demolition debris that are used to create sustainable, cost-effective infrastructure and building materials.

Reduced Water Consumption Products and Appliances: high-efficiency washing machines, faucet aerators, low-flow shower heads, etc.

Renewable Heating and Cooling: establishments that are involved with HVAC from renewable energy sources or work that increases the energy efficiency of HVAC systems.

Solar Thermal: uses the sun's energy to generate thermal energy.

Traditional HVAC Goods, Control Systems, and Services: HVAC systems, including building retro.

Other Biofuels: Other fuel derived directly from biomatter, including waste fuels, biodiesel and renewable biodiesel fuels.

Other Ethanol/Non-Woody Biomass: Fuel made from other materials such as straw, manure, vegetable oil, animal fats, etc.

Electric Vehicles: Type vehicle which uses one or more electric motors for propulsion, that recharges with batteries and that have no onboard generator or non-electric motor.

Plug-In Hybrids: A hybrid electric vehicle that uses two or more distinct types of power, such as internal combustion engine and an electric motor that is powered by rechargeable batteries, or another energy storage device.

Hybrid Electric Vehicles: Vehicles that use two or more distinct types of power, such as internal combustion engine plus electric motor.

Hydrogen Vehicles: Type of vehicle that uses hydrogen as its onboard fuel for motive power.

Fuel-Cell Vehicles: Type of hybrid vehicle which uses a fuel cell, instead of an engine, in combination with a storage device, such as a battery, to power its on-board electric motor.

ABOUT E2

E2 is a national, nonpartisan group of more than 11,000 business leaders, investors and others who advocate for smart policies that are good for the economy and good for the environment. E2 members have founded or funded more than 2,500 companies, created more than 600,000 jobs, and manage more than $100 billion in venture and private equity capital.