

CLEAN JOBS CALIFORNIA

519,158 CLEAN ENERGY JOBS ACROSS CALIFORNIA¹

PUSHING CLEAN ENERGY JOBS FORWARD

When it comes to clean energy jobs in America, no state does more than California— accounting for more than 1 out of every 7 jobs in the sector nationally. In renewable energy, California supports more jobs than the next seven top states combined and has twice as many jobs in energy efficiency than the 2nd ranked state (Texas). Combined with this market domination, big opportunities remain for clean energy job growth in the state with the California Energy Commission passing requirements for solar panels on all new homes built after 2020 and legislation passed and signed into law in September 2018 that sets the state on the path to 100% clean energy by 2045.

CLEAN ENERGY JOBS IN PERSPECTIVE

430,000

Clean energy jobs outnumber fossil fuel jobs in California by more than 430,000

10.8% Veterans

of California's clean energy workers are veterans

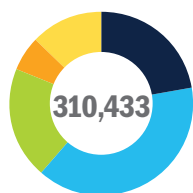
All 58 counties

in California employ workers in clean energy

61%

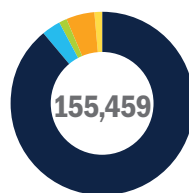
Over 61% of all California clean energy workers are involved in construction and manufacturing

INDUSTRY BREAKDOWN: JOBS



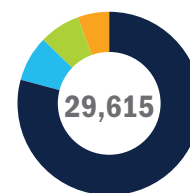
ENERGY EFFICIENCY:

- ENERGY STAR & Lighting: **69,011**
- Trad. HVAC: **121,696**
- High-Efficiency HVAC & Renewable H&C: **61,582**
- Adv Materials: **18,677**
- Other: **39,468**



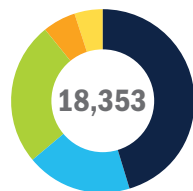
RENEWABLE ENERGY:

- Solar: **138,319**
- Wind: **5,275**
- Geothermal: **2,361**
- Bioenergy/CHP: **7,760**
- Low-Impact Hydro: **1,745**



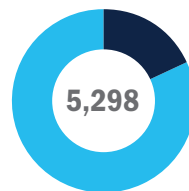
GRID & STORAGE:

- Storage: **23,516**
- Smart Grid: **2,351**
- Micro-Grid: **2,111**
- Other Grid Modernization: **1,637**



CLEAN VEHICLES:

- Hybrid Electric Vehicles: **8,352**
- Plug-In Hybrid Vehicles: **3,411**
- Electric Vehicles: **4,641**
- Natural Gas Vehicles: **1,040**
- Hydrogen & Fuel Cell: **908**



FUELS:

- Other Ethanol/Non-Woody Biomass: **962**
- Other Biofuels: **4,336**

BREAKDOWN BY VALUE CHAIN



- Construction: **49.8%**
- Manufacturing: **11.7%**
- Trade: **10.4%**
- Agriculture: **0.2%**
- Utilities: **0.6%**
- Professional Services: **9.9%**
- Other: **12.7%**



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For more information, contact E2 Western States Advocate **Andy Wunder** at awunder@e2.org.

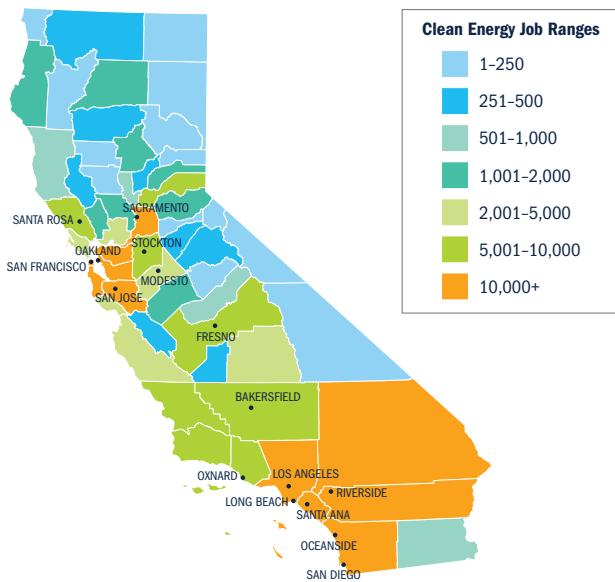
To see how California's clean energy policies benefit every state legislative district, please visit: www.e2.org/caclimateleadership.

For questions regarding this report, visit E2's Clean Jobs America FAQ at www.e2.org/cleanjobsamerica/FAQ.



CLEAN JOBS CALIFORNIA

CLEAN ENERGY JOBS COUNTY HEAT MAP



TOP 6 METRO AREAS FOR CLEAN ENERGY JOBS

Every county in California is home to clean energy jobs, but several regions stand out.

Metro Area (MSA)	Clean Energy Jobs*	Renewable Energy Jobs	Energy Efficiency Jobs
Los Angeles-Long Beach-Santa Ana, CA	162,688	41,296	102,586
San Francisco-Oakland-Fremont, CA	87,695	34,494	45,240
San Diego-Carlsbad-San Marcos, CA	56,291	18,167	32,756
Riverside-San Bernardino-Ontario, CA	39,548	11,003	24,571
Sacramento-Arden-Arcade-Roseville, CA	31,179	10,066	18,158
San Jose-Sunnyvale-Santa Clara, CA	30,713	9,381	18,373

* Includes all clean energy jobs categories, including solar, wind, EE, clean vehicles, battery storage, advanced biofuels, low-impact hydro and other areas.

BEYOND THE COAST:
CLEAN ENERGY JOBS THROUGHOUT THE STATE

More than 1 out of every 4 clean energy jobs in California are in regions outside of the San Francisco Bay Area, Los Angeles Metro Area, and San Diego Metro Area

12,000

Over 12,000 rural Californians are employed in clean energy

20%

20% of California's renewable energy workers are employed in metros areas with a population under 1 million

TOP LAWMAKER DISTRICTS FOR CLEAN ENERGY JOBS

Data shows that distribution of clean energy jobs in California crosses all political boundaries, with clean energy jobs in every congressional and state legislative district. To see how California's clean energy policies benefit every state legislative district, please visit: <https://www.e2.org/cacclimateleadership>.

TOP STATE SENATE DISTRICTS

District	Clean Energy Jobs	Renewable Energy Jobs	Energy Efficiency Jobs
1 (Sen. Wiener)	26,934	12,184	12,694
36 (Sen. Bates)	21,388	6,228	13,052
1 (Sen. Gaines)	20,809	6,704	12,162
39 (Sen. Atkins)	20,577	5,168	13,245
10 (Sen. Wieckowski)	20,255	6,477	11,849
26 (Sen. Allen)	20,147	4,118	13,818
2 (Sen. McGuire)	18,645	4,783	11,932
3 (Sen. Dodd)	17,611	6,240	9,733
9 (Sen. Skinner)	17,060	7,746	8,012
38 (Sen. Anderson)	16,248	4,120	10,408

TOP STATE ASSEMBLY DISTRICTS

District	Clean Energy Jobs	Renewable Energy Jobs	Energy Efficiency Jobs
17 (Asm. Chiu)	25,995	13,551	10,698
77 (Asm. Maienschein)	18,784	7,833	9,398
50 (Asm. Bloom)	15,004	3,665	9,772
68 (Asm. Choi)	14,624	3,880	9,216
25 (Asm. Chu)	13,497	4,617	7,646
78 (Asm. Gloria)	13,333	3,489	8,453
37 (Asm. Limón)	12,833	3,301	8,216
7 (Asm. McCarty)	11,879	3,801	6,952
4 (Asm. Aguiar-Curry)	11,431	3,714	6,604
14 (Asm. Grayson)	11,376	3,316	6,920
1 (Asm. Dahle)	11,142	2,910	7,084
45 (Asm. Gabriel)	10,361	2,426	6,826
24 (Asm. Berman)	10,075	3,068	6,040
35 (Asm. Cunningham)	9,852	4,414	4,677
6 (Asm. Kiley)	9,809	3,672	5,298
41 (Asm. Holden)	9,324	2,119	6,219
15 (Asm. Thurmond)	8,851	4,615	3,651
23 (Asm. Patterson)	8,792	2,209	5,582
74 (Asm. Harper)	8,650	2,470	5,288
2 (Asm. Wood)	8,513	2,138	5,494

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US CONGRESSIONAL DISTRICTS

District	Clean Energy Jobs	Renewable Energy Jobs	Energy Efficiency Jobs
1 (Rep. LaMalfa)	13,780	4,089	8,334
2 (Rep. Huffman)	18,972	6,323	10,887
3 (Rep. Garamendi)	10,682	3,257	6,368
4 (Rep. McClintock)	12,080	4,234	6,759
5 (Rep. Thompson)	7,251	2,305	4,218
6 (Rep. Matsui)	10,312	3,053	6,248
7 (Rep. Bera)	5,807	1,623	3,620
8 (Rep. Cook)	7,463	1,972	4,730
9 (Rep. McNerney)	7,575	2,049	4,752
10 (Rep. Denham)	6,278	2,097	3,599
11 (Rep. DeSaulnier)	15,969	6,027	8,565
12 (Rep. Pelosi)	26,459	12,929	11,637
13 (Rep. Lee)	12,641	4,897	6,661
14 (Rep. Speir)	11,265	2,866	6,717
15 (Rep. Swalwell)	8,635	2,797	5,014
16 (Rep. Costa)	8,346	2,102	5,290
17 (Rep. Khanna)	16,065	4,251	10,173
18 (Rep. Eshoo)	10,748	2,514	7,101
19 (Rep. Lofgren)	5,186	1,512	3,161
20 (Rep. Panetta)	6,370	1,372	4,305
21 (Rep. Valadao)	6,776	1,610	4,432
22 (Rep. Nunes)	4,580	1,180	2,926
23 (Rep. McCarthy)	5,437	1,837	3,099
24 (Rep. Capps)	17,973	5,308	10,910
25 (Rep. Knight)	8,449	1,742	5,746
26 (Rep. Brownley)	6,071	1,403	4,010
27 (Rep. Chu)	13,787	2,823	9,457

District	Clean Energy Jobs	Renewable Energy Jobs	Energy Efficiency Jobs
28 (Rep. Schiff)	13,794	3,628	8,753
29 (Rep. Cárdenas)	4,315	1,210	2,661
30 (Rep. Sherman)	10,195	2,526	6,605
31 (Rep. Aguilar)	4,097	1,333	2,385
32 (Rep. Napolitano)	6,293	2,259	3,483
33 (Rep. Lieu)	18,936	4,283	12,628
34 (Rep. Gomez)	9,044	2,097	5,277
35 (Rep. Torres)	8,911	2,060	5,889
36 (Rep. Ruiz)	7,747	3,184	3,932
37 (Rep. Bass)	6,645	1,871	4,111
38 (Rep. Sánchez)	6,898	2,206	4,022
39 (Rep. Royce)	12,523	3,168	6,907
40 (Rep. Roybal-Allard)	4,044	2,064	1,701
41 (Rep. Takano)	8,795	3,256	4,774
42 (Rep. Calvert)	5,469	1,915	3,043
43 (Rep. Waters)	5,322	2,002	2,860
44 (Rep. Barragán)	3,065	897	1,865
45 (Rep. Walters)	23,196	6,099	14,683
46 (Rep. Correa)	4,447	1,348	2,669
47 (Rep. Lowenthal)	6,231	1,714	3,890
48 (Rep. Rohrabacher)	8,788	2,759	5,158
49 (Rep. Issa)	19,704	4,800	12,834
50 (Rep. Hunter)	8,243	2,030	5,336
51 (Rep. Vargas)	9,774	1,960	6,709
52 (Rep. Peters)	14,932	5,741	7,888
53 (Rep. Davis)	2,793	877	1,649

1 Unless otherwise stated, all data is from the 2018 U.S. Energy and Employment Report, May 2018, NASEO and EFI. See Pages 15-17 for methodology questions. For more questions regarding methodology, visit www.e2.org/cleanjobsamerica/FAQ.



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.



Clean Jobs Count is a campaign to raise awareness of the economic importance of the clean economy. Visit www.cleanjobscount.org to join thousands of business leaders, workers and others to tell lawmakers and policymakers that clean jobs count.