

REGAINING STRENGTH IN THE WAKE OF COVID-19

Clean energy has been a key contributor to North Carolina's recent economic expansion, with our state's clean energy workforce growing 17-fold from 2008 to the beginning of 2020.² And while the clean energy sector was not immune to the negative economic impact stemming from the COVID-19 pandemic, jobs data through 2020 demonstrates that the sector is back on the rise. In fact, with the right policies and investments by state leadership, clean energy is poised to power an even stronger tomorrow.

KEY FINDINGS

#1

North Carolina ranked 1st among all 50 states in rural clean energy jobs, with 25,563 clean energy jobs—over a quarter of the clean energy workforce—outside metropolitan areas

#9

North Carolina was home to 3.3% of the nation's clean energy jobs, ranking 9th among all 50 states

82%

Small businesses (<20 employees) account for more than 80 percent of North Carolina's clean energy jobs

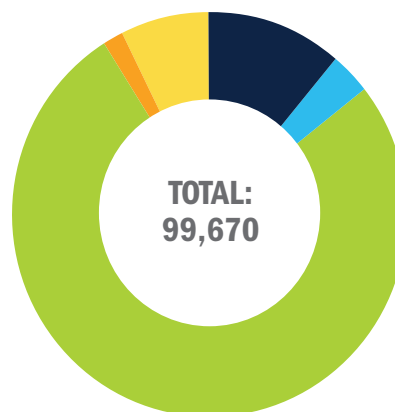
52%

Over half of the 27,217 clean energy jobs lost to COVID-19 in North Carolina had been regained by the end of 2020

11%

more than one in ten clean energy workers in North Carolina are military veterans, ranking 5th among all 50 states

FIG. 1 // NORTH CAROLINA CLEAN ENERGY EMPLOYMENT Q4 2020



■ Renewable Energy: 11,264

Solar: 8,068
Wind: 1,035
Geothermal: 322
Bioenergy/CHP: 1,488
Low-Impact Hydro: 351

■ Storage & Grid: 3,313

Clean Storage: 1,367
Smart Grid: 576
Micro-Grid: 620
Other Grid modernization: 751

■ Clean Fuels: 1,423

Other Ethanol/Non-Woody Biomass: 942
Other Biofuels: 481

■ Energy Efficiency: 76,473

ENERGY STAR & Lighting: 36,618
Trad. HVAC: 18,325
High-Efficiency HVAC & Renewable H&C: 10,934
Adv. Materials: 5,850
Other: 4,746

■ Clean Vehicles: 7,197

Hybrid Electric Vehicles: 3,417
Plug-In Hybrid Vehicles: 1,372
Electric Vehicles: 1,763
Natural Gas Vehicles: 356
Hydrogen & Fuel-Cell: 288

PRESENTED BY:



NC SUSTAINABLE ENERGY ASSOCIATION

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For questions regarding this report, visit E2's report FAQ at <https://www.e2.org/reports/clean-jobs-america-faq>

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FIG. 2 // NORTH CAROLINA CLEAN ENERGY EMPLOYMENT 2017–2020

After years of robust growth, North Carolina’s clean energy economy took a hit due to the COVID-19 pandemic in early 2020, shedding almost a quarter of its workforce by May 2020. But end-of-2020 data demonstrates the resiliency of the sector, working its way back towards previous employment highs.

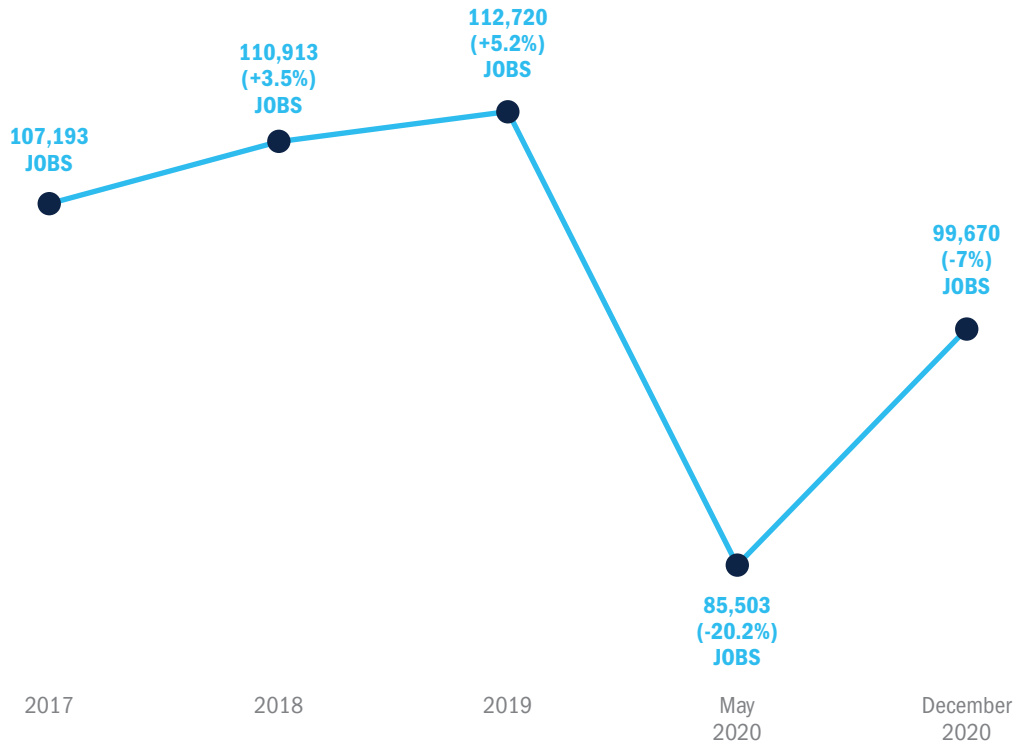


TABLE 1 // NORTH CAROLINA: First in Rural Clean Jobs

Rank	State	Rural Total Clean Jobs	Rural Renewable Energy	Rural Energy Efficiency
1	North Carolina	25,563	3,020	19,499
2	Michigan	22,574	2,073	14,831
3	Texas	22,115	3,633	15,219
4	Wisconsin	17,630	1,407	14,368
5	Ohio	15,788	996	11,533

25.6%

OF NORTH CAROLINA CLEAN ENERGY JOBS
ARE LOCATED WITHIN RURAL AREAS

TABLE 2 // NORTH CAROLINA CLEAN ENERGY JOBS by metro area 2020

Metro Areas	Total Clean Energy Jobs	Renewable Energy Jobs	Energy Efficiency Jobs
Charlotte-Gastonia-Concord	19,758	2,225	15,180
Raleigh-Cary	14,256	1,595	10,941
Greensboro-High Point	6,775	527	5,405
Durham	6,751	1,295	4,720
Asheville	6,358	818	4,792
Wilmington	4,510	378	3,574
Winston-Salem	3,886	324	3,081
Hickory-Lenoir-Morganton	2,888	222	2,306
Fayetteville	2,476	251	1,924
Greenville	1,595	225	1,185
Burlington	1,275	97	1,019
Rocky Mount	1,191	89	953
Jacksonville	1,026	94	806
Goldsboro	716	61	566
Virginia Beach-Norfolk (NC-Only)	643	41	521

Note: An additional 25,563 clean energy jobs are in nonmetropolitan or rural areas.

TABLE 3 // NORTH CAROLINA CLEAN ENERGY JOBS by county 2020

County	Total Clean Energy Jobs	Renewable Energy Jobs	Energy Efficiency Jobs
Mecklenburg	17,923	2,013	14,161
Wake	15,432	1,230	13,162
Guilford	5,706	266	4,379
Durham	4,675	1,068	3,223
Buncombe	3,455	671	2,566
Iredell	3,073	1,161	1,629
Forsyth	2,871	157	2,423
Gaston	2,624	354	1,693
New Hanover	2,617	198	2,215
Union	2,047	316	1,584
Cumberland	2,027	72	1,612
Cabarrus	1,509	201	1,163
Orange	1,397	513	797
Pitt	1,347	150	1,038
Catawba	1,319	73	917
Henderson	1,203	29	952
Johnston	1,166	58	968
Rowan	1,164	33	770
Cleveland	1,053	132	758
Wilson	962	68	782
Davidson	915	53	689
Alamance	887	50	693

County	Total Clean Energy Jobs	Renewable Energy Jobs	Energy Efficiency Jobs
Wayne	851	20	673
Craven	813	47	715
Surry	812	39	449
Nash	795	39	649
Onslow	772	58	650
Lenoir	696	29	542
Randolph	681	40	517
Lincoln	663	30	532
Brunswick	658	46	572
Harnett	656	39	533
Sampson	598	366	148
Lee	570	96	379
Moore	503	34	356
Rockingham	445	33	372
Carteret	436	27	380
Robeson	419	34	339
Beaufort	390	19	293
Chatham	379	90	259
Pender	374	20	287
Dare	371	24	330
Watauga	363	27	307
Person	341	20	174
Montgomery	330	204	101
Franklin	322	22	269
Madison	322	264	54
Macon	318	11	284
Rutherford	314	24	261
Burke	312	9	207
Stanly	302	20	257
Granville	285	13	221
Richmond	269	57	192
Haywood	268	22	216
Edgecombe	259	12	216
Wilkes	259	9	211
Ashe	254	9	180
Cherokee	246	24	204
Duplin	228	23	150
Caldwell	226	12	180
Jackson	225	36	174
Pasquotank	220	15	167
Vance	197	11	164
Davie	197	12	173
Scotland	195	8	103
Columbus	183	15	137
Yadkin	181	12	153
Transylvania	179	30	139

County	Total Clean Energy Jobs	Renewable Energy Jobs	Energy Efficiency Jobs
McDowell	172	11	139
Hertford	167	10	139
Halifax	149	12	109
Currituck	132	10	111
Stokes	130	8	110
Yancey	129	19	99
Polk	119	22	91
Anson	114	11	95
Avery	109	8	94
Mitchell	109	8	93
Bladen	109	12	76
Martin	107	38	58
Alexander	105	3	86
Graham	98	3	92
Hoke	92	7	67
Greene	72	6	55
Northampton	72	4	47
Swain	69	5	53
Chowan	65	5	49
Alleghany	55	3	38
Clay	50	9	39
Pamlico	41	4	33
Camden	40	10	24
Perquimans	37	2	28
Jones	37	5	27
Hyde	33	2	26
Bertie	33	3	20
Warren	31	2	24
Caswell	30	2	22
Washington	27	5	13
Tyrrell	20	1	13
Gates	11	1	8

Note: An additional 3,055 clean energy jobs are in unknown or undefined counties.



About E2

E2 is a national, nonpartisan group of business leaders, investors and other professionals who advocate for smart policies that are good for the environment and good for the economy. With nine chapters working at the state, local and federal levels across the country, E2's 11,000 members and supporters bring the business case for climate action. Collectively, E2 members have founded or funded more than 2,500 companies, created more than 600,000 jobs, and managed more than \$100 billion in venture and private equity capital.

E2 releases more than a dozen clean energy employment reports annually—including Clean Jobs America—with state-specific reports covering more than 20 states every year. Clean energy jobs have grown every year since the first national report was released in 2016.

For additional insight into E2's Clean Jobs America 2021 or our other annual Clean Jobs reports, visit e2.org/reports.



About NCSEA

North Carolina Sustainable Energy Association (NCSEA) is a 501(c)(3) non-profit advocacy organization driving policy and market development to create clean energy jobs, economic opportunities, and affordable energy. NCSEA has served as a respected, trusted, and collaborative resource to North Carolina and beyond since 1978. Our goal is to cultivate a robust clean energy system and energy economy that unifies and benefits all market actors: consumers, businesses, non-profits, government, and utility energy providers.

NCSEA pioneered the first state-based Clean Energy Industry census in 2008. The goal: create a baseline measurement of the clean energy economy to determine the success of new policies in driving the growth of jobs, clean energy firms, and industry revenue.

NCSEA is again excited to partner with E2 to release Clean Jobs North Carolina 2021.

For more information about NCSEA and our work, visit energync.org.

About the Data

This factsheet is based on employment data collected and analyzed by the BW Research Partnership for the 2021 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 2021 USEER relies on a unique supplemental survey of 35,000 business representatives across the United States.

ENDNOTES

- 1 Unless otherwise stated, all data is from the 2021 U.S. Energy and Employment Report (USEER), April 2021, Department of Energy (DOE).
- 2 https://energync.org/wp-content/uploads/2017/03/NC_Clean_Energy_Industry_Census_2008.pdf.