

Appendix Cleantech Data for States and the 100 Largest Metros from “Sizing the Clean Economy: A National and Regional Green Jobs Assessment”

Source: Brookings-Battelle Clean Economy Database, July 2011

Note: Established are defined as cleantech producers if they are in a clean economy industry segment with a median birth year later than 1996. This applies to the following segments: wave/ocean power, solar photovoltaic, wind, biofuels/biomass, carbon storage and management, renewable energy services, battery technologies, electric vehicle technologies, solar thermal, professional energy services, fuel cells, smart grid, and geothermal

The composite ranking combines cleantech jobs in 2010 and the cleantech share of total employment, giving each equal weight.

For more information, see report website:

http://www.brookings.edu/metro/clean_jobs.aspx

Cleantech Jobs in the 100 Largest Metropolitan Areas

Metropolitan Area	Cleantech Jobs, 2010	Cleantech Jobs, 2003	Cleantech Growth, 2003-2010 (%)	Cleantech Degree of Specialization (Location Quotient)	Composite Ranking of Cleantech Size and Specialization	Ranking of Cleantech Jobs, 2010	Ranking of Cleantech Specialization or Share of Total Employment
Albany-Schenectady-Troy, NY	10,092	4,657	11.7	16.7	1	2	2
Knoxville, TN	8,184	75	95.5	18.2	1	3	1
San Francisco-Oakland-Fremont, CA	13,917	9,625	5.4	5.3	3	1	4
San Jose-Sunnyvale-Santa Clara, CA	6,192	2,705	12.6	5.2	4	5	6
Greenville-Mauldin-Easley, SC	3,723	2,806	4.1	9.1	5	11	3
Kansas City, MO-KS	3,932	2,737	5.3	2.9	6	8	7
Toledo, OH	2,175	959	12.4	5.3	7	20	4
Chicago-Joliet-Naperville, IL-IN-WI	7,642	6,638	2	1.3	8	4	22
Charlotte-Gastonia-Rock Hill, NC-SC	2,309	450	26.3	2.1	9	18	9

Cleveland-Elyria-Mentor, OH	2,396	519	24.4	1.8	10	16	12
Boston-Cambridge-Quincy, MA-NH	4,259	2,645	7	1.3	11	7	22
Detroit-Warren-Livonia, MI	3,571	895	21.9	1.5	12	13	17
Atlanta-Sandy Springs-Marietta, GA	3,853	2,871	4.3	1.2	13	9	26
St. Louis, MO-IL	2,612	2,658	-0.2	1.4	13	15	20
Bridgeport-Stamford-Norwalk, CT	1,430	1,176	2.8	2.6	15	28	8
Providence-New Bedford-Fall River, RI-MA	1,642	1,482	1.5	1.8	16	25	12
Albuquerque, NM	1,012	618	7.3	2	18	38	10
Denver-Aurora-Broomfield, CO	2,024	1,016	10.3	1.2	18	22	26
Portland-Vancouver-Hillsboro, OR-WA	1,707	707	13.4	1.3	17	24	22
Little Rock-North Little Rock-Conway, AR	925	800	2.1	1.9	22	39	11
Seattle-Tacoma-Bellevue, WA	2,350	961	13.6	1	18	17	31
Omaha-Council Bluffs, NE-IA	1,048	845	3.1	1.6	23	36	15
Washington-Arlington-Alexandria, DC-VA-MD-WV	3,689	978	20.9	0.9	18	12	36
Tucson, AZ	840	257	18.4	1.7	24	40	14
Grand Rapids-Wyoming, MI	814	930	-1.9	1.6	27	42	15
Pittsburgh, PA	1,578	694	12.5	1	27	26	31
Austin-Round Rock-San Marcos, TX	1,280	535	13.3	1.2	25	30	26
Los Angeles-Long Beach-Santa Ana, CA	4,302	2,659	7.1	0.6	25	6	50
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	2,762	684	22.1	0.7	30	14	46
Madison, WI	736	264	15.8	1.5	31	44	17
Memphis, TN-MS-AR	1,026	700	5.6	1.3	29	37	22
Minneapolis-St. Paul-Bloomington, MN-WI	1,908	1,478	3.7	0.8	32	23	41
Sacramento--Arden-Arcade--Roseville, CA	1,115	101	40.9	1	32	33	31
Houston-Sugar Land-Baytown, TX	2,207	2,380	-1.1	0.6	36	19	50
Las Vegas-Paradise, NV	1,064	738	5.4	1	34	35	31
Chattanooga, TN-GA	481	266	8.8	1.5	37	53	17

San Diego-Carlsbad-San Marcos, CA	1,451	600	13.4	0.8	35	27	41
Wichita, KS	541	75	32.6	1.4	38	51	20
Riverside-San Bernardino-Ontario, CA	1,265	733	8.1	0.8	39	31	41
Dallas-Fort Worth-Arlington, TX	2,164	644	18.9	0.5	40	21	54
Cincinnati-Middletown, OH-KY-IN	1,093	601	8.9	0.8	40	34	41
Raleigh-Cary, NC	710	37	52.5	1	42	45	31
Hartford-West Hartford-East Hartford, CT	824	964	-2.2	0.9	43	41	36
New York-Northern New Jersey-Long Island, NY-NJ-PA	3,844	2,291	7.7	0.3	44	10	68
Worcester, MA	494	503	-0.3	1.1	45	52	30
Cape Coral-Fort Myers, FL	335	272	3	1.2	47	60	26
Miami-Fort Lauderdale-Pompano Beach, FL	1,373	844	7.2	0.5	46	29	54
Phoenix-Mesa-Glendale, AZ	1,183	992	2.5	0.5	47	32	54
Richmond, VA	665	614	1.1	0.8	49	46	41
Baton Rouge, LA	467	274	7.9	0.9	51	55	36
Milwaukee-Waukesha-West Allis, WI	746	780	-0.6	0.7	50	43	46
Louisville-Jefferson County, KY-IN	557	300	9.2	0.7	52	49	46
Oxnard-Thousand Oaks-Ventura, CA	367	466	-3.4	0.9	52	59	36
Rochester, NY	475	393	2.7	0.7	54	54	46
Columbus, OH	640	398	7	0.5	55	47	54
Buffalo-Niagara Falls, NY	467	212	11.9	0.6	58	55	50
Nashville-Davidson--Murfreesboro--Franklin, TN	542	185	16.6	0.5	57	50	54
Stockton, CA	250	48	26.6	0.9	55	65	36
New Haven-Milford, CT	304	114	15	0.6	59	62	50
Baltimore-Towson, MD	581	488	2.5	0.3	60	48	68
Akron, OH	229	593	-12.7	0.5	62	66	54
Salt Lake City, UT	325	197	7.4	0.4	63	61	61
Tulsa, OK	259	12	55.1	0.5	61	64	54

Honolulu, HI	287	98	16.6	0.4	64	63	61
Orlando-Kissimmee-Sanford, FL	389	214	8.9	0.3	65	57	68
Springfield, MA	179	9	53.3	0.4	67	69	61
Allentown-Bethlehem-Easton, PA-NJ	171	0		0.4	68	70	61
Dayton, OH	189	102	9.2	0.4	66	68	61
Tampa-St. Petersburg-Clearwater, FL	383	183	11.1	0.2	70	58	77
Bakersfield-Delano, CA	140	48	16.5	0.4	69	72	61
Jackson, MS	129	79	7.3	0.4	70	74	61
Columbia, SC	163	50	18.4	0.3	73	71	68
Jacksonville, FL	218	79	15.6	0.3	70	67	68
Lakeland-Winter Haven, FL	92	108	-2.3	0.3	76	80	68
Poughkeepsie-Newburgh-Middletown, NY	100	12	35.4	0.3	75	79	68
Des Moines-West Des Moines, IA	113	54	11.1	0.3	74	77	68
Fresno, CA	111	20	27.7	0.2	78	78	77
Oklahoma City, OK	118	86	4.6	0.1	81	76	82
Provo-Orem, UT	64	19	18.9	0.3	77	84	68
Syracuse, NY	81	74	1.3	0.2	81	81	77
Indianapolis-Carmel, IN	132	91	5.5	0.1	78	73	82
Portland-South Portland-Biddeford, ME	66	331	-20.6	0.2	83	82	77
San Antonio-New Braunfels, TX	124	91	4.5	0.1	80	75	82
Harrisburg-Carlisle, PA	59	60	-0.2	0.1	85	85	82
Boise City-Nampa, ID	51	1	75.4	0.1	88	87	82
Modesto, CA	41	11	20.7	0.2	85	90	77
Charleston-North Charleston-Summerville, SC	50	0		0.1	89	88	82
Birmingham-Hoover, AL	66	12	27.6	0.1	84	82	82
Augusta-Richmond County, GA-SC	37	40	-1.1	0.1	93	93	82
North Port-Bradenton-Sarasota, FL	38	24	6.8	0.1	92	92	82

El Paso, TX	41	0		0.1	91	90	82
Greensboro-High Point, NC	46	16	16.3	0.1	90	89	82
New Orleans-Metairie-Kenner, LA	55	27	10.7	0.1	87	86	82
Palm Bay-Melbourne-Titusville, FL	24	8	17	0.1	94	94	82
Youngstown-Warren-Boardman, OH-PA	24	0		0.1	94	94	82
Colorado Springs, CO	10	4	14	0	97	97	96
Virginia Beach-Norfolk-Newport News, VA-NC	15	0		0	96	96	96
McAllen-Edinburg-Mission, TX	0	0		0	98	98	96
Ogden-Clearfield, UT	0	0		0	98	98	96
Scranton--Wilkes-Barre, PA	0	0		0	98	98	96
100 Largest Metropolitan Areas	136,754	76,090	8.7	1.1			

Cleantech Jobs in U.S. States

State	Cleantech Jobs, 2010	Cleantech Jobs, 2003	Cleantech Growth, 2003-2010 (%)	Cleantech Degree of Specialization (Location Quotient)	Composite Ranking of Cleantech Size, Growth, and Intensity	Ranking of Cleantech Jobs, 2010	Ranking of Cleantech Specialization or Share of Total Employment
Tennessee	10,402	2,122	25.5	2.8	1	3	2
Colorado	7,720	2,517	17.4	2.4	2	5	4
California	30,321	17,386	8.3	1.5	3	1	9
New York	15,494	6,702	12.7	1.3	4	2	10
Kansas	5,130	4,466	2	2.6	5	10	3
Illinois	9,982	8,505	2.3	1.3	6	4	10

Washington	5,319	3,197	7.5	1.3	7	9	10
Michigan	6,658	3,520	9.5	1.2	8	7	15
Iowa	4,279	3,262	4	2	9	17	6
South Carolina	4,319	3,036	5.2	1.7	9	16	7
Ohio	7,036	7,035	0	1	11	6	22
Minnesota	4,670	3,059	6.2	1.2	11	13	15
North Dakota	2,019	834	13.5	3.5	11	27	1
Indiana	4,532	1,955	12.8	1.2	14	14	15
Massachusetts	5,039	3,263	6.4	1.1	15	11	20
Rhode Island	1,565	1,434	1.3	2.4	16	33	4
Connecticut	2,688	2,289	2.3	1.2	16	22	15
Missouri	3,649	2,633	4.8	1	18	19	22
Nebraska	1,741	1,087	7	1.3	18	31	10
South Dakota	1,046	344	17.2	1.7	20	35	7
Georgia	4,479	3,553	3.4	0.8	21	15	28
Nevada	1,880	932	10.5	1.2	22	29	15
Oregon	2,323	1,085	11.5	1	23	24	22
Texas	6,354	3,792	7.7	0.4	24	8	39
Pennsylvania	4,856	2,025	13.3	0.6	24	12	35
Montana	806	758	0.9	1.3	26	38	10
Wisconsin	3,045	1,853	7.4	0.8	27	21	28
North Carolina	3,691	1,056	19.6	0.7	27	18	31
Arkansas	1,723	1,230	4.9	1	29	32	22
New Mexico	1,139	713	6.9	1	30	34	22
Kentucky	1,967	604	18.4	0.8	30	28	28
Arizona	2,251	1,341	7.7	0.7	32	26	31
Virginia	2,681	1,207	12.1	0.5	33	23	36

Florida	3,232	1,860	8.2	0.3	34	20	42
Vermont	467	228	10.8	1.1	35	43	20
New Jersey	2,308	1,395	7.5	0.4	36	25	39
Maryland	1,832	725	14.2	0.5	37	30	36
Delaware	514	12	71	0.9	38	41	27
District Of Columbia	703	213	18.6	0.7	39	39	31
New Hampshire	574	246	12.9	0.7	40	40	31
Alabama	876	632	4.8	0.3	41	36	42
Louisiana	844	493	8	0.3	42	37	42
Hawaii	422	116	20.3	0.5	43	45	36
Mississippi	499	178	15.9	0.3	44	42	42
Wyoming	182	65	15.8	0.4	45	48	39
Idaho	310	205	6.1	0.3	46	47	42
Oklahoma	448	100	23.9	0.2	47	44	47
Utah	396	223	8.5	0.2	48	46	47
Maine	182	335	-8.3	0.2	49	48	47
West Virginia	87	84	0.5	0.1	50	50	50
Alaska	19	11	8.1	0	51	51	51
United States	184,699	105,916	8.3	1			