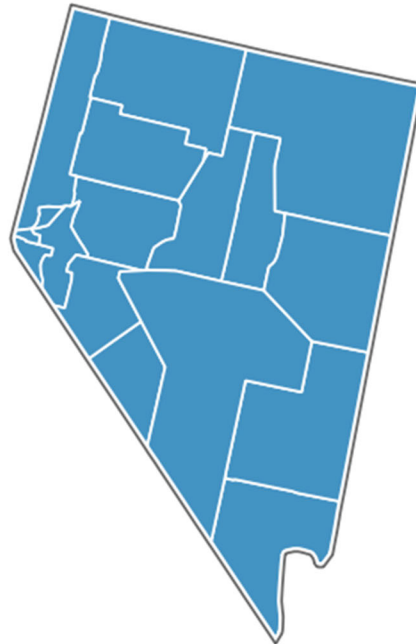


Nevada's Clean Energy Sector



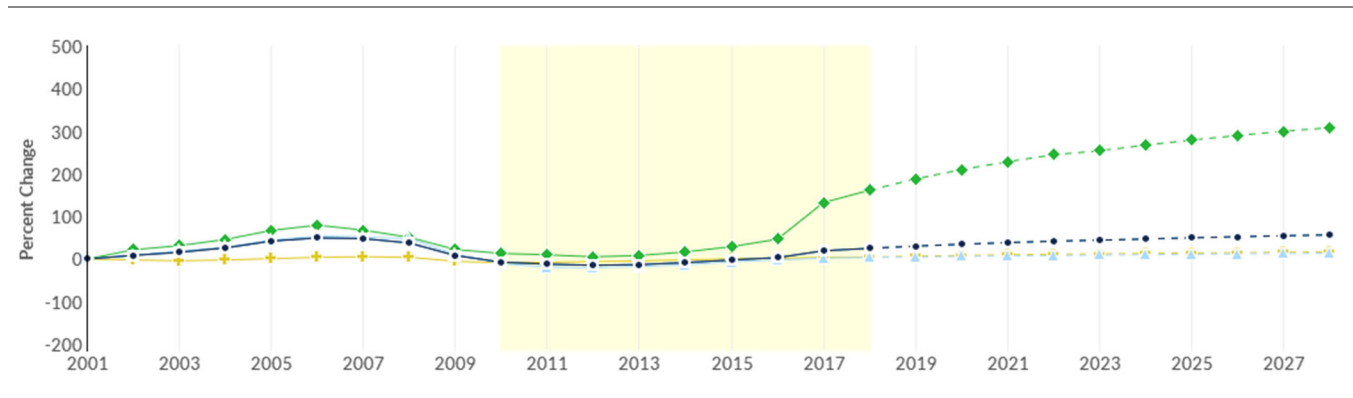
Industry Summary for Clean Energy

34,416 Jobs (2018) 5% below National average	35.0% % Change (2010-2018) Nation: 14.9%	\$80,852 Avg. Earnings Per Job (2018) Nation: \$87,115
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Industry Detail

Payrolled Business Locations (2018)	1,866
Jobs Multiplier	3.24

Regional Trends



	Region	2010 Jobs	2018 Jobs	Change	% Change
●	Nevada	25,496	34,416	8,920	35.0%
●	Las Vegas-Henderson-Paradise MSA	16,005	18,766	2,761	17.3%
●	Reno MSA	4,620	10,688	6,068	131.3%
●	United States	3,514,064	4,038,761	524,697	14.9%

Regional Breakdown of Nevada's Clean Energy Sector

County Name	2010 Jobs	2018 Jobs	2010 - 2018 Change	2010 - 2018 % Change	Avg. Earnings Per Job	2018 Location Quotient
Clark County	16,005	18,766	2,761	17%	\$78,631	0.71
Washoe County	4,516	5,562	1,046	23%	\$76,110	0.94
Storey County	104	5,125	5,021	4828%	\$91,834	16.23
Douglas County	1,326	1,361	35	3%	\$81,610	2.49
Elko County	1,184	821	(363)	(31%)	\$81,877	1.39
Carson City County	557	802	245	44%	\$64,631	1.00
Nye County	253	487	234	92%	\$88,757	1.51
Churchill County	427	453	26	6%	\$88,185	1.87
Lyon County	358	374	16	4%	\$71,348	1.10
Humboldt County	471	276	(195)	(41%)	\$118,447	1.34
White Pine County	102	117	15	15%	\$65,284	1.06
Eureka County	85	106	21	25%	\$137,612	0.91
County not reported	40	72	32	80%	\$102,666	0.39
Lander County	11	31	20	182%	\$193,450	0.34
Lincoln County	18	29	11	61%	\$40,241	0.82
Pershing County	28	14	(14)	(50%)	\$103,801	0.27
Mineral County	<10	12	Insf. Data	Insf. Data	\$147,309	0.28
Esmeralda County	<10	<10	Insf. Data	Insf. Data	Insf. Data	0.74
	25,496	34,416	8,920	35%	\$80,852	

Top Occupations Employed by these Industries

Description	Employed in Industry Group (2018)	% of Total Jobs in Industry Group (2018)
Plumbers, Pipefitters, and Steamfitters	4,297	12.5%
Construction Laborers	2,274	6.6%
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	1,543	4.5%
Office Clerks, General	1,181	3.4%
Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers	1,048	3.0%

Industry Requirements (Top Supply Chain)

Purchases from	In-region Purchases	Imported Purchases	Total Purchases
Crude Petroleum Extraction	\$29,216,599	\$82,066,035	\$111,282,634
Petroleum Refineries	\$10,486,468	\$80,488,377	\$90,974,845
Pipeline Transportation of Natural Gas	\$5,100,257	\$50,288,702	\$55,388,959
Commercial Banking	\$24,836,683	\$28,772,716	\$53,609,400
Ready-Mix Concrete Manufacturing	\$50,336,888	\$3,181,524	\$53,518,412

Industry Gender Breakdown



	Gender	2018 Jobs	2018 Percent
•	Males	26,671	77.5%
•	Females	7,745	22.5%

Industry Age Breakdown



	Age	2018 Jobs	2018 Percent
•	14-18	181	0.5%
•	19-24	2,334	6.8%
•	25-34	7,249	21.1%
•	35-44	8,361	24.3%
•	45-54	8,545	24.8%
•	55-64	6,089	17.7%
•	65+	1,657	4.8%

Industry Race/Ethnicity Breakdown



	Race/Ethnicity	2018 Jobs	2018 Percent
●	White	21,848	63.5%
●	Hispanic or Latino	8,473	24.6%
●	Black or African American	1,595	4.6%
●	Asian	1,479	4.3%
●	Two or More Races	582	1.7%
●	American Indian or Alaska Native	290	0.8%
●	Native Hawaiian or Other Pacific Islander	149	0.4%

Industry Breakdown of Nevada's Clean Energy Technology Sector

Description	2010 Jobs	2018 Jobs	2010 - 2018 Change	Avg. Earnings Per Job	2018 Location Quotient
Plumbing, Heating, and Air-Conditioning Contractors	8,125	12,001	3,876	\$70,891	1.12
Site Preparation Contractors	3,717	4,635	918	\$57,166	1.02
Storage Battery Manufacturing	0	4,198	4,198	\$84,532	22.92
Water and Sewer Line and Related Structures Construction	1,961	2,151	190	\$71,146	1.25
Electric Power Distribution	2,021	1,723	(298)	\$148,321	0.91
Power and Communication Line and Related Structures Construction	1,494	1,453	(41)	\$79,034	0.83
Natural Gas Distribution	1,293	1,240	(53)	\$144,370	1.24
Environmental Consulting Services	765	817	52	\$76,033	0.89
Oil and Gas Pipeline and Related Structures Construction	986	782	(204)	\$60,881	0.56
Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables	869	663	(206)	\$99,396	1.20
Environment, Conservation and Wildlife Organizations	358	631	273	\$41,449	1.02
Fossil Fuel Electric Power Generation	615	605	(10)	\$179,408	0.73
Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers	398	411	13	\$64,875	0.69
All Other Miscellaneous Electrical Equipment and Component Manufacturing	258	316	58	\$106,016	1.15
Other Electronic Component Manufacturing	127	224	97	\$54,138	0.40
Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing	187	208	21	\$52,186	0.77
Geothermal Electric Power Generation	163	206	43	\$148,472	19.97
Industrial Valve Manufacturing	259	206	(53)	\$67,684	0.92
Water Supply and Irrigation Systems	98	157	59	\$56,870	0.38
Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	152	139	(13)	\$95,416	0.18
Roofing, Siding, and Insulation Material Merchant Wholesalers	112	139	27	\$76,889	0.42
Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing	161	129	(32)	\$55,367	0.84
Measuring, Dispensing, and Other Pumping Equipment Manufacturing	134	126	(8)	\$71,828	0.48
Other Basic Inorganic Chemical Manufacturing	226	125	(101)	\$117,384	0.35
Electronic Connector Manufacturing	19	96	77	\$38,446	0.50
Power, Distribution, and Specialty Transformer Manufacturing	<10	93	Insf. Data	\$229,017	0.40
Air and Gas Compressor Manufacturing	53	88	35	\$128,051	0.49
Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	85	79	(6)	\$72,196	0.23
Geophysical Surveying and Mapping Services	125	77	(48)	\$70,500	0.54
Fluid Power Valve and Hose Fitting Manufacturing	64	76	12	\$68,754	0.24
Electric Bulk Power Transmission and Control	0	63	63	\$125,320	0.27
Current-Carrying Wiring Device Manufacturing	<10	62	Insf. Data	\$81,323	0.21
Other Measuring and Controlling Device Manufacturing	71	58	(13)	\$74,184	0.18
Steam and Air-Conditioning Supply	73	51	(22)	\$114,422	3.56
Primary Battery Manufacturing	<10	49	Insf. Data	\$81,092	0.43
Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use	127	47	(80)	\$90,307	0.31

Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing	39	47	8	\$53,509	0.22
Solar Electric Power Generation	59	41	(18)	\$127,205	1.48
Sewage Treatment Facilities	<10	41	Insf. Data	\$85,247	0.73
Industrial Process Furnace and Oven Manufacturing	<10	35	Insf. Data	\$54,516	0.40
Pipeline Transportation of Natural Gas	30	32	2	\$112,390	0.12
Other Communication and Energy Wire Manufacturing	54	26	(28)	\$83,242	0.23
Industrial Gas Manufacturing	21	15	(6)	\$75,293	0.09
Fluid Power Cylinder and Actuator Manufacturing	<10	13	Insf. Data	\$53,574	0.09
Wind Electric Power Generation	0	<10	Insf. Data	Insf. Data	0.03
Fluid Power Pump and Motor Manufacturing	62	<10	Insf. Data	Insf. Data	0.05
Plumbing Fixture Fitting and Trim Manufacturing	<10	<10	Insf. Data	Insf. Data	0.08
All Other Basic Organic Chemical Manufacturing	22	<10	Insf. Data	Insf. Data	0.01
Natural Gas Extraction	<10	<10	Insf. Data	Insf. Data	0.00
Other Metal Valve and Pipe Fitting Manufacturing	34	<10	Insf. Data	Insf. Data	0.06
Heating Equipment (except Warm Air Furnaces) Manufacturing	16	<10	Insf. Data	Insf. Data	0.06
Turbine and Turbine Generator Set Units Manufacturing	38	<10	Insf. Data	Insf. Data	0.00
Nuclear Electric Power Generation	0	0	0	\$0	0.00
Hydroelectric Power Generation	0	0	0	\$0	0.00
Ethyl Alcohol Manufacturing	0	0	0	\$0	0.00
Power Boiler and Heat Exchanger Manufacturing	<10	0	Insf. Data	\$0	0.00
Carbon and Graphite Product Manufacturing	0	0	0	\$0	0.00
Biomass Electric Power Generation	0	0	0	\$0	0.00
Other Electric Power Generation	0	0	0	\$0	0.00
	25,496	34,416	8,920	\$80,852	

Data Sources and Calculations

Industry Data

Emsi industry data have various sources depending on the class of worker. (1) For QCEW Employees, Emsi primarily uses the QCEW (Quarterly Census of Employment and Wages), with supplemental estimates from County Business Patterns. (2) Non-QCEW employees data are based on a number of sources including QCEW, Current Employment Statistics, County Business Patterns, BEA State and Local Personal Income reports, the National Industry-Occupation Employment Matrix (NIOEM), the American Community Survey, and Railroad Retirement Board statistics. (3) Self-Employed and Extended Proprietor classes of worker data are primarily based on the American Community Survey, Nonemployer Statistics, and BEA State and Local Personal Income Reports. Projections for QCEW and Non-QCEW Employees are informed by NIOEM and long-term industry projections published by individual states.

Input-Output Data

The input-output model in this report is Emsi's gravitational flows multi-regional social account matrix model (MR-SAM). It is based on data from the Census Bureau's Current Population Survey and American Community Survey; as well as the Bureau of Economic Analysis' National Income and Product Accounts, Input-Output Make and Use Tables, and Gross State Product data. In addition, several Emsi in-house data sets are used, as well as data from Oak Ridge National Labs on the cost of transportation between counties.

Staffing Patterns Data

The staffing pattern data in this report are compiled from several sources using a specialized process. For QCEW and Non-QCEW Employees classes of worker, sources include Occupational Employment Statistics, the National Industry-Occupation Employment Matrix, and the American Community Survey. For the Self-Employed and Extended Proprietors classes of worker, the primary source is the American Community Survey, with a small amount of information from Occupational Employment Statistics.

State Data Sources

This report uses state data from the following agencies: Nevada Department of Employment, Training and Rehabilitation, Information Development and Processing Division, Research and Analysis Bureau.