

# CLEAN JOBS NEVADA

## 32,211 CLEAN ENERGY JOBS ACROSS NEVADA <sup>1</sup>

### SOLAR, ENERGY EFFICIENCY, ENERGY STORAGE ARE TOP EMPLOYERS

Nevada clean energy jobs grew 32 percent in 2018 and the state's clean economy is now dominated by three major industries within the broader sector—energy efficiency (11,000 jobs), solar (9,700 jobs), and energy storage (8,300 jobs). Combined, these industries account for 91 percent of all Nevada's clean energy jobs. The number of solar jobs would have been even higher if the data was collected today, because it would more fully reflect demand increases spurred by the 2017 restoration of net metering.

While Nevada's solar sector awaits the full impact of these recent policy changes, energy storage quickly became the third industry pillar of Nevada's clean energy labor market in 2018. Over 8,000 Nevadans now work in energy storage—the third most of any state—a rapidly developing technology that has the potential to alter how our nation generates, stores, and consumes electricity.

Less obvious, but still important to the health of Nevada's clean energy labor market is the growth of smaller industries like geothermal. More than 400 Nevadans work in geothermal and an additional 475 work in bioenergy and combined heat and power.

Looking at different regions within the state, clean energy jobs are found in every corner—Democratic and Republican districts, rural and urban communities. Every county in the state, from Churchill east of Reno to White Pine on the Utah border, is home to clean energy jobs, with more than 18,600 workers in the Las Vegas Valley metro alone.

### CLEAN ENERGY JOBS IN PERSPECTIVE

**2 TO 1** Nevada's Storey County supports more than two jobs per every employable resident, making it the county with the highest density of clean jobs in the country

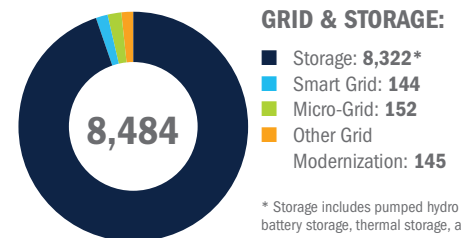
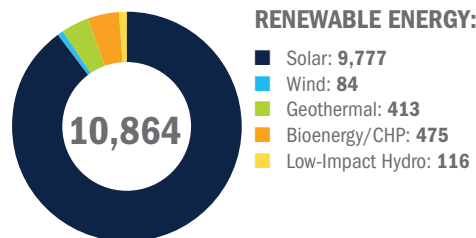
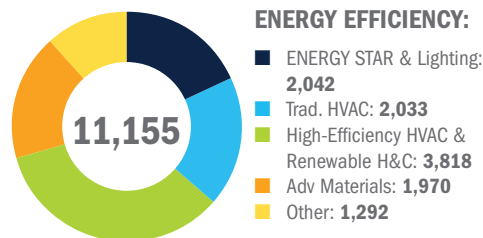
**32% GROWTH** Clean energy jobs grew 32.43% in 2018, adding nearly 8,000 jobs

**#3** Nevada ranks No. 3 in the U.S. for jobs in energy storage

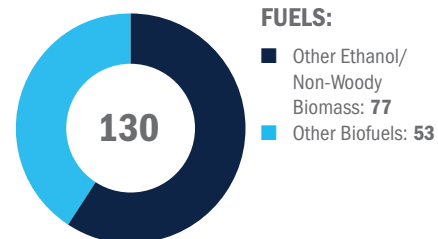
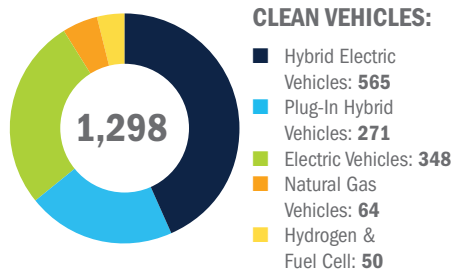
**ALL 17 COUNTIES** Every county in Nevada has residents working in clean energy

**77%** Over 77% of Nevada clean energy workers are involved in construction and manufacturing

### INDUSTRY BREAKDOWN: JOBS



\* Storage includes pumped hydro storage, battery storage, thermal storage, and mechanical storage detailed technologies.



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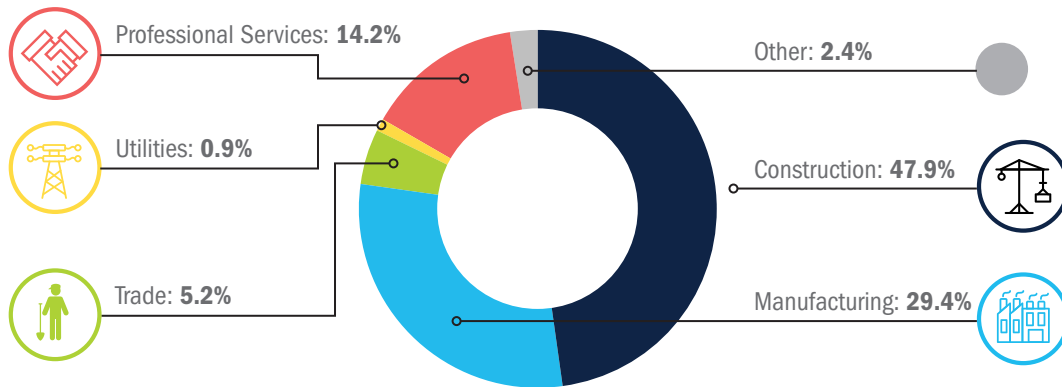
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For more information, E2 Rocky Mountains E2 Advocate **Susan Nedell** at [snedell@e2.org](mailto:snedell@e2.org).

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



CLEAN JOBS BREAKDOWN BY VALUE CHAIN



POLICIES MATTER

There are steps Nevada can take, right now, to help create more jobs in various industries across the state:



RENEWABLE ENERGY

- // In the November 2018 election, almost 60% of Nevada voters voted for Question 6, which, if passed again in 2020, would require electricity providers to get 50 percent of their electricity from renewable sources by 2030. Expansion of technologies like solar and geothermal benefits Nevada’s economy by creating jobs and delivering more low-cost clean energy to the state’s businesses and communities. Voters don’t have to wait until 2020 to secure more clean energy, however. The Legislature and Governor can enact a 50-percent-by-2030 RPS during the 2019 session.
- // Nevada should look for opportunities to modernize our electricity grid by working cooperatively with neighbors and running the Western grid, currently separated into 38 balancing authorities, as a more integrated system. Doing so will facilitate more renewables on the grid and open up more market opportunities for Nevada renewables.



CLEAN CARS AND ELECTRIC VEHICLES

- // Authorize additional electric utility investments in EV infrastructure and support pursuant to SB145 from 2017.
- // Prioritize zero-emission vehicles when investing funds from the Volkswagen Environmental Mitigation Trust and stretch those dollars further by securing matching investments by the electric industry in supporting electrical infrastructure.
- // Seek opportunities to electrify transportation and continue to grow the EV market in the 2019 legislative session and interim.



ENERGY EFFICIENCY

- // Nevada should raise energy efficiency savings targets to 1.5 percent of annual sales. NVE has recently proposed a significant increase in efficiency investments, but even with these increases is still lagging other states and utilities in the region. Increased investments in cost effective energy efficiency could save customers tens of millions of dollars on their utility bills per year and cut the state’s dependence on fossil fuels.



CARBON POLLUTION LIMITS

- // Governor Sisolak has already taken bold climate action by committing Nevada to the Paris Agreement’s emission reduction goals. With no prospect of federal action to cut carbon pollution, legislators should begin studying carbon emission reduction policies in 2019. Carbon pollution limits would send a clear and firm message to the markets that would trigger additional private-sector investments in low-carbon technologies. States that have already enacted these policies are reducing pollution while growing their economies.

**TOP METROS FOR CLEAN ENERGY JOBS**

Metro Area (MSA)	Clean Energy Jobs*	Renewable Energy Jobs	Energy Efficiency Jobs
Las Vegas-Paradise	18,624	8,796	7,374
Reno-Sparks	11,231	1,563	2,297
Carson City	817	156	481

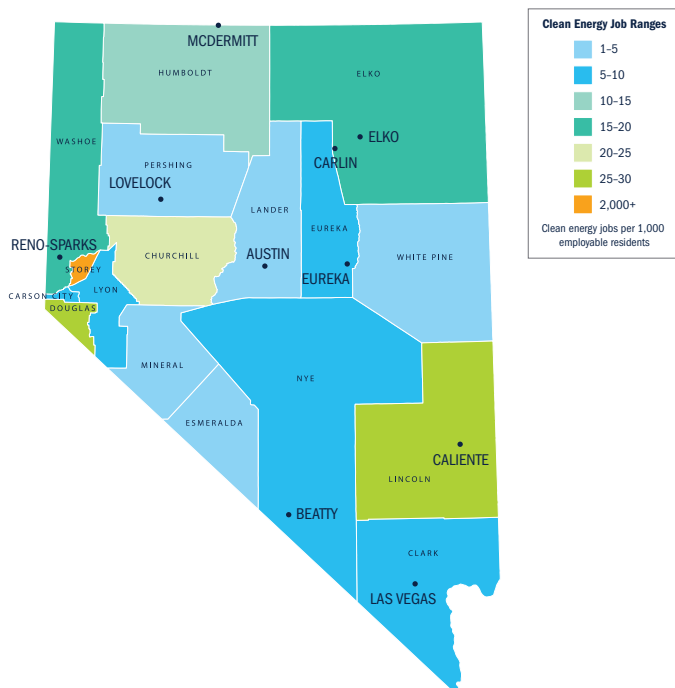
\* Over 1,500 Nevadans located in rural areas work in clean energy

**TOP COUNTIES**

County	Clean Energy Jobs*	County	Clean Energy Jobs*
Churchill	386	Lyon	328
Clark	14,374	Mineral	<100
Douglas	1,037	Nye	220
Elko	674	Pershing	<100
Esmeralda	<100	Storey	8,104
Eureka	<100	Washoe	6,208
Humboldt	163	White Pine	<100
Lander	<100	Carson City	360
Lincoln	122		

\* Total includes all clean energy jobs categories, including solar, wind, energy efficiency, clean vehicles, battery storage, advanced biofuels, low-impact hydro and other areas.

**NEVADA CLEAN ENERGY JOBS BY DENSITY<sup>2</sup>**



**PROFILE: WORKING IN CLEAN ENERGY**



**NAME:**  
Rose McKinney-James

**COMPANIES:**  
Energy Works Consulting;  
McKinney-James & Associates

**LOCATION:**  
Las Vegas

**POSITION:**  
Managing Principal

Rose McKinney-James has enjoyed a diverse career spanning both the public and private sectors. But in all her endeavors—including in her current roles as managing principal at two business-consulting and government advocacy services she runs in Las Vegas—she is curious, creative, collaborative and always on the lookout for the next opportunity to advance clean energy and sustainability.

**HOW ROSE CAME TO CLEAN ENERGY WORK**

After graduating from Antioch Law School McKinney-James, a Detroit native, worked in economic development in Las Vegas where she identified ways to leverage limited resources in underserved communities. Later, she was appointed to serve as a commissioner at the Nevada Public Utility Commission.

During her 5-year tenure there, McKinney-James promoted ways to scale up investments that better integrated energy efficiency and renewable energy in utilities' portfolios. She later served on Nevada's New Energy Task Force, which reported to the governor on ways to further expand clean energy development in the state. McKinney-James said she's proud Nevada was the second state in the nation to have a Renewable Portfolio Standard, signed into law in 1997.

During her tenure as president and CEO at the Corporation for Solar Technology and Renewable Resources, McKinney-James explored leveraging policy frameworks to encourage a broad range of industries to invest in solar.

**CURRENTLY**

Since 2005, McKinney-James has been on the board at MGM Resorts. Beginning with the construction of MGM's City Center on the Las Vegas strip in 2006, McKinney-James has pushed the company to adopt best practices in energy efficiency, solar and water efficiency in all the company's construction projects. This has grown into a company-wide sustainability initiative, with policies and procedures integrated into the culture and driven by the company's 71,000 employees.

*Beyond environmental benefits, McKinney-James said she believes renewables advance the state's growth by creating jobs and diversifying Nevada's economic industries.*

### CASE STUDY: KEEPING THE LIGHTS ON IN LAS VEGAS— AND CREATING JOBS—WITH CLEAN ENERGY

Over the past three decades, Las Vegas' population has roughly quadrupled. To meet the tourism industry's surging demand, massive casinos, hotels and even a neon sign museum have sprouted up along the desert city's glittering Strip. Myriad businesses and services necessary to support this boom have emerged in the surrounding region.

All this new development requires electricity. One local company that has helped design, install and maintain Nevada's complicated and rapidly expanding electrical infrastructure is Las Vegas-based Bombard Electric LLC.

Founded in 1982, Bombard is an electrical contractor serving residential, commercial and government clients. In 2004, the company created a renewable energy division called Bombard Renewable Energy. Three years later, in 2007, Bombard performed the 14.2 megawatts (MW) Nellis 1 installation for SunPower, which was one of the largest solar PV projects in the world at the time. To date, the company has completed more than 1,000 renewable energy projects totaling more than 600 MW.

Some of Bombard's roughly 500 employees helped build the American-made solar array powering the iconic "Welcome To Fabulous Las Vegas" neon sign. Others installed solar arrays at the City of Henderson Police Department's parking lot, a Veterans Affairs hospital, an evangelical church and Republic Services Group's sprawling North Las Vegas recycling facility.

Several of the renewable energy division's largest and most important contracts are utility-scale projects. For example, Bombard was the engineering, procurement and construction contractor on the Stillwater Solar Geothermal Hybrid Project in Fallon, a small agricultural and Naval Air Station town 60 miles east of Reno.

This pioneering renewable energy power plant integrates 33 MW of geothermal power with 26 MW of solar photovoltaic energy and 2 MW of solar thermal capacity. The facility, which spans nearly 200 acres, went online in 2015. It required hundreds of workers who did everything from design and engineer, procure licenses, fence the site, grade the land, pour foundations, test equipment and install the racking system, inverters and PV panels.

In 2016, Bombard completed a 15 MW utility-scale solar array in Pahrump for the Valley Electric Association, an electric cooperative. The array includes 51,480 solar PV panels, all made in the U.S.A. At the time, it was the country's largest community solar project. Bombard worked alongside Valley Electric Association and U.S. Fish and Wildlife Service personnel to help protect a local population of Mojave Desert tortoises. Bombard now operates the plant, which provides enough power for more than 2,500 homes, and the site remains an active habitat for desert tortoises.

Several federal and state policies have been important to the growth of Nevada's solar industry, said Bo Balzar, Bombard Renewable Energy's division manager. Balzar, a UNLV grad, said the American Recovery and Reinvestment Act helped create jobs following the 2008 recession, while Nevada's Renewable Portfolio Standard continues to boost the state's solar market. More recently, the 2017 legislature and the Public Utilities Commission of Nevada's policy on residential net metering has helped make solar an economical decision for homeowners.

Bombard also created the Nevada Solar Solutions Program for non-profits, churches and schools. This program has allowed Bombard to build 49 solar PV projects totaling 4.3 MW of power, achieving substantial savings for the site host. All these projects employ IBEW electricians who receive a living wage and health benefits. The majority of the workers are local to the project, and the Joint Apprenticeship Training Center in Nevada provides well-trained electricians to help Bombard meet its workforce needs for several of the larger solar projects across the state.

Looking toward the future, Bombard expects to continue to serve the growing needs of Nevada's renewable energy market while also identifying opportunities in battery technology and in helping export energy to neighboring states.



Solar installers work on the rooftop of a 110,000-square-foot Republic Services building in North Las Vegas. (Photo courtesy of Bombard)



The 15 MW utility-scale solar array in Pahrump that Bombard completed for the Valley Electric Association covers 80 acres, includes 50,000 panels (all made in the U.S.A.) and helps protect habitat for desert tortoises. (Photo courtesy of Bombard)

## CLEAN ENERGY JOBS BY U.S. CONGRESSIONAL DISTRICT

Data shows that distribution of clean energy jobs in Nevada crosses all political boundaries, with thousands of clean energy jobs in every congressional district.

### U.S. CONGRESSIONAL DISTRICT

District	Clean Energy Jobs	Renewable Energy Jobs	Energy Efficiency Jobs
1 (Rep. Titus)	13,666	6,547	5,404
2 (Rep. Amodei)	13,592	2,242	3,542
3 (Rep. Lee)	3,260	1,384	1,438
4 (Rep. Horsford)	1,693	691	770

### ENDNOTES

- 1 Unless otherwise stated, the data and analyses presented in Clean Jobs America E2 (Environmental Entrepreneurs) are based on data collected for the 2019 U.S. Energy Employment Report (2019 USEER), produced by the Energy Futures Initiative (EFI) in partnership with the National Association of State Energy Officials (NASEO) and collected and analyzed by BW Research Partnership (BWRP). See Pages 9-13 for methodology questions. For more questions regarding methodology, visit <https://www.e2.org/reports/clean-jobs-america-faq>.
- 2 County population data based on 2017 estimates from the U.S. Census Bureau accessible at <https://factfinder.census.gov>

### PRESENTED BY:



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](http://www.cleanjobscount.org) to join thousands of business leaders, workers and others to tell lawmakers and policymakers that clean jobs count.

### THANKS TO SUPPORT FROM:

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