







Nevada's Clean Energy Economy: Key Facts and Resources

Nevada's robust resource base has produced vibrant and growing solar and geothermal industries. With sustained investment, the state can continue to create jobs and commerce across the state.

E2's state profile demonstrates how energy efficiency, renewable electricity and clean fuels are creating jobs and spurring economic growth. We also provide a list of local government resources and contacts working to grow the state's clean economy.

EMPLOYMENT

In 2013, businesses in Nevada announced more than 3,350 clean energy jobs, including:

-  2,858 in Solar Energy
-  290 in Wind Energy
-  44 in Smart Grid/Transmission
-  166 in other clean energy sectors¹

OTHER CLEAN JOB RESOURCES

- Nevada's Office of Economic Development offers a digital [Clean Energy Directory](#) with job training resources for individuals considering entering the clean energy industry, as well as a comprehensive listing of clean energy employers
- The Nevada OED also has completed an [Overview of Nevada Clean Energy Workforce](#), complete with demographic data, regional employment, and segmental analysis
- Brookings provides a two page fact sheet detailing clean job growth and wages in Nevada: [Sizing the Clean Economy in Nevada](#)

¹ From E2's Clean Energy Jobs Announced database, available at www.cleanenergyworksforus.org. E2 collects information on job announcements by tracking a wide variety of national, state and local media.

GENERATION

The Cheapest, Cleanest Form of Energy: None at All

The American Council for an Energy-Efficient Economy (ACEEE) estimates Nevada’s investments in energy efficiency in 2011 saved the state 250,559 megawatt hours (MWh) – the equivalent of meeting the annual electricity needs of over 23,000 Nevada households.² At the average price of electricity \$89.40 per MWh, Nevada saved nearly \$22,500,000 through energy efficiency programs.³

Existing Renewable Generation: What does Nevada have today?

U.S. Department of Energy: Annual Renewable Generation (MWh)⁴

	2010	2011	2012
Wind	0	0	129,000
Solar	217,000	291,000	483,000
Geothermal	2,070,000	2,146,000	2,710,000
Biomass	0	0	0
Total:	2,287,000	2,437,000	*3,332,000
<i>All Energy Sectors:</i>	35,146,000	31,936,000	35,173,000

In 2012, Nevada generated enough renewable energy to power nearly **310,000 homes.*

Planned Renewable Generation: What projects are in development in Nevada?

SNL Financial: Current Renewable Energy Projects in Place (MW)⁵

	Announced	Under Development	Under Construction	Total Projects in Place
Wind	200	350.1	0	550.1
Solar	1,015	2,237.5	448	3,700.5
Geothermal	950	872.9	16	1838.9
Biomass	10	0	0	10
Total Renewables	2,175	3,460.5	464	6,099.5

²American Council for an Energy-Efficiency Economy “The 2013 State Energy Efficiency Scorecard” November 2013. Online. Accessible: <http://aceee.org/research-report/e13k>

³ Energy Information Administration “How Much Electricity Does an American Home Use?” March 2013. Online. Accessible: <http://www.eia.gov/tools/faqs/faq.cfm?id=97&t=3>

⁴ Energy Information Administration “Electricity Data Browser” August 2013. Online. Accessible: <http://www.eia.gov/electricity/data/browser/>

⁵ SNL Financial provides business intelligence services such as data, analysis, and news. This information was sourced from a private subscription to SNL’s Energy Unlimited Package.

Technical Potential: What could Nevada generate in the future?

The National Renewable Energy Laboratory (NREL) examined each state's geographic and agricultural resources to determine the maximum amount of renewable energy each state could feasibly produce.

NREL: Technical Renewable Potential in Nevada (MWh)⁶

Onshore Wind	17,709,000
Offshore Wind	N.A.
Utility Scale Photovoltaic	8,639,348,000
Rooftop Photovoltaic	10,767,000
Concentrated Solar Power	8,295,753
Geothermal	1,307,496,000
Biopower (Solid and Gas)	614,000
Total	18,271,687,000*

*The net technical potential of clean, renewable energy can almost **520 times** Nevada's current electricity needs.

For more information on existing and planned renewable energy projects, visit NRDC's [renewable energy map](#), which shows specific developments and resource potential in each state.

For a full assessment of the energy sector in Nevada, including a map of resource potential, and energy projects and infrastructure, categorized by county and congressional district, please visit the Energy Information Administration: [Nevada State Profile](#)



⁶ National Renewable Energy Laboratory, "U.S. Renewable Energy Technical Potentials: A GIS-Based Analysis" July 2012. Online. Accessible: <http://www.nrel.gov/docs/fy12osti/51946.pdf>

ECONOMY

CLEAN MANUFACTURING CAPACITY

- The Nevada government [Clean Energy Directory](#) offers a comprehensive listing of Nevada clean energy supply chain businesses, organized [by industry](#) or [by service](#)
- The Solar Energy Industries Association provides a state solar policy summary for Nevada complete with an [interactive map of solar supply chain businesses](#) in the state
- GLWN, a network of industry manufactures, provides a national map of suppliers in the wind industry: [Wind Industry Supply Chain Map](#)

STATE POLICY AND INVESTMENT

CleanEdge Ranking	20 th	ACEEE: Energy Efficiency Scorecard Ranking	33 rd
Ernst and Young: State Energy Attractiveness	5 th (tie)	Freeing the Grid	A (Net Metering) B (Interconnection Standards)
Energy Efficiency Resource Standard	No	Renewable Energy Standard	25% by 2025

- The Database of State Renewable Incentives for Renewable Energy, DSIRE, details all state and municipal renewable energy policies for all fifty states: [DSIRE: Renewable Electricity and Energy Efficiency Incentives and Policies](#)
- The U.S. Department of Energy lists state policy supporting alternative fuels and energy efficient transportation: [DOE: Clean Fuel Incentives and Regulatory Policy](#)
- The Advanced Energy Economy Institute's [Public Utility Commission Portal](#) provides a helpful overview and links to the key regional and state energy and utility policymaking institutions in Nevada.

FEDERAL POLICY AND INVESTMENT

Energy Type	2009 Federal Stimulus [Sec.1603]	USDA Grants	Loan Guarantees	Federal R&D Funding	Small Business Innovation Research
Wind	\$88,553,835	\$134,923	-	-	-
Solar	\$97,213,123	\$775,162	\$747,000,000	\$765,000	-
Geothermal	\$252,812,507	-	\$448,500,000	\$49,370,106	-
Biomass	-	\$105,522,344	-	-	-
Transmission	-	-	\$343,000,000	-	-
Energy Efficiency	-	\$31,067	-	-	-

Section 1603 of the 2009 American Recovery and Reinvestment Act (ARRA- commonly known as the Stimulus) offered payments in lieu of tax credits for the installation or construction of renewable energy systems. For the full list of projects awarded payments, click [here](#).

With the goal of effectively using agricultural resources to generate energy, the U.S. Department of Agriculture issues grants to American farmers to install renewable energy systems and efficient technology. For a list of grants, ranging from anaerobic digester facilities to photovoltaic systems, please click [here](#).

The Department of Energy's Loan Programs Office provides loan guarantees to select businesses to accelerate the deployment of advanced clean energy technology. For a detailed list of loan guarantees recipients, please click [here](#).

To learn more about the federal government funds clean energy research, please visit of the [Office of Energy Efficiency and Renewable Technology](#)

For further information on Small Business Innovation Research Grant awardees, please visit the [Department of Energy's Office of Science](#).



RESOURCES AND ADVOCACY

State Organizations

[Clean Energy Project](#)

The Clean Energy Project is a nonprofit organization focused on promoting Nevada's clean energy economy through policy advocacy, business engagement, and community education

[Nevada Governor's Office of Energy: Programs](#)

Nevada's Office of Energy offers a number of state level programs for providing financial incentives to businesses and power producers to promote clean energy and efficiency projects, including revolving loans, tax abatements, and retrofit grants

[NV Energy RenewableGenerations Consumer Rebate Program](#)

Utilities provider NV Energy offers a rebate program to customers to offset installation costs for solar electric, space heating, and hot water projects

[Solar NV](#) and [Sunrise Sustainable Resource Group](#)

The American Solar Energy Society promotes solar energy through advocacy, public education, and industry conferences. The ASES has two chapters in Nevada: Solar NV in the south and Sunrise Sustainable Resource Group in the north

National and Federal Organizations

[EERE – Clean Energy in Nevada](#)

Users can explore the Department of Energy's statistics and policy information related to renewables and energy efficiency.

[National Governor's Association: Profile of Nevada's Green Economy](#)

NGA seeks to provide a detailed, empirical account of each state's existing assets across multiple green sectors and serve as a foundation for identifying future growth areas and related needs.

[Advanced Energy by State \(AEE\)](#)

AEE is a national association of businesses and business leaders who are making the global energy system more secure, clean, and affordable.

[American Council on Renewable Energy: Nevada Fact Sheet](#)

ACORE summarizes Nevada's solar and wind irradiance, as well as its current policies in place to promote renewable energy.

[American Wind Energy Association: Wind Energy in Nevada](#)

The American Wind Energy Association's summary of jobs directly supported by the wind industry in Nevada.

[Solar Energy Industry Association: Nevada Solar Policy](#)

SEIA compares Nevada's solar capacity and potential to other states, and details the impact of solar energy throughout the state.