State of Nevada Status of Energy Report

2014

A Message from

Director Paul Thomsen

Nevada's energy sector is strong thanks to tremendous natural resources, modern infrastructure, and enhanced programs that attract energy developers from around the world and benefit our ratepayers.

The State of Nevada requires approximately 8,000 megawatts (MW) of capacity during the summer peak. Natural gas-fired power plants supply two-thirds of Nevada's net electricity generation. Coal-fired power plants supply about one-seventh of the state's net generation, and renewable energy sources, mainly geothermal and hydroelectric power plants, make up the difference. Nevada's energy mix is one of the cleanest in the country.

In 1970, the Nevada State Office of Energy was created due to the Middle East "energy crisis." Noel Clark served as the first Director and was tasked with the development and implementation of a contingency plan for petroleum shortages. Today, Nevada's per capita energy consumption is well below the national average. Nevada has one of the lowest petroleum consumption levels among all states.

The renamed Governor's Office of Energy now works to ensure the wise development of Nevada's energy resources in harmony with local economic needs and to position Nevada to lead the nation in renewable energy production, energy conservation, and the exportation of energy. The Governor's Office of Energy implements the laws of the State as defined in the Nevada Revised Statutes (NRS); manages energy-related programs; facilitates cooperation between key stakeholders; advises the Governor on energy policy; and collaborates with our local, regional, and federal partners to ensure a reliable and sustainable energy system.

This report will acquaint you with programs that meet and exceed our State energy goals that are in statute. The intent of this report is for you to easily move through our key priorities - renewable energy production (blue tab), energy conservation (green tab), and the exportation of energy (orange tab) - and learn interesting energy facts that you might not have known before.

Mission

The mission of the Governor's Office of Energy is to ensure the wise development of Nevada's energy resources in harmony with local economic needs and to position Nevada to lead the nation in renewable energy production, energy conservation, and the exportation of energy.

The Governor's Office of Energy implements the laws of the State as defined in NRS 701 and 701A, manages energy related programs, facilitates cooperation between key stakeholders, advises the Governor on energy policy, and collaborates with our local, regional, and federal partners to ensure a reliable and sustainable energy system.

Governor's Office of Energy

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Table of Contents

Director's Message 2
Mission and Table of Contents 3
Renewable Energy 4
Energy Conservation 10
Exportation of Energy 20
GOE Around the State 22

Renewable Energy Tax Abatement Program

Awards partial sales and use tax and partial property tax abatements to renewable energy producers. To be eligible, projects must employ at least 50% Nevada workers, pay 175% of Nevada's average wage, and offer health care benefits to workers and their dependents. The Governor's Office of Energy reviews the applications, conducts public hearings to determine eligibility, and reviews annual compliance reports after abatements are granted.

Since the program's inception, Nevada's investment of $500 million in tax incentives has attracted $5.5 billion in capital investments, payroll, and taxes paid, representing a 10-to-1 return on Nevada's investment.

Meets requirements for NRS 701.190 (1a)(1b)(2c)(2d1)(2d2). Governed by NRS 701(A)300-450.

The Renewable Energy Tax Abatement program is a crucial tool in attracting developers to Nevada because it provides an incentive for the construction of commercial power plants. These projects increase Nevada's tax revenue and lead to job creation in a growing industry.

The projects that received an abatement from the Governor's Office of Energy created just under **3,000 direct construction jobs** that paid an average wage of **$37.30 an hour**.

Projects granted an abatement in 2013 and 2014:

Wild Rose

Company:	**Ormat Technologies, Inc.**
County:	**Mineral**
Type:	**Geothermal**
Nameplate Capacity:	**20 MW**
Power Purchaser:	**Southern California Public Power Authority**
GOE Incentive:	**$12.6 million**
Total Project Investment:	**$101.7 million**

Nevada's Return on Investment: **8-to-1**

Silver State Solar South

Company:	**First Solar**
County:	**Clark**
Type:	**Solar**
Nameplate Capacity:	**250 MW**
Power Purchaser:	**Southern California Edison**
GOE Incentive:	**$58 million**
Total Project Investment:	**$473.3 million**

Nevada's Return on Investment: **8-to-1**

To learn more, visit → www.energy.nv.gov/Programs/Renewable_Energy_Tax_Abatements

Copper Mountain 3

Company:	**Sempra**
County:	**Clark**
Type:	**Solar**
Nameplate Capacity:	**255 MW**
Power Purchaser:	**Southern California Public Power Authority**
GOE Incentive:	**$66.4 million**
Total Project Investment:	**$732.3 million**

Nevada's Return on Investment: **11-to-1**

McGinness Hills 2

Company:	**Ormat Technologies, Inc.**
County:	**Lander**
Type:	**Geothermal**
Nameplate Capacity:	**46 MW**
Power Purchaser:	**NV Energy**
GOE Incentive:	**$14.6 million**
Total Project Investment:	**$132.8 million**

Nevada's Return on Investment: **9-to-1**

"The ongoing expansion and success of our Copper Mountain Solar Complex in Boulder City has solidified Sempra and the State of Nevada as national leaders in solar energy generation. Much of this success can be attributed to the ongoing support we have received at the federal, state and local level."

- Kevin Sagara, Vice President of Renewables for Sempra

"First Solar is committed to bringing Silver State Solar South to life as part of our growing Nevada solar power portfolio. We are playing a key role in creating more jobs in Nevada and delivering clean, affordable solar energy."

- Tim Rebhorn, Vice President of Business Development for First Solar

Did You Know?

Each year, 851,500 MWh of renewable energy is generatd in Nevada and purchased by California utilities

Source: U.S. Energy Information Administration

There are 8,760 hours in a year. If your 1 kW generator operated every hour of the year, it would produce 8,760 kWh

Source: UnitConversion.com

Nameplate Capacity vs. Generation

It is important to understand the difference between nameplate capacity and electricity generation.

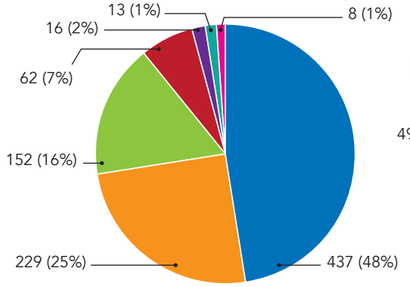
Nameplate Capacity is the maximum rated electric output a generator can produce under specific conditions. **Generation** is the amount of electricity a generator produces over a specific period of time.

Imagine you bought a one kW **nameplate capacity** generator for football tailgating. If you leave it in the garage unused, it will produce zero kilowatt hours (kWh). If you take your generator to six one-hour tailgaters it will produce six kWh.

In the pie charts below you will see Nevada's renewable MW **nameplate capacity** numbers and can compare those to the MWh generation numbers. The difference is due to the fact that many generators do not or cannot operate at their full **nameplate capacity** all the time. They may vary their output over time which can create a difference between **nameplate capacity** and actual **generation**.

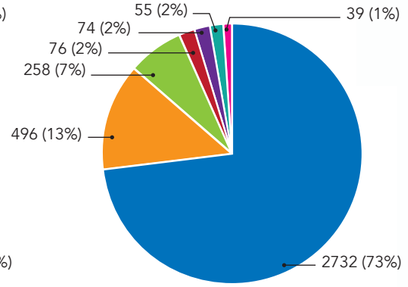
Understanding the difference between **nameplate capacity** and electricity **generation** is critical to improving reliability, lowering costs, and enhancing the integration of renewable resources.

2013 Capacity



917 MW Installed

2013 Generation



3,730 MWh Annually Generated
(In Thousands)

- Geothermal
- Solar
- Biogas / Biomass
- Small Hydro
- Waste Heat Recovery
- Wind
- Distributive Generation

Source: NV Energy - Utility-Scale Generators Owned By or Under Contract with NVE & Distributed Generation Located within NVE's Service Territory

SolarReserve - Crescent Dunes *Source: Governor's Office of Energy*

Ormat - McGinness Hills *Source: Ormat Technologies, Inc.*

Sempra - Copper Mountain Solar 2 *Source: Sempra Energy*

Did You Know?

Nevada is ranked #1 in the U.S. in installed geothermal per capita

Source: Geothermal Energy Association

Nevada is ranked #2 in solar electricity capacity per capita

Source: Environment America Research & Policy Center

Nevada's Revolving Loan Program

Funded from the American Recovery and Reinvestment Act (ARRA) of 2009 provides short-term, low-cost loans to developers of eligible projects in Nevada. These loans serve as a bridge financing option to provide funding for various costs associated with these projects. Eligible applicants may receive a minimum of $100,000 and a maximum of $1 million. Loan terms are 15 years with an interest rate of 3% or less.

Since the program's inception in 2009, more than $17.4 million has been loaned to 20 projects.

Meets requirements for NRS 701.190 (1b)(2c)(2d1)(2d2). Governed by NRS 701.545-595.

The original $8.2 million in funding has revolved and increased to more than $17.4 million, primarily due to moving unspent ARRA funds from other programs into the Loan Fund.

A qualified project must meet one of the following criteria:

1. Construction or expansion of a renewable energy system[1]
2. Construction or operation of an energy conservation project[2]
3. Construction or operation of an energy efficiency project[3]

All projects must comply with the:

1. Davis-Bacon Act
2. National Environmental Policy Act
3. National Historic Preservation Act
4. American Recovery and Reinvestment Act of 2009

2013-2014 Projects Across Nevada

PROJECT	SIZE	TYPE	COUNTY
Desert Research Institute	437 kW	Photovoltaic	Washoe
City of Las Vegas East Yard	100 kW	Photovoltaic	Clark
City of Las Vegas West Yard	200 kW	Photovoltaic	Clark
City of Las Vegas Durango Hills	200 kW	Photovoltaic	Clark
Truckee-Carson Irrigation District	375 kW	Hydroelectric	Churchill

[1] - "Renewable energy system" means a facility or energy system that uses renewable energy or energy from a qualified energy recovery process to generate electricity and:

(a) Uses the electricity that it generates from renewable energy or energy from a qualified recovery process in this State; or

(b) Transmits or distributes the electricity that it generates from renewable energy or energy from a qualified energy recovery process to a provider of electric service for delivery into and use in this State.

[2] - "Energy conservation project" means a project designed, intended or used to improve energy conservation or to reduce the wasteful, inefficient, unnecessary, or uneconomical use of energy.

[3] - "Energy efficiency project" means a project designed, intended or used to improve energy efficiency or to reduce the consumption of energy that is necessary to provide a certain product, function or service.

Did You Know?

One of the first Federal Reclamation projects in the U.S. built Derby Dam and formed the Truckee-Carson Irrigation District.

Source: National Park Service, U.S. Department of the Interior

Desert Research Institute received a **$300,000 loan** that helped fund a roof mounted solar system and solar parking shade structure that will reduce the Reno campus greenhouse gas emissions by **1.8 million pounds** of CO_2 annually and provide **$80,000 in savings** to DRI's annual electrical costs.

Source: Desert Research Institute

Truckee-Carson Irrigation District (TCID) received two loans totalling **$1.2 million** GOE loan to fund hydroelectric turbines on two irrigation canals. The turbines will save the District **2.1 million kWh** annually.

Source: GOE

City of Las Vegas received three loans totalling **$1.2 million** to help fund construction of three solar parking shade structures. The project created **12 jobs**, and the finished systems are expected to produce **1.2 million kWh** of power annually, reduce greenhouse gas emissions by an estimated **23.8 million pounds** of CO_2 during the first **20 years** of operation, and provide welcome shade during hot Southern Nevada days.

"The City of Las Vegas is challenging itself to become the nation's first net-zero energy, water, and waste municipality. We're reducing consumption, adding more solar power generation, and becoming more energy efficient. These projects help us move closer to our goal."

- Carolyn Goodman, Mayor of City of Las Vegas

To learn more, visit → www.energy.nv.gov/Programs/Revolving_Loans_for_Renewable_Energy

State Energy Program (SEP) Formula Grant

Is an annual source of federal funds from the U.S. Department of Energy. The program goal is to improve the reliability and maintain the affordability of energy supplies available to Nevada residents and businesses. The SEP Formula Grant is used to fund and promote energy efficiency and renewable energy programs and projects throughout Nevada.

Nevada received $328,060 in FY 2014 and $344,230 in FY 2015. The State is required to provide a 20% match.

Meets requirements for NRS 701.190 (1a)(1b)(2d1)(2d2).

Improving Energy Conservation

"Carson City was pleased to partner with the Governor's Office of Energy and NV Energy to provide the EV facility in order to make greener transportation options more available and convenient in Carson City. This project fits well with the City's Strategic Plan to promote a clean and healthy environment."

- Tom Grundy, Senior Project Manager for Carson City

Source: Governor's Office of Energy

$3,500 funded **Carson City Public Works** to assist with the installation of an electric vehicle charging station outside the Carson City Community Center. Thanks to an agreement with NV Energy, the station will provide free electricity for the **first 5 years** of operation. The station is the first built on public land in Nevada's Capital and is centrally located so that drivers can visit nearby Mills Park, Carson City Library, and Community Center while their vehicle charges.

Source: Lincoln County Power District

$25,000 was awarded to **Lincoln County Power District** to convert **92 streetlights** to energy efficient LED lights in the towns of Alamo and Panaca. The new streetlights will reduce energy consumption by **52%**.

To learn more, visit → www.energy.nv.gov/Programs/State_Energy_Program_Formula_Grant

State Energy Program (SEP) Competitive Grant

Is used to fund energy conservation projects throughout Nevada. Governor's Office of Energy competed nationally in order to win the following grants:

The EnergyFit Nevada **$5 million award** provided energy efficient upgrades to hundreds of homes across Nevada.

Enhancing Commercial Building Retrofits through Streamlined Standards and Policy Incentives
$746,048 award

Developing a Fee Based, Self-funded Energy Savings Performance Contracting Process
$715,000 award

$2,200 was awarded to **Valley Electric Association** to fund the removal of propane tanks and the installation of solar water heating collectors in the Valley Electric service territory in southwestern Nevada.

Source: Valley Electric Association

$12,000 funded national energy adoption code experts who conducted workshops in Elko, Las Vegas, and Reno, and assisted with the training and adoption of the **2012 International Energy Conservation Codes**.

Source: Governor's Office of Energy

Performance Contract Audit Assistance Program

(PCAAP) funds a financial grade audit, which is the first step to determine if a project is worth pursuing. The Governor's Office of Energy provides technical assistance and workshops for chief financial officers and facilities managers to determine if performance contracting will work for their facilities.

Since PCAAP's inception in 2014, the Governor's Office of Energy has awarded $150,000 to accelerate performance contracting.

Meets requirements for NRS 701A.450 and 332.

"Based on the success of the City of Reno Energy Efficiency and Renewable Energy Initiative and thanks to PCAAP, the Reno and Sparks City Councils moved forward on a project at the Truckee Meadows Water Reclamation Facility that will improve the infrastructure and reduce operating costs at a vital facility in our community."

- Jason Geddes, City of Reno Environmental Services

Promoting Energy Conservation

Performance Contracting is an alternative financing mechanism to accelerate investment in cost effective energy conservation measures and accomplish energy savings projects without up-front capital. It is a partnership between a building owner and an Energy Service Company (ESCO) that conducts a comprehensive energy audit identifying improvements that will save energy. The ESCO guarantees that the improvements will generate cost savings sufficient to pay for the project over the term of the contract.

Source: Governor's Office of Energy

Source: Governor's Office of Energy

The Cities of Reno and Sparks received **$150,000** to cover the cost of a financial grade audit of their water treatment facility that serves hundreds of thousands of people. The resulting $24 million performance contract will annually save the cities **$1.1 million** and reduce their energy consumption by more than **5.8 million kWh** per year by improving operations and equipment.

To learn more, visit → www.energy.nv.gov/Programs/Public_Facilities_Retrofit_Grant

Public Facilities & Commercial Retrofit Grants

The Public Facilities Retrofit Grant enables the Governor's Office of Energy to accelerate performance contracting by educating facility owners about the benefits of performance contracting and guiding them through the statutes and process to upgrade facilities with no up-front cost and guaranteed savings.

The Commercial Retrofit Grant funded the development of recommendations for innovative financing methods and creative ways to encourage building owners to implement energy efficiency upgrades. These recommendations are designed to increase economic development. The research project was successfully completed in September 2014.

Meets requirements for NRS 701.190 (1c)(2b)(2c)(2d3), 332, and 333A.

Public Facilities Grant

"The **City of Henderson** used performance contracting to improve building performance and save energy; **800 miles** of new street lighting alone is saving the City **$1 million** per year."

- Ed McGuire, City Engineer for City of Henderson

Source: Governor's Office of Energy

"We recognized a performance contracting project would improve our facilities and greatly benefit the educational environment. **Eleven schools** and **seven support facilities** benefitted from lighting improvements, energy efficient transformers, trash compactors, and HVAC system repairs."

- Holly Luna, Chief Financial Officer for Douglas County School Distrct

Source: Governor's Office of Energy

Commercial Retrofit Grant

Thanks to a U.S. Department of Energy grant, the Governor's Office of Energy tasked the University of Nevada, Reno Business Environmental Program with researching current economic development and energy policies to identify barriers to and solutions for commercial building energy retrofits.

To learn more, visit → www.energy.nv.gov/Programs/Commercial_Retrofit_Grant

EnergyFit Nevada Program

Was a 3-year, $5 million award from the U.S. Department of Energy to provide energy efficient upgrades to Nevada homes that increased energy efficiency by 20%, while putting contractors to work.

EnergyFit Nevada completed 893 residential energy assessments and achieved upgrades at 553 homes, with an average energy reduction of 32% per home.

Meets requirements for NRS 701.190 (1c)(2c)(2d3).

"EnergyFit Nevada made a positive contribution to the Nevada economy, and laid the groundwork for a long-term energy efficiency market by reducing consumer energy consumption, costs, and emissions, while at the same time producing purely local jobs."

- Jonathan Cohen, LEED Green Associate for the U.S. Department of Energy

Program Highlights

- Nevada households achieved **7 million kWh** in energy savings, which is the equivalent of removing **1,029 passenger vehicles** from the road
- Achieved total homeowner energy savings of **$525,752**
- Upgraded **1.1 million square feet** in Nevada homes
- Resulted in **$3.8 million of work** conducted by Nevadans
- Trained **40 Nevada contractors** in home efficiency work

Source: Reliance Home Inspections

Source: Tim Dunn/ Reno Gazette Journal

Source: EnergyFit Nevada

To learn more, visit → www.energy.nv.gov/Programs/Completed_Projects

Grant Sawyer Building, Las Vegas *Source: City of Las Vegas*

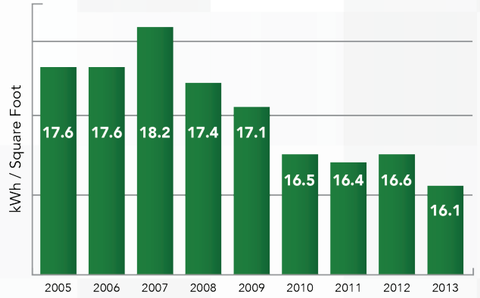
Richard H. Bryan Building, Carson City *Source: Encompass Studio*

Nevada Department of Transportation, Carson City *Source: Governor's Office of Energy*

Energy Usage in State Owned Buildings

NRS 701.215 requires the Governor's Office of Energy Director to prepare a State Energy Reduction Plan which directs State agencies, departments, and other entities in the Executive Branch to reduce grid-based energy purchases by **20% in 2015** for State-owned buildings.

NV Energy provides electric service to **93% of the buildings** owned by the State of Nevada and provides usage updates to GOE on a quarterly basis. Energy consumed in State-owned buildings served by NV Energy has been reduced **by 8.8%**.

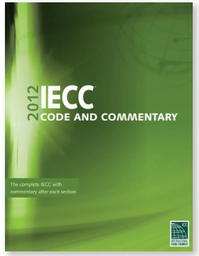


Source: NV Energy and State Public Works Division

International Energy Conservation Code (IECC)

The Governor's Office of Energy is required to adopt the latest version of the IECC, a model for the establishment of minimum design and construction requirements for energy efficiency. Every third year the Governor's Office of Energy adopts the most recent version of the IECC. The Governor's Office of Energy sponsored training in Reno and Las Vegas that attracted more than 300 government leaders, industry consultants, and contractors interested in learning about changes to the IECC.

Meets requirements for NRS 701.190 (1c)(2c)(2d3)(2e). Governed by NRS 701.220-230.



Why did the U.S. Department of Energy Require IECC?

In order to recieve the American Recovery and Reinvestment Act (ARRA), a.k.a the Stimulus, Nevada had to accept a statutory provision (Section 410) linking funding to building energy code adoption and enforcement. As a condition of accepting the ARRA funding, Nevada had to provide assurances that the state would comply with the terms of Section 410.

All 50 states took ARRA money, and all 50 Governors provided commitment letters agreeing to update their building energy codes. Nevada took it a step further and committed to adopting the most current IECC codes every three years.

Research indicates that building energy codes are an inexpensive way to achieve energy efficiency, thus the tie between ARRA funding and energy code adoption.

Stakeholder Outreach

Source: Governor's Office of Energy

In 2014, Nevada adopted the 2012 IECC. **Stakeholder meetings** were conducted throughout the rulemaking process to facilitate discussion and gather expertise in the development of Nevada's Building Energy Codes program.

To learn more, visit → www.energy.nv.gov/Programs/Building_Energy_Codes

The Home Energy Retrofit Opportunity for Seniors

Funded by the Governor's Office of Energy and administered by the Nevada Housing Division, the Home Energy Retrofit Opportunity for Seniors (H.E.R.O.S.) program provides an energy assessment of a qualifying senior's home and installation of recommended weatherization measures. The program reduces energy costs by improving the energy efficiency of the home. H.E.R.O.S. funding up to $6,000 is offered at no cost to qualifying seniors who own their own home.

During the program's first two months, 23 seniors received weatherization benefits.

Meets requirements for NRS 701.190 (1a)(1c)(2a)(2b)(2c)(2d1)(2d3)(2e).

H.E.R.O.S.

Program Requirements
- Be age **60 years** and greater
- Be an NV Energy customer
- Own and reside in the home
- Have an income at or below **200%** of federal poverty guidelines

Potential Measures to be Installed
- New ENERGY STAR refrigerator
- Attic, floor, and duct insulation
- Furnace repair or replacement
- New LED or CFL light bulbs
- New low-flow showerhead or faucets
- Air conditioner and water heater repair and/or replacement
- Programmable thermostat
- Double pane windows
- Building shell and air sealing

Key Benefits
- Helps seniors live in healthier, safer homes
- Weatherization diagnostic tests help identify dangerous carbon monoxide levels
- Makes home more comfortable thanks to better temperature distribution
- Helps seniors by making homes more efficient, resulting in lower monthly energy costs for each household

"The H.E.R.O.S. weatherization program offers Nevada low-income seniors a way to save money, conserve energy, and live in healthier, safer homes. I encourage all eligible Nevadans to take advantage of this free resource."

- Paul Thomsen, Director of Governor's Office of Energy

To learn more, visit → www.energy.nv.gov/Programs/Home_Energy_Retrofit_Opportunities_for_Seniors_HEROS

LEED Tax Abatement Program

Leadership in Energy and Environmental Design (LEED) is the rating system developed by the U.S. Green Building Council to measure energy efficiency in buildings. The Governor's Office of Energy administers the Green Building Tax Incentive Program which offers building owners tax incentives to improve the energy efficiency of their buildings. The incentives range from 25% to 35% of the property taxes paid for a period of five to 10 years, depending on the building's LEED certification level.

Since the program's inception, Nevada's investment of $107 million in incentives has attracted $811 million in capital improvements, payroll, and taxes paid, representing an 8-to-1 return on Nevada's investment.

Meets requirements for NRS 701.190 (1a)(1c)(2a)(2b)(2c)(2dB)(2d3)(2e). Governed by NRS 701A 100-115.

U.S. Green Building Council

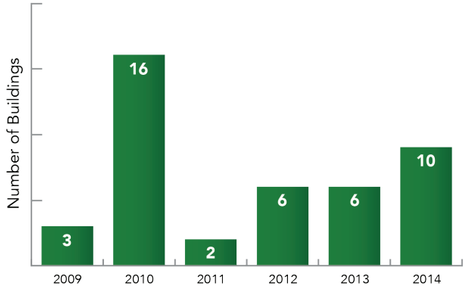
The **USGBC** is a membership-based, non-profit that promotes sustainability in how buildings are designed, built, and operated. USGBC's LEED rating system contains **100 possible points** distributed across **six categories**:

- Sustainable Sites
- Water Efficiency
- Innovation in Design
- Materials and Resources
- Indoor Environmental Quality
- Energy and Atmosphere

Silver, 50–59 points

Gold, 60–79 points

Platinum, 80–100 points



LEED Certified Buildings

- In 2013-2014, **16 buildings** in Nevada received LEED certification.
- More than **47 million square feet** of LEED certified floor space in Nevada received Governor's Office of Energy tax incentives.

Source: Harris Engineers

Schluter Systems in the Tahoe-Reno Industrial Center in Storey County received an incentive for introducing energy upgrades at its **97,000 square-foot** office and warehouse, and earned LEED Silver certification. Management installed an underfloor heating and cooling system and sensor regulated lighting.

Source: Wynn Encore Resort and Casino

Wynn Encore Resort and Casino in Las Vegas received an incentive for introducing energy upgrades at its **7.8 million square-foot** property, and earned LEED Gold certification. Management installed efficient fixtures and fittings, and established sustainability procedures to enhance operations.

Source: One Queensridge Place

One Queensridge Place in Las Vegas received an incentive for introducing energy upgrades at its condominium towers, guest houses, and an underground parking garage, earning LEED Gold certification. They are the first residential condominium unit in Nevada to do so.

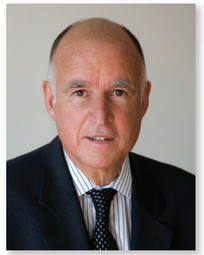
"The Green Building Tax Incentive encourages developers to make their buildings energy efficient, and by doing so, creates more energy savings. These projects prove that Nevada is a leading state at incentivizing energy efficient construction and design."

- Brian Sandoval, Governor, State of Nevada

To learn more, visit → www.energy.nv.gov/Programs/Green_Building_(LEED)_Tax_Abatements

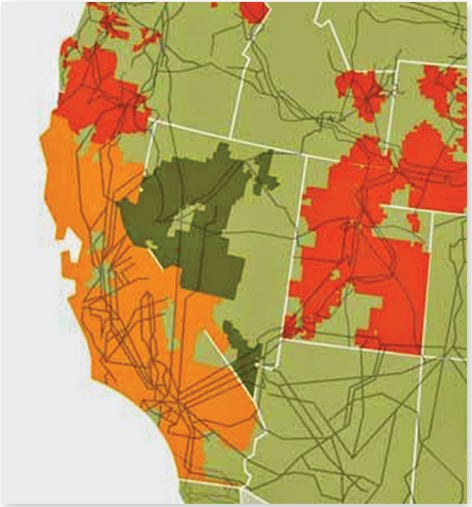
Energy Imbalance Market

In 2014, the Public Utilities Commission of Nevada and Federal Energy Regulatory Commission approved NV Energy's request to participate in a six-state Energy Imbalance Market (EIM), which optimizes resources across a wide geographic area. Govenor Brian Sandoval and California Governor Jerry Brown supported the proposal.



"Nevada's participation expands the state-of-the-art market that has been successfully operating in California since 2009."

- Paul Thomsen, Director of Governor's Office of Energy



Source: Environment & Energy Publishing

- California ISO
- PacifiCorp
- NV Energy

According to the California Independent System Operator (ISO), the EIM uses state-of-the-art technology to analyze supply and demand and dispatch the lowest cost resources to meet energy needs every **five minutes**.

According to Energy and Environmental Economics, Inc., NV Energy's participation in the EIM will save the utility's rate payers an estimated **$4 - $6.5 million** per year.

The EIM represents a step forward in modernizing western grid operations, improving reliability, lowering costs, and enhancing the integration of renewable resources through better use of the most efficient and cleanest power sources.

One Nevada Transmission Line

Source: NV Energy

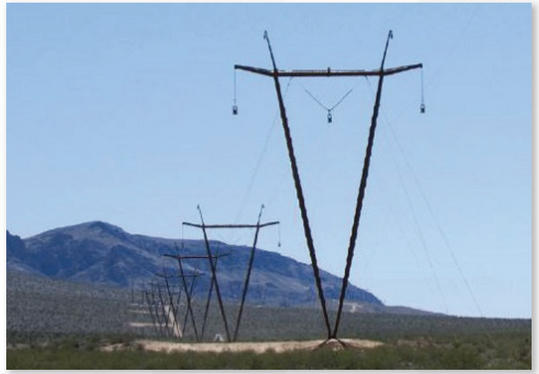
Location: In January 2014, officials celebrated completion of the **231 mile** One Nevada Transmission Line, which improves system reliability and connects NV Energy's northern and southern service areas for the first time.

Voltage and Capacity: **500,000 volts** with a capacity of approximately **600 - 800 MW**.

Employment Facts: Approximately **400 workers** were employed at the peak of construction.

Construction Facts:
- **844 total tower structures** using **3,000 cubic yards of concrete**
- **6,000 guy wires** and **30 miles** of ground wire
- **11 million feet** of conductor wire and **25 million pounds** of steel
- **694 drilled piers** and **3,000 anchors**

Source: NV Energy Transmission Line Fact Sheet

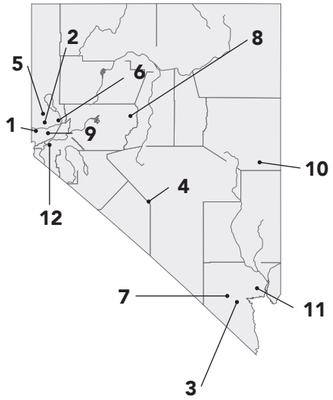


Source: NV Energy

Update

In December 2014, the California ISO Board of Governors approved funds to build a strategically vital power transmission line in Clark County. The Harry Allen – Eldorado 500kV Transmission Project is a 60 mile extension of One Nevada Line that will connect the Nevada transmission system to California's power grid. The increased connectivity is expected to strengthen grid reliability and improve the integration and exportation of Nevada's renewable energy resources.

Governor's Office of Energy Around the Silver State



Governor's Office of Energy staff visit a Truckee Meadows Water Authority hydroelectric power plant on the Truckee River near Reno.

Governor's Office of Energy participated in a University of Nevada and City of Reno sustainability tour.

Sue Stephens discusses performance contracting at the Grant Sawyer State Office Building in Las Vegas.

Robert Dally stands next to heliostat mirrors at the Crescent Dunes solar energy project near Tonopah.

Suzanne Linfante inspects solar panels installed at the Desert Research Institute Reno campus which were funded through the Revolving Loan program.

Paul Thomsen tours the Truckee Meadows Water Reclamation Facility in Sparks to discuss the Governor's Office of Energy PCAAP award for the facility.

Kevin Hill awards a certification at a Governor's Office of Energy sponsored Building Energy Codes workshop in Las Vegas.

Robert Dally tours Ormat's McGinness Hills I, a 68 MW geothermal power plant located north of Austin.

Paul Thomsen discusses renewable energy with U.S. Secretary of Energy Ernest Moniz at the Ormat geothermal facility in Reno.

Scott Kelley views a turbine at Spring Valley Wind Farm, Nevada's largest wind power plant near Ely.

David Gibson inspects boilers at the College of Southern Nevada.

Paul Thomsen testifies during the 2014 Legislative Special Session in Carson City.

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