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State of  
Nevada  
Status of  
Energy  
Report

## A Message from Director Angie Dykema



Thank you for your interest in the Governor's Office of Energy's annual Status of Energy Report. There have been many exciting developments within the office over the past year that have helped to shape Nevada's clean energy economy. This report includes updated information on Nevada's energy portfolio through 2015 and highlights the innovative energy programs administered by the Governor's Office of Energy which help us achieve our statutory goals.

Among some of the office accomplishments in 2015 include the creation and implementation of new energy efficiency programs such as the Direct Energy Assistance Loan (DEAL) program and the Nevada Clean Energy Corps, as well as exciting new projects such as the Nevada Electric Highway and the selection of an Energy Management Information System to further our goals in benchmarking energy consumption in state buildings. In addition, the Governor's Office of Energy has seen expanded success on recently developed programs such as the Performance Contract Audit Assistance Program (PCAAP) and the Home Energy Retrofit Opportunities for Seniors (H.E.R.O.S.), each of which are described in further detail herein.

A new priority for the Governor's Office of Energy in 2015 and going forward is to encourage clean transportation options through the electrification of our state's highway infrastructure. We will be embarking on an effort to reduce the amount of petroleum consumed within our transportation sector by supporting needed infrastructure to enable expanded use of electric vehicle technologies.

Nevada continues to experience increased production of renewable energy in the state, including the addition of 5 new large scale renewable energy projects which began receiving tax abatements from the Governor's Office of Energy in 2015. This brings the total to 26 large-scale renewable energy projects which are receiving incentives through our Renewable Energy Tax Abatement program for investing over \$6 billion into Nevada's economy and providing over 4,000 jobs. Renewable energy power prices have continued to drop over the past year, with Nevada home to two projects with the lowest commercial-scale solar power purchase agreement prices nationwide. These two solar projects, which came through our office in 2015, were both results of Senate Bill 123 passed by the State of Nevada and signed into law by Governor Sandoval in 2013 to advance renewable energy production.

Nevada's entrance in the western Energy Imbalance Market was another accomplishment seen in 2015 which will provide even more opportunities for the integration of renewable resources into the grid. Forward-looking clean energy policies such as these have helped to position the State of Nevada to meet the goals of the Clean Power Plan which was announced in late 2015.

All of these developments highlight the efforts of the Governor's Office of Energy to achieve results within our key priority policy areas of renewable energy production, energy conservation and exportation. While much has been accomplished, we will continue to seek opportunities to build upon our existing programs and to create new pathways and initiatives to ensure that Nevada's energy sector remains one of the cleanest in the country.

I welcome you to use this report to learn more about the Governor's Office of Energy, the status of energy in Nevada, and to become familiar with the unique energy programs administered by our office.

## 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, conservation, and exportation.

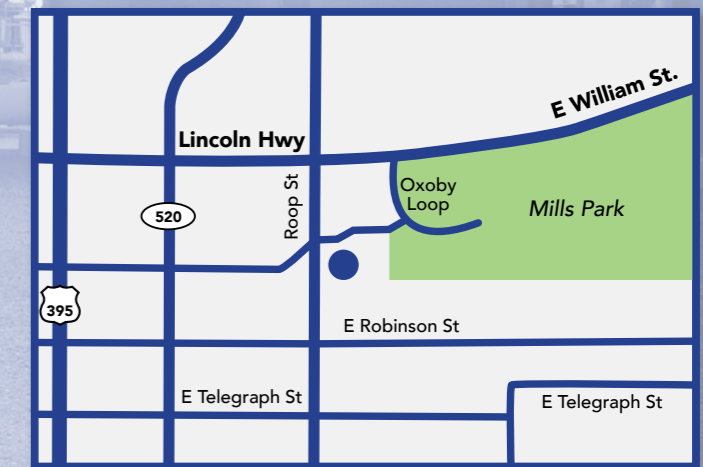
The Governor's Office of Energy implements the laws of the State of Nevada as defined in NRS 701 and 701A, manages energy related programs, facilitates cooperation between key stakeholders, advises the Governor on energy policy, and collaborates with local, regional, and federal partners to ensure a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

Governor's Office of Energy

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# Renewable Portfolio Standard

Nevada's Renewable Portfolio Standard (RPS), NRS 704.7801, was first adopted by the Nevada Legislature in 1997, and has been modified by nearly every legislative session since. The RPS establishes the percentage of electricity sold by an electric utility to retail customers that must come from renewable sources. More specifically, electric utilities are required to generate, acquire, or save with portfolio energy systems or energy efficiency measures, a certain percentage of electricity annually.

## 25% by 2025

The percentage of renewable energy required by the RPS will increase every two years until it reaches 25% in 2025. Included within the RPS is a requirement that at least 5% of the total renewable energy in the portfolio must be generated by solar facilities through 2015 and at least 6% must be generated by solar facilities beginning in 2016.

## Did You Know?

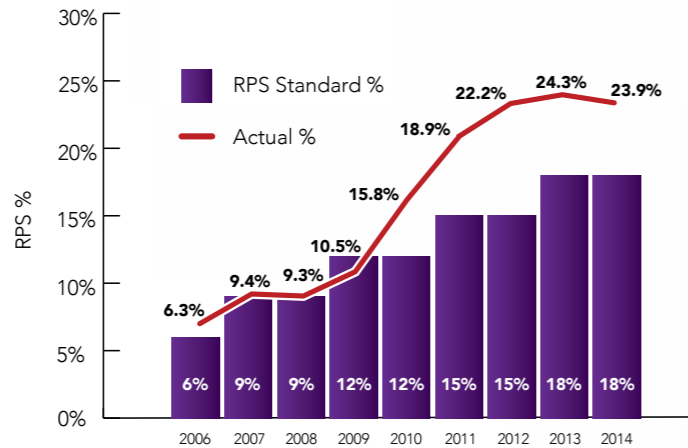
The Apple, Inc. and Switch data centers in Nevada are powered by 100% renewable energy.

Source: NV Energy

## Compliance

NV Energy, Nevada's largest investor-owned utility, has exceeded the RPS every year since 2010.

### NV Energy Renewable Portfolio Standard Compliance



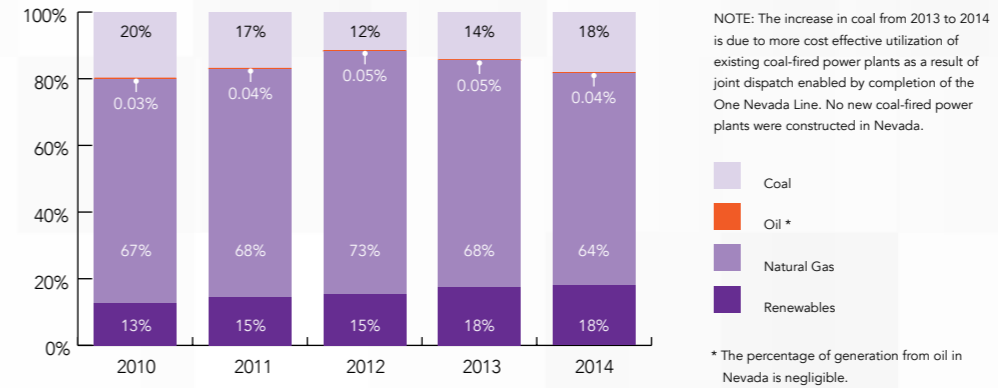
Source: NV Energy

# Nevada's Energy Portfolio

Electric energy consumption in Nevada consists of customers of the state's largest investor-owned utility (NV Energy), rural electric cooperatives, municipal utilities, and general improvement districts.

Currently, more than two-thirds of Nevada's electricity is produced by natural gas fired power plants; coal and renewables comprise the rest. Nevada has seen a significant increase in renewable energy production, and continues to develop its abundant renewable energy resources such as geothermal, solar, and wind.

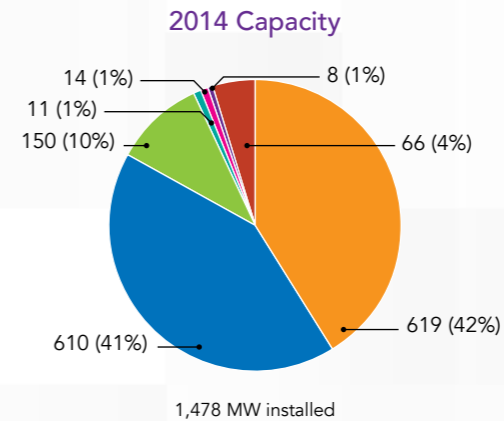
## Nevada's Energy Portfolio



Source: U.S. Energy Information Administration and NV Energy

Nameplate capacity is the maximum rated electric output a generator can produce under specific conditions, and generation is the amount of electricity a generator produces over a specific period of time.

- Geothermal
- Solar
- Biomass
- Small Hydro
- Waste Heat
- Wind
- Distributive Generation

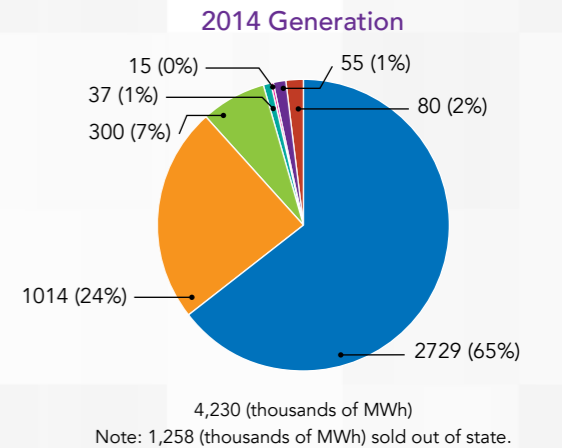


Source: U.S. Energy Information Administration and NV Energy

## Capacity vs. Generation

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.



# 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 \$614 million in tax incentives has attracted \$6 billion in capital investments, payroll, and taxes paid, representing a 10-to-1 return on Nevada's investment. The projects that have received an abatement from the Governor's Office of Energy created over 4,000 jobs that paid an average wage of \$37.19 an hour.

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

“The Governor's Office of Energy plays a vital role in developing and implementing renewable energy projects in the great state of Nevada that deliver clean, cost competitive, renewable energy.”

- Bo Balzar, Operations Manager, Bombard Renewable Energy



To learn more, visit →

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.

## Projects granted an abatement in 2015:

### Copper Mountain Solar 4

Company: **Sempra Energy**  
 County: **Clark**  
 Type: **Solar**  
 Nameplate Capacity: **93 MW**  
 Power Purchaser: **Southern California Public Power Authority**  
 GOE Incentive: **\$22.1 million**  
 Total Project Investment: **\$272.4 million**

Nevada's Return on Investment: **12-to-1**

### NV Energy / Nellis Air Force Base 2

Company: **NV Energy**  
 County: **Clark**  
 Type: **Solar**  
 Nameplate Capacity: **15 MW**  
 Power Purchaser: **NV Energy**  
 GOE Incentive: **\$6.8 million**  
 Total Project Investment: **\$70.9 million**

Nevada's Return on Investment: **10-to-1**

[www.energy.nv.gov/Programs/Renewable\\_Energy\\_Tax\\_Abatements](http://www.energy.nv.gov/Programs/Renewable_Energy_Tax_Abatements)

### Playa Solar 2 / Switch Station

Company: **First Solar Inc.**  
 County: **Clark**  
 Type: **Solar**  
 Nameplate Capacity: **100 MW**  
 Power Purchaser: **NV Energy**  
 GOE Incentive: **\$24 million**  
 Total Project Investment: **\$207.4 million**

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

### Nevada Valley Solar Solutions 2

Company: **Bombard Renewable Energy**  
 County: **Clark**  
 Type: **Solar**  
 Nameplate Capacity: **15 MW**  
 Power Purchaser: **Valley Electric Association**  
 GOE Incentive: **\$4.9 million**  
 Total Project Investment: **\$43 million**

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

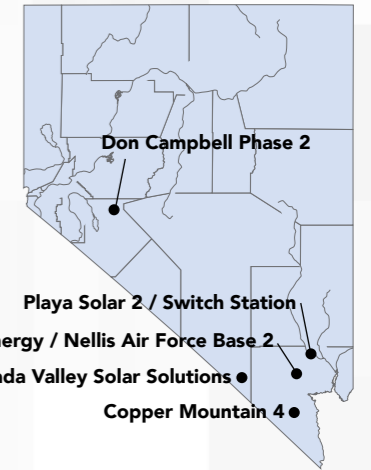
### Don Campbell Phase 2

Company: **Ormat Technologies, Inc.**  
 County: **Mineral**  
 Type: **Geothermal**  
 Nameplate Capacity: **25 MW**  
 Power Purchaser: **Southern California Public Power Authority**  
 GOE Incentive: **\$10.2 million**  
 Total Project Investment: **\$77.2 million**

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

“The Tax Incentive Program provided by the Governor's Office of Energy has been a critical component for large-scale photovoltaic solar energy development in Nevada. The program affirms Nevada's position as a national leader in solar development by ensuring that renewable energy costs continue to be affordable and competitive with the cost of energy generated by conventional means.”

- Kathryn Arbeit, Regional Director of Project Development for Southwestern U.S., First Solar



## Did You Know?

Sempra's Copper Mountain Solar complex is the largest in Nevada, with a total nameplate capacity of 552 MW.

## Nevada's Revolving Loan Program

Funded from the American Recovery and Reinvestment Act (ARRA) of 2009 and 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. 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.**

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

A qualified project must meet one of the following criteria:

1. Construction or expansion of a renewable energy system<sup>1</sup>
2. Construction or operation of an energy conservation project<sup>2</sup>
3. Construction or operation of an energy efficiency project<sup>3</sup>

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



Source: City of Las Vegas

Former Governor's Office of Energy Director Paul Thomsen attended a ground breaking ceremony in 2015 for three City of Las Vegas solar parking shade structures. City of Las Vegas received **\$1.2 million** from the Governor's Office of Energy to build the structures, which created **12** construction jobs, and which will produce **1.2 million kWh** of electricity annually and reduce carbon emissions **23.8 million** pounds of CO<sub>2</sub> during the first **20 years** of operation.

<sup>1</sup> - "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.

<sup>2</sup> - "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.

<sup>3</sup> - "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.

To learn more, visit → [www.energy.nv.gov/Programs/Revolving\\_Loans\\_for\\_Renewable\\_Energy](http://www.energy.nv.gov/Programs/Revolving_Loans_for_Renewable_Energy)

## Home Energy Retrofit Opportunities for Seniors

Funded by the Governor's Office of Energy and administered by the Nevada Housing Division, the Home Energy Retrofit Opportunities 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 home.

**During the program's first year, 189 seniors received weatherization benefits. Each senior annually saved an average of 5,211 kilowatt hours (kWh) of electricity and 268 Therms of natural gas in their home. This represents a savings of 49% compared to an average Nevada home, which uses approximately 10,728 kWh annually. Each participating senior also saw an average annual savings of \$815 on their utility bills.**

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

### 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
- Makes home more efficient, resulting in lower monthly energy costs for each household

### Contractor Recommended Measures Include:

- Exhaust Fan with Dampers
- Broken Window Repair
- Water Heater Blanket
- Dual Pane Windows
- Solar Screen (Southern Nevada Only)
- Attic Insulation
- CFL or LED Retrofits
- Floor Insulation

### Service Providers



To learn more, visit → [http://energy.nv.gov/Programs/Home\\_Energy\\_Retrofit\\_Opportunities\\_for\\_Seniors\\_\(H\\_E\\_R\\_O\\_S\\_\)](http://energy.nv.gov/Programs/Home_Energy_Retrofit_Opportunities_for_Seniors_(H_E_R_O_S_))

## 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.

Governor's Office of Energy received \$344,230 in Program Year 2014 / Fiscal Year 2015, and \$345,320 in Program Year 2015 / Fiscal Year 2016. The State of Nevada is required to provide a 20% match.

PY 2015 / FY 2016 funds are helping to fund the Nevada Electric Highway initiative (please see page 20 for details).

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

“The Governor's Office of Energy has been extremely helpful in making this project a reality through the funding and technical expertise they offered to the staff at Lincoln County Power District Number 1.”

- Paul Mathews, Lincoln County Commissioner

## Promoting Energy Conservation and Renewable Energy Development



Source: Lincoln County Power District No. 1

### Lincoln County Power District No. 1 Community Solar Project

Lincoln County Power District No. 1 received **\$12,000** to help build Nevada's first community solar project near the town of **Panaca in east-central Nevada**. The project has an annual generating capacity of 90 kW and reduces the amount of electricity annually purchased on the open market.



Source: Department of Conservation and Natural Resources

### Berlin-Ichthyosaur State Park

This 1,540-acre park located in northwestern **Nye County** was awarded **\$22,000** to install a six kW solar lighting system in the Fossil House. This provides better illumination of the park's star attraction, the largest known Ichthyosaur fossil ever found.

## International Energy Conservation Codes (IECC)

**\$5,000** funded building energy code workshops, like this one in **Fernley**, which provided training to residential builders and developers on how to implement the 2012 IECC.



Source: Governor's Office of Energy

## Beaver Dam State Park

This 2,400-acre mountain park on the **Nevada-Utah border** was allotted **\$7,000** to install batteries capable of storing energy generated by an eight kW solar system. This ensures a more reliable energy source for campgrounds and other facilities.



Source: Department of Conservation and Natural Resources

## Elgin School House State Historic Site

A one-room schoolhouse in **Lincoln County** that housed students from 1922 through 1967, received **\$3,600** to install batteries capable of storing energy from the school's four kW solar system. The power is used at night for lighting and security of the schoolhouse.



Source: Kershaw-Ryan State Park

## Did You Know?

Berlin-Ichthyosaur State Park protects North America's most abundant fossils of the Ichthyosaur, a prehistoric marine reptile that could grow more than fifty feet.

Source: Nevada State Parks

To learn more, visit → [www.energy.nv.gov/Programs/State\\_Energy\\_Program\\_Formula\\_Grant](http://www.energy.nv.gov/Programs/State_Energy_Program_Formula_Grant)

## Performance Contract Audit Assistance Program (PCAAP)

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 an 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.

Meets requirements for NRS 701A.450 and 332.

“ PCAAP saved our ratepayers the expense of conducting a financial-grade operational audit that is essential to evaluate energy saving opportunities.”

- Paul Ira, Ameresco Senior Account Executive



Source: Clark County Water Reclamation District

The Performance Contract Audit Assistance Program (PCAAP) funds a financial grade audit, which is the first step to determine if a project is worth pursuing. Since PCAAP's inception in 2014, the Governor's Office of Energy has awarded \$328,000 to accelerate performance contracting. To date, the Governor's Office of Energy has received three additional applications for PCAAP funds, and expects to process more than \$680,000 that will lead to performance contracts.

The Clark County Water Reclamation District received **\$178,000** to cover the cost of a financial grade audit for their water treatment facility which serves more than **1 million people**. The resulting **\$9.5 million** project will increase worker safety and deliver **\$829,000** annually in accumulated electricity and natural gas savings through the next **15 years**.

## Public Facilities Grant

A \$715,000 Department of Energy grant allowed the Governor's Office of Energy to:

- Create the Performance Contracting in Nevada Public Facilities program
- Educate decision makers on the benefits of performance contracting
- Provide technical assistance to stimulate projects

Prior to receiving the grant, performance contracting was virtually non-existent in Nevada. Today, performance contracting is an important capital projects component of many local and State governments.

“ Clark County Water Reclamation District boilers, chillers, and lighting will be upgraded in a building where people were freezing in the winter and baking in the summer.”

- Larry Brown, Clark County Water Reclamation District Board Chair



Grant Sawyer Building, Las Vegas

Source: Governor's Office of Energy



Richard H. Bryan Building, Carson City

Source: Encompass Studio



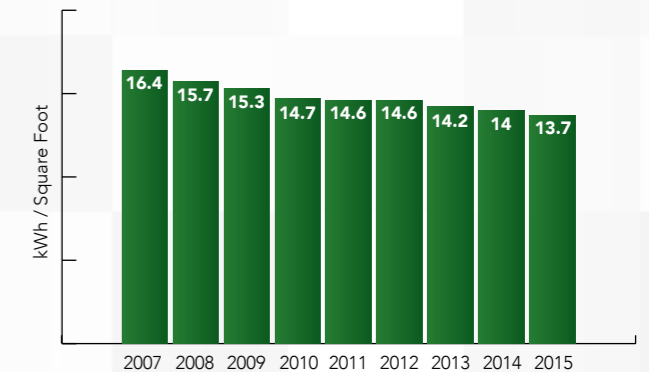
Nevada Department of Transportation, Carson City

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 Governor's Office of Energy on a quarterly basis. Energy consumed in state-owned buildings served by NV Energy has been reduced by **16.4%** since 2007.



Source: NV Energy and State Public Works Division

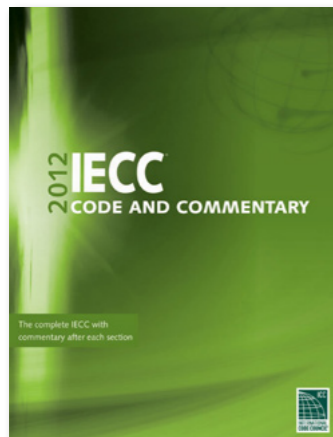
## Energy Tracking Software

The Governor's Office of Energy awarded a 4-year contract with Lucid Design Group, Inc., to run energy management information software to organize, track, benchmark, analyze, and report all usage and costs related to energy consumed and purchased by the State of Nevada. This will allow the Governor's Office of Energy to more accurately track energy consumption in individual buildings, and then work with facility managers to identify energy wasters and implement energy-savings programs using real-time data.

## International Energy Conservation Code (IECC)

The Governor's Office of Energy is required to adopt the latest version of the International Energy Conservation Code (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. On July 1, 2015, Nevada adopted the 2012 IECC.

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



## Why does the U.S. Department of Energy Require IECC?

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

All 50 states accepted 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

The Governor's Office of Energy sponsored 2012 IECC training in Fernley that attracted more than 60 residential builders and contractors. Additional IECC training in 2016 is scheduled for Reno and Las Vegas.

To learn more, visit → [www.energy.nv.gov/Programs/Building\\_Energy\\_Codes](http://www.energy.nv.gov/Programs/Building_Energy_Codes)

## Nevada Clean Energy Corps (NCEC)

The Nevada Clean Energy Corps (NCEC) is an Americorps program funded through Nevada Volunteers and the Governor's Office of Energy. Americorps members are hosted by the Governor's Office of Energy and work hard to increase residential energy efficiency statewide by providing services that promote healthy and energy efficient homes, schools, and public buildings.

**The NCEC program is funded for 1 year at \$597,540. Funding is split between the Governor's Office of Energy and the federal Corporation for National Community Service. The Governor's Office of Energy has the option to re-apply annually for 10 years.**

Meets requirements for NRS 701.180 (3)(4b)(4c) and 701.190 (1c)(2b)

## Education Program

Governor's Office of Energy provides NCEC members with hands-on experience conducting energy audits. Members gain experience with heating, cooling, insulation, lighting, electrical, hot water, and renewable energy systems. NCEC members visit residential and public facilities to gather data to complete an energy audit or site assessment report. In small groups or with partners, members learn the skills needed for a career in energy efficiency. NCEC members serve **1 year** and **1700 hours**.

## Neighborhood Outreach

NCEC members provide door-to-door outreach to distribute Light Emitting Diode (LED) light bulbs, high efficiency shower heads, and provide information on steps residents can take to improve their home's efficiency and reduce energy costs. Members also host home efficiency education sessions with small groups of interested residents.

## Special Events

NCEC members participate in community events by providing information and education on the benefits of energy efficiency. This participation includes staffing a booth at conferences and special events, and giving presentations to civic and other groups.

To learn more, visit → [www.energy.nv.gov/Programs/Nevada\\_Clean\\_Energy\\_Corps](http://www.energy.nv.gov/Programs/Nevada_Clean_Energy_Corps)



Nevada Clean Energy Corps volunteers installed LED lights at Reed High School in Sparks. The Governor's Office of Energy funded lighting retrofits at Reed and at North Valleys High School in Reno using a \$56,000 grant. The projects are expected to save Washoe County School District more than \$50,000 annually in energy costs.



# Green Building 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 Abatement 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 \$159 million in incentives has attracted \$930 million in capital improvements, payroll, and taxes paid, representing nearly a 6-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.



Source: Caesars Entertainment

**Caesars Entertainment** earned one LEED Silver and 10 LEED Gold certificates, and received incentives for the energy efficient upgrades made to their **32.3 million square feet** of hotels and casino resorts. The properties that received an incentive in Las Vegas were Caesars Palace (pictured here), Ballys, Flamingo, Harrahs, LINQ, Paris, and Planet Hollywood. Other properties to receive an incentive were the Rio in Laughlin, Harrahs Reno, and Harveys and Harrahs in South Lake Tahoe. Management built upon conservation efforts already in-place and installed energy efficient light emitting diode (LED) lights, introduced day lighting controls, and rewired lighting systems for better control.



Source: SJS Commercial Real Estate

**Gateway Commerce Center** in the Tahoe-Reno Industrial Center in Storey County earned LEED Gold certification and received an incentive for introducing energy upgrades at its **524,000 square-foot** distribution center. Management installed a "cool" roof that reflects solar heat and reduces the building's cooling load, LED lighting with motion sensors to take advantage of natural light, and insulation on all perimeter walls to better maintain indoor environments.



Source: Governor's Office of Energy

**International Gaming Technology** in Washoe County earned LEED Gold certification and received an incentive for introducing energy upgrades at its **1.3 million square-foot** commercial building. Management established sustainability procedures that reduced the use of raw materials, and added controls to better automate lighting and high efficiency air conditioning (HVAC) systems.



Source: The Cosmopolitan

**Nevada Property 1, LLC** in Clark County earned LEED Gold certification and received an incentive for introducing energy upgrades at The Cosmopolitan of Las Vegas, a **6.6 million square-foot** hotel and casino resort. Management installed a building management system that uses sensors to automatically reduce energy usage in areas that aren't being occupied.

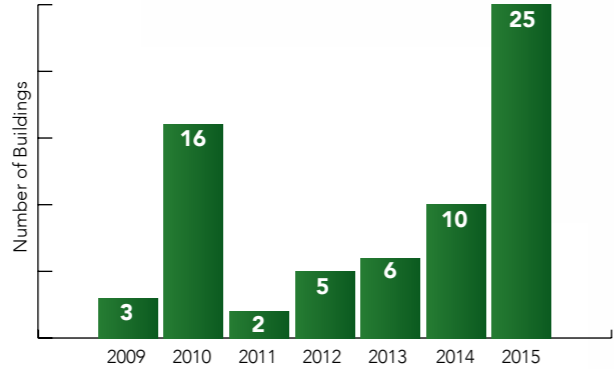


## U.S. Green Building Council

The **USGBC** is a membership-based, non-profit that promotes sustainability in how buildings are designed, built, and operated. USGBC's LEED 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

<p>Silver</p>  <p>50-59 points</p>	<p>Gold</p>  <p>60-79 points</p>	<p>Platinum</p>  <p>80-100 points</p>
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### LEED Certified Buildings

In 2015, **25 buildings** in Nevada received LEED certification or equivalency, and more than **47 million square feet** of LEED certified floor space in Nevada received Governor's Office of Energy tax incentives.



Former Director Paul Thomsen accepts a U.S. Green Building Council of Northern Nevada, "Advocacy Organization Award" for the Governor's Office of Energy's tireless promotion of energy efficiency and sustainability in buildings.

To learn more, visit → [www.energy.nv.gov/Programs/Building\\_Energy\\_Codes](http://www.energy.nv.gov/Programs/Building_Energy_Codes)



Source: Stations Casinos

**Stations Casinos** earned four LEED Silver and one LEED Gold certificates, and received incentives for the energy efficient upgrades made to their **5.2 million square feet** of hotels and casino resorts. The properties that received an incentive in Las Vegas were Boulder Station, Red Rock Casino (pictured here), and Santa Fe Station. Other properties to receive an incentive were Green Valley Ranch and Sunset Station in Henderson. Management installed LED lights, introduced day lighting controls, and upgraded to ENERGY STAR® rated appliances and computers.



Source:Valley Health Systems

**Valley Health Systems** in Clark County earned LEED Gold certification and received an incentive for introducing energy upgrades at Spring Valley Hospital and Medical Center, a **371,186 square-foot** medical center. Management replaced fans that ran 24/7 with efficient systems that pulled fresh air into the building as needed, and retrofitted rooms with LEDs to maximize energy savings



Source: CBRE Group

**Valley Road Apartments** in Washoe County earned LEED Silver certification and received an incentive for introducing energy upgrades at its **319,805 square-foot** apartment complex. Management added insulation and installed high efficiency heating, ventilating, and air conditioning units throughout the complex.



Source: Dermody Properties

**Urban Outfitters** in Washoe County earned LEED Silver certification and received an incentive for introducing energy upgrades at its **462,720 square-foot** fulfillment center. Management reduced lighting power density in the building and installed HVAC units and building envelope constructions.

A benefit that provides State of Nevada employees an interest-free loan for energy efficiency upgrades at their home. The loan is paid off via a monthly payroll deduction. The Governor's Office of Energy funds the Direct Energy Assistance Loan (DEAL) program through NRS 701A.450. The Nevada Housing Division administers the program through its established delivery system of contractors.

During the program's first month **84** State of Nevada employees submitted completed applications. The counties that saw the most State of Nevada employees apply for DEAL were Carson (**24**), Washoe (**20**), Clark (**17**), and Lyon (**12**).

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

## DEAL

To be eligible for a loan, State of Nevada employees must meet the following criteria:

- Be an active full-time employee, employed at least 12 months by the State of Nevada
- Must be part of the Nevada Employee Action and Timekeeping System (NEATS)
- Must not owe debt to the State of Nevada
- Must own the home
- Must be an electric customer of NV Energy

Once an employee's application is accepted, a state-approved energy auditor conducts an assessment of their home and recommends energy savings measures. After the employee selects the appropriate measures, the contractor performs the upgrades and receives payment from Nevada Housing Division. The maximum payback length is **60 months**. A loan of **\$1 – \$3,000** has a monthly payment of **\$50**; a loan of **\$3,001 – \$6,000** has a monthly payment of **\$100**. Employees who are U.S. military veterans are eligible for a loan of up to **\$8,000**, with a longer term.



Source: Governor's Office of Energy

A blower door is a powerful fan that mounts into the frame of an exterior door. The fan pulls air out of the house, lowering the air pressure inside. The higher outside air pressure then flows in through all unsealed cracks and openings. DEAL's energy auditors use blower door tests to determine a home air leakage.

To learn more, visit → [www.energy.nv.gov/Programs/Direct\\_Energy\\_Assistance\\_Loan](http://www.energy.nv.gov/Programs/Direct_Energy_Assistance_Loan)

## Direct Energy Assistance Loan (DEAL)

### Contractor Recommended Measures Include:

- Duct and Shell Sealing
- Air Conditioner Replacement
- Heat Pump Replacement
- Water Heater Replacement
- Heat Pump Water Heater
- Programmable Thermostat Installation

### Did You Know?

DEAL is the first program of its kind offered by a public sector employer.

## Clean Transportation Infrastructure

Nevada has quickly become one of the nation's leaders for electric vehicles (EVs) and autonomous vehicles. In 2015, the state launched the Nevada Electric Highway along U.S. Route 95 to make it possible to drive between Reno and Las Vegas with a battery powered vehicle. Nevada has also attracted billion-dollar investments from Tesla Motors and Faraday Future that will transform the state into a major manufacturing hub for the next generation of EVs and autonomous vehicles.



### Nevada Electric Highway

In 2015, the Governor's Office of Energy and NV Energy launched the Nevada Electric Highway, an initiative to expand the state's EV charging infrastructure. The highway will consist of EV charging stations in the communities of **Fallon, Hawthorne, Tonopah, and Beatty** along U.S. Route 95. Each location will consist of two Level 2 chargers and one Direct Current Fast Charger to accommodate the different types of EVs.

**The Governor's Office of Energy will contribute \$30,000 in federal grant funds toward the construction of the charging stations, and administer a 5-year program to reduce any host site electricity demand charges. The Governor's Office of Energy is also contributing \$15,000 to fund an electric vehicle charging station in Valley Electric Association's service territory.**

Direct Current (DC) Fast Chargers can charge a vehicle in less than an hour; Level 2 chargers typically require several hours for a full charge

“ This Electric Highway will allow electric vehicle drivers to power their cars by tapping into Nevada's own renewable energy resources. This will strengthen our state's energy independence while reducing Nevada's petroleum imports. ”

- Brian Sandoval, Nevada Governor



Source: Governor's Office of Energy

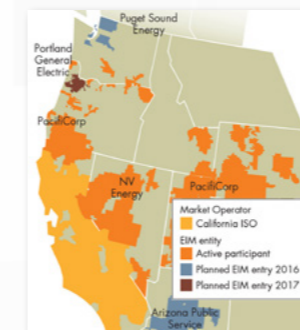
Nevada Governor Brian Sandoval announces plans for the Nevada Electric Highway at a press conference in Carson City. Joining the governor at the announcement are former Governor's Office of Energy Director Paul Thomsen and NV Energy CEO Paul Caudill.

To learn more, visit → [www.energy.nv.gov/Programs/Nevada\\_Electric\\_Vehicle\\_Programs\\_and\\_Resources](http://www.energy.nv.gov/Programs/Nevada_Electric_Vehicle_Programs_and_Resources)

## Exportation of Energy

The Governor's Office of Energy facilitates cooperation between key stakeholders to ensure a reliable and sustainable energy system and wise development of Nevada's energy resources. Primary goals are renewable energy production and the exportation of energy. Participation in the Energy Imbalance Market (EIM) with multiple western states, and construction of the Harry Allen-Eldorado Transmission Line, helps the Governor's Office of Energy meet these goals.

### Energy Imbalance Market



Source: CAISO

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

NV Energy joined the EIM and began real-time operation on December 1, 2015. NV Energy participation in the EIM will save Nevada ratepayers an estimated **\$6 to \$10 million** per year by enhancing the ability to analyze supply and demand by dispatching the lowest cost resource to meet energy needs **every five minutes**, and integrating more renewable resources.



“ This is an excellent example of a project that provides mutual benefits for Nevada and California, two states that share significant renewable energy resources and economic ties. ”

- Brian Sandoval, Nevada Governor

### Harry Allen-Eldorado Transmission Line

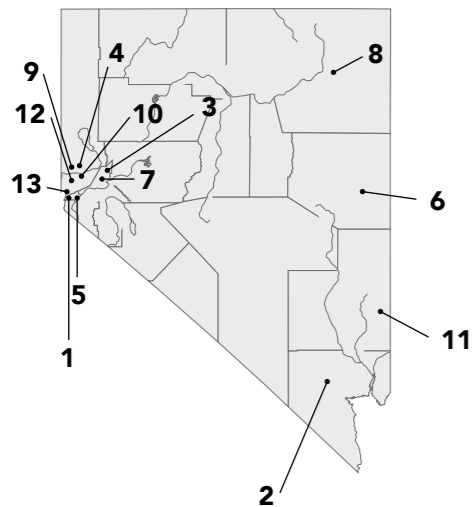


Source: Clark County

The Harry Allen - Eldorado **500 kV** Transmission Line is a **60-mile** extension of the One Nevada Line that will connect Nevada's transmission system with the California power grid. This electric gateway will accelerate the integration and exportation of Nevada's renewable energy resources.

In early 2016, the California Independent System Operator (CAISO) selected LS Power to finance, own, construct, and maintain the Harry Allen - Eldorado Line based on cost, experience, and ability to meet a May 2020 in-service date. The Clark County map to the left shows the location of the Harry Allen and Eldorado substations. The transmission line will run along the eastern edge of Las Vegas.

# Governor's Office of Energy Around the Silver State



Paul Thomsen describes the Nevada Electric Highway to reporters and industry officials in Carson City. Joining him, from right to left, are Nevada Governor Brian Sandoval, NV Energy CEO Paul Caudill, and Carson City Mayor Bob Crowell.



Paul Thomsen attends GREENFest, a sustainability Earth Day event in Summerlin.

Suzanne Linfante joins energy officials at an installation ceremony for a 499 kW photovoltaic system at Fortifiber in Fernley.



Paul Thomsen joins Eco Warriors students and staff at Reed High School in Sparks to celebrate a student-led, GOE-funded initiative to retrofit the school's lights.

Governor's Office of Energy staff discuss rural electric initiatives with Valley Electric Association officials.



The Governor's Office of Energy biodiesel vehicle is used when traveling to places like Spring Valley Wind Farm, near Ely.

Kevin Hill and Deana Cotroneo lead a Governor's Office of Energy-sponsored building energy codes workshop in Fernley where training was provided to more than 60 building contractors.



Kevin Hill tours a home in Elko that received Governor's Office of Energy H.E.R.O.S. funding.

Scott Kelley and Governor's Office of Energy intern Emily Myers attend the Geothermal Resources Council annual meeting in Reno to discuss renewable energy programs and policies.



David Gibson speaks to Washoe County School District teachers about the importance of teaching energy efficiency to their students.



Angie Dykema participates in the ribbon cutting of Nevada's first community solar project. The Governor's Office of Energy helped fund the 90 kW project, located in Panaca.

Angie Dykema speaks with Stanford University students about Nevada's innovative energy policies.



David Gibson inspects a cafeteria dishwasher at Sierra Nevada College in Incline Village during an energy audit.

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## Governor's Office of Energy

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