

# 2010 Status of Energy in Nevada



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**July 1, 2011**

## **Nevada State Office of Energy**

### **Our Mission**

The Nevada State Office of Energy's (NSOE) mission is to promote the wise development of the State's energy resources in harmony with local community economic needs and Nevada's natural resources to lead the nation in renewable energy production, energy efficiency and conservation, and exportation. We strive for this by facilitating cooperation between key stakeholders, leading initiatives to stimulate economic development and attracting energy related businesses; including, energy education, retro-fitting, manufacturing, site development, generation and production, and interstate and intrastate energy transmission.

The 2010 Status of Energy report in Nevada is a supplement to the 2009 comprehensive Status of Energy Report and is required pursuant to NRS 701.160.

This report does not include the programs of the Renewable Energy and Energy Efficiency Authority (REEEA) which was, until Feb 15, 2011, led by Hatice Ge-col. REEEA submitted an annual report on January 31, 2011 which includes a summary of the programs within the Authority.

The Legislature recently passed SB426 which will merge the NSOE and REEEA as of July 1, 2011. All energy related programs will reside within NSOE with the Energy Director overseeing all projects and objectives.

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# Introduction

## Goals

The role of the NSOE is to acquire and analyze information related to energy and the supply, demand and conservation of energy; review and evaluate information which identifies trends and forecasting of energy available to the State; study means of reducing wasteful, inefficient, unnecessary or uneconomical uses of energy and encourage maximum utilization of existing sources of energy in the State; solicit and serve as the point of contact for energy-related grants and other money from the federal government; coordinate or operate activities and programs that promote, fund and deploy renewable energy in the State; and carry out all other directives concerning energy prescribed by the Governor. Additionally, NSOE works towards the following goals:

- Nevada's major cities to be known as the "Silicon Valleys" of the renewable energy industry and serve as hubs for innovation, generation, and commercialization of renewable energy technologies.
- Nevada to lead the nation in renewable energy manufacturing.
- Nevada to streamline renewable energy project permits and transmission corridor construction more effectively than any other state.
- Nevada to stand out as a leader in incentives offered to both small and large scale renewable energy projects throughout the state to help reduce system costs over time.
- Nevada to meet the goal of reducing the state's grid-based energy consumption 20% by 2015 from a 2005 baseline.
- Adopt lighting standards, energy codes and other standards/policies to reduce energy and fossil fuel consumption statewide.
- Reduce energy consumption on a per capita basis in the state.
- Develop a viable plan and process for the transmission and export of renewable energy which includes collaborating with neighboring states.

## Our Challenges

It is well-known that Nevada possesses abundant wind, solar, and geothermal renewable resources. The state also has an abundance of land resources on which to locate a multitude of energy projects to meet our own needs for renewable energy and export to neighboring states. However, there are significant challenges that must be overcome if Nevada is to emerge as a leader in the renewable energy market sector. Many other western states are competing with Nevada to meet the renewable energy needs of states like California. Nevada is at risk of being bypassed for those targeted loads if its renewable resources cannot be appropriately harnessed and exported in an expedited fashion.

# Introduction

Perhaps the greatest challenge facing Nevada is that the majority of the land resources in the state, more than 85%, are managed by the federal government. It is critical for Nevada to work closely with federal leadership, regional organizations, local government, and Nevada's utilities to allow for its resources to be developed wisely in balance with the environment, but also immediately. Just as Nevada has emerged as the recognized gaming capital of the world, it can and should also emerge as the renewable energy capital of the world by focusing on our strengths and reducing the barriers to the industry to initiate a long-term and sustainable energy economy in Nevada.

Nevada established a renewable portfolio standard (RPS) during the 1997 legislative session. Under the standard, NV Energy must use eligible renewable energy resources and energy efficiency programs to supply a minimum percentage of the total electricity it sells. By 2013, 15% of the energy sold by the utility must come from renewable resources. This requirement increases to 25% by 2025. Energy efficiency measures may be used to satisfy a portion of the 25% requirement. Additionally, State government is required to reduce its grid-based energy consumption by 20% by 2015. The NSOE is meeting this challenge through a series of statewide renewable energy project and centralizing the collection energy data.

The State is a large per capita energy consumer in large part due to year-round tourism. In an effort to become more energy efficient Nevada is utilizing a portion of the ARRA stimulus funds to adopt the 2009 IECC codes statewide, which includes adoption in every local jurisdiction. Nevada was also awarded a federal grant to implement the Nevada Retrofit Initiative (now called the Nevada Home Energy Fitness Campaign) to enable homeowners make their homes more energy efficient through 2050. And NSOE is embarking on a baseline energy consumption database in order to identify energy saving measures on our fleet of almost 3,000 state owned buildings.

Transportation accounts for 33% of all energy consumption in Nevada, which makes it the largest energy-consuming sector of the state economy. The NSOE installed alternative energy fuel tanks at the state Motor Pool and has participated in several programs to work to reduce fossil fuel consumption in the transportation sector.

# Introduction

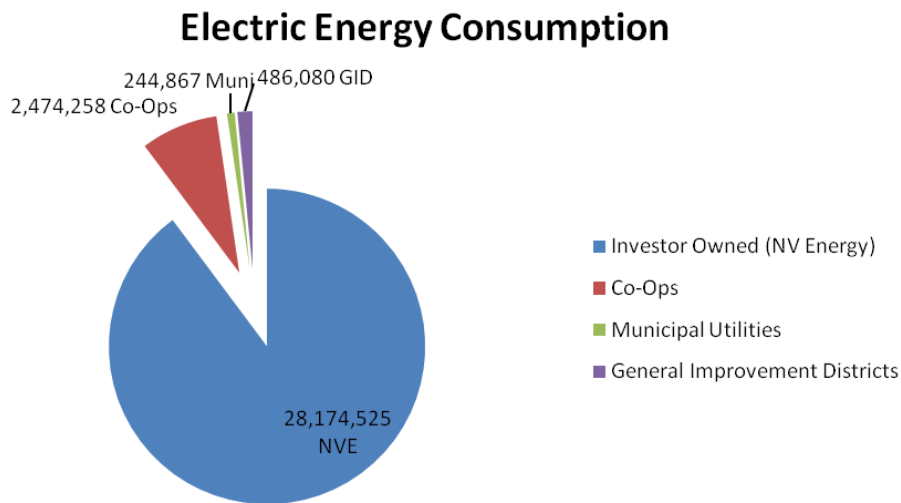
## Strategy

The NSOE can achieve its goals by continuing to foster strategic partnerships with a variety of agencies including the NCED, NSHE, PUCN, federal government, municipalities, utilities, nonprofits, Nevada's energy sector, neighboring states, and the public. Through these partnerships, the NSOE is able to pool incentives and resources to position Nevada as an attractive option for locating energy-related businesses, developing renewable energy systems, and building transmission infrastructure. Not only does Nevada have the advantage of abundant renewable resources, but the ability to be responsive to the energy industry's needs. This combination of talent, efficiency, and renewable resources is what can make Nevada a natural leader in the energy sector. Important strategies that NSOE continually works toward include:

- Coordinate with the Nevada System of Higher Education and industry partners to further develop educational programs in the energy sector
- Attract technical innovators of the energy industry to Nevada through marketing Nevada's unique business climate, quality of life, and by offering incentives to energy technology development
- Attract renewable manufacturing to Nevada by further developing Nevada's manufacturing and transmission infrastructure for efficient exporting
- Coordinate with California, federal agencies and utilities on further developing transmission corridors (in the north and the south) to develop an import/export renewable energy market with surrounding states
- Lead renewable development in Nevada through creative RFP processes that enable renewable energy projects to be constructed quickly on public-owned facilities and lands
- Continue to reduce and manage the costs of doing business in Nevada wherever possible, including labor costs, through legislation and incentives
- Collect and centralize State agency energy data to accurately account for how much energy is utilized and develop a baseline for meeting reduction targets
- Promote fuel efficient vehicles through incentives for plug-in hybrid electric vehicles, and accelerated retirement of inefficient vehicles. Participate in discussions on alternative fuel, fleet testing and load balancing for electric vehicle technology
- Develop additional loan programs targeted at funding energy efficiency projects and helping the transportation industry utilize alternative fuels
- Manage and monitor the ARRA funded programs in a manner that continues to receive accolades and builds relationships with federal agencies and potential additional funding sources.

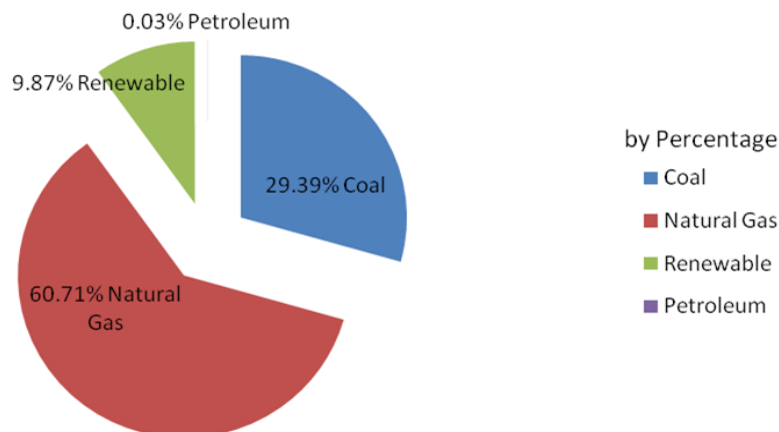
# Nevada's Energy Status in 2010

**Electric Energy:** The electric energy consumption in Nevada consists of customers of the investor owned utility (NV Energy), co-ops, municipal utilities and general improvement districts. The energy use was 1.4 percent below average consumption in 2009 due to economic conditions, such as home foreclosures, the high unemployment rate, and effective conservation programs. The energy delivery by type of supplier follows in megawatt hours (MWh):



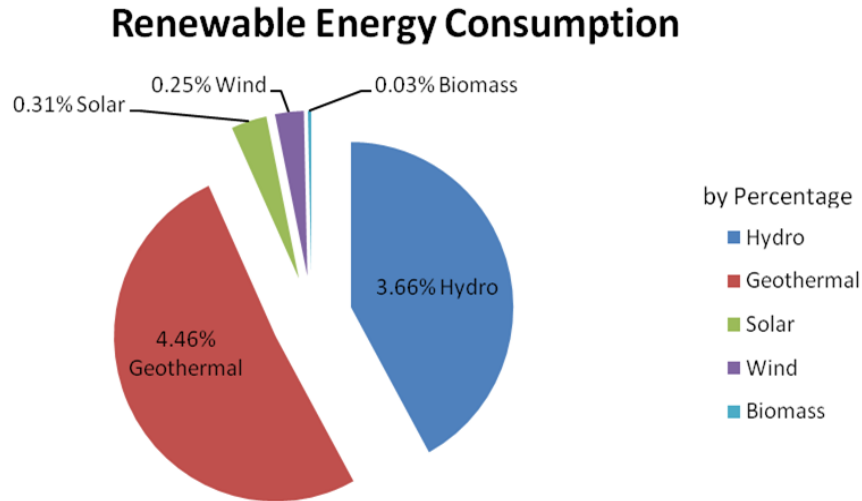
The types of energy generated for electricity used in the state comes from natural gas, coal, petroleum and renewable energy. More than 60 percent of the electricity generation comes from natural gas and 29 percent from coal. A little over 9 percent is from renewable resources with the majority of the renewable resources coming from geothermal and hydro. The investor owned utility (NVE) is currently on target with the renewable portfolio standard.

## Energy Consumption by Commodity



# Nevada's Energy Status in 2010

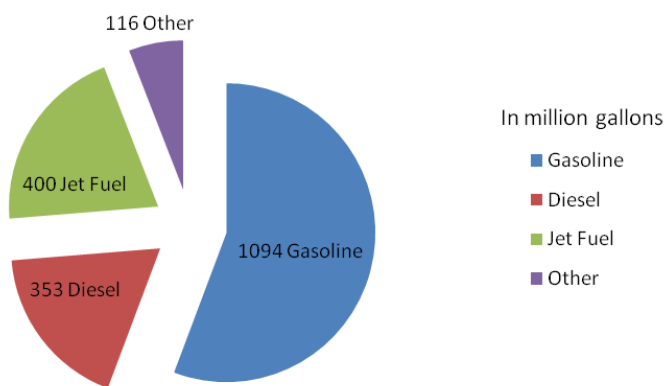
The renewable energy used in the state is distributed between hydro, geothermal, solar, wind, and biomass as follows:



**Transportation Fuel Consumption:** Transportation fuels fall into two categories, fossil fuels and non-fossil fuels (alternative or renewable). The fossil fuels are derived from petroleum based feed stock and the non-fossil fuels may be a mixture of renewable fuel and fossil fuel or totally non-fossil based. Gasoline, aviation gas, diesel and jet fuel consumption still less than what was consumed in 2007, however the alternative fuel consumption has increased. A little less than 8 percent of the motor fuel consumed in the state is alternative or renewable. As electric and plug-in hybrid vehicles make their way into the state, there will need to be a method to track the electricity used for motor transportation.

The taxable fuel consumption in millions of gallons for Nevada in 2010 follows:

### Transportation Fuel Consumption



Fuel Source	In million gallons	Percentage
Gasoline	1,094	55.64%
Aviation Gas	1.8	0.09%
Diesel (on-road)	353	17.95%
Diesel (off-road)	2.86	0.15%
Jet Fuel	400	20.34%
Ethanol	107	5.44%
Biodiesel	1.6	0.08%
LPG (Propane)	5.9	0.3%
Natural Gas	.18	0.01%
<b>Total</b>	<b>1,966.34</b>	<b>100%</b>



# NSOE Organizational Structure

Nevada's state energy policies are established by the Governor and the Legislature and can be found in NRS Chapter 701-Energy Policy. The Nevada State Office of Energy (NSOE) is also responsible for implementing federal energy policies within the State of Nevada. Those policies are established by and funded by the US Department of Energy (DOE).

## Organization

As of June 2011, the NSOE is staffed by 16 people. The total recommended staffing for the office at full optimization of policies is 24 full-time employees. However, due to economic conditions and a restricted state budget, staffing is at 16 full-time employees. Using federal stimulus funds, the office was able to add eight federally-funded, time-limited employees to help manage the \$47 million stimulus funds allocated to NSOE by the DOE.

Current Staffing includes:

**Director**—Stacey Crowley began as Director in January 2011. She is directly responsible for advising the Governor on energy policies and serves on the Governor's Cabinet. The Director is also responsible for working to bring energy-related businesses to the state; implementing the policies adopted by the Governor and Legislature, managing NSOE activities, and representing Nevada's energy interest among regional and national organizations. The Director's position is state funded until fiscal year 2012 after which it will be funded by revenues from the Renewable Energy Fund, set to receive funds July 1, 2011.

**Deputy Director**—Stephanie Brooks, is responsible for assisting the Director in all tasks, managing the budget, ensuring grants are expended, and handling the administrative functions of the office. The Deputy Director position is state funded until fiscal year 2012 after which it will be funded by revenues from the Renewable Energy Fund, set to receive funds July 1, 2011.

**Energy Program Manager**—Peter Konesky serves as liaison to the Director of the Division of Emergency Management with respect to agency coordination on energy supply contingencies. He also assists the Director of the NSOE in monitoring electric and natural gas supply resource adequacy, participates in alternative fuel and fossil fuel reduction efforts and makes recommendations as necessary. He helps to administer the SEP Formula grant, the Clean School Bus USA, and Save Energy Now grants. This position is federally funded.

**Energy Program Manager**—Robert Nellis is responsible for managing the State Energy Program activities under the American Recovery and Reinvestment Act of 2009 (ARRA). Programs include the Revolving Loan Program, State Building upgrades, Energy Efficient Schools, Energy Efficient Street Lighting & Traffic Signals, Alternative Fuel Infrastructure, and Energy Related Codes. Mr. Nellis is also responsible for developing public-private

## NSOE Organizational Structure

partnerships to leverage the ARRA programs to further stimulate Nevada's economy beyond the life of the ARRA programs and is the MSA Contract Manager. This position is funded with ARRA funds and will continue to be funded through the Revolving Loan Fund program.

**Energy Program Manager** – Tom Wilczek serves as Program Manager for the Energy Efficiency and Conservation Block grant (EECBG) and monitors the transference and expenditure of funds for that program. He also co-manages the NSOE Energy Assurance program, the Nevada Retrofit Initiative grant, sits on the Board of Nevada Energy Assist Corp. and works with the Director on transmission issues. This position is funded entirely with ARRA funds and will continue to be funded in part through the NRI grant.

**Management Analyst II** – Lorayn Walser manages the Green Building Property Tax Abatement program and the Renewable Energy Tax Abatement program. She also assists with grant monitoring and reporting as assigned. This position is federally funded and will continue to be funded in part with revenues from the Renewable Energy Fund.

**Management Analyst II** – Kevin Johnson monitors and reports on the Energy Efficiency and Conservation Block grant (EECBG). Mr. Johnson manages and reviews all projects and promulgation of agreements between NSOE and outside entities for the EECBG grant. This position is entirely ARRA funded.

**REEEA Management Analyst I** - Emily Nunez manages the Building Energy Codes Program, which includes conducting stakeholder meetings, arranging training on the 2009 International Energy Conservation Code (IECC) for building code officials and the building industry. She is managing the process as Nevada moves forward to adopt the 2009 IECC and to begin the 90% compliance sampling in Nevada to meet the ARRA provisions. Mrs. Nunez also manages grant funds and projects. In 2010, she was under the supervision of the Energy Commissioner and REEEA. This position is funded entirely with ARRA funds.

**Renewable Energy Analyst** – Tara Vogel works on various grant tasks as assigned including management of projects including technical assistance, policy compliance, and reporting. She also serves as the lead on the State Buildings and Schools Programs under SEP ARRA. This position is federally funded and as of June 24, 2011, **this position is vacant.**

**Grants and Projects Analyst II** – Jacqueline Cashmere administers, monitors, reviews, and assesses grant and contract programs as assigned. She began in January of 2011 and she evaluates applications received for funding and recommends either approval or denial. In addition, she tracks funding sources, prepares or assists in preparation of applications for federal funding, and submits approved applications to the funding sources. This position is supported entirely by federal funds.

# NSOE Organizational Structure

**Outreach Coordinator**—Sean Sever coordinates public information campaigns and marketing strategies for the energy office with a focus on ARRA programs. He disseminates news releases; handles media requests and inquiries from various agencies and groups; serves as point of contact for public comments, input and questions regarding energy; and maintains the NSOE website. He also coordinates community outreach efforts, participates on various committees, provides technical assistance to the office, and monitors energy media stories. This position is funded entirely with ARRA funds.

**Accountant Technician I**—Dawn Nenzel serves as a custodian of all ARRA grant funding records and is responsible for reporting requirements to the Department of Energy and Government Accountability Office. This position is funded entirely with ARRA funds.

**Energy Assurance Intern**—James Pitcher, Jr. assists program managers in substantially refining the State Energy Assurance Plan to incorporate response actions for new energy portfolios, including smart grid technologies. This position is entirely ARRA funded.

**Administrative Assistant II**—Ana Broderson is responsible for managing the office environment and assisting the Director, Deputy Director, and other staff with scheduling, correspondence, and travel. This position is federally funded.

In addition to these 14 positions, NSOE currently has **two open positions**, a Management Analyst II and an Energy Project Manager. These positions are federally funded.

## FUNDING of the NSOE

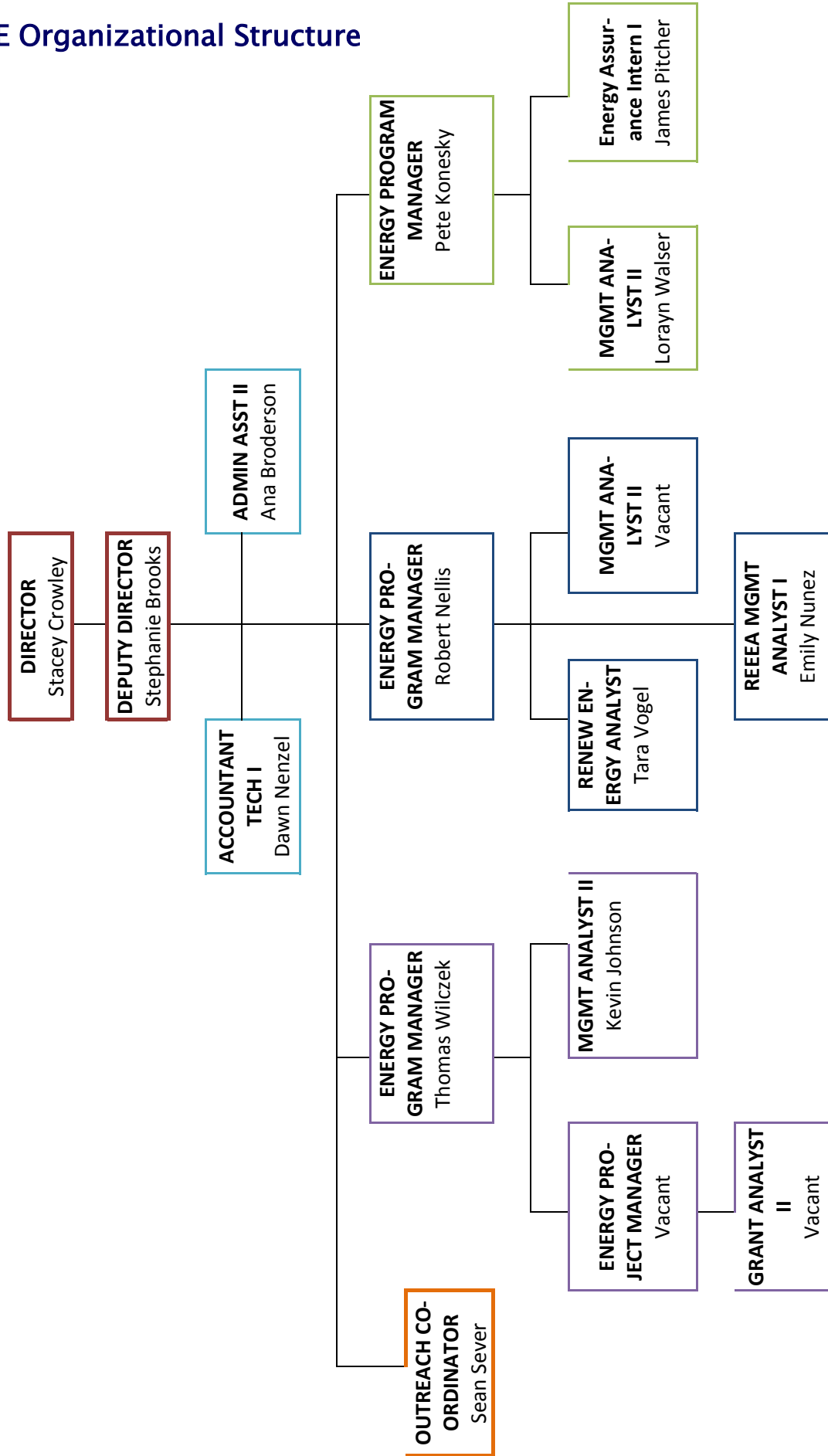
The NSOE is funded largely by federal grants. To fund the NSOE, grant funds from DOE are transferred to a special federal treasury account held in Nevada's name. When the NSOE needs to access the funds, the office asks the State of Nevada's Controllers Office to request that DOE release the funds to the State of Nevada. Then the Controller's Office puts the funds in the NSOE's budget account. For Fiscal Year 2010 (July 1, 2009 - June 30, 2010) the federal funds were sufficient to cover all operating cost including travel, with the exception of the director's and deputy director's salary, which was funded through the general fund appropriation.

**NOTE:** Funding of the NSOE for FY12 and FY13 will no longer include the General Fund appropriation. Revenue from the Renewable Energy Fund will offset the General Fund allocation.

# NSEO Organizational Structure

## OFFICE OF THE GOVERNOR

Nevada State Office of Energy



# NSOE Year in Review

## January 2010

### NSOE Moves to New Offices in Carson City

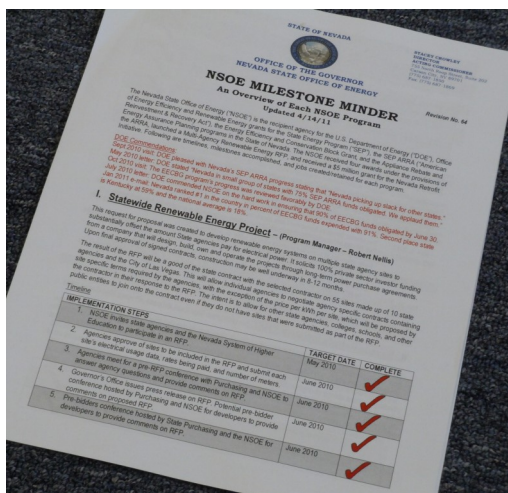


Anticipating a growing Nevada State Office of Energy staff, the office moved from its Fairview Drive location to a larger set of offices at 755 North Roop Street, Suite 202, in Carson City. The larger area allowed the NSOE to grow from nine employees to 16 and provided a new conference room that also serves as an energy contingency center for the NSOE's Energy Assurance Program.

## February 2010

### NSOE Milestone Minder Launched

The NSOE introduced a Milestone Minder document that helped inform the public and various stakeholders on where the State of Nevada's energy stimulus money was being allocated. The Minder is a working document that is updated weekly on the NSOE website. The Minder shares successes on how the ARRA funds are being spent in Nevada and includes a summary of each program grant along with an overview, timeline, and milestones accomplished. It has evolved into a strategic initiative that highlights the NSOE's efforts in bringing renewable energy and energy efficiency initiatives to Nevada..



# NSOE Year in Review

## March 2010

### State Energy Office Seeks Renewable Energy Proposals



The Cornerstone Academy, a private school in Las Vegas, received revolving loan funds for their now complete rooftop and parking lot solar PV structures.

The NSOE announced that it has issued a Request for Proposals (“RFP”) for renewable energy projects under the office’s \$8,224,097 Revolving Loan Program. This program has provided short-term, low-cost loans to developers to assist them with startup costs. Applicants applied for a minimum of \$200,000 and a maximum of \$1,645,000. Loan terms are less than 15 years with an interest rate of 3%. Projects were ranked on a variety of factors including readiness to proceed, job creation/retention, renewable energy generation relative to project cost, fossil fuels or greenhouse reduction, and leveraging of additional financing. The highest ranked projects were presented to the Nevada Legislature’s Interim Finance Committee for approval.

## April 2010

### Appliance Rebate Program Launched

The Nevada Appliance Rebate Program awarded approximately \$2,383,752 in appliance rebates to Nevadans. The NSOE estimates that by recycling or scrapping 14,700 appliances, this program will save 1,349,899 kilowatt hours, 40,420,160 gallons of water, and 1,722,330 pounds of CO<sub>2</sub> reductions.

In order to receive a \$200 rebate for a refrigerator, \$150 for a freezer or washing machine, or \$100 for a dishwasher, consumers had to replace an old appliance with an Energy Star model. Reservations were accepted starting on April 17 at 12:01 a.m. on a first-come, first-served basis and were offered as long as funds were exhausted.

# NSOE Year in Review

May 2010

## DOE Commends NSOE for Stimulus Program Success

The NSOE received a letter from the U.S. Department of Energy stating that Nevada is on track to exceed the ARRA State Energy Program's 50% June obligation goals and to do so well in advance of a major deadline. The DOE added that Nevada is in a small group of states that have 100% of their award through the environmental permitting process finished and 75% or more of those funds obligated.

"These accomplishments are a testament to your team's strong planning and management," DOE State Energy Program Director Mark Bailey said. "DOE applauds Nevada's State Energy Office for your success and commends your hard work."

## State Building Energy Efficiency Projects Initiated



Construction began on several projects under the office's State Buildings Program. The NSOE allocated \$7.9 million to 124 different state buildings for energy efficiency and renewable energy upgrades including energy efficient lighting, HVAC system improvements, energy saving window treatments, energy saving lighting control systems, and a dozen renewable energy installations.

# NSOE Year in Review

## June 2010

### State Agency Renewable Energy RFP Introduced

Based on the success of three new solar photovoltaic projects at the Nevada Army National Guard (“NVARNG”) in Carson City and Las Vegas, the NSOE drafted a Request for Proposal to develop solar systems on multiple state agency sites. The purpose of the initiative was to substantially offset the amount state agencies are paying for electricity. The RFP solicited 100% private sector investment in solar facilities at no cost to state agencies and was written in a way that additional agencies, even non-state, may be able to join onto this contract in the future. Agencies will benefit from long-term cost savings against electric rate increases by purchasing solar electricity from their on-site systems at a fixed cost for 20 years. The selected contractor is performing due diligence on 55 sites.





# NSOE Year in Review

## July 2010

### Work Begins on ARRA School Projects

Construction began on several projects under the ARRA Schools Program. The office allocated \$441,176 to each of Nevada's 17 school districts to assist with energy efficient lighting, HVAC system upgrades, window treatments, lighting control systems, and renewable energy installations. Washoe and Clark Counties received an additional \$1 million each, and Esmeralda and Elko Counties received more funds than requested because Mineral County rejected the funds due to staffing issues.



The new solar PV system at Dickens Elementary School in Las Vegas is expected to save the Clark County School District on energy costs, as well as provide an educational tool for students.

### NSOE Receives Complimentary Letter from DOE

The DOE sent a letter commending the NSOE for the hard work in ensuring 90% or more of Nevada's EECBG funds were obligated by June 2010. "By achieving and exceeding both Recovery Act and EECBG targets, you have effectively demonstrated successful progress in deploying Recovery Act funding and showcasing the value of the EECBG program at this critical time," said DOE's Acting Program Manager Tobias Russell said.

# NSOE Year in Review

## August 2010

### **New NSOE Website Makes Its Debut**

The NSOE redesigned their website, [www.energy.nv.gov](http://www.energy.nv.gov), with a new look that better highlights the office's activities and provides a resource for those interested in energy in Nevada. New features included a Twitter link to the latest energy news, a current list of renewable energy projects in Nevada, and a more up-to-date look with easy-to-navigate tabs. Other highlights include a Kids Kilowatt Korner with games; energy saving tips and facts; information on energy incentives, rebates and abatements in Nevada; common energy acronyms; a history of the NSOE; and more.

### **Second Phase of Appliance Rebates Announced**

The NSOE re-launched the popular Appliance Rebate Program to allocate the remaining \$1.2 million in funds. All 7,500 reservations were taken initially when the program was launched in April, but many individuals did not follow through with purchasing an appliance and sending in the required paperwork. The new program worked the same as the previous program, however, participants in the second phase purchased their appliance first and then filled out the rebate form online. Rebates were awarded to participants who replaced an old appliance with an Energy Star model. In the first phase, the \$200 rebate for refrigerators was the most popular category at 5,944, followed by \$100 for dishwashers at 4,527, \$150 for clothes washers at 4,125, and \$150 for freezers at 901.

# NSOE Year in Review

## September 2010

### **NSOE Receives \$5 Million NRI Grant**

The U.S. Department of Energy notified the NSOE that it will receive \$5 million for the Nevada Retrofit Initiative (NRI), which aims to retrofit at least five percent of all single family Nevada residences with energy efficiency upgrades by 2021. Nevada received the highest award of any state or territory as part of the DOE's \$28.5 million competitive grant for state energy efficiency projects.

Participants will need to get an energy audit of their home from a certified auditor, pay for recommended upgrades that will make their home 20% more efficient, get a second audit for verification, and then receive a 20% rebate back on their investment up to \$1,000.

Participants in the NRI include Nevada's two largest counties and their respective cities, Home Free Nevada, the Nevada System of Higher Education, and the NSOE. This program could potentially generate more than two million MMBtu in annual energy savings by 2021, create or preserve more than 2,400 jobs, and contribute an economic impact of \$220 million.

### **Street Light/Traffic Signal Projects Initiated**

Installation began in several counties on the office's Energy Efficient Street Lighting & Traffic Signals Program. A total of \$1.5 million was allocated to allow regional transportation commissions and various Nevada communities to work together in replacing street lights and traffic signals with more efficient LED lighting. The lighting will not only boost energy savings, but will also increase safety at intersections by increasing visibility.

# NSOE Year in Review

## October 2010

### NSOE Receives Another Commendation from DOE

The U.S. Department of Energy paid a visit to Nevada to do a site review of certain SEP ARRA projects. The DOE was pleased with the progress and sent a letter commending the NSOE for its excellent work. "It is evident that the professionalism of the NSOE is instrumental in promoting and implementing effective energy efficiency and renewable energy programs throughout the State of Nevada," stated Pete Davis, DOE branch chief for the Golden Field Office.



### NSOE Website Recognized by WAPA

The Western Area Power Administration (WAPA) selected the NSOE's newly designed website as its website of the month. The lead story in WAPA's Reliable Energy Solutions Bulletin featured the NSOE stating "their website provides visitors interested in Nevada's energy development with a go-to resource for keeping up with the office's latest activities."

# NSOE Year in Review

## November 2010

### NSOE Hosts LCB Parking Garage Ribbon Cutting

The NSOE, NV Energy, and the Nevada State Public Works Board celebrated the installation of a new 30kW photovoltaic solar array and LED lighting retrofit at the Legislative Counsel Bureau Parking Garage. The project was part of the \$8 million NSOE State Buildings Program that was funded by the American Recovery and Reinvestment Act.

Parking garage lighting installations included LED fixtures, occupancy and daylight sensors, and super T8 lamps and ballasts that last longer and use less energy. Total utility cost savings to the State will be approximately \$46,800 annually for this facility alone. NV Energy rebates to the State for the two projects totaled \$170,000.

U.S. Energy Secretary Steven Chu issued a statement highlighting the ribbon cutting, "this project in Carson City is not only lowering the state's energy bills, it is helping Nevada to become a leader in our nation's transition to a new clean energy economy."



# NSOE Year in Review

## December 2010

### Nevada Tops in Nation for Expending Energy Stimulus Funds

The National Association of State Energy Officials (NASEO) notified the NSOE that Nevada ranks number one in the United States for percentage of EECBG funds expended at 91%. Kentucky was a distant second with 59%, while the national average stands at just 18%. Nevada received \$9,593,500 from the grant that was allocated to Nevada cities and counties, as well as Emergency Vehicle Idle Reduction and Traffic Signal Street Lighting Programs.



The City of Henderson will power some of their emergency vehicles for up to four hours with the engines turned off with the new idle reduction devices, thereby saving fuel costs and reducing emissions.

### New Energy Office Director Named

Governor Brian Sandoval announced that he had selected Stacey Crowley as the new Director of the Nevada State Office of Energy. "Stacey is a recognized leader in green development and her background in architecture and community development will bring a fresh perspective to this important job," Governor Sandoval said.

## NSOE Puts Recovery Dollars to Work

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In early 2009, President Barack Obama signed the American Recovery and Reinvestment Act of 2009 (ARRA) to stimulate the nation's economy. Of the approximately \$787 billion that Congress appropriated nationally, Nevada received \$46,991,573.

The NSOE received four awards under the provisions of ARRA which included \$34,714,000 million in energy stimulus funds to accelerate energy efficiency and renewable energy projects in Nevada, a \$9,593,500 million Energy Efficiency & Conservation Block Grant (EECBG), \$2,245,500 million for the Appliance Rebate Program, and \$438,573 for the Energy Assurance grant.

The NSOE has received letters of recognition from DOE on its ability to implement the ARRA programs quickly and effectively. Nevada is now a recognized leader in ARRA implementation by being consistently numbered among the top states for exceeding the DOE timetables for expenditures. Over 500 Nevada jobs were estimated to be either created or retained through projects initiated in 2010 as a result of the ARRA funding.

Through programs such as the Revolving Loan Fund, the NSOE strategically loaned funds to applicants who had the greatest chance of positively impacting Nevada's economy beyond the ARRA timeframes. Those applicants who not only planned to build renewable energy projects in the state, but also were looking to Nevada as a potential home for locating their new manufacturing facilities received high priority. As many as three manufacturing plants are proposed to be located in Nevada, which could bring an additional 600 high paying jobs.

The NSOE has sought wherever possible to leverage the stimulus funds to create greater benefits for the economy that would last well beyond when ARRA sunsets on April 30, 2012. The NSOE has been quick to reallocate funds from underperforming programs to those which were in need of more funding such as the larger school districts in the state. Programs that will continue on past the ARRA sunset are the Nevada Energy Assistance Corporation, State-owned building energy tracking, and the Revolving Loan Program which was much more successful than originally anticipated. This fund has been recognized by DOE as being the first in the nation to loan out 100% of its funds to wind, solar, geothermal, biomass, and small hydro renewable energy projects. These projects are being built on residential, commercial, and agricultural properties all over the state, greatly assisting a wide cross-section of industries. Because of the NSOE's efforts to build the fund to the greatest extent possible, Nevada will have a long-term sustainable program helping to stimulate Nevada's economic development of the energy sector indefinitely.

## **NSOE & ARRA**

### **NEVADA SCHOOLS:**

\$9,500,000 was budgeted to provide \$441,176 to each of Nevada's 17 school districts to assist with energy efficient lighting, HVAC system upgrades, window treatments, lighting control systems, and renewable energy installations. Larger per capita counties (Washoe and Clark) received an additional \$1 million each and Mineral County rejected their allocation of ARRA funds. Projects strive to meet ARRA SEP goals of annual energy savings of at least 10 MBtu for each \$1,000 of total investment and the program communicates leadership and best practices through a public education campaign and partnership with the NSOE, Nevada's K-12 schools, and utilities to implement energy efficiency and renewable energy projects. The schools are currently 57 percent completed.

### **NEVADA STATE BUILDINGS:**

\$7,000,000 was budgeted as a part of the grant award to be used to provide energy efficiency and renewable energy upgrades to an existing 124 State-owned buildings. Projects include lighting replacement to more efficient T-8 fluorescent lights and LED lights; lighting control systems; energy saving window treatments; HVAC system upgrades to more efficient systems; photovoltaic installations (four locations); and similar projects that are designed to save the State significant energy costs. All projects will strive to meet ARRA SEP goals of annual energy savings of at least 10 MBtu for each \$1,000 of total investment. The NSOE also has an agreement to utilize EnergyStar Portfolio Manager a consultant on the buildings using ARRA federal grant money and to report specific criteria to the DOE. Nevada State building are currently 58 percent completed.

### **STREET LIGHTING & TRAFFIC SIGNALS:**

\$1,500,000 was budgeted to make street lighting and traffic signals more energy efficient in Nevada, which will allow regional transportation commissions and the various Nevada communities to work together in replacing street lights and traffic signals with energy efficient LED lighting. The lighting will not only boost energy savings, but also increase safety at intersections by increasing visibility. Funding allocated includes \$32,000 to Carson City, \$301,000 to Clark County, \$411,000 to Henderson, \$395,000 to Las Vegas, and \$358,000 to North Las Vegas. Excess funds from the Alternative Fuel Program are being allocated to this program for additional lighting projects. This program is 68 percent completed.



# **NSOE & ARRA**

## **ALTERNATIVE FUEL:**

An alternative fuel fueling tank for E-85 and regular gasoline was installed at the state motor pool facility in Las Vegas. The system has a capacity of approximately 2,000 gallons of unleaded regular gasoline and approximately 2,000 gallons of E-85. E-85 is a federally approved alternative fuel and is used in flex fueled vehicles that are one of the federally mandated vehicle fuels used in Clark County. The installation was completed on November 22, 2010 and came in under budget. The remaining funds were transferred to the Energy Efficient Traffic Signals and Street Lights program.

## **ENGINEERING, FEASIBILITY, & PERMITTING:**

\$3,000,000 was budgeted to provide funds to perform feasibility studies and accelerate energy projects that will provide energy savings or develop renewable energy sources in Nevada. All underlying projects funded under this program need to be completed within ARRA timeframes. \$3 million was awarded to the Nevada Energy Assistance Corporation, a Nevada (501)(c)(3) organization, to commence the identification of field studies of potential renewable energy transmission corridors. In order to achieve their mission, the Nevada Energy Assistance Corporation awarded a contract to Tri-Sage consulting to implement a transmission mapping project that will help Nevada to achieve its energy transmission objectives.

In late 2010, the NSOE also commenced an ambitious project to seek out and engage an entity to identify the renewable energy supply chain and to aggressively identify renewable energy business entities that will benefit from locating to Nevada. The RFP and resulting contract is jointly managed by the NSOE and the Nevada Commission on Economic Development.

## **ENERGY RELATED CODES:**

\$1,190,650 was budgeted to secure the adoption of 2009 International Building Codes in Nevada cities and counties. The International Energy Conservation Code ("IECC") is a code adopted by many state and municipal governments in the U.S. for the establishment of minimum design and construction requirements for energy efficiency. The funds are also be used to promote and train personnel on the codes and assist in its implementation. More than two dozen training sessions and webinars are planned for residential and commercial codes, plan review and inspection, and HVAC air sealing.

Stakeholder groups were created for climate zones 3 (south) and 5 (north) and stakeholder meetings were conducted to discuss the adoption, implementation and compliance of the 2009 IECC. The NSOE anticipates finalizing the new regulations by December 2011 with an effective date of July 1, 2012.

## **NSOE & ARRA**

### **REVOLVING LOAN:**

\$8,224,097 was originally budgeted to provide short-term, low-cost loans to developers of renewable energy projects in Nevada. These loans serve as a bridge financing option to provide necessary funding for various startup costs associated with these projects. The fund has been very successful at providing low interest loans to applicants for the construction of new renewable energy projects. During fiscal year 2011, the Department of Energy and the Interim Finance Committee provided authority to the NSOE to move an additional \$3.2 million into the fund from excess ARRA administrative expenses and unneeded engineering, feasibility and permitting funds.

As of June 2011, more than 12 loans have been granted from the fund to solar, wind, biomass, small hydro, and geothermal projects. Repayments to the fund are expected to reach nearly \$4 million during fiscal year 2012, which the NSOE will re-loan to additional projects. Nevada has the distinction of being the first Revolving Loan Fund in the U.S. to have loaned 100 percent of its funds to qualified projects. Because of the NSOE's strategic utilization of the fund, energy companies that were unable to obtain project financing on the private sector market are not only constructing renewable energy projects in the state, but are in the process of obtaining additional private sector financing to construct manufacturing plants. As many as three plants are planned for construction in northern Nevada that are anticipated to bring 200 high-paying jobs per plant.

### **ALTERNATIVE FUEL:**

An alternative fuel fueling tank for E-85 and regular gasoline was installed at the state motor pool facility in Las Vegas. The system has a capacity of approximately 2,000 gallons of unleaded regular gasoline and approximately 2,000 gallons of E-85. E-85 is a federally approved alternative fuel and is used in flex fueled vehicles that are one of the federally mandated vehicle fuels used in Clark County. The installation was completed on November 22, 2010 and came in under budget. The remaining funds were transferred to the Energy Efficient Traffic Signals and Street Lights program.

### **ENERGY ASSURANCE:**

The NSOE was granted \$438,573 to update and implement the state's Energy Assurance Plan, which outlines the structure for monitoring and overseeing energy demand and supply with the intent to ensure a reliable supply of electricity, natural gas, motor vehicle fuel, propane and other heating products are available to the citizens of Nevada. A detailed work plan includes developing new energy use and disruption tracking systems, incorporating "smart grid" technology (including tracking systems) as the technology matures and comes into use in Nevada, as well as outfitting a room capable

## NSOE & ARRA

of handling the personnel required to respond to any energy contingency that may develop through implementation of the plan.

The energy response center is being configured with visual and connective technologies that will enhance the NSOE's effectiveness in responding to

energy disruptions. In August 2010, the NSOE completed and issued its Preliminary Nevada Energy Supply Disruption Tracking Process Plan, which sets forth how Nevada tracks the duration, response, restoration and recovery time of energy supply disruption events and further notifies Nevada energy-supplying entities of the energy disruption tracking process and requested their participation.

## NSOE & EECBG

### EECBG Overview:

Nevada's ten largest counties and the ten largest cities, by population, were awarded funding directly by DOE. These grants are independent of any grants of the NSOE and these entities report directly to the DOE and Government Accounting Office (GAO) on the performance of these grants. For the purposes of this program, Carson City County was considered a city. The remaining six counties and nine cities were included in the funding which was received by the NSOE to distribute and manage as necessary. Funds to counties were allocated as follows: Esmeralda \$186,956, Eureka \$400,000, Lincoln \$675,000, Mineral 507,989 and Storey \$510,000. Lander County rejected their allocation of ARRA funds from this grant.

Funds to cities were allocated as follows: Caliente \$265,000, Carlin \$255,000, Ely \$474,000, Fallon \$1,002,000, Lovelock \$275,124, Wells \$182,916, West Wendover \$500,000, Winnemucca \$759,000 and Yerington \$360,000.

State Projects: The NSOE awarded funding under this program to provide energy efficiency, energy conservation and renewable energy projects which will benefit the citizens of Nevada. Projects include:

- Nevada Emergency Vehicle Idle Reduction, \$712,800
- Natural Gas & Electricity Monitoring for State Owned Buildings, \$203,908
- Traffic Signals and Street Lighting, \$1,477,457
- County initiatives, \$2,321,945
- City initiatives, \$4,073,040

# **NSOE & EECBG**

## **Cities and Counties:**

\$4,073,040 was allotted to Nevada cities and \$2,321,945 to Nevada counties that were not directly funded by the DOE by using per capita numbers as the formula to determine the amount of funding to be allotted to each jurisdiction. These funds may be used for energy efficiency and energy conservation projects and renewable energy systems. The ten largest counties and ten largest cities in Nevada by population were awarded funding directly by the DOE, independent from any NSOE grants, and report directly to the DOE and the GOV.

All projects were approved by the DOE and all sub-grants were executed. All sub-grantees made significant progress on their projects and the City of Wells was the first public body to complete its scope of work.

## **Nevada Emergency Vehicle Idle Reduction:**

\$712,800 was allocated for up to approximately 200 devices that will allow emergency personnel to shut off their engines and provide up to four hours of power for operation of computers, radios, light bars and other vehicle equipment. Requests for vehicle monitoring and heating systems to be incorporated into the system will reduce the number of devices that will be ordered resulting in a more operator-friendly system that is more apt to be used for longer periods of time. The reporting system will have concrete data for energy savings and greenhouse gas reductions.

Sub-grants of \$178,200 each were issued to the Las Vegas Metro Police Department, Nevada Highway Patrol and the Washoe County Sheriff. \$50,000 was allocated to the Henderson Police Department and \$128,200 was allocated to the North Las Vegas Police Department. By the end of 2010, all law enforcement grantees were under contract and the funds were fully obligated.

## **Traffic Signals and Street Lighting:**

This project provided \$1,477,457 in funding to install energy efficient street lighting and traffic signals in Nevada cities and counties. In some cases, energy efficient lighting is being installed in county- or municipally-owned sports fields complexes as tennis courts or baseball fields.

All projects have been approved and funds were allocated to the sub-grantees: Fallon \$275,000, Ely \$100,000, Lyon County \$125,000, Douglas County \$42,000 and Washoe RTC \$977,457.

## **NSOE & EECBG**

### **Natural Gas and Electricity Monitoring for State Owned Buildings:**

\$203,908 was allocated to the Nevada Division of Buildings and Grounds for the acquisition of services for monitoring energy consumption in State buildings. Buildings and Grounds subcontracted with LPB Energy Management Services who will monitor all state-owned buildings, establish baselines, report on results, review utility bills for errors, and negotiate rebates on behalf of the NSOE.

LPB initiated the data capture process and NV Energy and Southwest Gas reported that savings to the State had been realized. In some cases, the incorrect utility rate schedule was assessed and errors were corrected.

NV Energy has become an integral part in the collection of data in that they have agreed to take the agency information that is provided and conduct a query back to 2005. Thus, they can provide the NSOE with utility data going back to the year when statute NRS 701.215 was enacted.

Additionally, NSOE contracted with CleaResult to collect and conduct analysis for the retrofitted buildings to achieve SEP ARRA performance verification. SEP ARRA grant money has allowed to retrofit approximately 8% of the total number of State buildings. It is estimated that this will reduce energy expenditures by 5% working towards meeting the goal of energy usage reduction of State-owned buildings 20% by 2015.

# NSOE Featured Programs

## **SEP Formula:**

The SEP Formula Grant (annual grant from the DOE to all states) for program year 2010, covering July 1, 2010, to June 30, 2011, was received on June 30, 2010 for \$192,000. The mandatory activities included: lighting efficiency standards for public buildings; promotion of carpools, vanpools & public transportation; incorporation of energy efficiency criteria into procurement procedures; implementation of mandatory thermal efficiency standards for new & renovated buildings; permit right turns at red traffic signals and left turns from a one-way street onto a one-way street at a red light after stopping; ensure coordination among various local state and federal energy efficiency, renewable energy and alternative transportation fuel programs within the state; and to maintain a current energy emergency response plan.

## **NRI Grant:**

On September 29, 2010, the NSOE was one of 5 states to be awarded a \$5 million competitive grant for the Nevada Retrofit Initiative (now called the Nevada Home Energy Fitness Campaign) which will strengthen Nevada's residential building retrofit market. The goal is to implement Home Performance with Energy Star ("HPwES") and ultimately retrofit at least 5% of all single family residences in Nevada by 2021. The NRI will enable Nevada to demonstrate innovative project models that are highly transferable, both statewide and nationally. The innovations of this project will generate more than 2,000,000 MMBtu in annual energy savings by 2021, create/preserve more than 2,400 jobs, and contribute an economic impact of more than \$220,000,000.

## **Statewide Renewable Energy Project:**

This request for proposal was created to develop renewable energy systems on multiple state agency sites to substantially offset the amount State agencies pay for electrical power. It solicits 100% private sector investor funding from a company that will design, build, own and operate the projects through long-term power purchase agreements. Upon final approval of signed contracts, construction may be well underway by the second quarter of FY12.

The result of the RFP is a good-of-the-state contract with the selected contractor on 55 sites made up of 10 state agencies and the City of Las Vegas. This will allow individual agencies to negotiate agency specific contracts containing site specific terms required by the agencies, with the exception of the price per kWh per site, which will be proposed by the contractor in their response to the RFP. The intent is to allow for other State agencies, colleges, schools, and other public entities to join onto the contract even if they do not have sites that were submitted as part of the RFP.

# NSOE Featured Programs

## **LEED:**

The NSOE is responsible for administering the Leadership in Energy Efficiency and Design (LEED) Green Building Property Tax Abatement Program. This abatement is available for commercial buildings that certify at the LEED Silver level or higher, using the Existing Building, New Construction, or Core and Shell rating systems. Certification is obtained through the US Green Building Council. The abatement ranges from 25-35% for duration of 5 - 10 years depending upon how many points the project scores in the energy conservation category.

This abatement began in 2007 with the passage of AB 621. Statutory authority is found in NRS 701A.100 - 110. The applicable regulation is found in NAC 701A.010-290.

As of December 2010, there were 48 projects registered with the NSOE.

## **Transmission:**

Transmission is the key to unlocking the economic value of the state's renewable resources.

Currently, the Nevada transmission landscape is comprised of two distinct and non-connected systems: northern Nevada and southern Nevada. The NV Energy North bulk transmission system primarily consists of a 345 kV line from North Valley Road and Mira Loma to Tracy; a pair of 345 kV lines from Tracy to Valmy; and a 345 kV line from Valmy to Gonder. Additionally, a 230 kV line runs from Ft. Churchill (Yerington) to Gonder (Ely). Numerous smaller capacity 120 kV and 60 kV circuits complete the transmission system. The NV Energy South bulk transmission system primarily consists of 500 kV lines from Crystal to Harry Allen, Harry Allen to Northwest, and Harry Allen to Mead. Additionally, NV Energy has a 345 kV line from Harry Allen to Red Butte and several 230 kV lines from Mead, McCullough and Crystal. Extensive 230 kV, 138 kV and 69 kV lines interconnect throughout the Las Vegas Valley to complete the system.

The need for a north-south intertie is great; without a connection, the state will not be able to develop renewable resources for internal consumption nor will renewable energy destined for export to California be able to bypass the congestion in the Las Vegas valley. This need is being met with the development of the 500 kV One Nevada Transmission Line ("On-Line Project"). The groundbreaking for the On-Line Project was held in October 2010 and has an estimated completion date of late 2012.

The areas served by Valley Electric Association (VEA), a cooperative of Touchstone Energy, include those areas of the Amargosa Valley bordered generally by Beatty to the north and Pahrump to the south. VEA is currently analyzing the means to develop transmission

## NSOE Featured Programs

capability in order to wheel energy created from various solar projects located in Amargosa Valley to the Eldorado substation located in Las Vegas for the express purpose of export to Southern California.

In regards to new transmission development, on March 3, 2009 the State formed the Nevada Energy Assistance Corporation ("NEAC"). NEAC was formed as a 501(c)(3) non-profit corporation under the powers vested to the Director of the Nevada Department of Business & Industry by NRS 232.520, which sets forth, in pertinent part, that the Director "...may, within the limits of the financial resources made available to the Director, promote, participate in the operation of, and create or cause to be created, any non-profit corporation, pursuant to chapter 82 of NRS, which he or she determines is necessary or convenient for the exercise of the powers and duties of the Department." NEAC was formed by the Department of Business & Industry as a non-profit corporation to lessen the burdens of government of the State by promoting the development of renewable and sustainable energy projects within Nevada.

Pursuant to the recommendations of the Governor's Renewable Energy Transmission Access Advisory Committee, and the Governor's Renewable Energy Transmission Access Advisory Committee, Phase II, NEAC was formed to perform the essential functions of conducting feasibility, environmental and engineering studies and planning for the construction and operation of transmission lines necessary to connect renewable and sustainable energy generating sites to the State and National power grids. The private sector has not evidenced a willingness to engage in such projects, therefore, the government of the State, through NEAC, must perform this essential function to promote the energy independence of the State. NEAC consists primarily, but not exclusively, of Gubernatorial- appointed state employees and Legislative appointees well-versed in State energy matters. Throughout 2010, the NEAC Board of Director convened on a regular basis to discuss transmission matters, culminating in NEAC acceptance of \$3,000,000 in ARRA funds which were used to begin feasibility studies for renewable energy corridors.

The State routinely participates in and supports regional transmission initiatives. For example, State personnel were active participants and speakers at the Nye County Renewable Energy for Export Workshop; and the Transmission Agency of Northern California Transmission Workshop in Reno. The State continued to closely monitor developments in California of any revised renewable portfolio standard with the expectation that if California implemented an aggressive portfolio standard, the NSOE would initiate a formal dialogue with California energy authorities on how Nevada could assist in meeting the RPS.



## Utilities, Rural, & Co-Ops

**Utilities:** Regulated; NV Energy (Nevada Power and Sierra Pacific) and Southwest Gas

**NV Energy (Nevada Power and Sierra Pacific Power)** [www.nvenergy.com](http://www.nvenergy.com) : In 2010, NV Energy successfully met the RPS requirements for 2010 and also erased a shortfall from 2009. The Public Utility Commission of Nevada (PUCN) approved seven contracts with renewable projects, which when completed will add an additional 443 MWs of renewable energy capacity. Nevada Power also completed construction and commissioned its first non-solar renewable energy project, the 7.5 MW Goodsprings Recovered Energy Station in Goodsprings, NV. NV Energy's Renewable Generations Program reached the milestone of 10 MW installations during 2010 and with the expanded funding approved by the PUCN in 2010, it is expected to make a significant contribution to the companies' supply of credits in the coming years. Although, future supplies of renewable energy are never assured, NV Energy is on track to surpass the 15% RPS for 2011 and meet the 20% standard in 2015 and 25% by 2025.

**Southwest Gas** [www.swgas.com](http://www.swgas.com) : As of December 31, 2010, Southwest had 1,837,000 residential, commercial, industrial, and other natural gas customers, of which 991,000 customers were located in Arizona, 664,000 in Nevada, and 182,000 in California. Residential and commercial customers represented over 99 percent of the total customer base.

Throughout 2009 and 2010 Southwest experienced a decline in consumption over and above the more typical impacts of conservation from improvements in new construction practices and energy efficient appliances. This excess decline was attributed to the impact of the difficult economic environment and, in particular, vacant homes. Southwest continues to note an excessive number of vacant homes as compared to historical levels. Consequently, further economic-related declines are possible.

## Utilities, Rural, & Co-Ops

**Rural Electric Cooperatives:** Nevada Rural Electric Association is a group of members from public power utilities who service consumers in Nevada. Their members are public power utilities providing services to consumers in Nevada. They are democratically organized with elected or appointed Boards that represent the needs of the consumers they serve.

**Harney Electric Cooperative** [www.harneyelectric.org](http://www.harneyelectric.org) :

In 2010, Harney purchased 180,064 MWh of power from the Bonneville Power Administration (BPA), which sells hydroelectric power from the Columbia River System. Harney has a long-term contract with BPA and is a full requirements customer, meaning that all of their power comes directly from Bonneville. Nearly 100% of this power is hydroelectric, though it may be supplemented by market power at varying amounts throughout the year. Harney also buys blocks of wind power and gives its members the option of purchasing this renewably generated electricity at a higher rate. Harney owns 2,567 miles of distribution line and 348 miles of 115 kV transmission line.

**Mount Wheeler Power** [www.mwpower.net](http://www.mwpower.net) :

In 2010, Mt. Wheeler supplied 495,733 MWh of power to its customers, and had a peak demand of 74.5 MW. In 2010, Mt. Wheeler purchased 511,074 MWh of power, primarily from Deseret Power. Mt. Wheeler is a member of Deseret Power, which is a regional transmission and generation cooperative. Mt. Wheeler also has an allotment of hydroelectric power through the Western Area Power Administration (WAPA), primarily from the Glen Canyon Dam. In 2010, 87% of Mt. Wheeler's power was sourced from coal, 13% from hydroelectric, and .01% from wind.

**Plumas-Sierra Rural Electric Cooperative (PSREC)** [www.psrec.org](http://www.psrec.org) :

PSREC serves a territory of 1,700 square miles. During 2010, PSREC supplied their members with 151,341 MWh of electricity and had a peak demand of 28 MW. PSREC purchased 129,619 MWh and generated 31,155 MWh in 2010. Their total energy resource mix was 40% hydroelectric, 30% generic market power, 24% natural gas, 5% geothermal, and 1% small hydroelectric. Following the loss of their contract with WAPA in 2004, PSREC began investing in generation and transmission to offset the cost of buying market power in California, and to ensure a more reliable power source. A 6 MW co-generation facility owned by PSREC came online in 2010, producing over 31,000 MWh of low-carbon energy. Currently, PSREC owns 1,125 miles of distribution line and 160 miles of transmission line.

In 2010, PSREC expanded rebate programs to include small commercial and irrigation members. The results were exceptional, yielding a 32% increase in annual energy savings compared to 2009.

## Utilities, Rural, & Co-Ops

### **Raft River Rural Electric Cooperative (RRREC) [www.rrelectric.com](http://www.rrelectric.com) :**

In 2010, RRREC purchased 288,195 MWh of power - 95% of which was hydroelectric; the remaining 5% was nuclear. RRREC owns 1,920 miles of distribution line and 330 miles of 138 kV transmission line. RRREC is a member of Power Resources Cooperative (PRC), which owns a 6 MW landfill gas plant and Pacific Northwest Generation Cooperative (PNGC), which has invested in a wave-power demonstration project off of the Oregon coast. RRREC has contracted to maintain transmission for a 14 MW geothermal project located in their territory. Of RRREC's 4,758 services, 67% are residential, 13% are commercial, and 20% is purchase power for agricultural uses.

### **Surprise Valley Electrification Corporation (SVEC) [www.surprisevalleyelectric.org](http://www.surprisevalleyelectric.org) :**

SVEC has on average three meters for every mile of line they own. SVEC is a member-owned cooperative and in 2010, they supplied 123,636 MWh of electricity to their consumers and had a peak demand of 32 MW.

SVEC buys 100% of its power from Bonneville Power Administration (BPA). In October 2011, BPA will be going to a two-tier wholesale rate and any purchases above the utility's 2010 peak will be priced according to what BPA pays for market rate power. In 2010, SVEC purchased 134,943 MWh; 71% was large hydroelectric, 16% was from other sources, 12% was nuclear, and 1% was from renewable sources including biomass and waste, geothermal, small hydro, solar and wind. SVEC has begun development of a small geothermal project in their Oregon service territory, which is estimated to produce between 2 and 4 MW of geothermal power by 2012.

### **Wells Rural Electric Company (WREC) [www.wrec.coop](http://www.wrec.coop) :**

In 2010, WREC supplied 811,930 MWh of power to its members and had a peak demand of 113 MW. Currently WREC buys its power from the Bonneville Power Administration, but may look at other sources of power for load growth beginning after 2014. In 2010, BPA projects that power sources for WRECs purchase will be 81% hydroelectric, 9.2% nuclear, and 9.8% renewables and cogeneration. WREC's projected load growth for fiscal year 2011 is 1.4% - this forecast is based on a projected 1% growth in mining and 2.42% growth in non-mining loads. WREC owns one small hydroelectric generation project in its territory.

# Utilities, Rural, & Co-Ops

**Municipal Utilities:** Are chartered under NRS 710.

## **Boulder City Electric Utility (BCEU):**

In 2010, due to the ongoing drought in the western US, actual hydroelectric deliveries amounted to only 51% of the city's total energy need. To supplement its hydroelectric allotment, BCEU purchases the balance of its capacity and energy requirements on the market through the Colorado River Commission. BCEU also has a Supplemental Power Service contract with NV Energy. In 2010, 51% of Boulder City's power was from hydroelectric and 49% was from market (unknown) sources. Boulder City's load forecast is 51.7 MW peak demand and 180,281 MWh annual demand in 2015 and 53.6 MW peak demand and 187,051 MWh annual demand in 2020.

BCEU provides power to 6,778 services, 88% of which are residential, and 12% commercial; by kilowatt-hour, 65% of Boulder City's power is consumed at residential services, and 35% commercial. This power is delivered through 137 miles of distribution line and 13.5 miles of 69 kV transmission line that is owned by the city.

**General Improvement Districts:** Otherwise known in Nevada as power districts, are authorized under NRS 318.

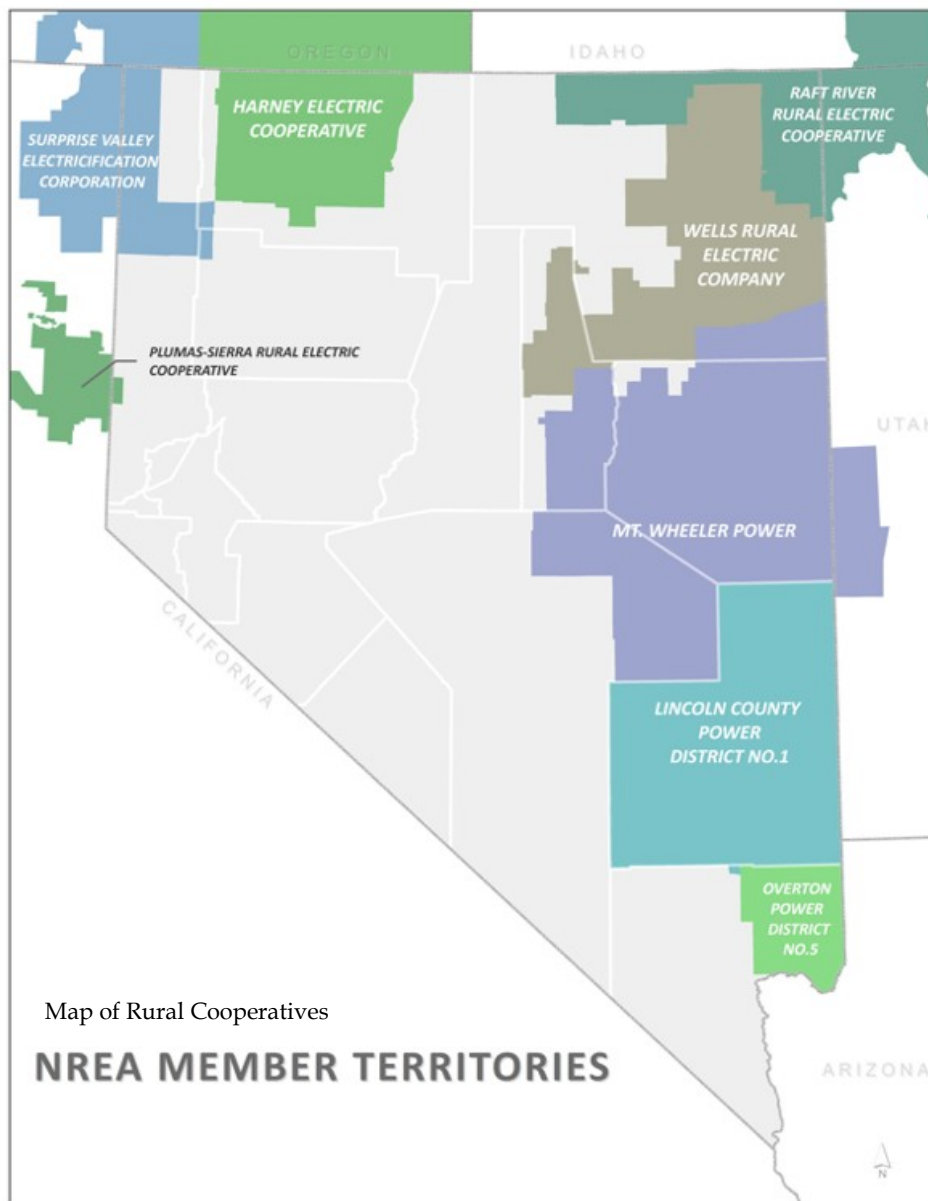
## **Lincoln County Power District #1 (LCPD1) <http://lcpd1.com> :**

In 2010, LCPD1 provided 76,357 MWh to its 976 services. Lincoln's peak demand in 2010 was 18 MW. To meet LCPD1's energy and demand needs, LCPD1 has entitlements to hydroelectric power generated at the Boulder Canyon Project (Hoover Dam). These entitlements of 26,167 kW and 98,248,343 kWh were granted to Lincoln by contract with the Colorado River Commission of Nevada (CRC). In most years, LCPD1's entitlements to hydroelectric power generated at Hoover Dam is sufficient to meet LCPD1's needs. However, with the drought that has affected the watersheds supplying the Colorado River system since 2005, hydroelectric power generation at Hoover Dam has been significantly reduced. In winter and summer peak months, LCPD1 is now required to purchase power to replace and supplement the power it receives from the Hoover Dam. To replace Hoover Dam hydroelectric power, LCPD1 purchases blocks of energy from the market through CRC. Energy is brought in using Hoover capacity and is purchased off-peak, on-peak or on a flat basis. Energy blocks are pre-purchased prior to the start of the month. In addition to federal hydroelectric power and replacement power from CRC, LCPD1 has a contract with NV Energy for supplemental power.

## Utilities, Rural, & Co-Ops

**Overton Power District #5 (OPD)** [www.opd5.com](http://www.opd5.com) : In 2010, Overton purchased 423,806 MWh of power, approximately 40% of that was from coal, 40% from natural gas, and 20% was hydroelectric. OPD's five-year forecast is projected to increase to a 107 MW peak demand in 2015 and then increase to a 118 MW peak demand in 2020.

Two major developers of solar facilities have shown strong interest in developing projects within Overton Power's service territory; however, Overton has limited transmission capacity to accommodate large-scale generation projects. To remedy this situation, OPD, together with Lincoln County Power District No. 1 and the Southern Nevada Water Authority, are in the planning stages for a 75 mile, double-circuit 230 kV transmission line. This line will meet the growing needs of the parties as well as provide interconnect opportunities for renewable energy projects in the 10 to 100 MW range.



# Appendix

## **Letters of Success:**

Department of Energy, May 19, 2010

Department of Energy, July 16, 2010

Department of Energy, September 29, 2010

## **LEED Abatement**

## **Current List of Grants in Progress**

## **Revolving Loan Projects**