2009 Status of Energy in Nevada

Report to Governor Gibbons and Legislature

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This document was prepared in compliance with the Nevada revised statues (NRS) 701.160

Our Mission

The mission of the Nevada State Office of Energy is to ensure 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 every energy related business venue; including, energy education, retro-fitting, manufacturing, site development, generation and production, interstate and intrastate transmission, materials transportation, and energy-related recycling.

Jim Gibbons
Governor

STATE OF NEVADA

OFFICE OF THE GOVERNOR
NEVADA STATE OFFICE OF ENERGY

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I am pleased to provide the attached 2009 Status of Energy in Nevada Report. Much has changed in the Nevada State Office of Energy (NSOE) in just the last six months. The NSOE has doubled in size and is leading several new key energy related initiatives in the State. One of our current priorities is ensuring the 2009 American Recovery and Reinvestment Act (ARRA) programs are implemented in the spirit of ARRA supporting job creation, reduction of carbon emissions and renewable and energy efficiency projects. Nevada received a letter from the Department of Energy complimenting the NSOE for distinguishing itself as one of the leading states in ARRA implementation which is included in the appendix of this report.

In addition to ensuring the ARRA dollars are put to work quickly, the NSOE has created the Nevada Energy Economy Strike Force, strategically partnered with economic development entities, proposed a federal land grant to the State's congressional delegation, initiated a distributive generation study, and is working to improve State legislation related to energy efficiency and boosting the State's Renewable Portfolio Standard. These are just some of the major efforts the NSOE has sponsored in the last six months with many more to come in the months and years ahead.

I am extremely proud of the NSOE and the direction it is heading. I firmly believe Nevada can and should be the leader in renewable energy production and exportation due to its abundance of natural resources and its strategic location in the West. The mission of this office is to ensure Nevada emerges from the current economic recession not only as a leader in energy production and transmission, but as the premier State in all aspects of the energy field including, energy education, retro-fitting, manufacturing, site development, materials transportation, and energy-related recycling.

Sincerely,

Jim Groth

Jim Groth
Director

Acknowledgements

Nevada statutes require the Director of the Nevada State Office of Energy to file a report each year to the Governor and the Commissioner describing the Status of Energy in Nevada. In even-numbered years, this report must also be filed with the Director of the Legislative Counsel Bureau for transmittal to the next regular session of the Legislature. This document has been prepared in compliance with this statute (see NRS 701.160).

The creation of this report was a collaborative effort between the Nevada State Office of Energy and Nevada's energy community. We would particularly like to acknowledge and express our gratitude to the following individuals for their valuable contributions to the development of this report:

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The Nevada State Office of Energy is staffed by: Jim Groth, Director; Tina Burke, Deputy Director; Pete Konesky, Energy Program Manager; Robert Nellis, Energy Program Manager; Tom Wilczek, Energy Program Manager; Lorayn Walser, Management Analyst II; Kevin Johnson, Management Analyst II; Tara Vogel, Renewable Energy Analyst; Sean Sever, Outreach Coordinator; Catherine Gowen, Grants and Projects Analyst I; and Stephanie Brooks, Accountant Technician I.

Load Forecast

Load forecast is used to predict customer demand and plan for the addition of new resources to meet the demand as needed. Load forecasting is important for planning and operational decision conducted by utility companies. With supply and demand fluctuating and the changes of weather conditions and energy prices increasing by a factor of ten (10) or more during peak situations, load forecasting is vitally important for utilities. Short-term load forecasting can help to estimate load flows and to make decisions that can prevent overloading. Timely implementations of such decisions lead to the improvement of network reliability and to the reduced occurrences of equipment failures and blackouts.

On December 15, 2009, NVES filed their Energy Supply plan for 2010-2012. NVEN will be filed July 1, 2010. The following figure shows the actual sales for 2008 and 2009 and projected for 2010. Prices are expected to trend upward until 2014 and then stabilize.

Table 3.16 Sales for 2008-2009, projected sales for 2010

Year	Billed Sales in MWH	% Growth	Price per Kwh	Load factor based on Actual Peak MW
2008	21,572,455	-1.0%	$0.0662	46.4%
2009	21,204,523	-1.7%	$0.0684	45.1%
2010	NA	1.2%*	$0.0716	NA

*1.2 % growth is based on model statistics.

The price model for 2010 thru 2029, NVE's staff Economist is required to account for the effects of changes in prices of electricity and substitute fuels directly in the forecast models, as required by NAC 704.9225(2).

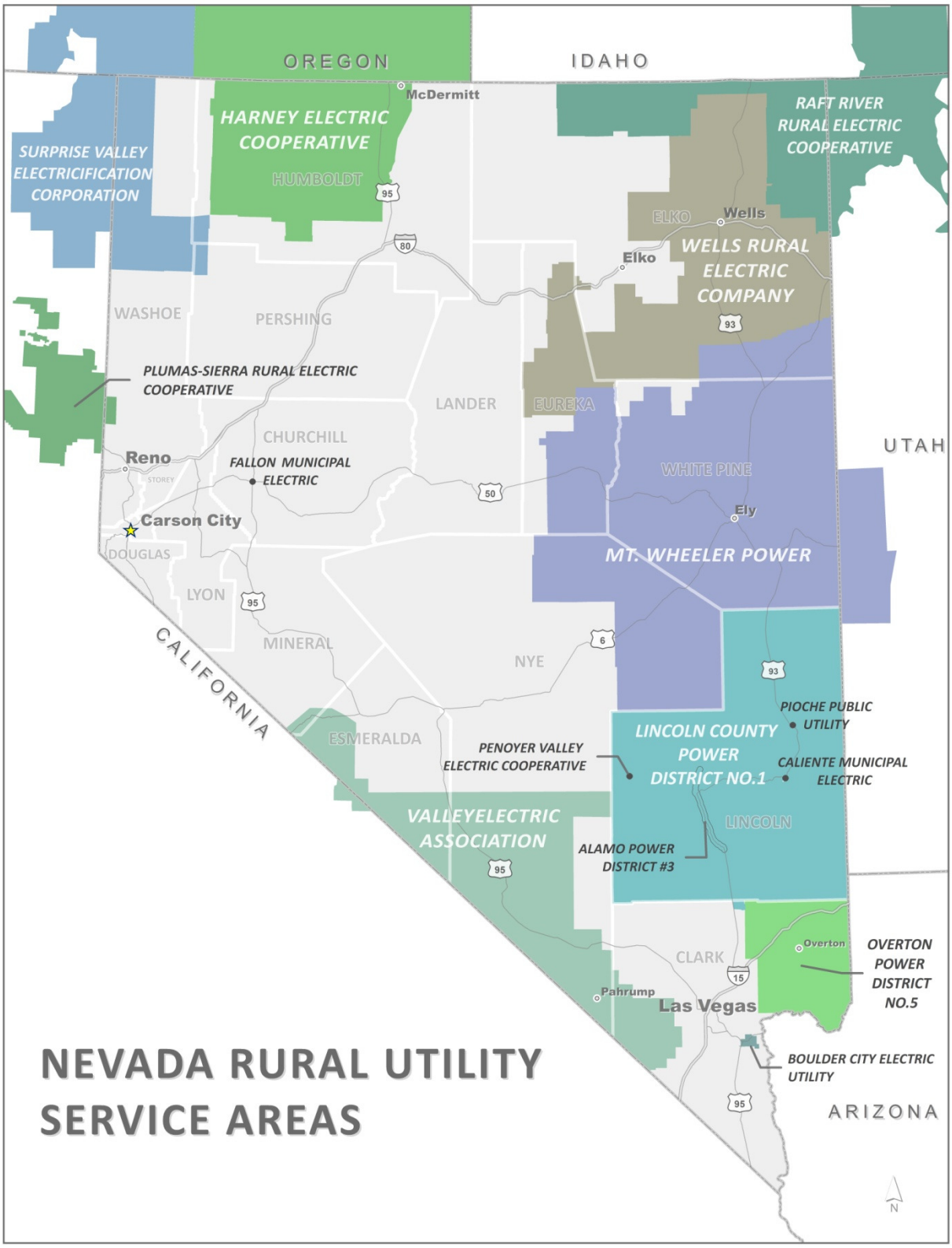
Other Electric Service Providers

There are fifteen (15) small rural electric utilities in Nevada, which together serve over 50% of the area of the State. These utilities are all publically owned and are rural electric cooperatives, municipal utilities, or general improvement districts. Rural electric cooperatives are chartered under federal laws associated with the Rural Utility Service, the successor agency to the more widely known as the Rural Electrification Administration (REA). Coops are member-owned non-profits that were originally established with loans from the REA; the coops were organized by the rural communities that they serve, areas which otherwise would not have received central service electricity – today Nevada's coops

are still democratically controlled by their members. Municipal utilities are chartered under NRS 710. Utilities Owned by Local Governments, and are owned by the citizens of the municipality and governed by their respective city councils or county commissions. Improvement districts, otherwise known in Nevada as power districts, are authorized under NRS 318, General Improvement Districts. A board that is elected from the utilities' consumers governs power districts. All of these providers are publically owned and not for profit, and are democratically run by their members or the consumers that they serve.

The following map, Figure 3-33, shows all the Rural Utilities in Nevada.

Figure 3-33 Rural Utility Service Areas



Rural Electric Cooperatives

Harney Electric

Headquartered in Burns, Oregon, Harney Electric Cooperative has 3,887 services over a 22,000 square mile territory (.6 consumers per mile of line). Most of this territory is in southeast Oregon; however, Harney's service territory also covers approximately 7,300 square miles of Humboldt County in Nevada, including the towns of McDermitt and Denio. In 2009 Harney supplied 173,396 MWh to its members, and had a peak demand of 57.8 MW.

In 2009, Harney purchased 192,193 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 2,564 miles of distribution line and 348 miles of 115 kV transmission line.

Harney has 1,221 member-customers to its 3,887 services. A relatively high percentage, 46%, of Harney's services buy power for irrigation and agricultural uses; 42% are residential; and 12% are commercial.

Energy Efficiency and Conservation Programs

Harney offers rebates for energy efficiency upgrades on irrigation equipment – rebates vary and are provided for a range of possible upgrades. Harney also provides education and outreach on conservation to its members and gives out free compact fluorescent lights to encourage energy efficiency.

Mount Wheeler Power

Headquartered in Ely, Nevada, Mt. Wheeler Power's service territory covers 13,200 square miles in eastern Nevada, including all of White Pine County, and parts of Elko, Eureka and Nye Counties. Mt. Wheeler Power also provides service to customers in three (3) western Utah counties – and has a total of 2,800 square miles of territory in Utah. Mt. Wheeler is an Electric Cooperative whose customers are all member-owners of the utility. Mt. Wheeler averages 2.25 customers per mile of line. In 2009 Mt. Wheeler supplied 468,239 MWh of power to its customers, and had a peak demand of 74 MW.

In 2009 Mt. Wheeler purchased 484,502 MWh of power, primarily from Deseret Power. Mt. Wheeler is a member of Deseret, which is regional transmission and generation cooperative.

Mt. Wheeler also has an allotment of hydroelectric power through the Western Area Power Administration (Western), primarily from the Glen Canyon Dam. In 2009, 86% of Mt. Wheeler's power was sourced from coal, 14% from hydroelectric, and .01% from wind.

Mt. Wheeler has approximately 7,400 services. By number of services in each class, 73.8% are residential, 1.6% is irrigation, 19.6% are commercial or industrial, and 5% are municipal or other. By kWh, only 14% of the electricity used by Mt. Wheeler's members goes to residential uses, whereas, 72% goes to commercial and industrial uses, including mining.

Mt. Wheeler has 1,887 miles of distribution line and 209 miles of 69 kV transmission line. In 2009 Mt. Wheeler installed smart meter technology throughout its system. These meters allow the utility to track energy consumption in real time and conduct meter readings remotely.

Due to the remoteness of its territory and the lack of commercial providers for Internet and other services, Mt. Wheeler Power also provides Internet as well as telephone and security systems to its members.

Energy Efficiency and Conservation Programs

Mt. Wheeler Power has an extensive rebate program for household appliances and commercial building systems.

In addition to rebates, Mt. Wheeler also offers incentives for customers to make weatherization improvements to their homes – utility financed low interest loans are available to all members for this purpose. For low-income consumers, Mt. Wheeler partners with the Rural Nevada Development Corporation (RNDC) to provide financial assistance for weatherization improvements.

Mt. Wheeler Power also offers rebates for consumers who install small solar and wind projects, and net metering is available for all services. Mt. Wheeler is currently in the research stages for a combined solar and wind installation demonstration project.

Penoyer Valley Electric Cooperative

Headquartered in Rachel, Nevada, Penoyer Valley Electric Cooperative serves only the town of Rachel and has a total of 60 services. In 2009 they supplied 1,016 MWh to their members, and had a peak demand of .24 MW (July 2009). Penoyer Valley is a wholesale customer of Lincoln Power District No. 1. They own three (3) miles of distribution line and no transmission line.

Plumas-Sierra Rural Electric Cooperative

Headquartered in Portola, California, Plumas-Sierra Rural Electric Cooperative (PSREC) has 8,380 services that provide electricity to 6,644 consumers. Approximately 370 of these services are in the western portion of Washoe County, and the rest are in Plumas, Sierra, and Lassen Counties in California. In total, PSREC serves a territory of 1,700 square miles. In 2009 PSREC supplied their members with 155,578 MWh of power and had a peak demand of 31 MW.

In 2009 PSREC purchased 170,000 MWh of power, 70% of which was bought on the open market, 26% was hydroelectric and 4% was geothermal. Following the loss of their contract with the Western in 2004 PSREC became a Generation and Transmission Utility; they began investing in generation to offset the cost of buying market power in California, and to ensure a more reliable power source. A 6 MW co-generation plant owned by PSREC will come online in 2010, and a 25 MW wind project is in the planning stages. The wind project, Black Mountain Wind, will have up to ten (10), 1.5 - 2.5 MW turbines. In addition, PSREC is investing in 12 miles of new transmission line. Currently, PSREC owns 1,130 miles of distribution line and 159 miles of transmission line.

Of PSREC's 6,644 consumers, 89% are residential, 9% are commercial, and 2% buy their power for agricultural uses.

Due to the remoteness of its territory and the lack of commercial providers for communications services, PSREC also has a communications subsidiary that provides high speed Internet, wireless satellite Internet, wireless phone service, and Direct TV to its members.

Energy Efficiency and Conservation Programs

PSREC offers an extensive rebate program to help its members increase energy efficiency in their homes. Rebates for replacement of old home appliances with Energy Star models are available from the utility, as well as Marathon energy efficient water heaters. CFL's are sold to coop members at a reduced rate or members can buy them and then receive a rebate. PSREC also finances the purchase of GeoExchange ground source heating and cooling systems for members and gives weatherization workshops. Free energy audits and water heater insulation blankets are also available.

Installation of residential solar generation systems qualifies PSREC members for rebates of up to $6,000; larger rebates are available for commercial consumers. Net metering is an option for all members who invest in small renewable generation projects on their homes and businesses.

Raft River Rural Electric Cooperative

Headquartered in Malta, Idaho, Raft River Electric Cooperative (RREC) has 4,737 services over a 5,950 square mile territory in Southern Idaho, Northern Utah and Northern Nevada. RREC's Nevada territory covers 2,500 square miles in the northernmost part of Elko County, including the towns of Owyhee and Jackpot. In 2009 RREC supplied 259,801 MWh to its members and had a peak demand of 75 MW.

In 2009 RREC purchased 276,789 MWh of power - 95% of which was hydroelectric; the remaining 5% was nuclear. RREC owns 1,918 miles of distribution line and 330 miles of 138 kV transmission line. RREC is a member of Pacific Northwest Generation Cooperative, which owns a 6 MW Landfill Gas plant and has invested in a wave-power demonstration project off of the Oregon coast. Also, RREC has contracted to maintain and build transmission for a 14 MW geothermal project located in their territory.

Of RREC's 4,737 services, 68% are residential, 12% are commercial, and 20% purchase power for agricultural uses.

Energy Efficiency and Conservation Programs

RREC has an extensive rebate program to incentivize customers to increase the energy efficiency of their homes, businesses, and farms. Rebates apply to Energy Star home appliances as well as energy efficient windows, ductless heat pumps and ground source heat systems; various rebates for irrigation equipment depending on size and specifications are also available. RREC is in the planning stages for a rebate program for lighting and weatherization rebates based on audits for kWh savings.

RREC has also partnered with RNDC to provide matching funds for weatherization of low-income households.

Net metering is offered for RREC members who invest in small renewable generation projects on their homes and businesses.

Surprise Valley Electric

Headquartered in Alturas, California, Surprise Valley Electrification Corporation (SVEC) provides electricity to 9,738 square miles in northeastern California, Southern Oregon and northwestern Nevada. Though SVEC territory covers 2,088 square miles in northern Washoe County, they only have ten (10) Nevada services and on average three (3) meters for every mile of line they own. SVEC is a member-owned cooperative; in 2009 they supplied 127,711 MWh of electricity to their consumers and had a peak demand of 38 MW.

SVEC buys 100% of its power from Bonneville Power Administration (BPA). In 2011/2012, BPA will be going to a two-tier wholesale rate and any purchases above utilities 2010 peaks will be priced according to what BPA pays for market rate power. In 2009 SVEC purchased 143,347 MWh, 79% was hydroelectric, 11% was from other sources, 9% was nuclear, and 1% was from renewable sources including biomass and waste, geothermal, small hydro, solar and wind. SVEC is in the planning stages for a 1-2 MW geothermal project located in their Oregon service territory.

SVEC owns 2,229 miles of distribution line and 227 miles of 69 kV transmission line. These lines bring power to 6,185 services, and 4,051 consumers, 80% of these are residential, 19% use power for agriculture, and 1% is commercial or municipal uses.

Energy Efficiency and Conservation Programs

SVEC has an extensive rebate program to incentivize its members to increase the energy efficiency of their homes, businesses, and farms. Rebates for upgrades to Energy Star home appliances are given in addition to rebates for Energy Star manufactured homes and energy efficient upgrades to irrigation equipment. SVEC also offers free compact fluorescent light bulbs, water heater blankets and home energy audits for their members. SVEC offers net metering for consumers who install small renewable systems on their home or business.

Valley Electric Association, Inc.

Valley Electric Association (VEA) provides electricity to 6,500 square miles in southern Nevada and a small portion of eastern California. Headquartered in Pahrump, Nevada, VEA is a member-owned electric cooperative that serves consumers in Nye, Esmeralda, Inyo, Mono, Clark and Mineral counties, including the towns of Sandy Valley, Pahrump, Beatty, Amargosa and Dyer. In 2009 VEA supplied its members with 470,239.5 MWh of power and had a peak demand of 114MW. That amount was down from 123 MW peak demand in 2007– the decrease is attributed to a combination of the rise in unemployment and home foreclosures, an increase in conservation, and a more moderate weather year.

The majority of VEA's power is market rate power (75%), the rest is hydroelectric (21%) and Western Replacement Energy, which includes hydroelectric and market rate power (4%).

VEA has 24,132 electric services that provide power to 16,800 consumers. To distribute power to these customers Valley owns 2,093 miles of distribution line and 287 miles of 230 kV and 138 kV transmission line.

Energy Efficiency and Conservation Programs

In an effort to partner with members to reduce energy consumption, in 2009 VEA initiated the largest Domestic Solar Hot Water Heating Program in the United States. This is one of the first programs in the country to offer installation, purchase, and maintenance of Solar

Hot Water Heaters for all electric utility customers, financed by the utility. VEA members pay for their water heaters through their electric bills over an average of a 14-year period, the cost of which is offset in part by savings from reduced consumption. VEA offers the units at cost to their members and financing at 0%. VEA has projected installation of 5,000 water heaters over the course of the program, and a reduction of 3,082 lbs of CO2 annually per unit.

VEA offers residential consumers free energy audits that include free CFL's and water heater blankets. VEA also sells Marathon energy efficient water heaters to members at a reduced cost.

In the year 2000, VEA installed smart grid technology throughout its system. VEA has a two-way automated metering system on 100% of its services. With this system, both customers and the utility can monitor energy consumption in real time. VEA will also be offering Google PowerMeter technology that will go online in the third quarter of 2010 – this will allow all members to further monitor their energy consumption.

Wells Rural Electric Company

Wells Rural Electric Company (WREC) is a rural electric coop headquartered in Wells, Nevada. WREC provides electricity to 5,849 consumers at 6,112 services in eastern Nevada and a small part of western Utah. WREC's territory covers 10,446 square miles in Elko and Eureka counties, and 108 square miles around the city of Wendover in Utah. In 2009 WREC supplied 819,458 MWh of power to its members and had a peak demand of 113 MW. Currently WREC buys its power from Bonneville Power Administration, but may look at other sources of power for load growth beginning after 2014. In 2010 BPA projects that power sources will be 78.8% hydroelectric, 11.6% nuclear, and 9.6% renewables and cogeneration. WREC's projected load growth for fiscal year 2010 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.

By number of consumers on WREC's system, 80% are residential, 18% are commercial, 1.5% is agriculture (irrigation), and .2% is industrial. However, large commercial and industrial (mining) uses consumed 84% of the kWh that WREC sold to members in 2009. WREC has approximately 4.5 customers per mile of line.

WREC delivers electricity to its consumers on 1,286 miles of distribution line and 60 miles of 69 kV and 138 kV transmission line that the utility owns.

WREC also provides Wireless and Satellite Internet services, as well as electrician services, and medical alert monitoring for its members.

Energy Efficiency and Conservation Programs

WREC offers an extensive rebate program for its members. Rebates for upgrades to Energy Star appliances are available for members as well as rebates for Energy Star manufactured homes and rebates for Energy Star light fixtures. To encourage weatherization improvements WREC offers incentives to replace insulation and install energy efficient windows, and has partnered with RNDC to provide weatherization for low-income individuals.

In addition to these measures WREC has installed a geothermal heating system at its headquarters and offers net metering to all small business and residential consumers.

Municipal Utilities

Boulder City

Boulder City Electric Utility (BCEU) provides power to the citizens of Boulder City, an area of 33.9 square miles. As a municipal utility, BCEU is owned by the citizens of Boulder City, and managed by a utility administrator who is appointed by the City Manager. In 2009 BCEU provided 177,602 MWh of power to its consumers, and had a peak demand of 50.8 MW (July 2009). Boulder City's average monthly peak demand is 33.4 MW.

BCEU owns no generation resources, but receives allocations of hydroelectric capacity and energy from the Hoover Dam and from the Salt Lake City Area Integrated Projects (principally Glen Canyon Dam), which are sufficient to meet 64% of its total energy needs. In 2009 however, due to the ongoing drought in the western US, actual hydroelectric deliveries amounted to only 55% 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 NVE. In 2009 55% of Boulder City's power was from hydroelectric, and 45% was from market 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 7,739 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.

Energy Efficiency, Conservation and Renewables

BCEU has established several programs to promote energy conservation, including rebates for commercial and residential air conditioners and coolers, swimming pool equipment, and conversion to gas hot water heaters. In addition BCEU also offers rebates for solar hot

water heaters and for installation of solar screen technology. BCEU provides net metering as an option for all of its residential and commercial customers.

City of Caliente

The City of Caliente's electric utility serves the residents of Caliente, Nevada. In 2009 Caliente had a peak demand of 3.3 MW (December 2009) and provided over 12 MWh of power to its consumers.

Caliente owns no generation resources, and buys all of its power wholesale from Lincoln County Power District No. 1. Caliente has 715 services to which it delivers power over 40 miles of distribution line.

City of Fallon

The City of Fallon's municipal electric utility serves the residents and businesses within the Fallon City limits, a total area of 3.8 square miles. The City of Fallon has 4,814 services and in 2009 had a peak demand of 18 MW. 84% of Fallon's electric utility consumers are residential and 16% are commercial. Currently Fallon has a transmission only contract with NV Energy and buys its power from the Utah Associated Municipal Power Systems (UAMPS). The City distributes this power over 47 miles of transmission line that it owns.

Over the past five years the City of Fallon has concentrated on system improvements to enhance reliability and reduce system losses. In 2008, the City constructed a new 60/12.5 kV substation, converted its 2.4 kV distribution system to 12.5 kV, and eliminated three 34.5 kV substations. These efforts dramatically reduced system line losses and improved reliability for the utility. Following these improvements Fallon is now focusing on energy efficiency and demand side programs.

Pioche Public Utility

Pioche Public Utility (PPU) is the municipal utility that serves the town of Pioche, Nevada; PPU is governed by the Lincoln County Commission. PPU has 548 services and buys all of its power wholesale from Lincoln County Power District No. 1. In 2009, PPU supplied approximately 8,593 kWh to the residents of Pioche and peak demand was 2.4 MW (January 2009). Of the 548 services on PPU's system 85% are residential and 15% are commercial.

General Improvement Districts

Alamo Power District # 3

The Alamo Power District #3 is a General Improvement District that was created to supply electricity to the citizens of Pahranagat Valley, in Lincoln County, Nevada.

The major population center is the town of Alamo where the utility is headquartered; however, the total service area is 125 square miles and also serves Ash Springs and Hiko. Alamo Power buys all of its power wholesale from Lincoln County Power District No.1. In 2009 Alamo supplied its customers with 14.6 MWh of electricity and had a peak demand of 3.96 MW, which occurred in February 2009. There was a slight increase in demand from 2008, attributed to an increase in commercial use from a new bed and breakfast in Alamo's service territory.

Alamo Power provides electricity to 697 services and 486 consumers. Of these consumers 90% are residential, 5% are commercial, and 5% buy their electricity for agriculture (irrigation). Alamo distributes power through 94 miles of distribution line and owns no transmission line.

Energy Efficiency and Conservation

To encourage conservation Alamo Power has moved from a declining rate structure to a flat rate structure. Alamo is currently in the research and data acquisition stage of a Peak Demand Reduction Program. The first phase will consist of education and outreach with the goal of increasing customer awareness of peak demand times and costs.

Lincoln County Power District # 1

Headquartered in Caselton, Nevada, Lincoln County Power District No. 1 (LCPD1) serves the entirety of Lincoln County plus a small portion of northern Clark County. In total, LCPD1 serves 10,655 square miles including four (4) electric utilities to which it is the wholesale provider. In 2009 LCPD1 provided 76,108 MWh to its 988 services. Lincoln's peak demand in 2009 was 18 MW.

In 2009, 100% of the power that Lincoln purchased was hydroelectric. Lincoln has capacity and energy entitlements to hydroelectric power generated at the Boulder Canyon Project (Hoover Dam). These entitlements, 98,248 MWh annually, were granted to Lincoln by the Colorado River Commission of Nevada (CRC).

In most years LCPD1's entitlements to hydroelectric power are sufficient to meet Lincoln County's needs. However, with the five-year drought that has affected the watersheds supplying the Colorado River system, hydroelectric power generation at Hoover Dam has

been significantly reduced. As a result, since November of 2005 Lincoln has been required to purchase power to replace and supplement the power it receives from the Hoover Dam. This supplemental power is market power that is purchased through the CRC.

In addition to federal hydroelectric power and replacement power from CRC, Lincoln has entered into a contract with NV Energy for supplemental power. Under this contract, Lincoln is able to purchase additional capacity and energy to meet its needs if Hoover Dam's power is not sufficient.

Lincoln has been contacted by numerous developers of renewable generation projects regarding the possible location of projects within LCPD1's service territory. Lincoln has established a formal, three-study process to evaluate the impact of these projects on Lincoln's system. To date, three developers have authorized Lincoln to fully evaluate their projects. Of these three, one developer has elected to proceed with construction of their project. This project is a 3 MW biofuel generation project scheduled to be in commercial operation by the fourth quarter of 2010. LCPD1 will transmit the energy produced at the biofuel plant to a third party purchaser.

From 2007 to 2008 net change in demand for power in Lincoln County was 6.11%. In 2009 energy sales and peak demand were both lower compared to 2008. This reduction was driven primarily by lower irrigation and mixed agricultural use sales in the month of August. Looking forward to 2010, Lincoln expects loads to remain fairly close to 2009 levels, adjusted for weather fluctuations. Lincoln's five-year forecast (2015) is for a projected 18.8 MW peak demand and 92,042 MWh in annual energy sales. Population trends in Lincoln County remain fairly low. The U.S. Census Bureau shows the population of Lincoln County in 2000 at 4,165 and the current population at 4,794. This represents an average annual growth rate of 1.58%. Because energy sales do not increase directly with population, Lincoln is projecting a 0.5% increase in base system sales, before consideration of specific point loads.

LCPD1 is the all requirements, wholesale provider to the four (4) local distribution systems within Lincoln County; these are Alamo Power District #3, The City of Caliente, Penoyer Valley Electric Cooperative, and Pioche Public Utility. The arrangement between LCPD1 and these systems is established by contract. Lincoln provides all necessary power supply services on an after-the-fact basis (i.e. they do not prescheduled or prepurchase power). LCPD1 also supports these distribution systems by providing linemen for emergency restoration and routine maintenance work when requested.

74% of Lincoln's services are residential, 16% are commercial or industrial, 9% use their power for agricultural or irrigation purposes, and 1% are resale (wholesale purchasers). Of these however, resale accounts for 50% of kWh demand and residential only 14%. This

power is delivered on 286 miles of distribution line and 247 miles of transmission line that LCPD1 owns. 6.1 miles of Lincoln's transmission line is 138 kV, the rest is 69 kV.

Energy Efficiency and Conservation Programs

Lincoln has established numerous programs and undertaken several activities to promote energy conservation and to improve energy delivery efficiency. These programs include system loss reduction efforts, high efficiency air conditioning rebates, compact fluorescent lighting, residential weatherization, and conservation education.

Overton Power District # 5

Headquartered in Overton NV, Overton Power District #5 (OPD) has 1,932 square miles of territory in northeast Clark County. Overton's territory includes the city of Mesquite and the towns of Bunkerville, Glendale, Logandale and Moapa; the district service area also includes Valley of Fire State Park, Moapa Indian Reservation, and portions of the Lake Mead National Recreation Area including Overton Beach and Echo Bay. Within this territory Overton provides power to 13,364 services and in 2009 supplied its consumers with 389,496 MWh of power and had a peak demand of 97 MW.

Overton Power District has the capacity and energy entitlements to hydroelectric power from the Colorado River Commission of Nevada (CRC). These entitlements are: Boulder Canyon Project (Hoover Dam): 19,514 kW and 48,882 MWh; and Salt Lake City Area Integrated Projects (CRSP): 15,629 kW and 34,670 MWh. OPD also has purchase power contracts with Shell Energy, SEMPRA and NV Energy for supplemental power. In 2009 Overton purchased 426,865 MWh of power, approximately 40% of that was from coal, 40% from natural gas, and 20% was hydroelectric. Due to the downturn in the economy and the loss of some businesses and homeowners in its territory, OPD's five-year forecast is projected to decrease to a 93.5 MW peak demand in 2015 and then increase to a 103 MW peak demand in 2020.

Three 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 MW to 100 MW range.

Currently Overton owns 106 miles of 230 kV, 138 kV and 69 kV transmission line and 1189 miles of distribution line. Overton serves 22,364 consumers, 89% of which are residential, 11% are commercial, and .2% buys their power for irrigation/agriculture uses.

Energy Efficiency and Conservation Programs

Overton Power has developed a residential energy conservation guide along with residential and commercial energy audits to improve energy usage and efficiency. Overton has implemented rebates for small solar and wind installations and for ground source heating and cooling units. OPD also does outreach to the community to educate the public on how to conserve energy and increase energy efficiency. In addition Overton has received a grant from USDA to install a solar film demonstration project. Net metering is available for OPD's consumers.

Wholesale Electric Service Providers

Colorado River Commission (CRC)

The Colorado River Commission (CRC) is an agency of the State of Nevada. It is registered with FERC as a scheduling coordinator and is responsible for accepting and distributing power from Hoover Dam, as well as providing power for the Southern Nevada Water Authority and its associated water utilities, NVE and a specific list of industrial customers located near Hoover Dam. The Colorado River Commission of Nevada serves the communities of the State by responsibly managing and protecting our Colorado River water and power resources. Hydropower resources are acquired by the CRC from the federal dams on the Colorado River system and delivered both to CRC's wholesale utility customers and most of the CRC's large retail customers. The CRC further acquires additional power for its customers from the regional power market, resells and delivers that power to its customers when requested. The CRC's wholesale utility customers include the City of Boulder City, Lincoln County Power District, NV Energy, Overton Power District, and Valley Electrical Association. The CRC's retail customers include entities at the Basic Industrial Complex in Henderson, Nevada, the Southern Nevada Water Authority (SNWA) and some of SNWA's member agencies for water or wastewater facilities. (See NRS 538.041 – 538.251 and 704.787).

The CRC receives hydropower generated at federally owned hydroelectric power plants located at four (4) dams along the Colorado River; Glen Canyon, Hoover, Davis, and Parker Dams.

CRC'S WHOLESALE CUSTOMERS

As noted above, the CRC's wholesale utility customers that receive hydropower through the CRC include the City of Boulder City, Lincoln County Power District, NV Energy, Overton Power District, and Valley Electrical Association. The CRC delivers each utility's apportionment of hydropower and additional resources purchased for some of them from the regional power market. The wholesale utilities also self-generate power or secure resources directly from the regional power market to balance their overall portfolios. The