LINCOLN COUNTY POWER DISTRICT NO. 1
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INTEGRATED RESOURCE PLAN
CALENDAR YEARS
2011 TO 2015

Adopted
February 14, 2011

LINCOLN COUNTY POWER DISTRICT NO. 1
INTEGRATED RESOURCE PLAN
CALENDAR YEARS
2011 TO 2015

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SECTION 1
SUMMARY

1. General

The Lincoln County Power District No. 1 (Lincoln) has prepared this integrated resource plan (IRP) in conformance with the Energy Planning and Management Program developed by the Western Area Power Administration as set forth in 10 CFR 905. The IRP prepared by Lincoln covers the period including calendar years 2011 through the end of 2015. A significant amount of research, analysis, public input and management thought has gone into development of LCPD's IRP. This report provides a summary of Lincoln's IRP.

2. Loads and Resources

As presented in the following sections of this report, Lincoln's base system energy requirement and system peak demand are expected to increase at an average annual rate of 0.5% over the next several years. Lincoln's existing allocation of Boulder Canyon Project power is sufficient to meet these expected loads through the term of this IRP, except in periods of low water releases from Hoover Dam. During these low water release periods, Lincoln has and will continue to have to purchase replacement power from energy markets and supplemental power from NV Energy Company.

However, outside of this IRP planning period, Lincoln may see increases in residential and small commercial loads given planned developments that may occur in Coyote Springs and in the area north of the City of Mesquite. Lincoln is taking steps to meet the initial energy requirements of these possible communities by participation in the Silver State Energy Association and procurement of additional renewable energy.

3. Goals and Programs

Lincoln has established the following goals relating to this IRP:

Marketing

- Continue to offer rates in rural areas of Lincoln County that will serve to attract new business and industry to these areas.

Renewable Resource

- Offer programs and services to facilitate the development of small scale renewable energy resources within Lincoln's service area.

Conservation

- Offer means by which residences in Lincoln County can lower their monthly cost of electric power.

4. Programs

As presented in this report, Lincoln plans to ensure the continued efficient use of its resources, including federal hydroelectric power, through a series of programs designed to reduce non-renewable energy purchases and to promote energy conservation by end-users served by Lincoln or local distribution utilities. These programs include:

Conservation Information Dissemination

- Lincoln shall publish and distribute information on energy conservation, building weatherization and related topics.
- The information will detail all programs offered by Lincoln as described in this IRP.

High Efficiency Air Conditioning

- Annually for the term of this IRP Lincoln shall offer a rebate program for the installation of high efficiency air conditioners and air source heat pumps.
- For central air conditioning units and air source heat pumps, individuals shall be eligible for a cash rebate of $135/ton for the installation of a central, high efficiency unit; up to a maximum of $500 per residence.
- For room air conditioning units, individuals shall be eligible for a cash rebate of $30/ton for the installation of a room, high efficiency air conditioning unit; up to a maximum of $200 per residence.
- Applications for rebates will be reviewed and approved on the basis of the order in which eligible applications are received by Lincoln. The number of rebates to

be issued each year is subject to the program budget limitation set by Lincoln. Applications received after funding limits have been reached shall be retained for consideration in the following year.

Compact Fluorescent Lighting

- Annually for the term of this IRP Lincoln shall offer a compact fluorescent lighting program.
- Lincoln shall publish notice of the program in a newsletter and in the local newspaper describing the program.
- Annually during the term of this IRP Lincoln shall make available to each of its customers, one 23 watt compact fluorescent lamp and one 13 watt fluorescent lamp and information regarding the conservation benefits and optimum use of compact fluorescent lamps.
- Customers shall be responsible for installation of the compact fluorescent lamps.

Weatherization

- Annually for the term of this IRP Lincoln shall offer a weatherization program to assist low-income households in weatherizing their homes.
- The program is available through the Rural Nevada Development Corporation for weatherization of existing mobile homes, single family homes or for multi-family homes.
- The rules, regulations, requirements and limitations of the RNDC Low Income Weatherization Program shall apply.

Small Scale Renewable Energy Projects

- Annually for the term of this IRP Lincoln shall offer a rebate program for the installation of small scale renewable energy projects.
- Individuals and business shall be eligible for a cash rebate of $425/kilowatt of installed capacity for qualifying small scale renewable energy projects, up to a maximum of $1,000 per residence or small commercial business.

- Small scale renewable energy projects shall be those projects with a nominal peak capacity rating of 50 kW or less that use solar photovoltaic, wind turbine, in-conduit hydrogenation or geothermal technology.
- Participants in the program must agree to transfer to Lincoln any renewable energy credits that are or may become available for the small scale renewable energy project under the laws of the State of Nevada.
- Applications for rebates will be reviewed and approved on the basis of the order in which eligible applications are received by Lincoln. The number of rebates to be issued each year is subject to the program budget limitation set by Lincoln. Applications received after funding limits have been reached shall be retained for consideration in the following year.

SECTION 2
BACKGROUND

1. Lincoln County Power District No. 1

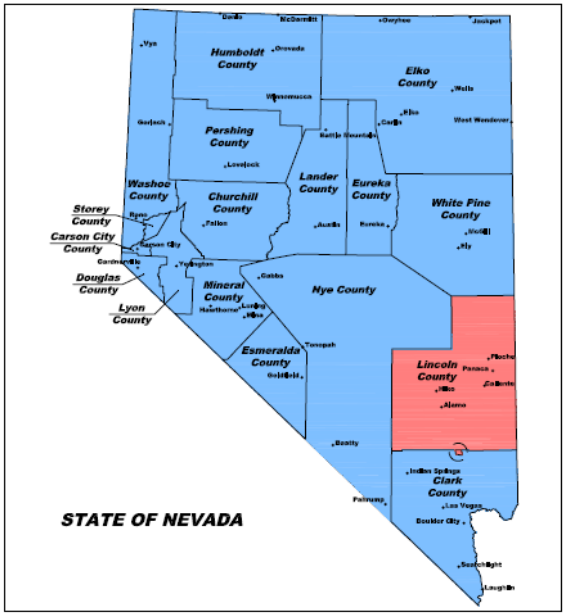
The Lincoln County Power District No. 1 (Lincoln) is a political subdivision of the State of Nevada, created on June 24, 1935 by Order and Opinion of the Public Service Commission of the State of Nevada as a Power District under Chapter 72 of the laws of Nevada. These laws were subsequently revised and Lincoln is now considered a General Improvement District governed by Chapter 318 of the Nevada Revised Statutes. As a General Improvement District, Lincoln is governed by a five member board elected by citizens residing within Lincoln's boundaries.

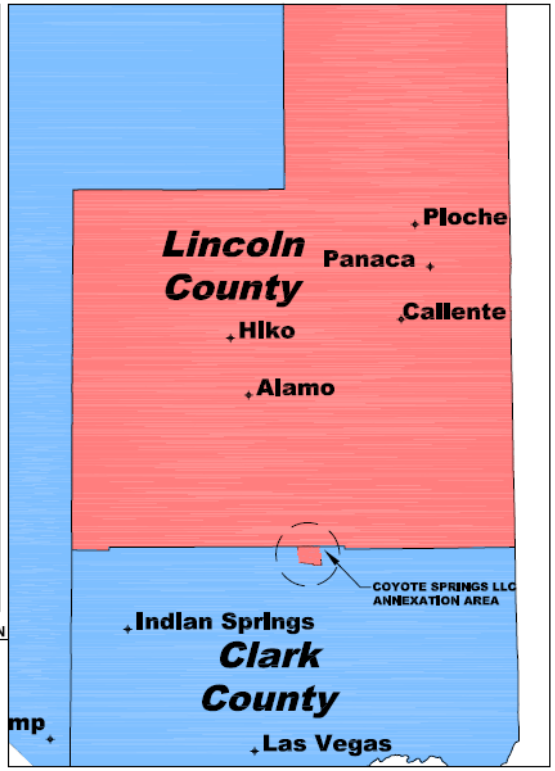
The function of Lincoln is to provide electric service through out Lincoln County, Nevada and adjoining areas. The map on the following page identifies Lincoln's service territory and the communities served. As a General Improvement District, Lincoln does not profit from the sale of electric energy and its primary purpose is to provide a public good by serving the electric energy needs of its customers.

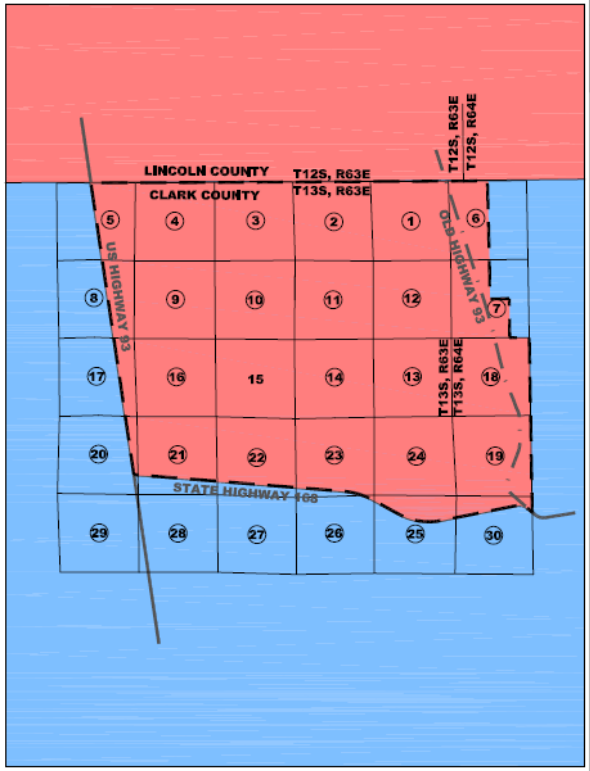
Lincoln, headquartered in Caselton, Nevada, does not own any electric generation facilities and purchases all of the electric power necessary for its customers from two sources. The primary source of electric power used in Lincoln County is from the Boulder Canyon Project (Hoover Dam), a hydroelectric generation station operated by the U.S. Bureau of Reclamation. This power allocated to Lincoln through a long-term contract with the Colorado River Commission of Nevada, a state agency. To meet needs above and beyond that which can be served from Lincoln's allocation of hydroelectric power, Lincoln purchases electric power from Nevada Power Company through a long-term supplemental power supply contract.

Lincoln owns and operates, or has long-term contractual arrangements for, all of the necessary transmission facilities to import hydroelectric and supplemental power into Lincoln County, and Lincoln owns all of the necessary transmission and distribution facilities to distribute electric power to Lincoln's customers within Lincoln County.

LINCOLN COUNTY POWER DISTRICT No. 1 SERVICE AREA MAP







LINCOLN COUNTY POWER DISTRICT No. 1 SERVICE AREA LEGAL DESCRIPTION

All of Lincoln County, Nevada excluding the designated services areas of Alamo Power District No. 3, City of Caliente, Pioche Public Utilities and Penoyer Valley Electric Cooperative and including that portion of Clark County, Nevada known as the Coyote Springs LLC annexation described as follows:

Township 13 South, Range 63 East, MDM, Clark County, Nevada

All of Sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16 and 24:
Sections 5, 8 and 17: those portions east of the centerline of US Highway 93;
Sections 21, 22, 23, 25 and 26: those portions north of the centerline of Nevada State Highway 168;

Section 20: that portion east of the centerline of US Highway 93 and north of the centerline of Nevada State Highway 168.

Township 13 South, Range 64 East, MDM, Clark County, Nevada

Section 6: W1/2;
Section 7: W1/2, W1/2SE1/4;
All of Sections 18 and 19
Section 30: that portion north of the centerline of Nevada State Highway 168.

Lincoln County Power District No. 1 Service Area

Prepared by Electrical Consultants Inc.

LINCOLN COUNTY POWER DISTRICT NO. 1
HC 74, Box 101
Pioche, Nevada 89043

2. Service Area

The service area of Lincoln encompasses all of Lincoln County, Nevada, and a small portion of Clark County, Nevada. This service area includes approximately 10,635 square miles in Lincoln County and 20 square miles in Clark County.

The elevation of Lincoln's service area changes drastically from low areas of 2,000 feet above sea level in the southern portion of the service area to high mountain peaks of nearly 9,000 feet above sea level in the northern portion of Lincoln's service area. These elevation differences create significant residential energy usage differences between homes located in the south of Lincoln's service area and homes located in the north of Lincoln's service area.

3. Residential Sector Changes

Lincoln's service area is located approximately 70 miles north of the out skirts of the Las Vegas metropolitan area. In the early years of the past decade, a boom in the residential housing market occurred in the Las Vegas metropolitan area. This boom ended in 2007 with the economic down turn in the national economy. However, because the boom which occurred in the Las Vegas area did not affect Lincoln's service area, the downturn similarly has not largely impacted Lincoln's growth or planning. The following table summarizes building permits issued within Lincoln's service area covering the pre and post boom era in Las Vegas.

Table 2-1
Residential Building Permits

Type	2003	2004	2005	2006	2007	2008	2009
Single Family	14	24	24	22	25	13	10
Multi-Family	0	0	1	1	0	0	0
Total	14	24	25	23	25	13	10

Source: U.S. Census Bureau
**Through December 2009.*

Although the population of Nevada has dramatically increased over the past fifteen years, the population of Lincoln County has only expanded slightly as summarized in Table 2-2.

1990	2000		2009	
Base	Base	% Average Annual Growth	Base	% Average Annual Growth
3,775	4,165	1.0%	4,317	0.4%
Source: U.S. Census Bureau, 1990 and 2000 data. State of Nevada Office of Demographer, 2009 data.				

The State of Nevada Office of Demographer expects the population in Lincoln County to remain constant over the next several years and currently projects the population of Lincoln County to be 4,384 in the year 2030, an average annual increase of approximately 0.1%.

Low population levels within Lincoln County coupled with the large expanse of the County result in a population density of less than 0.4 persons per square mile which is the lowest of all counties in Nevada.

4. Commercial/Industrial Sector Changes

The land area of Lincoln County is generally undeveloped, with 98.8 percent held by various agencies of the United States government, including the Bureau of Land Management and the Department of Defense as shown by Table 2-3.

Table 2-3
Lincoln County Land Use Summary

Ownership	Land Use	Total Acres
Federal	Range/Forested/Undeveloped Land	6,696,858
State	Park/Range/Undeveloped Land	7,620
Local Gov.	Park/Range/Undeveloped Land	3,169
Private	Residential, Commercial, Crop, Range, Undeveloped Land	163,168
Total		6,870,815
Source: Lincoln County Public Land Policy Plan, 2010.		

Of the private land in Lincoln County, a significant portion is used for farming and ranching operations. The U.S. Department of Agriculture 2007 Census of Agriculture reports farms and ranches in Lincoln County accounted for 46,271 acres, of which 18,320 acres are in irrigated farm lands. Although agriculture has and continues to play an important role in the economy of Lincoln County, the number of farms and/or individual fields served by Lincoln has decreased from 132 in 1997 to 109 in 2002 to 91 in 2010.

Despite the decrease in the number of farms or fields served by Lincoln, irrigated farming lands, agriculture (hay and cattle production) remains the predominant export industry of Lincoln County. Crop and livestock sales accounted for approximately $11,451,000 in 2002.[1] Due to favorable prices and increased demand, crop and livestock sales increased to $15,518,000 in 2007.[2] During the IRP planning period, the agriculture economy is expected to remain at approximately current levels of production. Additional irrigated fields are not planned or forecast.

Services, retail trade, and local, state and federal governments historically have and are expected to remain the predominant employer in Lincoln County. Although, small commercial enterprises may be developed within Lincoln's service area over the next few years, no new large scale commercial or governmental facilities are forecast in the IRP planning period.

In the past, mining and milling operations constituted a large portion of Lincoln's annual loads and were the largest industry in Lincoln County. However, as rich mineral deposits were depleted, leaving only lower grade ores, the mines and mills ceased production. Currently, only one mining and milling operation is listed as operating in Lincoln County.[3] This mining and milling operation is a small scale pozzolan or perlite surface mining operation employing a total of less than 12 employees. Although gold and silver prices have continued to increase in significant years, no mine or milling operations have contacted Lincoln regarding the reactivation of existing facilities and as such no new mining or milling operations are forecast in the IRP planning period.

[1] 2002 Census of Agriculture, Lincoln County Profile, United States Department of Agriculture.

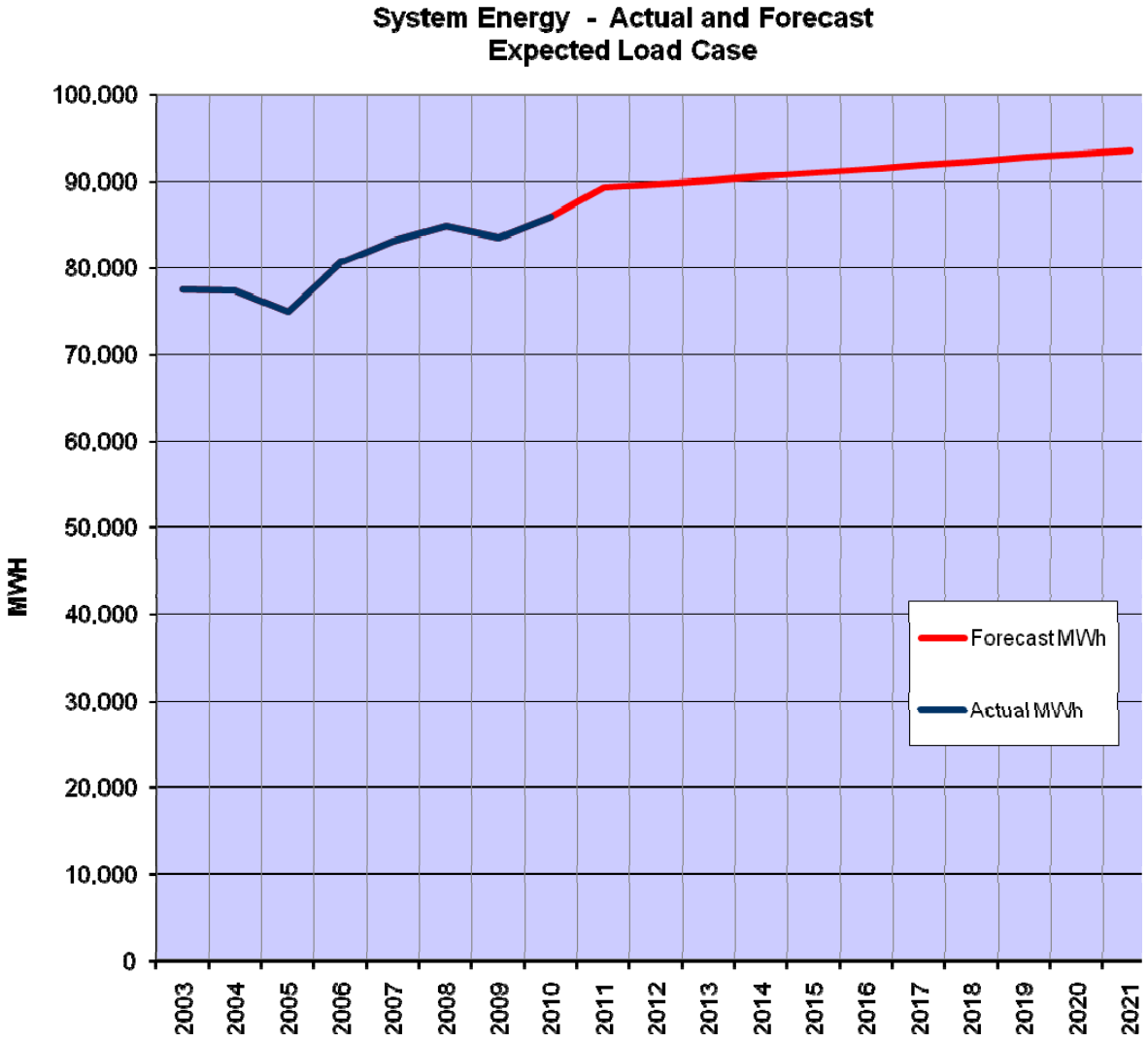
[2] 2007 Census of Agriculture, Lincoln County Profile, United States Department of Agriculture.

[3] State of Nevada Department of Business and Industry, Directory of Nevada Mine Operations, 2009.

SECTION 3
ENERGY AND CAPACITY REQUIREMENTS

1. Historical System Loads

Lincoln's system requirements represent the amount of energy and capacity that must be purchased each month for (1) sales to customers, (2) line losses, and (3) Lincoln's own use. Appendix A provides Lincoln's system requirements for the past ten years. This data and a projection of future loads through 2021 are summarized in the graph on the following page. As the graph demonstrates, Lincoln's loads have changed little over the past 10 years. The slight decrease in Lincoln's energy sales to agricultural customers has been offset by the increase in energy sales for large municipal water purposes.



Given a significant percentage of Lincoln's winter load is created by electrical heaters and Lincoln's summer load is created by irrigation pumps, Lincoln has and continues to remain susceptible to weather changes. Because there is no natural gas service within Lincoln County, electric heating is the predominate heat source. As such, cold winters produce increased demand and energy sales while mild winters produce less.

2. Forecast Methodology

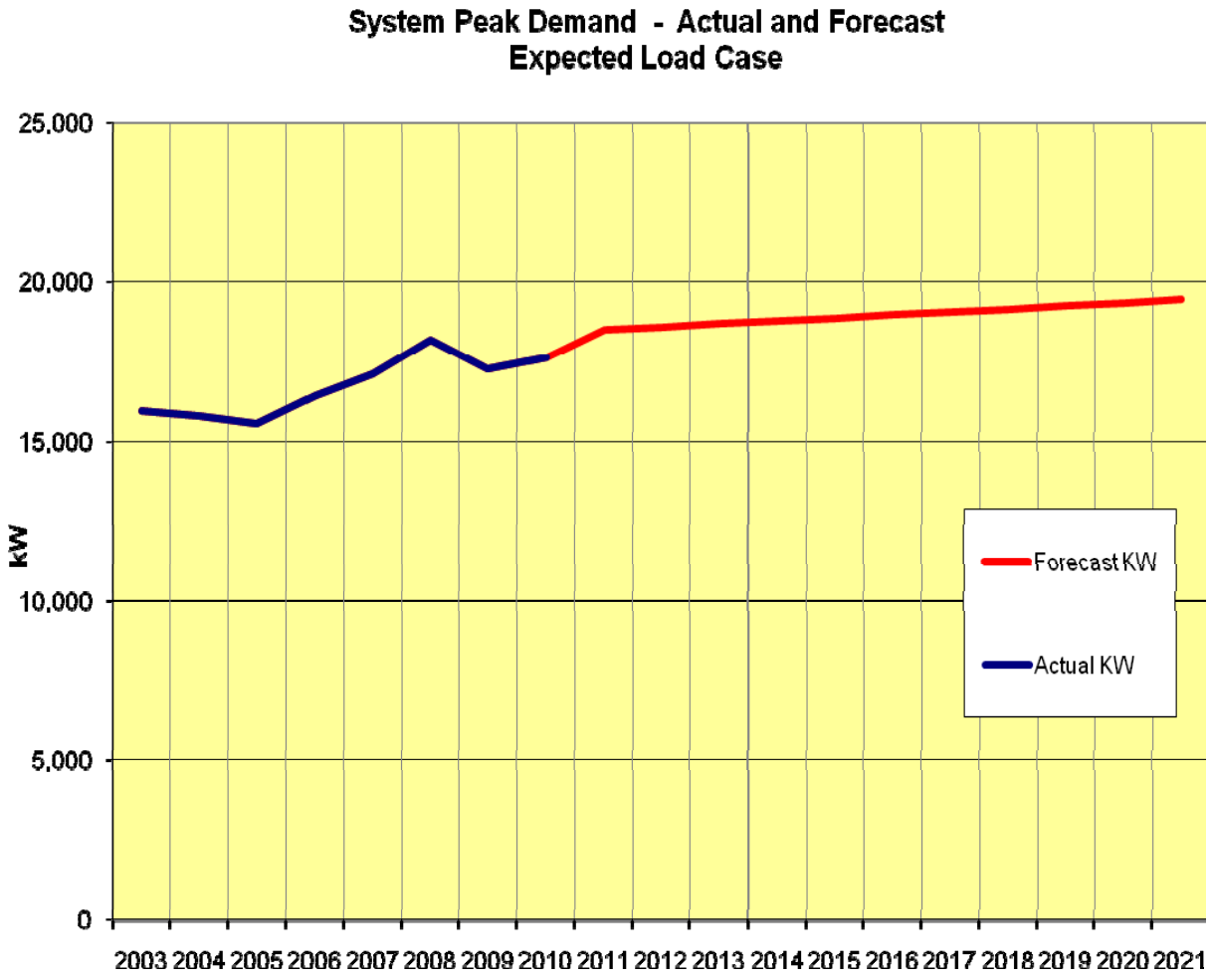
The methodology used by Lincoln to forecast its future system requirements employs a trend/time line analysis, adjusted for known and expected changes. Lincoln believes the methodology is appropriate for Lincoln due to the size of the Lincoln's load and the limited number of customers served. Specifically there are three generally accepted forecasting techniques used in the electric utility industry. These techniques are time/trend analysis, end-use analysis, and econometric analysis.[4] Lincoln does not have sufficient data to perform an end-use analysis and given the historical growth rates within Lincoln County, the time and expense required to perform an econometric analysis is not justified. In years past, Lincoln has used econometric analysis of its loads in order to satisfy load forecasting requirements of the Rural Electrification Administration of the U.S. Department of Agriculture (now known as Rural Utility Services). Lincoln's experience was that given the small statistical sample size, econometric analysis proved less reliable than time/trend analysis for Lincoln. Given Lincoln is no longer an REA borrower, econometric analysis is no longer performed.

3. System Forecast

Under the Expected Load Forecast, the conditions which have existed over the past few years are expected to continue for at least the next five years. As a result base system needs are expected to increase at an average annual rate of 0.5% per year. The only exception to this historic rate of growth is a stepped increase to reflect the recently completed service to the large municipal water well operated by the Southern Nevada Water Authority. The forecast of

[4] Integrated Resource Planning, Volume 2, Section 4 – Load Forecasting, Western Area Power Administration.

expected energy requirements and system demand are summarized in the energy and demand graphs shown previously and below.



As evident from the graph, barring weather induced fluctuations Lincoln does not expect its system peak demand to exceed 20 MW during the planning period.

4. Customer Class Information

Lincoln provides electric service to customers located throughout its service area. Service is provided at both the retail and the wholesale (sale for resale), levels. Lincoln's current rate classifications appear as follows:

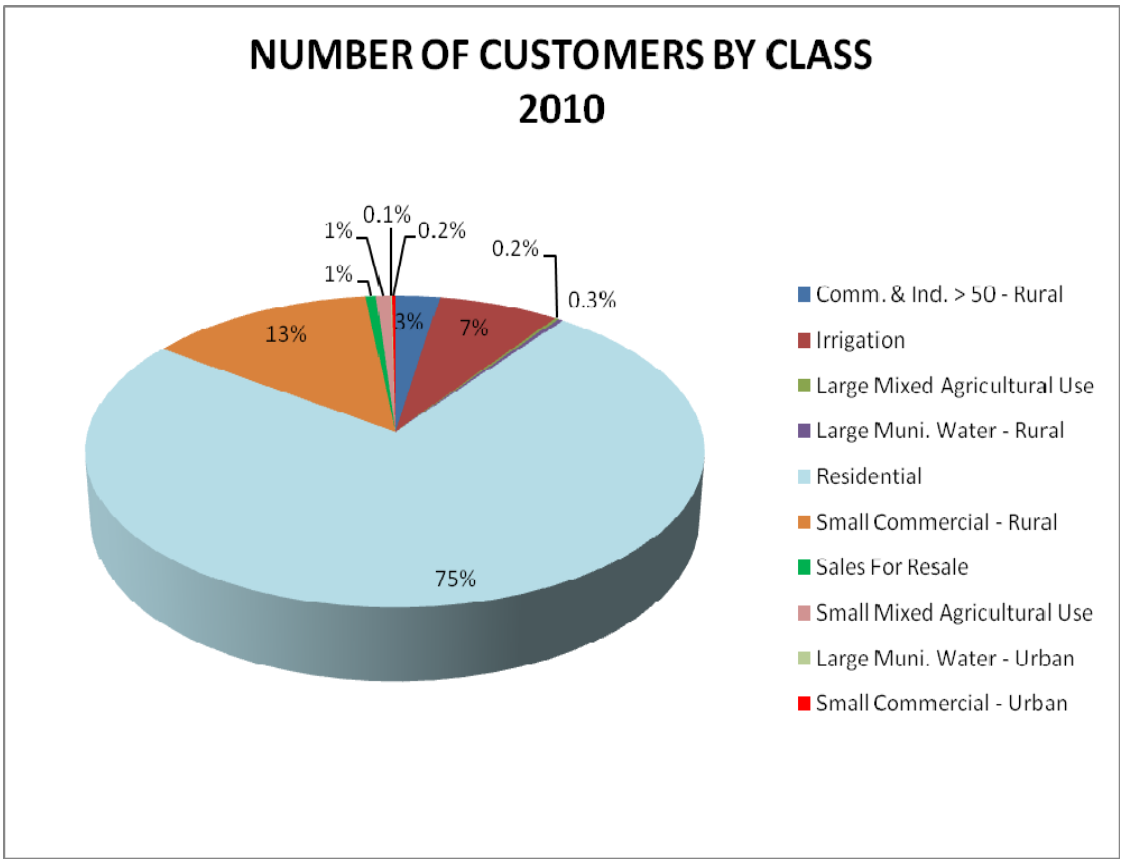
- Retail - Rural
  - Residential
  - Small Commercial
  - Commercial & Industrial Over 50 kVA
  - Large Municipal Water Pumping
  - Irrigation
  - Small Mixed Agricultural Use
  - Large Mixed Agricultural Use
- Retail - Urban
  - Small Commercial
  - Large Municipal Water Pumping
- Sales for Resale
  - SFR- Alamo Power District No. 3
  - SFR – City of Caliente
  - SFR- Penoyer Valley Electric Cooperative
  - SFR- Pioche Public Utilities

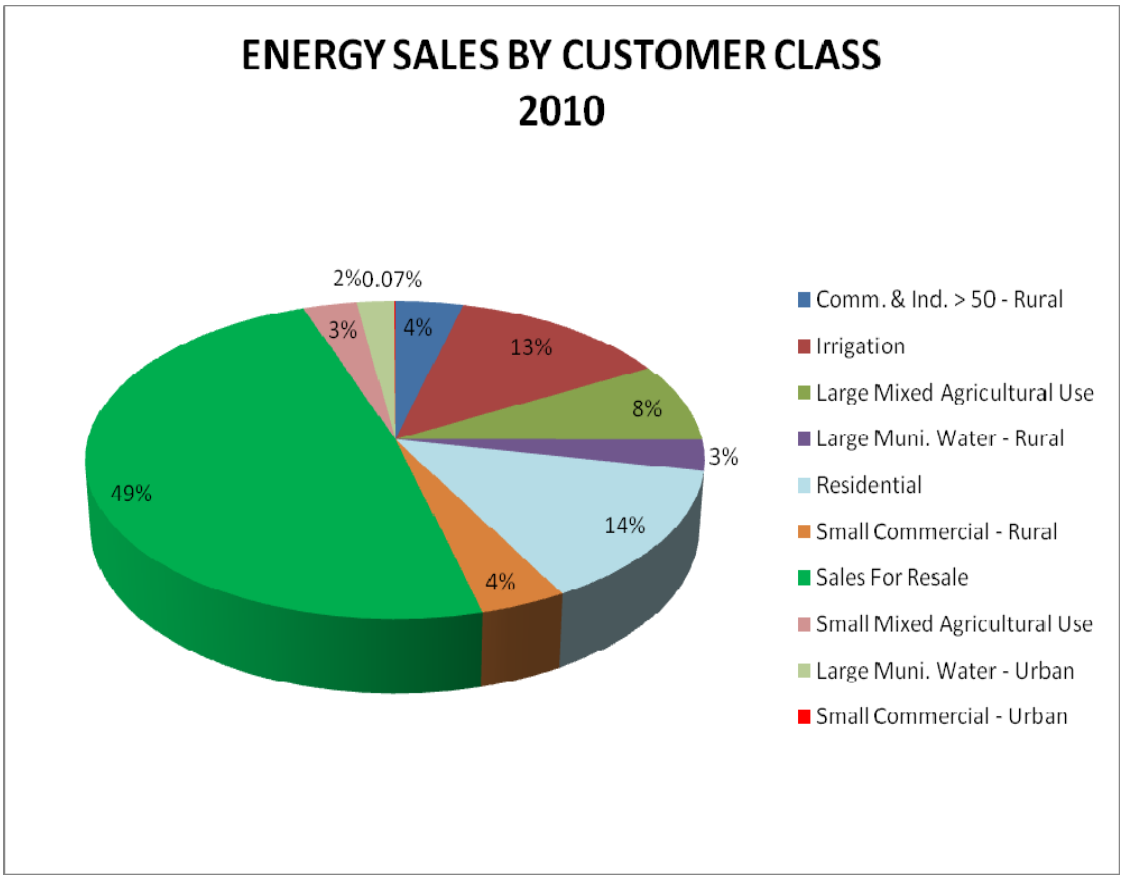
The table and graphs below summarize the average number of customers in each classification and the average energy sales to each customer classification.

Table 3-1
Customer Class Sales

Classification	2006		2010	
	Cust.	kWh	Cust.	kWh
Residential	670	9,872,361	728	10,551,146
Small Commercial	123	3,046,852	131	3,044,395
Commercial & Industrial Over 50 kVA	25	2,380,731	26	3,066,910
Large Municipal Water Pumping	2	4,160,719	3	2,414,315
Irrigation	64	8,732,974	70	9,890,172
Small Mixed Agricultural Use	6	1,600,000	8	2,430,036
Large Mixed Agricultural Use	4	5,711,798	2	6,142,400
Small Commercial - Urban	0	0	2	56,342
Large Muni. Water Pumping - Urban	0	0	1	1,671,920
Sales For Resale	6	34,150,200	6	37,089,280
System Total	900	69,655,635	976	76,356,916

[1]*Average number over the 12-month period.*


NUMBER OF CUSTOMERS BY CLASS
2010
0.1%
1%
0.2%
0.2%
1%
0.3%
3%
7%
13%
75%
Comm. & Ind. > 50 - Rural
Irrigation
Large Mixed Agricultural Use
Large Muni. Water - Rural
Residential
Small Commercial - Rural
Sales For Resale
Small Mixed Agricultural Use
Large Muni. Water - Urban
Small Commercial - Urban


ENERGY SALES BY CUSTOMER CLASS
2010
2%0.07%
3%
4%
13%
8%
3%
49%
14%
4%
Comm. & Ind. > 50 - Rural
Irrigation
Large Mixed Agricultural Use
Large Muni. Water - Rural
Residential
Small Commercial - Rural
Sales For Resale
Small Mixed Agricultural Use
Large Muni. Water - Urban
Small Commercial - Urban

As evident from the graphs on the previous page, *99%* of Lincoln's customers were retail type customers. These retail customers accounted for *51%* of Lincoln's sales. The four sales for resale customers, two of which have multiple delivery points, accounted for the remaining *49%* of the Lincoln's energy sales.

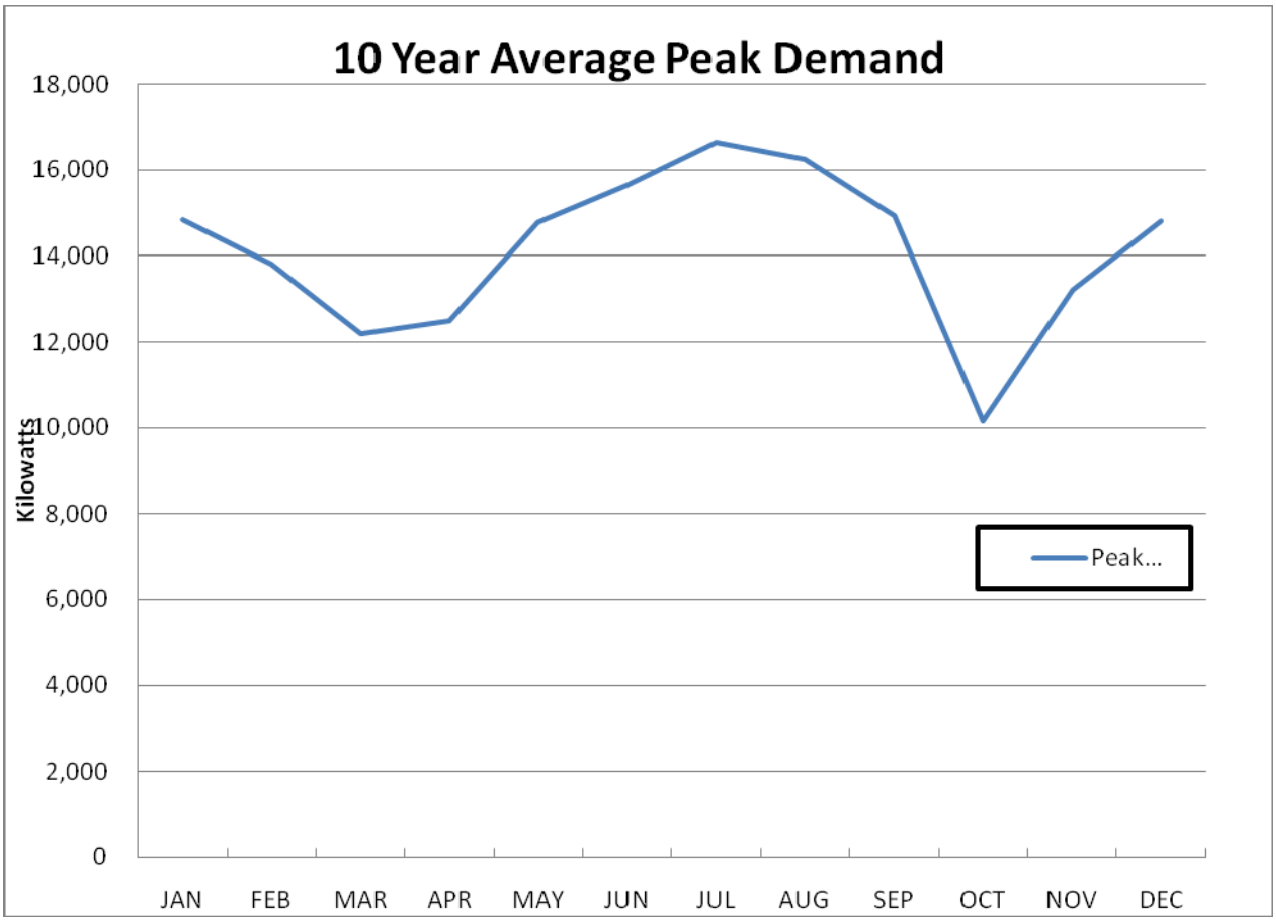
The proportion of energy sold to Lincoln's sales for resale customers continues to decline as a percentage of total sales. In 1993, retail sales only accounted for 26% of Lincoln's total sales whereas sales for resale sales accounted for 74% of the total sales. This change in the ratio between retail and sales for resale energy sales is primarily the result of the acquisition by Lincoln or the transfer to Lincoln of various small electric systems in Lincoln County. In 1992, nine separate electric utilities received sales for resale service from Lincoln as compared to four today. In addition, increased retail sales primarily through the agricultural type classifications and through the new Large Municipal Water Pumping – Urban rate have contributed to this shift in sales between sales for resale and retail.

5. Seasonal Load Profile

Lincoln's electric system exhibits a very typical load profile with peaks occurring in the summer and winter periods and low demand periods occurring in the fall and spring periods. However, unlike many systems, the difference between Lincoln's summer and winter peaks is minimal. Most years Lincoln's peak load will occur during the summer months. However, occasionally when unseasonably cold temperatures occur, Lincoln's system will peak during the winter months. These winter peaks occurred in 2007 and 2000. In addition, even in years when Lincoln's peak load occurs during the summer, winter peaks are only slightly lower. For example, in 2009 Lincoln's summer peak was 17,447 kW and its winter peak was 16,538 kW.

This unusual characteristic associated with Lincoln's system is the result of the extensive use of electric heaters for residential heating during the winter months and the use of electric pumps for irrigation pumping during the summer. As a result, colder than normal winters followed by cooler, wetter summers can result in a winter system peak for Lincoln.

Lincoln's ten year average seasonal profile is shown by the following graph.

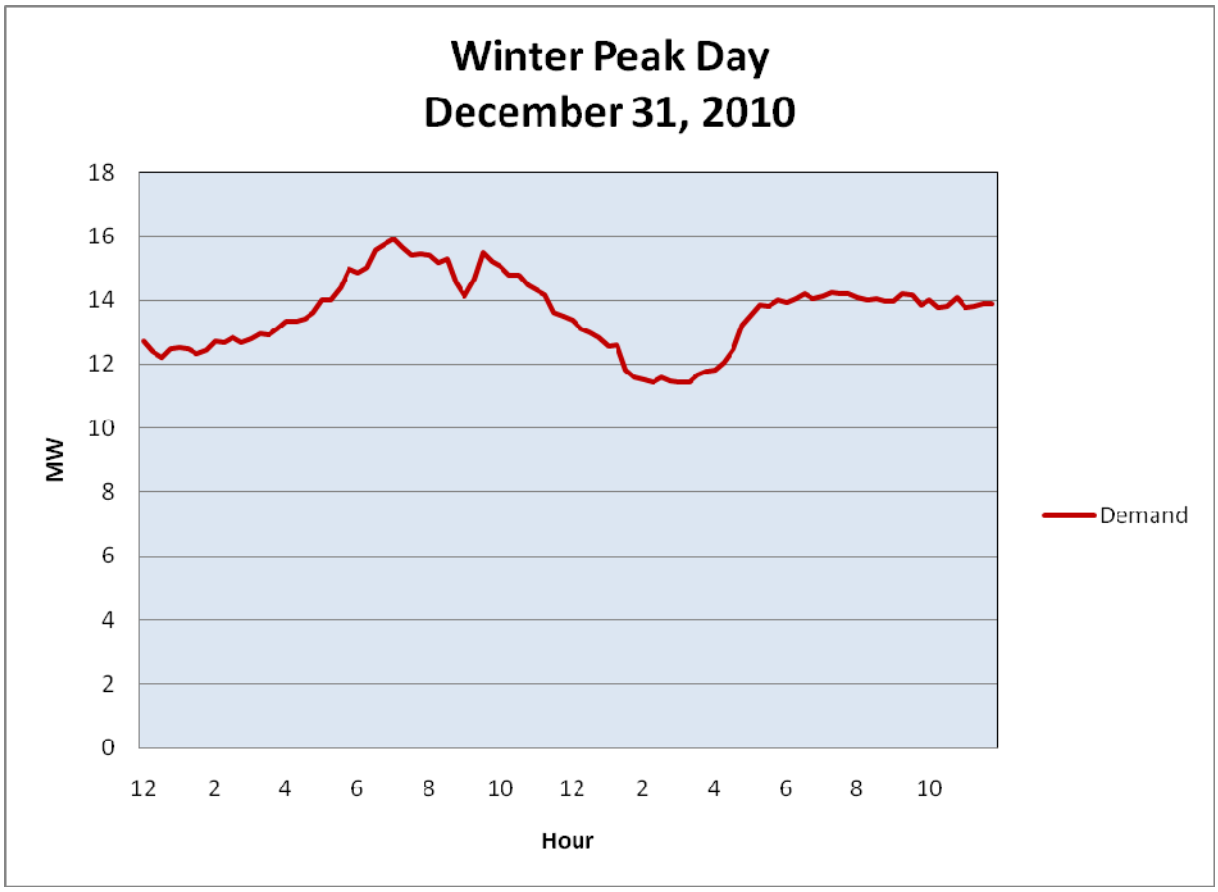


6. Daily Load Profile

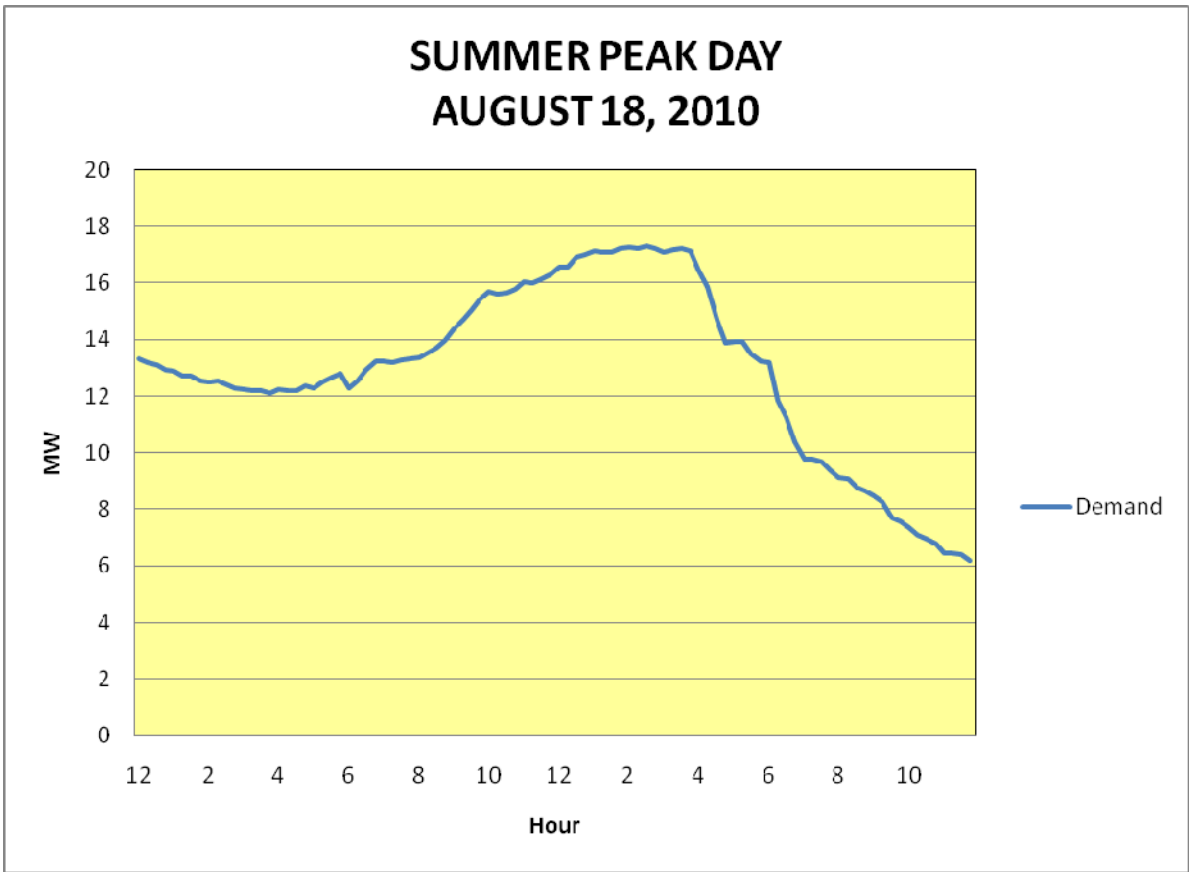
Lincoln's 15-minute integrated load profiles for the summer and winter peaks are shown by the graphs below. These graphs present the summation of data taken from Lincoln's 69-kV master meter at the Tortoise Substation and Lincoln's 138-kV meter at the Yucca Switch Station, less Overton Power District No. 5's 138-kV meter at the Canyon Substation. Consequently, the data represents all of Lincoln's system.

The winter peak occurred at 7:30 a.m. on December 31, 2010. Given the discussions regarding the nature and type of loads served by Lincoln, it is clear this winter peak is driven primarily by residential loads. Given the lack of natural gas service and limited propane use within Lincoln County, as residences begin to arise starting at about 5:00 a.m., electric space heating, electric water heating, electric cooking and electric light energy consumption increases. These residential uses continue to increase until about 7:30 a.m. at which time people begin to depart for work. Energy loads continue to decline throughout the day until about 4:00 p.m., at

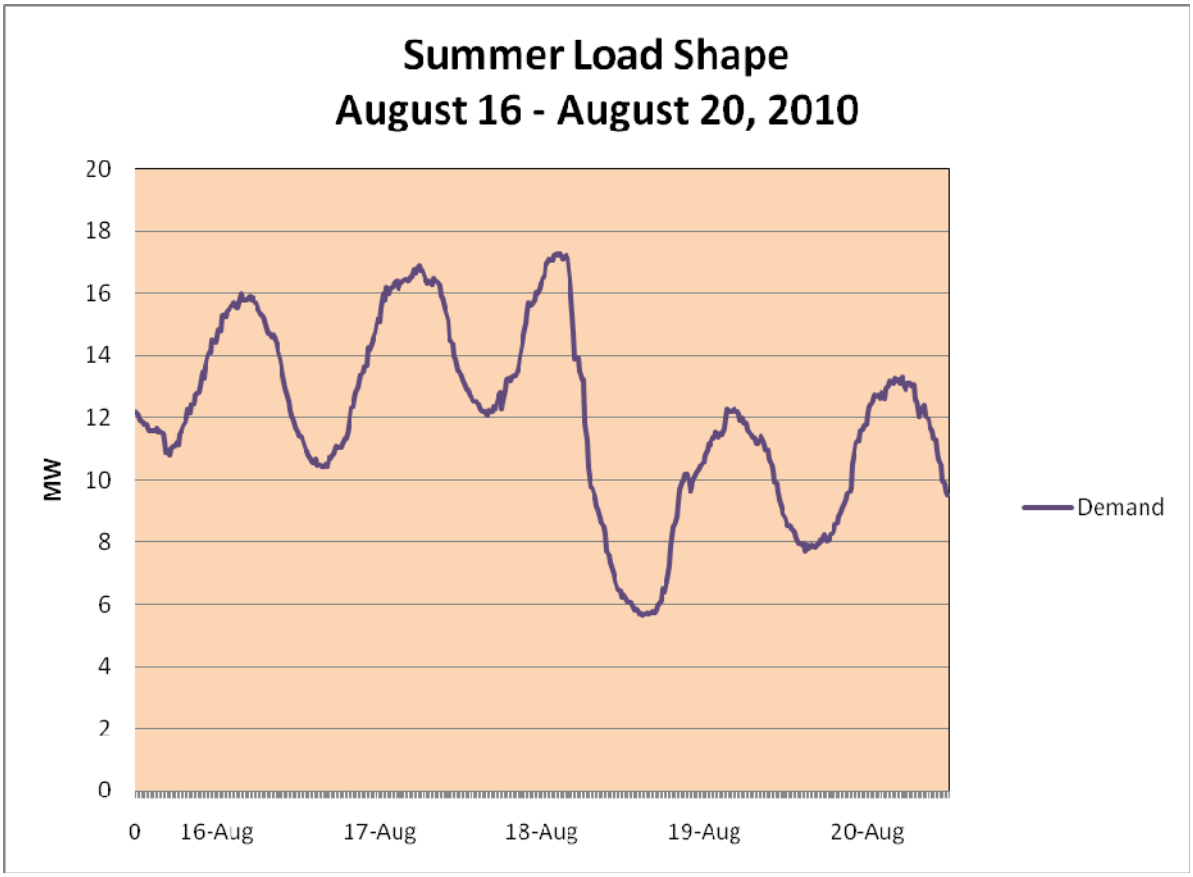
which time people begin to return home and again turn up electric heaters, turn on lights and turn on electric stoves.



The summer peak occurred at 2:30 p.m. on August 18, 2010. As the graph shows, Lincoln's system maintains a high base load 24-hours per day, with increases in load starting at about 5:30 a.m. caused by residential electric uses. As the day progress, electric powered air conditioning begins and creates a situation whereby Lincoln's daily load remains high and relatively constant from about 10:00 a.m. until nearly 10:00 p.m. Actual peak demand can occur anywhere between these hours but typically occurs in the late afternoon between 2:00 p.m. and 5:00 p.m. each day.



The 24-hour base load in Lincoln's system is primarily the result of electric pumping loads. In the summer season, Lincoln provides service to approximately 90 agricultural type customers, many with multiple wells. The irrigation loads operate 24-hours per day, seven days per week and are only turned off when alfalfa is cut for bailing or when extensive rainfall allows the pumps to be turned off temporarily. In looking at the above graph, the base load level on the night of August 18th appears lower than that which would normally be expected to occur during August. As shown by the graph on the following page, the summer baseload level was actually lower than normal because of a extensive rain which occurred that day and evening which allowed irrigation pumping loads to decline for several days.


Summer Load Shape
August 16 - August 20, 2010
MW
20
18
16
14
12
10
8
6
4
2
0
0
16-Aug
17-Aug
18-Aug
19-Aug
20-Aug
Demand

SECTION 4
EXISTING RESOURCES

1. Hoover Dam Power

Lincoln has capacity and energy 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 the Colorado River Commission of Nevada (CRC) and are set forth in Contract No. P06-50 between the parties. This contract extends through September 30, 2017, but pursuant to Amendment No. 1 to the contract, Lincoln and other contractors to CRC have been guaranteed a right of renewal of their Hoover Contract pursuant to terms and conditions provided for in the amendment.

The primary reason Lincoln received such a large allocation of Hoover Dam power was to promote economic growth in Lincoln County, Nevada. Specifically, CRC's marketing program for federal hydroelectric power states:

> "Rural development and diversification is considered by the Commission [CRC] to be of paramount importance. By allocating power to those utilities which primarily serve the rural areas, the Commission may provide assistance necessary for these areas to grow and reach the level of self-sufficiency enjoyed by the Las Vegas Valley."[5]

The composite cost of Hoover Dam power to Lincoln fluctuates year to year and month to month. Year to year fluctuations are caused by annual adjustments in the cost of Hoover Dam power as set by the Western Area Power Administration and administrative charges set by CRC. Month to month fluctuations are caused by the energy output of Hoover Dam. Given contracts for Hoover Dam power are take-or-pay in nature, Lincoln is obligated to pay for energy regardless of the level of output from Hoover Dam. As a result Lincoln has seen wide

[5] Regulations for Marketing Nevada's Share of Electric Power from the Boulder Canyon and the Parker-Davis Projects, State of Nevada, Colorado River Commission, September 13, 1985.

fluctuations in the composite delivered cost, ranging from lows in the 22 mill range to highs above 35 mills.

The December 2010 delivered cost to Lincoln for Hoover Dam power was $0.0347/kWH or $34.7/MWH. In comparison, the current cost of market power in the region is as shown in Table 4-1.

Table 4-1
Current Market Prices[6]

Location	$/MWH
Mead 230 Bus	$38.50 on peak $29.75 off peak
Palo Verde	$35.50 on peak $26.50 off peak
Mid Continent	$35.50 on peak $31.00 off peak

Due to the abundance of natural gas and the availability of market power, Lincoln for the first time in its history is now purchasing market power at or below the delivered cost of Hoover Dam power. This anomaly is expected to change once the current glut of available natural gas begins to diminish. This is expected to begin to occur within the next several years. Therefore, Lincoln believes Hoover Dam power will continue to be the most important portion of its power supply portfolio for many years to come.

The U.S. Census Bureau reported 2008 household income in Lincoln County at $44,535 with nearly 14% of the population living below the poverty line, making Lincoln one of the poorest counties in Nevada behind only Nye, Esmeralda and Mineral Counties.[7] As such Lincoln believes the continued availability of low-cost federal hydroelectric power is essential for the growth and prosperity of Lincoln County, Nevada. Lincoln continues to seek opportunities to maximize the benefit its customers receive from low-cost federal hydroelectric power.

[6] Electricity West Daily Report, Tradition TFS Energy LLC, November 30, 2010.
[7] U.S. Census, 2010.

2. Market Power Purchases

Although Lincoln's allocation of hydroelectric power generated at Hoover Dam would be sufficient to meet Lincoln's capacity and energy needs, Lincoln has not received its full allocation since 2004. As a result, Lincoln entered into Contract No. P06-01 on August 11, 2009 in order to make market power purchases to replace Hoover Dam power. In 2010, these market purchases represent 31% of Lincoln power supply.

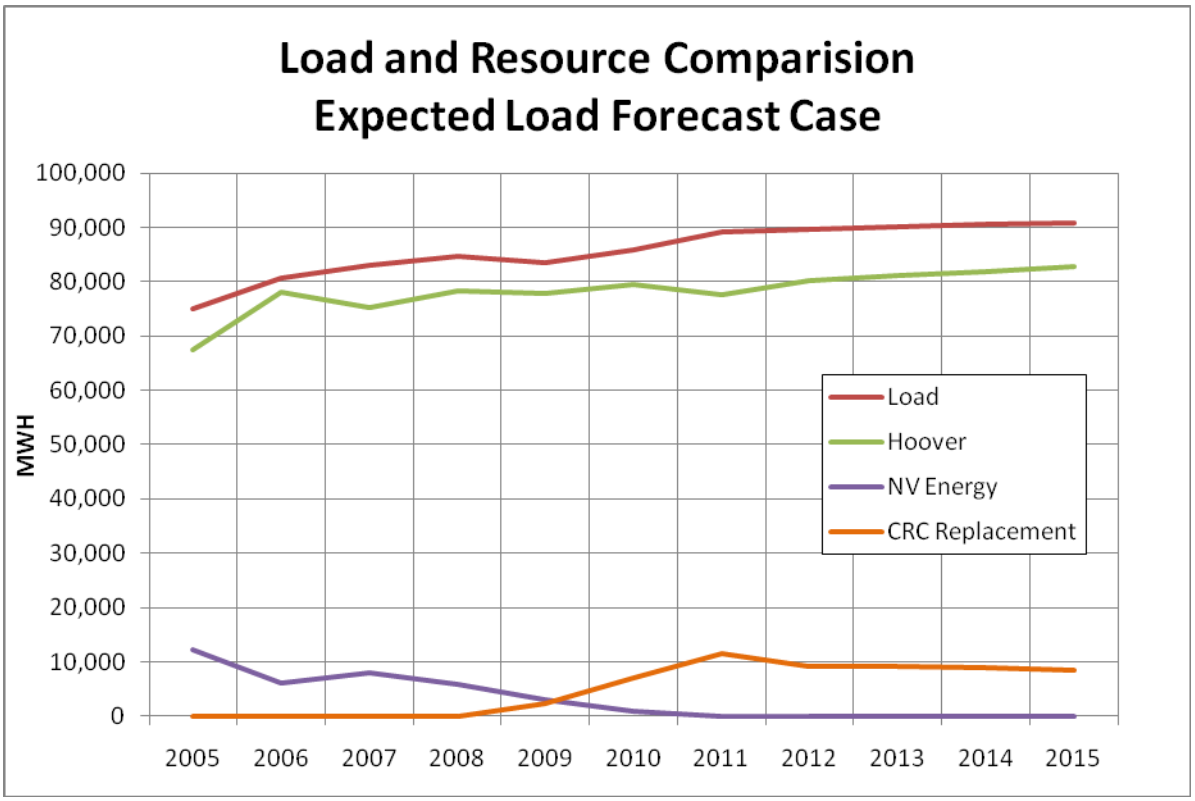
2. NV Energy Supplemental Power

In addition to federal hydroelectric power and Hoover Dam power replacement purchases, Lincoln has entered into a contract with NV Energy Company (NV Energy) (formerly Nevada Power Company) for supplemental power. This contract runs currently with Lincoln's contract for Hoover Dam power. Under the contract with NV Energy, Lincoln is able to purchase additional capacity and energy to meet its needs if Hoover Dam power is not sufficient. The current FERC approved rate for NV Energy supplemental power is $0.06058/kWh and $11.43/kW.

SECTION 5
LOAD AND RESOURCE ANALYSIS

1. Existing Loads and Resource

Lincoln's projection of future loads and Lincoln's existing resources are summarized and compared in the following graph. As the graph shows, Lincoln's existing resources are expected to be sufficient to meet its needs through the end of 2015 (the term of this IRP planning period) and beyond.



2. Silver State Energy Association

As discussed in section 2 of this report, Lincoln's base system needs are expected to only increase at an average annual rate of 0.5% per year, as a result Lincoln's existing resources will be adequate during the five year IRP planning period. However, Lincoln anticipates a time will come when this resource combination may not be sufficient to meet all of its future needs. Lincoln fully expects to see residential development pressure from the Las Vegas metropolitan area in its service area at some point in the future. Two potential growth areas currently exist,

the Coyote Springs development area and the area north of the City of Mesquite, Nevada. When the growth in these areas will begin to occur is very difficult to determine and not included in this IRP. However, land in both of these areas is currently in possession of developers whom have expressed desire to move forward with developments.

Because of this growth potential, Lincoln is already planning for the future. In 2007, Lincoln, the City of Boulder City, the Colorado River Commission of Nevada, the Overton Power District No. 5 and the Southern Nevada Water Authority formed the Silver State Power Association (SSEA). The SSEA is a political subdivision of Nevada established through a cooperative agreement pursuant to the Interlocal Cooperation Act. The SSEA is an association of public agencies with the common goal to jointly plan, develop, own and operate power resources to meet their own needs and those of their customers. The economies of scale produced by this energy association will offer improved project development opportunities and power purchasing capabilities, the sharing of resources and expertise, and the opportunity for jointly managing energy needs. The SSEA has the operational authority to

- Own, finance, design, develop, construct, operate and maintain projects.
- Secure contracts for power, transmission, fuel, hedging and ancillary services in connection with operating, scheduling, hedging or optimizing power resources.
- Jointly exercise the authority of any of the members.

SECTION 6
IRP GOALS

1. General Mission

Lincoln, as a power district under Chapter 318 of the NRS is charged with many obligations and responsibilities. Paramount among these is to provide a public service for the benefit of all electric power consumers located within its service area, including those that may be served by other local distribution systems that purchase wholesale power from Lincoln. In order to carryout its statutory obligations, in the late 1980's Lincoln established a mission statement to help guide the Board, management and employees of Lincoln. This mission statement is:

> "To construct, operate and maintain a system which will provide our customers with electric service in the most economical and efficient manner consistent with sound business practice.
>
> In support of this statement we are committed to:
>
> - Provide programs and services in the most equitable and cost effective manner.
> - Utilize available resources as a vehicle to promote economic development within areas we serve at retail and at wholesale.
> - Meet present and future power needs with consideration for energy conservation, environmental quality and economical benefits.
> - Attract and retain service oriented employees who are recognized for their dedication, cooperation and knowledge.
> - Be recognized as a leader within the areas we serve at retail and at wholesale in regards to practicing and promoting safety among our employees and the public."

2. IRP Goals

Utilizing the foregoing mission statement and in consideration of the information contained in sections 2 through 5 of this report regarding the unique circumstances of Lincoln's service area, expected system loads, and existing and future generation resources, Lincoln has established the following goals relating to this IRP covering calendar years 2011 through 2015:

Marketing

- Continue to offer rates in rural areas of Lincoln County that will serve to attract new business and industry to these areas.

Renewable Resource

- Offer programs and services to facilitate the development of small scale renewable energy resources within Lincoln's service area.

Conservation

- Offer means by which residences in Lincoln County can lower their monthly cost of electric power.

SECTION 7
ANALYSIS AND PROGRAM EVALUATIONS

1. Supply-Side Evaluation

As indicated in section 5 of this report, Lincoln does not anticipate the need for additional supply-side resources during the IRP planning period. Additional resources may be required beyond the IRP planning period and Lincoln is taking steps to secure future resources through participation in the SSEA.

Although Lincoln is not actively seeking additional supply-side resources at this time, it continues to investigate and analyze opportunities for participation in renewable resources. Primary among these resources are wind, solar and hydroelectric generation.

Lincoln is located in an area that has and continues to receive interest from developers of wind and solar generation projects. Wind generation projects have been proposed by private developers in the northern area of Lincoln's service area and solar generation projects have been proposed by private developers in the southern area of Lincoln's service area. Consequently, Lincoln maintains frequent contact with these developers. Should these projects materialize, Lincoln will consider addition of these renewable resources to its generation portfolio as appropriate.

However, the most likely renewable generation projects that may be developed in Lincoln's service area are small scale renewable energy projects. A residential wind turbine was recently installed by a customer of Lincoln and in 2010 the Bureau of Land Management installed a 5 kW solar panel installation on one of its fire stations located in Lincoln's service area. Lincoln supports these small scale renewable energy projects and hopes to encourage further development in the future. These small scale renewable energy projects will produce an estimated peak generation of 6 kW and 18,632 kWh annually.

A. Small Scale Renewable Energy Projects

To further facilitate small scale renewable projects, Lincoln has adopted various policies including Power-02, Purchase of Energy From and Sales of Energy to Small Generating Facilities, on May 14, 2007; and Policy Power-04, Resource Planning and Renewable Resources Development, on February 9, 2009. These polices combined set

forth Lincoln's commitment to small scale renewable projects and establish a framework to be followed by customers when planning such projects. These policies commit Lincoln to install required net metering for small projects at its cost and to pay for energy returned to Lincoln's system at Lincoln's avoided cost.

To further encourage the development of small scale renewable projects, Lincoln shall offer a renewable energy rebate program. Under the program, Lincoln shall provide a cash, refund payment to residences and business installing qualifying small scale renewable energy projects. For purposes of Lincoln's program, small scale renewable energy projects shall be those projects with a nominal peak capacity rating of 50 kW or less that use solar photovoltaic, wind turbine, in-conduit hydrogenation or geothermal technology.

Although energy produced from a small scale renewable project will vary significantly in Lincoln County depending upon location, it is estimated that for each kilowatt of solar photovoltaic generation installed, 3,288 kilowatthours of energy will be produced and for each kilowatt of wind turbine generation installed, 1,752 kilowatthours of energy will be produced.

A one kilowatt complete solar installation including panels, inverter, charge controller and batteries with installation is estimated to cost $9,500. At Lincoln's current residential rate, the reduction in an individual's power cost would be approximately $190 per year. The payback to the customer on such a solar installation is 50 years. Due to economies of scales for larger installations and the ability to generate excess energy that is sold to Lincoln for additional compensation, it is expected the payback to a customer on an installation larger than one kilowatt would be less than 50 years.

A one kilowatt complete wind turbine installation including wind turbine, tower, inverter, charge controller and batteries with installation is estimated to cost $5,500. At Lincoln's current residential rate, the reduction in an individual's power cost would be approximately $101 per year. The payback to the customer on such a wind installation is 54 years. Due to economies of scales for larger installations and the ability to generate excess energy that is sold to Lincoln for additional compensation, it is expected the payback to a customer on a installation larger than one kilowatt would be less than 550 years.

To reduce the payback period, Lincoln shall provide a cash payment of $425/kilowatt for the installation of qualifying small scale renewable energy projects, up to a maximum of $1000 per residence or business.

2. Demand-Side Evaluation

As outlined in section 6 of this report, Lincoln has established three primary goals of this IRP. In order to achieve these goals, demand-side programs developed by Lincoln must not adversely impact rates, must continue to focus on energy reduction through system improvements, and must provide direct benefit to retail consumers. Further, given the daily, monthly and seasonal load profiles presented in section 3, coupled with possible growth in Lincoln's residential sector, Lincoln has determined that its demand-side programs shall strive to achieve strategic conservation and peak reduction by encouraging energy efficiency in new and existing homes. Using the above screening criteria, Lincoln has determined the following demand-side programs to be appropriate for its electric system during the IRP planning period.

A. Residential High Efficiency Air Conditioning and Heat Pumps

There are two main types of air conditioners, room and central. Room air conditioners are placed in a window or wall to cool a single room. Central air conditioners require a duct system to carry the cool air to the entire house. An air conditioner provides space cooling and dehumidification using a vapor compression refrigeration cycle to remove indoor heat and reject it to the outdoors. Central air conditioning is now being installed in about 77% of new single-family homes in the United States. Typical sizes of air conditioners vary from 1.5. tons to 4 tons. For room air conditioners, the sizes typically range form 0.5. tons to 3 tons. In addition to evaporative coolers, both types of air conditioners are commonly used in Lincoln's service area. Efficiency of central air conditioning systems is measured by a SEER rating. Efficiency of window air conditioners is measured by an EER rating.

Over the past twenty years, the efficiency of air conditioners has improved dramatically. The average SEER of central air conditioning systems sold in 1988 was 8.0. By the early 1990's SEER rates had climbed to 11.0. Government standards now

require new central air conditioning units to have a SEER of 10 or higher. Super efficient units with SEER ratings of 19 to 21 are now available. Similarly, EER ratings of window air conditioners have increased from less than 8 to 11 and higher.

To encourage the retirement of older, less efficient units, and to encourage the installation of high efficiency air conditioners on new and existing buildings, Lincoln shall offer a high-efficiency air conditioner program. Under the program, Lincoln shall provide a cash, refund payment to residences installing high efficiency air conditioners.

Although energy savings will vary significantly in Lincoln County depending upon location, a high efficiency central air conditioner is expected to reduce energy consumption by approximately 600 kWH/ton/year. For a 1 ton unit, the reduction in an individual's power cost would be approximately $33 per year. Based on an incremental cost between a 10 SEER unit and a 15 SEER, one ton unit, the payback would be 9 years on the customer's investment. Because a significant portion of homes in Lincoln's service area are using air source heat pumps for cooling, Lincoln shall extend its high efficiency central air conditioning to include high efficiency air source heat pumps. In order to qualify, similar to a central air conditioner, an air source heat pump must have a cooling efficiency of 15 SEER or greater. By extending the program to include air source heat pumps, additional energy savings will occur during winter heating seasons as well.

To reduce the payback period to 4 years, Lincoln shall provide a cash payment of $135/ton for the installation of a high efficiency central air conditioning unit or high efficiency air source heat pump, up to a maximum of $500 per residence or business.

Similarly, a high efficiency room air conditioner is expected to reduce energy consumption approximately 400 kWH/ton/year. For a 1 ton unit, the reduction in an individual's power cost would be approximately $22 per year. Based on an incremental cost between a 9 EER unit and a 10.5 EER, one ton unit, the payback would be 6 years on the customer's investment.

To reduce the payback period to 4 years, Lincoln shall provide a cash payment of $30/ton for the installation of a high efficiency room air conditioning unit, up to a maximum of $200 per residence or business.

B. Compact Fluorescent Lighting

Lighting replacement and relamping of commercial enterprises has become a significant type of demand-side program offered by many utilities. These programs have met with varying degrees of success, but if properly designed and implemented have provided benefits to both the customer and the utility. Although Lincoln sees commercial lighting as a possible program to consider in the future, it believes it must first obtain additional expertise in the lighting area and must begin basic lighting education in the community. To do this, Lincoln intends to start by offering a program to its residential customers that will provide some energy reduction benefit, but will also serve to further educate consumers on the benefits of lighting retrofit projects.

Most lighting in the residential sector is incandescent. Although there are several retrofit options, one option is to replace standard lamps with compact fluorescent lamps. A compact fluorescent lamp uses approximately one fourth the energy of a standard incandescent lamp. The light output of the fluorescent lamp is equivalent to that of the incandescent lamp. The initial cost of a fluorescent lamp is 10-15 times greater than an incandescent lamp, but they last approximately 13 times as long. They are most appropriate for heavily used fixtures that are not turned on and off frequently.

To encourage the replacement of less efficient lamps with higher efficiency lamps, Lincoln shall offer a compact fluorescent lighting program. Under the program, Lincoln shall make available to each of its residential customers, one 23 watt compact fluorescent lamp and one 13 watt fluorescent lamp. Under the program up to 725 lamps of each size may be distributed. Information describing the energy reduction benefits of the program will be distributed to each residential customer. Although energy savings will vary depending upon daily light use, at 3 hours of daily use the 23 watt lamps will result in an energy reduction of up to 61,128 kWh per year and the 13 watt lamps will result in an energy reduction of up to 37,312 kWh per year. The residential lighting retrofit will cost up to $8,225 per year and would reduce Lincoln's cost of purchased power by an estimated $1,430 per year. As a result, discounting operating margins, this project results in a 7 year payback on Lincoln's investment at current load levels.

After the initial distribution of compact fluorescent lamps, residential customers will be allowed to request and receive an additional compact fluorescent lamp of each size each year for the term of this IRP.

C. Weatherization

The U.S. Census Bureau reports that in 2009 2,308 housing units existed in Lincoln County. Of this stock, 1,392 were single family units, 248 were multi-family units, and 668 units were mobile homes. Further the Census reports that 480 of these units were constructed before 1939 (21%), 1,490 of these units were constructed between 1939 and 1995 (65%) and the balance constructed after 1995. From these statistics it is clear that most of the housing units in Lincoln County are older homes or mobile homes with relatively few modern units. As a result it is believed that most could significantly benefit from various weatherization type programs including insulation, duct sealing, shell sealing, caulking, weather stripping, exterior door replacement, window replacement, evaporative cooler covers, solar screens, appliance upgrades, insulation of water heaters and pipes, and low flow shower heads.

Further the U.S. Census Bureau further reported 2008 household income in Lincoln County at $44,535 with nearly 14% of the population living below the poverty line, making Lincoln one of the poorest counties in Nevada behind only Nye, Esmeralda and Mineral Counties.

As such to provide opportunities for weatherization of older homes in Lincoln County, Lincoln must offer a program that funds must if not all of the needed repairs. To achieve this objective, Lincoln believes it in the best interest of its customers for Lincoln to team with the Rural Nevada Development Corporation (RNDC). The RNDC is a non-profit organization created to implement the grant programs of the Nevada Division of Housing, including a low income weatherization assistance program. The goal of the program is to assist low-income persons in reducing their utility bills by providing various energy conservation measures. Assistance is provided free of charge. Assistance is available to homeowners or renters who reside in either mobile homes, single family homes or multi-family homes. Guidelines have been created by the RNDC regarding

qualification for the program, however, program income levels are established by the Office of Management and Budget. For example, a household of four individuals with household income of $44,100 would currently qualify for the program. Based on past records maintained by the RNDC, weatherization projects in Lincoln's area typically result in an average reduction in energy use of 7,475 kWh per year.

Under Lincoln's arrangement with the RNDC, Lincoln shall contribute additional grant money to the RNDC for use on weatherization projects in Lincoln County. Specifically, Lincoln shall fund one-half the cost of weatherization projects in Lincoln County by the RNDC, up to $10,000 per year. Based on records of past weatherization projects, each project costs between $2,000 and $6,000. Therefore, Lincoln's participation could support up to 10 projects in Lincoln County.

SECTION 8
ACTION PLAN

1. Program Summary

The following table summarizes Lincoln's planned actions under this IRP for the period 2011 through 2015. Details of each program are provided in the sections following the table. As evident from the table, Lincoln intends to budget $18,000 per year on programs under this IRP. If one or more program becomes more successful than others based on customer responses, Lincoln shall increase spending on the successful programs while decreasing expenditures on less successful program to achieve the overall IRP budget of $18,000 per year.

Table 8-1
Program Summary

IRP Program Period:	January 1, 2011 thru December 31, 2015
Annual IRP Program Budget:	$18,000 Per Year

Program	Expected Energy Savings Per Year	Individual Program Budget Cap
Conservation Information Dissemination	0 kWh	$6,000 Per Year
High Efficiency Air Conditioning and Heat Pumps	3,600 kWh	$2,000 Per Year
Compact Fluorescent Lighting	98,440 kWh	$8,500 Per Year
Weatherization	37,375 kwh	$10,000 Per Year
Small Scale Renewable Energy Projects	16,440 kWh	$10,000 Per Year

2. Conservation Information Dissemination

The cornerstone of Lincoln's action plan is to disseminate information on conservation to end-users of electric energy in Lincoln's service area. At least quarterly, Lincoln shall have published and distribute a magazine or newsletter offering information on energy conservation, building weatherization and related topics. The newsletter will detail conservation programs offered by Lincoln as described in this IRP. Currently, Lincoln plans to achieve this goal by

participating in the Ruralite magazine. Ruralite, is a magazine for rural utilities. It is a standard magazine that each utility can then customize a certain number of pages to reflect things occurring within their service area. Each issue has a section on conservation. The Ruralite magazine is mailed or provided to all of Lincoln's customers. Lincoln plans to issue its Ruralite magazine every other month. The expected cost of Lincoln's participation in the Ruralite magazine is $6,000 per year.

3. High Efficiency Air Conditioning and Heat Pumps

The budget for this project shall be $2,000 per year over the term of this IRP. In the first quarter of 2011 Lincoln shall publish notice of the program in Ruralite Magazine and in the local newspaper describing the program. Details of the program are as follows:

- The program shall be available to all customers within Lincoln's service area including those directly served by Lincoln, the Alamo Power District No. 3, the City of Caliente, Penoyer Valley Electric Cooperative and Pioche Public Utilities; except as noted herein. This program shall not be available for the new large scale residential or commercial subdivisions or developments that may occur in Coyote Springs. Developers of large scale residential or commercial subdivisions or developments in Coyote Springs shall be required to install central air conditioning and air source heat pumps that are Energy Star ® rated, and neither the developers nor the purchaser shall be eligible to apply for a rebate under this program.
- The program is available for new construction or for replacement of existing evaporative coolers, room air conditioners, central air conditioners, or air source heat pumps.
- Customers shall be eligible for a cash rebate of $135/ton for the installation of a central, high efficiency air conditioning unit or air source heat pump, up to a maximum of $500 per residence.
- Customers shall be eligible for a cash rebate of $30/ton for the installation of a room, high efficiency air conditioning unit, up to a maximum of $200 per residence.

- For purposes of this program, 1 ton shall equal 12,000 BTUH (BTUs per hour).
- For central air conditioning units and air source heat pumps, the high efficiency air conditioning unit must have a SEER rating of 15.0 or higher to qualify for the rebate.
- For room air conditioning units, the high efficiency air conditioning unit must have a EER rating of 10.5 or higher to qualify for the rebate.
- For either central air conditioning units, air source heat pumps, or room air conditioning units, the unit must be Energy Star ® rated.
- To qualify an end-user must complete an application, and provide (1) a copy of the invoice or receipt for the high efficiency air conditioning unit or heat pump, and (2) a copy of the Energy Guide label identifying the SEER or EER rating.
- To receive the rebate, representatives of Lincoln must inspect the installation and verify that the high efficiency air conditioning unit or air source heat pump is connected and operational.
- Applications for rebates will be reviewed and approved on the basis of the order in which eligible applications are received by Lincoln. The number of rebates to be issued each year is subject to the program budget limitation set by Lincoln. Applications received after funding limits have been reached shall be retained for consideration in the following year.

3. Compact Fluorescent Lighting

The budget for this project shall be $8,500 per year over the term of this IRP. In the first quarter of 2011 Lincoln shall publish notice of the program in Ruralite Magazine and in the local newspaper describing the program. Details of the program are as follows:

- The program shall be available to Lincoln's customers. This program shall not be available to residential customers located in Coyote Springs.
- The program is available for new construction or for replacement of existing incandescent lamps.

- Annually during the term of this IRP Lincoln shall make available to each of its customers, one 23 watt compact fluorescent lamp and one 13 watt fluorescent lamp and information regarding the conservation benefits and optimum use of compact fluorescent lamps.
- Customers shall be responsible for installation of the compact fluorescent lamps.

4. Weatherization

The budget for this project shall be $10,000 per year over the term of this IRP. In the first quarter of 2011 Lincoln shall publish notice of the program in Ruralite Magazine and in the local newspaper describing the program. Details of the program are as follows:

- The program shall be available to all residential end-use customers within Lincoln's service area including those directly served by Lincoln, the Alamo Power District No. 3, the City of Caliente, Penoyer Valley Electric Cooperative and Pioche Public Utilities; except as noted herein. This program shall not be available to residential customers located in Coyote Springs.
- The program is available through the Rural Nevada Development Corporation for weatherization of existing mobile homes, single family homes or for multi-family homes.
- The rules, regulations, requirements and limitations of the RNDC Low Income Weatherization Program shall apply.
- Lincoln shall provide customers with applications and program information and shall assist customers in contacting and preparing applications for the RNDC Low Income Weatherization Program.

5. Small Scale Renewable Energy Projects

The budget for this project shall be $10,000 per year over the term of this IRP. In the first quarter of 2011 Lincoln shall publish notice of the program in Ruralite Magazine and in the local newspaper describing the program. Details of the program are as follows:

- The program shall be available to all residential and small business end-use customers within Lincoln's service area including those directly served by Lincoln, the Alamo Power District No. 3, the City of Caliente, Penoyer Valley Electric Cooperative and Pioche Public Utilities; except as noted herein. This program shall not be available for the new large scale residential or commercial subdivisions or developments that may occur in Coyote Springs.
- Individuals and business shall be eligible for a cash rebate of $425/kilowatt of installed capacity for qualifying small scale renewable energy projects, up to a maximum of $1,000 per residence or small commercial business.
- Small scale renewable energy projects shall be those projects with a nominal peak capacity rating of 50 kW or less that use solar photovoltaic, wind turbine, in-conduit hydrogenation or geothermal technology.
- Small scale renewable energy project installations must comply with Lincoln's policies, regulations and design standards for such installations and must contain an approved grid tie inverter and an approved safety disconnect switch. Pursuant to Lincoln's policies, regulations and design standards, designs and manufacturer data for the system must be provided to Lincoln for review and approval prior to installation by the customer.
- Small scale renewable energy project equipment and components must be UL® approved.
- Participants in the program must agree to transfer to Lincoln any renewable energy credits that are or may become available for the small scale renewable energy project under the laws of the State of Nevada.
- To qualify an individual or small commercial business must complete an application.
- To receive the rebate, representatives of Lincoln must inspect the installation and verify that the small scale renewable energy project is properly connected and operational.
- Applications for rebates will be reviewed and approved on the basis of the order in which eligible applications are received by Lincoln. The number of rebates to

be issued each year is subject to the program budget limitation set by Lincoln. Applications received after funding limits have been reached shall be retained for consideration in the following year.

SECTION 9
PUBLIC INVOLVEMENT

1. Public Involvement

Lincoln's IRP has been developed with full public involvement. To encourage public input, meetings were held on January 10, 2011 and February 14, 2011 during which the IRP was discussed and reviewed. Notices of the scheduled public meetings were posted at the Lincoln County Courthouse, U.S. Post Office in Pioche, Lincoln County Telephone System Office, Lincoln County Power District Office, Panaca Market, and the U.S. Post Office in Panaca. In addition, in order to solicit input from those not attending the public meetings, legal notices were placed in the Lincoln County Record, the local paper. These notices indicated:

Draft Integrated Resource Plan Available For Review

The Lincoln County Power District No. 1 (LCPD) is required by its contract for power from Hoover Dam to prepare an Integrated Resource Plan (IRP) every five years. The purpose of the IRP is to verify LCPD is using Hoover Dam power efficiently. To ensure the efficient use of hydroelectric power, under the IRP LCPD will offer various conservation programs to its customers. The draft IRP identifies the programs LCPD is planning for the next five years.

The draft IRP is available for customer review at LCPD's office in Caselton. Copies will be made available upon request. Customers may offer comments and suggestions on the planned programs for consideration. Comments should be submitted in writing to LCPD before February 4, 2011. Submit comments to Lincoln County Power District No. 1, Box 101 – HC 74, Pioche, Nevada 89043.

As a result of the planning and public comment process, Lincoln's IRP has been specifically tailored to meet the needs, goals and objectives for Lincoln's system.

APPENDIX A

Historical System Loads

SYSTEM LOAD DATA

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	PEAK
1997														
Capacity	11,739	10,714	8,188	10,588	12,137	12,789	16,485	16,970	15,156	11,725	12,627	15,700	154,818	16,970
Mo.% of Tot	7.58%	6.92%	5.29%	6.84%	7.84%	8.26%	10.65%	10.96%	9.79%	7.57%	8.16%	10.14%	100.00%	
Energy	6,796,461	4,328,571	3,656,914	5,194,462	6,696,609	6,903,221	9,294,317	9,029,231	6,512,278	6,028,822	6,052,105	8,158,798	78,651,789	
Mo.% of Tot	8.64%	5.50%	4.65%	6.60%	8.51%	8.78%	11.82%	11.48%	8.28%	7.67%	7.69%	10.37%	100.00%	
Load Factor	77.82%	60.12%	60.03%	68.14%	74.16%	74.97%	75.78%	71.51%	59.68%	69.11%	66.57%	69.85%	52.91%	
1998														
Capacity	15,634	13,587	12,873	15,717	12,165	15,887	16,390	17,174	12,722	13,054	10,884	13,387	169,474	17,174
Mo.% of Tot	9.23%	8.02%	7.60%	9.27%	7.18%	9.37%	9.67%	10.13%	7.51%	7.70%	6.42%	7.90%	100.00%	
Energy	8,268,476	5,954,977	6,384,034	6,010,642	7,729,921	6,796,690	8,515,165	9,296,040	6,037,743	6,246,715	4,579,606	6,228,973	82,048,982	
Mo.% of Tot	10.08%	7.26%	7.78%	7.33%	9.42%	8.28%	10.38%	11.33%	7.36%	7.61%	5.58%	7.59%	100.00%	
Load Factor	71.09%	65.22%	66.66%	53.12%	85.41%	59.42%	69.83%	72.75%	65.92%	64.32%	58.44%	62.54%	54.54%	
1999														
Capacity	12,068	12,220	10,052	11,532	12,469	14,143	14,102	13,639	10,611	9,015	11,347	12,376	143,574	14,143
Mo.% of Tot	8.41%	8.51%	7.00%	8.03%	8.68%	9.85%	9.82%	9.50%	7.39%	6.28%	7.90%	8.62%	100.00%	
Energy	5,786,036	4,947,046	4,602,774	5,178,092	6,443,015	6,307,636	6,564,524	7,193,177	5,284,611	4,473,027	4,588,198	5,977,480	67,345,616	
Mo.% of Tot	8.59%	7.35%	6.83%	7.69%	9.57%	9.37%	9.75%	10.68%	7.85%	6.64%	6.81%	8.88%	100.00%	
Load Factor	64.44%	60.24%	61.55%	62.36%	69.45%	61.94%	62.57%	70.89%	69.17%	66.69%	56.16%	64.92%	54.36%	
2000														
Capacity	14,509	10,560	10,500	10,929	13,087	12,982	13,749	14,715	10,958	9,281	11,996	12,204	145,470	14,715
Mo.% of Tot	9.97%	7.26%	7.22%	7.51%	9.00%	8.92%	9.45%	10.12%	7.53%	6.38%	8.25%	8.39%	100.00%	
Energy	5,658,141	4,671,886	5,228,571	5,164,286	6,414,879	7,207,337	7,595,938	7,544,464	5,544,180	4,356,586	5,564,853	5,929,486	70,880,607	
Mo.% of Tot	7.98%	6.59%	7.38%	7.29%	9.05%	10.17%	10.72%	10.64%	7.82%	6.15%	7.85%	8.37%	100.00%	
Load Factor	52.42%	63.57%	66.93%	65.63%	65.88%	77.11%	74.26%	68.91%	70.27%	63.09%	64.43%	65.30%	54.84%	
2001														
Capacity	12,690	11,790	8,143	11,143	17,542	14,561	14,687	14,414	16,024	9,501	16,299	17,542	164,336	17,542
Mo.% of Tot	7.72%	7.17%	4.96%	6.78%	10.67%	8.86%	8.94%	8.77%	9.75%	5.78%	9.92%	10.67%	100.00%	
Energy	6,181,054	6,368,510	3,942,857	8,528,571	7,876,813	8,311,235	7,398,533	7,920,599	6,512,364	4,508,334	4,617,355	6,999,765	79,165,990	
Mo.% of Tot	7.81%	8.04%	4.98%	10.77%	9.95%	10.50%	9.35%	10.01%	8.23%	5.69%	5.83%	8.84%	100.00%	
Load Factor	65.47%	80.38%	65.08%	106.30%	60.35%	79.28%	67.71%	73.86%	56.45%	63.78%	39.35%	53.63%	51.52%	

2002														
Capacity	20,972	18,478	17,550	19,001	15,291	14,585	20,117	15,510	13,268	8,612	10,080	11,901	185,365	20,972
Mo.% of Tot	11.31%	9.97%	9.47%	10.25%	8.25%	7.87%	10.85%	8.37%	7.16%	4.65%	5.44%	6.42%	100.00%	
Energy	6,479,177	4,050,327	6,016,280	4,954,573	7,108,961	7,762,767	8,435,747	9,268,846	6,326,106	5,026,188	4,857,068	6,093,971	76,380,011	
Mo.% of Tot	8.48%	5.30%	7.88%	6.49%	9.31%	10.16%	11.04%	12.14%	8.28%	6.58%	6.36%	7.98%	100.00%	
Load Factor	41.52%	32.62%	46.08%	36.22%	62.49%	73.92%	56.36%	80.32%	66.22%	78.44%	66.92%	68.82%	41.58%	
2003														
Capacity	10,980	12,099	10,678	11,700	14,830	14,949	15,375	16,003	12,765	10,554	12,099	12,838	154,870	16,003
Mo.% of Tot	7.09%	7.81%	6.89%	7.55%	9.58%	9.65%	9.93%	10.33%	8.24%	6.81%	7.81%	8.29%	100.00%	
Energy	5,331,748	5,034,820	5,049,740	5,786,564	8,062,618	8,176,860	9,091,853	8,019,429	6,343,683	5,113,252	5,159,305	6,274,641	77,444,513	
Mo.% of Tot	6.88%	6.50%	6.52%	7.47%	10.41%	10.56%	11.74%	10.36%	8.19%	6.60%	6.66%	8.10%	100.00%	
Load Factor	65.27%	61.92%	63.56%	68.69%	73.07%	75.97%	79.48%	67.35%	69.02%	65.12%	59.23%	65.69%	55.24%	
2004														
Capacity	13,898	12,598	10,678	11,546	13,032	13,792	14,722	15,844	14,885	9,522	14,027	13,301	157,845	15,844
Mo.% of Tot	8.80%	7.98%	6.76%	7.31%	8.26%	8.74%	9.33%	10.04%	9.43%	6.03%	8.89%	8.43%	100.00%	
Energy	6,428,769	5,653,376	4,495,748	5,698,001	7,538,439	7,625,028	8,010,246	8,129,217	6,955,509	4,953,228	5,489,581	6,443,961	77,421,103	
Mo.% of Tot	8.30%	7.30%	5.81%	7.36%	9.74%	9.85%	10.35%	10.50%	8.98%	6.40%	7.09%	8.32%	100.00%	
Load Factor	62.17%	64.48%	56.59%	68.54%	77.75%	76.79%	73.13%	68.96%	64.90%	69.92%	54.36%	65.12%	55.63%	
2005														
Capacity	13,081	11,677	11,449	10,980	13,941	14,950	15,622	14,896	14,784	8,968	13,213	14,246	157,807	15,622
Mo.% of Tot	8.29%	7.40%	7.26%	6.96%	8.83%	9.47%	9.90%	9.44%	9.37%	5.68%	8.37%	9.03%	100.00%	
Energy	5,932,751	5,123,084	5,287,371	5,256,480	7,183,686	7,008,684	8,573,410	7,477,273	6,463,559	4,643,043	5,235,285	6,771,190	74,955,816	
Mo.% of Tot	7.91%	6.83%	7.05%	7.01%	9.58%	9.35%	11.44%	9.98%	8.62%	6.19%	6.98%	9.03%	100.00%	
Load Factor	60.96%	65.29%	62.07%	66.49%	69.26%	65.11%	73.76%	67.47%	60.72%	69.59%	55.03%	63.89%	54.77%	
2006														
Capacity	13,233	13,321	12,108	11,062	14,670	16,285	16,473	16,166	15,930	11,609	14,707	15,871	171,435	16,473
Mo.% of Tot	7.72%	7.77%	7.06%	6.45%	8.56%	9.50%	9.61%	9.43%	9.29%	6.77%	8.58%	9.26%	100.00%	
Energy	6,516,285	5,564,518	5,800,368	5,422,761	7,589,695	8,349,358	8,203,381	8,742,097	6,633,851	5,389,645	5,296,172	7,138,799	80,646,930	
Mo.% of Tot	8.08%	6.90%	7.19%	6.72%	9.41%	10.35%	10.17%	10.84%	8.23%	6.68%	6.57%	8.85%	100.00%	
Load Factor	66.19%	62.16%	64.39%	68.09%	69.54%	71.21%	66.93%	72.68%	57.84%	62.40%	50.02%	60.46%	55.89%	
2007														
Capacity	17,147	14,415	14,074	13,201	14,630	16,399	17,060	16,285	14,723	8,939	12,951	14,243	174,067	17,147
Mo.% of Tot	9.85%	8.28%	8.09%	7.58%	8.40%	9.42%	9.80%	9.36%	8.46%	5.14%	7.44%	8.18%	100.00%	
Energy	7,643,233	5,605,329	4,893,178	5,870,010	8,186,789	8,845,858	9,658,652	8,902,438	6,354,848	4,660,992	5,122,165	7,321,442	83,064,934	
Mo.% of Tot	9.20%	6.75%	5.89%	7.07%	9.86%	10.65%	11.63%	10.72%	7.65%	5.61%	6.17%	8.81%	100.00%	
Load Factor	59.91%	57.87%	46.73%	61.76%	75.21%	74.92%	76.10%	73.48%	59.95%	70.08%	54.93%	69.09%	55.30%	

2008														
Capacity	16,531	15,578	12,110	11,922	15,126	16,891	17,644	18,195	15,059	10,796	11,172	15,326	176,350	18,195
Mo.% of Tot	9.37%	8.83%	6.87%	6.76%	8.58%	9.58%	10.01%	10.32%	8.54%	6.12%	6.34%	8.69%	100.00%	
Energy	7,544,930	6,175,366	5,591,396	5,817,712	7,365,571	8,339,826	9,549,198	9,525,442	7,035,208	5,235,206	5,113,774	7,466,238	84,759,867	
Mo.% of Tot	8.90%	7.29%	6.60%	6.86%	8.69%	9.84%	11.27%	11.24%	8.30%	6.18%	6.03%	8.81%	100.00%	
Load Factor	61.35%	56.96%	62.06%	67.78%	65.45%	68.58%	72.74%	70.37%	64.89%	65.18%	63.57%	65.48%	53.03%	
2009														
Capacity	15,839	14,129	12,764	11,919	15,193	16,629	17,110	17,294	15,713	11,393	12,227	16,538	176,748	17,294
Mo.% of Tot	8.96%	7.99%	7.22%	6.74%	8.60%	9.41%	9.68%	9.78%	8.89%	6.45%	6.92%	9.36%	100.00%	
Energy	7,003,447	5,782,083	5,808,933	5,985,827	7,892,027	7,194,306	9,064,848	8,937,929	6,948,895	5,739,620	5,446,629	7,651,986	83,456,530	
Mo.% of Tot	8.39%	6.93%	6.96%	7.17%	9.46%	8.62%	10.86%	10.71%	8.33%	6.88%	6.53%	9.17%	100.00%	
Load Factor	59.43%	60.90%	61.17%	69.75%	69.82%	60.09%	71.21%	69.47%	61.42%	67.71%	61.87%	62.19%	55.09%	
2010														
Capacity	14,102	14,091	12,245	12,302	13,486	17,447	17,591	17,677	16,007	11,560	15,401	16,120	178,029	17,677
Mo.% of Tot	7.92%	7.92%	6.88%	6.91%	7.58%	9.80%	9.88%	9.93%	8.99%	6.49%	8.65%	9.05%	100.00%	
Energy	7,066,137	5,690,591	6,108,013	6,003,748	7,369,928	8,136,316	9,741,469	9,034,900	7,534,785	5,593,794	6,315,717	7,319,924	85,915,322	
Mo.% of Tot	8.22%	6.62%	7.11%	6.99%	8.58%	9.47%	11.34%	10.52%	8.77%	6.51%	7.35%	8.52%	100.00%	
Load Factor	67.35%	60.10%	67.05%	67.78%	73.45%	64.77%	74.43%	68.70%	65.38%	65.04%	56.96%	61.03%	55.48%	

APPENDIX B

Projected System Requirements

SYSTEM FORECAST

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
2011													
Capacity (kW)	16,260	15,594	13,118	12,755	15,327	17,820	18,231	18,535	16,397	11,964	13,625	16,813	186,440
Energy (kWh)	7,586,240	6,215,763	6,189,962	6,285,088	7,933,550	8,272,692	9,873,974	9,585,436	7,543,539	5,872,844	5,964,610	7,868,199	89,191,899
2012													
Capacity (kW)	16,339	15,147	13,181	12,817	15,401	17,906	18,320	18,625	16,477	12,022	13,691	16,895	186,821
Energy (kWh)	7,622,963	6,253,549	6,219,703	6,315,343	7,972,009	8,312,885	9,922,135	9,632,154	7,580,087	5,900,999	5,993,263	7,906,331	89,631,423
2013													
Capacity (kW)	16,418	15,744	13,244	12,878	15,476	17,993	18,410	18,716	16,557	12,079	13,757	16,976	188,249
Energy (kWh)	7,659,868	6,275,886	6,249,592	6,345,750	8,010,660	8,353,280	9,970,537	9,679,106	7,616,818	5,929,295	6,022,060	7,944,654	90,057,506
2014													
Capacity (kW)	16,498	15,820	13,308	12,941	15,551	18,081	18,499	18,807	16,637	12,137	13,823	17,059	189,160
Energy (kWh)	7,696,959	6,306,173	6,279,631	6,376,309	8,049,504	8,393,876	10,019,180	9,726,293	7,653,732	5,957,733	6,051,000	7,983,168	90,493,559
2015													
Capacity (kW)	16,578	15,897	13,372	13,003	15,626	18,169	18,590	18,899	16,718	12,195	13,889	17,141	190,076
Energy (kWh)	7,734,234	6,336,612	6,309,820	6,407,020	8,088,543	8,434,676	10,068,067	9,773,715	7,690,830	5,986,313	6,080,085	8,021,875	90,931,792
2016													
Capacity (kW)	16,658	15,442	13,436	13,065	15,702	18,257	18,680	18,991	16,799	12,254	13,956	17,225	190,465
Energy (kWh)	7,771,697	6,375,003	6,340,160	6,437,885	8,127,777	8,475,679	10,117,199	9,821,375	7,728,114	6,015,035	6,109,316	8,060,775	91,380,016
2017													
Capacity (kW)	16,739	16,051	13,501	13,128	15,778	18,346	18,771	19,084	16,880	12,313	14,023	17,308	191,922
Energy (kWh)	7,809,346	6,397,947	6,370,652	6,468,905	8,167,207	8,516,887	10,166,576	9,869,273	7,765,585	6,043,901	6,138,692	8,099,870	91,814,842
2018													
Capacity (kW)	16,820	16,128	13,566	13,192	15,855	18,435	18,863	19,177	16,962	12,372	14,090	17,392	192,851
Energy (kWh)	7,847,184	6,428,845	6,401,296	6,500,079	8,206,834	8,558,302	10,216,200	9,917,410	7,803,243	6,072,912	6,168,216	8,139,161	92,259,681

2019													
Capacity (kW)	16,901	16,206	13,631	13,255	15,932	18,525	18,955	19,271	17,044	12,431	14,158	17,476	193,785
Energy (kWh)	7,885,211	6,459,897	6,432,094	6,531,410	8,246,659	8,599,923	10,266,072	9,965,788	7,841,089	6,102,067	6,197,887	8,178,647	92,706,744
2020													
Capacity (kW)	16,983	15,742	13,696	13,319	16,009	18,615	19,048	19,365	17,127	12,491	14,226	17,561	194,182
Energy (kWh)	7,923,428	6,498,905	6,463,045	6,562,897	8,286,683	8,641,753	10,316,193	10,014,408	7,879,125	6,131,369	6,227,706	8,218,332	93,163,843
2021													
Capacity (kW)	17,065	16,363	13,762	13,383	16,087	18,705	19,141	19,459	17,210	12,551	14,295	17,646	19,594
Energy (kWh)	7,961,836	6,522,468	6,494,152	6,594,541	8,326,907	8,683,792	10,366,565	10,063,271	7,917,350	6,160,817	6,257,675	8,258,214	93,607,588