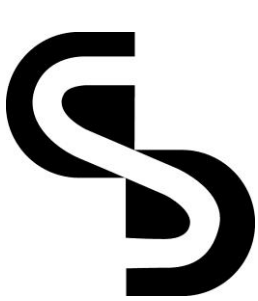

GDS Associates, Inc.
Engineers and Consultants

2013 Load Forecast

Energy and Peak Demand Projections for 2013- 2027

Meade County Rural Electric Cooperative Corporation

Brandenburg, Kentucky

July 2013

In Cooperation with
Big Rivers Electric Corporation

GDS Associates, Inc.
1850 Parkway Place
Suite 800
Marietta, GA 30067
770.425.8100
www.gdsassociates.com

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1. Executive Summary

Meade County Rural Electric Cooperative Corporation ("Meade County" or "MCRECC") is a rural electric distribution system headquartered in Brandenburg, Kentucky. This 2013 Load Forecast was completed in July 2013 and updates the most recent forecast that was completed in May 2011. The forecast contains projections of energy and demand requirements for a forecast horizon spanning years 2013-2027. High and low range forecast scenarios were developed to address uncertainties regarding the factors expected to influence energy consumption in the future. In addition to the energy and demand projections, this report presents the assumptions upon which the forecast is based and the methodologies employed in development of the forecast.

1.1 Forecast Results

Total system energy and coincident peak demand requirements are projected to increase at average compound rates of 0.3% and 0.1%, respectively, from 2012 through 2027. The forecast is summarized in Tables 1.1 and 1.2. The primary influence on growth over the forecast period will continue to be growth in residential sales, which is primarily a function of growth in number of customers.

The projections of total system and rural system energy and peak demand presented in this report include the impacts associated with new energy efficiency and demand-side management programs that Big Rivers and MCRECC plan to implement in the coming years.

Table 1.1
Load Forecast Summary

		Total System	
Year	Consumers	Energy Requirements (MWh)	Peak Demand (CP)
2002	25,083	411,103	87,317
2007	27,500	474,936	114,050
2012a	28,592	465,662	105,717
2012n	28,728	472,958	118,612
2017	30,063	463,875	114,466
2022	31,534	478,784	117,661
2027	32,818	493,197	121,057

2012a represent actual values; 2012n represents weather adjusted values
Projected values reflect impacts of DSM and energy efficiency programs

Table 1.2
Load Forecast – Average Annual Growth Rates

	2012-2017	2012-2027
Total System Energy Requirements	-0.4%	0.3%
Total System Peak Demand (CP)	-0.7%	0.1%
Residential Energy Sales	-0.2%	0.5%
Residential Consumers	1.0%	0.9%
Small Commercial Energy Sales	0.4%	0.3%
Small Commercial Consumers	1.0%	0.7%
Public Street Lighting Sales	0.2%	0.2%

Growth rates for Total System and Rural System requirements reflect DSM and energy efficiency program impacts.

Projected growth rates for the rural system are lower than in previous forecasts and the result of significant retail price increases over the near term. Due to increases wholesale power costs, retail electricity prices are projected to increase by approximately 40%, in aggregate, over years 2014-2016. As result, rural system sales are expected to decline by 2.3% over the course of these three years before reestablishing a positive trend of approximately 1.1% per year thereafter.

The primary influence on growth in the rural system requirements over the forecast period will continue to be growth in the number of customers. Following near term declines in average use per customer due to retail price increases, average use is expected to be relatively flat over the remainder of the forecast horizon, increasing by less than 1% per year. MCRECC is projected to be a summer peaking system under normal peaking weather conditions; however, as in past years, the annual peak can occur during a winter month if peaking temperatures are colder than normal.

Section 2 of the report presents a brief summary of the cooperative background and service area characteristics. Section 3 identifies the sources of the data used to prepare the forecast. Section 4 presents the assumptions made during the forecasting process. Sections 5 and 6 present the short and long-term base case forecasts. Section 7 presents four forecast scenarios, which address optimistic/pessimistic economic growth and extreme/mild weather conditions. Section 8 describes the forecasting methodologies incorporated in developing the forecasting models.

1.2 Forecast Assumptions

The forecast is based upon a number of assumptions regarding factors that impact energy consumption, including: demographics, economic activity, price of electricity and competing fuels, electric market share, and weather conditions. The assumptions were developed by GDS Associates and discussed with

cooperative management prior to development of the final forecast. The economic outlook for the base case forecast was formulated using information collected from Moody's Economy.com.

- Number of households will increase at an average rate of 0.5% per year from 2012-2028.
- Employment will increase at an average rate of 0.6% per year from 2012-2028.
- Real gross regional product will increase at an average rate of 2.0% per year from 2012-2028.
- Real average income per household will increase at an average rate of 2.4% per year from 2012-2028.
- Real retail sales will increase at an average rate of 1.4% per year from 2012-2028.
- Inflation, as measured by the Gross Domestic Product Price Index, will increase at an average compound rate of 2.0% per year from 2012-2028.
- The average price of electricity to rural system customers will increase by 39% over 2014-2016 and then increase at the rate of inflation over the long term.
- Heating and cooling degree days for Evansville, Indiana and Louisville, Kentucky will be equal to averages based on the twenty years ending 2012.
- Impacts of existing energy efficiency programs will increase during the forecast horizon and will impact both energy and peak demand requirements.

1.3 Forecasting Process

A bottom-up approach was followed in developing Big Rivers' load forecast as projections were developed for each of three member cooperatives and aggregated to the Big Rivers level. Projections were developed for two customer classifications: rural system and direct serve. The rural system is comprised of all residential, commercial, and other customers that are served at the retail level by MCRECC. The direct serve class includes all large commercial and industrial customers that are served directly by Big Rivers.

Econometric models were developed to project the number of rural system customers and average use per customer. Rural system peak demand was developed at the Big Rivers level and allocated to each member cooperative based on each cooperative's contribution to the Big Rivers peak. Direct serve demand and energy projections were developed using information provided by cooperative management regarding local industrial operations. Projections of total system NCP demand was computed as the sum of rural system one-hour peak demand and direct-serve NCP demand.

1.4 Changes from Prior Load Forecast

Energy requirements in the current forecast are lower than in the 2011 forecast, as the current forecast reflects lower long term customer growth and lower average consumption per customer, due primarily to increases in the retail price of electricity.

Figure 1.1
Total Energy Requirements (GWh)

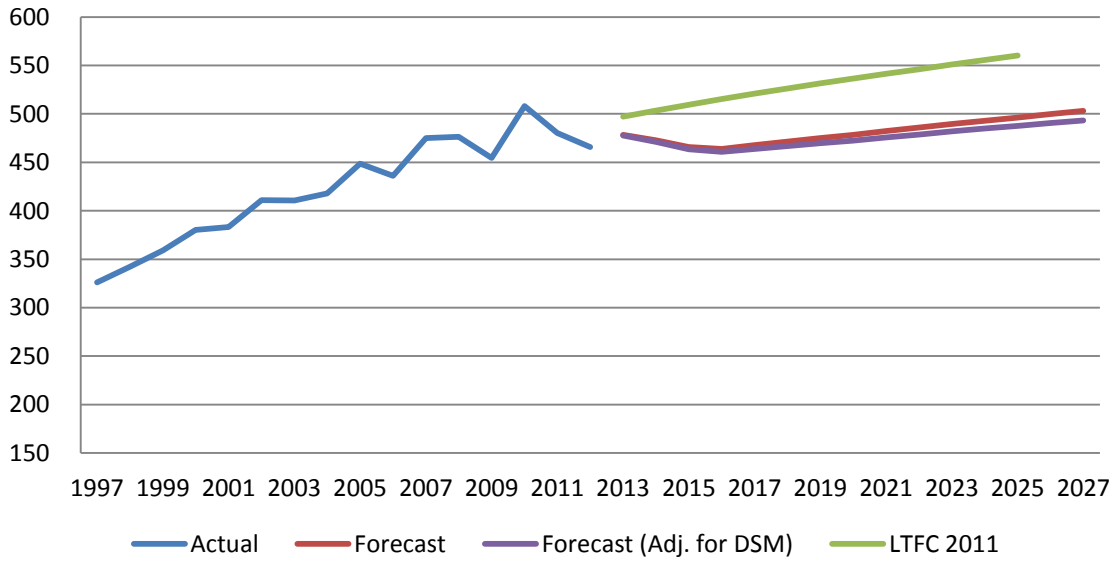
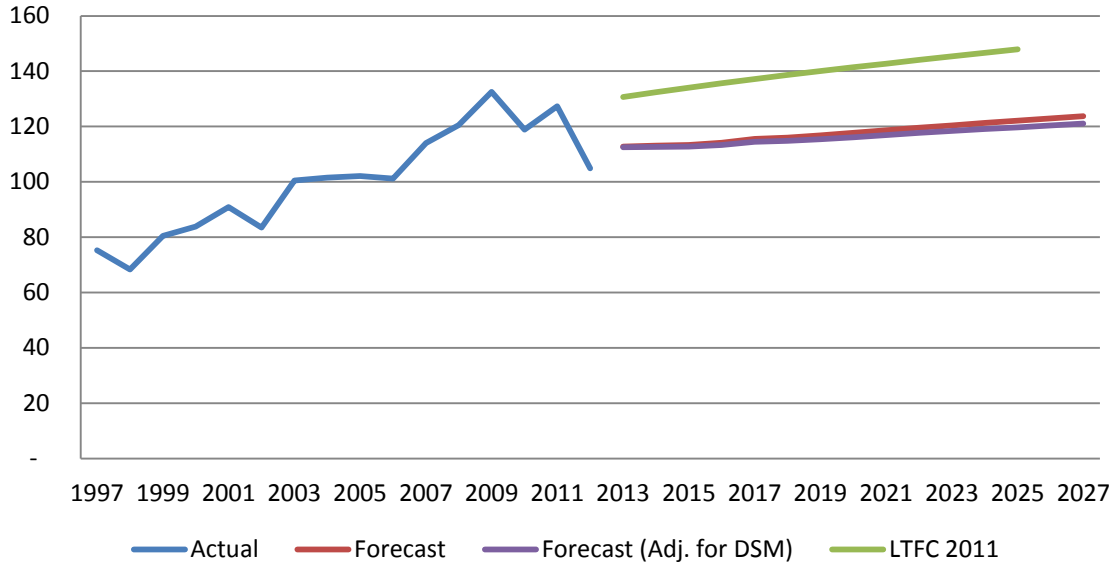


Figure 1.2
Peak Demand (MW)



1.5 Forecast Scenarios

The base case forecast was developed using the expected economic outlook and average weather conditions. Four forecast scenarios were generated to evaluate varying economic and weather impacts from those contained in the base case forecast. Results from the four scenarios are presented graphically in Figures 1.3 and 1.4 and described in greater in detail in Section 7.

Figure 1.3
Total Energy Requirements (GWh)

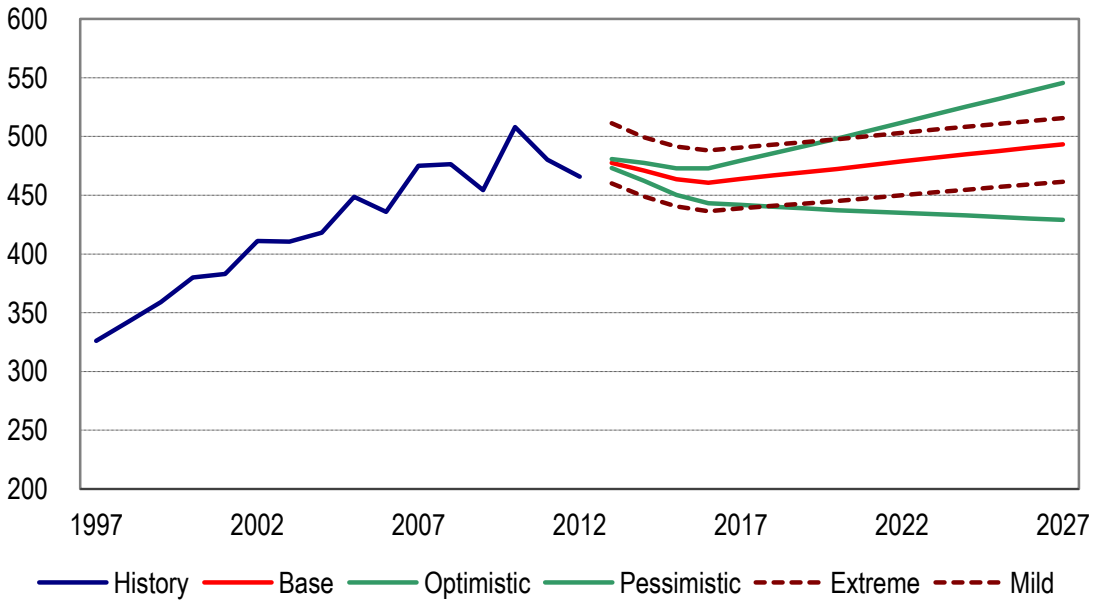
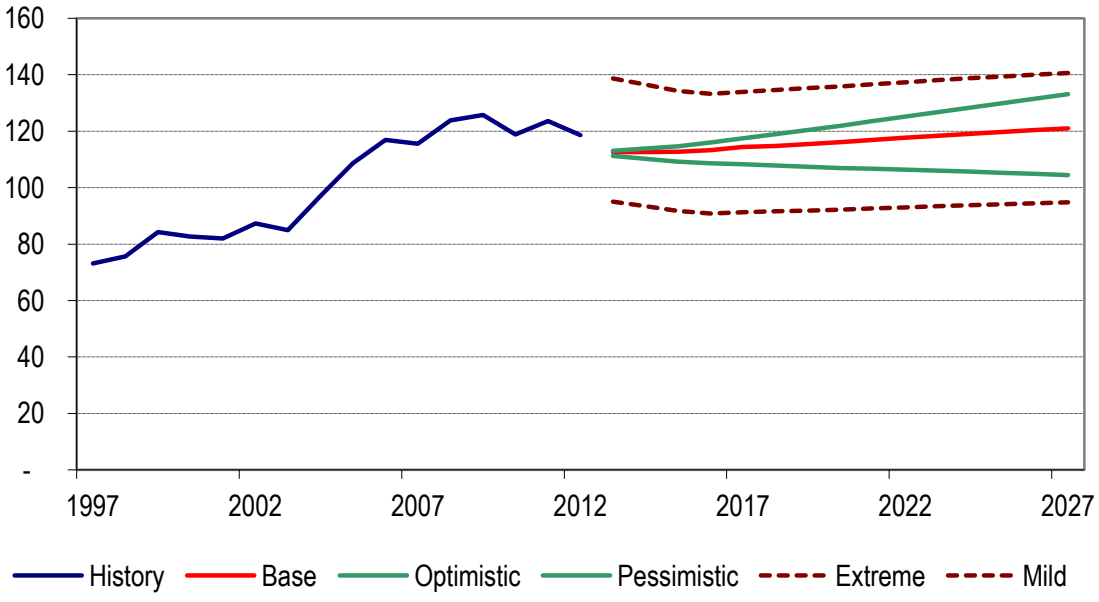


Figure 1.4
Peak Demand Requirements (MW)



2. Introduction

The 2013 Load Forecast was conducted by representatives from Meade County, Big Rivers Electric Corporation (Big Rivers), and GDS Associates, Inc.

2.1 Purpose

The purpose of the long-term load forecast is to provide reliable load projections for the Cooperative's resource, distribution, and financial planning functions. This forecast of system requirements includes the following:

- Number of consumers by customer classification
- Energy sales by customer classification
- Distribution losses
- Total system energy requirements
- Total system seasonal peak demand

Five forecast scenarios were developed in the forecast: a base case, which focuses on expected economic conditions and normal weather, and two sets of high-range and low-range projections, both of which consider deviations from expected economic conditions and deviations from normal weather conditions.

2.2 Cooperative Background

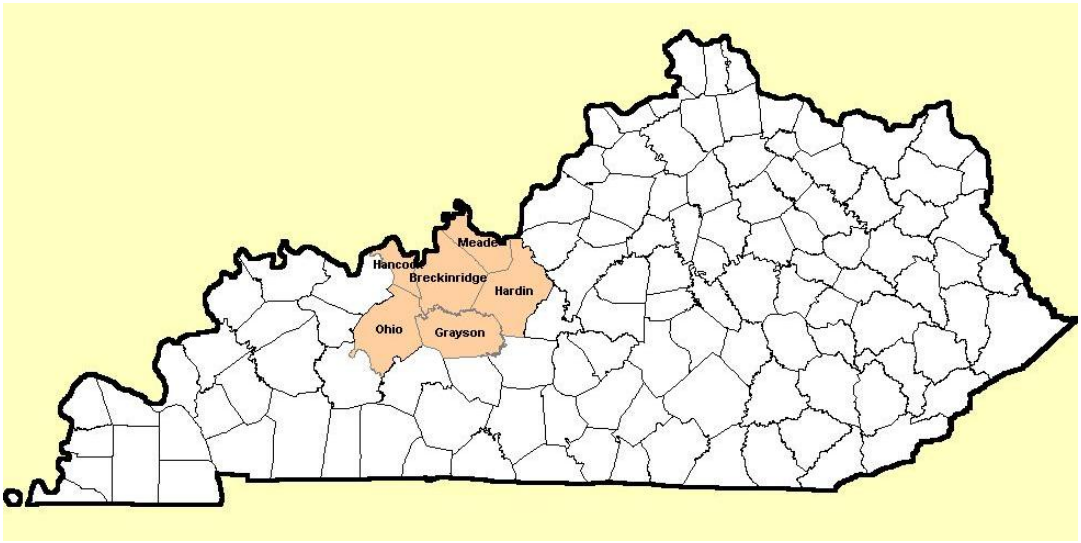
Meade County RECC is headquartered in Brandenburg, Kentucky, with its service area in the north central part of the state. Approximately 93% of the accounts the cooperative serves are residential. The service area is represented using data for the following four counties: Breckinridge, Meade, Grayson, and Ohio.[1]

2.3 Service Area

Meade County RECC's service area is located in north central Kentucky and includes six counties: Breckinridge, Grayson, Hancock, Hardin, Meade and Ohio. Meade County RECC currently owns and maintains over 2,700 miles of line and 16 step-down sub-stations.

[1] Meade County RECC provides electric service to very few consumers in Hardin and Hancock counties; therefore, economic data for those two counties was excluded from service area economic data estimates.

Figure 2.1
Service Area Counties



2.3.1 Geography

Meade County RECC's service area is situated in the north central part of the state, bordered on the north by the Ohio River. The nearest population centers lie just outside the system's boundaries: Louisville is 40 miles northeast and Owensboro is 30 miles to the west of the system. The region is well served by several major highways, including: Interstate Highway 65, which runs north-south and just outside the eastern edge of the system; and the William H. Natcher Parkway, running north-south just outside the system's western edge. The service area includes approximately 900 square miles of rolling to gently rolling land, with approximately 30% of it wooded. The land's elevation ranges anywhere from 383 to 1,000 feet above sea level. No annexations that would change the service area's present boundaries are anticipated.

2.3.2 Climate

Weather conditions are similar to those of Evansville, Indiana and Louisville, Kenucky. The climate in the area is humid, temperate and continental. Daily and seasonal changes in temperature, cloudiness, wind and precipitation may be sudden and extreme. The seasons are well defined, but changes between the seasons are gradual. Winters are harsh with sustained periods of very low temperatures, with the minimum monthly low temperature averaging 4° Fahrenheit in January over the last 20 years. Snowfall provides minimal precipitation, averaging 10 inches per year. The frequent thunderstorms that occur in the spring bring rainfall which is beneficial to area crops. Annual rainfall averages 46 to 50 inches. The summer

season is long, humid and hot, with the maximum monthly high temperature averaging just over 96° Fahrenheit in July over the last 20 years.

Heating and cooling degree days were used in the forecasting models to quantify the impacts of weather on energy consumption. A degree day represents the difference between the average temperature for a given day and a base temperature[2]. Positive differences represent cooling degree days, and negative differences represent heating degree days. Heating and cooling degree days are equal to the average of those measured at the Evansville, Indiana and Louisville, Kentucky stations and are presented in Table 2.1.

Table 2.1
Degree Days

Year	Heating Degree Days	Cooling Degree Days	Total Degree Days
1993	4,560	1,585	6,145
1994	4,157	1,467	5,624
1995	4,323	1,701	6,024
1996	4,870	1,277	6,147
1997	4,639	1,206	5,844
1998	3,626	1,727	5,353
1999	3,935	1,503	5,438
2000	4,491	1,376	5,867
2001	4,035	1,502	5,536
2002	4,193	1,847	6,040
2003	4,351	1,229	5,580
2004	4,045	1,432	5,476
2005	4,192	1,675	5,867
2006	3,866	1,404	5,270
2007	3,973	2,047	6,020
2008	4,461	1,584	6,045
2009	4,273	1,303	5,575
2010	4,490	2,092	6,582
2011	3,986	1,734	5,720
2012	3,519	1,899	5,418
Average	4,199	1,579	5,778

[2] The National Oceanic and Atmospheric Administration computes degree days using a base of 65 degrees.

2.4 Power Supply

Meade County purchases power through sixteen (16) non-dedicated metering points on the Big Rivers transmission system. The tariffs under which Big Rivers bills MCRECC became effective September 1, 2011 upon approval by the Kentucky Public Service Commission.

2.5 Alternative Fuels

Electricity, natural gas, and propane are the primary heating fuels available in the service area. Some consumers use wood as a supplemental heating source as timber is readily available in western Kentucky. Refer to Big Rivers' End-Use and Energy Efficiency Survey (December 2007) for details regarding specific fuels used for heating, water heating, and air conditioning.

2.6 Economic Conditions

Energy consumption is influenced significantly over the long-term by economic conditions. As the local economy expands, population and employment increase, which translate into new cooperative consumers and additional energy sales and peak demand. The economy of western Kentucky depends primarily upon agriculture, manufacturing, services, and wholesale and retail trade. Coal mining and related operations are located throughout the state. Data used to represent economic activity for the service area was computed using county level information. Refer to section 4 for details regarding historical and projected growth in the economic variables included in this forecast.

3. Load Forecast Database

A load forecast database was created to house the data used in development of the load forecast. This section identifies the data collected and used in the study, sources from which the data were collected, and computations that were conducted. Four classes of data were collected for this study: (i) system data, (ii) price data, (iii) economic and demographic data, and (iv) meteorological data. The data elements collected under each category, as well as the source and time period, are presented in Table 3.1.

Table 3.1
Load Forecast Database

Class of Data	Source	Data Element	Units	Time Period
System	RUS Form 7	Number of Customers by RUS Classification	Meters	1970 – 2012
		Energy Sales by RUS Classification	kWh	1970 – 2012
		Revenue by RUS Classification	$	1970 – 2012
		Purchases	kWh	1970 – 2012
		Power Cost	$	1970 – 2012
		Peak Demand	NCP	1970 – 2012
Price Index	Moody's Analytics	Implicit Price Deflator, Gross National Product, 2004=100, Seasonally Adjusted	Index	1970.01 – 2012.12
Economic and Demographic	Moody's Analytics	Average Household Income	Real $	1970 – 2030
		Retail Sales	Real $	1970 – 2030
		Gross Regional Product (GRP)	Real $	1970 – 2030
		Total Population	Number of People	1970 – 2030
		Households	Number of Households	1970 – 2030
		Total Employment	Number of Employees	1970 – 2030
End-Use Data	Energy Information Administration	Unit Energy Consumption	kWh	2005-2030
	U.S. Census Big Rivers Surveys	Electric Market Share	Percent	1990, 2000, 2005 2007
Meteorological	National Oceanic and Atmospheric Administration	Heating and Cooling Degree Days	Base of 65°F	1970.01 – 2012.12
		Temperatures	Degrees F	1970.01 – 2012.12

3.1 Weather Data

Weather conditions recorded at Evansville, Indiana and Louisville, Kentucky were used to represent weather within the service territory. Heating and cooling degree days were used in projecting rural system energy sales. Data for years 1993-2012 are actual amounts, while data for 2013-2027 are equal to the average for the most recent 20 years.

3.2 End-Use Data

End-use energy data was obtained from the Department of Energy, Energy Information Administration (EIA). End-use market data is collected through customer surveys conducted by Big Rivers.

4. Forecast Assumptions

4.1 Forecast Methodology

Econometrics was the forecasting methodology employed in developing the energy sales forecasting models for the rural system class. When using econometric techniques to forecast energy sales, it is assumed that the relationships between energy consumption and those influential factors included in the models remain the same in both the historical and forecast periods.

4.2 Economic Outlook

It is assumed that growth in peak demand and energy requirements over time has been strongly influenced by economic conditions, including number of households, employment, total personal income, and retail sales. It is assumed that the influences of these factors will continue over the next sixteen years. The economic outlook used in developing the base case forecast was based on information obtained from Moody's Analytics. The outlook presented in this forecast reflects a relatively slow recovery from the economic recession followed by moderate growth over the extended long term. Projections for key economic data used in this forecast are presented in Table 4.1.

4.2.1 Number of Households

Number of households is an excellent measure of number of residential cooperative customers. The number of households in the service area has increased, while population has flattened, indicating that the average household size has declined over time. Growth in the number of households is projected to increase at an average rate of 0.5% per year.

4.2.2 Employment

Employment is a measure of economic activity and, with respect to this forecast, captures growth in the number of commercial accounts over time. Employment is projected to increase at an average compound rate of 0.8% per year over the 15 year forecast horizon, which is slightly higher than the growth over the most recent ten years. Employment projections are based on data obtained from Moody's Analytics.

4.2.3 Household Income

Household income, expressed in real dollars (adjusted for inflation using the GDP price index), represents income received from all sources. Household income provides a measure of consumer spending potential, including electricity. Household income is projected to increase at an average rate of 2.1% per year from 2012 to 2027. This rate of growth is slightly lower than growth over the previous 10 years.

4.2.4 Gross Regional Output

Gross regional product (GRP) is expressed in real dollars and represents the monetary value of all the finished goods and services produced within the service area and includes private and public consumption, government outlays, investments and exports less imports. GRP is an indicator of commercial and industrial energy sales. GRP for the service area is estimated by allocating state GRP to counties on the proportion of total state earnings of employees originating in the respective counties. County GRP estimates are constrained to the state total for each year. GRP in the service area is projected to increase at an average rate of 2.0% per year from 2012 through 2027. Projected growth in GRP is comparable to growth measured over the most recent 10 year period.

4.2.5 Retail Sales

Retail sales represent all sales dollars (adjusted for inflation using the personal consumption expenditures index), for all business establishments, including mail order and on-line sales. Retail sales provide a measure of commercial activity in the service area. Retail sales are projected to increase at an average rate of 1.9% over the forecast period.

4.3 Electric Appliance Market Shares

It is assumed that the market shares for major electric appliances (heating, cooling, water heating) will show minimal growth over the forecast horizon as the market shares for each are relatively high and have leveled in recent years. Electric markets shares are based on MCRECC's 2007 End-Use and Energy Efficiency Study and data obtained from the Energy Information Administration's Residential Energy Consumption Surveys.

4.4 Appliance Efficiencies

The average operating efficiencies of electric heating, electric water heating, and air conditioning systems are expected to continue to increase at a decreasing rate over the next 20 years. Historical and projected average appliance efficiencies were collected from the Energy Information Administration's 2013 Annual Energy Outlook.

4.5 Weather Conditions

It is assumed that the weather conditions measured at the Evansville, Indiana and Louisville, Kentucky stations are representative of the member cooperative service area. Heating and cooling degree days were used to represent weather conditions, and values for each year of the forecast period are based on the average amounts computed for the 20 year period ending in 2012.

4.6 Retail Electricity Prices

The average price of electricity to rural system customers is expected to increase, in real terms, by 39% by 2016 and then remain flat from 2016-2027.

4.7 Alternative Fuel Prices

Natural gas and liquid propane are the two primary alternative heating fuels in the service area. This load forecast contains no direct impacts of changes in alternative fuel prices as it was assumed that the changes in alternative fuel prices will not be significant enough over the long term to impact electricity consumption..

Table 4.1
Key Economic Variables

	Population (Ths.)	Households (Ths.)	Real Average Household Income	Real Gross Regional Product (Mil. $)	Real Retail Sales (Mil. $)	Employment (Ths.)
1990	146.2	58.8	$55	$3,422	$1,598	58.6
1991	147.1	59.4	$55	$3,510	$1,578	58.7
1992	148.4	60.0	$58	$3,752	$1,618	61.0
1993	149.9	60.8	$58	$3,871	$1,742	62.4
1994	151.4	61.6	$59	$4,051	$1,843	63.6
1995	152.6	62.3	$60	$4,330	$1,934	66.1
1996	153.8	62.9	$62	$4,570	$2,019	67.4
1997	154.6	63.4	$63	$4,849	$2,035	68.3
1998	155.2	63.9	$66	$4,987	$2,106	70.3
1999	155.8	64.3	$66	$5,201	$2,251	72.7
2000	156.0	64.6	$69	$5,035	$2,283	73.5
2001	155.2	64.3	$68	$4,892	$2,164	71.4
2002	154.8	64.2	$68	$4,969	$2,222	70.6
2003	155.0	64.3	$68	$4,969	$2,305	69.4
2004	154.8	64.3	$69	$4,955	$2,392	69.4
2005	155.4	64.6	$70	$5,043	$2,440	69.5
2006	155.8	64.8	$70	$5,203	$2,434	69.8
2007	156.1	65.1	$71	$5,209	$2,452	71.1
2008	156.4	65.3	$74	$5,203	$2,356	70.3
2009	156.8	65.6	$72	$5,065	$2,206	66.9
2010	157.1	65.7	$72	$5,388	$2,344	67.2
2011	157.4	66.0	$74	$5,430	$2,468	68.4
2012	157.7	66.2	$75	$5,550	$2,549	69.3
2013	157.9	66.4	$75	$5,710	$2,570	70.5
2014	158.1	66.7	$78	$5,954	$2,629	71.6
2015	158.2	67.0	$80	$6,202	$2,679	72.8
2016	158.4	67.3	$82	$6,421	$2,715	73.9
2017	158.6	67.6	$83	$6,619	$2,759	74.4
2018	158.8	67.9	$85	$6,805	$2,795	74.6
2019	159.1	68.1	$86	$6,991	$2,833	74.7
2020	159.4	68.3	$87	$7,188	$2,867	74.9
2021	159.7	68.4	$89	$7,394	$2,904	75.0
2022	160.0	68.5	$90	$7,603	$2,942	75.0
2023	160.2	68.6	$92	$7,812	$2,981	75.0
2024	160.5	68.6	$94	$8,019	$3,019	75.0
2025	160.8	68.6	$96	$8,223	$3,055	75.0
2026	161.0	68.6	$97	$8,422	$3,089	74.9
2027	161.3	68.6	$99	$8,619	$3,121	74.8
2028	161.5	68.6	$101	$8,814	$3,155	74.6

5. Short-Term Energy Sales and Peak Demand Forecast

The short-term forecast contains energy and demand projections by month for years 2013-2017. A summary of projected growth rates is presented in Table 5.1. Projected energy sales and peak demand requirements are presented by month in Appendix A, Tables – Short-Term Forecast.

Table 5.1
Short-Term Forecast
Annual Average Growth Rates

Description	2013	2014	2015	2016
Residential Sales	1.4%	-1.2%	-1.4%	-0.4%
Small Commercial Sales	4.6%	-1.3%	-1.5%	-0.5%
Street Lights Sales	0.1%	0.2%	0.2%	0.2%
Rural System Sales	2.6%	-1.4%	-1.6%	-0.6%
Rural System 1-Hour Peak	-5.1%	0.1%	0.0%	0.5%

5.1 Monthly Energy Sales Forecast

Regression models were developed to project monthly energy consumption and number of customers for the rural system classification. Energy sales projections for the direct serve class were developed individually by customer based on historic trends, operating characteristics, and information made available to the cooperative by individual customers.

5.2 Monthly Peak Demand Forecast

Projections of Big Rivers rural system CP demand were developed on a monthly basis using an econometric model and then allocated to MCRECC and the other member cooperatives based on historical contributions to the Big Rivers peak. MCRECC's contribution to the Big Rivers rural system peak was increased by 0.2% to reflect MCRECC's 1-hour rural system peak demand.

6. Long-Term Energy Sales and Peak Demand Forecast

The load and energy projections presented in this section show that energy sales and peak demand requirements are expected to increase at average compound rates of 1.0% and 1.5%, respectively, from 2010 to 2025. The primary impact on growth in system sales will be increases in the number of residential consumers, which are expected to increase at a rate of 0.9% per year. Tables presenting the long-term energy sales and peak demand forecast are included in Appendix B, Tables - Long-Term Forecast.

Table 6.1
Load Forecast – Average Annual Growth Rates

	2012-2017	2012-2027
Total System Energy Requirements	-0.4%	0.3%
Total System Peak Demand (CP)	-0.7%	0.1%
Residential Energy Sales	-0.2%	0.5%
Residential Consumers	1.0%	0.9%
Small Commercial Energy Sales	0.4%	0.3%
Small Commercial Consumers	1.0%	0.7%
Public Street Lighting Sales	0.2%	0.2%

6.1 Forecast Methodology

The forecast was developed using econometrics and informed judgment. Details on econometric modeling are presented in section 8 of this report. The econometric model specifications discussed in this section, including statistical outputs, are presented in Appendix D, Econometric Model Specifications.

Econometric models were used to project number of customers and average energy use per customer for the rural system class. Informed judgment was used to forecast energy sales of each large commercial customer included in the direct serve class. An econometric model was developed to project Big Rivers' rural system coincident peak demand for 2013-2017. Projections for these years were allocated to MCRECC and the other member cooperatives based on historical contributions to Big Rivers' peak. Rural peak demand for years 2018-2027 was projected by applying the derived 2017 load factor to the rural system energy forecast. Demand was projected on a monthly basis and provided the means for developing projections of summer and winter peaks from one model. The summer season includes months June through September, and the winter season includes months January, February, and March of the current year and December from the prior year.

6.2 Forecast Results

6.2.1 Rural System

The rural system class consists of all customers receiving retail service from MCRECC. Weather normalized class sales over the past ten years increased at an average rate of 1.6% per year; however, growth in the most recent five years has been relatively flat. Sales are projected to increase at a rate of 0.4% per year from 2012 through 2027. Growth in average consumption per customer is expected to be low in future years due primarily to the vintaging of heating and cooling systems, energy conservation, and a slowing of increases in electric heating market share. Customer growth is projected at 0.9% per year. After declines in the near term due to sharp price increases, energy sales are projected to increase at an average rate of 0.6% per year from 2016-2027.

The rural system sales forecast is based on the product of number of customers and average use per customer. The customer forecast is based on an econometric model that specifies a relationship between number of customers and number of households. An autoregressive parameter was also included in the consumer model to correct for serial autocorrelation.

The average monthly energy consumption per customer forecast is based on an econometric model that specifies a relationship between average use, average household income, real price of electricity, heating degree days, cooling degree days, electric heating market share, air conditioning market share, and the appliance efficiencies of electric heating and cooling systems. Projections of average household income were obtained from Moody's Analytics. Projected retail prices were developed by Big Rivers. Heating and cooling degree days were collected from the National Oceanic and Atmospheric Administration, and projected values represent averages for the 20 years ending 2012. Appliance market shares are based on appliance saturation surveys. Projected appliance efficiencies were obtained from the Energy Information Administration's 2013 Annual Energy Outlook. Expected impacts on average use over the long term include:

- Leveling in electric heating, electric air conditioning, and electric water heating market share;
- Increases in average home size, which result in higher heating and cooling load as well as increases in "plug-in" loads;
- Increases in "plug-in" loads, regardless of home size;
- Growth in average household income, which increases disposable income available to purchase electric goods;
- Increased efficiencies in new electric appliances;
- Regulatory energy standards;
- Energy conservation.

6.2.2 Direct Serve Commercial & Industrial

MCRECC currently has no direct serve customers, defined as any commercial and industrial customer that is served directly from a dedicated point of delivery.

6.3 Distribution Losses

Distribution losses on the rural system have averaged 5.5% over the most recent ten-year period and are projected to average 5.0% from 2012 through 2027.

6.4 Peak Demand

This forecast contains projections of rural system non-coincident peak (NCP) demand, rural system station NCP, and total system non-coincident peak demand. Rural system NCP represents the maximum 1-hour, aggregated, simultaneous load of all rural substations on the system. Rural system station NCP demand represents the sum of the maximum individual substation demands in a given month without respect to date or time. Peak demand projections were developed on a summer and winter seasonal basis.

Rural system NCP demand is projected to decline in the near term and then increase at an average rate of 0.6% from 2016-2027, reaching 121 MW by 2027. Rural NCP is expected to continue a trend of occurring during the winter season. The aggregate demand of all point of delivery NCPs is projected to reach 132 MW by 2027. Total system NCP for MCRECC is equal to rural system NCP since the cooperative has no direct serve customers

The coincidence factor between MCRECC's contribution to Big Rivers' 1-hour rural system peak and MCRECC's 1-hour peak averaged 0.998 for 2007-2012. This average was applied to MCRECC's projected load coincident with Big Rivers to computed MCRECC's 1-hour rural system NCP. A diversity factor of 107% was applied to rural system NCP to compute rural system station NCP.

An econometric model was developed to project rural system peak demand at the Big Rivers level, which was then allocated to MCRECC and the other member cooperatives based on historical contributions to the Big Rivers peak. The model specifies a relationship between peak demand, energy requirements, peak day degree days, degree days for the day prior to the peak day, and binary variables equal to 1 for the months of March, April, May, and October, and 0 in all other months.

6.5 Energy Efficiency Program Impacts

The Cooperative recently implemented energy efficiency programs that will impact energy sales and peak demand over the forecast horizon. A comprehensive energy efficiency and demand-side management

study was conducted in 2010 by Big Rivers Electric Corporation[3], and the seven programs listed in Table 6.2 were concluded to be economically feasible. Details for each of the seven programs are described in that report.

Table 6.2
Energy Efficiency Programs

Residential Programs	Commercial Programs
Lighting	Lighting
Efficient Appliances	HVAC
Advanced Technologies	
Weatherization	
New Construction	

The portfolio of programs was designed at the Big Rivers level rather than at each of Big Rivers' three member cooperatives. Total program potential through 2020 is estimated at 1 percent of rural system energy sales and 1.4 percent of rural system peak demand (winter peak). Energy and peak savings are based on total funding by Big Rivers of $11.2 million, consisting of $1 million in 2011, followed by increases of 2.5 percent annually from 2012-2020.

The Big Rivers study examined over 200 energy efficiency measure permutations in the residential, commercial and industrial sectors combined. The findings suggest that Big Rivers could save up to 31.6% of total energy sales and 40.1% of winter peak demand by pursuing "Economic Potential" energy efficient technologies. In the base case "Achievable Potential" scenario, savings of approximately 8.8% of total energy sales (311,744 MWh) and 11.6% of winter peak demand (79.5 MW) are possible by 2020.

The example programs analyzed in the "Program Potential" scenario achieve estimated savings in 2020 of 34,845 MWh and peak load reductions of 9.5 MW in the winter and 7.2 MW in the summer at the end-consumer level for all three Big Rivers member cooperatives in the aggregate. This represents approximately 1.0% of total energy sales, 1.4% of peak demand in the winter, and 1.0% of peak demand in the summer by 2020.

Table 6.3 presents MCRECC's forecast of rural system energy and peak demand, estimated program impacts at MCRECC, and projected rural system requirements adjusted for the programs.

[3] Demand-Side Management (DSM) Potential Report for Big Rivers Electric Corporation, October 2010.

Table 6.2
Energy Efficiency Programs

Year	Rural Energy Sales (MWh)	Energy Efficiency Program Impact (MWh)	Adjusted Energy Sales (MWh)	Rural Peak Demand (MW)	Energy Efficiency Program Impact (MW)	Adjusted Peak Demand (MW)
2013	478,360	822	477,538	113	0	113
2014	472,601	1,569	471,031	113	0	113
2015	465,894	2,334	463,560	113	1	113
2016	463,775	3,119	460,655	114	1	113
2017	467,796	3,920	463,875	115	1	114
2018	471,403	4,589	466,814	116	1	115
2019	474,881	5,291	469,590	117	1	115
2020	478,292	5,933	472,359	118	2	116
2021	482,116	6,540	475,576	119	2	117
2022	485,884	7,100	478,784	120	2	118
2023	489,522	7,649	481,873	120	2	118
2024	492,923	8,164	484,759	121	2	119
2025	496,288	8,689	487,599	122	2	120
2026	499,657	9,212	490,445	123	3	120
2027	502,930	9,733	493,197	124	3	121

Program Impact MWh includes distribution losses.

7. Range Forecasts

The base case projections reflect expected economic growth for the area as well as average weather conditions. To address the inherent uncertainty related to these factors, long-term high and low range projections were developed. The range forecasts reflect the energy and demand requirements corresponding to more optimistic or pessimistic economic growth and to mild or extreme weather conditions. Such forecast scenarios are useful for various planning functions. Four scenarios were generated: (i) base case economics and mild weather, (ii) base case economics and extreme weather, (iii) optimistic economics and normal weather, and (iv) pessimistic economics and normal weather.

The optimistic and pessimistic economy scenarios for rural system sales were developed by revising the economic inputs in the forecast models. The growth rate for number of households was adjusted to reflect the base case growth rate ±1 standard deviation of the historical growth rates. The growth rate for average household income was adjusted to reflect the base case growth rate ±1%.

The extreme and mild weather scenarios for rural system sales were developed by revising the heating and cooling degree day inputs in the forecasting models. The extreme and mild degree day values were set to the actual values from the historical years when total degree days established the highest and lowest totals. For the extreme case, degree days were set at the values in 1980; for the mild case, they were set at values in 1990.

The range forecasts are presented in table form in Appendix C, Range Forecasts.

8. Forecast Methodology

Econometric models were used to forecast the number of rural system customers and energy use per customer. Econometrics was also used to project rural system peak demand. Energy sales and peak demand for direct serve customers were developed individually for each customer using information available from Kenergy.

8.1 Forecasting Process

Econometric models have the advantage of explicitly tracking the underlying causes of trends and patterns in historical data. They provide information that allows Cooperative management to estimate the impacts of certain factors on energy consumption. The methodology has proven very useful for simulation and "what-if" study. In addition, econometric models can be used to identify sources of forecasting error. On the other hand, econometric models require considerable amounts of data, and when used for forecasting, force the assumption that relationships developed during historical period will remain the same throughout the forecast horizon. Econometric models have been developed to project residential and small commercial requirements as these two consumer classifications account for the overwhelming majority of total system energy sales.

Expert opinion is used when other techniques are ineffective. This approach is utilized to project industrial requirements. Projections are made individually for each account and are based upon information collected from the account's management. The advantages of this method include simplicity and expert input. The major disadvantage is that forecasts based on expert opinion can be biased by one person's opinion.

8.2 Econometrics

Econometrics is a forecasting technique in which the relationship between a variable of interest and one or more influential factors is quantified. Econometrics is based on an area of statistical theory known as regression analysis. Regression analysis is a statistical technique for modeling and testing the relationship between two or more variables. The general form of an econometric model can be expressed as:

$$y_t = ß_0 + ß_1(x_{t1}) + ß_2(x_{t2}) + ß_3(x_{t3}) + ...ß_k(x_{tn}) + e_t$$

where:

t	= time element
y_t	= the dependent variable
$x_1, x_2, ... x_n$	= the set of independent variables
$ß_0, ß_1, ... ß_k$	= the set of parameter coefficients
e_t	= modeling error

8.2.1 Model Specification

In the context of this report, model specification refers to the process of defining: (i) the explanatory variables to incorporate in the model and (ii) the form of the model. Explanatory variables, also referred to as independent or exogenous variables, represent factors which are hypothesized to influence a change in the dependent, or endogenous variables. Definition of the explanatory variables should be based upon sound economic principles and assumptions. For example, it is reasonable to assume that local economic conditions produce significant impacts on energy consumption. Variables such as a gross state product and per capita income are often used as explanatory variables to represent, or indicate, the level of economic activity.

In the utility industry, an econometric model is usually developed using some combination of economic, demographic, price, and meteorological variables. It is desirable to also include specific information in the econometric model concerning the end-users, or consumers, of electricity; this information may be in the form of appliance saturation levels or indicators of consumer attitudes toward conservation. Inclusion of these types of explanatory variables in a model enables the forecaster to identify the major factors influencing periodic changes in a variable such as peak demand or energy sales. Inclusion of these variables also makes possible a better estimation of the impact these factors have on changes in consumption.

Models sometime include as an independent variable the lag of the dependent variable. Such models are commonly referred to as adaptive expectation or Koyck distributed lag models. L.M. Koyck demonstrated in 1954 that this specification is equivalent to an infinite geometric lag model. Under such a specification, the assumption is made that the impacts of the explanatory variables included in the model are significant over a period of years, with the current year weighted the heaviest, the previous year weighted less, and so on until the earliest year has no impact.

Econometric models can be specified in linear or log-linear form. When the model is specified in linear form, the assumption is made that elasticities are not constant, and that a unit change in a given explanatory variable will influence a change in the dependent variable equal to the unit change in the explanatory variable times the corresponding coefficient.

When the model variables are expressed in natural log form, it is assumed that elasticities are constant and that a percentage change in a given explanatory variable influences a constant percentage change in the dependent variable based upon the coefficient of the given explanatory variable. A second assumption made when specifying a log-linear model is that changes in the dependent variable are greater at lower levels of the explanatory variables than at higher levels. With respect to energy consumption, this

assumption applies primarily to increases in income. Consumption increases rapidly when income increases from lower levels as consumers purchase electric goods and services; however, once income reaches a certain level, most high use electric end-uses have been purchased. As a result, additional increases in income tend to have less impact on consumption than the same level of increase from a lower level of income.

8.2.2 Model Estimation

Once a hypothesized relationship or model is specified, historical data are used to estimate the model parameters, $ß_0$, $ß_1$, $ß_2$,... $ß_k$ and quantify the empirical relationship that exists between the variable of interest and the chosen set of explanatory variables. Investigation of the relationship between the dependent variable, y, and an independent variable, x, leads to one of three conclusions: (i) a change in variable x impacts no change in variable y, and a change in variable y impacts no change in variable x, (ii) a change in variable x impacts a change in variable y, while a change in variable y impacts no change in variable x, and (iii) a change in variable x impacts a change in variable y, and a change in variable y impacts a change in variable x. Under conclusion (i), no relationship exits and the explanatory variable should be omitted from further analysis. Under conclusion (ii) variable x is said to be exogenous; its value is determined outside of the marketplace. Under conclusion (iii), both variables x and y are said to be endogenous; both are determined within the marketplace.

The appropriate regression technique to employ in estimating the model depends upon the relationship between the dependent and independent variables. When all explanatory variables are exogenous, ordinary least squares is appropriate. When one or more of the explanatory variables are endogenous, two-stage least squares is appropriate.

8.2.3 Ordinary Least Squares (OLS)

Regression analysis is a statistical procedure that quantifies the relationship between two or more variables. Based upon available input data, a regression equation provides a means of estimating values of a dependent variable. The difference between the actual value of the dependent variables and its regression based estimated value is the error term, generally referred to as the residual. Ordinary least squares is the technique employed which minimizes the sum of the squared errors. A tentative least square model for residential usage can be expressed as:

$$RUSE_t = ß_0 + ß_1(PCAP_t) - ß_2(RRPE_t) + ß_3(CDD_t) + ß_4(HDD_t) + e_t$$

$RUSE_t$ = residential energy use in year t
$PCAP_t$ = per capita income in year t
$RRPE_t$ = price of electricity in year t

CDD_t = number of cooling degree days in year t
HDD_t = number of heating degree days in year t
e_t = represents the unexplained error in year t

8.2.4 Model Validation

In this study, the model validation process involved evaluation of the models for theoretical consistency, statistical validity, and estimating accuracy. From a theoretical standpoint, the model should be consistent with economic theory and specify a relationship that addresses those factors known to influence energy usage. For models that address customer growth, it is appropriate to include a demographic variable such as population, number of households, or employment to explain growth in the number of consumers. For models that address changes in energy sales, more types of variables are needed. An economic variable such as income explains customers' ability to purchase electric goods and services. Weather variables explain changes in consumption due to weather conditions. Price of electricity and price of electricity substitutes measure consumer conservation. Appliance saturation levels measure change in consumption due to changes in end-use equipment. Lagged dependent variables account for the lagged effect of all explanatory variables from previous periods.

The coefficients for each parameter included in the models were tested to insure the proper sign (+ or -). The number of customers increases with population or some other demographic variable; therefore, the sign of demographic variables in the customer model should be positive. There is a direct relationship between energy consumption and income; as income increases, consumption will increase as well. The sign on the income variable in the energy consumption model should be positive. The sign on the price of natural gas, or some other electricity substitute should be positive. Energy consumption increases as weather conditions, as measured by degree days, become more extreme; the sign of both the heating and cooling degree day variables should be positive. There is an indirect relationship between energy consumption and price of electricity. As price increases, consumers tend to conserve energy, and consumption decreases.

The statistical validity of each model is based on two criteria. One, each model was examined to determine the statistical significance of each explanatory variable. Two, tests were performed to identify problems resulting from autocorrelation and/or multicollinearity. An analysis of the models' residuals was performed to determine whether mathematical transformations of the independent variables were required.

Each model was evaluated with respect to its estimating accuracy. The standard error of regression, a statistic generated during the regression analysis, was used to measure accuracy. Tentative models that initially had low degrees of accuracy were tested using alternative specifications.

8.2.5 Model Building Process

The development of forecasts using econometric modeling is a multi-step process. A substantial portion of the effort involved in effective model building is the collection of reliable data for both the historical and projected periods. It is critical, in building models which explain changes in load growth, that the appropriate influential factors be considered, and that the correct explanatory variables be collected to quantify those influential factors.

There are many factors that influence consumers to change their usage levels of electricity. A partial list would include changes in the economy, new industry in an area, key industry leaving an area, population shifts, temperature, unemployment levels, attitudes toward conservation, precipitation amounts, improved appliance efficiencies, political events, inflation, and increases in the price of electricity. The relationship between these factors and energy usage is further complicated since most of these factors are interrelated; for example, when inflation is rampant, increases in the price of electricity may not significantly lower usage by the consumer.

After all necessary data are collected, the model building process begins. During this process, numerous models containing various combinations of candidate explanatory variables are estimated and tested. Each tentative model is examined to see if the explanatory variables included in that particular model specification contribute significantly to the "explanation" of the variable of interest. For those models that pass this preliminary examination, the appropriate regression diagnostic tools are used to test the validity of the underlying statistical assumptions. Included in this examination are tests for autocorrelation and multicollinearity.

The tentative models are tested, not only for statistical reliability, but also for reasonableness of practical interpretation. For example, the model should not show that the effect of extremely cold winter weather has been a reduction in usage. The potential performance of a tentative model for forecasting purposes is also investigated. A model that contained only one explanatory variable (one which measured only weather effects, for example) might not be a good predictive model.

If a tentative model is found to have significant statistical problems, or if the model is simply found to be misspecified, the model is discarded, and a new tentative model is specified. Analysis of the residuals (actual minus estimated values) from the discarded model is helpful in the reformulation of the model and might indicate whether some mathematical transformation of the existing set of explanatory variables is required. This process of specification, estimating, and reformulation continues until a model is found which is statistically sound and which has a sound practical interpretation as well.

8.2.6 Final Model Selection

If a model is found to be a good representation of the proposed relationship, and if it is also determined to be statistically sound, it can be used to estimate values of the variable of interest in future time periods. It is important to note that the forecaster makes the assumption that the modeled relationship between the response and explanatory variables remains the same in the forecast period as it was measured in the historical period. Forecasts are calculated by inserting projected values of the explanatory variables into the estimated model equation. Different forecast scenarios can also be considered by incorporating different values of forecasted explanatory variables. Managerial judgment, based on practical estimations of future trends, can then be used to select the most appropriate and reasonable forecast.

Appendix A
Tables – Short-Term Forecast

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LOAD FORECAST - BASE CASE

TOTAL SYSTEM REQUIREMENTS

Year	Month	Consumers	Sales (MWh)	Purchases (MWh)	DSM Adj. Purchases (MWh)	NCP (kW)	DSM Adj. NCP (kW)	Load Factor
2012	Jan	28,529	46,982	49,732	49,732	104,852	104,852	63.8%
2012	Feb	28,505	42,268	42,332	42,332	99,316	99,316	57.3%
2012	Mar	28,485	28,623	32,146	32,146	82,753	82,753	52.2%
2012	Apr	28,500	27,858	29,298	29,298	68,521	68,521	57.5%
2012	May	28,652	30,851	35,014	35,014	86,301	86,301	54.5%
2012	Jun	28,545	37,684	38,409	38,409	101,566	101,566	50.8%
2012	Jul	28,630	45,768	49,246	49,246	105,717	105,717	62.6%
2012	Aug	28,645	40,319	41,416	41,416	96,209	96,209	57.9%
2012	Sep	28,653	31,758	32,110	32,110	84,547	84,547	51.0%
2012	Oct	28,641	27,530	31,808	31,808	69,346	69,346	61.7%
2012	Nov	28,628	37,539	39,652	39,652	93,958	93,958	56.7%
2012	Dec	28,689	41,375	44,498	44,498	93,004	93,004	64.3%
2013	Jan	28,683	50,578	53,240	53,148	112,771	112,567	63.5%
2013	Feb	28,657	42,815	45,068	44,990	99,635	99,430	60.8%
2013	Mar	28,639	37,893	39,887	39,818	82,147	81,942	65.3%
2013	Apr	28,632	29,225	30,763	30,710	65,634	65,430	63.1%
2013	May	28,668	29,908	31,482	31,428	71,483	71,338	59.2%
2013	Jun	28,696	35,569	37,441	37,377	87,360	87,215	57.6%
2013	Jul	28,734	41,788	43,987	43,912	95,512	95,367	61.9%
2013	Aug	28,773	40,804	42,951	42,877	92,833	92,688	62.2%
2013	Sep	28,794	31,291	32,938	32,882	84,063	83,918	52.7%
2013	Oct	28,805	29,710	31,273	31,220	65,740	65,595	64.0%
2013	Nov	28,808	36,222	38,129	38,063	85,130	84,926	60.2%
2013	Dec	28,846	48,640	51,200	51,112	100,395	100,191	68.6%
2014	Jan	28,927	50,197	52,839	52,664	113,050	112,642	62.8%
2014	Feb	28,932	42,401	44,633	44,485	99,914	99,506	60.1%
2014	Mar	28,922	37,431	39,401	39,270	82,408	81,999	64.4%
2014	Apr	28,949	28,690	30,200	30,100	65,882	65,474	61.8%
2014	May	29,006	29,384	30,930	30,827	71,715	71,426	58.0%
2014	Jun	29,003	35,057	36,902	36,779	87,588	87,299	56.6%
2014	Jul	29,078	41,387	43,565	43,420	95,742	95,453	61.1%
2014	Aug	29,091	40,356	42,480	42,339	93,064	92,775	61.3%
2014	Sep	29,107	30,748	32,366	32,259	84,294	84,005	51.6%
2014	Oct	29,117	29,170	30,705	30,603	65,986	65,697	62.6%
2014	Nov	29,118	35,773	37,656	37,531	85,393	84,985	59.4%
2014	Dec	29,175	48,376	50,922	50,753	100,664	100,255	68.0%
2015	Jan	29,262	49,913	52,540	52,277	113,283	112,692	62.4%
2015	Feb	29,271	42,008	44,219	43,998	100,147	99,555	59.4%
2015	Mar	29,265	36,955	38,900	38,705	82,625	82,034	63.4%
2015	Apr	29,296	28,067	29,544	29,396	66,088	65,497	60.3%
2015	May	29,357	28,722	30,234	30,082	71,907	71,470	56.6%
2015	Jun	29,356	34,412	36,223	36,042	87,778	87,341	55.5%
2015	Jul	29,433	40,789	42,936	42,721	95,934	95,497	60.1%
2015	Aug	29,447	39,752	41,845	41,635	93,257	92,820	60.3%
2015	Sep	29,463	30,083	31,667	31,508	84,487	84,049	50.4%
2015	Oct	29,472	28,548	30,050	29,900	66,190	65,753	61.1%
2015	Nov	29,473	35,278	37,134	36,948	85,612	85,020	58.4%
2015	Dec	29,527	48,072	50,602	50,349	100,887	100,295	67.5%
2016	Jan	29,612	50,021	52,654	52,300	114,090	113,295	62.0%
2016	Feb	29,619	41,994	44,204	43,907	100,953	100,158	58.9%
2016	Mar	29,612	36,848	38,787	38,526	83,378	82,583	62.7%
2016	Apr	29,640	27,806	29,270	29,073	66,803	66,008	59.2%
2016	May	29,699	28,423	29,919	29,718	72,575	71,985	55.5%
2016	Jun	29,697	34,132	35,929	35,687	88,437	87,847	54.6%
2016	Jul	29,772	40,556	42,691	42,404	96,599	96,009	59.4%
2016	Aug	29,785	39,511	41,590	41,310	93,925	93,336	59.5%
2016	Sep	29,800	29,775	31,342	31,132	85,154	84,565	49.5%
2016	Oct	29,809	28,277	29,765	29,565	66,899	66,309	59.9%
2016	Nov	29,810	35,129	36,978	36,729	86,369	85,574	57.7%
2016	Dec	29,865	48,113	50,645	50,305	101,661	100,866	67.0%

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LOAD FORECAST - BASE CASE

RURAL SYSTEM REQUIREMENTS

Year	Month	Energy (MWh)	DSM Adj. Energy (MWh)	NCP (kW)	DSM Adj. NCP (kW)	Load Factor
2012	Jan	49,731	49,731	104,852	104,852	63.7%
2012	Feb	42,332	42,332	99,316	99,316	57.3%
2012	Mar	32,116	32,116	82,753	82,753	52.2%
2012	Apr	29,295	29,295	68,521	68,521	57.5%
2012	May	35,012	35,012	86,301	86,301	54.5%
2012	Jun	38,376	38,376	101,566	101,566	50.8%
2012	Jul	49,257	49,257	105,717	105,717	62.6%
2012	Aug	41,418	41,418	96,209	96,209	57.9%
2012	Sep	32,134	32,134	84,547	84,547	51.1%
2012	Oct	31,787	31,787	69,346	69,346	61.6%
2012	Nov	39,654	39,654	93,958	93,958	56.7%
2012	Dec	44,498	44,498	93,004	93,004	64.3%
2013	Jan	53,240	53,148	112,771	112,567	63.5%
2013	Feb	45,068	44,990	99,635	99,430	60.8%
2013	Mar	39,887	39,818	82,147	81,942	65.3%
2013	Apr	30,763	30,710	65,634	65,430	63.1%
2013	May	31,482	31,428	71,483	71,338	59.2%
2013	Jun	37,441	37,377	87,360	87,215	57.6%
2013	Jul	43,987	43,912	95,512	95,367	61.9%
2013	Aug	42,951	42,877	92,833	92,688	62.2%
2013	Sep	32,938	32,882	84,063	83,918	52.7%
2013	Oct	31,273	31,220	65,740	65,595	64.0%
2013	Nov	38,129	38,063	85,130	84,926	60.2%
2013	Dec	51,200	51,112	100,395	100,191	68.6%
2014	Jan	52,839	52,664	113,050	112,642	62.8%
2014	Feb	44,633	44,485	99,914	99,506	60.1%
2014	Mar	39,401	39,270	82,408	81,999	64.4%
2014	Apr	30,200	30,100	65,882	65,474	61.8%
2014	May	30,930	30,827	71,715	71,426	58.0%
2014	Jun	36,902	36,779	87,588	87,299	56.6%
2014	Jul	43,565	43,420	95,742	95,453	61.1%
2014	Aug	42,480	42,339	93,064	92,775	61.3%
2014	Sep	32,366	32,259	84,294	84,005	51.6%
2014	Oct	30,705	30,603	65,986	65,697	62.6%
2014	Nov	37,656	37,531	85,393	84,985	59.4%
2014	Dec	50,922	50,753	100,664	100,255	68.0%
2015	Jan	52,540	52,277	113,283	112,692	62.4%
2015	Feb	44,219	43,998	100,147	99,555	59.4%
2015	Mar	38,900	38,705	82,625	82,034	63.4%
2015	Apr	29,544	29,396	66,088	65,497	60.3%
2015	May	30,234	30,082	71,907	71,470	56.6%
2015	Jun	36,223	36,042	87,778	87,341	55.5%
2015	Jul	42,936	42,721	95,934	95,497	60.1%
2015	Aug	41,845	41,635	93,257	92,820	60.3%
2015	Sep	31,667	31,508	84,487	84,049	50.4%
2015	Oct	30,050	29,900	66,190	65,753	61.1%
2015	Nov	37,134	36,948	85,612	85,020	58.4%
2015	Dec	50,602	50,349	100,887	100,295	67.5%
2016	Jan	52,654	52,300	114,090	113,295	62.0%
2016	Feb	44,204	43,907	100,953	100,158	58.9%
2016	Mar	38,787	38,526	83,378	82,583	62.7%
2016	Apr	29,270	29,073	66,803	66,008	59.2%
2016	May	29,919	29,718	72,575	71,985	55.5%
2016	Jun	35,929	35,687	88,437	87,847	54.6%
2016	Jul	42,691	42,404	96,599	96,009	59.4%
2016	Aug	41,590	41,310	93,925	93,336	59.5%
2016	Sep	31,342	31,132	85,154	84,565	49.5%
2016	Oct	29,765	29,565	66,899	66,309	59.9%
2016	Nov	36,978	36,729	86,369	85,574	57.7%
2016	Dec	50,645	50,305	101,661	100,866	67.0%

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LOAD FORECAST - BASE CASE

RESIDENTIAL CLASSIFICATION

Year	Month	Consumers	Energy Sales (MWh)	Average Use Per Month
2012	Jan	26,446	39,337	1,487
2012	Feb	26,441	34,675	1,311
2012	Mar	26,420	21,935	830
2012	Apr	26,437	20,640	781
2012	May	26,486	23,478	886
2012	Jun	26,471	29,636	1,120
2012	Jul	26,540	37,061	1,396
2012	Aug	26,544	30,939	1,166
2012	Sep	26,551	23,767	895
2012	Oct	26,553	20,628	777
2012	Nov	26,547	30,059	1,132
2012	Dec	26,600	34,247	1,287
2013	Jan	26,584	42,634	1,604
2013	Feb	26,560	34,671	1,305
2013	Mar	26,542	29,849	1,125
2013	Apr	26,536	21,598	814
2013	May	26,569	22,418	844
2013	Jun	26,596	27,342	1,028
2013	Jul	26,631	33,111	1,243
2013	Aug	26,667	31,250	1,172
2013	Sep	26,686	22,419	840
2013	Oct	26,696	22,113	828
2013	Nov	26,699	28,425	1,065
2013	Dec	26,734	40,483	1,514
2014	Jan	26,808	42,312	1,578
2014	Feb	26,812	34,335	1,281
2014	Mar	26,803	29,484	1,100
2014	Apr	26,828	21,201	790
2014	May	26,881	22,023	819
2014	Jun	26,878	26,946	1,003
2014	Jul	26,947	32,792	1,217
2014	Aug	26,960	30,906	1,146
2014	Sep	26,974	22,028	817
2014	Oct	26,983	21,709	805
2014	Nov	26,985	28,071	1,040
2014	Dec	27,037	40,263	1,489
2015	Jan	27,118	42,072	1,551
2015	Feb	27,126	34,016	1,254
2015	Mar	27,121	29,108	1,073
2015	Apr	27,150	20,738	764
2015	May	27,206	21,525	791
2015	Jun	27,206	26,449	972
2015	Jul	27,277	32,317	1,185
2015	Aug	27,290	30,442	1,116
2015	Sep	27,304	21,550	789
2015	Oct	27,313	21,244	778
2015	Nov	27,313	27,681	1,013
2015	Dec	27,364	40,009	1,462
2016	Jan	27,443	42,163	1,536
2016	Feb	27,449	34,004	1,239
2016	Mar	27,442	29,023	1,058
2016	Apr	27,469	20,544	748
2016	May	27,523	21,300	774
2016	Jun	27,521	26,233	953
2016	Jul	27,591	32,132	1,165
2016	Aug	27,604	30,257	1,096
2016	Sep	27,617	21,328	772
2016	Oct	27,626	21,041	762
2016	Nov	27,626	27,564	998
2016	Dec	27,677	40,043	1,447

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LOAD FORECAST - BASE CASE

SMALL COMMERCIAL CLASSIFICATION

Year	Month	Consumers	Energy Sales (MWh)	Average Use Per Month
2012	Jan	2,077	7,557	3,638
2012	Feb	2,058	7,505	3,647
2012	Mar	2,059	6,600	3,206
2012	Apr	2,057	7,130	3,466
2012	May	2,160	7,287	3,374
2012	Jun	2,068	7,961	3,850
2012	Jul	2,084	8,620	4,136
2012	Aug	2,092	9,291	4,441
2012	Sep	2,093	7,900	3,775
2012	Oct	2,079	6,816	3,279
2012	Nov	2,075	7,394	3,563
2012	Dec	2,083	7,041	3,380
2013	Jan	2,088	7,856	3,763
2013	Feb	2,086	8,056	3,862
2013	Mar	2,084	7,956	3,817
2013	Apr	2,084	7,540	3,618
2013	May	2,087	7,403	3,548
2013	Jun	2,089	8,140	3,897
2013	Jul	2,091	8,589	4,107
2013	Aug	2,094	9,466	4,520
2013	Sep	2,096	8,785	4,192
2013	Oct	2,097	7,510	3,582
2013	Nov	2,097	7,710	3,677
2013	Dec	2,100	8,069	3,843
2014	Jan	2,105	7,797	3,703
2014	Feb	2,106	7,978	3,789
2014	Mar	2,105	7,859	3,734
2014	Apr	2,107	7,402	3,513
2014	May	2,111	7,273	3,445
2014	Jun	2,111	8,023	3,801
2014	Jul	2,116	8,507	4,019
2014	Aug	2,117	9,362	4,422
2014	Sep	2,118	8,632	4,075
2014	Oct	2,119	7,373	3,479
2014	Nov	2,119	7,615	3,593
2014	Dec	2,123	8,026	3,780
2015	Jan	2,130	7,753	3,640
2015	Feb	2,130	7,904	3,710
2015	Mar	2,130	7,759	3,643
2015	Apr	2,132	7,241	3,396
2015	May	2,137	7,109	3,327
2015	Jun	2,137	7,875	3,686
2015	Jul	2,142	8,384	3,914
2015	Aug	2,143	9,222	4,303
2015	Sep	2,144	8,445	3,938
2015	Oct	2,145	7,216	3,364
2015	Nov	2,145	7,509	3,501
2015	Dec	2,149	7,975	3,711
2016	Jan	2,155	7,770	3,605
2016	Feb	2,156	7,902	3,665
2016	Mar	2,155	7,737	3,590
2016	Apr	2,157	7,174	3,325
2016	May	2,162	7,035	3,255
2016	Jun	2,161	7,811	3,614
2016	Jul	2,167	8,336	3,847
2016	Aug	2,168	9,166	4,228
2016	Sep	2,169	8,359	3,854
2016	Oct	2,170	7,147	3,294
2016	Nov	2,170	7,477	3,446
2016	Dec	2,174	7,982	3,672

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LOAD FORECAST - BASE CASE

STREET LIGHTING CLASSIFICATION

Year	Month	Consumers	Energy Sales (MWh)	Average Use Per Month
2012	Jan	6	88	14,660
2012	Feb	6	88	14,672
2012	Mar	6	88	14,712
2012	Apr	6	88	14,639
2012	May	6	86	14,290
2012	Jun	6	86	14,414
2012	Jul	6	87	14,421
2012	Aug	9	89	9,938
2012	Sep	9	90	10,013
2012	Oct	9	85	9,496
2012	Nov	6	87	14,448
2012	Dec	6	86	14,318
2013	Jan	6	88	14,583
2013	Feb	6	88	14,583
2013	Mar	6	88	14,583
2013	Apr	6	88	14,583
2013	May	6	88	14,583
2013	Jun	6	88	14,583
2013	Jul	6	88	14,583
2013	Aug	6	88	14,583
2013	Sep	6	88	14,583
2013	Oct	6	88	14,583
2013	Nov	6	88	14,583
2013	Dec	6	88	14,583
2014	Jan	7	88	12,529
2014	Feb	7	88	12,529
2014	Mar	7	88	12,529
2014	Apr	7	88	12,529
2014	May	7	88	12,529
2014	Jun	7	88	12,529
2014	Jul	7	88	12,529
2014	Aug	7	88	12,529
2014	Sep	7	88	12,529
2014	Oct	7	88	12,529
2014	Nov	7	88	12,529
2014	Dec	7	88	12,529
2015	Jan	7	88	12,557
2015	Feb	7	88	12,557
2015	Mar	7	88	12,557
2015	Apr	7	88	12,557
2015	May	7	88	12,557
2015	Jun	7	88	12,557
2015	Jul	7	88	12,557
2015	Aug	7	88	12,557
2015	Sep	7	88	12,557
2015	Oct	7	88	12,557
2015	Nov	7	88	12,557
2015	Dec	7	88	12,557
2016	Jan	7	88	12,586
2016	Feb	7	88	12,586
2016	Mar	7	88	12,586
2016	Apr	7	88	12,586
2016	May	7	88	12,586
2016	Jun	7	88	12,586
2016	Jul	7	88	12,586
2016	Aug	7	88	12,586
2016	Sep	7	88	12,586
2016	Oct	7	88	12,586
2016	Nov	7	88	12,586
2016	Dec	7	88	12,586

Appendix B
Tables – Long-Term Forecast

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

TOTAL SYSTEM REQUIREMENTS - ADJUSTED FOR DSM

Year	Actual Sales (MWh)	Projected Sales (MWh)	DSM Sales (MWh)	DSM Adj. Sales (MWh)	Percent Growth	Line Loss	DSM Adj. Purchases (MWh)	DSM Adj. Normal (MWh)	Percent Growth
1997	301,784					7.5%	326,188	329,979	
1998	318,917				5.7%	6.9%	342,393	349,690	5.0%
1999	329,466				3.3%	8.2%	358,980	367,582	4.8%
2000	349,619				6.1%	8.0%	380,127	380,899	5.9%
2001	363,189				3.9%	5.2%	383,092	389,627	0.8%
2002	382,860				5.4%	6.9%	411,103	401,592	7.3%
2003	381,090				-0.5%	7.2%	410,534	420,829	-0.1%
2004	390,672				2.5%	6.5%	418,015	428,242	1.8%
2005	421,024				7.8%	6.1%	448,573	444,872	7.3%
2006	417,030				-0.9%	4.3%	435,963	452,267	-2.8%
2007	453,668				8.8%	4.5%	474,936	462,460	8.9%
2008	452,245				-0.3%	5.1%	476,340	468,625	0.3%
2009	429,338				-5.1%	5.5%	454,402	464,584	-4.6%
2010	479,367				11.7%	5.6%	507,981	480,531	11.8%
2011	460,450				-3.9%	4.1%	480,251	480,343	-5.5%
2012	438,554				-4.8%	5.8%	465,662	472,958	-3.0%
2013		454,442	781	453,661	3.4%	5.0%		477,538	2.6%
2014		448,971	1,491	447,480	-1.4%	5.0%		471,031	-1.4%
2015		442,599	2,217	440,382	-1.6%	5.0%		463,560	-1.6%
2016		440,586	2,963	437,622	-0.6%	5.0%		460,655	-0.6%
2017		444,406	3,724	440,682	0.7%	5.0%		463,875	0.7%
2018		447,833	4,359	443,474	0.6%	5.0%		466,814	0.6%
2019		451,137	5,026	446,111	0.6%	5.0%		469,590	0.6%
2020		454,377	5,636	448,741	0.6%	5.0%		472,359	0.6%
2021		458,011	6,213	451,797	0.7%	5.0%		475,576	0.7%
2022		461,590	6,745	454,845	0.7%	5.0%		478,784	0.7%
2023		465,046	7,266	457,779	0.6%	5.0%		481,873	0.6%
2024		468,277	7,756	460,521	0.6%	5.0%		484,759	0.6%
2025		471,473	8,255	463,219	0.6%	5.0%		487,599	0.6%
2026		474,674	8,752	465,923	0.6%	5.0%		490,445	0.6%
2027		477,784	9,246	468,538	0.6%	5.0%		493,197	0.6%

ANNUAL GROWTH RATES					
1997-2002	4.9%			4.7%	4.0%
2002-2007	3.5%			2.9%	2.9%
2007-2012	-0.7%			-0.4%	0.4%
2012-2017		0.3%	0.1%		-0.4%
2017-2022		0.8%	0.6%		0.6%
2022-2027		0.7%	0.6%		0.6%
2012-2027		0.6%	0.4%		0.3%

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

TOTAL SYSTEM REQUIREMENTS - ADJUSTED FOR DSM

Year	Summer Actual NCP (kW)	Summer Normal NCP (kW)	DSM Impact (kW)	DSM Adj. NCP (kW)	Winter Actual NCP (kW)	Winter Normal NCP (kW)	DSM Impact (kW)	DSM Adj. NCP (kW)
1997	73,209	-			75,295	-		
1998	75,683	-			68,332	-		
1999	84,304	-			80,491	-		
2000	82,626	-			83,823	-		
2001	82,035	-			90,880	-		
2002	87,317	-			83,519	-		
2003	84,899	-			100,461	-		
2004	83,215	95,959			101,467	97,121		
2005	94,288	95,578			102,051	108,592		
2006	93,729	99,176			101,172	116,938		
2007	99,582	95,520			114,050	115,595		
2008	89,923	96,015			120,465	123,793		
2009	90,480	97,592			132,531	125,818		
2010	104,535	96,460			118,831	118,873		
2011	100,746	100,674			127,271	123,637		
2012	105,717	98,488			104,852	118,612		
2013		95,512	145	95,367		112,771	204	112,567
2014		95,742	289	95,453		113,050	408	112,642
2015		95,934	437	95,497		113,283	591	112,692
2016		96,599	590	96,009		114,090	795	113,295
2017		97,731	745	96,986		115,464	999	114,466
2018		98,188	890	97,298		115,967	1,181	114,786
2019		98,912	1,040	97,872		116,823	1,364	115,459
2020		99,623	1,187	98,436		117,662	1,546	116,116
2021		100,419	1,315	99,104		118,603	1,707	116,895
2022		101,204	1,434	99,770		119,529	1,869	117,661
2023		101,962	1,555	100,407		120,424	2,029	118,395
2024		102,670	1,674	100,997		121,261	2,189	119,072
2025		103,371	1,796	101,575		122,089	2,349	119,740
2026		104,073	1,917	102,156		122,918	2,508	120,410
2027		104,755	2,038	102,717		123,723	2,666	121,057

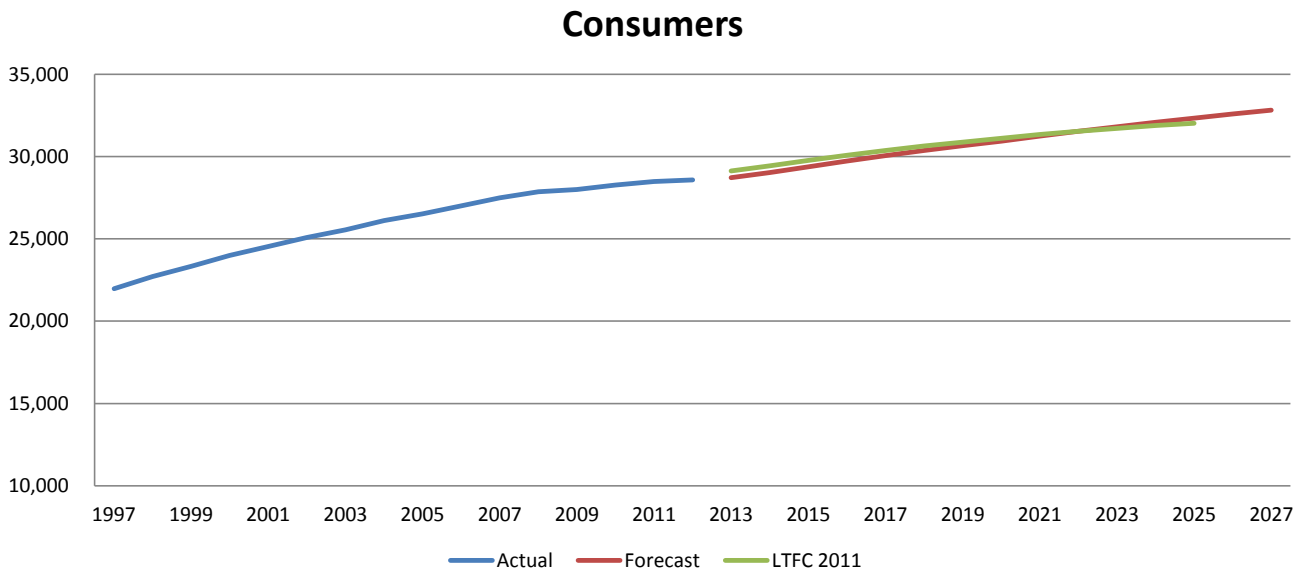
ANNUAL GROWTH RATES						
1997-2002	3.6%			2.1%		
2002-2007	2.7%			6.4%		
2007-2012	1.2%	0.6%		-1.7%	0.5%	
2012-2017		-0.2%	-0.3%		-0.5%	-0.7%
2017-2022		0.7%	0.6%		0.7%	0.6%
2022-2027		0.7%	0.6%		0.7%	0.6%
2012-2027		-0.1%	0.3%		0.3%	0.1%

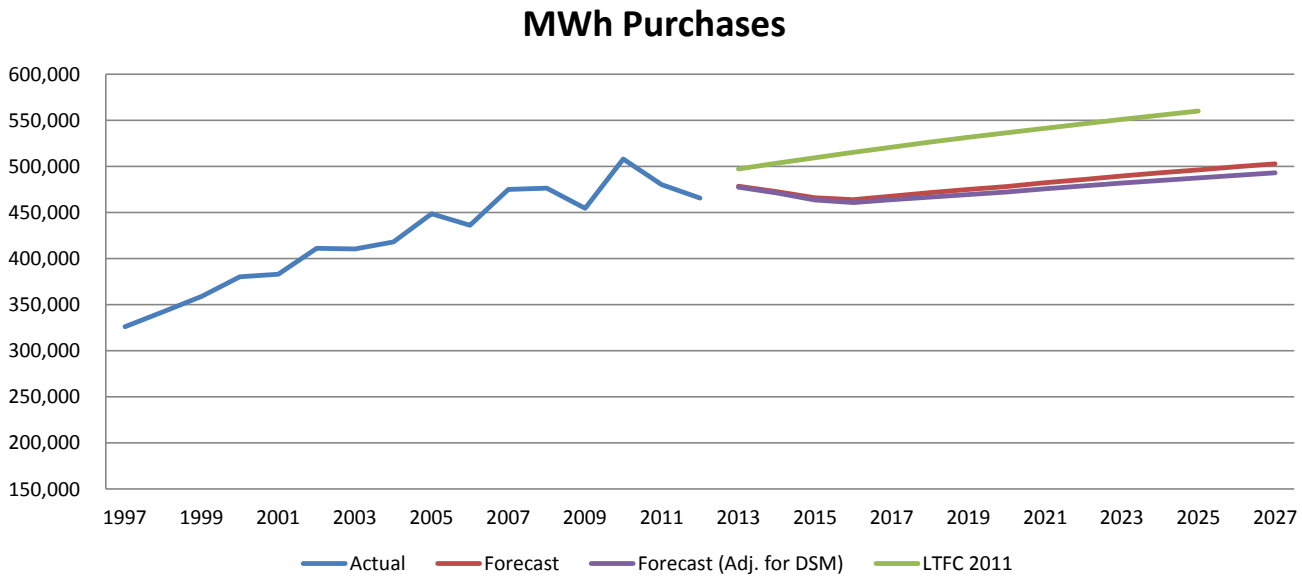
Summer season is May to October. Winter season is November of the prior year through April of the reported year.

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

TOTAL SYSTEM REQUIREMENTS - ADJUSTED FOR DSM

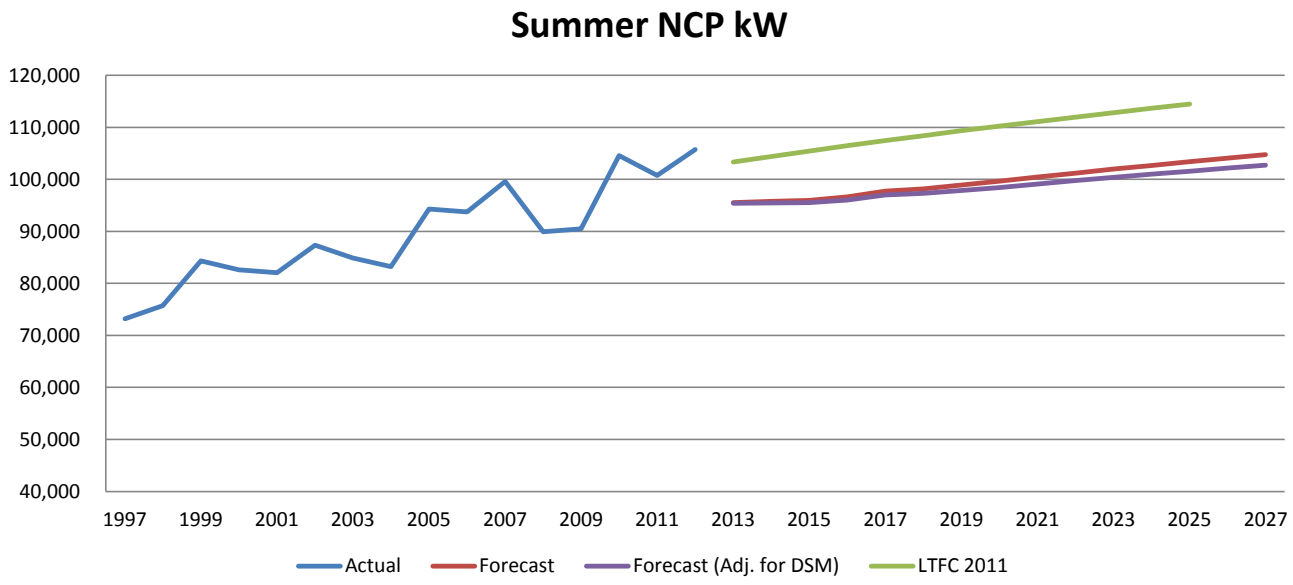


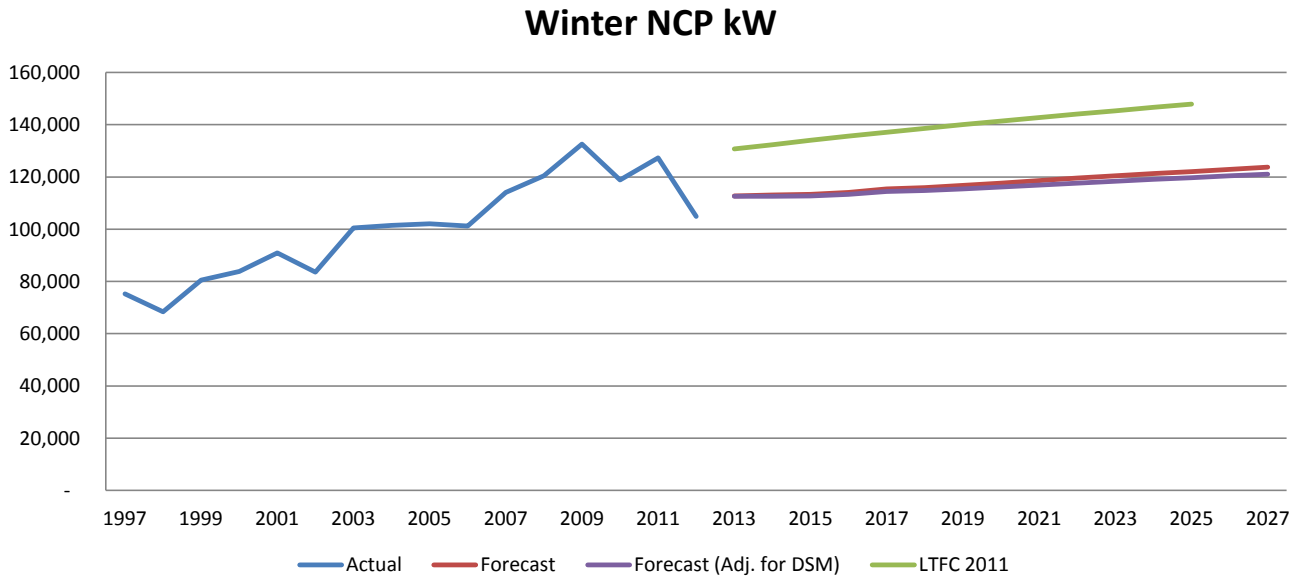


MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

TOTAL SYSTEM REQUIREMENTS - ADJUSTED FOR DSM





MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

RURAL SYSTEM REQUIREMENTS - ADJUSTED FOR DSM

Year	Actual Sales (MWh)	Projected Sales (MWh)	DSM Sales (MWh)	DSM Adj. Sales (MWh)	Percent Growth	Line Loss	DSM Adj. Purchases (MWh)	Normalized (MWh)	Percent Growth
1997	301,784					7.5%	326,188	329,979	
1998	318,917				5.7%	6.9%	342,393	349,690	6.0%
1999	329,466				3.3%	8.2%	358,980	367,582	5.1%
2000	349,619				6.1%	8.0%	380,127	380,899	3.6%
2001	363,189				3.9%	5.2%	383,092	389,627	2.3%
2002	382,860				5.4%	6.9%	411,103	401,592	3.1%
2003	381,090				-0.5%	7.2%	410,534	420,829	4.8%
2004	390,672				2.5%	6.5%	418,015	428,242	1.8%
2005	421,024				7.8%	6.1%	448,573	444,872	3.9%
2006	417,030				-0.9%	4.3%	435,963	452,267	1.7%
2007	453,623				8.8%	4.5%	474,936	462,460	2.3%
2008	452,220				-0.3%	5.1%	476,340	468,625	1.3%
2009	429,338				-5.1%	5.5%	454,402	464,584	-0.9%
2010	479,367				11.7%	5.6%	507,981	480,531	3.4%
2011	460,450				-3.9%	4.1%	480,251	480,343	0.0%
2012	438,554				-4.8%	5.8%	465,662	472,958	-1.5%
2013		454,442	781	453,661	3.4%	5.0%		477,538	2.6%
2014		448,971	1,491	447,480	-1.4%	5.0%		471,031	-1.4%
2015		442,599	2,217	440,382	-1.6%	5.0%		463,560	-1.6%
2016		440,586	2,963	437,622	-0.6%	5.0%		460,655	-0.6%
2017		444,406	3,724	440,682	0.7%	5.0%		463,875	0.7%
2018		447,833	4,359	443,474	0.6%	5.0%		466,814	0.6%
2019		451,137	5,026	446,111	0.6%	5.0%		469,590	0.6%
2020		454,377	5,636	448,741	0.6%	5.0%		472,359	0.6%
2021		458,011	6,213	451,797	0.7%	5.0%		475,576	0.7%
2022		461,590	6,745	454,845	0.7%	5.0%		478,784	0.7%
2023		465,046	7,266	457,779	0.6%	5.0%		481,873	0.6%
2024		468,277	7,756	460,521	0.6%	5.0%		484,759	0.6%
2025		471,473	8,255	463,219	0.6%	5.0%		487,599	0.6%
2026		474,674	8,752	465,923	0.6%	5.0%		490,445	0.6%
2027		477,784	9,246	468,538	0.6%	5.0%		493,197	0.6%

ANNUAL GROWTH RATES					
1997-2002	4.9%			4.7%	4.0%
2002-2007	3.5%			2.9%	2.9%
2007-2012	-0.7%			-0.4%	0.4%
2012-2017		0.3%	0.1%		-0.4%
2017-2022		0.8%	0.6%		0.6%
2022-2027		0.7%	0.6%		0.6%
2012-2027		0.6%	0.4%		0.3%

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

RURAL SYSTEM REQUIREMENTS - ADJUSTED FOR DSM

Year	Summer Actual NCP (kW)	Summer Normal NCP (kW)	DSM Impact (kW)	DSM Adj. NCP (kW)	Winter Actual NCP (kW)	Winter Normal NCP (kW)	DSM Impact (kW)	DSM Adj. NCP (kW)
1997	73,209	-			75,295	-		
1998	75,683	-			68,332	-		
1999	84,304	-			80,491	-		
2000	82,626	-			83,823	-		
2001	82,035	-			90,880	-		
2002	87,317	-			83,519	-		
2003	84,899	-			100,461	-		
2004	83,215	95,959			101,467	97,121		
2005	94,288	95,578			102,051	108,592		
2006	93,729	99,176			101,172	116,938		
2007	99,582	95,520			114,050	115,595		
2008	89,923	96,015			120,465	123,793		
2009	90,480	97,592			132,531	125,818		
2010	104,535	96,460			118,831	118,873		
2011	100,746	100,674			127,271	123,637		
2012	105,717	98,488			104,852	118,612		
2013		95,512	145	95,367		112,771	204	112,567
2014		95,742	289	95,453		113,050	408	112,642
2015		95,934	437	95,497		113,283	591	112,692
2016		96,599	590	96,009		114,090	795	113,295
2017		97,731	745	96,986		115,464	999	114,466
2018		98,188	890	97,298		115,967	1,181	114,786
2019		98,912	1,040	97,872		116,823	1,364	115,459
2020		99,623	1,187	98,436		117,662	1,546	116,116
2021		100,419	1,315	99,104		118,603	1,707	116,895
2022		101,204	1,434	99,770		119,529	1,869	117,661
2023		101,962	1,555	100,407		120,424	2,029	118,395
2024		102,670	1,674	100,997		121,261	2,189	119,072
2025		103,371	1,796	101,575		122,089	2,349	119,740
2026		104,073	1,917	102,156		122,918	2,508	120,410
2027		104,755	2,038	102,717		123,723	2,666	121,057

ANNUAL GROWTH RATES						
1997-2002	3.6%			2.1%		
2002-2007	2.7%			6.4%		
2007-2012	1.2%	0.6%		-1.7%	0.5%	
2012-2017		-0.2%	-0.3%		-0.5%	-0.7%
2017-2022		0.7%	0.6%		0.7%	0.6%
2022-2027		0.7%	0.6%		0.7%	0.6%
2012-2027		0.4%	0.3%		0.3%	0.1%

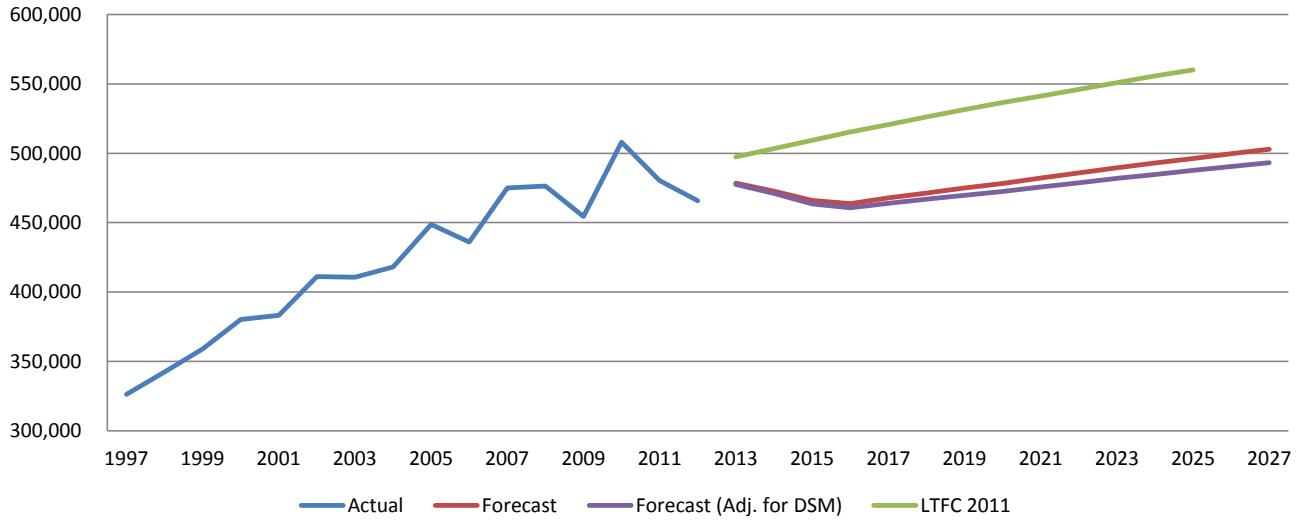
Peak values represent the highest 1-hour peak at the rural system level in each season
Summer season is May to October. Winter season is November of the prior year through April of the reported year.

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

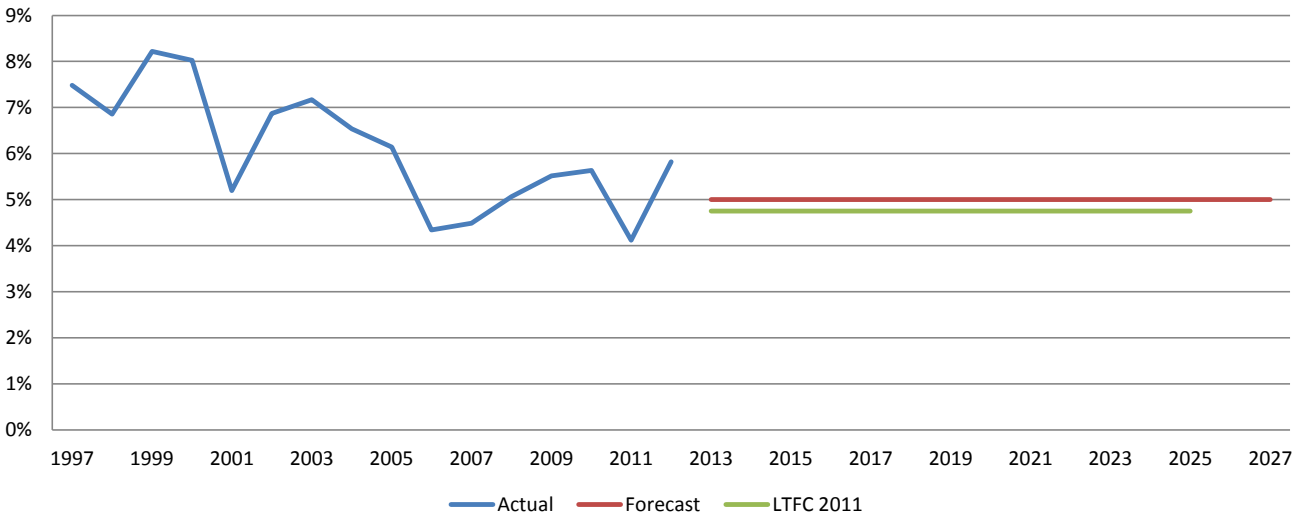
2013 LONG-TERM LOAD FORECAST - BASE CASE

RURAL SYSTEM REQUIREMENTS - ADJUSTED FOR DSM

Rural Energy Requirements - MWh



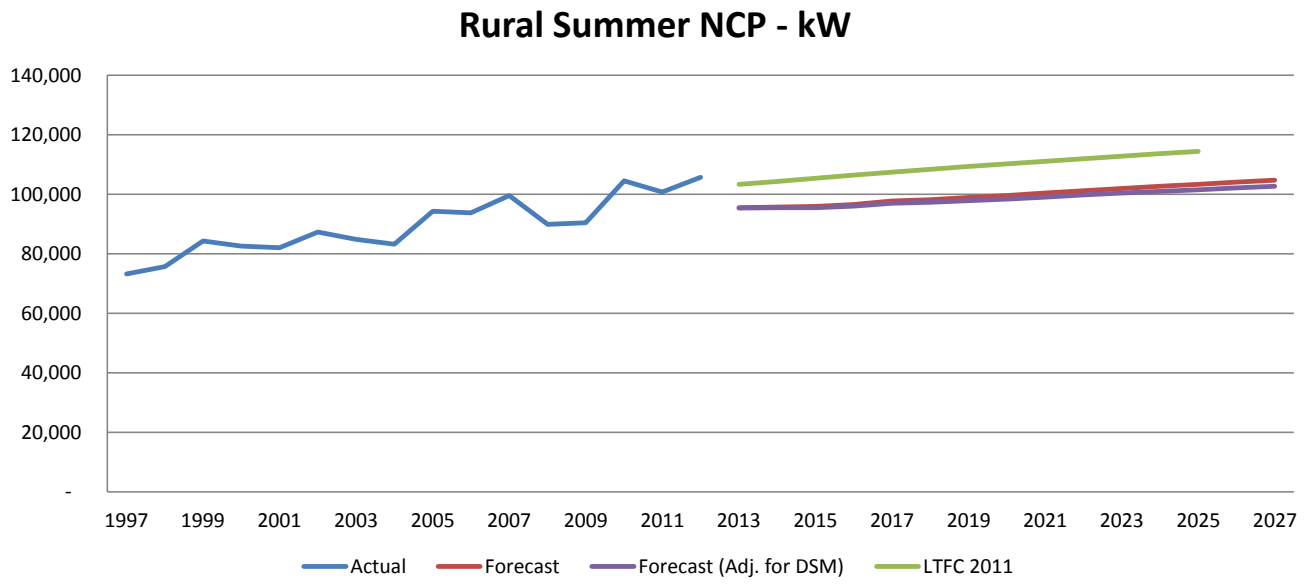
Rural System Losses (%)

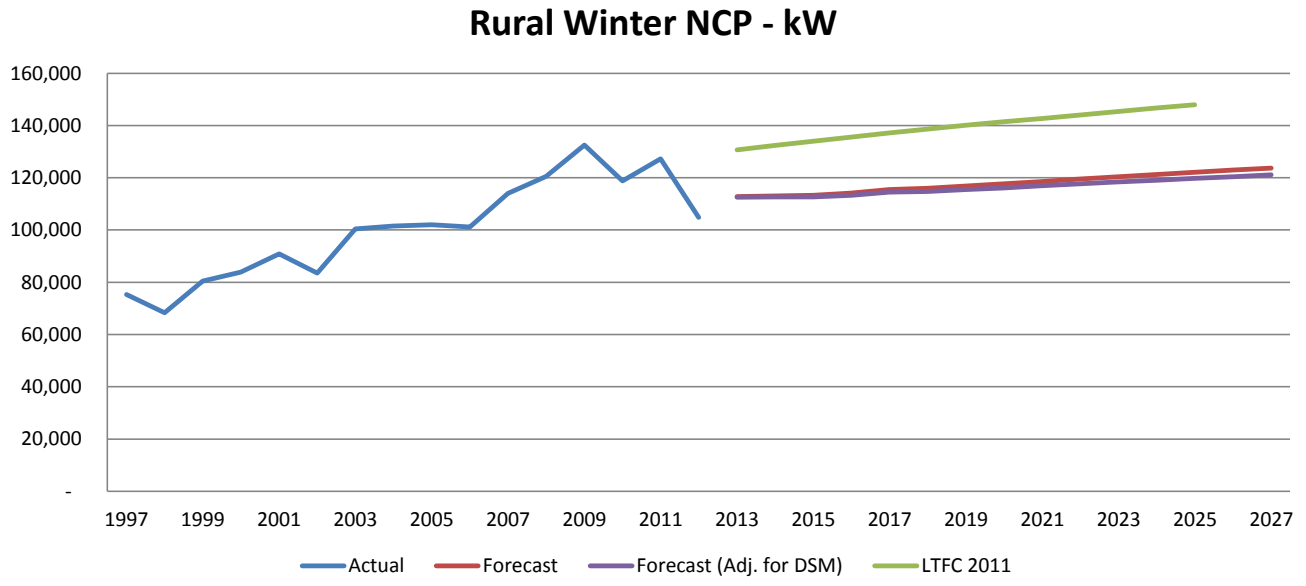


MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

RURAL SYSTEM REQUIREMENTS - ADJUSTED FOR DSM





MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

TOTAL SYSTEM REQUIREMENTS - NO DSM ADJUSTMENT

Year	Consumers	Percent Growth	Actual Sales (MWh)	Normal Sales (MWh)	Percent Growth	Line Loss	Actual Purchases (MWh)	Normal Purchases (MWh)	Percent Growth
1997	21,975		301,784	307,010		7.5%	326,188	329,979	
1998	22,719	3.4%	318,917	327,251	6.6%	6.9%	342,393	349,690	6.0%
1999	23,334	2.7%	329,466	339,657	3.8%	8.2%	358,980	367,582	5.1%
2000	23,998	2.8%	349,619	352,600	3.8%	8.0%	380,127	380,899	3.6%
2001	24,544	2.3%	363,189	370,384	5.0%	5.2%	383,092	389,627	2.3%
2002	25,083	2.2%	382,860	375,776	1.5%	6.9%	411,103	401,592	3.1%
2003	25,552	1.9%	381,090	392,666	4.5%	7.2%	410,534	420,829	4.8%
2004	26,118	2.2%	390,672	401,950	2.4%	6.5%	418,015	428,242	1.8%
2005	26,514	1.5%	421,024	419,130	4.3%	6.1%	448,573	444,872	3.9%
2006	27,008	1.9%	417,030	433,443	3.4%	4.3%	435,963	452,267	1.7%
2007	27,500	1.8%	453,668	442,639	2.1%	4.5%	474,936	462,460	2.3%
2008	27,866	1.3%	452,245	446,062	0.8%	5.1%	476,340	468,625	1.3%
2009	27,995	0.5%	429,338	440,298	-1.3%	5.5%	454,402	464,584	-0.9%
2010	28,270	1.0%	479,367	454,907	3.3%	5.6%	507,981	480,531	3.4%
2011	28,479	0.7%	460,450	461,322	1.4%	4.1%	480,251	480,343	0.0%
2012	28,592	0.4%	438,554	446,939	-3.1%	5.8%	465,662	472,958	-1.5%
2013	28,728	0.5%		454,442	1.7%	5.0%		478,360	1.1%
2014	29,035	1.1%		448,971	-1.2%	5.0%		472,601	-1.2%
2015	29,385	1.2%		442,599	-1.4%	5.0%		465,894	-1.4%
2016	29,727	1.2%		440,586	-0.5%	5.0%		463,775	-0.5%
2017	30,063	1.1%		444,406	0.9%	5.0%		467,796	0.9%
2018	30,367	1.0%		447,833	0.8%	5.0%		471,403	0.8%
2019	30,658	1.0%		451,137	0.7%	5.0%		474,881	0.7%
2020	30,939	0.9%		454,377	0.7%	5.0%		478,292	0.7%
2021	31,241	1.0%		458,011	0.8%	5.0%		482,116	0.8%
2022	31,534	0.9%		461,590	0.8%	5.0%		485,884	0.8%
2023	31,815	0.9%		465,046	0.7%	5.0%		489,522	0.7%
2024	32,075	0.8%		468,277	0.7%	5.0%		492,923	0.7%
2025	32,329	0.8%		471,473	0.7%	5.0%		496,288	0.7%
2026	32,579	0.8%		474,674	0.7%	5.0%		499,657	0.7%
2027	32,818	0.7%		477,784	0.7%	5.0%		502,930	0.7%

ANNUAL GROWTH RATES							
1997-2002	2.7%		4.9%	4.1%	-1.7%	4.7%	4.0%
2002-2007	1.9%		3.5%	3.3%	-8.2%	2.9%	2.9%
2007-2012	0.8%		-0.7%	0.2%	5.4%	-0.4%	0.4%
2012-2017	1.0%			-0.1%	-3.0%		-0.2%
2017-2022	1.0%			0.8%	0.0%		0.8%
2022-2027	0.8%			0.7%	0.0%		0.7%
2012-2027	0.9%			0.4%	-1.0%		0.4%

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

TOTAL SYSTEM REQUIREMENTS - NO DSM ADJUSTMENT

Year	Summer Actual NCP (kW)	Summer Normal NCP (kW)	Percent Growth	Normal Load Factor	Winter Actual NCP (kW)	Winter Normal NCP (kW)	Percent Growth	Normal Load Factor
1997	73,209				75,295			
1998	75,683				68,332			
1999	84,304				80,491			
2000	82,626				83,823			
2001	82,035				90,880			
2002	87,317				83,519			
2003	84,899				100,461			
2004	83,215	95,959		50.9%	101,467	97,121		50.3%
2005	94,288	95,578	-0.4%	53.1%	102,051	108,592	11.8%	46.8%
2006	93,729	99,176	3.8%	52.1%	101,172	116,938	7.7%	44.2%
2007	99,582	95,520	-3.7%	55.3%	114,050	115,595	-1.1%	45.7%
2008	89,923	96,015	0.5%	55.7%	120,465	123,793	7.1%	43.2%
2009	90,480	97,592	1.6%	54.3%	132,531	125,818	1.6%	42.2%
2010	104,535	96,460	-1.2%	56.9%	118,831	118,873	-5.5%	46.1%
2011	100,746	100,674	4.4%	54.5%	127,271	123,637	4.0%	44.4%
2012	105,717	98,488	-2.2%	54.8%	104,852	118,612	-4.1%	45.5%
2013		95,512	-3.0%	57.2%		112,771	-4.9%	48.4%
2014		95,742	0.2%	56.3%		113,050	0.2%	47.7%
2015		95,934	0.2%	55.4%		113,283	0.2%	46.9%
2016		96,599	0.7%	54.8%		114,090	0.7%	46.4%
2017		97,731	1.2%	54.6%		115,464	1.2%	46.2%
2018		98,188	0.5%	54.8%		115,967	0.4%	46.4%
2019		98,912	0.7%	54.8%		116,823	0.7%	46.4%
2020		99,623	0.7%	54.8%		117,662	0.7%	46.4%
2021		100,419	0.8%	54.8%		118,603	0.8%	46.4%
2022		101,204	0.8%	54.8%		119,529	0.8%	46.4%
2023		101,962	0.7%	54.8%		120,424	0.7%	46.4%
2024		102,670	0.7%	54.8%		121,261	0.7%	46.4%
2025		103,371	0.7%	54.8%		122,089	0.7%	46.4%
2026		104,073	0.7%	54.8%		122,918	0.7%	46.4%
2027		104,755	0.7%	54.8%		123,723	0.7%	46.4%

ANNUAL GROWTH RATES					
1997-2002	3.6%		2.1%		
2002-2007	2.7%		6.4%		
2007-2012	1.2%	0.6%	-1.7%	0.5%	
2012-2017		-0.2%		-0.5%	
2017-2022		0.7%		0.7%	
2022-2027		0.7%		0.7%	
2012-2027		0.4%		0.3%	

NCP represents the highest 1-hour peak demand recorded during the summer and winter seasons
Summer season is May to October. Winter season is November of the prior year through April of the reported year.

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

RURAL SYSTEM REQUIREMENTS - NO DSM ADJUSTMENT

Year	Actual Energy (MWh)	Normal Energy (MWh)	Percent Growth	Summer NCP (kW)	Summer Normal NCP (kW)	Percent Growth	Load Factor	Winter NCP (kW)	Winter Normal NCP (kW)	Percent Growth	Load Factor
1997	326,188	329,979		73,209				75,295			
1998	342,393	349,690	6.0%	75,683		3.4%		68,332		-9.2%	
1999	358,980	367,582	5.1%	84,304		11.4%		80,491		17.8%	
2000	380,127	380,899	3.6%	82,626		-2.0%		83,823		4.1%	
2001	383,092	389,627	2.3%	82,035		-0.7%		90,880		8.4%	
2002	411,103	401,592	3.1%	87,317		6.4%		83,519		-8.1%	
2003	410,534	420,829	4.8%	84,899		-2.8%		100,461		20.3%	
2004	418,015	428,242	1.8%	83,215	95,959	-2.0%	50.9%	101,467	97,121	1.0%	50.3%
2005	448,573	444,872	3.9%	94,288	95,578	13.3%	53.1%	102,051	108,592	0.6%	46.8%
2006	435,963	452,267	1.7%	93,729	99,176	-0.6%	52.1%	101,172	116,938	-0.9%	44.2%
2007	474,936	462,460	2.3%	99,582	95,520	6.2%	55.3%	114,050	115,595	12.7%	45.7%
2008	476,340	468,625	1.3%	89,923	96,015	-9.7%	55.7%	120,465	123,793	5.6%	43.2%
2009	454,402	464,584	-0.9%	90,480	97,592	0.6%	54.3%	132,531	125,818	10.0%	42.2%
2010	507,981	480,531	3.4%	104,535	96,460	15.5%	56.9%	118,831	118,873	-10.3%	46.1%
2011	480,251	480,343	0.0%	100,746	100,674	-3.6%	54.5%	127,271	123,637	7.1%	44.4%
2012	465,662	472,958	-1.5%	105,717	98,488	4.9%	54.8%	104,852	118,612	-17.6%	45.5%
2013		478,360	1.1%		95,512	-3.0%	57.2%		112,771	-4.9%	48.4%
2014		472,601	-1.2%		95,742	0.2%	56.3%		113,050	0.2%	47.7%
2015		465,894	-1.4%		95,934	0.2%	55.4%		113,283	0.2%	46.9%
2016		463,775	-0.5%		96,599	0.7%	54.8%		114,090	0.7%	46.4%
2017		467,796	0.9%		97,731	1.2%	54.6%		115,464	1.2%	46.2%
2018		471,403	0.8%		98,188	0.5%	54.8%		115,967	0.4%	46.4%
2019		474,881	0.7%		98,912	0.7%	54.8%		116,823	0.7%	46.4%
2020		478,292	0.7%		99,623	0.7%	54.8%		117,662	0.7%	46.4%
2021		482,116	0.8%		100,419	0.8%	54.8%		118,603	0.8%	46.4%
2022		485,884	0.8%		101,204	0.8%	54.8%		119,529	0.8%	46.4%
2023		489,522	0.7%		101,962	0.7%	54.8%		120,424	0.7%	46.4%
2024		492,923	0.7%		102,670	0.7%	54.8%		121,261	0.7%	46.4%
2025		496,288	0.7%		103,371	0.7%	54.8%		122,089	0.7%	46.4%
2026		499,657	0.7%		104,073	0.7%	54.8%		122,918	0.7%	46.4%
2027		502,930	0.7%		104,755	0.7%	54.8%		123,723	0.7%	46.4%

ANNUAL GROWTH RATES						
1997-2002	4.7%	4.0%	3.6%		2.1%	
2002-2007	2.9%	2.9%	2.7%		6.4%	
2007-2012	-0.4%	0.4%	1.2%	0.6%	-1.7%	0.5%
2012-2017		-0.2%		-0.2%		-0.5%
2017-2022		0.8%		0.7%		0.7%
2022-2027		0.7%		0.7%		0.7%
2012-2027		0.4%		0.4%		0.3%

Peak values represent the highest 1-hour peak at the rural system level in each season and include distribution losses.

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

RURAL SYSTEM REQUIREMENTS - NO DSM ADJUSTMENT

Year	Actual Energy (MWh)	Normal Energy (MWh)	Percent Growth	Summer Station (NCP kw)	Normal Station (NCP kw)	Percent Growth	Load Factor	Winter Station (NCP kw)	Normal Station (NCP kw)	Percent Growth	Load Factor
1997	326,188	329,979		78,334			48.1%	80,566			46.8%
1998	342,393	349,690	6.0%	80,981			49.3%	73,115			54.6%
1999	358,980	367,582	5.1%	90,205			46.5%	86,125			48.7%
2000	380,127	380,899	3.6%	88,410			49.2%	89,691			48.5%
2001	383,092	389,627	2.3%	87,777			50.7%	97,242			45.7%
2002	411,103	401,592	3.1%	93,429			49.1%	89,365			51.3%
2003	410,534	420,829	4.8%	90,842			52.9%	107,493			44.7%
2004	418,015	428,242	1.8%	89,040	102,676		47.6%	108,570	103,920		47.0%
2005	448,573	444,872	3.9%	100,888	102,269	-0.4%	49.7%	109,195	116,194	11.8%	43.7%
2006	435,963	452,267	1.7%	100,290	106,118	3.8%	48.7%	108,254	125,123	7.7%	41.3%
2007	474,936	462,460	2.3%	106,552	102,207	-3.7%	51.7%	122,033	123,687	-1.1%	42.7%
2008	476,340	468,625	1.3%	96,217	102,736	0.5%	52.1%	128,898	132,458	7.1%	40.4%
2009	454,402	464,584	-0.9%	96,813	104,423	1.6%	50.8%	141,809	134,625	1.6%	39.4%
2010	507,981	480,531	3.4%	111,852	103,212	-1.2%	53.1%	127,149	127,194	-5.5%	43.1%
2011	480,251	480,343	0.0%	107,798	107,721	4.4%	50.9%	136,180	132,291	4.0%	41.4%
2012	465,662	472,958	-1.5%	113,118	105,382	-2.2%	51.2%	112,192	126,915	-4.1%	42.5%
2013		478,360	1.1%		102,198	-9.7%	53.4%		120,665	7.6%	45.3%
2014		472,601	-1.2%		102,444	0.2%	52.7%		120,964	0.2%	44.6%
2015		465,894	-1.4%		102,649	0.2%	51.8%		121,213	0.2%	43.9%
2016		463,775	-0.5%		103,361	0.7%	51.2%		122,077	0.7%	43.4%
2017		467,796	0.9%		104,572	1.2%	51.1%		123,547	1.2%	43.2%
2018		471,403	0.8%		105,061	0.5%	51.2%		124,085	0.4%	43.4%
2019		474,881	0.7%		105,836	0.7%	51.2%		125,000	0.7%	43.4%
2020		478,292	0.7%		106,596	0.7%	51.2%		125,898	0.7%	43.4%
2021		482,116	0.8%		107,449	0.8%	51.2%		126,905	0.8%	43.4%
2022		485,884	0.8%		108,288	0.8%	51.2%		127,897	0.8%	43.4%
2023		489,522	0.7%		109,099	0.7%	51.2%		128,854	0.7%	43.4%
2024		492,923	0.7%		109,857	0.7%	51.2%		129,749	0.7%	43.4%
2025		496,288	0.7%		110,607	0.7%	51.2%		130,635	0.7%	43.4%
2026		499,657	0.7%		111,358	0.7%	51.2%		131,522	0.7%	43.4%
2027		502,930	0.7%		112,088	0.7%	51.2%		132,384	0.7%	43.4%

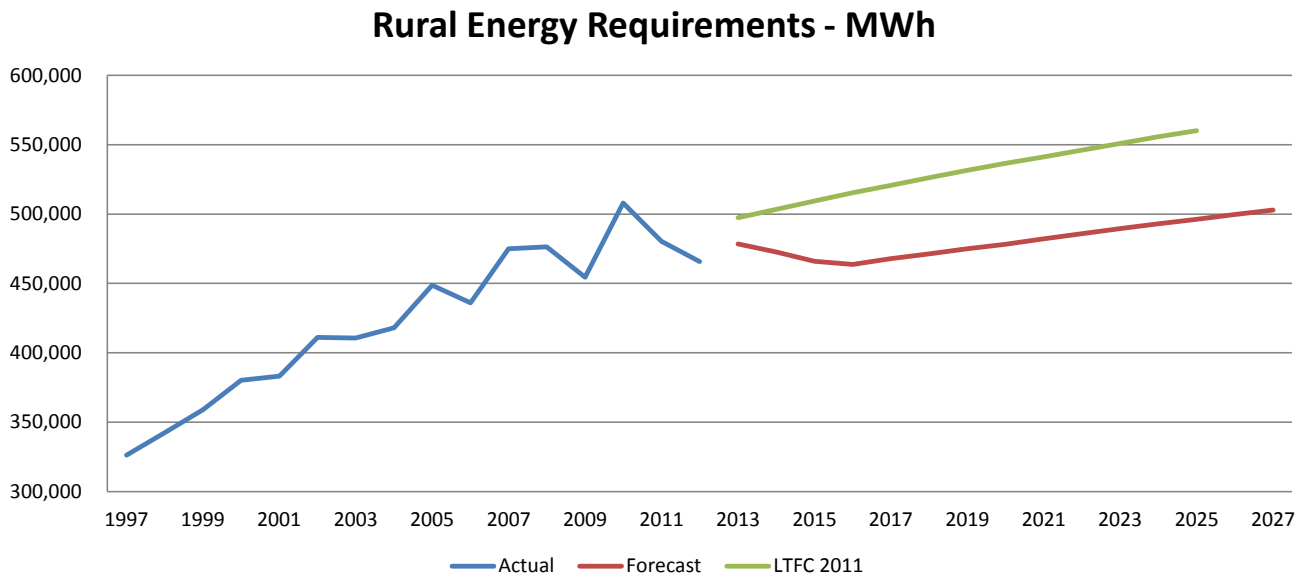
ANNUAL GROWTH RATES									
1997-2002	4.7%	4.0%	3.6%	#DIV/0!		2.1%	#DIV/0!		
2002-2007	2.9%	2.9%	2.7%	#DIV/0!	1.0%	6.4%	#DIV/0!		
2007-2012	-0.4%	0.4%	1.2%	0.6%	-0.2%	-1.7%	0.5%		-0.1%
2012-2017		-0.2%		-0.2%	-0.1%		-0.5%		0.3%
2017-2022		0.8%		0.7%	0.1%		0.7%		0.1%
2022-2027		0.7%		0.7%	0.0%		0.7%		0.0%
2012-2027		0.4%		0.4%	0.0%		0.3%		0.1%

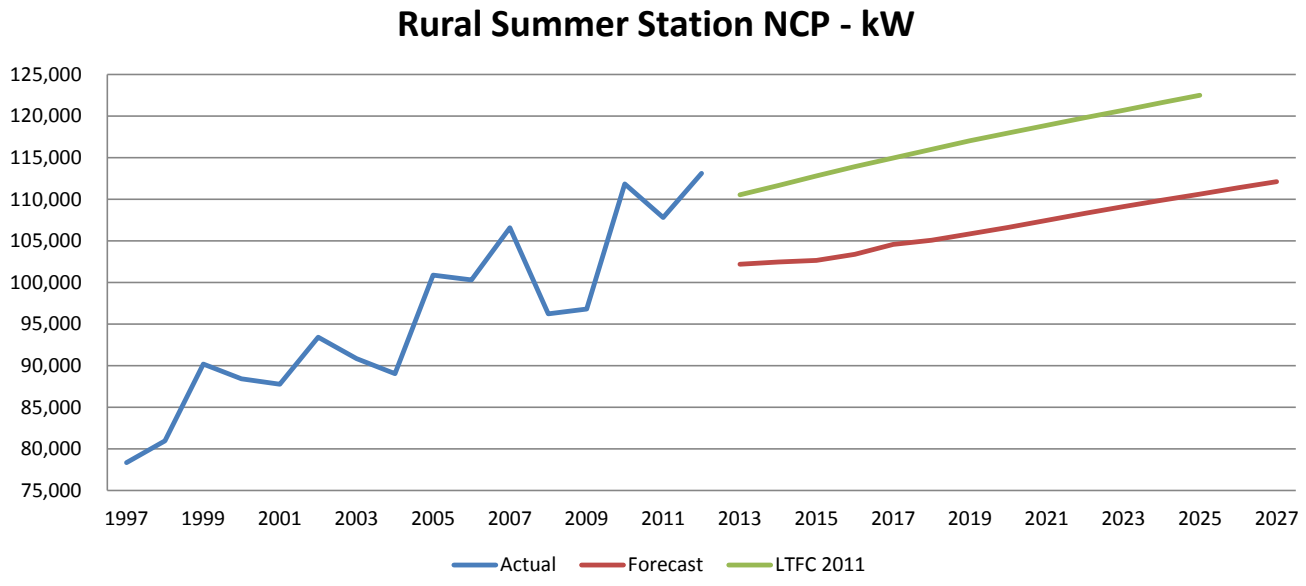
Peak values are reported on a seasonal basis
Rural NCP represents the sum of substation NCPs and is equal to 107 percent of CP demand

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

RURAL SYSTEM REQUIREMENTS - NO DSM ADJUSTMENT

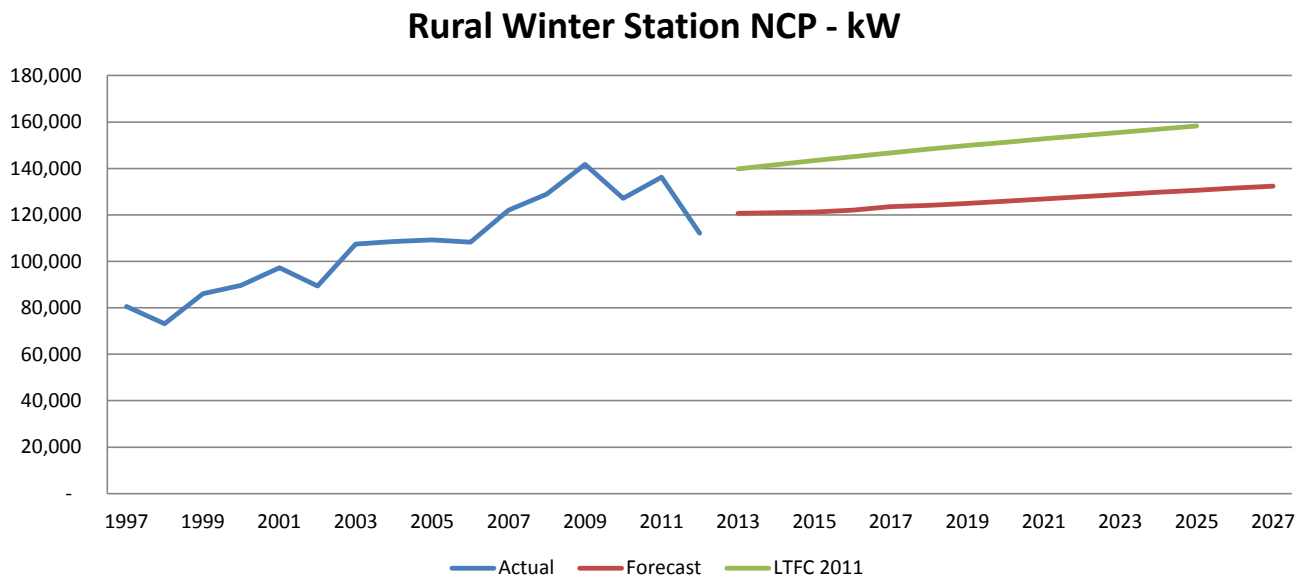




MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

RURAL SYSTEM REQUIREMENTS - NO DSM ADJUSTMENT



MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

RESIDENTIAL CLASSIFICATION

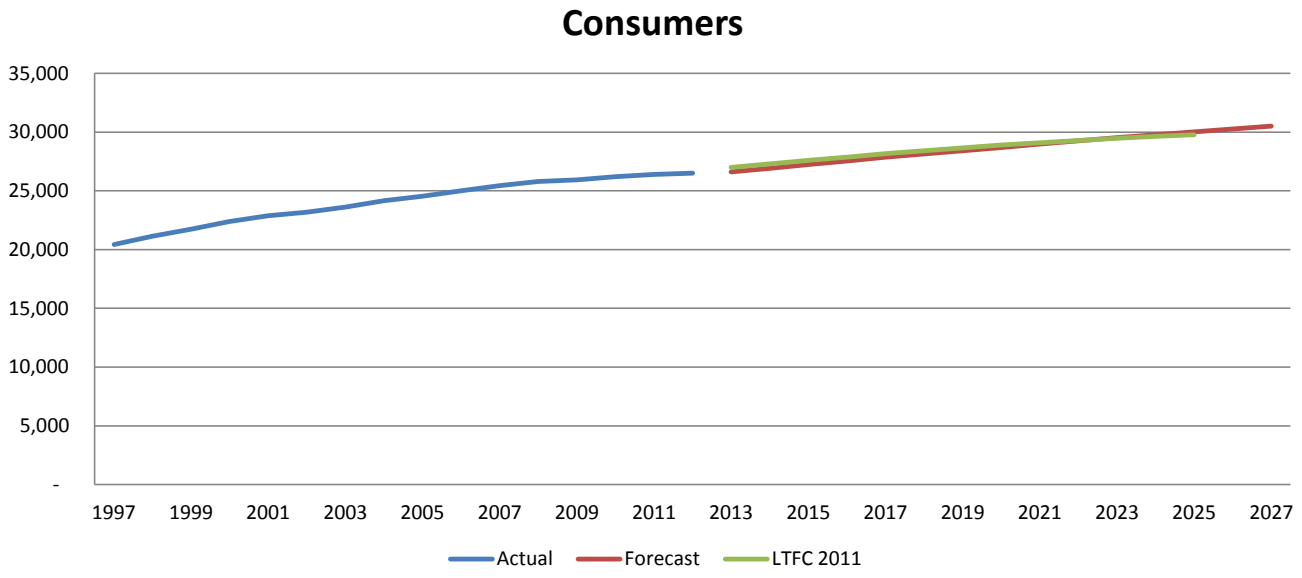
Year	Consumers	Consumer Growth	Percent Growth	Actual Sales (MWh)	Normal Sales (MWh)	Percent Growth	Actual Average Use (kWh/Cust/Mo)	Normal Average Use (kWh/Cust/Mo)	Percent Growth
1997	20,430			231,452	234,083		944	955	
1998	21,133	703	3.4%	242,564	247,661	5.8%	957	977	2.3%
1999	21,729	596	2.8%	250,591	256,512	3.6%	961	984	0.7%
2000	22,391	662	3.0%	264,641	265,173	3.4%	985	987	0.3%
2001	22,873	482	2.2%	276,982	281,629	6.2%	1,009	1,026	4.0%
2002	23,195	322	1.4%	293,890	287,247	2.0%	1,056	1,032	0.6%
2003	23,621	426	1.8%	291,178	298,346	3.9%	1,027	1,053	2.0%
2004	24,159	538	2.3%	298,498	305,667	2.5%	1,030	1,054	0.2%
2005	24,532	373	1.5%	325,023	322,417	5.5%	1,104	1,095	3.9%
2006	25,001	469	1.9%	321,551	333,247	3.4%	1,072	1,111	1.4%
2007	25,453	452	1.8%	351,171	342,234	2.7%	1,150	1,120	0.9%
2008	25,808	355	1.4%	353,054	347,560	1.6%	1,140	1,122	0.2%
2009	25,940	131	0.5%	333,036	340,252	-2.1%	1,070	1,093	-2.6%
2010	26,213	274	1.1%	375,089	355,661	4.5%	1,192	1,131	3.4%
2011	26,402	189	0.7%	364,735	364,801	2.6%	1,151	1,151	1.8%
2012	26,503	101	0.4%	346,402	351,555	-3.6%	1,089	1,105	-4.0%
2013	26,625	122	0.5%		356,312	1.4%		1,115	0.9%
2014	26,908	283	1.1%		352,072	-1.2%		1,090	-2.2%
2015	27,232	324	1.2%		347,151	-1.4%		1,062	-2.6%
2016	27,549	317	1.2%		345,632	-0.4%		1,046	-1.6%
2017	27,861	312	1.1%		348,632	0.9%		1,043	-0.3%
2018	28,143	282	1.0%		351,324	0.8%		1,040	-0.2%
2019	28,422	279	1.0%		354,393	0.9%		1,039	-0.1%
2020	28,692	270	0.9%		357,416	0.9%		1,038	-0.1%
2021	28,981	289	1.0%		360,757	0.9%		1,037	-0.1%
2022	29,263	282	1.0%		364,061	0.9%		1,037	-0.1%
2023	29,533	270	0.9%		367,276	0.9%		1,036	0.0%
2024	29,784	251	0.9%		370,319	0.8%		1,036	0.0%
2025	30,030	245	0.8%		373,340	0.8%		1,036	0.0%
2026	30,272	242	0.8%		376,372	0.8%		1,036	0.0%
2027	30,504	232	0.8%		379,338	0.8%		1,036	0.0%

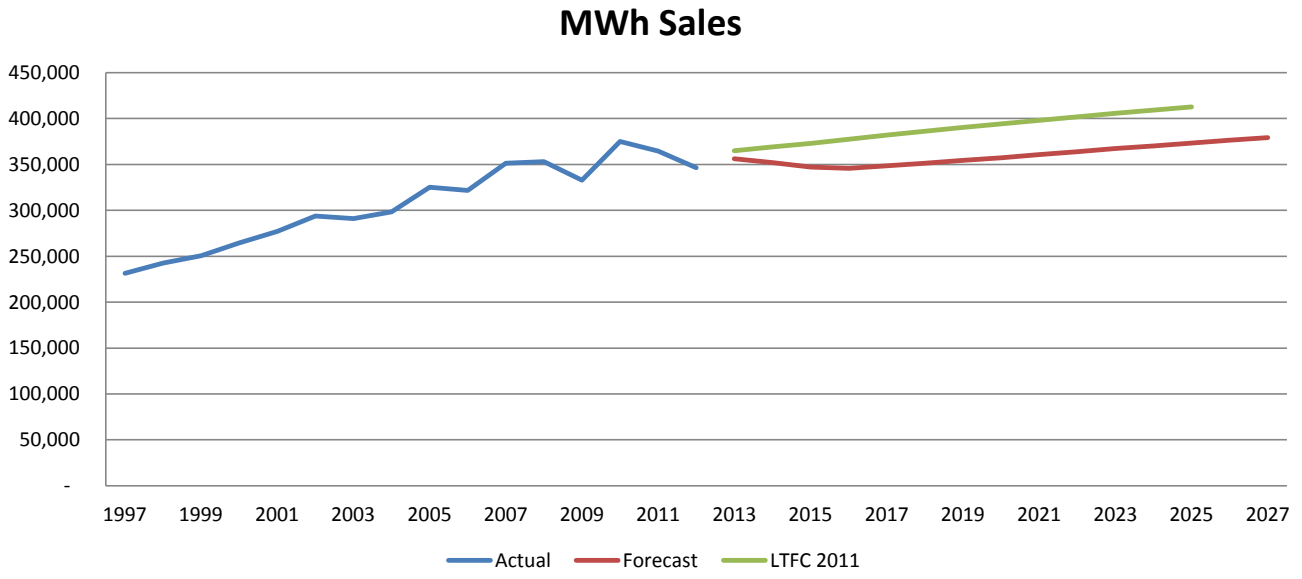
ANNUAL GROWTH RATES						
1997-2002	2.6%	553	4.9%	4.2%	2.3%	1.6%
2002-2007	1.9%	452	3.6%	3.6%	1.7%	1.7%
2007-2012	0.8%	210	-0.3%	0.5%	-1.1%	-0.3%
2012-2017	1.0%	272		-0.2%		-1.2%
2017-2022	1.0%	280		0.9%		-0.1%
2022-2027	0.8%	248		0.8%		0.0%
2012-2027	0.9%	267		0.5%		-0.4%

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

RESIDENTIAL CLASSIFICATION

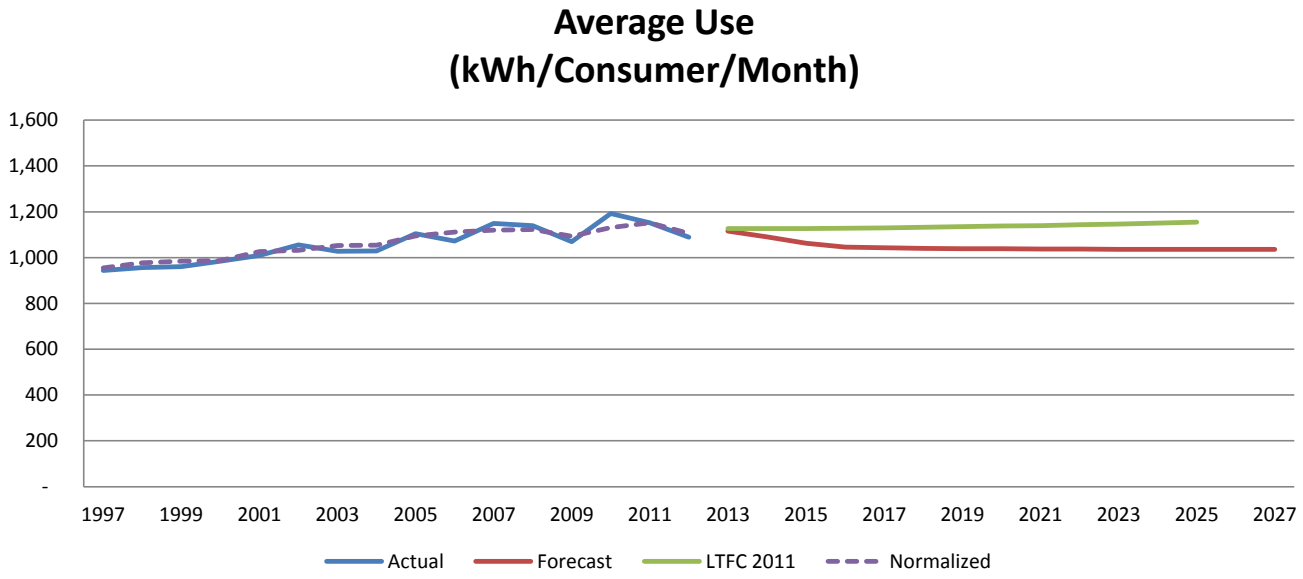




MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

RESIDENTIAL CLASSIFICATION



MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

SMALL COMMERCIAL CLASSIFICATION

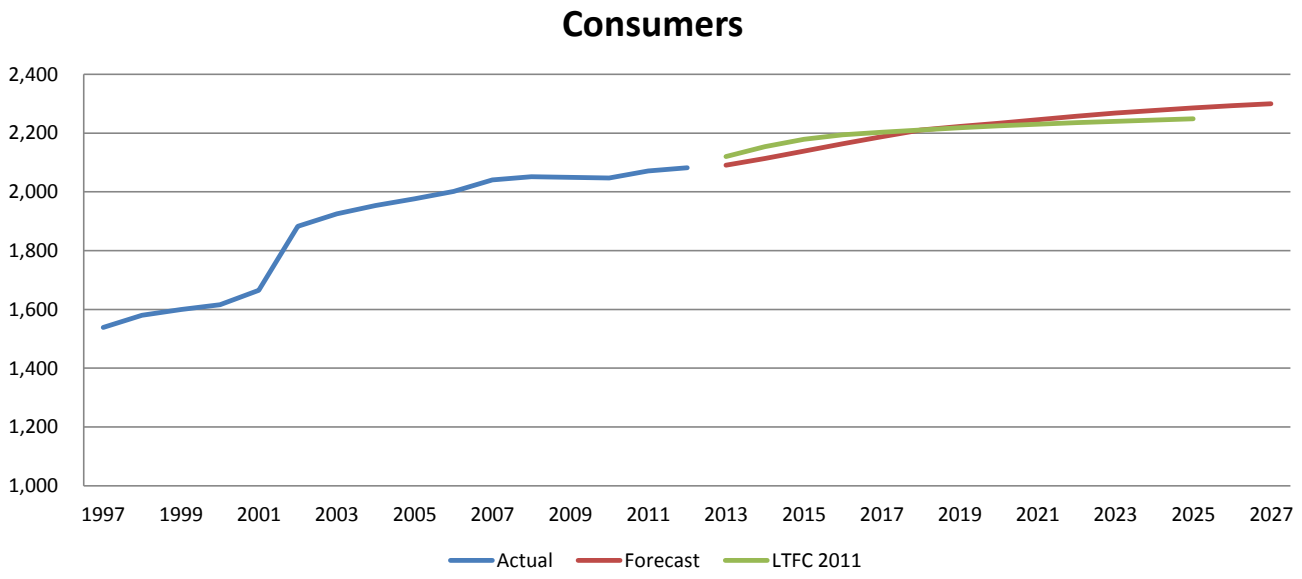
Year	Consumers	Consumer Growth	Percent Growth	Actual Sales (MWh)	Normal Sales (MWh)	Percent Growth	Actual Average Use (kWh/Cust/Mo)	Normal Average Use (kWh/Cust/Mo)	Percent Growth
1997	1,539			69,463	70,340		3,762	3,810	
1998	1,581	42	2.7%	75,467	77,166	9.7%	3,979	4,069	6.8%
1999	1,599	19	1.2%	77,967	79,941	3.6%	4,062	4,165	2.4%
2000	1,616	17	1.0%	84,058	84,236	5.4%	4,335	4,344	4.3%
2001	1,665	49	3.0%	85,270	86,819	3.1%	4,268	4,345	0.0%
2002	1,882	217	13.0%	88,025	85,811	-1.2%	3,897	3,799	-12.6%
2003	1,926	43	2.3%	88,950	91,339	6.4%	3,849	3,953	4.0%
2004	1,954	28	1.4%	91,197	93,587	2.5%	3,890	3,992	1.0%
2005	1,977	23	1.2%	95,009	94,140	0.6%	4,005	3,969	-0.6%
2006	2,001	25	1.2%	94,473	98,372	4.5%	3,934	4,096	3.2%
2007	2,041	40	2.0%	101,449	98,470	0.1%	4,142	4,021	-1.8%
2008	2,052	11	0.5%	98,148	96,316	-2.2%	3,986	3,912	-2.7%
2009	2,050	(2)	-0.1%	95,266	97,671	1.4%	3,873	3,971	1.5%
2010	2,047	(2)	-0.1%	103,175	96,699	-1.0%	4,199	3,936	-0.9%
2011	2,071	23	1.1%	94,657	94,679	-2.1%	3,809	3,810	-3.2%
2012	2,082	11	0.5%	91,103	92,821	-2.0%	3,646	3,715	-2.5%
2013	2,091	9	0.4%		97,080	4.6%		3,869	4.1%
2014	2,113	22	1.1%		95,847	-1.3%		3,780	-2.3%
2015	2,139	25	1.2%		94,394	-1.5%		3,678	-2.7%
2016	2,164	25	1.2%		93,896	-0.5%		3,617	-1.7%
2017	2,188	24	1.1%		94,714	0.9%		3,607	-0.3%
2018	2,210	22	1.0%		95,447	0.8%		3,599	-0.2%
2019	2,222	12	0.5%		95,679	0.2%		3,588	-0.3%
2020	2,233	11	0.5%		95,894	0.2%		3,578	-0.3%
2021	2,246	12	0.6%		96,184	0.3%		3,569	-0.3%
2022	2,257	12	0.5%		96,457	0.3%		3,561	-0.2%
2023	2,268	11	0.5%		96,696	0.2%		3,553	-0.2%
2024	2,277	9	0.4%		96,882	0.2%		3,546	-0.2%
2025	2,285	8	0.4%		97,054	0.2%		3,539	-0.2%
2026	2,293	8	0.3%		97,221	0.2%		3,533	-0.2%
2027	2,300	7	0.3%		97,363	0.1%		3,528	-0.2%

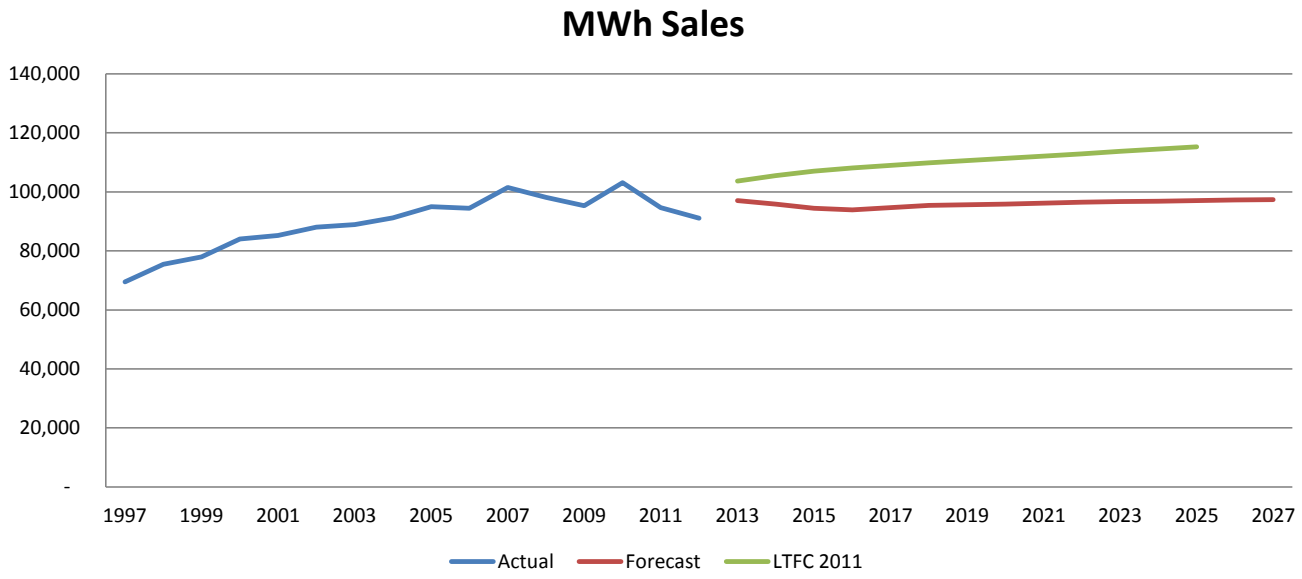
ANNUAL GROWTH RATES						
1997-2002	4.1%	69	4.9%	4.1%	0.7%	-0.1%
2002-2007	1.6%	32	2.9%	2.8%	1.2%	1.1%
2007-2012	0.4%	8	-2.1%	-1.2%	-2.5%	-1.6%
2012-2017	1.0%	21		0.4%		-0.6%
2017-2022	0.6%	14		0.4%		-0.3%
2022-2027	0.4%	9		0.2%		-0.2%
2012-2027	0.7%	15		0.3%		-0.3%

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

SMALL COMMERCIAL CLASSIFICATION





MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

STREET LIGHTING CLASSIFICATION

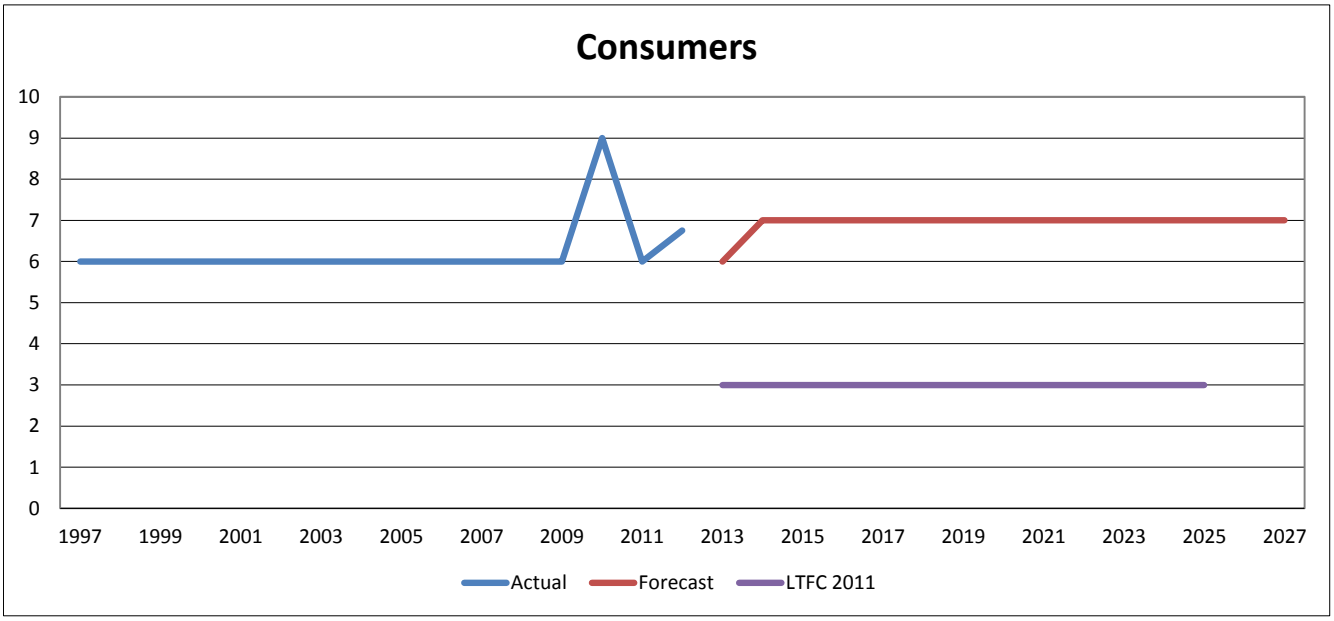
Year	Consumers	Consumer Growth	Percent Growth	Sales (MWh)	Percent Growth	Average Use (kWh/Cust/Mo)	Percent Growth
1997	6			869		12,070	
1998	6	0	0.0%	885	1.9%	12,296	1.9%
1999	6	0	0.0%	908	2.6%	12,616	2.6%
2000	6	0	0.0%	920	1.3%	12,780	1.3%
2001	6	0	0.0%	937	1.8%	13,010	1.8%
2002	6	0	0.0%	945	0.9%	13,122	0.9%
2003	6	0	0.0%	961	1.7%	13,345	1.7%
2004	6	0	0.0%	977	1.7%	13,568	1.7%
2005	6	0	0.0%	992	1.6%	13,781	1.6%
2006	6	0	0.0%	1,007	1.5%	13,981	1.5%
2007	6	0	0.0%	1,003	-0.4%	13,927	-0.4%
2008	6	0	0.0%	1,019	1.6%	14,148	1.6%
2009	6	0	0.0%	1,035	1.6%	14,379	1.6%
2010	9	3	50.0%	1,103	6.6%	10,217	-28.9%
2011	6	(3)	-33.3%	1,057	-4.2%	14,682	43.7%
2012	7	1	12.5%	1,048	-0.8%	12,944	-11.8%
2013	6	(1)	-11.1%	1,050	0.1%	14,583	12.7%
2014	7	1	16.7%	1,052	0.2%	12,529	-14.1%
2015	7	0	0.0%	1,055	0.2%	12,557	0.2%
2016	7	0	0.0%	1,057	0.2%	12,586	0.2%
2017	7	0	0.0%	1,060	0.2%	12,614	0.2%
2018	7	0	0.0%	1,062	0.2%	12,643	0.2%
2019	7	0	0.0%	1,064	0.2%	12,671	0.2%
2020	7	0	0.0%	1,067	0.2%	12,700	0.2%
2021	7	0	0.0%	1,069	0.2%	12,729	0.2%
2022	7	0	0.0%	1,072	0.2%	12,757	0.2%
2023	7	0	0.0%	1,074	0.2%	12,786	0.2%
2024	7	0	0.0%	1,076	0.2%	12,814	0.2%
2025	7	0	0.0%	1,079	0.2%	12,843	0.2%
2026	7	0	0.0%	1,081	0.2%	12,871	0.2%
2027	7	0	0.0%	1,084	0.2%	12,900	0.2%

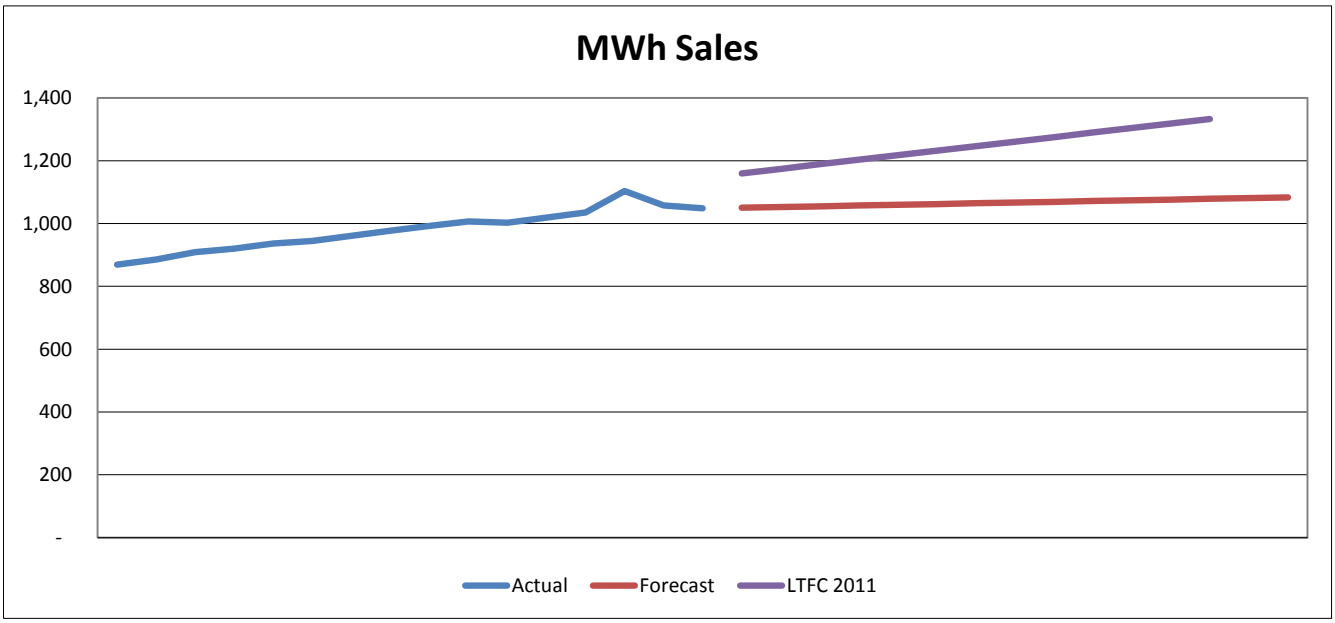
ANNUAL GROWTH RATES				
1997-2002	0.0%	0	1.7%	1.7%
2002-2007	0.0%	0	1.2%	1.2%
2007-2012	2.4%	0	0.9%	-1.5%
2012-2017	0.7%	0	0.2%	-0.5%
2017-2022	0.0%	0	0.2%	0.2%
2022-2027	0.0%	0	0.2%	0.2%
2012-2027	0.2%	0	0.2%	0.0%

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - BASE CASE

STREET LIGHTING CLASSIFICATION





Appendix C
Tables – Range Forecasts

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - RANGE FORECASTS

TOTAL SYSTEM REQUIREMENTS

Year	Base Case (MWh)	Weather Adjusted (MWh)	ECONOMIC SCENARIOS		WEATHER SCENARIOS	
			Optimistic (MWh)	Pessimistic (MWh)	Extreme (MWh)	Mild (MWh)
1997	326,188	329,979				
1998	342,393	349,690				
1999	358,980	367,582				
2000	380,127	380,899				
2001	383,092	389,627				
2002	411,103	401,592				
2003	410,534	420,829				
2004	418,015	428,242				
2005	448,573	444,872				
2006	435,963	452,267				
2007	474,936	462,460				
2008	476,340	468,625				
2009	454,402	464,584				
2010	507,981	480,531				
2011	480,251	480,343				
2012	465,662	472,958				
2013		477,538	480,890	473,121	511,279	460,147
2014		471,031	477,468	462,160	499,204	448,984
2015		463,560	472,920	450,343	491,395	440,455
2016		460,655	472,975	443,080	488,132	436,470
2017		463,875	479,366	441,768	490,706	438,782
2018		466,814	485,668	440,310	493,110	440,961
2019		469,590	491,816	438,689	495,314	442,946
2020		472,359	498,075	437,129	497,569	444,983
2021		475,576	504,875	436,072	500,339	447,484
2022		478,784	511,771	435,067	503,145	450,023
2023		481,873	518,607	433,975	505,839	452,457
2024		484,759	525,310	432,748	508,351	454,731
2025		487,599	532,009	431,484	510,808	456,947
2026		490,445	538,770	430,243	513,278	459,170
2027		493,197	545,481	428,938	515,653	461,303

ANNUAL GROWTH RATES						
1997-2002	4.7%	4.0%				
2002-2007	2.9%	2.9%				
2007-2012	-0.4%	0.4%				
2012-2017		-0.4%	0.3%	-1.4%	0.7%	-1.5%
2017-2022		0.6%	1.3%	-0.3%	0.5%	0.5%
2022-2027		0.6%	1.3%	-0.3%	0.5%	0.5%
2012-2027		0.3%	1.0%	-0.6%	0.6%	-0.2%

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - RANGE FORECASTS

TOTAL SYSTEM NCP DEMAND - SUMMER

Year	Base Case (kW)	Weather Adjusted (MWh)	ECONOMIC SCENARIOS		WEATHER SCENARIOS	
			Optimistic (kW)	Pessimistic (kW)	Extreme (kW)	Mild (kW)
1997	73,209	-				
1998	75,683	-				
1999	84,304	-				
2000	82,626	-				
2001	82,035	-				
2002	87,317	-				
2003	84,899	-				
2004	83,215	95,959				
2005	94,288	95,578				
2006	93,729	99,176				
2007	99,582	95,520				
2008	89,923	96,015				
2009	90,480	97,592				
2010	104,535	96,460				
2011	100,746	100,674				
2012	105,717	98,488				
2013		95,367	95,848	94,299	112,035	90,008
2014		95,453	96,561	93,466	110,379	88,617
2015		95,497	97,224	92,585	108,491	87,038
2016		96,009	98,374	92,160	107,673	86,318
2017		96,986	99,708	91,892	108,289	86,749
2018		97,298	100,992	91,563	108,833	87,126
2019		97,872	102,244	91,200	109,332	87,465
2020		98,436	103,504	90,835	109,826	87,801
2021		99,104	104,899	90,597	110,452	88,252
2022		99,770	106,315	90,371	111,087	88,713
2023		100,407	107,710	90,117	111,687	89,146
2024		100,997	109,068	89,827	112,236	89,538
2025		101,575	110,422	89,526	112,770	89,917
2026		102,156	111,789	89,229	113,305	90,297
2027		102,717	113,146	88,920	113,819	90,661

ANNUAL GROWTH RATES						
1997-2002	3.6%					
2002-2007	2.7%					
2007-2012	1.2%	0.6%				
2012-2017		-0.3%	0.2%	-1.4%	1.9%	-2.5%
2017-2022		0.6%	1.3%	-0.3%	0.5%	0.4%
2022-2027		0.6%	1.3%	-0.3%	0.5%	0.4%
2012-2027		0.3%	0.9%	-0.7%	1.0%	-0.6%

NCP equals the sum of Rural system CP and Direct Serve NCP

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - RANGE FORECASTS

TOTAL SYSTEM NCP DEMAND - WINTER

Year	Base Case (kW)	Weather Adjusted (MWh)	ECONOMIC SCENARIOS		WEATHER SCENARIOS	
			Optimistic (kW)	Pessimistic (kW)	Extreme (kW)	Mild (kW)
1997	75,295	-				
1998	68,332	-				
1999	80,491	-				
2000	83,823	-				
2001	90,880	-				
2002	83,519	-				
2003	100,461	-				
2004	101,467	97,121				
2005	102,051	108,592				
2006	101,172	116,938				
2007	114,050	115,595				
2008	120,465	123,793				
2009	132,531	125,818				
2010	118,831	118,873				
2011	127,271	123,637				
2012	104,852	118,612				
2013		112,567	113,097	111,269	138,695	95,037
2014		112,642	113,876	110,222	136,591	93,458
2015		112,692	114,649	109,170	134,254	91,734
2016		113,295	115,979	108,639	133,209	90,882
2017		114,466	117,513	108,282	133,950	91,256
2018		114,786	119,003	107,867	134,615	91,592
2019		115,459	120,473	107,430	135,242	91,901
2020		116,116	121,942	106,979	135,851	92,199
2021		116,895	123,569	106,678	136,623	92,622
2022		117,661	125,198	106,367	137,379	93,035
2023		118,395	126,808	106,030	138,099	93,423
2024		119,072	128,370	105,644	138,751	93,764
2025		119,740	129,936	105,256	139,394	94,100
2026		120,410	131,518	104,874	140,039	94,438
2027		121,057	133,089	104,476	140,658	94,758

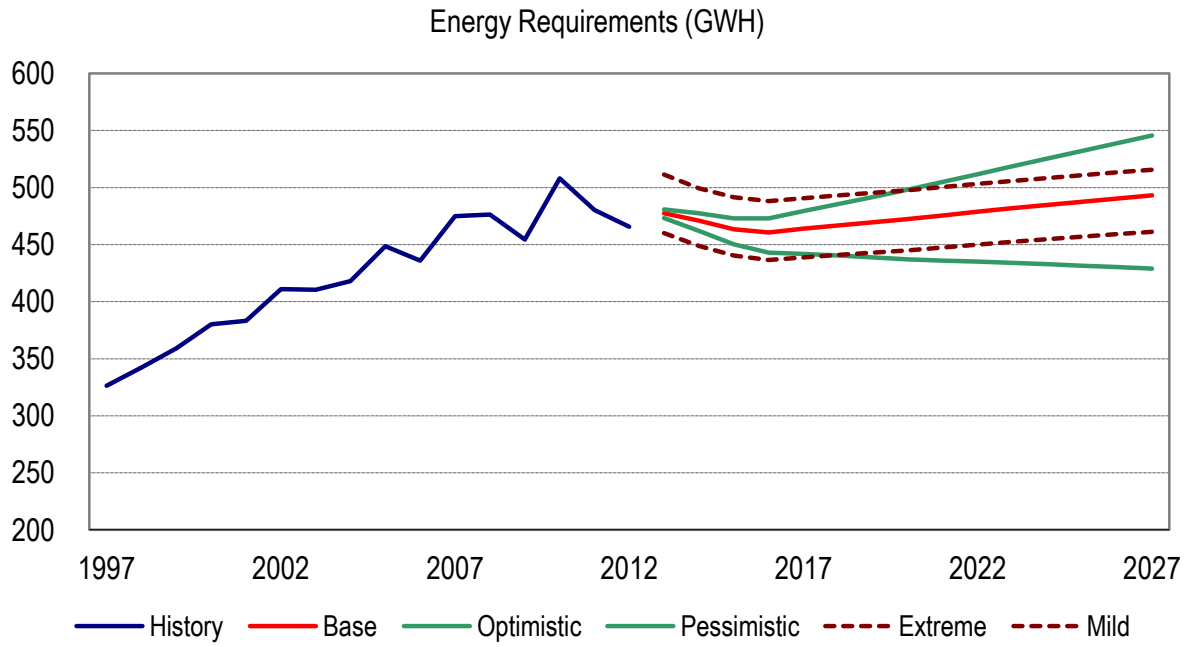
ANNUAL GROWTH RATES						
1997-2002	2.1%					
2002-2007	6.4%					
2007-2012	-1.7%	0.5%				
2012-2017		-0.7%	-0.2%	-1.8%	2.5%	-5.1%
2017-2022		0.6%	1.3%	-0.4%	0.5%	0.4%
2022-2027		0.6%	1.2%	-0.4%	0.5%	0.4%
2012-2027		0.1%	0.8%	-0.8%	1.1%	-1.5%

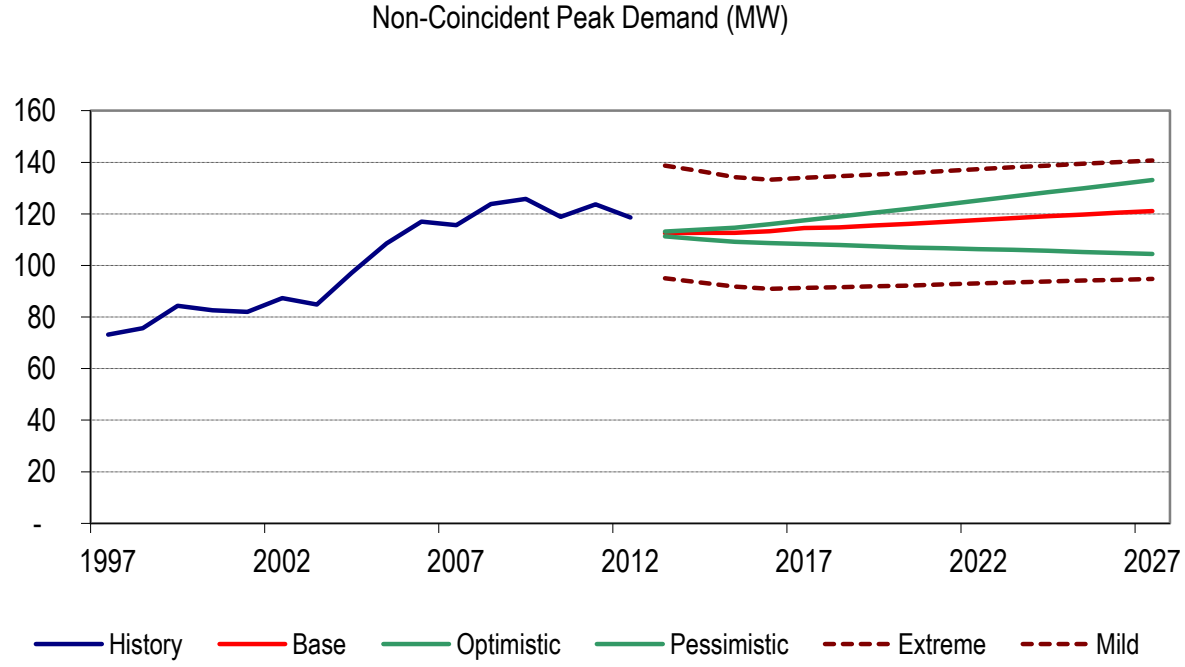
NCP equals the sum of Rural system CP and Direct Serve NCP

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - RANGE FORECASTS

TOTAL SYSTEM REQUIREMENTS





MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - RANGE FORECASTS

RURAL SYSTEM REQUIREMENTS

Year	Base Case (MWh)	Weather Adjusted (MWh)	ECONOMIC SCENARIOS		WEATHER SCENARIOS	
			Optimistic (MWh)	Pessimistic (MWh)	Extreme (MWh)	Mild (MWh)
1997	326,188	329,979				
1998	342,393	349,690				
1999	358,980	367,582				
2000	380,127	380,899				
2001	383,092	389,627				
2002	411,103	401,592				
2003	410,534	420,829				
2004	418,015	428,242				
2005	448,573	444,872				
2006	435,963	452,267				
2007	474,936	462,460				
2008	476,340	468,625				
2009	454,402	464,584				
2010	507,981	480,531				
2011	480,251	480,343				
2012	465,662	472,958				
2013		478,360	481,712	473,943	512,101	460,969
2014		472,601	479,038	463,729	500,773	450,553
2015		465,894	475,254	452,676	493,729	442,788
2016		463,775	476,094	446,199	491,251	439,589
2017		467,796	483,287	445,689	494,627	442,703
2018		471,403	490,257	444,899	497,699	445,550
2019		474,881	497,107	443,979	500,604	448,237
2020		478,292	504,008	443,062	503,502	450,916
2021		482,116	511,415	442,612	506,879	454,024
2022		485,884	518,871	442,167	510,245	457,123
2023		489,522	526,256	441,624	513,488	460,106
2024		492,923	533,474	440,912	516,516	462,895
2025		496,288	540,699	440,173	519,498	465,636
2026		499,657	547,982	439,455	522,490	468,382
2027		502,930	555,214	438,671	525,386	471,036

ANNUAL GROWTH RATES						
1997-2002	4.7%	4.0%				
2002-2007	2.9%	2.9%				
2007-2012	-0.4%	0.4%				
2012-2017		-0.2%	0.4%	-1.2%	0.9%	-1.3%
2017-2022		0.8%	1.4%	-0.2%	0.6%	0.6%
2022-2027		0.7%	1.4%	-0.2%	0.6%	0.6%
2012-2027		0.4%	1.1%	-0.5%	0.7%	0.0%

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - RANGE FORECASTS

RURAL SYSTEM CP DEMAND - SUMMER

Year	Base Case (MWh)	Weather Adjusted (MWh)	ECONOMIC SCENARIOS		WEATHER SCENARIOS	
			Optimistic (kW)	Pessimistic (kW)	Extreme (kW)	Mild (kW)
1997	73,209	-				
1998	75,683	-				
1999	84,304	-				
2000	82,626	-				
2001	82,035	-				
2002	87,317	-				
2003	84,899	-				
2004	83,215	95,959				
2005	94,288	95,578				
2006	93,729	99,176				
2007	99,582	95,520				
2008	89,923	96,015				
2009	90,480	97,592				
2010	104,535	96,460				
2011	100,746	100,674				
2012	105,717	98,488				
2013		95,367	96,000	94,452	112,187	90,160
2014		95,453	96,865	93,770	110,683	88,921
2015		95,497	97,685	93,045	108,952	87,499
2016		96,009	98,995	92,780	108,294	86,938
2017		96,986	100,492	92,677	109,074	87,533
2018		97,298	101,928	92,499	109,769	88,062
2019		97,872	103,339	92,295	110,427	88,560
2020		98,436	104,754	92,084	111,075	89,051
2021		99,104	106,284	91,982	111,837	89,637
2022		99,770	107,825	91,880	112,597	90,223
2023		100,407	109,347	91,754	113,324	90,783
2024		100,997	110,830	91,589	113,998	91,300
2025		101,575	112,312	91,416	114,660	91,807
2026		102,156	113,807	91,247	115,323	92,315
2027		102,717	115,291	91,065	115,964	92,806

ANNUAL GROWTH RATES						
1997-2002	3.6%					
2002-2007	2.7%					
2007-2012	1.2%	0.6%				
2012-2017		-0.3%	0.4%	-1.2%	2.1%	-2.3%
2017-2022		0.6%	1.4%	-0.2%	0.6%	0.6%
2022-2027		0.6%	1.3%	-0.2%	0.6%	0.6%
2012-2027		0.3%	1.1%	-0.5%	1.1%	-0.4%

Rural CP equals highest 1-hour simultaneous peak on all rural substations

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - RANGE FORECASTS

RURAL SYSTEM CP DEMAND - WINTER

Year	Base Case (MWh)	Weather Adjusted (MWh)	ECONOMIC SCENARIOS		WEATHER SCENARIOS	
			Optimistic (kW)	Pessimistic (kW)	Extreme (kW)	Mild (kW)
1997	75,295	-				
1998	68,332	-				
1999	80,491	-				
2000	83,823	-				
2001	90,880	-				
2002	83,519	-				
2003	100,461	-				
2004	101,467	97,121				
2005	102,051	108,592				
2006	101,172	116,938				
2007	114,050	115,595				
2008	120,465	123,793				
2009	132,531	125,818				
2010	118,831	118,873				
2011	127,271	123,637				
2012	104,852	118,612				
2013		112,567	113,312	111,484	138,910	95,252
2014		112,642	114,306	110,651	137,020	93,888
2015		112,692	115,272	109,793	134,877	92,357
2016		113,295	116,816	109,476	134,046	91,719
2017		114,466	118,564	109,333	135,001	92,308
2018		114,786	120,247	109,111	135,858	92,835
2019		115,459	121,909	108,865	136,677	93,337
2020		116,116	123,569	108,606	137,478	93,826
2021		116,895	125,367	108,475	138,420	94,419
2022		117,661	127,165	108,334	139,346	95,002
2023		118,395	128,944	108,166	140,235	95,559
2024		119,072	130,674	107,949	141,056	96,069
2025		119,740	132,409	107,729	141,867	96,572
2026		120,410	134,158	107,514	142,679	97,078
2027		121,057	135,895	107,282	143,465	97,564

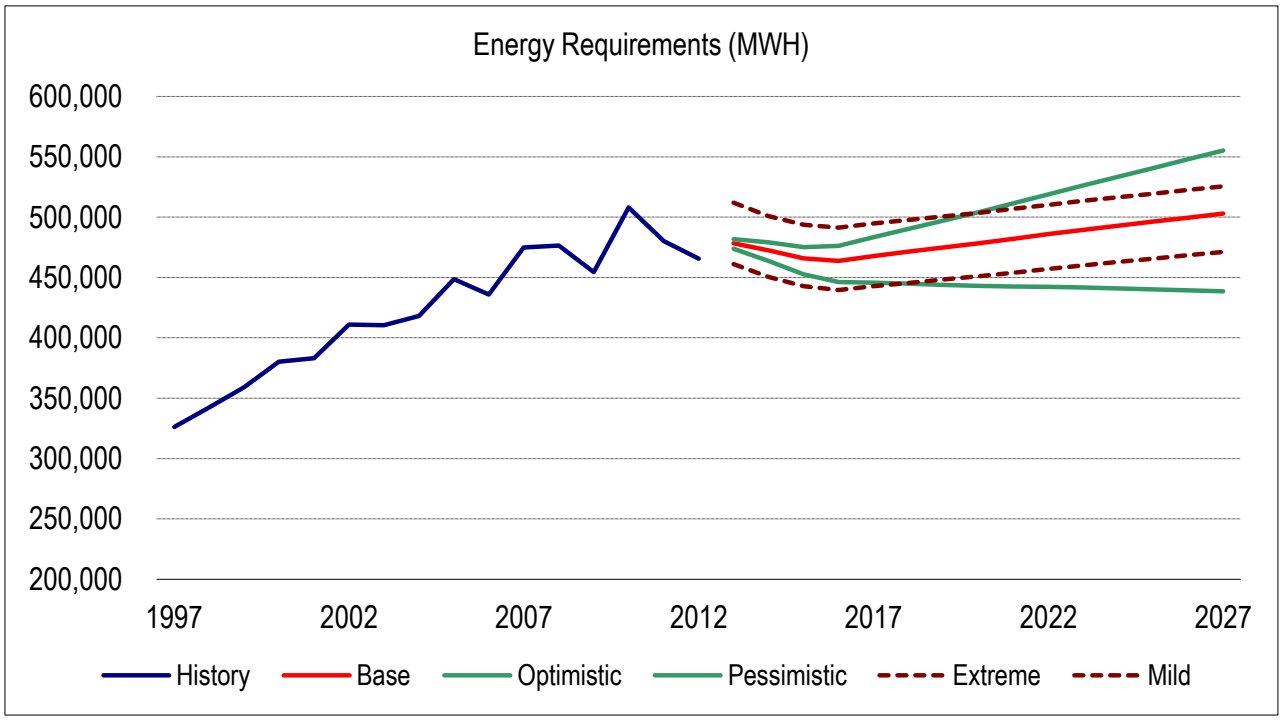
ANNUAL GROWTH RATES						
1997-2002	2.1%					
2002-2007	6.4%					
2007-2012	-1.7%	0.5%				
2012-2017		-0.7%	0.0%	-1.6%	2.6%	-4.9%
2017-2022		0.6%	1.4%	-0.2%	0.6%	0.6%
2022-2027		0.6%	1.3%	-0.2%	0.6%	0.5%
2012-2027		0.1%	0.9%	-0.7%	1.3%	-1.3%

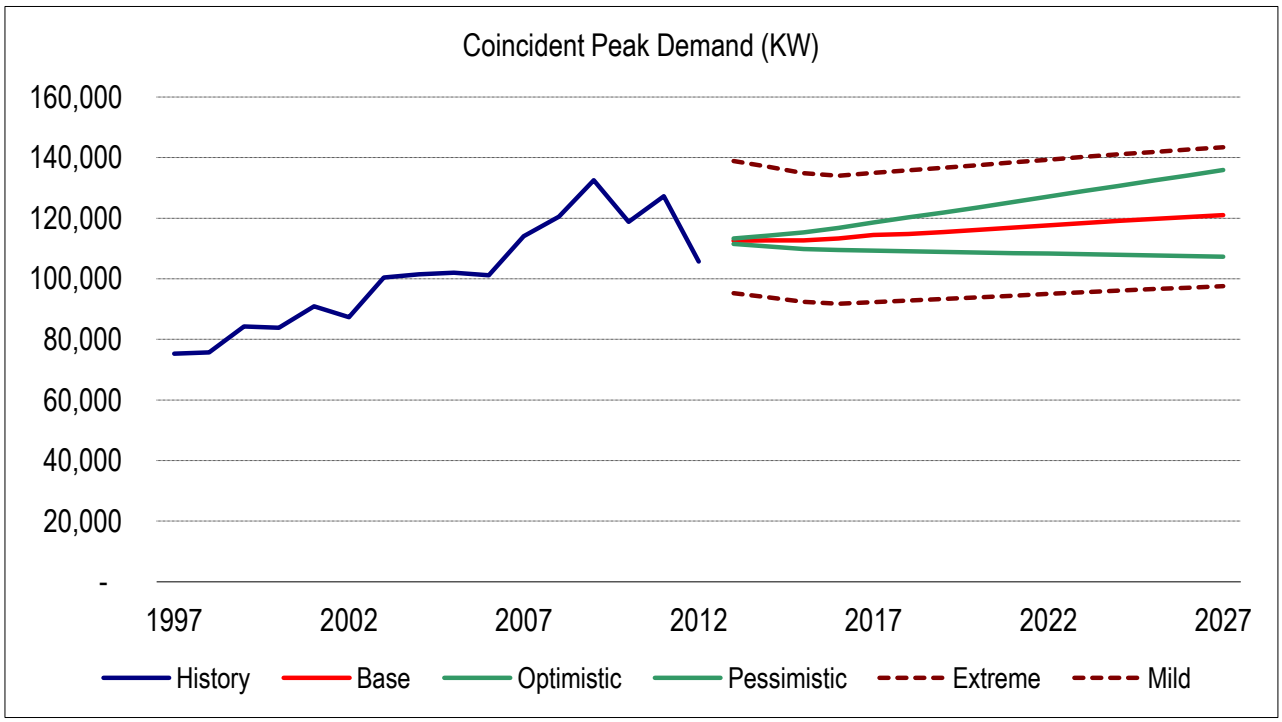
Rural CP equals highest 1-hour simultaneous peak on all rural substations

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - RANGE FORECASTS

RURAL SYSTEM REQUIREMENTS





MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - RANGE FORECASTS

RURAL SYSTEM REQUIREMENTS

Year	Base Case (MWh)	Weather Adjusted (MWh)	ECONOMIC SCENARIOS		WEATHER SCENARIOS	
			Optimistic (MWh)	Pessimistic (MWh)	Extreme (MWh)	Mild (MWh)
1997	326,188	329,979				
1998	342,393	349,690				
1999	358,980	367,582				
2000	380,127	380,899				
2001	383,092	389,627				
2002	411,103	401,592				
2003	410,534	420,829				
2004	418,015	428,242				
2005	448,573	444,872				
2006	435,963	452,267				
2007	474,936	462,460				
2008	476,340	468,625				
2009	454,402	464,584				
2010	507,981	480,531				
2011	480,251	480,343				
2012	465,662	472,958				
2013		478,360	481,712	473,943	512,101	460,969
2014		472,601	479,038	463,729	500,773	450,553
2015		465,894	475,254	452,676	493,729	442,788
2016		463,775	476,094	446,199	491,251	439,589
2017		467,796	483,287	445,689	494,627	442,703
2018		471,403	490,257	444,899	497,699	445,550
2019		474,881	497,107	443,979	500,604	448,237
2020		478,292	504,008	443,062	503,502	450,916
2021		482,116	511,415	442,612	506,879	454,024
2022		485,884	518,871	442,167	510,245	457,123
2023		489,522	526,256	441,624	513,488	460,106
2024		492,923	533,474	440,912	516,516	462,895
2025		496,288	540,699	440,173	519,498	465,636
2026		499,657	547,982	439,455	522,490	468,382
2027		502,930	555,214	438,671	525,386	471,036

ANNUAL GROWTH RATES						
1997-2002	4.7%	4.0%				
2002-2007	2.9%	2.9%				
2007-2012	-0.4%	0.4%				
2012-2017		-0.2%	0.4%	-1.2%	0.9%	-1.3%
2017-2022		0.8%	1.4%	-0.2%	0.6%	0.6%
2022-2027		0.7%	1.4%	-0.2%	0.6%	0.6%
2012-2027		0.4%	1.1%	-0.5%	0.7%	0.0%

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - RANGE FORECASTS

RURAL SYSTEM DELIVERY POINT NCP DEMAND - SUMMER

Year	Base Case (MWh)	Weather Adjusted (MWh)	ECONOMIC SCENARIOS		WEATHER SCENARIOS	
			Optimistic (kW)	Pessimistic (kW)	Extreme (kW)	Mild (kW)
1997	78,334	-				
1998	80,981	-				
1999	90,205	-				
2000	88,410	-				
2001	87,777	-				
2002	93,429	-				
2003	90,842	-				
2004	89,040	102,676				
2005	100,888	102,269				
2006	100,290	106,118				
2007	106,552	102,207				
2008	96,217	102,736				
2009	96,813	104,423				
2010	111,852	103,212				
2011	107,798	107,721				
2012	113,118	105,382				
2013		102,043	102,720	101,064	120,040	96,471
2014		102,135	103,646	100,334	118,431	95,145
2015		102,181	104,523	99,558	116,578	93,623
2016		102,730	105,924	99,275	115,874	93,024
2017		103,775	107,527	99,164	116,709	93,661
2018		104,109	109,063	98,974	117,453	94,227
2019		104,723	110,573	98,756	118,157	94,760
2020		105,327	112,086	98,530	118,850	95,284
2021		106,041	113,724	98,420	119,666	95,912
2022		106,754	115,373	98,312	120,479	96,539
2023		107,435	117,001	98,177	121,256	97,137
2024		108,066	118,588	98,000	121,978	97,691
2025		108,686	120,174	97,815	122,686	98,233
2026		109,307	121,774	97,635	123,396	98,777
2027		109,907	123,362	97,440	124,082	99,302

ANNUAL GROWTH RATES						
1997-2002	3.6%					
2002-2007	2.7%					
2007-2012	1.2%	0.6%				
2012-2017		-0.3%	0.4%	-1.2%	2.1%	-2.3%
2017-2022		0.6%	1.4%	-0.2%	0.6%	0.6%
2022-2027		0.6%	1.3%	-0.2%	0.6%	0.6%
2012-2027		0.3%	1.1%	-0.5%	1.1%	-0.4%

Delivery point NCP is the sum of substation NCPs and estimated at 107 percent of Rural CP demand

MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

2013 LONG-TERM LOAD FORECAST - RANGE FORECASTS

RURAL SYSTEM DELIVERY POINT NCP DEMAND - WINTER

Year	Base Case (MWh)	Weather Adjusted (MWh)	ECONOMIC SCENARIOS Optimistic (kW)	ECONOMIC SCENARIOS Pessimistic (kW)	WEATHER SCENARIOS Extreme (kW)	WEATHER SCENARIOS Mild (kW)
1997	75,295	-				
1998	68,332	-				
1999	80,491	-				
2000	83,823	-				
2001	90,880	-				
2002	83,519	-				
2003	100,461	-				
2004	101,467	103,920				
2005	102,051	116,194				
2006	101,172	125,123				
2007	114,050	123,687				
2008	120,465	132,458				
2009	132,531	134,625				
2010	118,831	127,194				
2011	127,271	132,291				
2012	104,852	126,915				
2013		120,446	121,244	119,288	148,634	101,920
2014		120,527	122,308	118,397	146,612	100,460
2015		120,580	123,341	117,479	144,318	98,822
2016		121,226	124,993	117,139	143,429	98,140
2017		122,478	126,864	116,987	144,451	98,769
2018		122,821	128,664	116,749	145,368	99,334
2019		123,541	130,443	116,486	146,245	99,871
2020		124,244	132,219	116,209	147,101	100,394
2021		125,078	134,143	116,068	148,110	101,029
2022		125,897	136,067	115,917	149,101	101,652
2023		126,683	137,970	115,738	150,052	102,248
2024		127,407	139,821	115,505	150,930	102,794
2025		128,122	141,677	115,270	151,797	103,333
2026		128,839	143,549	115,039	152,667	103,873
2027		129,531	145,408	114,792	153,507	104,394

ANNUAL GROWTH RATES						
1997-2002	2.1%					
2002-2007	6.4%					
2007-2012	-1.7%	0.5%				
2012-2017		-0.7%	0.0%	-1.6%	2.6%	-4.9%
2017-2022		0.6%	1.4%	-0.2%	0.6%	0.6%
2022-2027		0.6%	1.3%	-0.2%	0.6%	0.5%
2012-2027		0.1%	0.9%	-0.7%	1.3%	-1.3%

Delivery point NCP is the sum of substation NCPs and estimated at 107 percent of Rural CP demand

Appendix D
Econometric Model Specifications

MEADE COUNTY RECC

2013 LOAD FORECAST

MODEL SPECIFICATIONS

RESIDENTIAL CONSUMERS - SHORT-TERM FORECAST

Dependent Variable: Residential Consumers

Model Type: Econometric

Model Specification:

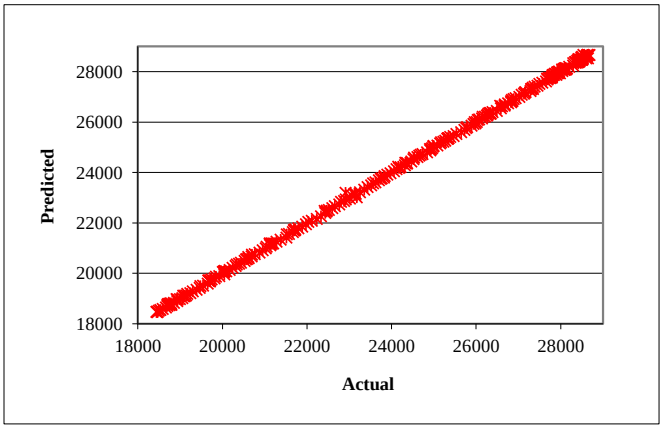
Variable	Description	Value	Standard Err.	t-Statistic	p-Value
Simple		0.848	0.060	14.107	0.00%
Trend		0.050	0.021	2.434	1.56%
Seasonal		0.041	0.070	0.586	55.80%

Summary Model Statistics:

R-Squared	1.000
Adjusted R-Squared	1.000
Durbin-Watson Statistic	7.4
Mean Abs. % Err. (MAPE)	0.00%

Adjusted Observations	276
Deg. of Freedom for Error	273
F-Statistic	#NA
Prob (F-Statistic)	#NA
Bayesian Information Criterian (BIC)	7.40
Model Sum of Squares	3,109,789,633
Sum of Squared Errors	424,631
Mean Squared Error	1,555.00
Std. Error of Regression	39.00
Mean Abs. Dev. (MAD)	29.00

Predicted vs. Actual



MEADE COUNTY RECC

2013 LOAD FORECAST

MODEL SPECIFICATIONS

RESIDENTIAL CONSUMERS - LONG-TERM FORECAST

Dependent Variable: Residential Consumers

Model Type: Econometric

Model Specification:

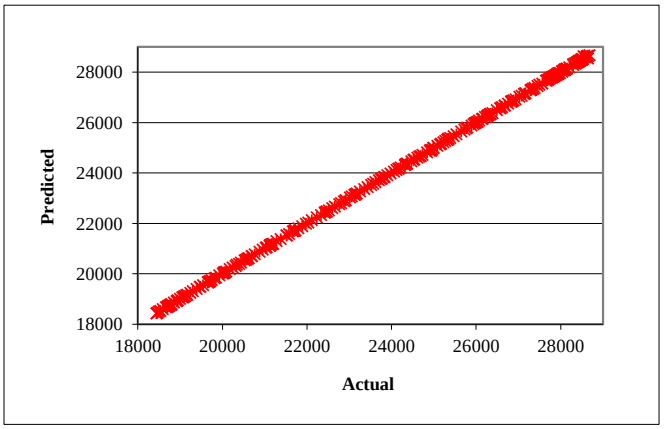
Variable	Description	Value	Standard Err.	t-Statistic	p-Value
INT	Intercept	(23,915)	1,016	(23.5)	0.00%
HH	Households	703.810	23.739	29.6	0.00%
HHMKT	Households market share	36,637.911	612.399	59.8	0.00%
AR	Autoregressive term	0.988	0.006	160.4	0.00%

Summary Model Statistics:

R-Squared	1.000
Adjusted R-Squared	1.000
Durbin-Watson Statistic	2.201
Mean Abs. % Err. (MAPE)	0.03%

Adjusted Observations	275
Deg. of Freedom for Error	271
F-Statistic	6,103,676
Prob (F-Statistic)	0%
Bayesian Information Criterian (BIC)	5.19
Model Sum of Squares	3,078,177,855
Sum of Squared Errors	45,556
Mean Squared Error	168.11
Std. Error of Regression	12.97
Mean Abs. Dev. (MAD)	8.12

Predicted vs. Actual



MEADE COUNTY RECC

2013 LOAD FORECAST

MODEL SPECIFICATIONS

RESIDENTIAL USE - LONG-TERM FORECAST

Dependent Variable: Residential Use

Model Type: Econometric

Model Specification:

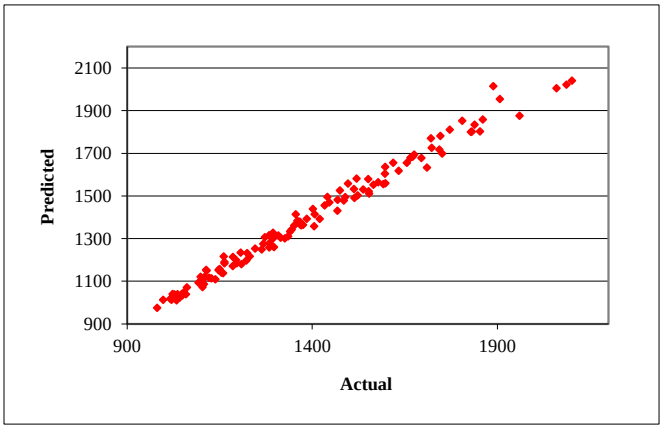
Variable	Description	Value	Standard Err.	t-Statistic	p-Value
CONST		1,058.71	79	13.4	0.00%
HHIncome		0.219	0.631	0.3	72.95%
Rural Price		(33.376)	12.096	(2.8)	0.68%
WTCDD		2.635	0.090	29.3	0.00%
WTHSS		2.355	0.039	61.0	0.00%
Binary Variable for the month of February		(82.372)	13.689	(6.0)	0.00%
Binary Variable for the month of March		(46.156)	13.139	(3.5)	0.07%
Binary Variable for the month of April		(79.647)	13.605	(5.9)	0.00%
Binary Variable for the month of July		71.072	15.863	4.5	0.00%
Binary Variable for the month of August		69.890	15.448	4.5	0.00%
Binary Variable for the month of October		(51.016)	13.629	(3.7)	0.03%
Binary Variable for the month of November		(77.307)	13.397	(5.8)	0.00%
Binary Variable for the month of December		27.878	13.881	2.0	4.71%

Summary Model Statistics:

R-Squared	0.987
Adjusted R-Squared	0.985
Durbin-Watson Statistic	1.31
Mean Abs. % Err. (MAPE)	1.67%

Adjusted Observations	120
Deg. of Freedom for Error	107
F-Statistic	665
Prob (F-Statistic)	0%
Bayesian Information Criterian (BIC)	7.41
Model Sum of Squares	8,840,789
Sum of Squared Errors	118,523
Mean Squared Error	1,107.70
Std. Error of Regression	33.28
Mean Abs. Dev. (MAD)	24.15

Predicted vs. Actual



BIG RIVERS ELECTRIC CORPORATION

2013 LOAD FORECAST

MODEL SPECIFICATIONS

RURAL COINCIDENT PEAK DEMAND - LONG-TERM FORECAST

Dependent Variable: Rural Summer CP Demand

Model Type: Econometric

Model Specification:

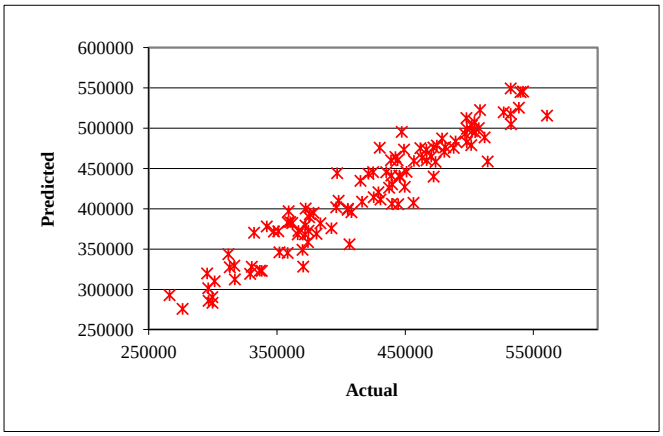
Variable	Description	Value	Standard Err.	t-Statistic	p-Value
CONST		(275,590)	89,289	(3.1)	0.26%
AnnRuralKWHn_Pr50		0.0003	0.0000	6.5	0.00%
MWthr.PkCDD65		6,474.7721	1,110.4976	5.8	0.00%
MWthr.Lag2PkCDD65		3,220.1211	1,213.9820	2.7	0.93%
MWthr.PkHDD55		3,563.3012	447.5456	8.0	0.00%
MWthr.Lag2PkHDD55		1,160.5155	464.2642	2.5	1.41%
MBin.Mar		(22,359.6207)	8,097.9876	(2.8)	0.69%
MBin.Apr		(40,911.8124)	9,251.0132	(4.4)	0.00%
MBin.May		(44,289.7990)	7,978.2796	(5.6)	0.00%
MBin.Oct		(47,065.278)	8,857.951	(5.3)	0.00%

Summary Model Statistics:

R-Squared	0.917
Adjusted R-Squared	0.91
Durbin-Watson Statistic	2.04
Mean Abs. % Err. (MAPE)	3.92%

Adjusted Observations	108
Deg. of Freedom for Error	98
F-Statistic	121
Prob (F-Statistic)	0%
Bayesian Information Criterian (BIC)	20.28
Model Sum of Squares	499,761,124,731
Sum of Squared Errors	45,112,203,896
Mean Squared Error	460,328,611.18
Std. Error of Regression	21,455.27
Mean Abs. Dev. (MAD)	15,900.98

Predicted vs. Actual



Appendix E
RUS Form 341

USDA-RUS

POWER REQUIREMENTS STUDY SUMMARY

1. BORROWER DESIGNATION: Kentucky 18

Form Approved OMB No. 0572-0054
Exp. Date Available Upon Req.

2. NAME OF BORROWER: Meade County Rural Electric Cooperative Corporation

3. DATE: 25-Jul-13

CLASS OF CONSUMER	NO. OF CONSUMERS			AVERAGE MONTHLY kWh USAGE		
	Base Year 2012	2017	2022	Base Year 2012	2017	2022
4. Rural Residential	26,503	27,861	29,263	1,089	1,043	1,037
5. Seasonal						
6. Irrigation						
7. Commercial & Industrial 1000 kVA or less	2,082	2,188	2,257	3,646	3,607	3,561
8. Commercial & Industrial over 1000 kVA	0	0	0	0	0	0
9. Public Street & Highway Lighting	7	7	7	12,944	12,614	12,757
10. Other Sales to Public Authorities						
11. Sales for Resale - RUS Borrowers						
12. Sales for Resale - Others						

TOTAL SYSTEM POWER REQUIREMENTS

ITEM	Base Year 2012	2017	2022
13. Annual MWh Requirements	465,662	463,875	478,784
14. Including Losses @	5.8%	5.0%	5.0%
15. Annual Load Factor (Based on maximum monthly system peak demand)	50.3%	54.6%	54.8%
16. Maximum Monthly System Peak Demand (kW) (kW) ○ coincident ● noncoincident	105,717	96,986	99,770

17. Source(s) of Supply

Big Rivers Electric Corporation

18. Previous Power Requirements Study Date: June 2011

19. Comments (Use and additional sheet if more space is needed)

Borrower's General Manager (Signature)	Date	General Field Representative (Signature)	Date

RUS Form 341 (Rev. 1-87)