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Direct Testimony and Schedules
Jannell E. Marks

Before the Minnesota Public Utilities Commission
State of Minnesota

In the Matter of the Application of Northern States Power Company
for Authority to Increase Rates for Electric Service in Minnesota

Docket No. E002/GR-15-826
Exhibit___(JEM-1)

Sales Forecast

November 2, 2015

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Table of Contents

Schedules

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND OCCUPATION.

A. My name is Jannell E. Marks. I am the Director of the Sales, Energy and Demand Forecasting Department for Xcel Energy Services Inc. (XES), which is the service company subsidiary of Xcel Energy Inc. (XEI).

Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

A. I graduated from Colorado State University with a Bachelor of Science degree in statistics. I began my employment with Public Service Company of Colorado in 1982 in the Economics and Forecasting department, and in August 2000, following the merger of New Centuries Energy Inc. (NCE) and Northern States Power Company (NSP), I assumed the position of Manager, Economics and Energy Forecasting with XES. I was promoted to my current position with XES in February 2007. My resume is included as Exhibit___(JEM-1), Schedule 1.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. I support the Company's forecast of sales and customers for the period of January 1, 2016 through December 31, 2020. This forecast forms the basis for the Company's revenue forecast in this proceeding.

Q. DO YOU PROVIDE ANY ADDITIONAL INFORMATION RELATED TO THE SALES FORECAST?

A. Yes. To prepare testimony for this case, we reviewed the discovery related to the sales forecast from the 2013 rate case in Docket No. E002/GR-13-868. We incorporated some of this discovery into the October 2, 2015 prefiling. I have included some of the discovery in my testimony through expanded discussion and schedules. We are also providing additional updates to discovery submitted in the last case and in Docket No. E002/GR-12-961 in Appendix A to my testimony.[1]

II. OVERVIEW

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. My testimony presents the sales and customer count forecast and discusses the methodology used to develop the forecast. I also discuss the impact of decoupling on sales forecast issues and I propose a "true-up" for the Company's non-decoupled classes, in an effort to minimize the disputed issues in this proceeding. If the Commission accepts a true-up proposal, I believe any sales forecast issues in this proceeding can be resolved with a minimum amount of controversy.

I discuss the weather normalization of the sales forecast, the preparation of data used in the forecasting process, how unbilled and calendar month sales are calculated and how the rate schedule forecast is derived. I also discuss the

[1] Appendix A provides a list of relevant information requests from the 12-961 and 13-868 rate cases that I have already responded to in this case (with new time frames as appropriate to reflect the November 2, 2015 filing date of this case), indicating where the responsive information is included in my testimony or schedules, or if it is provided in Appendix A.

compliance requirements related to the sales forecast following previous electric rate cases, compliance requirements from Docket No. E,G-999/M-12-587 (Multiyear Rate Plan) and the issues raised in Docket No. E002/GR-13-868 related to the sales forecast.

As I discuss, the Company's forecast is based on sound statistical methodologies and provides a reasonable estimate of 2016 through 2020 MWh sales and customer counts, supports the Company's revenue projections and should be adopted for the purpose of determining the revenue requirement and final rates in this proceeding.

Q. PLEASE DISCUSS THE COMPLIANCE REQUIREMENTS RELATED TO THE SALES FORECAST FOLLOWING PREVIOUS ELECTRIC RATE CASES.

A. Order Point No. 18a of the Commission's September 3, 2013 Order issued in the Company's electric rate case in Docket No. E002/GR-12-961 (12-961 Order) required the Company to provide the Department of Commerce, Division of Energy Resources (Department), the data used in the test year sales forecast at least 30 days prior to filing a general rate case. The Company provided this information prior to filing its most recent rate case (Docket No. E002/GR-13-868) and continued this practice in the current case by providing the required information on October 2, 2015. The information was e-filed through the Commission's electronic filing system. I discuss the compliance requirements in more detail in Section XII of my testimony.

Q. ARE THERE SALES FORECAST COMPLIANCE REQUIREMENTS RELATED TO THE MULTIYEAR RATE PLAN FILED IN THIS CASE?

A. Yes. The Commission's June 17, 2013 Order in Docket No. E,G-999/M-12-587 requires that in addition to testimony supporting the proposed sales forecast and sales forecast methodology, that the utility submit an analysis of the historical accuracy of our short-term, medium-term and long-term forecasts. This comparison is provided in Exhibit___(JEM-1), Schedule 2 and discussed later in this section of my testimony.

Q. ARE THERE DEFINED TERMS YOU PLAN TO USE IN YOUR TESTIMONY?

A. Yes. The definitions of terms that are included in my testimony are provided in Exhibit___(JEM-1), Schedule 3.

Q. PLEASE EXPLAIN THE SIGNIFICANCE OF AN ACCURATE FORECAST.

A. We share an interest with our customers in having accurate forecasts. An accurate forecast allows the Company to recover its costs, no more and no less. In addition, forecasts are used for purposes other than setting revenues, such as resource planning, where it is important that the Company has sufficient energy to meet customer energy needs over time.

Q. PLEASE SUMMARIZE THE COMPANY'S FORECAST FOR 2016 THROUGH 2020.

A. The Company projects 2016 total sales to increase 0.7 percent to 30,689,986 MWh from 2015 levels, 2017 total sales to increase very slightly to 30,695,949 MWh, 2018 total sales to increase 0.2 percent to 30,755,235 MWh, 2019 total

sales to increase 0.4 percent to 30,866,808 MWh and 2020 total sales to increase 0.4 percent to 31,002,405 MWh.

Total year-end retail customers are expected to increase 0.7 percent to 1,274,015 customers in 2016, 0.7 percent to 1,282,509 customers in 2017, 0.7 percent to 1,291,306 customers in 2018, 0.8 percent to 1,301,132 customers in 2019 and 0.7 percent to 1,310,406 customers in 2020.

The projected growth in sales is a result of moderate increases in Commercial and Industrial sales combined with declining Residential sales. The declining Residential sales forecast reflects the continuation of declining use per customer in this class. That being said, the declining use per Residential customer is somewhat mitigated by increases in the number of Residential customers. The moderate increases in Commercial and Industrial sales are due to expected growth in both the Small and Large sectors. Use per customer in the Small Commercial and Industrial sector is projected to be flat or slightly declining over the next five years. However increasing customer counts will lead to increasing sales in the class. Growth in the Large Commercial and Industrial sales class is a result of expected growth in total employment.

A more detailed discussion of the forecast results is provided in Section IV of my testimony. The forecast methodology is discussed in Section V and Section VI of my testimony.

Q. HAVE YOU REVIEWED THE HISTORICAL ACCURACY OF THE COMPANY'S SHORT-TERM, MEDIUM-TERM AND LONG-TERM FORECASTS?

A. Yes. We analyzed forecasts from the past 10 years, beginning with the forecast developed in 2003. For this analysis, we considered short-term to be the forecast for the one year out (*i.e.*, the next full year), medium-term to be three years out and long-term to be five years out. We have full-year actual results for 2014, so long-term forecast accuracy statistics are available for forecasts developed in 2009 and earlier, medium-term statistics are available for forecasts developed in 2011 and earlier, and short-term statistics are available for forecasts developed in 2013 and earlier. The forecast variance is provided in Exhibit___(JEM-1), Schedule 2. This schedule provides a table with the annual forecast variances from 2003 to 2014. The table is shown three times: once with the long-term variances highlighted, once with the medium-term variances highlighted and once with the short-term variances highlighted. In the table, a negative number indicates weather-normalized actual sales were lower than forecast, and a positive number indicates weather-normalized actual sales were higher than forecast.

Q. WHAT ARE THE FORECASTING ACCURACY RESULTS?

A. Schedule 2 shows that our forecast variance generally is smaller for short-term forecasts and larger for long-term forecasts, but in all cases the results show that the Company's forecasts tend to modestly overstate actual sales. The average long-term variance is -8.9 percent, medium-term is -5.2 percent and short-term is -1.5 percent. Schedule 2 also shows that on a short-term and medium-term basis, the largest variance occurred in 2009, when we saw the

greatest negative impact on sales as a result of the economic recession. The forecast variance has generally improved since the recession. Contributing to the difference between forecast and actual has been economic forecasts that were too high and significant revisions to prior "actual" economic data. While we use the most current economic data available at the time the forecast is developed, in some cases this data is an estimated preliminary value, and it can take up to two years for final actual values to be reported. The updates to historical economic data have been material in the past. However, as the economy has stabilized over the past several years, the over-forecasting of the economy and the impact of historical actual economic data has lessened. In addition, prior to the last rate case we made enhancements to our forecasting models which have lead to improved accuracy.

Q. WHAT IS THE RATE IMPACT OF MODESTLY OVERSTATED SALES FORECASTS?

A. All else being equal, a modestly overstated forecast benefits customers, since such a forecast assumes the Company will receive more revenue than it actually receives. Therefore, rates will be set lower than they would have been set with a lower forecast.

Q. HAVE YOU ADDRESSED ANY OF THE CONCERNS ABOUT THE SALES FORECAST METHODOLOGY THAT WERE RAISED IN DOCKET NO. E002/GR-13-868?

A. Yes. In Docket No. E002/GR-13-868 concerns were raised related to the price escalator, the Demand Side Management (DSM) adjustment, and weather normalization. The Company has been in discussion with the Department about those methodological differences in advance of filing this

rate case. I will discuss the steps the Company has taken to address these concerns in Section VI and Section VII of my testimony. In addition, in the 13-868 Docket the Company agreed to a true-up to actuals. We propose a similar true-up in this case, which I discuss in Section III.

III. SALES FORECAST TRUE-UP PROPOSAL

Q. BEFORE TURNING TO THE SPECIFICS OF THE COMPANY'S FORECAST AND METHODOLOGY, PLEASE DISCUSS THE GOALS SOUGHT TO BE ACHIEVED IN A SALES FORECAST.

A. The goal of the sales forecast as used in a rate case is to best predict the ultimate sales that the Company will experience. Sales forecasts often become highly disputed issues in rate cases, given their impact on revenue requirements. For example, if the sales forecast projects lower sales than the utility ultimately achieves, rates will have been overstated, all else equal, and ratepayers will have paid more than necessary for the Company to earn its authorized return. Conversely, if the sales forecast is overstated, rates will be set too low, and the utility will be denied a reasonable opportunity to earn its authorized return.

Q. HOW DID PARTIES RESOLVE THIS ISSUE IN THE COMPANY'S LAST RATE CASE?

A. The parties found a reasonable solution, and avoided significant controversy, by agreeing to have actual data inform the proceeding rather than relying exclusively on one or the other of the competing forecasts.

Q. PLEASE EXPLAIN MORE HOW ACTUAL DATA CAN BE USED TO MINIMIZE THE CONTROVERSY RELATED TO THE SALES FORECAST AND FORECAST ACCURACY IN GENERAL RATE PROCEEDINGS.

A. As is typical in general rate proceedings, a test year sales forecast is produced to determine revenues at current and proposed rates. Due to the timing of the filing and length of time incurred to put together a complete case, the sales forecast is produced well in advance of the test year. In this proceeding, the 2016 test year sales forecast was completed in August of 2015, and the Company was able to use actual sales data through May of 2015 to develop this forecast. In our last rate case (Docket No. E002/GR-13-868), we were able to incorporate actual sales data through the course of the proceeding to better inform the record, which ultimately led to a better forecast that was more representative of future customer consumption.

Q. HOW DID ACTUAL SALES COMPARE WITH THE FORECAST IN THE COMPANY'S LAST ELECTRIC RATE CASE?

A. The Company filed a January 16, 2015 Compliance Filing providing the weather-normalized 2014 actual sales in Docket No. E002/GR-13-868. Table 1 below provides a comparison of the actual sales with the Department's and Xcel Energy's 2014 Test Year forecasts. As the table illustrates, weather-normalized 2014 actual retail sales were slightly higher than predicted in the Company's 2014 test year forecast (153,977 MWh or 0.5 percent) and slightly lower than the Department's forecast (145,018 MWh or 0.5 percent).

Table 1
2014 Weather-Normalized Sales Comparison by Class
Actual Sales vs. Xcel Energy and Department of Commerce Forecasts

	Xcel Energy		Department of Commerce	
Customer Class	**Difference Forecast vs. Actual Sales (MWh)**	**Difference Forecast vs. Actual Sales (%)**	**Difference Forecast vs. Actual Sales (MWh)**	**Difference Forecast vs. Actual Sales (%)**
Residential	88,001	1.0%	-11,221	-0.1%
Small Commercial & Industrial	171,313	1.3%	165,185	1.2%
Large Commercial & Industrial	-103,205	-1.2%	-296,691	-3.5%
Street Lighting	1,443	1.0%	1,442	1.0%
Public Authority	-6,733	-9.2%	-6,890	-9.3%
Interdepartmental	3,158	29.1%	3,158	39.1%
Total Retail	**153,977**	**0.5%**	**-145,018**	**-0.5%**

Q. WHAT DID THE COMPANY AND THE DEPARTMENT AGREE TO IN THE LAST RATE CASE TO RESOLVE THEIR SALES FORECAST DIFFERENCES AND WHAT MECHANISM DO YOU PROPOSE TO TRUE UP THE SALES FORECAST IN THIS CASE?

A. In our last rate case (Docket No. E002/GR-13-868), we worked with the Department to agree on a mechanism to utilize actual weather normalized sales data for the setting of rates for the 2014 test year.[2] This process allowed parties to take advantage of actual sales data rather than relying on the forecast, and the methodological differences therein. While methodological discussions are important, it is helpful to recognize that, at the end of the day, it is the overall accuracy of the forecast that counts. We therefore agreed to a true-up mechanism to ensure a more accurate sales forecast, regardless of

[2] Ms. Anne Heuer Evidentiary Hearing Opening Statement, Exhibit 140, pages 5-6.

methodological differences, and we propose to do so again in this case for our three-year MYRP request.

In addition to our October 2, 2015 prefiled forecast, we propose to submit the 12 months of weather-normalized actual sales data for the test year to set rates in this proceeding in January, 2017 to allow sufficient time for parties to review and comment. This information and expected trends can be reviewed by parties to provide assurance that the sales forecast we have used to set rates in this proceeding continues to be appropriate for ratemaking purposes. If, through the course of this proceeding, the updated information and expected trends indicate that the Company's sales forecast is either too high or too low, then our rates will be too low or too high. Should more current information indicate that adjustments to the forecast are needed, we will work with parties to see that appropriate steps are taken to ensure our sales forecast has the advantage of the most current information available.

Q. HOW WILL THE TRUE-UP WORK IN THE MULTI-YEAR RATE PLAN?

A. We propose a true-up for all years of the three-year MYRP request. For the test year and beyond, decoupling will be in place. For non-decoupled classes, we will have the true-up mechanism.

Q. WHAT IMPACT DOES THE DECOUPLING MECHANISM HAVE ON THE SALES FORECAST?

A. In our last case, the Company proposed a decoupling mechanism for our residential and non-demand metered C&I customers beginning in the second

year of our proposed multi-year plan.[3] From a forecasting perspective, this mechanism can mitigate disputes between parties by allowing for an annual true-up with actuals for the affected rate classes. The proposed decoupling mechanism will not be applied to the demand-metered Commercial and Industrial class, and therefore the use of actual sales data through the course of the test year and the rate case proceeding can assist in resolving differences among parties for that class. This type of discussion may ultimately prove more beneficial than continued disagreement and focus on components of the methodology.

Q. DOES THE PROPOSED DECOUPLING MECHANISM ELIMINATE THE NEED TO ADJUST FOR DSM IN THE SALES FORECAST?

A. In our last case, the Company and Department disagreed on the need to adjust for DSM in the sales forecast. In this case, if we use the true-up mechanism we have proposed for demand-metered C&I customers in addition to decoupling, the parties' prior debate becomes unnecessary.

Q. DOES THE COMPANY ALSO PROPOSE A TRUE-UP AS PART OF ITS FIVE-YEAR MYRP OFFER?

A. No, a true-up is not necessary for the five-year MYRP offer. Company witness Mr. Aakash H. Chandarana explains in his testimony the Company's overall approach to the five-year MYRP offer.

[3] Hansen Direct Testimony, Decoupling, Docket No. E002/GR-13-868

Q. IF A TRUE-UP IS UTILIZED, IS IT STILL IMPORTANT TO HAVE A REASONABLE SALES FORECAST?

A. Yes. The sales forecast should still be designed to provide the best prediction of sales. In this way, the size of any eventual true-up is minimized. However, with the true-up, some of the subtle differences in forecasting methodologies become more academic and will not impact the customers' ultimate bill. In this way, parties and the Commission can have confidence that our rates will be just and reasonable and can lessen the amount of scarce resources that need to be devoted to this issue.

IV. CUSTOMER AND SALES FORECAST

Q. WHAT GEOGRAPHICAL AREA DOES THE SALES FORECAST REFLECT?

A. My testimony and exhibits reflect electric usage and customers in Xcel Energy's Minnesota service territory.

Q. PLEASE DESCRIBE THE CUSTOMER CATEGORIES INCLUDED IN XCEL ENERGY'S CUSTOMER AND SALES FORECASTS.

A. The following customer classes comprise Xcel Energy's electric customer and sales forecasts:

- *Residential without Space Heating* – residential service for domestic purposes excluding space heating;
- *Residential with Space Heating* – residential service for domestic purposes including space heating;

- *Small Commercial and Industrial* – commercial and industrial service requiring less than 1,000 kilowatts (kW) billing demand per month on average per year;
- *Large Commercial and Industrial* – commercial and industrial service requiring more than 999 kW billing demand per month on average per year;
- *Public Street and Highway Lighting* – street lighting service available for year-round illumination of public streets, parkways and highways;
- *Other Sales to Public Authorities* – public authority service including municipal pumping service and fire and civil defense siren service; and
- *Interdepartmental Sales* – electric sales made to Xcel Energy gas facilities.

Q. HAVE THE DEFINITIONS OF THESE CUSTOMER CLASSES CHANGED DURING THE HISTORICAL SAMPLE PERIOD USED TO DEVELOP THE CUSTOMER AND SALES FORECASTS?

A. Yes. Prior to 2001, Xcel Energy's North operations (consisting of the former NSP operating system) considered a Commercial and Industrial customer to be large if the customer exceeded a maximum demand of 99 kW at any point in the previous 12-month period. To achieve consistency in reporting among operating companies within XEI, in 2001 that threshold changed to 999 kW. The 999 kW threshold was selected because it follows the Federal Energy Regulatory Commission's (FERC) suggested standards.

Q. HOW ARE CUSTOMER AND SALES FORECASTS USED IN THIS PROCEEDING?

A. The customer and sales forecasts are used to calculate the following:

1) The monthly and annual electric supply requirements;
2) Projected revenue under present rates; and
3) Projected revenue under proposed rates.

Q. WHAT IS XCEL ENERGY'S FORECAST OF ELECTRIC SALES AND CUSTOMERS FOR THE PERIOD JANUARY 1, 2016 THROUGH DECEMBER 31, 2020?

A. Exhibit___(JEM-1), Schedule 4 summarizes monthly MWh sales and number of customers for each customer class for the 2016 through 2020 time period. Table 2 provides the annual forecasts for each of these years. As I previously discussed, total retail sales are expected to increase from 30,689,986 MWh in 2016 to 31,002,405 MWh in 2020, which represents a 0.3 percent average annual growth rate. Total retail customers are expected to increase from 1,274,015 in 2016 to 1,310,406 in 2020, representing a 0.7 percent average annual growth rate.

Table 2
Total Retail Sales and Customer Forecasts (2016-2020)

	Sales (MWh)	Year-End Customers
2016	30,689,986	1,274,015
2017	30,695,949	1,282,509
2018	30,755,235	1,291,306
2019	30,866,808	1,301,132
2020	31,002,405	1,310,406

Q. HOW DOES THE GROWTH IN THE NUMBER OF ELECTRIC CUSTOMERS IN 2016 THROUGH 2020 COMPARE WITH HISTORICAL CUSTOMER GROWTH?

A. The 0.7 percent projected average annual growth rate for total retail customers is slightly lower than historical growth rate. The total number of electric retail customers in the Xcel Energy Minnesota service territory increased at an average annual rate of 0.9 percent from 1998 through 2014, or 10,151 customers per year on average. The largest class of customers is the Residential class, which represents 89 percent of total customers and has averaged a growth rate of 0.8 percent or 8,797 additions per year during the period from 1998 through 2014.

While annual growth in the number of electric customers has averaged 0.9 percent from 1998 through 2014, this growth has not been steady during this period of time. From 1998 through 2006, annual year-end retail customer growth ranged between 13,400 and 22,100 (1.2 percent to 1.9 percent), with the exception of 2005. In 2005, the Company implemented a new billing system, and as I explain more fully in Section VIII of my testimony, the resulting customer-count definitional changes resulted in a reduction in the count of customers following the billing system conversion.

Year-end customer growth slowed in 2007, with only 11,400 customer additions (1.0 percent). When the economic recession hit in 2008, electric retail customer growth slowed to fewer than 8,500 new customers (0.7 percent), followed by very weak growth in 2009 of about 3,100 new customers (0.3 percent). Some recovery occurred in 2010, with nearly 8,800 customer additions (0.7 percent), but then growth slowed again in 2011 and 2012, with only 5,300 and 5,800 new customers added (0.4 percent and 0.5

percent), respectively. Growth improved in 2013 and 2014, with 9,400 customers added in 2013 (0.8 percent) and 9,200 customers added in 2014 (0.7 percent). I expect the retail customer additions to remain around these levels, adding an average of 9,200 customers per year (0.7 percent) each year through 2020. I will explain the methodologies used to develop this forecast in Section V and Section VI of my testimony.

Table 3 below provides the historical and forecast annual customer growth rate by class for the time period 1998-2020.

Table 3
1998-2020 Year-End Percent Change in Customers

	Residential	Commercial & Industrial	Street Lighting	Public Authority	Total Retail
1998-2007 Average	1.1%	1.3%	3.7%	-0.9%	1.1%
2008-2014 Average	0.6%	0.7%	3.2%	0.2%	0.6%
2015 Forecast	0.8%	0.6%	3.0%	-0.3%	0.8%
2016 Forecast	0.7%	0.6%	2.5%	-0.2%	0.7%
2017 Forecast	0.7%	0.6%	2.6%	-0.2%	0.7%
2018 Forecast	0.7%	0.7%	2.6%	-0.2%	0.7%
2019 Forecast	0.8%	0.7%	2.4%	-0.1%	0.8%
2020 Forecast	0.7%	0.7%	2.2%	-0.1%	0.7%

Q. PLEASE EXPLAIN WHY THE STREET LIGHTING CUSTOMER COUNT GROWTH RATES ARE HIGHER THAN THE OTHER CLASSES.

A. The increase in the number of Street Lighting customers is occurring in the "customer owned metered street lighting" rate class where the customer owns

and operates the street light system and the Company only provides the energy. When a Street Light customer, such as a municipality, replaces a non-metered street light with a metered ornamental street light, the customer count increases by one.

Q. HOW DO THE 2016 THROUGH 2020 FORECASTED ELECTRIC SALES COMPARE WITH HISTORICAL WEATHER-NORMALIZED ELECTRIC SALES?

A. As I previously explained, Xcel Energy's Minnesota service territory total electric retail sales are projected to increase at an average annual rate of 0.3 percent during the 2016 to 2020 time period. This is lower than historical growth, which averaged 0.6 percent per year during the period of 1998 through 2014, after normalizing for weather. Residential sales have averaged growth of 1.1 percent, while total Commercial and Industrial sales have increased at an average annual rate of 0.4 percent during the 1998 through 2014 time period.

Similar to the pattern seen in historical customer growth, the recent economic recession had a major effect on sales, and the average annual growth rates prior to the recession are much larger than during and following the recession. From 1998 through 2007, retail sales increased at an average annual rate of 1.6 percent after normalizing for weather, with Residential sales increasing 2.2 percent per year on average, and Commercial and Industrial sales growing at an average rate of 1.3 percent per year. In contrast, as shown below on Table 4, with the onset of the economic recession in 2008, retail sales growth slowed to only 0.3 percent. In 2009, retail sales declined a significant 3.4

percent from 2008 levels. Slight growth returned after 2009, with sales increasing 0.7 percent in 2010 and 0.1 percent in 2011. Even though sales growth was positive in both 2010 and 2011, total retail sales in 2011 were still 2.7 percent lower than sales in 2008. Then in 2012, we lost two large customers due to plant closures at Ford Motor Company and Verso Paper Corporation. The loss of these two large customers, combined with continued sluggish sales growth in the Residential and Small Commercial and Industrial classes, resulted in total retail sales in 2012 declining 1.2 percent from 2011 levels, and declining another 1.4 percent in 2013 from 2012 levels. In 2014, sales improved modestly, increasing 0.4 percent from 2013 levels. Table 4 shows the impacts of the economic recession on our sales by customer class and our sales forecast for 2015 through 2020.

Table 4
1998-2020 Percent Change in MWh Sales

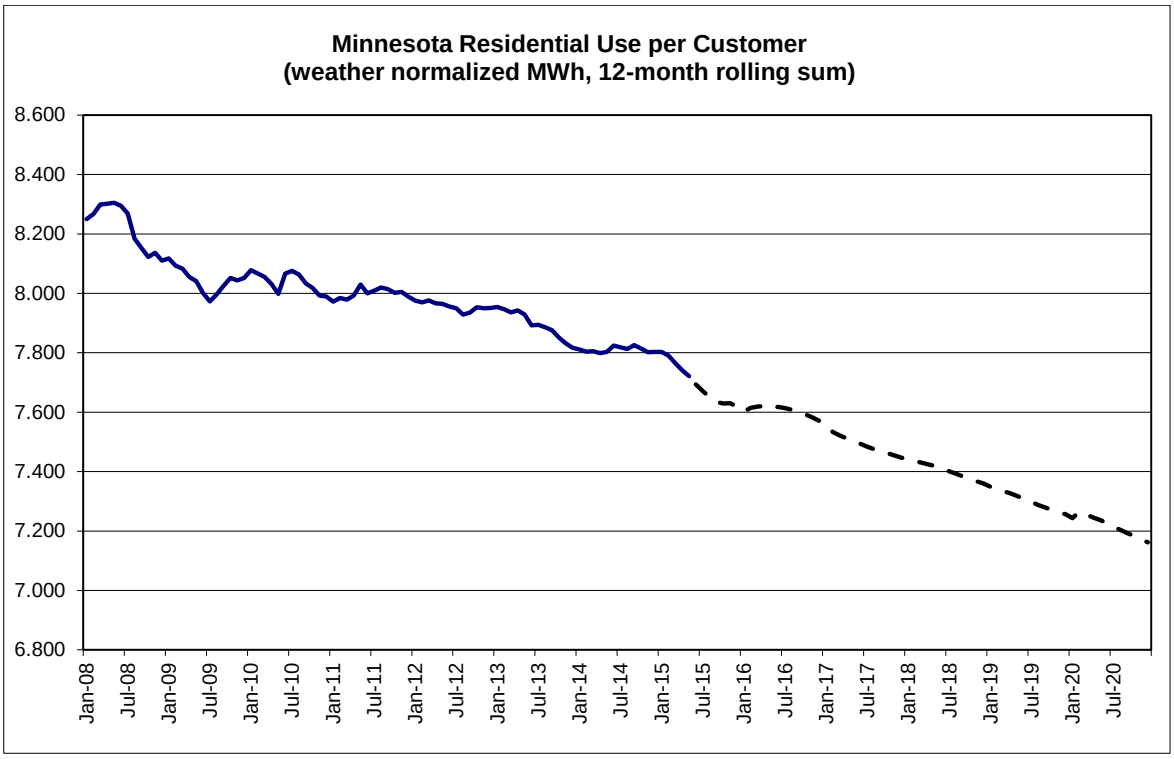
	Residential	Commercial & Industrial	Street Lighting	Public Authority	Interdepart-mental	Total Retail
1998-2007 Average	2.2%	1.3%	0.8%	-1.8%	0.1%	1.6%
2008	-1.7%	1.1%	0.2%	-909%	-41.7%	0.3%
2009	-0.3%	-4.7%	1.3%	-0.4%	29.5%	-3.4%
2010-2011 Average	0.1%	0.5%	1.9%	-3.6%	-5.8%	0.4%
2012-2013 Average	-0.6%	-1.6%	0.9%	-3.3%	-1.3%	-1.3%
2014	0.6%	0.4%	-1.7%	-4.0%	43.2%	0.4%
2015 Forecast	-1.6%	0.0%	-1.9%	4.5%	-12.4%	-0.4%
2016 Forecast	0.2%	0.9%	4.4%	1.2%	-6.1%	0.7%
2017 Forecast	-1.0%	0.4%	0.9%	-1.2%	0.0%	0.0%
2018 Forecast	-0.5%	0.5%	0.7%	-0.1%	0.0%	0.2%
2019 Forecast	-0.7%	0.8%	0.7%	-0.6%	0.0%	0.4%
2020 Forecast	-0.6%	0.8%	0.6%	-0.5%	0.0%	0.4%

I will explain the methodologies used to develop this forecast in Section V and Section VI of my testimony.

Q. WHY ARE TOTAL RETAIL SALES PROJECTED TO DECLINE 0.4 PERCENT IN 2015?

A. The decline in retail sales in 2015 primarily is due to declining sales in the Residential class. Residential sales are projected to decline at a 1.6 percent annual rate in 2015. While this class grew slightly in 2014, sales this year have been lower than in 2014, driven by declining use per customer. Although the number of customers is increasing, the customer growth is not strong enough to offset the decline in use per customer. The forecast for 2015 through 2020 is a continuation of the decreasing use per customer trend seen in the past, as shown in Figure 1.

Figure 1



In addition to declining Residential sales in 2015, sales to the Commercial and Industrial sector are expected to be flat in 2015 as compared to 2014. Sales in the Commercial and Industrial sector showed very slight growth in 2014, and this trend has continued into 2015.

Q. WHAT IS THE DRIVER OF DECLINING USE PER CUSTOMER IN THE RESIDENTIAL CLASS?

A. One of the key drivers of declining residential use per customer is energy efficiency, including both Company-sponsored energy efficiency achievements as well as customer- and market-driven conservation outside of our programs. For example, according to the U.S. Energy Information Administration's *2015 Annual Energy Outlook*, residential lighting usage per household is expected to decrease an average of 3.6 percent per year from 2014 to 2020, with lighting's share of residential household consumption declining from 10.6 percent in 2014 to 8.9 percent in 2015. Declining usage per household also is projected for residential electric space heating (-5.1 percent per year), refrigeration (-1.7 percent per year), televisions and related equipment (-1.2 percent per year), and water heaters (-0.3 percent per year).

Q. WHAT IS THE DRIVER OF FLAT TO SLIGHTLY DECLINING USE PER CUSTOMER IN THE SMALL COMMERCIAL AND INDUSTRIAL CLASS?

A. Similar to the residential sector, energy efficiency is also expected to dampen growth in Small Commercial and Industrial usage. The *2015 Annual Energy Outlook* projects lighting usage in the commercial sector to decrease an average of 0.5 percent per year from 2014 to 2020. Declining usage in the commercial

sector is also projected for electric space heating (-3.2 percent per year), refrigeration (-1.8 percent per year), personal computers (-6.0 percent per year), and water heating (-0.4 percent per year). The information from the *2015 Annual Energy Outlook* is provided as Exhibit___(JEM-1), Schedule 5.

Q. PLEASE DESCRIBE CURRENT SALES TRENDS IN THE LARGE COMMERCIAL AND INDUSTRIAL CLASS.

A. The Large Commercial and Industrial sector suffered the largest impact from the recession, with sales declining 9.5 percent in 2009. This class saw considerable recovery in 2010, with sales growth of 5.9 percent. In 2011, sales growth in this class slowed to only 0.1 percent. Sales in the Large Commercial and Industrial class then declined significantly in 2012 (-4.7 percent) and 2013 (-4.0 percent) due in large part to the shut downs at two large customer sites that I previously described. Loss of load from other large customers caused sales in the class in 2014 to decline another 1.4 percent. However, sales to-date in 2015 show improvement from 2014 levels, and we expect sales in this class to grow at a slow rate over the next five years, with increases of 1.0 percent in 2016, 0.1 percent in 2017, 0.6 percent in 2018, and 0.8 percent in 2019 and again in 2020.

Adjustments have been made to the Large Commercial and Industrial sales forecast to account for expected new loads and also expected loss of loads. The adjustments made to the Large Commercial and Industrial sales forecast are provided in Exhibit___(JEM-1), Schedule 6. We note that in the 13-868 docket, the Company agreed with the Department to adjust the 2015 sales

forecast for the addition of a new, large customer expected at the end of 2014. This load did not come on-line until mid-2015 and rather than being one, large customer it has multiple premises, all of which are in the Small Commercial and Industrial class. Therefore, no adjustments have been made to the Large Commercial and Industrial sales forecast in this proceeding to account for this new load.

Q. DOES THE STREET LIGHTING SALES FORECAST REFLECT LOWER SALES CONSISTENT WITH THE COMPANY'S LIGHT EMITTING DIODE (LED) STREET LIGHTING PETITION FILED ON OCTOBER 15?

A. No. However, provided the Company's LED petition is approved, the Company will reflect the impact of the LED street lighting petition in forecast updates later in this proceeding if appropriate.

Q. HOW DO THE 2014 WEATHER-NORMALIZED ACTUAL SALES FILED IN THE COMPANY'S JANUARY 16, 2015 COMPLIANCE FILING COMPARE TO THE DEPARTMENT'S SALES FORECAST FILED IN THE COMPANY'S LAST ELECTRIC RATE CASE?

A. A comparison of the weather-normalized 2014 actual sales filed in the January 16, 2015 Compliance Filing in Docket No. E002/GR-13-868 and the Department's 2014 test year forecasted sales is provided in Table 5 below. Weather-normalized 2014 actual retail sales were lower than predicted for the 2014 test year (145,018 MWh or 0.5 percent). Weather-normalized actual sales were lower than forecast for the Residential and Large Commercial and

Industrial classes, but higher than forecast in the Small Commercial and Industrial class.

Table 5
2014 Weather-Normalized Sales by Class (MWh), Department Method

Customer Class	Compliance Filing 2014 Sales	2014 Department Forecast	Difference MWh	Difference %
Residential	8,762,971	8,774,192	-11,221	-0.1%
Small Commercial & Industrial	13,605,514	13,440,329	165,185	1.2%
Large Commercial & Industrial	8,179,537	8,476,228	-296,691	-3.5%
Street Lighting	143,362	141,921	1,442	1.0%
Public Authority	66,823	73,714	-6,890	-9.3%
Interdepartmental	11,228	8,070	3,158	39.1%
Total Retail	**30,769,436**	**30,914,453**	**-145,018**	**-0.5%**

Q. HOW DO THE 2014 WEATHER-NORMALIZED ACTUAL SALES COMPARE TO THE 2014 TEST YEAR ELECTRIC SALES FORECAST FILED IN THE COMPANY'S LAST ELECTRIC RATE CASE?

A. A comparison of the weather-normalized 2014 actual sales and the Company's 2014 test year forecasted sales filed in Docket No. E002/GR-13-868 is provided in Table 6 below. Weather-normalized 2014 actual retail sales were higher than predicted for the 2014 test year (153,977 MWh or 0.5 percent). Weather-normalized actual sales were higher than forecast for the Residential and Small Commercial and Industrial classes, but lower than forecast in the Large Commercial and Industrial class.

Table 6
2014 Weather-Normalized Sales by Class (MWh), Company Method

Customer Class	2014 Sales Actuals	2014 Xcel Energy Test Year Forecast	Difference MWh	Difference %
Residential	8,688,759	8,600,758	88,001	1.0%
Small Commercial & Industrial	13,532,519	13,361,206	171,313	1.3%
Large Commercial & Industrial	8,179,537	8,282,742	-103,205	-1.2%
Street Lighting	143,362	141,919	1,443	1.0%
Public Authority	66,823	73,556	-6,733	-9.2%
Interdepartmental	11,228	8,070	3,158	29.1%
Total Retail	**30,622,228**	**30,468,251**	**153,977**	**0.5%**

Q. WHY DO THE 2014 SALES IN TABLE 5 AND TABLE 6 SHOW DIFFERENT VALUES?

A. In Table 5, the 2014 Department forecast is comprised of January through May weather normalized actual sales and June through December forecasted sales. The January through May weather normalized actual sales were developed using the Department's weather normalization methodology. This is the same methodology used to derive the weather normalized actual sales reported in the January 2015 Compliance Filing. Thus, the January through May values are consistent in the 2014 Sales column and the 2014 Forecast column in Table 5.

In Table 6, the Company's forecast was developed before agreement was reached on the methodology to use to weather normalize actual 2014 sales. The Company's 2014 forecast in Table 6 was based on January through May weather normalized actual sales and June through December forecasted sales. However, since the forecast was developed before agreement was reached on

the weather normalization methodology, the January through May weather normalized actual sales were not the same as the final weather normalized actual sales reported in the January 2015 Compliance Filing. To provide a consistent comparison between actuals and forecast in Table 6, we used the same actual 2014 sales that were used when the Company's 2014 forecast was developed.

Q. HOW DO THE 2014 ACTUAL CUSTOMER COUNTS COMPARE TO THE 2014 TEST YEAR CUSTOMER COUNTS FORECAST FILED IN THE COMPANY'S LAST ELECTRIC RATE CASE?

A. A comparison of the actual 2014 customer counts and the Company's 2014 test year forecasted customer counts is provided in Table 7 below. Total actual retail customer counts were 116 customers or 0.0 percent different than predicted for the 2014 test year.

Table 7
2014 Average Customer Counts by Class

Customer Class	2014 Customer Counts	2014 Xcel Energy Test Year Forecast	Difference	Difference %
Residential	1,113,587	1,113,525	62	0.0%
Small Commercial & Industrial	129,939	129,891	48	0.0%
Large Commercial & Industrial	438	447	-9	-2.0%
Street Lighting	4,081	4,070	11	0.3%
Public Authority	2,090	2,089	1	0.0%
Interdepartmental	11	10	1	10.0%
Total Retail	**1,250,146**	**1,250,030**	**116**	**0.0%**

Q. HOW DO YOU EXPECT THE ECONOMY TO PERFORM OVER THE NEXT SEVERAL YEARS?

A. Based on the economic outlook provided by IHS Global Insight, Inc. for the Minneapolis-St. Paul area and the State of Minnesota, I expect the economy to continue to grow at rates similar to the past few years. However, the impact on sales of this continued growth in the economy will be mitigated somewhat by the effects of Company-sponsored DSM programs and market- and government-driven efficiency gains.

Q. DO YOU BELIEVE THE ECONOMY COULD IMPROVE AT A FASTER RATE THAN YOU ARE PROJECTING?

A. That is possible. The economy also could grow at a slower rate than projected. However, over the past few years economic growth has been relatively stable, and I believe the probability of the economy improving at a significantly faster rate than projected is small.

Q. IS IT ALSO POSSIBLE THAT NEW CUSTOMERS OR INCREASED SALES TO EXISTING CUSTOMERS THAT ARE NOT CURRENTLY REFLECTED IN YOUR FORECAST WILL DEVELOP?

A. Yes. We continually explore opportunities with new and existing customers and some of those could well develop during the course of this proceeding.

Q. WILL PARTIES TO THIS PROCEEDING HAVE THE OPPORTUNITY TO REVIEW MORE CURRENT INFORMATION AS THIS CASE PROGRESSES?

A. Yes. We will make available to parties more current information as the case progresses through Rebuttal or Surrebuttal Testimony, or both. This information and expected trends can be reviewed by parties to provide assurance that the sales forecast we have used to set rates in this proceeding continues to be appropriate for ratemaking purposes. If, through the course of this proceeding, the updated information and expected trends indicate that the Company's sales forecast is either too high or too low, then our rates will be too low or too high. Should more current information indicate that adjustments to the forecast are needed, we will work with parties to see that appropriate steps are taken to ensure our sales forecast has the advantage of the most current information available.

V. OVERVIEW OF SALES AND CUSTOMER FORECASTING METHODOLOGY

Q. IS THE SALES FORECAST IN THIS PROCEEDING THE SAME FORECAST CURRENTLY USED BY XCEL ENERGY FOR THE 2016 THROUGH 2020 FINANCIAL BUDGET?

A. Yes it is.

Q. PLEASE DESCRIBE IN GENERAL TERMS THE METHODS USED TO FORECAST SALES AND CUSTOMERS.

A. The sales forecast for the 2016 through 2020 financial budget was completed in August 2015 and was based on actual customers and sales through May 2015. The Sales, Energy and Demand Forecasting department coordinated

the electric sales and customer forecast preparation using a combination of econometric and statistical forecasting techniques and analyses to develop the sales and customer forecasts. These techniques are used to develop sales and customer forecasts for all of Xcel Energy's jurisdictions. In addition, these techniques were used by the Department to develop its proposed sales and customer forecasts in past proceedings.

Q. HOW WERE THE SALES FORECASTS DEVELOPED FOR THE RESIDENTIAL, COMMERCIAL AND INDUSTRIAL, PUBLIC STREET AND HIGHWAY LIGHTING AND PUBLIC AUTHORITY CUSTOMER CLASSES?

A. Regression models were developed as the foundation for the sales forecasts of the Residential without Space Heating, Residential with Space Heating, Small Commercial and Industrial, Large Commercial and Industrial, Public Street and Highway Lighting, and Public Authority customer classes. Regression techniques are very well-known, proven methods of forecasting and are commonly accepted by forecasters throughout the utility industry. This method provides reliable, accurate projections; accommodates the use of predictor variables, such as economic or demographic indicators and weather; and allows clear interpretation of the model. Xcel Energy has been using these types of regression models since 1991.

Monthly sales forecasts for these customer classes were developed based on regression models designed to define a statistical relationship between the historical sales and the independent predictor variables, including historical economic and demographic indicators, historical electricity prices, historical weather (expressed in heating degree days and temperature-humidity index

(THI)), and historical number of customers. In all of the models, monthly historical data from January 1998 through May 2015 was used to determine these relationships. The modeled relationships were then simulated over the forecast period by assuming normal weather (expressed in terms of 20-year-averaged heating-degree days and THI) and the projected levels of the independent predictor variables.

Q. WERE ANY SPECIAL VARIABLES USED TO ADDRESS THE PREVIOUSLY-DISCUSSED COMMERCIAL AND INDUSTRIAL RECLASSIFICATION?

A. Yes. As I explained earlier in my testimony, in 2001, Xcel Energy changed the threshold used to determine "large" Commercial and Industrial customers. In order to maintain the January 1998 to May 2015 sample time period and account for the reclassification, a step-change binary variable was incorporated in the Small Commercial and Industrial and Large Commercial and Industrial sales regression models. The binary variable equaled "1" in months prior to the reclassification in January 2001, and "0" for all months after the reclassification. Because the reclassification was not completed in one month, additional binary variables were used in January, February and March 2001 to account for customer shifts between the Small and the Large Commercial and Industrial classes as they occurred.

Q. DOES THE COMPANY USE OTHER BINARY VARIABLES IN THE FORECAST MODEL?

A. Yes. Other binary variables are used to help the model account for outliers or step changes in the historical data associated with another variable. Generally,

a forecast is initially developed without any binary variables; they are added later as deemed advisable to improve the overall model fit or monthly pattern of the forecast. Binary variables have been included in both the Company's and the Department's models used to develop sales and customer forecasts in prior rate cases.

Q. WHAT PROCESS WAS USED TO FORECAST SALES IN THE INTERDEPARTMENTAL CUSTOMER CLASS?

A. Sales in the Interdepartmental customer class make up only 0.04 percent of total retail electric sales in Minnesota in 2014. The forecast for Interdepartmental sales was calculated by averaging historical monthly sales over the past three years of actual data. Using an averaging method to forecast sales is appropriate in circumstances where the class is small, such as with the Interdepartmental class, and the circumstances in the forecast period for that class are expected to be similar to the historical period used.

Q. WHAT PROCESS WAS USED FOR FORECASTING THE NUMBER OF CUSTOMERS?

A. The number of customers by customer class for the classes Residential without Space Heating, Residential with Space Heating, Small Commercial and Industrial, Large Commercial and Industrial, Public Street and Highway Lighting, and Public Authority is forecasted using demographic data for the Minneapolis-St. Paul metropolitan area and the state of Minnesota in regression models and other statistical techniques. The customer forecast for the Interdepartmental customer class was developed by averaging the monthly number of customers from June 2014 through May 2015.

Q. DOES THE PROPOSED FORECAST ATTEMPT TO ADDRESS CONCERNS RAISED BY THE DEPARTMENT IN PREVIOUS PROCEEDINGS CONCERNING USE OF HISTORICAL BILLING SYSTEM DATA?

A. Yes. In discussions with the Department following the Blue Lake Certificate of Need proceeding (Docket No. E002/CN-04-76), the Company and the Department agreed that there are anomalies in the Company's billing system data prior to January 1998 that cannot be corrected. In addition, the Department was concerned that the data series for each class use a common starting date. As in past proceedings, to address the Department's concerns about the use of this anomalous data and a consistent start date, the Company has continued to use billing system data beginning in January 1998 to develop its statistical forecasting models.

VI. STATISTICALLY MODELED FORECASTS

Q. PLEASE DESCRIBE THE REGRESSION MODELS AND ASSOCIATED ANALYSIS USED IN XCEL ENERGY'S STATISTICAL PROJECTIONS OF SALES AND CUSTOMERS.

A. The regression models and associated analysis used in Xcel Energy's statistical projections of sales are provided in Exhibit___(JEM-1), Schedule 7, and the regression models and associated analysis used in Xcel Energy's statistical projections of customers are provided in Exhibit___(JEM-1), Schedule 8. These schedules include, by customer class, the models with their summary statistics and output and descriptions for each variable included in the model.

Q. DID XCEL ENERGY EMPLOY VALIDITY TESTS OR OTHER TECHNIQUES TO EVALUATE THE PLAUSIBILITY OF ITS QUANTITATIVE FORECASTING MODELS AND SALES PROJECTIONS?

A. Yes. We used a number of quantitative and qualitative validity tests that are applicable to regression analysis.

The coefficient of determination (R-squared) test statistic is a measure of the quality of the model's fit to the historical data. It represents the proportion of the variation of the historical sales around their mean value that can be attributed to the functional relationship between the historical sales and the explanatory variables included in the model. If the R-squared statistic is high, the model is explaining a high degree of the historical-sales variability. The regression models used to develop the sales forecast for the large volume classes (Residential without Space Heating, Residential with Space Heating, Small Commercial and Industrial, and Large Commercial and Industrial) demonstrate very high R-squared statistics, ranging between 0.978 and 0.996. The smaller volume classes (Public Street and Highway Lighting and Public Authority) account for 0.7 percent of total retail electric sales. The historical sales for these classes exhibit more variability that is not fully explained with economic variables, resulting in a smaller R-squared statistic. However, the combination of variables used in the regression models for these classes explains a large amount of the historical variation, with an R-squared statistic of 0.923 for the Public Street and Highway Lighting class and 0.826 for the Public Authority class. The regression models used to develop the customer

forecast demonstrated very high R-squared statistics, ranging between 0.969 and 0.999.

The t-statistics of the variables indicate the degree of correlation between that variable's data series and the sales data series being modeled. The t-statistic is a measure of the statistical significance of each variable's individual contribution to the prediction model. Generally, the absolute value of each t-statistic should be greater than 2.0 to be considered statistically significant at the 95 percent confidence level. This standard was applied in the development of the regression models used to develop the sales forecast. The final regression models used to develop the sales forecast tested satisfactorily under this standard.

While the Company generally adheres to the 95 percent confidence level to ensure that the impact of a variable is meaningful, this is a guideline rather than a hard and fast rule. Including a variable with a lower level of significance is statistically acceptable, and its inclusion does not necessarily make the model invalid or result in an unreliable forecast. In this forecast, there is one case where the variable in question does not meet this standard. Specifically, the constant term in the Street Lighting sales model was inadvertently retained in the model, even though it demonstrates a t-statistic of -0.441. While this does not adhere to the Company's general guideline, the impact of this inadvertent inclusion is minimal, with the Street Lighting sales forecast as filed being slightly higher (less than 1,000 MWh each year) than a forecast developed using a model that excludes the constant term.

Q. HOW ELSE DID THE COMPANY EVALUATE THE PLAUSIBILITY OF ITS QUANTITATIVE FORECASTING MODELS AND SALES PROJECTIONS?

A. We inspected each model for the presence of first-order autocorrelation, as measured by the Durbin-Watson (DW) test statistic. Autocorrelation refers to the correlation of the model's error terms for different time periods. For example, an overestimate in one period is likely to lead to an overestimate in the succeeding period under the presence of first-order autocorrelation. Thus, when forecasting with a regression model, absence of autocorrelation between the residual errors is very important. The DW test statistic ranges between 0 and 4 and provides a measure to test for autocorrelation. In the absence of first-order autocorrelation, the DW test statistic equals 2.0. The final regression models used to develop the sales forecast tested satisfactorily for the absence of first-order autocorrelation, as measured by the DW test statistic.

Graphical inspection of each model's error terms (*i.e.* actual less predicted) was used to verify that the models were not misspecified, and that statistical assumptions pertaining to constant variance among the residual terms and their random distribution with respect to the predictor variables were not violated. Analysis of each model's residuals indicated that the residuals were homoscedastic (constant variance) and randomly distributed, indicating that the regression modeling technique was an appropriate selection for each customer class' sales that were statistically modeled.

The statistically modeled sales forecasts for each customer class have been reviewed for reasonableness as compared to the respective monthly sales history for that class. Graphical inspection reveals that the patterns of the forecast fit well with the respective historical patterns for each customer class. The annual total forecast sales have been compared to their respective historical trends for consistency. Similar qualitative tests for reasonableness and consistency have been performed for the customer level projections.

Q. WHAT CHANGES HAS THE COMPANY MADE TO ITS METHODOLOGIES FOR THIS FILING?

A. In Docket No. E002/GR-13-868, the Company agreed to work with the Department to attempt to resolve issues related to the price variable construction and the DSM adjustment. While the Company and the Department have met to discuss this further, due to the timing of when the forecast needed to be completed to prepare for this filing, no changes were made to the methodologies for the forecast filed in the Company's direct testimony. However, the Department and the Company have agreed that the discussions will continue and any changes resulting from the discussions will be addressed in the Company's rebuttal testimony.

In Docket No. E002/GR-13-868, the Department also disagreed with some aspects of the Company's weather normalization process. In particular, the Department recommended that the weather normalization coefficients it developed, based on billing month data as recorded with no historical DSM adjustments, be used to weather normalize actual sales instead of the

coefficients the Company developed, which were based on billing month data that was adjusted for historical DSM. We have adopted the Department's recommendation, and have developed and will use weather normalization coefficients that are based on billing month data with no historical DSM adjustments.

Q. DO THE COMPANY AND THE DEPARTMENT STILL HAVE A DISAGREEMENT ON HOW TO ACCOUNT FOR FUTURE DSM IMPACTS?

A. Yes. We have not yet reached any agreement with the Department on how DSM is handled. Because we have not yet reached an agreement with the Department, the Company used the same methodology to account for DSM as used in the last rate case. We note, however, that any debate on this issue becomes unnecessary if we reach agreement on a true-up mechanism.

Q. PLEASE DESCRIBE THE METHODOLOGY THE COMPANY USED IN THIS PROCEEDING TO ACCOUNT FOR FUTURE DSM IMPACTS.

A. The Company accounted for future DSM impacts by first developing a forecast that included no impacts of DSM, then adjusting that forecast to account for future DSM impacts. To do this, we collected monthly historical data on actual DSM achievements based on information filed with the Commission each year in the Company's Conservation Improvement Program status reports. We then added back those historical DSM achievements to historical actual monthly sales in order to derive historical sales that exclude any DSM impacts. This restated historical data was used as the input data to the regression modeling process described above, and a

forecast of sales excluding any DSM impacts was developed. We then reduced the forecast of sales excluding DSM by the amount of future DSM related to both historical achievements with continuing impacts and planned future new programs.

Q. IS THIS THE SAME METHODOLOGY THE COMPANY USED TO ACCOUNT FOR FUTURE DSM IMPACTS IN DOCKET NO. E002/GR-13-868?

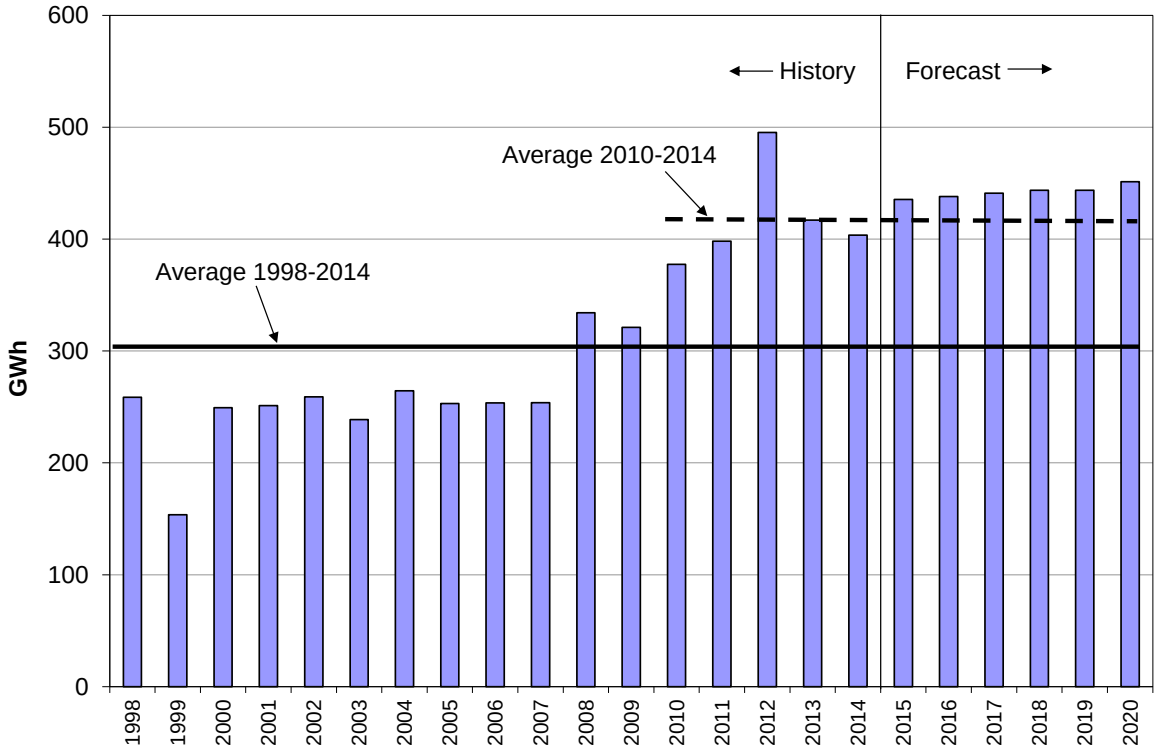
A. Yes. We have adjusted the sales forecast to account for future impacts of DSM programs for many years. Because the Company has previously achieved savings from DSM programs, some level of impact is already embedded in the historical sales used in the regression models. Therefore, prior to Docket No. E002/GR-13-868, the Company adjusted the sales forecast only for the incremental amount of DSM, *i.e.*, the amount of expected future DSM that is greater than or incremental to the amount of DSM inherently embedded in the sales forecast.

In Docket No. E002/GR-12-961, the Department asserted that DSM was fully embedded in historical sales, and, therefore, no adjustment to future sales was necessary. The Department based its recommendation on the fact that since 2007, when the Next Generation Energy Act (NGEA) was enacted, the Company's DSM achievements have leveled off, and future expected savings are at a level similar to the past few years of actual savings.

Q. DOES THE COMPANY AGREE WITH THE DEPARTMENT'S ASSERTIONS?

A. No. While it is true that DSM achievements have increased since 2007 and are expected to level off in the future, the data included in the regression analysis begins in 1998, not 2007. While the Company's previous methodology based the calculation of embedded DSM on the past five years of data, we believe that was a conservative estimate, since using a longer period of historical time would result in a lower amount of embedded DSM and, therefore, a larger amount of incremental DSM for the adjustment. This is demonstrated in Figure 2 below. The bars in the chart show the actual and forecasted DSM savings. The solid black line indicates the average amount of DSM from 1998 to 2014. The dashed line indicates the average amount of DSM from 2010 to 2014. Clearly, when the full historical time period is included, the amount of embedded DSM is much less than the future amount of DSM. This requires an adjustment be made to account for the incremental difference. The Company's methodology in this proceeding provides a transparent and reliable method to account for the impacts of future DSM. Again, however, any debate on this issue becomes unnecessary if the parties and Commission agree to a true-up as recommended by the Company in Section IV of my testimony.

Figure 2
Actual and Forecasted DSM Savings
(First-Year Savings)



VII. WEATHER NORMALIZATION OF SALES FORECAST

Q. HOW DID XCEL ENERGY ADJUST ITS SALES FORECAST FOR THE INFLUENCE OF WEATHER ON SALES?

A. Residential without Space Heating, Residential with Space Heating, and Small Commercial and Industrial sales projections were developed through the application of quantitative statistical models. For each of these classes, sales were not weather-adjusted prior to developing the respective statistical models. The respective regression models used to forecast sales included weather, as measured in terms of heating-degree days and temperature-

humidity index (THI), as an explanatory variable. In this way, the historical weather impact on historical consumption for each class was modeled through the respective coefficients for the heating-degree day and THI variables included in each class' model. Forecasted sales were then projected by simulating the established statistical relationships over the forecast horizon assuming normal weather.

For the Large Commercial and Industrial, Public Street and Highway Lighting, Public Authority, and Interdepartmental classes, forecast volumes have not been weather normalized. These customers' use of electricity is influenced by factors other than weather (for example, hours of daylight). As a result, the weather impact due to deviation from normal weather is indistinguishable from other variables.

Q. HOW WAS NORMAL WEATHER DETERMINED?

A. Normal daily weather was calculated based on the average of historical heating-degree days and THI for the 20-year time period 1995 to 2014. Xcel Energy's method for calculating normal weather using a 20-year period of actual data has been accepted by the Commission in several previous rate cases.[4] These normal heating-degree days and THI were related to the forecasted billing month in the same manner as were the actual heating-degree days and THI.

[4] Docket Nos. E002/GR-92-1185, G002/GR-97-1606, G002/GR-04-1511, E002/GR-05-1428, G002/GR-06-1429, E002/GR-08-1065, G002/GR-09-1153, E002/GR-10-971, E002/GR-12-961, and E002/GR-13-868.

Q. WHAT WAS XCEL ENERGY'S MEASURE OF WEATHER, AND WHAT WAS THE SOURCE?

A. The measure of weather used was heating-degree days and THI, using a 65-degree temperature base. This information was obtained from Weather Underground (www.wunderground.com) and measured at the National Oceanic and Atmospheric Administration's (NOAA) Minneapolis-St. Paul weather station.

Q. IS IT APPROPRIATE TO USE THE MINNEAPOLIS-ST. PAUL WEATHER STATION TO REPRESENT XCEL ENERGY'S MINNESOTA SERVICE TERRITORY?

A. Yes, it is. The majority of Xcel Energy's Minnesota electric customers (80 percent) reside within the Minneapolis-St. Paul metropolitan area. The majority of the remaining 20 percent reside less than 100 miles from Minneapolis-St. Paul.

The coefficients for the heating-degree day and THI variables included in each class' model were determined based on the historical relationship between sales throughout Xcel Energy's Minnesota service territory and Minneapolis-St. Paul weather. Therefore, the coefficients accurately reflect the distribution of customers geographically within the Minnesota service territory. Since this geographic distribution is not expected to change during the 2016-2020 period, it is appropriate to use this historical relationship and Minneapolis-St. Paul weather.

Q. DID THE WEATHER REFLECT THE SAME BILLING-CYCLE DAYS AS THE SALES DATA?

A. Yes. The heating-degree days and THI were weighted by the number of times a particular day was included in a particular billing month. These weighted heating-degree days and THI were divided by the total billing-cycle days to arrive at average daily heating-degree days and THI for a billing month.

Q. HOW DOES THE WEATHER NORMALIZATION METHODOLOGY USED IN THIS CASE COMPARE WITH THE METHODOLOGY USED BY THE DEPARTMENT?

A. As explained in Section VI, the methodology we are using for this case is consistent with the final methodology used in the previous case. We would like to work with parties to address refinements to methodology, and through that consultation we may propose a new methodology for weather normalization in the future.

VIII. DATA PREPARATION

Q. PLEASE DESCRIBE THE DATA AND DATA SOURCES XCEL ENERGY USED TO DEVELOP THE SALES AND CUSTOMER FORECASTS.

A. Historical billing-month sales and number of customers were obtained from Xcel Energy's billing system reports. Monthly historical data from January 1998 through May 2015 was obtained and used. This period was selected for analysis to address previous Department concerns about anomalies in the Company's billing system data occurring in the period prior to January 1998. Using this time period eliminated the irregular data from the billing system while still providing an acceptable sample size. It also provided a common

start date for all regression models of sales, which addressed an issue raised by the Department in previous discussions.

Q. WHAT IS THE SOURCE OF THE COMPANY'S PRE-FEBRUARY 2005 SALES INFORMATION?

A. All of the pre-February 2005 billing data is from Xcel Energy's legacy billing system (CSS).

Q. WHAT IS THE SOURCE OF THE COMPANY'S POST-FEBRUARY 2005 SALES INFORMATION?

A. In February 2005, the Company converted from CSS to the CRS billing system. Most 2005 data will be from CRS. The definition of a billing month is different under CRS from the definition of a billing month under CSS. Consequently, the data presented by the post-February 2005 CRS monthly billed sales will not be entirely consistent with the data presented by CSS prior to 2005. However, the definitional differences have been addressed by calculating both billing-month weather and billing-cycle days using the same billing-cycle information underlying the billing-month sales.

Q. COULD YOU PLEASE EXPLAIN OTHER AREAS OF DIFFERENCE BETWEEN CSS AND CRS DATA?

A. Yes. With the conversion from CSS to CRS, the number of customers in 2005 appears lower than it would have been under CSS. Analysis conducted prior to system conversion indicated that CRS would report fewer customers than CSS just based on tests of the change in the definition of active services.

These resulted from small definitional changes in what constitutes an active services account needed to bring uniformity between the former NCE system and the former NSP system into a consistent customer count method under CRS. While there were pre-2005 customer count differences under the NCE and NSP systems prior to 2005, these customer count definitional differences did not impact the amount of total sales billed to customers. Exhibit___(JEM-1), Schedule 9, provides a detailed comparison of the 2005 definitional changes.

Q. DID YOU MAKE ANY ADJUSTMENT TO THE CUSTOMER COUNTS AS A RESULT OF THESE CHANGES?

A. No, I did not adjust the customer counts. However, in order to maintain the January 1998 to May 2015 sample time period and account for the definitional changes, a step-change binary variable was incoporated in the Residential and Commercial and Industrial customer regression models. The binary variable equaled "1" in months prior to the billing system conversion in February 2005, and "0" for all months after the conversion. The use of the binary variable in the regression models provided a better statistical fit to the historical data.

Q. WERE ANY ADJUSTMENTS MADE TO HISTORICAL SALES TO ADDRESS BILLING ERRORS?

A. No, none were needed. In the Company's last natural gas rate case, Docket No. G002/GR-09-1153, the Company adjusted historical gas sales to address billing errors resulting from mechanical failures of some meter-reading

modules, problems with another type of meter-reading module, and errors in pressure correction factors. In preparation for this proceeding, the Company has identified no such billing errors with electricity sales, and, therefore, no adjustments have been made to historical sales.

Q. WERE ANY OTHER ADJUSTMENTS MADE TO HISTORICAL SALES?

A. Yes. Historical sales were adjusted to remove the impact of actual DSM achievements. We collected monthly historical data on actual DSM achievements by class and added the achievements to historical actual monthly sales to derive sales excluding the impact of DSM achievements. This restated time series was used as the input data to the regression modeling process described above, and a forecast of sales excluding any DSM impacts was developed. We then reduced the forecast of sales excluding DSM by the amount of future DSM related to both historical achievements with continuing impacts and planned future new programs.

In addition, the Company has removed sales to two large customers (Ford Motor Company and Verso Paper Corporation) from the historical data series. As I previously discussed, these two large customers closed during 2012 and 2013, resulting in substantial loss of load in the Large Commercial and Industrial sector. By removing these large customers' sales from the historical data series, we no longer have the large decreases in sales occurring at the time the customer closed its business. Therefore, we are able to continue to use the regression methodology, which allows for the

identification of historical relationships and the projection of those relationships into the future.

Q. PLEASE SUMMARIZE THE ADJUSTMENTS MADE TO HISTORICAL SALES BEFORE CONDUCTING THE REGRESSION MODELING.

A. The Residential without Space Heating, Residential with Space Heating and Small Commercial and Industrial sales were adjusted by adding back the impacts of historical DSM savings. The Large Commercial and Industrial sales were adjusted by subtracting historical sales for two large customers (Ford Motor Company and Verso Paper Corporation) that have closed down and by adding back the impacts of historical DSM savings.

Q. WHAT IS THE SOURCE OF WEATHER DATA?

A. As I explained previously, weather data from Weather Underground, as measured at NOAA's Minneapolis-St. Paul weather station, was the data source, and the measure of weather used was heating-degree days and THI. Eight temperature readings per day were obtained, and the average daily temperature was determined by averaging the eight temperature readings. Heating-degree days were calculated for each day by subtracting the average daily temperature from 65 degrees Fahrenheit. For example, if the average daily temperature was 45 degrees Fahrenheit, then 65 minus 45 or 20 heating-degree days were calculated for that day. If the average daily temperature was greater than 65 degrees Fahrenheit, then that day recorded zero heating degree days. Normal daily heating-degree days were calculated by averaging 20 years of daily heating-degree days using data from 1995 to 2014.

THI were calculated for each day using the formula:

$$THI = 17.5 + (0.55 * \text{Dry Bulb}) + (0.2 * \text{Dew Point})$$

The dew point data was based on the same eight readings of temperature discussed above.

Q. WHAT WAS YOUR SOURCE OF ECONOMIC AND DEMOGRAPHIC DATA?

A. Historical and forecasted economic and demographic variables for Minnesota and the Minneapolis-St. Paul metropolitan area were obtained from IHS Global Insight, Inc., a respected economic forecasting firm frequently relied on by forecasting professionals. These variables include population, households, total employment, and personal income. This information is used to determine the historical relationship between customers and sales, and economic and demographic measures. The Company used the most current economic and demographic data available from IHS Global Insight, Inc. at the time of modeling.

Q. WHY DID YOU CHOOSE TO USE IHS GLOBAL INSIGHT, INC.'S DATA RATHER THAN PUBLIC SOURCES?

A. We prefer to use IHS Global Insight over public sources, because IHS Global Insight provides forecasts of various economic and demographic indicators, while the publicly-available information is available only on a historical basis. The Company is not purchasing free historical data from IHS Global Insight, but rather, is paying for IHS Global Insight's forecasting service. Obtaining this information from a third-party vendor also mitigates any potential

appearance of bias that might exist if the Company developed its own economic and demographic forecasts.

Q. WHAT STEPS HAS THE COMPANY TAKEN TO VALIDATE IHS GLOBAL INSIGHT, INC.'S DATA?

A. As part of the information provided to the Department 30 days prior to filing this general rate case, we included documentation about how the historical and forecasted economic, demographic and price variables or indicators for each variable are calculated and derived. In addition, we identified the original source of the data, and provided a comparison of the historical data provided by IHS Global Insight to the original source data where the data was available via the internet. In instances where there were variances between the original source data and the data provided by IHS Global Insight, we worked with IHS Global Insight to obtain satisfactory explanations for the variances.

Q. HOW DID THE COMPANY DEVELOP THE ELECTRICITY PRICE FORECAST USED IN THE SALES FORECAST?

A. The Company used a price escalator to forecast electricity prices. The Company developed the price escalator based on the average actual percent growth in prices since 2005. Actual historical prices for each class were developed by month by dividing revenues by sales. The annual percent increase was calculated for each class and month and then the average annual percent increase for each class and month was calculated based on actual percent increases since 2005.

Q. IS THIS THE SAME METHODOLOGY THE COMPANY USED TO DEVELOP THE PRICE ESCALATOR IN DOCKET NO. E002/GR-13-868?

A. Yes. As I explained previously, the Company and the Department are working together to address the Department's concerns identified in Docket No. E002/GR-13-868.

IX. UNBILLED SALES

Q. CAN YOU EXPLAIN THE TERM "UNBILLED SALES"?

A. Yes. Xcel Energy reads electric meters each working day according to a meter-reading schedule based on 21 billing cycles per billing month. Meters read early in the month mostly reflect consumption that occurred during the previous month. Meters read late in the month mostly reflect consumption that occurred during the current month. The "billing-month" sales for the current month reflect consumption that occurred in both the previous month and the current month. Thus, billing-month sales lag calendar-month sales. Unbilled sales reflect electricity consumed in the current month that are not billed to the customer until the succeeding month.

Q. WHAT IS THE PURPOSE OF THE UNBILLED SALES ADJUSTMENT?

A. The purpose is to align the projected revenues with the relevant projected expenses, which have been estimated on a calendar-month basis.

Q. IS XCEL ENERGY REFLECTING UNBILLED REVENUE ON ITS BOOKS FOR ACCOUNTING AND FINANCIAL PURPOSES?

A. Yes. Xcel Energy adopted this practice during fiscal year 1992 and it has been accepted by the Commission in past rate cases.

Q. HOW WERE THE ESTIMATED MONTHLY NET UNBILLED SALES VOLUMES DETERMINED?

A. Xcel Energy determined its projected monthly net unbilled sales as the difference between the estimated monthly calendar-month sales, and the projected billing-month sales. The projected billing-month sales were created using the statistical models and other forecasting methods previously described.

X. CALENDAR-MONTH SALES DERIVATION

Q. HOW WERE THE ESTIMATED MONTHLY CALENDAR-MONTH SALES DETERMINED?

A. For the Residential without Space Heating, Residential with Space Heating, and Small Commercial and Industrial classes, Xcel Energy calculated the forecasted calendar-month sales based on the projected billing-month sales. The forecasted calendar-month sales were calculated in terms of the sales load component that is not associated with weather ("base load"), and the sales load component that is influenced by weather ("total weather load"). The weather was measured in terms of normal heating-degree days and THI, as described above. The base load sales and the total weather sales components were calculated for each class. The two components were then combined to provide the total calendar-month volumes.

The calendar-month base load component was calculated as follows:

Step 1 The billing-month total weather load was calculated. This was accomplished by multiplying the billing-month sales weather-normalization regression coefficients (defined in terms of billing-month heating-degree days, THI and number of customers), times billing-month normal heating-degree days and THI, times the projected customers.

Step 2 The billing-month base load was calculated by taking the difference between the projected total billing-month sales and the billing-month total weather load (as calculated in Step 1).

Step 3 The billing-month base load sales per billing day was determined by dividing the billing-month base load sales (from Step 2) by the average number of billing days per billing month.

Step 4 The calendar-month base load sales were then calculated by multiplying the billing-month base load sales per billing day (from Step 3) times the number of days in the calendar month.

The calendar-month total weather load component was calculated the same way the billing-month total weather load was calculated (as described in Step 1 above). However, the calculation was performed by substituting the calendar-month sales weather-normalization regression coefficient (defined in terms of calendar-month heating-degree days, THI and number of customers) and the calendar-month normal heating-degree days and THI.

The calendar-month total sales were calculated by combining the calendar-month base load and calendar-month total weather load components.

For the Large Commercial and Industrial and Public Authority classes, Xcel Energy calculated the forecasted calendar-month sales simply based on the projected billing-month sales in the same manner as detailed for Residential with Space Heating, Residential without Space Heating, and Small Commercial and Industrial classes. However, for the Large Commercial and Industrial and Public Authority classes, there are no total weather load sales. The forecasted calendar-month total sales for this class were calculated only in terms of their base load, where the billing-month base load equaled the projected billing-month sales.

The Public Street and Highway Lighting and Interdepartmental classes are billed on a calendar-month basis. Therefore, for these classes, the calendar-month sales equal the billing-month sales.

XI. RATE SCHEDULE FORECAST DERIVATION

Q. IN ADDITION TO THE CUSTOMER CLASS LEVEL FORECAST YOU DESCRIBED ABOVE, DOES THE COMPANY ALSO PREPARE A FORECAST AT THE RATE SCHEDULE LEVEL OF DETAIL?

A. Yes. The rate schedule level of detail is needed to appropriately estimate revenues. For example, the Residential class of service is an aggregation of seven rate schedules: Residential overhead service (A01), Residential time of day overhead service (A02), Residential underground service (A03),

Residential time of day underground service (A04), Residential energy controlled service (A05), Residential limited off peak service (A06) and Residential automatic protective lighting service (A07). Exhibit___(JEM-1), Schedule 10 provides the 2016 through 2020 customer and sales forecast by month at the rate schedule level of detail.

Q. HOW IS THE RATE SCHEDULE LEVEL FORECAST DERIVED FROM THE CUSTOMER CLASS LEVEL FORECAST?

A. After the class level sales and customer forecasts are completed, the rate schedule level forecasts are developed. Monthly rate schedule sales and customer allocation factors are developed based on historical rate schedule level sales and customer data. The monthly rate schedule allocation factors are averaged over several years, and the average allocation factors are then applied to the class level forecasts to derive the rate schedule level forecasts.

XII. COMPLIANCE REQUIREMENTS

Q. PLEASE DESCRIBE THE SALES FORECAST INFORMATION PROVIDED ON OCTOBER 2, 2015.

A. The October 2, 2015 filing provided the data used in the test year sales forecast. The information provided is extensive, and includes all customer count, sales, weather, price, economic and binary data used, as well as the following items:

1) An explanation of the source and work papers supporting the derivation or calculation of each of these data series, as well as a description and justification for each binary variable used.

2) All regression models and results, and a description of methods used and the results for the forecasts that are not based on a regression methodology.

3) A comparison and reconciliation of the input data, the variables used in the forecast models, and the test year forecast results to the data, models and forecast used in the Docket No. E002/GR-13-868.

4) An explanation of any exogenous adjustment made to the forecast.

5) An explanation of the unbilled sales estimation process for the test year and historical time period and all data necessary to recreate the conversion, including a description of the weather response coefficients and all data necessary to recreate the coefficients, and an explanation of the calculation of calendar month weather response coefficients.

6) All data necessary to weather normalize historical calendar month sales.

7) A reconciliation between different sources for historical billing-month sales.

8) All large commercial and industrial customer account data, including customer name, account number, monthly sales, monthly margin rate, monthly demand charge, and any other charges from all available years.

Q. IS ALL OF THIS INFORMATION USED IN THE DEVELOPMENT OF THE TEST-YEAR SALES FORECAST?

A. Yes, except for the large commercial and industrial customer account data in item 8 in the above list. We do not use customer-specific data in developing the test-year sales forecast. The sales forecast is based on historical billing-month sales by class obtained from Xcel Energy's billing system.

Q. WHY HAS THE COMPANY PROVIDED THE LARGE COMMERCIAL AND INDUSTRIAL CUSTOMER ACCOUNT DATA TO THE DEPARTMENT IN PAST PROCEEDINGS?

A. The large customer account information was first requested by the Department in Docket No. G002/GR-04-1511. Specifically, the Department requested that we provide each and all Medium and Large Volume Interruptible, Generation, and Transportation customer account data. The company relies on individual customer information in those classes to develop the class-level gas sales and transportation forecast. In subsequent proceedings, both gas and electric, we have provided large commercial and industrial customer account data, even though individual electric customer account data is not used to develop the class-level electric Large Commercial and Industrial sales forecast.

Q. HAVE OTHER PARTIES RELIED ON THE LARGE CUSTOMER ACCOUNT INFORMATION IN PRIOR ELECTRIC RATE CASE PROCEEDINGS?

A. Not to my knowledge. No parties have presented information in any prior electric rate case proceeding that was based on this large customer account information.

Q. WHAT IS THE PROCESS USED TO COMPILE THE LARGE CUSTOMER ACCOUNT INFORMATION?

A. The large customer account information is extracted from the Company's billing system using a query specifically designed for this purpose. The information provided is voluminous (more than 100,000 rows of data) and is not information that we track or compile for any forecasting purposes. In fact, this query is only run and the data processed to support the requirement for rate cases.

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE LARGE CUSTOMER ACCOUNT DATA?

A. I recommend that the requirement to provide large electric customer account data as described in item 8 above be eliminated.

XIII. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY?

A. In order to minimize controversy in this proceeding, I recommend a sales forecast true-up for the Company's non-decoupled classes. Such a mechanism was used in our last rate case and using a similar approach in this case can minimize controversy in this proceeding and can ensure that rates are just and reasonable.

The Company's goal is to produce an accurate sales forecast to support its rate request. The Company's forecast is based on sound methodologies and provides a reasonable estimate of 2016 through 2020 MWh sales and

customer counts. Therefore, the Company's forecast can be relied on for the purpose of setting rates and to serve as the baseline for the Company's true-up proposal.

I have presented the Company's forecasts of sales and customers for the January 1, 2016 to December 31, 2020 time period. I also presented details of the methods used to develop the MWh sales and customer forecast and the results. I have described the steps the Company has taken to comply with all requirements resulting from the previous rate case, as well as agreements the Company has made in the past to provide particular forecasting data. I also have provided an update regarding the forecasting issues identified by the Department in the Company's last rate case in Docket No. E002/GR-13-868.

Q. IN YOUR OPINION, DOES THE COMPANY'S SALES AND CUSTOMER FORECAST PROVIDE A REASONABLE BASIS FOR ESTABLISHING RATES IN THE CASE?

A. Yes. The forecast data is a reasonable estimate of 2016 through 2020 sales and customer counts and supports the Company's revenue projections. I recommend the Commission adopt my forecasts of sales and customers, as reflected in Exhibit___(JEM-1), Schedule 4, for the purpose of determining the revenue requirement and final rates in this proceeding.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

Resume

Jannell E. Marks
Director, Sales, Energy and Demand Forecasting
1800 Larimer Street, Denver, Colorado 80202

February 2007 – Present

Director, Sales, Energy and Demand Forecasting

Responsible for the development of forecasted sales data and economic conditions for Xcel Energy's operating companies, and the presentation of this information to Xcel Energy's senior management, other Xcel Energy departments, and externally to various regulatory and reporting agencies. Also responsible for Xcel Energy's Load Research function, which designs, maintains, monitors, and analyzes electric load research samples in the Xcel Energy operating companies' service territories. Additionally, responsible for developing and implementing forecasting, planning, and load analysis studies for regulatory proceedings. Testified on forecasting issues before the Colorado Public Utilities Commission, the Minnesota Public Utilities Commission, the North Dakota Public Service Commission, the Public Utility Commission of Texas, the South Dakota Public Utilities Commission, the New Mexico Public Regulation Commission, and the Public Service Commission of Wisconsin.

August 2000 – February 2007

Manager, Energy Forecasting, Xcel Energy

Responsible for the development and presentation of forecasted data for Xcel Energy's operating companies. Also responsible for reporting historical and statistical information to various regulatory agencies and others. Testified on forecasting issues before the Public Utility Commission of Texas, the Colorado Public Utilities Commission, and the Minnesota Public Utilities Commission.

May 1997 – August 2000

Manager, Demand, Energy and Customer Forecasts, New Century Energies, Inc.

Responsible for developing demand, energy, and customer forecasts for New Century Energies, Inc.'s operating companies. Also directed the preparation of statistical reporting for regulatory agencies and others regarding historical and forecasted reports. Testified on forecasting issues before the Public Utility Commission of Texas and the Colorado Public Utilities Commission.

1991 – 1997

Senior Research Analyst, Public Service Company of Colorado

Responsible for developing the customer and sales forecasts for Public Service Company of Colorado and the economic, customer, sales and demand forecasts for Cheyenne Light, Fuel and Power Company.

1982 – 1991

Research Analyst, Public Service Company of Colorado

Education

Colorado State University – Bachelor of Science: Statistics 1982

Five-Year Forecast Accuracy

Forecast Variance	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
August 2003 Forecast	-1.0%	-0.8%	-1.8%	-2.7%	**-4.4%**						
July 2004 Forecast		-0.5%	-1.4%	-2.1%	-3.7%	**-8.5%**					
February 2005 Forecast		0.4%	-0.5%	-1.1%	-2.7%	-7.4%	**-8.3%**				
March 2006 Forecast			-1.7%	-2.9%	-5.0%	-10.0%	-11.0%	**-12.6%**			
March 2007 Forecast				-0.3%	-1.9%	-6.8%	-7.6%	-8.7%	**-10.9%**		
September 2007 Forecast					-2.2%	-7.1%	-7.8%	-8.9%	**-11.1%**		
March 2008 Forecast					-1.7%	-6.2%	-6.4%	-7.3%	-9.4%	**-11.5%**	
October 2008 Forecast						-4.1%	-4.1%	-4.7%	-6.5%	**-8.5%**	
March 2009 Forecast						-2.2%	-2.3%	-2.8%	-4.7%	-6.8%	**-7.0%**
October 2009 Forecast							0.1%	-1.5%	-4.1%	-6.4%	**-6.7%**
March 2010 Forecast							0.4%	-1.0%	-3.5%	-5.5%	-6.0%
July 2010 Forecast								-1.0%	-3.3%	-5.3%	-5.9%
March 2011 Forecast								-0.9%	-3.2%	-5.2%	-5.6%
September 2011 Forecast									-1.6%	-3.4%	-3.5%
March 2012 Forecast									0.0%	-1.0%	-0.5%
July 2012 Forecast										0.2%	0.8%
March 2013 Forecast										0.3%	1.1%
July 2013 Forecast											1.3%
March 2014 Forecast											1.0%

5-Year Range: -12.6% to -4.4% **Average: -8.9%**

Three-Year Forecast Accuracy

Forecast Variance	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
August 2003 Forecast	-1.0%	-0.8%	**-1.8%**	-2.7%	-4.4%						
July 2004 Forecast		-0.5%	-1.4%	**-2.1%**	-3.7%	-8.5%					
February 2005 Forecast		0.4%	-0.5%	-1.1%	**-2.7%**	-7.4%	-8.3%				
March 2006 Forecast			-1.7%	-2.9%	-5.0%	**-10.0%**	-11.0%	-12.6%			
March 2007 Forecast				-0.3%	-1.9%	-6.8%	**-7.6%**	-8.7%	-10.9%		
September 2007 Forecast					-2.2%	-7.1%	**-7.8%**	-8.9%	-11.1%		
March 2008 Forecast					-1.7%	-6.2%	-6.4%	**-7.3%**	-9.4%	-11.5%	
October 2008 Forecast						-4.1%	-4.1%	**-4.7%**	-6.5%	-8.5%	
March 2009 Forecast						-2.2%	-2.3%	-2.8%	**-4.7%**	-6.8%	-7.0%
October 2009 Forecast							0.1%	-1.5%	**-4.1%**	-6.4%	-6.7%
March 2010 Forecast							0.4%	-1.0%	-3.5%	**-5.5%**	-6.0%
July 2010 Forecast								-1.0%	-3.3%	**-5.3%**	-5.9%
March 2011 Forecast								-0.9%	-3.2%	-5.2%	**-5.6%**
September 2011 Forecast									-1.6%	-3.4%	**-3.5%**
March 2012 Forecast									0.0%	-1.0%	-0.5%
July 2012 Forecast										0.2%	0.8%
March 2013 Forecast										0.3%	1.1%
July 2013 Forecast											1.3%
March 2014 Forecast											1.0%

3-Year Range: -10.0% to -1.8% Average: -5.2%

One-Year Forecast Accuracy

Forecast Variance	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
August 2003 Forecast	**-1.0%**	-0.8%	-1.8%	-2.7%	-4.4%						
July 2004 Forecast		**-0.5%**	-1.4%	-2.1%	-3.7%	-8.5%					
February 2005 Forecast		0.4%	**-0.5%**	-1.1%	-2.7%	-7.4%	-8.3%				
March 2006 Forecast			-1.7%	**-2.9%**	-5.0%	-10.0%	-11.0%	-12.6%			
March 2007 Forecast				-0.3%	**-1.9%**	-6.8%	-7.6%	-8.7%	-10.9%		
September 2007 Forecast					**-2.2%**	-7.1%	-7.8%	-8.9%	-11.1%		
March 2008 Forecast					-1.7%	**-6.2%**	-6.4%	-7.3%	-9.4%	-11.5%	
October 2008 Forecast						**-4.1%**	-4.1%	-4.7%	-6.5%	-8.5%	
March 2009 Forecast						-2.2%	**-2.3%**	-2.8%	-4.7%	-6.8%	-7.0%
October 2009 Forecast							**0.1%**	-1.5%	-4.1%	-6.4%	-6.7%
March 2010 Forecast							0.4%	**-1.0%**	-3.5%	-5.5%	-6.0%
July 2010 Forecast								**-1.0%**	-3.3%	-5.3%	-5.9%
March 2011 Forecast								-0.9%	**-3.2%**	-5.2%	-5.6%
September 2011 Forecast									**-1.6%**	-3.4%	-3.5%
March 2012 Forecast									0.0%	**-1.0%**	-0.5%
July 2012 Forecast										**0.2%**	0.8%
March 2013 Forecast										0.3%	**1.1%**
July 2013 Forecast											**1.3%**
March 2014 Forecast											1.0%

1-Year Range: -6.2% to +1.3% Average: -1.5%

Definitions of Terms

12-961 Order – Commission's September 3, 2013 Order issued in the Company's electric rate case in Docket No. E002/GR-12-961.

Base Load – Component of sales not associated with weather.

Billing-Cycle Days – Based on the meter reading schedule for the 21 billing cycles. For example, there are approximately 651 (21 cycles * 31 days) billing cycle days during a typical billing month period.

Billing-Month Sales – Billed sales based on the meter reading schedule for the 21 billing cycles.

Calendar-Month Sales – Estimated sales, equal to the billing month sales, adjusted for the estimated unbilled sales of the current calendar month, less the estimated unbilled sales from the previous calendar month.

Commission – Minnesota Public Utilities Commission.

Company – Northern States Power Company, doing business as Xcel Energy.

CRS – Customer Resource System; Xcel Energy's billing system since February 2005.

CSS – Xcel Energy's billing system prior to February 2005.

Department – Minnesota Department of Commerce, Division of Energy Resources.

DW Test Statistic – Durbin-Watson test statistic; tests for the presence of first-order autocorrelation. In the absence of first-order autocorrelation, the statistic equals 2.0.

Error Terms – The difference between the actual values of the data series being modeled (customers or sales) and the regression model's predicted, or "fitted" values for that series. Also called Residual Terms.

FERC – Federal Energy Regulatory Commission.

Heating-Degree Days – Measure of weather. Calculated by subtracting the average daily temperature from a base of 65 degrees Fahrenheit.

Definitions of Terms (continued)

kW – Kilowatt; measure of electricity demand.

KWh – Kilowatt-hour; measure of electricity sales.

MWh – Megawatt-hour; measure of electricity sales; one MWh = 1,000 KWh.

NCE – New Centuries Energy Inc.

NOAA – National Oceanic and Atmospheric Administration.

NSP – Northern States Power Company.

Regression – Linear Regression employing multiple independent variables to model the variation of the dependent variable about its mean value.

R-squared – Coefficient of determination; measures the quality of the model's fit to the historical data. The higher the R-squared statistic, the better the model is explaining the historical data.

Residual Terms – The difference between the actual values of the data series being modeled (customers or sales) and the regression model's predicted, or "fitted" values for that series. Also called Error Terms.

t-Statistic – Measures the importance of the independent variable to the regression. The higher the absolute value of the t-statistic, the more likely it is that the variable has a relationship to the dependent variable and is making an important contribution to the equation.

THI – Temperature-humidity index.

Total Weather Load – Component of sales influenced by weather.

Unbilled Sales – Electricity consumed in the current month but not billed to customers until the succeeding month.

XEI – Xcel Energy Inc.

XES – Xcel Energy Services Inc.

Xcel Energy - Minnesota State
Test Year Sales and Customers Forecast by Customer Class

Weather Normalized Calendar Month Sales (MWh)

	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	2016 Year
Residential without Space Heat	751,433	651,841	641,284	537,388	559,886	733,879	911,925	815,094	639,488	588,849	616,512	725,473	8,173,053
Residential with Space Heat	56,903	49,826	38,194	24,770	24,525	19,848	24,563	22,511	19,882	24,747	36,012	50,273	392,054
Small Commercial & Industrial	1,162,756	1,028,703	1,121,105	1,031,472	1,086,509	1,163,019	1,245,366	1,275,800	1,145,611	1,100,050	1,078,278	1,108,074	13,546,742
Large Commercial & Industrial	651,765	647,576	691,530	651,406	672,140	690,165	772,894	769,913	742,875	734,530	657,420	669,189	8,351,402
Public Street & Highway Lighting	16,496	13,098	14,120	11,347	9,956	9,430	9,374	9,381	11,180	12,705	13,983	15,726	146,796
Other Sales to Public Authority	5,269	4,790	5,640	4,779	5,149	6,283	6,749	8,731	7,371	6,236	4,814	4,893	70,706
Interdepartmental	557	438	671	547	589	1,716	842	454	1,074	755	587	1,005	9,235
Total Retail	2,645,179	2,396,271	2,512,544	2,261,708	2,358,753	2,624,339	2,971,714	2,901,884	2,567,481	2,467,872	2,407,606	2,574,634	30,689,986

Number of Customers

	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	2016 Average
Residential without Space Heat	1,094,829	1,096,198	1,096,942	1,096,786	1,096,597	1,095,967	1,096,163	1,097,558	1,098,022	1,099,947	1,100,201	1,101,085	1,097,525
Residential with Space Heat	33,581	33,624	33,659	33,687	33,696	33,738	33,780	33,823	33,878	33,933	33,989	34,030	33,785
Small Commercial & Industrial	131,243	131,381	131,430	131,400	131,369	131,298	131,322	131,488	131,545	131,775	131,809	131,914	131,498
Large Commercial & Industrial	504	504	504	503	503	503	502	502	502	502	501	501	503
Public Street & Highway Lighting	4,302	4,310	4,319	4,328	4,337	4,346	4,355	4,364	4,374	4,383	4,392	4,401	4,351
Other Sales to Public Authority	2,076	2,075	2,075	2,075	2,074	2,074	2,073	2,073	2,072	2,072	2,071	2,071	2,073
Interdepartmental	13	13	13	13	13	13	13	13	13	13	13	13	13
Total Retail	1,266,548	1,268,105	1,268,942	1,268,792	1,268,589	1,267,939	1,268,208	1,269,821	1,270,406	1,272,625	1,272,976	1,274,015	1,269,747

Xcel Energy - Minnesota State
Test Year Sales and Customers Forecast by Customer Class

Weather Normalized Calendar Month Sales (MWh)

	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	2017 Year
Residential without Space Heat	742,784	629,208	633,388	529,951	554,761	728,797	907,252	811,016	635,513	585,954	613,374	721,964	8,093,962
Residential with Space Heat	56,791	48,553	38,002	24,477	24,126	19,547	24,288	22,206	19,499	24,498	35,689	50,214	387,888
Small Commercial & Industrial	1,168,806	1,002,505	1,128,058	1,050,328	1,105,244	1,170,753	1,253,874	1,282,604	1,150,035	1,110,820	1,086,934	1,115,230	13,625,191
Large Commercial & Industrial	666,453	638,680	690,079	650,037	671,216	689,192	772,436	769,410	742,686	734,914	662,611	674,086	8,361,801
Public Street & Highway Lighting	16,558	13,639	13,690	11,463	10,171	9,507	9,495	9,502	11,254	12,857	14,123	15,791	148,050
Other Sales to Public Authority	5,577	4,362	5,634	4,426	5,417	6,225	6,724	8,665	7,021	6,497	4,792	4,482	69,822
Interdepartmental	557	438	671	547	589	1,716	842	454	1,074	755	587	1,005	9,235
Total Retail	2,657,525	2,337,385	2,509,521	2,271,228	2,371,523	2,625,737	2,974,911	2,903,857	2,567,083	2,476,295	2,418,110	2,582,773	30,695,949

Number of Customers

	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	2017 Average
Residential without Space Heat	1,102,460	1,103,764	1,104,357	1,104,052	1,103,716	1,103,040	1,103,191	1,104,543	1,105,035	1,106,990	1,107,274	1,108,109	1,104,711
Residential with Space Heat	34,071	34,112	34,152	34,193	34,235	34,275	34,315	34,357	34,403	34,449	34,496	34,539	34,300
Small Commercial & Industrial	132,078	132,233	132,304	132,270	132,233	132,155	132,175	132,337	132,397	132,630	132,667	132,768	132,354
Large Commercial & Industrial	501	500	500	500	500	499	499	499	499	498	498	498	499
Public Street & Highway Lighting	4,411	4,420	4,429	4,439	4,448	4,457	4,467	4,476	4,486	4,496	4,505	4,515	4,462
Other Sales to Public Authority	2,071	2,070	2,070	2,069	2,069	2,069	2,068	2,068	2,068	2,067	2,067	2,067	2,069
Interdepartmental	13	13	13	13	13	13	13	13	13	13	13	13	13
Total Retail	1,275,605	1,277,112	1,277,825	1,277,536	1,277,214	1,276,508	1,276,728	1,278,293	1,278,901	1,281,143	1,281,520	1,282,509	1,278,408

Xcel Energy - Minnesota State
Test Year Sales and Customers Forecast by Customer Class

Weather Normalized Calendar Month Sales (MWh)

	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	2018 Year
Residential without Space Heat	741,039	627,556	630,775	528,140	551,989	725,057	903,810	806,838	630,610	581,568	608,051	717,846	8,053,280
Residential with Space Heat	56,799	48,496	37,866	24,224	23,795	19,222	24,035	21,888	19,045	24,254	35,577	50,243	385,444
Small Commercial & Industrial	1,173,935	1,006,842	1,131,364	1,060,344	1,112,764	1,173,790	1,258,866	1,285,712	1,151,514	1,115,550	1,090,154	1,118,403	13,679,239
Large Commercial & Industrial	657,438	629,469	696,882	657,059	678,049	695,622	779,265	775,878	749,012	741,421	668,713	680,333	8,409,141
Public Street & Highway Lighting	16,636	13,861	13,620	11,558	10,296	9,591	9,593	9,600	11,338	12,965	14,227	15,872	149,156
Other Sales to Public Authority	5,882	4,331	5,277	4,712	5,367	5,870	7,012	8,606	6,678	6,766	4,776	4,467	69,742
Interdepartmental	557	438	671	547	589	1,716	842	454	1,074	755	587	1,005	9,235
Total Retail	2,652,285	2,330,993	2,516,455	2,286,584	2,382,850	2,630,868	2,983,423	2,908,976	2,569,271	2,483,279	2,422,084	2,588,170	30,755,235

Number of Customers

	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	2018 Average
Residential without Space Heat	1,109,437	1,110,694	1,111,381	1,111,170	1,110,928	1,110,267	1,110,434	1,111,802	1,112,259	1,114,179	1,114,428	1,115,358	1,111,861
Residential with Space Heat	34,583	34,628	34,676	34,725	34,774	34,821	34,868	34,916	34,958	35,001	35,043	35,085	34,840
Small Commercial & Industrial	132,927	133,078	133,162	133,141	133,116	133,041	133,065	133,229	133,286	133,515	133,547	133,660	133,231
Large Commercial & Industrial	497	497	497	497	496	496	496	495	495	495	495	494	496
Public Street & Highway Lighting	4,525	4,534	4,544	4,554	4,564	4,574	4,584	4,594	4,604	4,614	4,624	4,633	4,579
Other Sales to Public Authority	2,066	2,066	2,066	2,065	2,065	2,065	2,064	2,064	2,064	2,063	2,063	2,063	2,065
Interdepartmental	13	13	13	13	13	13	13	13	13	13	13	13	13
Total Retail	1,284,048	1,285,510	1,286,339	1,286,165	1,285,956	1,285,277	1,285,524	1,287,113	1,287,679	1,289,880	1,290,213	1,291,306	1,287,084

Xcel Energy - Minnesota State
Test Year Sales and Customers Forecast by Customer Class

Weather Normalized Calendar Month Sales (MWh)

	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	2019 Year
Residential without Space Heat	734,851	623,293	626,252	523,923	546,172	720,469	899,029	801,128	627,032	576,939	603,570	715,618	7,998,276
Residential with Space Heat	56,751	48,338	37,615	23,895	23,348	18,802	23,630	21,425	18,606	23,837	35,277	50,098	381,621
Small Commercial & Industrial	1,181,132	1,015,236	1,139,739	1,071,073	1,120,335	1,182,779	1,267,943	1,291,864	1,160,852	1,122,759	1,096,775	1,128,538	13,779,025
Large Commercial & Industrial	663,595	635,700	703,051	663,171	683,742	701,553	785,124	781,479	754,653	746,942	674,184	685,971	8,479,166
Public Street & Highway Lighting	16,720	13,989	13,659	11,646	10,393	9,675	9,680	9,686	11,419	13,052	14,312	15,950	150,181
Other Sales to Public Authority	5,456	4,317	5,242	4,962	4,733	6,153	7,274	7,973	7,236	6,429	4,335	5,194	69,304
Interdepartmental	557	438	671	547	589	1,716	842	454	1,074	755	587	1,005	9,235
Total Retail	2,659,063	2,341,312	2,526,227	2,299,216	2,389,312	2,641,146	2,993,522	2,914,009	2,580,873	2,490,714	2,429,040	2,602,375	30,866,808

Number of Customers

	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	2019 Average
Residential without Space Heat	1,116,781	1,118,133	1,118,833	1,118,637	1,118,410	1,117,859	1,118,135	1,119,614	1,120,169	1,122,189	1,122,538	1,123,506	1,119,567
Residential with Space Heat	35,127	35,169	35,213	35,258	35,302	35,352	35,402	35,452	35,501	35,551	35,601	35,652	35,382
Small Commercial & Industrial	133,830	133,993	134,079	134,059	134,036	133,975	134,012	134,191	134,260	134,502	134,548	134,666	134,179
Large Commercial & Industrial	494	494	494	493	493	493	492	492	492	492	491	491	493
Public Street & Highway Lighting	4,643	4,652	4,662	4,671	4,681	4,690	4,699	4,708	4,717	4,726	4,735	4,744	4,694
Other Sales to Public Authority	2,062	2,062	2,062	2,062	2,061	2,061	2,061	2,061	2,060	2,060	2,060	2,060	2,061
Interdepartmental	13	13	13	13	13	13	13	13	13	13	13	13	13
Total Retail	1,292,950	1,294,516	1,295,356	1,295,193	1,294,996	1,294,443	1,294,814	1,296,531	1,297,212	1,299,533	1,299,986	1,301,132	1,296,389

Xcel Energy - Minnesota State
Test Year Sales and Customers Forecast by Customer Class

Weather Normalized Calendar Month Sales (MWh)

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	2020 Year
Residential without Space Heat	726,711	654,412	620,269	517,626	541,100	714,532	892,325	795,566	620,852	570,282	597,309	707,519	7,958,504
Residential with Space Heat	56,329	47,922	37,094	23,245	22,632	18,097	22,925	20,770	17,868	23,141	34,829	49,718	374,570
Small Commercial & Industrial	1,186,004	1,055,155	1,146,555	1,076,905	1,128,074	1,189,084	1,272,099	1,300,243	1,167,575	1,128,876	1,104,988	1,134,187	13,889,746
Large Commercial & Industrial	667,786	659,573	707,227	667,481	688,133	705,772	789,425	785,857	759,053	751,133	678,589	690,251	8,550,282
Public Street & Highway Lighting	16,799	14,081	13,723	11,725	10,474	9,752	9,758	9,764	11,495	13,131	14,391	16,026	151,120
Other Sales to Public Authority	5,111	4,634	5,487	4,628	4,999	6,135	6,604	8,588	7,230	6,097	4,677	4,758	68,949
Interdepartmental	557	438	671	547	589	1,716	842	454	1,074	755	587	1,005	9,235
Total Retail	2,659,297	2,436,215	2,531,026	2,302,157	2,396,001	2,645,088	2,993,979	2,921,244	2,585,148	2,493,415	2,435,369	2,603,465	31,002,405

Number of Customers

	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	2020 Average
Residential without Space Heat	1,124,967	1,126,358	1,127,097	1,126,939	1,126,751	1,126,120	1,126,318	1,127,717	1,128,160	1,130,066	1,130,303	1,131,160	1,127,663
Residential with Space Heat	35,703	35,754	35,806	35,858	35,910	35,956	36,003	36,049	36,093	36,137	36,181	36,220	35,973
Small Commercial & Industrial	134,843	135,011	135,103	135,089	135,072	135,002	135,030	135,199	135,255	135,483	135,515	135,619	135,185
Large Commercial & Industrial	491	491	490	490	490	489	489	489	489	488	488	488	489
Public Street & Highway Lighting	4,752	4,761	4,770	4,779	4,788	4,797	4,805	4,814	4,823	4,832	4,840	4,849	4,801
Other Sales to Public Authority	2,059	2,059	2,059	2,059	2,058	2,058	2,058	2,058	2,057	2,057	2,057	2,057	2,058
Interdepartmental	13	13	13	13	13	13	13	13	13	13	13	13	13
Total Retail	1,302,828	1,304,447	1,305,338	1,305,227	1,305,082	1,304,435	1,304,716	1,306,339	1,306,890	1,309,076	1,309,397	1,310,406	1,306,182

ref2015.d021915a

Report Annual Energy Outlook 2015
Scenario ref2015 Reference case
Datekey d021915a
Release Date April 2015

4. Residential Sector Key Indicators and Consumption

(quadrillion Btu, unless otherwise noted)

Key Indicators and Consumption	2012	2013	2014	2015	2016	2017	2018	2019	2020	2014-2020 Average
Key Indicators										
Households (millions)										
Total	**113.93**	**114.33**	**114.80**	**115.50**	**116.32**	**117.29**	**118.33**	**119.41**	**120.51**	0.8%
Delivered Energy Consumption by Fuel										2014-2020
Purchased Electricity	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Space Heating	0.29	0.40	0.45	0.37	0.35	0.35	0.35	0.35	0.35	-4.3%
per Household	0.0025	0.0035	0.0039	0.0032	0.0030	0.0030	0.0030	0.0029	0.0029	-5.1%
Space Cooling	0.83	0.66	0.64	0.71	0.76	0.76	0.77	0.78	0.79	3.4%
per Household	0.0073	0.0058	0.0056	0.0062	0.0065	0.0065	0.0065	0.0065	0.0065	2.5%
Water Heating	0.44	0.44	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.5%
per Household	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	0.0039	-0.3%
Refrigeration	0.37	0.36	0.36	0.36	0.35	0.35	0.35	0.34	0.34	-0.9%
per Household	0.0032	0.0032	0.0031	0.0031	0.0030	0.0030	0.0029	0.0029	0.0028	-1.7%
Cooking	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	1.2%
per Household	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0010	0.4%
Clothes Dryers	0.20	0.20	0.20	0.21	0.21	0.21	0.21	0.21	0.21	0.6%
per Household	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	-0.2%
Freezers	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	-1.0%
per Household	0.0007	0.0007	0.0007	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	-1.8%
Lighting	0.64	0.59	0.51	0.50	0.49	0.49	0.49	0.49	0.43	-2.9%
per Household	0.0056	0.0051	0.0045	0.0043	0.0042	0.0042	0.0041	0.0041	0.0036	-3.6%
Share of total			10.6%	10.4%	10.2%	10.1%	10.0%	9.9%	8.9%	
Clothes Washers 1/	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	-3.1%
per Household	0.0003	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	-3.8%
Dishwashers 1/	0.10	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.10	0.3%
per Household	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	-0.5%
Televisions and Related Equipment 2/	0.33	0.33	0.33	0.33	0.33	0.32	0.32	0.32	0.32	-0.4%
per Household	0.0029	0.0029	0.0029	0.0028	0.0028	0.0028	0.0027	0.0027	0.0027	-1.2%
Computers and Related Equipment 3/	0.12	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	-3.3%
per Household	0.0011	0.0011	0.0010	0.0010	0.0009	0.0009	0.0009	0.0008	0.0008	-4.1%

Delivered Energy Consumption by Fuel										2014-2020
Purchased Electricity	2012	2013	2014	2015	2016	2017	2018	2019	2020	Average
Furnace Fans and Boiler Circulation Pumps	0.09	0.13	0.15	0.12	0.12	0.12	0.12	0.12	0.11	-4.1%
per Household	0.0008	0.0011	0.0013	0.0010	0.0010	0.0010	0.0010	0.0010	0.0009	-4.9%
Other Uses 4/	1.06	1.19	1.31	1.34	1.35	1.38	1.40	1.42	1.44	1.6%
per Household	0.0093	0.0104	0.0114	0.0116	0.0116	0.0117	0.0118	0.0119	0.0119	0.8%
Delivered Energy	**4.69**	**4.75**	**4.83**	**4.80**	**4.83**	**4.84**	**4.87**	**4.89**	**4.86**	0.1%
per Household	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	-0.7%

1/ Does not include water heating portion of load.

2/ Includes televisions, set-top boxes, home theater systems, DVD players, and video game consoles.

3/ Includes desktop and laptop computers, monitors, and networking equipment.

4/ Includes small electric devices, heating elements, and motors not listed above. Electric vehicles are included in the transportation sector.

Btu = British thermal unit.

- - = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2012 and 2013 are model results and may differ from official EIA data reports.

Source: 2012 and 2013 consumption based on: U.S. Energy Information Administration (EIA), Monthly Energy Review, DOE/EIA-0035(2014/08) (Washington, DC, August 2014). 2012 and 2013 degree days based on state-level data from the National Oceanic and Atmospheric Administration's Climatic Data Center and Climate Prediction Center.
Projections: EIA, AEO2015 National Energy Modeling System run ref2015.d021915a.

ref2015.d021915a

Report Annual Energy Outlook 2015
Scenario ref2015 Reference case
Datekey d021915a
Release Date April 2015

5. Commercial Sector Key Indicators and Consumption

(quadrillion Btu, unless otherwise noted)

Key Indicators and Consumption	2012	2013	2014	2015	2016	2017	2018	2019	2020	2014-2020 Average
Key Indicators										
Total Floorspace (billion square feet)										
Total	**82.3**	**82.8**	**83.4**	**84.1**	**84.9**	**85.9**	**86.9**	**88.0**	**89.0**	1.1%
Delivered Energy Consumption by Fuel										
Purchased Electricity										
Space Heating 1/	0.14	0.16	0.17	0.15	0.15	0.14	0.14	0.14	0.14	-3.2%
Space Cooling 1/	0.57	0.49	0.48	0.50	0.53	0.53	0.53	0.53	0.53	1.7%
Water Heating 1/	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	-0.4%
Ventilation	0.51	0.52	0.52	0.52	0.52	0.53	0.53	0.54	0.54	0.7%
Cooking	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	-0.3%
Lighting	0.92	0.91	0.90	0.89	0.88	0.88	0.88	0.88	0.87	-0.5%
Refrigeration	0.38	0.37	0.37	0.36	0.36	0.35	0.34	0.34	0.33	-1.8%
Office Equipment (PC)	0.12	0.11	0.10	0.09	0.09	0.08	0.08	0.07	0.07	-6.0%
Office Equipment (non-PC)	0.22	0.22	0.22	0.22	0.22	0.23	0.23	0.24	0.24	1.7%
Other Uses 2/	1.56	1.68	1.78	1.80	1.84	1.87	1.91	1.95	1.99	1.9%
Delivered Energy	**4.53**	**4.57**	**4.63**	**4.66**	**4.70**	**4.72**	**4.75**	**4.79**	**4.82**	0.7%

1/ Includes fuel consumption for district services.
2/ Includes (but is not limited to) miscellaneous uses such as transformers, medical imaging and other medical equipment, elevators, escalators, off-road electric vehicles, laboratory fume hoods, laundry equipment, coffee brewers, and water services.
Btu = British thermal unit.
PC = Personal computer.
- - = Not applicable.
Note: Totals may not equal sum of components due to independent rounding. Data for 2012 and 2013 are model results and may differ from official EIA data reports.
Source: 2012 and 2013 consumption based on: U.S. Energy Information Administration (EIA), Monthly Energy Review, DOE/EIA-0035(2014/08) (Washington, DC, August 2014). 2012 and 2013 degree days based on state-level data from the National Oceanic and Atmospheric Administration's Climatic Data Center and Climate Prediction Center.
Projections: EIA, AEO2015 National Energy Modeling System run ref2015.d021915a.

PUBLIC DOCUMENT
TRADE SECRET INFORMATION EXCISED—PUBLIC DATA

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Schedule 6

Exogenous Adjustments to the Large C&I Forecast

[TRADE SECRET DATA BEGINS

		Total	Cumulative
2015		0	0
2016		25,496	
2017		-30,724	
2018		-36,064	
Jan-15		0	
Feb-15		0	
Mar-15		0	
Apr-15		0	
May-15		0	
Jun-15		0	
Jul-15		0	
Aug-15		0	
Sep-15		0	
Oct-15		0	
Nov-15		0	
Dec-15		0	0
Jan-16		2,917	
Feb-16		2,917	
Mar-16		2,917	
Apr-16		2,917	
May-16		2,917	
Jun-16		2,917	
Jul-16		2,917	
Aug-16		2,917	
Sep-16		2,917	
Oct-16		2,917	
Nov-16		-1,835	
Dec-16		-1,835	25,496
Jan-17		10,915	
Feb-17		10,915	
Mar-17		-5,255	
Apr-17		-5,255	
May-17		-5,255	
Jun-17		-5,255	
Jul-17		-5,255	
Aug-17		-5,255	
Sep-17		-5,255	
Oct-17		-5,255	
Nov-17		-5,255	
Dec-17		-5,255	-30,724

TRADE SECRET DATA ENDS]

PUBLIC DOCUMENT
TRADE SECRET INFORMATION EXCISED—PUBLIC DATA

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Schedule 6

Exogenous Adjustments to the Large C&I Forecast

[TRADE SECRET DATA BEGINS

		Total	Cumulative
Jan-18		-3,005	
Feb-18		-3,005	
Mar-18		-3,005	
Apr-18		-3,005	
May-18		-3,005	
Jun-18		-3,005	
Jul-18		-3,005	
Aug-18		-3,005	
Sep-18		-3,005	
Oct-18		-3,005	
Nov-18		-3,005	
Dec-18		-3,005	-36,064
Jan-19		-3,005	
Feb-19		-3,005	
Mar-19		-3,005	
Apr-19		-3,005	
May-19		-3,005	
Jun-19		-3,005	
Jul-19		-3,005	
Aug-19		-3,005	
Sep-19		-3,005	
Oct-19		-3,005	
Nov-19		-3,005	
Dec-19		-3,005	-36,064
Jan-20		-3,005	
Feb-20		-3,005	
Mar-20		-3,005	
Apr-20		-3,005	
May-20		-3,005	
Jun-20		-3,005	
Jul-20		-3,005	
Aug-20		-3,005	
Sep-20		-3,005	
Oct-20		-3,005	
Nov-20		-3,005	
Dec-20		-3,005	

TRADE SECRET DATA END]

Incremental Growth Each Year

Cumulative

[TRADE SECRET DATA BEGINS

		Total	
2014		0	0
2015		0	0
2016		25,496	25,496
2017		-56,220	-30,724
2018		-5,340	-36,064

TRADE SECRET DATA ENDS]

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 MWh Electric Sales

	Variable	Coefficient	StdErr	T-Stat	P-Value	Definition	
	CONST	-415251.573	75287.397	-5.516	0.00%	Constant term	
	MN.CYPNR_MN	15916.551	1475.206	10.789	0.00%	Real Personal Income per capita, Minnesota, thousands 2009$	
	BillingDayscellnet.BillDaysCellnet21	15902.793	622.720	25.538	0.00%	Average number of billing days per month	
[TRADE SECRET DATA BEGINS							***TRADE SECRET DATA ENDS]***
	MNRXWeather.H65_bill_RX_MN_Jan	0.00013435	0.000	36.029	0.00%	January HDD65 * January customers	
	MNRXWeather.H65_bill_RX_MN_Feb	0.00010148	0.000	28.993	0.00%	February HDD65 * February customers	
	MNRXWeather.H65_bill_RX_MN_Mar	0.00008513	0.000	22.494	0.00%	March HDD65 * March customers	
	MNRXWeather.H65_bill_RX_MN_Apr	0.00005270	0.000	9.747	0.00%	April HDD65 * April customers	
	MNRXWeather.H65_bill_RX_MN_Oct	0.00005488	0.000	2.916	0.40%	October HDD65 * October customers	
	MNRXWeather.H65_bill_RX_MN_Nov	0.00006824	0.000	8.200	0.00%	November HDD65 * November customers	
	MNRXWeather.H65_bill_RX_MN_Dec	0.00011728	0.000	24.987	0.00%	December HDD65 * December customers	
	MNRXWeather.T65_bill_RX_MN_May	0.00126048	0.000	2.595	1.02%	May THI65 * May customers	
	MNRXWeather.T65_bill_RX_MN_Jun	0.00185443	0.000	23.535	0.00%	June THI65 * June customers	
	MNRXWeather.T65_bill_RX_MN_Jul	0.00197456	0.000	71.089	0.00%	July THI65 * July customers	
	MNRXWeather.T65_bill_RX_MN_Aug	0.00201816	0.000	76.312	0.00%	August THI65 * August customers	
	MNRXWeather.T65_bill_RX_MN_Sep	0.00215449	0.000	40.866	0.00%	September THI65 * September customers	
	MNRXWeather.T65_bill_RX_MN_Oct	0.00183556	0.000	9.185	0.00%	October THI65 * October customers	
	Binary2.May2006	-46847.659	11531.243	-4.063	0.01%	Binary variable May 2006	
	Binary2.Sep2006	28749.475	11382.970	2.526	1.24%	Binary variable September 2006	
	BinaryTrans.PostOct08	26759.878	8596.993	3.113	0.22%	Binary variable = 1 beginning November 2008	
	BinaryTrans.Sep2013	-38193.962	12842.167	-2.974	0.33%	Binary variable September 2013	
	AR(1)	0.6712382	0.056117	11.961	0.00%	First order autoregressive term	

HDD65 = Heating Degree Days base 65
THI65 = Temperature-humidity Index base 65

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 MWh Electric Sales

Model Statistics	
Iterations	12
Adjusted Observations	208
Deg. of Freedom for Error	186
R-Squared	0.992
Adjusted R-Squared	0.991
AIC	19.046
BIC	19.399
F-Statistic	1082.244319
Prob (F-Statistic)	0
Log-Likelihood	-2,253.87
Model Sum of Squares	3,842,253,072,048.40
Sum of Squared Errors	31,445,195,655.48
Mean Squared Error	169,060,191.70
Std. Error of Regression	13,002.31
Mean Abs. Dev. (MAD)	9,532.32
Mean Abs. % Err. (MAPE)	1.39%
Durbin-Watson Statistic	1.873
Durbin-H Statistic	#NA
Ljung-Box Statistic	36.42
Prob (Ljung-Box)	0.0499
Skewness	-0.107
Kurtosis	3.223
Jarque-Bera	0.827
Prob (Jarque-Bera)	0.6612

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
1998	1	646,018.543				
1998	2	537,009.073	538,717.681	-1,708.608	-0.32%	-0.131
1998	3	489,746.268	506,568.407	-16,822.139	-3.43%	-1.294
1998	4	483,881.111	467,416.386	16,464.725	3.40%	1.266
1998	5	465,598.589	465,632.243	-33.654	-0.01%	-0.003
1998	6	530,320.550	529,577.475	743.075	0.14%	0.057
1998	7	740,545.118	733,306.291	7,238.827	0.98%	0.557
1998	8	710,598.164	690,909.948	19,688.216	2.77%	1.514
1998	9	690,279.029	702,053.325	-11,774.296	-1.71%	-0.906
1998	10	536,632.091	524,228.753	12,403.339	2.31%	0.954
1998	11	495,625.306	499,668.827	-4,043.521	-0.82%	-0.311
1998	12	593,078.875	609,858.029	-16,779.154	-2.83%	-1.290
1999	1	706,276.492	718,634.965	-12,358.473	-1.75%	-0.950
1999	2	549,697.779	553,314.694	-3,616.915	-0.66%	-0.278
1999	3	519,971.481	524,409.041	-4,437.560	-0.85%	-0.341
1999	4	494,814.631	494,548.863	265.768	0.05%	0.020
1999	5	456,389.619	450,044.799	6,344.820	1.39%	0.488
1999	6	580,077.107	573,081.208	6,995.899	1.21%	0.538
1999	7	775,065.071	775,873.637	-808.567	-0.10%	-0.062
1999	8	812,506.839	805,958.213	6,548.626	0.81%	0.504
1999	9	644,922.670	666,616.360	-21,693.691	-3.36%	-1.668
1999	10	482,478.946	479,656.317	2,822.629	0.59%	0.217
1999	11	492,687.569	499,473.268	-6,785.699	-1.38%	-0.522
1999	12	616,565.649	624,088.057	-7,522.408	-1.22%	-0.579
2000	1	695,224.805	707,056.310	-11,831.506	-1.70%	-0.910
2000	2	581,770.776	593,337.418	-11,566.643	-1.99%	-0.890
2000	3	517,252.691	528,157.547	-10,904.856	-2.11%	-0.839
2000	4	497,634.538	499,482.696	-1,848.158	-0.37%	-0.142
2000	5	513,815.906	509,796.974	4,018.932	0.78%	0.309
2000	6	561,582.894	554,986.597	6,596.297	1.17%	0.507
2000	7	743,715.833	726,659.008	17,056.825	2.29%	1.312
2000	8	794,331.708	791,148.936	3,182.772	0.40%	0.245
2000	9	705,648.142	699,079.299	6,568.843	0.93%	0.505
2000	10	524,837.450	543,400.597	-18,563.147	-3.54%	-1.428
2000	11	528,463.909	532,789.493	-4,325.583	-0.82%	-0.333
2000	12	676,081.275	702,449.607	-26,368.332	-3.90%	-2.028
2001	1	746,411.914	764,161.527	-17,749.613	-2.38%	-1.365
2001	2	602,003.891	616,667.327	-14,663.436	-2.44%	-1.128
2001	3	575,025.864	584,200.559	-9,174.694	-1.60%	-0.706
2001	4	540,812.718	533,792.808	7,019.910	1.30%	0.540
2001	5	515,942.309	513,511.318	2,430.991	0.47%	0.187
2001	6	572,198.027	577,189.872	-4,991.845	-0.87%	-0.384
2001	7	841,546.040	825,203.541	16,342.499	1.94%	1.257
2001	8	949,547.368	953,593.075	-4,045.707	-0.43%	-0.311
2001	9	701,580.309	709,186.674	-7,606.364	-1.08%	-0.585
2001	10	530,198.570	523,237.074	6,961.496	1.31%	0.535
2001	11	536,924.802	545,054.102	-8,129.300	-1.51%	-0.625
2001	12	644,413.800	637,466.469	6,947.330	1.08%	0.534
2002	1	732,458.032	745,044.106	-12,586.074	-1.72%	-0.968
2002	2	598,958.800	608,613.404	-9,654.604	-1.61%	-0.743
2002	3	592,527.313	593,290.751	-763.438	-0.13%	-0.059
2002	4	573,471.680	562,695.587	10,776.093	1.88%	0.829
2002	5	511,864.117	514,160.672	-2,296.555	-0.45%	-0.177

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2002	6	615,718.565	623,377.812	-7,659.247	-1.24%	-0.589
2002	7	975,984.354	965,666.744	10,317.610	1.06%	0.794
2002	8	865,149.058	858,973.695	6,175.363	0.71%	0.475
2002	9	791,213.204	803,622.121	-12,408.917	-1.57%	-0.954
2002	10	596,387.243	575,765.109	20,622.134	3.46%	1.586
2002	11	581,916.337	581,965.816	-49.479	-0.01%	-0.004
2002	12	705,396.678	714,067.822	-8,671.144	-1.23%	-0.667
2003	1	762,313.154	763,299.312	-986.158	-0.13%	-0.076
2003	2	666,883.554	668,059.760	-1,176.206	-0.18%	-0.090
2003	3	622,637.263	630,442.545	-7,805.282	-1.25%	-0.600
2003	4	561,137.361	563,309.656	-2,172.295	-0.39%	-0.167
2003	5	533,569.076	538,820.890	-5,251.814	-0.98%	-0.404
2003	6	583,808.452	585,065.534	-1,257.082	-0.22%	-0.097
2003	7	817,122.392	801,919.366	15,203.026	1.86%	1.169
2003	8	878,445.446	874,218.298	4,227.148	0.48%	0.325
2003	9	851,805.593	846,991.910	4,813.683	0.57%	0.370
2003	10	577,454.524	590,726.989	-13,272.465	-2.30%	-1.021
2003	11	578,742.878	575,607.045	3,135.833	0.54%	0.241
2003	12	726,448.041	727,322.680	-874.639	-0.12%	-0.067
2004	1	783,505.213	794,221.407	-10,716.194	-1.37%	-0.824
2004	2	687,774.696	689,370.718	-1,596.022	-0.23%	-0.123
2004	3	609,144.393	617,317.803	-8,173.410	-1.34%	-0.629
2004	4	570,284.935	577,246.412	-6,961.477	-1.22%	-0.535
2004	5	532,382.660	537,643.351	-5,260.690	-0.99%	-0.405
2004	6	611,528.920	603,005.786	8,523.134	1.39%	0.656
2004	7	740,696.986	749,271.617	-8,574.631	-1.16%	-0.659
2004	8	758,784.600	745,832.198	12,952.402	1.71%	0.996
2004	9	704,564.541	715,038.964	-10,474.423	-1.49%	-0.806
2004	10	619,575.857	609,373.639	10,202.218	1.65%	0.785
2004	11	590,835.346	598,161.521	-7,326.175	-1.24%	-0.563
2004	12	732,597.498	726,338.647	6,258.851	0.85%	0.481
2005	1	834,008.527	825,282.267	8,726.260	1.05%	0.671
2005	2	623,680.270	643,657.356	-19,977.086	-3.20%	-1.536
2005	3	645,783.595	658,859.871	-13,076.276	-2.02%	-1.006
2005	4	603,786.052	571,317.375	32,468.677	5.38%	2.497
2005	5	532,291.884	552,157.656	-19,865.772	-3.73%	-1.528
2005	6	692,113.334	690,360.626	1,752.707	0.25%	0.135
2005	7	922,355.945	898,343.640	24,012.305	2.60%	1.847
2005	8	1,040,809.002	1,024,308.447	16,500.556	1.59%	1.269
2005	9	752,326.968	747,204.991	5,121.977	0.68%	0.394
2005	10	624,876.624	631,935.617	-7,058.993	-1.13%	-0.543
2005	11	568,781.870	564,229.072	4,552.798	0.80%	0.350
2005	12	719,258.037	712,452.672	6,805.364	0.95%	0.523
2006	1	789,377.267	787,764.747	1,612.520	0.20%	0.124
2006	2	623,048.072	643,262.724	-20,214.652	-3.24%	-1.555
2006	3	688,365.161	683,427.524	4,937.637	0.72%	0.380
2006	4	552,131.691	534,571.354	17,560.338	3.18%	1.351
2006	5	551,551.659	545,038.796	6,512.864	1.18%	0.501
2006	6	782,246.980	772,544.199	9,702.781	1.24%	0.746
2006	7	868,449.923	853,967.322	14,482.600	1.67%	1.114
2006	8	1,100,225.876	1,108,516.307	-8,290.431	-0.75%	-0.638
2006	9	702,117.639	695,847.059	6,270.579	0.89%	0.482

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	10	615,852.229	606,510.400	9,341.829	1.52%	0.718
2006	11	597,126.049	592,248.946	4,877.102	0.82%	0.375
2006	12	675,712.166	670,028.221	5,683.944	0.84%	0.437
2007	1	838,163.383	822,558.950	15,604.433	1.86%	1.200
2007	2	696,164.128	703,441.947	-7,277.820	-1.05%	-0.560
2007	3	686,971.674	687,286.682	-315.008	-0.05%	-0.024
2007	4	586,874.229	590,482.938	-3,608.709	-0.61%	-0.278
2007	5	583,617.250	596,556.647	-12,939.397	-2.22%	-0.995
2007	6	708,695.837	703,862.183	4,833.654	0.68%	0.372
2007	7	917,008.462	891,091.515	25,916.947	2.83%	1.993
2007	8	1,026,558.745	1,016,682.402	9,876.343	0.96%	0.760
2007	9	731,730.356	738,050.675	-6,320.319	-0.86%	-0.486
2007	10	692,183.746	695,390.015	-3,206.269	-0.46%	-0.247
2007	11	593,796.040	581,198.111	12,597.928	2.12%	0.969
2007	12	707,574.838	706,460.067	1,114.771	0.16%	0.086
2008	1	859,505.169	875,676.179	-16,171.011	-1.88%	-1.244
2008	2	730,823.294	717,072.306	13,750.988	1.88%	1.058
2008	3	661,180.146	661,578.489	-398.342	-0.06%	-0.031
2008	4	644,501.588	645,084.898	-583.310	-0.09%	-0.045
2008	5	553,935.712	557,267.623	-3,331.910	-0.60%	-0.256
2008	6	593,129.537	598,083.025	-4,953.488	-0.84%	-0.381
2008	7	837,656.836	841,065.092	-3,408.256	-0.41%	-0.262
2008	8	847,149.468	854,680.508	-7,531.040	-0.89%	-0.579
2008	9	779,364.608	764,124.010	15,240.598	1.96%	1.172
2008	10	633,223.276	644,502.149	-11,278.873	-1.78%	-0.867
2008	11	528,400.204	541,243.129	-12,842.925	-2.43%	-0.988
2008	12	774,438.444	774,676.746	-238.302	-0.03%	-0.018
2009	1	870,811.618	861,700.286	9,111.332	1.05%	0.701
2009	2	696,361.240	683,436.951	12,924.289	1.86%	0.994
2009	3	696,351.932	694,769.929	1,582.003	0.23%	0.122
2009	4	610,870.526	613,525.588	-2,655.061	-0.43%	-0.204
2009	5	531,334.637	543,487.779	-12,153.142	-2.29%	-0.935
2009	6	640,058.355	642,091.860	-2,033.505	-0.32%	-0.156
2009	7	802,723.916	789,711.511	13,012.405	1.62%	1.001
2009	8	744,112.481	718,787.807	25,324.674	3.40%	1.948
2009	9	727,232.660	722,461.263	4,771.397	0.66%	0.367
2009	10	666,691.944	649,788.421	16,903.523	2.54%	1.300
2009	11	565,856.781	565,870.513	-13.732	-0.00%	-0.001
2009	12	760,226.379	743,989.141	16,237.239	2.14%	1.249
2010	1	833,141.897	823,627.903	9,513.994	1.14%	0.732
2010	2	684,906.151	680,137.817	4,768.334	0.70%	0.367
2010	3	713,840.134	709,880.968	3,959.166	0.55%	0.304
2010	4	583,510.472	608,187.994	-24,677.522	-4.23%	-1.898
2010	5	538,139.863	527,290.594	10,849.269	2.02%	0.834
2010	6	746,707.528	715,348.211	31,359.317	4.20%	2.412
2010	7	908,422.682	938,654.639	-30,231.956	-3.33%	-2.325
2010	8	1,040,122.497	1,068,629.248	-28,506.750	-2.74%	-2.192
2010	9	814,539.044	793,168.527	21,370.517	2.62%	1.644
2010	10	584,024.363	586,279.255	-2,254.891	-0.39%	-0.173
2010	11	583,663.232	588,172.748	-4,509.516	-0.77%	-0.347
2010	12	760,400.104	748,807.329	11,592.775	1.52%	0.892
2011	1	865,198.853	870,699.294	-5,500.441	-0.64%	-0.423

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2011	2	708,485.589	701,994.787	6,490.802	0.92%	0.499
2011	3	737,851.384	741,519.687	-3,668.303	-0.50%	-0.282
2011	4	598,773.523	598,187.175	586.348	0.10%	0.045
2011	5	605,980.022	596,538.414	9,441.608	1.56%	0.726
2011	6	715,061.128	731,275.808	-16,214.680	-2.27%	-1.247
2011	7	929,849.919	953,437.859	-23,587.939	-2.54%	-1.814
2011	8	1,080,821.757	1,106,858.619	-26,036.862	-2.41%	-2.002
2011	9	800,931.208	797,493.747	3,437.461	0.43%	0.264
2011	10	614,204.653	607,656.921	6,547.731	1.07%	0.504
2011	11	597,389.721	587,734.557	9,655.164	1.62%	0.743
2011	12	719,078.808	721,789.303	-2,710.495	-0.38%	-0.208
2012	1	817,661.687	815,408.453	2,253.234	0.28%	0.173
2012	2	703,514.495	711,238.914	-7,724.419	-1.10%	-0.594
2012	3	677,127.735	681,978.136	-4,850.400	-0.72%	-0.373
2012	4	573,386.001	596,511.260	-23,125.259	-4.03%	-1.779
2012	5	624,513.912	608,919.818	15,594.094	2.50%	1.199
2012	6	749,327.464	735,353.639	13,973.825	1.86%	1.075
2012	7	1,107,779.026	1,117,472.660	-9,693.635	-0.88%	-0.746
2012	8	1,047,431.270	1,046,316.999	1,114.271	0.11%	0.086
2012	9	764,446.417	762,950.278	1,496.139	0.20%	0.115
2012	10	657,523.438	683,975.451	-26,452.013	-4.02%	-2.034
2012	11	616,695.998	625,310.370	-8,614.372	-1.40%	-0.663
2012	12	696,758.797	696,141.842	616.955	0.09%	0.047
2013	1	897,172.447	888,824.019	8,348.428	0.93%	0.642
2013	2	711,868.745	707,052.844	4,815.901	0.68%	0.370
2013	3	695,055.536	667,674.641	27,380.895	3.94%	2.106
2013	4	710,270.130	705,887.516	4,382.614	0.62%	0.337
2013	5	634,010.585	627,327.581	6,683.004	1.05%	0.514
2013	6	625,995.960	661,892.930	-35,896.970	-5.73%	-2.761
2013	7	988,297.081	1,011,074.245	-22,777.164	-2.30%	-1.752
2013	8	885,160.792	857,555.388	27,605.404	3.12%	2.123
2013	9	926,175.373	925,194.340	981.034	0.11%	0.075
2013	10	690,248.441	688,786.909	1,461.532	0.21%	0.112
2013	11	592,073.361	576,990.130	15,083.231	2.55%	1.160
2013	12	776,786.841	775,929.287	857.554	0.11%	0.066
2014	1	955,746.930	936,031.063	19,715.867	2.06%	1.516
2014	2	749,681.845	722,724.130	26,957.715	3.60%	2.073
2014	3	767,856.857	755,162.407	12,694.450	1.65%	0.976322
2014	4	665,178.499	673,223.085	-8,044.586	-1.21%	-0.6187
2014	5	599,256.186	592,700.644	6,555.543	1.09%	0.504183
2014	6	715,272.681	717,790.822	-2,518.141	-0.35%	-0.19367
2014	7	890,615.835	880,394.474	10,221.361	1.15%	0.786119
2014	8	900,212.340	899,684.787	527.553	0.06%	0.040574
2014	9	833,299.082	841,261.138	-7,962.056	-0.96%	-0.61236
2014	10	660,210.419	676,674.961	-16,464.542	-2.49%	-1.26628
2014	11	558,951.558	561,353.414	-2,401.856	-0.43%	-0.18473
2014	12	811,201.216	810,364.856	836.360	0.10%	0.064324
2015	1	859,056.438	860,612.028	-1,555.590	-0.18%	-0.120
2015	2	680,625.302	682,747.000	-2,121.697	-0.31%	-0.163
2015	3	749,507.490	747,450.327	2,057.164	0.27%	0.158
2015	4	615,248.315	645,124.440	-29,876.125	-4.86%	-2.298
2015	5	543,165.180	550,682.377	-7,517.196	-1.38%	-0.578

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	6		703,948.327			
2015	7		961,764.334			
2015	8		938,692.444			
2015	9		824,403.000			
2015	10		664,623.966			
2015	11		591,526.427			
2015	12		793,143.573			
2016	1		837,109.497			
2016	2		729,077.678			
2016	3		763,857.274			
2016	4		627,847.470			
2016	5		595,395.441			
2016	6		728,273.381			
2016	7		897,457.785			
2016	8		1,031,871.675			
2016	9		829,570.901			
2016	10		642,917.859			
2016	11		624,555.448			
2016	12		758,897.678			
2017	1		877,733.925			
2017	2		696,156.010			
2017	3		771,960.015			
2017	4		608,072.649			
2017	5		623,169.236			
2017	6		734,918.654			
2017	7		910,214.697			
2017	8		1,036,089.279			
2017	9		807,907.569			
2017	10		675,190.674			
2017	11		633,547.781			
2017	12		731,777.288			
2018	1		922,139.877			
2018	2		705,803.227			
2018	3		752,949.889			
2018	4		641,626.469			
2018	5		629,924.465			
2018	6		712,819.926			
2018	7		955,332.441			
2018	8		1,040,754.838			
2018	9		785,048.221			
2018	10		706,880.584			
2018	11		640,769.529			
2018	12		741,638.769			
2019	1		891,434.698			
2019	2		717,428.333			
2019	3		762,444.934			
2019	4		672,387.051			
2019	5		594,214.849			
2019	6		745,705.019			
2019	7		1,004,638.915			
2019	8		978,199.012			
2019	9		857,594.617			

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2019	10		691,366.547			
2019	11		616,961.380			
2019	12		823,865.959			
2020	1		872,603.131			
2020	2		766,172.925			
2020	3		801,447.497			
2020	4		664,749.153			
2020	5		632,717.290			
2020	6		768,599.625			
2020	7		944,297.806			
2020	8		1,081,458.406			
2020	9		874,091.821			
2020	10		682,792.924			
2020	11		664,445.386			
2020	12		803,625.313			

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 MWh Electric Sales

	Variable	Coefficient	StdErr	T-Stat	P-Value	Definition	
	MSP.CYP_MSP	0.018	0.007	2.505	1.31%	Real Personal Income, Minneapolis-St. Paul MSA, millions 2009$	
[TRADE SECRET DATA BEGINS							***TRADE SECRET DATA ENDS]***
	BillingDayscellnet.BillDaysCellnet21	462.514	37.053	12.483	0.00%	Average number of billing days per month	
	MNRHWeather.H65_bill_RH_MN_Jan	0.000903485	0.000	61.648	0.00%	January HDD65 * January customers	
	MNRHWeather.H65_bill_RH_MN_Feb	0.000878703	0.000	52.628	0.00%	February HDD65 * February customers	
	MNRHWeather.H65_bill_RH_MN_Mar	0.000856948	0.000	44.983	0.00%	March HDD65 * March customers	
	MNRHWeather.H65_bill_RH_MN_Apr	0.000744085	0.000	47.504	0.00%	April HDD65 * April customers	
	MNRHWeather.H65_bill_RH_MN_May	0.000621377	0.000	20.262	0.00%	May HDD65 * May customers	
	MNRHWeather.H65_bill_RH_MN_Oct	0.000400039	0.000	9.698	0.00%	October HDD65 * October customers	
	MNRHWeather.H65_bill_RH_MN_Nov	0.000745473	0.000	19.022	0.00%	November HDD65 * November customers	
	MNRHWeather.H65_bill_RH_MN_Dec	0.000849022	0.000	42.844	0.00%	December HDD65 * December customers	
	MNRHWeather.T65_bill_RH_MN_Jun	0.002078265	0.000	9.661	0.00%	June THI65 * June customers	
	MNRHWeather.T65_bill_RH_MN_Jul	0.001349281	0.000	19.230	0.00%	July THI65 * July customers	
	MNRHWeather.T65_bill_RH_MN_Aug	0.001300312	0.000	20.582	0.00%	August THI65 * August customers	
	MNRHWeather.T65_bill_RH_MN_Sep	0.001365604	0.000	12.224	0.00%	September THI65 * September customers	
	Binary.CRS	618.969	234.842	2.636	0.91%	Binary variable for CRS conversion	
	BinaryTrans.Jan08	-2030.220	772.506	-2.628	0.93%	Binary Variable - January 2008	
	BinaryTrans.Oct09	1965.986	799.732	2.458	1.49%	Binary Variable - October 2009	
	BinaryTrans.AfterApr2011	1380.658338	261.2675	5.28446	5.79618E-07	Binary Variable = 1 beginning May 2011	
	AR(1)	0.388	0.066	5.896	0.00%	First order autoregressive term	

HDD65 = Heating Degree Days base 65
THI65 = Temperature-Humidity Index base 65

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 MWh Electric Sales

Model Statistics	
Iterations	11
Adjusted Observations	208
Deg. of Freedom for Error	188
R-Squared	0.997
Adjusted R-Squared	0.996
AIC	13.459
BIC	13.780
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-1,674.86
Model Sum of Squares	34,532,730,308.61
Sum of Squared Errors	120,130,955.32
Mean Squared Error	638,994.44
Std. Error of Regression	799.37
Mean Abs. Dev. (MAD)	574.12
Mean Abs. % Err. (MAPE)	1.95%
Durbin-Watson Statistic	2.073
Durbin-H Statistic	#NA
Ljung-Box Statistic	25.96
Prob (Ljung-Box)	0.3553
Skewness	0.586
Kurtosis	5.059
Jarque-Bera	48.649
Prob (Jarque-Bera)	0.0000

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
1998	1	53,709.143				
1998	2	44,115.487	44,606.852	-491.365	-1.11%	-0.615
1998	3	39,028.829	38,183.296	845.533	2.17%	1.058
1998	4	31,030.311	30,748.319	281.992	0.91%	0.353
1998	5	20,392.370	20,673.991	-281.620	-1.38%	-0.352
1998	6	18,516.342	19,302.196	-785.854	-4.24%	-0.983
1998	7	21,920.730	22,162.315	-241.585	-1.10%	-0.302
1998	8	20,418.723	20,829.790	-411.067	-2.01%	-0.514
1998	9	20,698.618	20,879.394	-180.776	-0.87%	-0.226
1998	10	19,777.177	19,067.891	709.286	3.59%	0.887
1998	11	27,313.308	26,720.384	592.924	2.17%	0.742
1998	12	38,556.998	38,328.137	228.860	0.59%	0.286
1999	1	62,469.172	59,144.501	3,324.671	5.32%	4.159
1999	2	44,081.884	45,153.804	-1,071.920	-2.43%	-1.341
1999	3	39,486.531	39,442.717	43.814	0.11%	0.055
1999	4	29,648.607	30,295.100	-646.492	-2.18%	-0.809
1999	5	21,235.205	21,184.681	50.524	0.24%	0.063
1999	6	19,608.094	20,248.967	-640.872	-3.27%	-0.802
1999	7	22,373.348	22,703.844	-330.496	-1.48%	-0.413
1999	8	22,255.213	22,801.295	-546.082	-2.45%	-0.683
1999	9	19,111.595	20,122.239	-1,010.644	-5.29%	-1.264
1999	10	19,417.060	19,843.223	-426.163	-2.19%	-0.533
1999	11	24,498.475	24,943.193	-444.718	-1.82%	-0.556
1999	12	38,773.916	39,115.586	-341.670	-0.88%	-0.427
2000	1	54,512.934	52,380.251	2,132.682	3.91%	2.668
2000	2	48,771.215	48,496.652	274.563	0.56%	0.343
2000	3	34,811.609	34,912.114	-100.506	-0.29%	-0.126
2000	4	30,082.438	30,693.754	-611.315	-2.03%	-0.765
2000	5	22,470.832	22,539.096	-68.263	-0.30%	-0.085
2000	6	19,269.422	18,963.979	305.443	1.59%	0.382
2000	7	21,138.700	21,587.761	-449.061	-2.12%	-0.562
2000	8	21,495.954	21,886.715	-390.761	-1.82%	-0.489
2000	9	20,023.561	20,210.073	-186.512	-0.93%	-0.233
2000	10	19,721.054	19,785.780	-64.726	-0.33%	-0.081
2000	11	25,865.798	25,301.034	564.764	2.18%	0.707
2000	12	50,326.094	49,837.496	488.598	0.97%	0.611
2001	1	60,009.973	60,047.078	-37.104	-0.06%	-0.046
2001	2	50,308.099	49,788.211	519.889	1.03%	0.650
2001	3	45,284.564	46,659.165	-1,374.601	-3.04%	-1.720
2001	4	34,887.552	34,594.816	292.736	0.84%	0.366
2001	5	21,975.119	21,947.296	27.823	0.13%	0.035
2001	6	19,781.366	19,272.153	509.213	2.57%	0.637
2001	7	22,848.646	23,528.509	-679.863	-2.98%	-0.850
2001	8	24,445.894	24,731.177	-285.283	-1.17%	-0.357
2001	9	19,735.158	20,505.484	-770.326	-3.90%	-0.964
2001	10	19,801.191	19,917.491	-116.299	-0.59%	-0.145
2001	11	24,962.236	25,356.652	-394.416	-1.58%	-0.493
2001	12	36,321.399	35,488.024	833.375	2.29%	1.043
2002	1	49,750.115	51,214.860	-1,464.745	-2.94%	-1.832
2002	2	42,012.658	41,895.361	117.297	0.28%	0.147
2002	3	43,648.881	43,136.561	512.321	1.17%	0.641
2002	4	35,271.819	36,143.535	-871.716	-2.47%	-1.091
2002	5	24,526.376	24,834.494	-308.118	-1.26%	-0.385

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2002	6	20,809.438	20,196.316	613.122	2.95%	0.767
2002	7	25,479.564	26,020.287	-540.723	-2.12%	-0.676
2002	8	22,253.633	22,886.743	-633.110	-2.84%	-0.792
2002	9	21,229.181	21,748.321	-519.140	-2.45%	-0.649
2002	10	22,151.101	20,444.393	1,706.707	7.70%	2.135
2002	11	31,963.483	32,218.910	-255.427	-0.80%	-0.320
2002	12	45,587.676	44,838.532	749.145	1.64%	0.937
2003	1	52,806.118	52,597.999	208.119	0.39%	0.260
2003	2	53,422.804	52,481.835	940.969	1.76%	1.177
2003	3	46,443.838	46,775.142	-331.304	-0.71%	-0.414
2003	4	32,257.902	31,775.839	482.063	1.49%	0.603
2003	5	23,005.470	23,350.099	-344.629	-1.50%	-0.431
2003	6	18,979.117	18,698.946	280.171	1.48%	0.350
2003	7	22,178.275	22,384.576	-206.302	-0.93%	-0.258
2003	8	23,052.974	22,808.659	244.315	1.06%	0.306
2003	9	22,190.469	22,573.811	-383.342	-1.73%	-0.480
2003	10	20,303.921	20,134.269	169.652	0.84%	0.212
2003	11	29,652.838	29,265.191	387.647	1.31%	0.485
2003	12	45,551.093	44,957.545	593.547	1.30%	0.743
2004	1	54,920.560	55,229.305	-308.745	-0.56%	-0.386
2004	2	53,867.811	54,012.855	-145.044	-0.27%	-0.181
2004	3	39,605.166	39,817.971	-212.805	-0.54%	-0.266
2004	4	30,565.561	31,236.919	-671.359	-2.20%	-0.840
2004	5	21,822.159	22,822.131	-999.972	-4.58%	-1.251
2004	6	20,058.774	18,656.348	1,402.426	6.99%	1.754
2004	7	20,684.870	21,404.502	-719.633	-3.48%	-0.900
2004	8	20,437.326	20,590.149	-152.823	-0.75%	-0.191
2004	9	19,556.794	19,916.205	-359.411	-1.84%	-0.450
2004	10	20,312.127	19,487.269	824.857	4.06%	1.032
2004	11	26,470.511	27,231.479	-760.967	-2.87%	-0.952
2004	12	42,705.097	42,579.242	125.856	0.29%	0.157
2005	1	59,463.397	58,464.268	999.129	1.68%	1.250
2005	2	40,993.398	42,861.351	-1,867.953	-4.56%	-2.337
2005	3	43,807.938	44,209.315	-401.377	-0.92%	-0.502
2005	4	31,001.418	29,275.863	1,725.555	5.57%	2.159
2005	5	24,836.269	23,769.949	1,066.320	4.29%	1.334
2005	6	21,731.688	21,669.202	62.486	0.29%	0.078
2005	7	23,040.528	23,287.609	-247.081	-1.07%	-0.309
2005	8	25,681.164	25,137.317	543.847	2.12%	0.680
2005	9	19,692.883	19,977.157	-284.274	-1.44%	-0.356
2005	10	19,123.854	18,709.442	414.412	2.17%	0.518
2005	11	24,645.495	25,298.315	-652.820	-2.65%	-0.817
2005	12	43,430.663	43,445.354	-14.691	-0.03%	-0.018
2006	1	48,453.036	48,647.237	-194.200	-0.40%	-0.243
2006	2	40,577.365	40,938.159	-360.794	-0.89%	-0.451
2006	3	45,409.806	44,967.920	441.886	0.97%	0.553
2006	4	27,114.766	27,594.261	-479.495	-1.77%	-0.600
2006	5	21,236.733	22,190.020	-953.287	-4.49%	-1.193
2006	6	22,204.389	22,623.796	-419.406	-1.89%	-0.525
2006	7	22,216.209	21,592.073	624.136	2.81%	0.781
2006	8	26,437.343	26,661.593	-224.250	-0.85%	-0.281
2006	9	18,747.022	18,373.618	373.403	1.99%	0.467

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	10	21,790.186	21,427.868	362.318	1.66%	0.453
2006	11	29,113.961	29,165.741	-51.780	-0.18%	-0.065
2006	12	37,586.263	37,612.921	-26.658	-0.07%	-0.033
2007	1	50,423.016	49,709.879	713.136	1.41%	0.892
2007	2	50,519.833	50,984.701	-464.868	-0.92%	-0.582
2007	3	44,439.337	43,822.421	616.916	1.39%	0.772
2007	4	30,534.963	30,519.901	15.062	0.05%	0.019
2007	5	21,616.064	21,847.141	-231.077	-1.07%	-0.289
2007	6	19,666.418	21,270.056	-1,603.638	-8.15%	-2.006
2007	7	22,905.725	22,410.997	494.728	2.16%	0.619
2007	8	24,953.474	24,822.914	130.560	0.52%	0.163
2007	9	18,946.317	19,126.993	-180.676	-0.95%	-0.226
2007	10	20,282.399	20,253.501	28.898	0.14%	0.036
2007	11	25,675.770	26,082.602	-406.832	-1.58%	-0.509
2007	12	42,249.487	42,924.984	-675.497	-1.60%	-0.845
2008	1	56,642.096	56,407.898	234.199	0.41%	0.293
2008	2	53,315.265	52,712.092	603.173	1.13%	0.755
2008	3	44,750.183	45,265.359	-515.177	-1.15%	-0.644
2008	4	36,268.704	36,304.826	-36.121	-0.10%	-0.045
2008	5	24,104.756	24,196.351	-91.595	-0.38%	-0.115
2008	6	18,900.166	17,789.126	1,111.040	5.88%	1.390
2008	7	21,707.831	22,729.147	-1,021.317	-4.70%	-1.278
2008	8	21,153.272	21,355.177	-201.904	-0.95%	-0.253
2008	9	20,157.638	20,625.102	-467.464	-2.32%	-0.585
2008	10	19,967.781	20,550.244	-582.462	-2.92%	-0.729
2008	11	23,396.780	22,995.271	401.509	1.72%	0.502
2008	12	46,868.313	48,438.851	-1,570.538	-3.35%	-1.965
2009	1	61,307.743	61,819.949	-512.206	-0.84%	-0.641
2009	2	50,253.885	49,098.011	1,155.874	2.30%	1.446
2009	3	46,504.129	45,722.575	781.554	1.68%	0.978
2009	4	33,550.837	33,435.934	114.903	0.34%	0.144
2009	5	21,358.267	21,579.347	-221.080	-1.04%	-0.277
2009	6	20,405.129	19,379.776	1,025.353	5.02%	1.283
2009	7	21,863.561	21,863.979	-0.418	-0.00%	-0.001
2009	8	19,708.620	19,530.439	178.181	0.90%	0.223
2009	9	19,599.366	19,431.868	167.498	0.85%	0.210
2009	10	23,762.857	23,705.659	57.198	0.24%	0.072
2009	11	25,515.060	25,367.747	147.313	0.58%	0.184
2009	12	43,194.235	43,069.638	124.597	0.29%	0.156
2010	1	57,189.549	58,046.515	-856.966	-1.50%	-1.072
2010	2	47,200.111	47,593.402	-393.291	-0.83%	-0.492
2010	3	45,252.085	44,803.467	448.618	0.99%	0.561
2010	4	27,259.902	27,479.819	-219.917	-0.81%	-0.275
2010	5	20,079.454	20,954.163	-874.709	-4.36%	-1.094
2010	6	23,449.186	20,959.534	2,489.652	10.62%	3.115
2010	7	24,405.432	24,312.580	92.852	0.38%	0.116
2010	8	26,377.394	26,380.911	-3.517	-0.01%	-0.004
2010	9	21,636.599	21,282.120	354.479	1.64%	0.443
2010	10	18,894.737	19,331.503	-436.766	-2.31%	-0.546
2010	11	25,623.352	25,457.115	166.237	0.65%	0.208
2010	12	48,340.384	46,945.367	1,395.017	2.89%	1.745
2011	1	60,443.991	61,105.416	-661.425	-1.09%	-0.827

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2011	2	51,329.165	50,251.555	1,077.610	2.10%	1.348
2011	3	50,216.185	49,978.645	237.540	0.47%	0.297
2011	4	32,933.580	32,793.691	139.889	0.42%	0.175
2011	5	28,343.950	27,176.673	1,167.277	4.12%	1.460
2011	6	22,461.584	23,129.828	-668.243	-2.98%	-0.836
2011	7	25,038.334	25,475.532	-437.199	-1.75%	-0.547
2011	8	27,842.721	28,198.722	-356.001	-1.28%	-0.445
2011	9	22,184.850	22,504.587	-319.737	-1.44%	-0.400
2011	10	19,945.063	20,322.650	-377.587	-1.89%	-0.472
2011	11	27,061.378	27,447.478	-386.100	-1.43%	-0.483
2011	12	41,278.225	41,814.258	-536.033	-1.30%	-0.671
2012	1	50,405.694	51,566.827	-1,161.133	-2.30%	-1.453
2012	2	46,419.481	47,034.458	-614.977	-1.32%	-0.769
2012	3	39,521.284	39,632.361	-111.077	-0.28%	-0.139
2012	4	24,274.604	26,815.555	-2,540.951	-10.47%	-3.179
2012	5	23,060.099	23,458.855	-398.756	-1.73%	-0.499
2012	6	21,596.688	22,211.317	-614.628	-2.85%	-0.769
2012	7	29,181.226	28,056.511	1,124.715	3.85%	1.407
2012	8	27,144.745	27,274.000	-129.256	-0.48%	-0.162
2012	9	21,624.498	20,868.294	756.204	3.50%	0.946
2012	10	23,036.556	24,066.786	-1,030.229	-4.47%	-1.289
2012	11	29,836.009	30,273.062	-437.053	-1.46%	-0.547
2012	12	40,519.422	40,296.626	222.796	0.55%	0.279
2013	1	61,295.848	62,769.256	-1,473.408	-2.40%	-1.843
2013	2	52,443.140	52,037.143	405.998	0.77%	0.508
2013	3	45,945.140	46,241.997	-296.857	-0.65%	-0.371
2013	4	44,933.921	43,782.520	1,151.400	2.56%	1.440
2013	5	30,448.267	28,613.014	1,835.254	6.03%	2.296
2013	6	20,813.394	21,076.192	-262.797	-1.26%	-0.329
2013	7	27,872.236	27,619.981	252.254	0.91%	0.316
2013	8	24,946.755	24,198.253	748.502	3.00%	0.936
2013	9	26,483.076	25,567.911	915.165	3.46%	1.145
2013	10	22,755.830	22,798.622	-42.792	-0.19%	-0.054
2013	11	30,736.055	29,626.651	1,109.404	3.61%	1.388
2013	12	51,465.830	52,037.653	-571.824	-1.11%	-0.715
2014	1	73,113.502	72,912.008	201.494	0.28%	0.252
2014	2	57,487.705	57,995.151	-507.446	-0.88%	-0.635
2014	3	57,811.677	57,126.675	685.002	1.18%	0.857
2014	4	40,792.047	40,181.862	610.186	1.50%	0.763
2014	5	28,567.091	28,002.435	564.656	1.98%	0.706
2014	6	23,277.749	22,538.596	739.153	3.18%	0.925
2014	7	26,136.224	24,816.039	1,320.185	5.05%	1.652
2014	8	26,172.581	24,634.647	1,537.934	5.88%	1.924
2014	9	25,197.600	23,824.644	1,372.956	5.45%	1.718
2014	10	23,845.550	24,626.737	-781.186	-3.28%	-0.977
2014	11	28,964.507	28,662.098	302.409	1.04%	0.378
2014	12	54,473.766	55,315.201	-841.435	-1.54%	-1.053
2015	1	60,937.471	62,169.410	-1,231.938	-2.02%	-1.541
2015	2	50,182.123	50,106.742	75.382	0.15%	0.094
2015	3	54,736.116	55,770.313	-1,034.197	-1.89%	-1.294
2015	4	34,389.659	34,496.239	-106.580	-0.31%	-0.133
2015	5	22,727.265	23,297.073	-569.808	-2.51%	-0.713

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	6		22,222.589			
2015	7		26,428.892			
2015	8		25,167.325			
2015	9		22,941.165			
2015	10		22,854.838			
2015	11		29,167.424			
2015	12		51,161.339			
2016	1		61,054.467			
2016	2		55,820.668			
2016	3		54,196.172			
2016	4		35,950.975			
2016	5		25,844.265			
2016	6		22,808.315			
2016	7		24,678.338			
2016	8		27,437.922			
2016	9		23,062.199			
2016	10		22,199.775			
2016	11		31,255.527			
2016	12		48,974.740			
2017	1		64,757.701			
2017	2		53,208.502			
2017	3		55,212.176			
2017	4		34,867.573			
2017	5		27,136.461			
2017	6		22,970.011			
2017	7		24,976.022			
2017	8		27,532.875			
2017	9		22,417.742			
2017	10		23,116.618			
2017	11		31,792.003			
2017	12		46,787.048			
2018	1		68,410.265			
2018	2		53,819.100			
2018	3		53,605.145			
2018	4		36,938.740			
2018	5		27,203.094			
2018	6		22,204.819			
2018	7		26,130.515			
2018	8		27,648.968			
2018	9		21,771.437			
2018	10		24,049.075			
2018	11		32,355.518			
2018	12		47,680.064			
2019	1		65,966.156			
2019	2		54,647.360			
2019	3		54,213.574			
2019	4		38,559.793			
2019	5		25,456.105			
2019	6		23,026.026			
2019	7		27,304.882			
2019	8		25,962.025			
2019	9		23,541.252			

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2019	10		23,422.730			
2019	11		30,260.367			
2019	12		53,453.415			
2020	1		63,972.356			
2020	2		58,460.510			
2020	3		56,568.146			
2020	4		37,418.046			
2020	5		26,669.185			
2020	6		23,358.268			
2020	7		25,442.524			
2020	8		28,287.729			
2020	9		23,679.202			
2020	10		22,786.600			
2020	11		32,506.600			
2020	12		51,268.325			

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Variable	Coefficient	StdErr	T-Stat	P-Value	Definition
MN.EE_MN	157.511	15.568	10.118	0.00%	Total Non-Ag Employment, Minnesota, thousands
BillingDayscellnet.BillDaysCellnet21	23853.848	1323.735	18.020	0.00%	Average number of billing days per month
MNSmCIWeather.H65_bill_SmCI_MN_Jan	0.000	0.000	5.116	0.00%	January HDD65 * January customers
MNSmCIWeather.H65_bill_SmCI_MN_FebNovDec	0.000	0.000	3.880	0.02%	HDD65 * customers; November, December, February
MNSmCIWeather.H65_bill_SmCI_MN_Mar	0.000	0.000	5.250	0.00%	March HDD65 * March customers
MNSmCIWeather.T65_bill_SmCI_MN_Jun	0.012	0.002	7.648	0.00%	June THI65 * June customers
MNSmCIWeather.T65_bill_SmCI_MN_Jul	0.008	0.001	15.103	0.00%	July THI65 * July customers
MNSmCIWeather.T65_bill_SmCI_MN_Aug	0.010	0.000	19.483	0.00%	August THI65 * August customers
MNSmCIWeather.T65_bill_SmCI_MN_Sep	0.012	0.001	13.886	0.00%	September THI65 * September customers
MNSmCIWeather.T65_bill_SmCI_MN_Oct	0.024	0.003	7.221	0.00%	October THI65 * October customers
Binary.CIReclass01Pre	-657464.531	14000.712	-46.959	0.00%	Binary variable for 2001 C&I reclassification
Binary.CRS	-120658.184	13407.924	-8.999	0.00%	Binary variable for CRS conversion
Binary2.Feb2005	-225285.448	25948.922	-8.682	0.00%	Binary variable February 2005
Binary2.Mar2005	-64515.234	25209.607	-2.559	1.14%	Binary variable March 2005
Binary2.May2006	-127803.544	23777.186	-5.375	0.00%	Binary variable May 2006
Binary2.Jan2001	104870.630	26739.909	3.922	0.01%	Binary variable January 2001
Binary2.Feb2001	127035.395	26944.272	4.715	0.00%	Binary variable February 2001
Binary2.Mar2001	121319.181	25454.811	4.766	0.00%	Binary variable March 2001
Binary2.Jun2002	-87266.487	23752.052	-3.674	0.03%	Binary variable June 2002
Binary2.Apr2007	-65876.563	23421.174	-2.813	0.55%	Binary variable April 2007
Binary2.Sep2006	102071.924	23382.466	4.365	0.00%	Binary variable September 2006
Binary2.Jul2006	95051.004	23409.825	4.060	0.01%	Binary variable July 2006
BinaryTrans.Jun2013	-69865.482	23262.350	-3.003	0.31%	Binary variable June 2013
Binary.Trend02	752.661	132.226	5.692	0.00%	Trend Variable beginning January 2002
AR(1)	0.374	0.071	5.244	0.00%	First order autoregressive term
SAR(1)	0.350	0.074	4.746	0.00%	First order seasonal autoregressive term

HDD65 = Heating Degree Days base 65
THI65 = Temperature-Humidity Index base 65

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Model Statistics	
Iterations	19
Adjusted Observations	196
Deg. of Freedom for Error	170
R-Squared	0.993
Adjusted R-Squared	0.992
AIC	20.526
BIC	20.961
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-2,263.64
Model Sum of Squares	17,595,118,876,206.40
Sum of Squared Errors	123,385,124,962.26
Mean Squared Error	725,794,852.72
Std. Error of Regression	26,940.58
Mean Abs. Dev. (MAD)	20,546.86
Mean Abs. % Err. (MAPE)	2.01%
Durbin-Watson Statistic	2.011
Durbin-H Statistic	#NA
Ljung-Box Statistic	23.28
Prob (Ljung-Box)	0.5031
Skewness	0.265
Kurtosis	2.662
Jarque-Bera	3.230
Prob (Jarque-Bera)	0.1989

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
1998	1	394,056.428				
1998	2	365,371.657				
1998	3	349,420.613				
1998	4	353,673.382				
1998	5	353,985.484				
1998	6	374,656.381				
1998	7	423,163.142				
1998	8	419,621.188				
1998	9	420,694.112				
1998	10	360,434.541				
1998	11	343,777.197				
1998	12	374,043.539				
1999	1	417,149.858				
1999	2	369,397.122	349,551.900	19,845.222	5.37%	0.737
1999	3	367,312.688	370,317.681	-3,004.993	-0.82%	-0.112
1999	4	354,112.778	366,695.849	-12,583.071	-3.55%	-0.467
1999	5	340,341.761	337,441.381	2,900.380	0.85%	0.108
1999	6	391,337.549	425,037.786	-33,700.236	-8.61%	-1.251
1999	7	431,601.396	469,358.683	-37,757.287	-8.75%	-1.402
1999	8	446,447.261	492,130.404	-45,683.143	-10.23%	-1.696
1999	9	409,067.952	428,438.803	-19,370.851	-4.74%	-0.719
1999	10	354,194.112	321,473.556	32,720.557	9.24%	1.215
1999	11	358,395.758	366,645.959	-8,250.201	-2.30%	-0.306
1999	12	400,692.184	423,543.519	-22,851.335	-5.70%	-0.848
2000	1	414,840.850	451,442.990	-36,602.140	-8.82%	-1.359
2000	2	396,833.660	362,496.475	34,337.185	8.65%	1.275
2000	3	381,316.339	380,834.613	481.726	0.13%	0.018
2000	4	372,189.328	350,898.044	21,291.284	5.72%	0.790
2000	5	395,563.966	382,952.665	12,611.301	3.19%	0.468
2000	6	413,601.016	409,174.149	4,426.867	1.07%	0.164
2000	7	452,920.223	456,951.912	-4,031.688	-0.89%	-0.150
2000	8	483,684.360	478,229.411	5,454.949	1.13%	0.202
2000	9	459,919.339	460,010.226	-90.886	-0.02%	-0.003
2000	10	409,882.568	378,228.950	31,653.618	7.72%	1.175
2000	11	403,959.257	381,004.300	22,954.957	5.68%	0.852
2000	12	445,799.199	452,849.099	-7,049.899	-1.58%	-0.262
2001	1	1,244,938.527	1,249,036.493	-4,097.966	-0.33%	-0.152
2001	2	1,174,655.055	1,178,809.747	-4,154.692	-0.35%	-0.154
2001	3	1,170,315.732	1,184,148.634	-13,832.903	-1.18%	-0.513
2001	4	1,034,483.797	1,023,501.377	10,982.420	1.06%	0.408
2001	5	1,025,733.901	1,032,533.831	-6,799.930	-0.66%	-0.252
2001	6	1,090,465.877	1,079,000.572	11,465.304	1.05%	0.426
2001	7	1,212,077.227	1,185,035.581	27,041.646	2.23%	1.004
2001	8	1,241,987.738	1,264,969.864	-22,982.126	-1.85%	-0.853
2001	9	1,158,013.793	1,142,945.871	15,067.922	1.30%	0.559
2001	10	1,011,612.077	1,035,233.434	-23,621.357	-2.34%	-0.877
2001	11	993,783.865	1,033,437.726	-39,653.860	-3.99%	-1.472
2001	12	1,040,625.048	1,068,770.544	-28,145.497	-2.70%	-1.045
2002	1	1,108,606.633	1,120,820.245	-12,213.612	-1.10%	-0.453
2002	2	1,008,889.118	1,022,130.815	-13,241.697	-1.31%	-0.492
2002	3	998,448.966	1,041,627.580	-43,178.615	-4.32%	-1.603
2002	4	1,040,648.621	1,019,190.358	21,458.264	2.06%	0.797
2002	5	978,299.072	1,008,434.278	-30,135.206	-3.08%	-1.119

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2002	6	1,005,088.936	1,013,453.953	-8,365.017	-0.83%	-0.310
2002	7	1,238,161.542	1,260,482.994	-22,321.453	-1.80%	-0.829
2002	8	1,197,141.443	1,186,262.198	10,879.244	0.91%	0.404
2002	9	1,205,009.076	1,210,026.591	-5,017.515	-0.42%	-0.186
2002	10	1,054,822.151	1,075,109.372	-20,287.221	-1.92%	-0.753
2002	11	1,018,583.466	1,009,925.909	8,657.557	0.85%	0.321
2002	12	1,106,614.228	1,102,118.673	4,495.556	0.41%	0.167
2003	1	1,133,204.440	1,145,661.955	-12,457.515	-1.10%	-0.462
2003	2	1,075,196.775	1,040,099.383	35,097.392	3.26%	1.303
2003	3	1,045,755.827	1,061,959.179	-16,203.352	-1.55%	-0.601
2003	4	1,018,150.183	1,025,821.588	-7,671.405	-0.75%	-0.285
2003	5	1,036,152.867	1,022,908.487	13,244.379	1.28%	0.492
2003	6	1,088,504.503	1,074,937.149	13,567.354	1.25%	0.504
2003	7	1,208,568.108	1,172,208.853	36,359.255	3.01%	1.350
2003	8	1,229,897.660	1,218,805.652	11,092.008	0.90%	0.412
2003	9	1,252,918.982	1,241,472.691	11,446.290	0.91%	0.425
2003	10	1,074,500.940	1,065,993.347	8,507.593	0.79%	0.316
2003	11	1,061,528.427	1,037,246.712	24,281.716	2.29%	0.901
2003	12	1,141,192.688	1,138,858.813	2,333.874	0.20%	0.087
2004	1	1,150,618.508	1,162,438.502	-11,819.994	-1.03%	-0.439
2004	2	1,097,355.277	1,070,297.739	27,057.538	2.47%	1.004
2004	3	1,058,925.426	1,066,362.421	-7,436.994	-0.70%	-0.276
2004	4	1,066,903.886	1,043,253.448	23,650.438	2.22%	0.878
2004	5	1,040,526.110	1,043,547.624	-3,021.514	-0.29%	-0.112
2004	6	1,126,636.619	1,106,416.155	20,220.464	1.79%	0.751
2004	7	1,191,117.820	1,171,982.218	19,135.601	1.61%	0.710
2004	8	1,195,640.596	1,169,652.688	25,987.908	2.17%	0.965
2004	9	1,200,463.042	1,173,874.181	26,588.861	2.21%	0.987
2004	10	1,122,223.071	1,128,596.344	-6,373.273	-0.57%	-0.237
2004	11	1,073,975.807	1,064,564.359	9,411.448	0.88%	0.349
2004	12	1,159,952.438	1,148,522.760	11,429.678	0.99%	0.424
2005	1	1,220,210.229	1,189,632.006	30,578.223	2.51%	1.135
2005	2	939,693.250	953,652.894	-13,959.644	-1.49%	-0.518
2005	3	1,176,815.511	1,181,849.564	-5,034.052	-0.43%	-0.187
2005	4	1,205,208.324	1,189,636.948	15,571.376	1.29%	0.578
2005	5	1,238,124.442	1,170,601.067	67,523.375	5.45%	2.506
2005	6	1,352,451.821	1,348,871.555	3,580.266	0.26%	0.133
2005	7	1,380,415.507	1,367,218.413	13,197.094	0.96%	0.490
2005	8	1,479,412.772	1,498,084.038	-18,671.266	-1.26%	-0.693
2005	9	1,361,822.184	1,317,167.617	44,654.567	3.28%	1.658
2005	10	1,356,985.747	1,288,323.795	68,661.951	5.06%	2.549
2005	11	1,158,979.024	1,201,483.445	-42,504.421	-3.67%	-1.578
2005	12	1,221,572.682	1,240,035.123	-18,462.440	-1.51%	-0.685
2006	1	1,302,979.077	1,318,337.139	-15,358.063	-1.18%	-0.570
2006	2	1,123,478.621	1,167,051.447	-43,572.826	-3.88%	-1.617
2006	3	1,248,396.873	1,272,737.016	-24,340.144	-1.95%	-0.903
2006	4	1,133,340.198	1,115,552.070	17,788.127	1.57%	0.660
2006	5	1,117,091.407	1,128,547.263	-11,455.856	-1.03%	-0.425
2006	6	1,370,443.956	1,384,487.693	-14,043.737	-1.02%	-0.521
2006	7	1,429,144.835	1,428,711.129	433.705	0.03%	0.016
2006	8	1,502,925.722	1,530,289.689	-27,363.968	-1.82%	-1.016
2006	9	1,353,328.447	1,365,853.254	-12,524.808	-0.93%	-0.465

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	10	1,247,040.920	1,257,772.551	-10,731.630	-0.86%	-0.398
2006	11	1,145,604.869	1,172,544.373	-26,939.504	-2.35%	-1.000
2006	12	1,196,881.496	1,184,028.679	12,852.817	1.07%	0.477
2007	1	1,351,884.804	1,360,197.042	-8,312.238	-0.61%	-0.309
2007	2	1,204,763.134	1,173,891.982	30,871.152	2.56%	1.146
2007	3	1,307,683.916	1,265,979.125	41,704.791	3.19%	1.548
2007	4	1,131,966.317	1,136,521.854	-4,555.537	-0.40%	-0.169
2007	5	1,217,632.586	1,241,532.104	-23,899.517	-1.96%	-0.887
2007	6	1,299,002.232	1,315,575.726	-16,573.494	-1.28%	-0.615
2007	7	1,418,241.907	1,377,793.437	40,448.470	2.85%	1.501
2007	8	1,515,582.539	1,488,886.326	26,696.213	1.76%	0.991
2007	9	1,262,404.914	1,293,846.216	-31,441.303	-2.49%	-1.167
2007	10	1,359,976.195	1,379,099.306	-19,123.111	-1.41%	-0.710
2007	11	1,135,003.686	1,168,331.978	-33,328.292	-2.94%	-1.237
2007	12	1,226,672.319	1,204,293.154	22,379.165	1.82%	0.831
2008	1	1,356,072.726	1,384,598.038	-28,525.312	-2.10%	-1.059
2008	2	1,234,852.772	1,233,167.995	1,684.777	0.14%	0.063
2008	3	1,213,553.435	1,241,100.762	-27,547.326	-2.27%	-1.023
2008	4	1,249,162.742	1,246,438.609	2,724.133	0.22%	0.101
2008	5	1,165,620.836	1,191,802.328	-26,181.491	-2.25%	-0.972
2008	6	1,251,758.599	1,226,860.680	24,897.919	1.99%	0.924
2008	7	1,419,065.808	1,403,495.900	15,569.908	1.10%	0.578
2008	8	1,397,881.181	1,368,495.636	29,385.545	2.10%	1.091
2008	9	1,429,350.152	1,386,874.022	42,476.130	2.97%	1.577
2008	10	1,297,204.889	1,322,111.561	-24,906.671	-1.92%	-0.925
2008	11	1,091,473.733	1,090,579.542	894.192	0.08%	0.033
2008	12	1,313,501.324	1,315,818.553	-2,317.229	-0.18%	-0.086
2009	1	1,361,246.243	1,343,120.303	18,125.940	1.33%	0.673
2009	2	1,210,708.502	1,203,700.231	7,008.271	0.58%	0.260
2009	3	1,304,408.781	1,279,900.604	24,508.177	1.88%	0.910
2009	4	1,183,245.496	1,220,467.683	-37,222.187	-3.15%	-1.382
2009	5	1,163,704.517	1,146,450.343	17,254.174	1.48%	0.640
2009	6	1,316,377.089	1,299,387.112	16,989.977	1.29%	0.631
2009	7	1,425,012.395	1,374,658.821	50,353.575	3.53%	1.869
2009	8	1,359,166.588	1,322,596.661	36,569.927	2.69%	1.357
2009	9	1,329,875.595	1,344,628.780	-14,753.185	-1.11%	-0.548
2009	10	1,281,898.054	1,288,431.064	-6,533.010	-0.51%	-0.242
2009	11	1,119,617.464	1,134,102.660	-14,485.196	-1.29%	-0.538
2009	12	1,282,690.400	1,291,047.249	-8,356.849	-0.65%	-0.310
2010	1	1,348,866.845	1,307,119.674	41,747.171	3.09%	1.550
2010	2	1,181,703.049	1,214,032.378	-32,329.329	-2.74%	-1.200
2010	3	1,311,974.382	1,313,936.265	-1,961.883	-0.15%	-0.073
2010	4	1,203,558.181	1,211,285.033	-7,726.852	-0.64%	-0.287
2010	5	1,107,679.544	1,153,882.798	-46,203.254	-4.17%	-1.715
2010	6	1,393,044.575	1,338,755.059	54,289.516	3.90%	2.015
2010	7	1,426,978.393	1,435,245.564	-8,267.170	-0.58%	-0.307
2010	8	1,516,535.591	1,541,693.467	-25,157.876	-1.66%	-0.934
2010	9	1,381,944.935	1,379,954.668	1,990.267	0.14%	0.074
2010	10	1,218,040.909	1,208,706.061	9,334.848	0.77%	0.346
2010	11	1,175,615.807	1,186,208.556	-10,592.749	-0.90%	-0.393
2010	12	1,258,506.427	1,270,406.591	-11,900.163	-0.95%	-0.442
2011	1	1,405,573.224	1,371,278.792	34,294.432	2.44%	1.273

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2011	2	1,193,531.960	1,218,248.843	-24,716.883	-2.07%	-0.917
2011	3	1,311,799.602	1,328,010.042	-16,210.440	-1.24%	-0.602
2011	4	1,146,094.649	1,166,824.204	-20,729.555	-1.81%	-0.769
2011	5	1,233,038.485	1,208,105.546	24,932.939	2.02%	0.925
2011	6	1,318,248.901	1,378,998.962	-60,750.062	-4.61%	-2.255
2011	7	1,366,437.214	1,412,174.488	-45,737.274	-3.35%	-1.698
2011	8	1,595,045.322	1,533,173.205	61,872.117	3.88%	2.297
2011	9	1,397,850.737	1,413,308.127	-15,457.390	-1.11%	-0.574
2011	10	1,271,153.991	1,282,931.273	-11,777.282	-0.93%	-0.437
2011	11	1,154,158.327	1,201,257.228	-47,098.901	-4.08%	-1.748
2011	12	1,231,818.399	1,254,387.908	-22,569.509	-1.83%	-0.838
2012	1	1,358,587.979	1,363,755.642	-5,167.663	-0.38%	-0.192
2012	2	1,245,070.369	1,241,656.829	3,413.540	0.27%	0.127
2012	3	1,283,404.967	1,288,084.051	-4,679.083	-0.36%	-0.174
2012	4	1,195,723.378	1,202,443.281	-6,719.903	-0.56%	-0.249
2012	5	1,247,619.871	1,263,979.306	-16,359.435	-1.31%	-0.607
2012	6	1,337,420.518	1,333,629.761	3,790.757	0.28%	0.141
2012	7	1,511,607.616	1,493,824.824	17,782.793	1.18%	0.660
2012	8	1,577,669.326	1,550,019.085	27,650.242	1.75%	1.026
2012	9	1,336,837.651	1,330,964.056	5,873.595	0.44%	0.218
2012	10	1,344,629.327	1,326,492.975	18,136.352	1.35%	0.673
2012	11	1,204,147.692	1,224,173.346	-20,025.654	-1.66%	-0.743
2012	12	1,265,180.641	1,236,740.685	28,439.956	2.25%	1.056
2013	1	1,397,373.957	1,436,440.732	-39,066.775	-2.80%	-1.450
2013	2	1,229,134.495	1,230,746.809	-1,612.314	-0.13%	-0.060
2013	3	1,299,542.047	1,250,793.223	48,748.824	3.75%	1.809
2013	4	1,280,351.183	1,316,247.283	-35,896.100	-2.80%	-1.332
2013	5	1,290,253.059	1,262,929.017	27,324.042	2.12%	1.014
2013	6	1,230,773.228	1,221,848.731	8,924.497	0.73%	0.331
2013	7	1,505,299.651	1,518,653.891	-13,354.241	-0.89%	-0.496
2013	8	1,463,580.595	1,451,161.410	12,419.185	0.85%	0.461
2013	9	1,477,428.495	1,507,750.832	-30,322.338	-2.05%	-1.126
2013	10	1,373,150.307	1,394,185.521	-21,035.215	-1.53%	-0.781
2013	11	1,225,178.952	1,179,722.005	45,456.947	3.71%	1.687
2013	12	1,312,701.406	1,348,312.393	-35,610.988	-2.71%	-1.322
2014	1	1,482,687.859	1,438,888.153	43,799.705	2.95%	1.626
2014	2	1,286,126.702	1,251,873.009	34,253.693	2.66%	1.271
2014	3	1,384,020.809	1,378,641.679	5,379.130	0.39%	0.200
2014	4	1,259,891.830	1,286,313.170	-26,421.340	-2.10%	-0.981
2014	5	1,240,035.577	1,258,074.097	-18,038.520	-1.45%	-0.670
2014	6	1,402,690.947	1,363,711.637	38,979.310	2.78%	1.447
2014	7	1,456,449.051	1,458,459.933	-2,010.882	-0.14%	-0.075
2014	8	1,454,243.853	1,447,387.240	6,856.613	0.47%	0.255
2014	9	1,484,024.271	1,439,378.824	44,645.447	3.01%	1.657
2014	10	1,353,428.531	1,371,876.652	-18,448.121	-1.36%	-0.685
2014	11	1,193,835.109	1,191,049.114	2,785.995	0.23%	0.103
2014	12	1,399,916.882	1,381,618.415	18,298.466	1.31%	0.679
2015	1	1,420,726.142	1,434,742.104	-14,015.962	-0.99%	-0.520
2015	2	1,248,803.955	1,263,009.873	-14,205.917	-1.14%	-0.527
2015	3	1,386,982.741	1,396,697.966	-9,715.225	-0.70%	-0.361
2015	4	1,243,056.475	1,286,639.295	-43,582.820	-3.51%	-1.618
2015	5	1,196,839.695	1,216,574.315	-19,734.620	-1.65%	-0.733

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	6		1,403,838.860			
2015	7		1,509,822.824			
2015	8		1,485,062.135			
2015	9		1,462,394.759			
2015	10		1,365,640.043			
2015	11		1,238,948.876			
2015	12		1,397,789.940			
2016	1		1,398,295.442			
2016	2		1,305,674.682			
2016	3		1,426,692.162			
2016	4		1,259,689.448			
2016	5		1,268,111.018			
2016	6		1,419,073.805			
2016	7		1,434,209.012			
2016	8		1,578,877.366			
2016	9		1,459,033.368			
2016	10		1,333,359.606			
2016	11		1,280,259.921			
2016	12		1,350,939.460			
2017	1		1,442,599.706			
2017	2		1,265,440.012			
2017	3		1,435,648.723			
2017	4		1,243,013.688			
2017	5		1,315,548.553			
2017	6		1,423,707.304			
2017	7		1,443,794.372			
2017	8		1,579,341.795			
2017	9		1,423,357.699			
2017	10		1,376,472.706			
2017	11		1,286,875.242			
2017	12		1,313,022.506			
2018	1		1,488,153.961			
2018	2		1,271,338.083			
2018	3		1,403,982.027			
2018	4		1,287,117.910			
2018	5		1,322,132.005			
2018	6		1,389,175.681			
2018	7		1,491,020.963			
2018	8		1,580,712.904			
2018	9		1,388,899.108			
2018	10		1,419,225.584			
2018	11		1,292,964.085			
2018	12		1,319,209.464			
2019	1		1,446,649.701			
2019	2		1,277,746.185			
2019	3		1,408,173.558			
2019	4		1,323,002.441			
2019	5		1,262,183.104			
2019	6		1,427,893.690			
2019	7		1,536,130.580			
2019	8		1,503,097.106			
2019	9		1,469,201.528			

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2019	10		1,385,692.118			
2019	11		1,250,326.128			
2019	12		1,408,578.450			
2020	1		1,413,727.784			
2020	2		1,321,940.853			
2020	3		1,444,050.787			
2020	4		1,294,849.041			
2020	5		1,298,742.521			
2020	6		1,437,353.214			
2020	7		1,455,354.418			
2020	8		1,599,370.940			
2020	9		1,474,441.321			
2020	10		1,352,093.670			
2020	11		1,296,052.630			
2020	12		1,366,909.792			

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Variable	Coefficient	StdErr	T-Stat	P-Value	Definition
MSP.EE_MSP	253.700	30.057	8.441	0.00%	Total Non-Ag Employment, Minneapolis-St. Paul MSA, thousands
BillingDayscellnet.BillDaysCellnet21	14619.897	1771.234	8.254	0.00%	Average number of billing days per month
Binary.CIReclass01Pre	558616.327	12710.946	43.948	0.00%	Binary variable for 2001 C&I reclassification
Binary.Jan	-148002.211	13070.834	-11.323	0.00%	Binary variable January
Binary.Feb	-121622.637	12836.337	-9.475	0.00%	Binary variable February
Binary.Mar	-133066.526	12304.052	-10.815	0.00%	Binary variable March
Binary.Apr	-135256.889	11596.385	-11.664	0.00%	Binary variable April
Binary.May	-125448.739	11619.053	-10.797	0.00%	Binary variable May
Binary.Jun	-70925.368	10054.272	-7.054	0.00%	Binary variable June
Binary.Jul	-45749.619	10813.800	-4.231	0.00%	Binary variable July
Binary.Sep	-24168.432	10808.473	-2.236	2.66%	Binary variable August
Binary.Oct	-100393.955	10011.385	-10.028	0.00%	Binary variable September
Binary.Nov	-111876.138	12092.546	-9.252	0.00%	Binary variable October
Binary.Dec	-129610.564	11736.607	-11.043	0.00%	Binary variable November
Binary2.Feb2005	-346651.126	34409.245	-10.074	0.00%	Binary variable December
Binary2.Mar2005	-456720.556	34546.560	-13.220	0.00%	Binary variable February 2005
Binary2.Apr2005	-428959.956	34255.030	-12.523	0.00%	Binary variable March 2005
Binary2.May2005	263130.115	33869.774	7.769	0.00%	Binary variable April 2005
Binary2.Feb2001	-132304.567	32541.380	-4.066	0.01%	Binary variable May 2005
Binary2.Mar2001	-186488.059	32242.790	-5.784	0.00%	Binary variable February 2001
Binary2.Feb2006	-129959.250	32295.308	-4.024	0.01%	Binary variable March 2001
Binary2.Mar2006	135764.026	32384.148	4.192	0.00%	Binary variable February 2006
Binary2.Aug1999	130372.738	32165.885	4.053	0.01%	Binary variable March 2006
AR(1)	0.187	0.070	2.647	0.88%	First order autoregressive term
AR(2)	0.329	0.070	4.667	0.00%	First order moving average term

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Model Statistics	
Iterations	14
Adjusted Observations	207
Deg. of Freedom for Error	182
R-Squared	0.980
Adjusted R-Squared	0.978
AIC	20.940
BIC	21.343
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-2,436.03
Model Sum of Squares	10,058,181,400,510.10
Sum of Squared Errors	201,971,613,703.83
Mean Squared Error	1,109,734,141.23
Std. Error of Regression	33,312.67
Mean Abs. Dev. (MAD)	24,457.71
Mean Abs. % Err. (MAPE)	2.83%
Durbin-Watson Statistic	2.065
Durbin-H Statistic	#NA
Ljung-Box Statistic	40.33
Prob (Ljung-Box)	0.0197
Skewness	0.260
Kurtosis	3.486
Jarque-Bera	4.368
Prob (Jarque-Bera)	0.1126

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
1998	1	1,253,786.402				
1998	2	1,248,154.128				
1998	3	1,216,794.276	1,254,329.976	-37,535.700	-3.08%	-1.127
1998	4	1,293,355.848	1,269,446.143	23,909.706	1.85%	0.718
1998	5	1,293,774.130	1,283,010.458	10,763.672	0.83%	0.323
1998	6	1,377,352.459	1,364,179.793	13,172.666	0.96%	0.395
1998	7	1,407,609.316	1,391,774.514	15,834.803	1.12%	0.475
1998	8	1,395,672.337	1,428,285.841	-32,613.504	-2.34%	-0.979
1998	9	1,449,373.652	1,414,552.681	34,820.971	2.40%	1.045
1998	10	1,263,362.908	1,325,898.518	-62,535.610	-4.95%	-1.877
1998	11	1,273,745.723	1,315,247.218	-41,501.495	-3.26%	-1.246
1998	12	1,339,700.167	1,314,490.503	25,209.664	1.88%	0.757
1999	1	1,351,672.272	1,317,789.716	33,882.556	2.51%	1.017
1999	2	1,261,649.684	1,308,325.454	-46,675.770	-3.70%	-1.401
1999	3	1,259,509.639	1,293,798.646	-34,289.007	-2.72%	-1.029
1999	4	1,242,330.409	1,292,836.042	-50,505.633	-4.07%	-1.516
1999	5	1,270,154.940	1,283,110.989	-12,956.049	-1.02%	-0.389
1999	6	1,401,322.659	1,349,772.360	51,550.299	3.68%	1.547
1999	7	1,383,380.997	1,395,797.588	-12,416.591	-0.90%	-0.373
1999	8	1,567,212.928	1,571,171.976	-3,959.049	-0.25%	-0.119
1999	9	1,455,976.057	1,419,649.727	36,326.330	2.49%	1.090
1999	10	1,312,404.018	1,345,049.557	-32,645.539	-2.49%	-0.980
1999	11	1,287,550.595	1,335,544.886	-47,994.291	-3.73%	-1.441
1999	12	1,393,392.077	1,339,807.529	53,584.549	3.85%	1.609
2000	1	1,350,580.036	1,337,807.866	12,772.170	0.95%	0.383
2000	2	1,326,272.296	1,332,224.329	-5,952.033	-0.45%	-0.179
2000	3	1,285,106.384	1,311,907.428	-26,801.044	-2.09%	-0.805
2000	4	1,256,824.383	1,310,473.078	-53,648.696	-4.27%	-1.610
2000	5	1,326,718.746	1,317,769.653	8,949.093	0.67%	0.269
2000	6	1,405,285.034	1,373,176.171	32,108.863	2.28%	0.964
2000	7	1,467,932.502	1,415,481.508	52,450.994	3.57%	1.575
2000	8	1,525,137.423	1,464,437.415	60,700.008	3.98%	1.822
2000	9	1,486,216.339	1,468,973.323	17,243.016	1.16%	0.518
2000	10	1,391,836.311	1,383,786.382	8,049.929	0.58%	0.242
2000	11	1,355,666.212	1,364,156.625	-8,490.413	-0.63%	-0.255
2000	12	1,363,769.131	1,377,378.568	-13,609.437	-1.00%	-0.409
2001	1	784,137.326	801,713.349	-17,576.022	-2.24%	-0.528
2001	2	613,659.203	634,453.339	-20,794.136	-3.39%	-0.624
2001	3	544,875.100	561,264.243	-16,389.143	-3.01%	-0.492
2001	4	697,544.260	751,482.654	-53,938.395	-7.73%	-1.619
2001	5	733,478.446	752,721.483	-19,243.036	-2.62%	-0.578
2001	6	753,098.227	805,471.371	-52,373.144	-6.95%	-1.572
2001	7	774,680.570	828,634.089	-53,953.519	-6.96%	-1.620
2001	8	862,155.024	846,518.885	15,636.138	1.81%	0.469
2001	9	838,121.600	844,685.355	-6,563.755	-0.78%	-0.197
2001	10	729,569.991	770,266.078	-40,696.086	-5.58%	-1.222
2001	11	765,054.807	755,289.357	9,765.450	1.28%	0.293
2001	12	756,491.975	770,873.653	-14,381.678	-1.90%	-0.432
2002	1	751,948.103	776,362.306	-24,414.203	-3.25%	-0.733
2002	2	719,260.886	739,692.173	-20,431.287	-2.84%	-0.613
2002	3	701,241.262	728,622.024	-27,380.762	-3.90%	-0.822
2002	4	749,133.285	741,630.489	7,502.796	1.00%	0.225
2002	5	767,711.214	737,174.462	30,536.752	3.98%	0.917

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2002	6	879,532.018	823,490.694	56,041.325	6.37%	1.682
2002	7	811,424.137	866,639.066	-55,214.929	-6.80%	-1.657
2002	8	875,958.382	890,979.305	-15,020.923	-1.71%	-0.451
2002	9	856,507.079	857,535.944	-1,028.865	-0.12%	-0.031
2002	10	770,986.529	777,851.641	-6,865.112	-0.89%	-0.206
2002	11	757,300.542	759,380.422	-2,079.880	-0.27%	-0.062
2002	12	769,705.640	790,990.854	-21,285.213	-2.77%	-0.639
2003	1	800,273.692	777,965.384	22,308.308	2.79%	0.670
2003	2	753,022.192	751,529.254	1,492.938	0.20%	0.045
2003	3	705,857.532	751,417.418	-45,559.886	-6.45%	-1.368
2003	4	794,219.769	743,028.912	51,190.857	6.45%	1.537
2003	5	794,461.726	762,479.944	31,981.782	4.03%	0.960
2003	6	786,164.121	845,724.002	-59,559.881	-7.58%	-1.788
2003	7	863,449.207	852,505.216	10,943.991	1.27%	0.329
2003	8	857,771.464	870,059.544	-12,288.080	-1.43%	-0.369
2003	9	856,956.287	874,193.795	-17,237.508	-2.01%	-0.517
2003	10	795,710.947	770,140.652	25,570.295	3.21%	0.768
2003	11	756,631.382	764,633.818	-8,002.436	-1.06%	-0.240
2003	12	786,894.508	802,853.201	-15,958.693	-2.03%	-0.479
2004	1	743,555.363	777,726.356	-34,170.993	-4.60%	-1.026
2004	2	808,574.279	747,545.668	61,028.611	7.55%	1.832
2004	3	717,979.849	743,711.207	-25,731.358	-3.58%	-0.772
2004	4	780,978.730	771,339.329	9,639.400	1.23%	0.289
2004	5	779,736.615	758,068.247	21,668.368	2.78%	0.650
2004	6	871,316.589	843,631.038	27,685.551	3.18%	0.831
2004	7	873,782.288	866,574.243	7,208.045	0.82%	0.216
2004	8	847,126.941	902,977.083	-55,850.142	-6.59%	-1.677
2004	9	892,621.747	875,811.124	16,810.623	1.88%	0.505
2004	10	696,179.478	779,380.893	-83,201.415	-11.95%	-2.498
2004	11	856,305.779	764,511.022	91,794.758	10.72%	2.756
2004	12	785,605.485	787,696.330	-2,090.845	-0.27%	-0.063
2005	1	859,426.280	814,277.346	45,148.934	5.25%	1.355
2005	2	419,021.453	404,124.879	14,896.574	3.56%	0.447
2005	3	358,009.614	347,924.965	10,084.648	2.82%	0.303
2005	4	393,397.993	353,817.910	39,580.083	10.06%	1.188
2005	5	1,059,191.999	1,050,976.246	8,215.752	0.78%	0.247
2005	6	997,835.522	882,132.595	115,702.927	11.60%	3.473
2005	7	837,725.236	878,373.353	-40,648.117	-4.85%	-1.220
2005	8	954,752.433	981,326.518	-26,574.085	-2.78%	-0.798
2005	9	824,535.719	887,824.590	-63,288.871	-7.68%	-1.900
2005	10	846,654.539	791,866.880	54,787.660	6.47%	1.645
2005	11	751,664.267	758,229.909	-6,565.641	-0.87%	-0.197
2005	12	761,667.448	798,532.463	-36,865.015	-4.84%	-1.107
2006	1	786,195.536	792,437.210	-6,241.675	-0.79%	-0.187
2006	2	606,996.458	613,638.548	-6,642.090	-1.09%	-0.199
2006	3	921,648.901	930,852.377	-9,203.476	-1.00%	-0.276
2006	4	706,612.042	721,590.027	-14,977.985	-2.12%	-0.450
2006	5	774,819.067	794,310.665	-19,491.598	-2.52%	-0.585
2006	6	791,601.537	851,057.941	-59,456.405	-7.51%	-1.785
2006	7	818,727.788	825,689.301	-6,961.512	-0.85%	-0.209
2006	8	895,837.505	909,536.404	-13,698.899	-1.53%	-0.411
2006	9	813,339.343	851,013.852	-37,674.510	-4.63%	-1.131

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	10	814,552.957	795,380.492	19,172.464	2.35%	0.576
2006	11	741,816.174	753,013.673	-11,197.499	-1.51%	-0.336
2006	12	721,320.644	755,677.151	-34,356.507	-4.76%	-1.031
2007	1	785,403.004	809,967.956	-24,564.952	-3.13%	-0.737
2007	2	735,276.644	735,248.556	28.088	0.00%	0.001
2007	3	804,584.165	767,667.653	36,916.512	4.59%	1.108
2007	4	747,360.135	756,000.759	-8,640.625	-1.16%	-0.259
2007	5	827,616.483	803,767.176	23,849.307	2.88%	0.716
2007	6	851,947.484	846,394.835	5,552.650	0.65%	0.167
2007	7	887,809.214	882,823.482	4,985.732	0.56%	0.150
2007	8	958,616.970	944,774.825	13,842.144	1.44%	0.416
2007	9	857,099.990	859,426.559	-2,326.569	-0.27%	-0.070
2007	10	900,448.138	849,590.463	50,857.675	5.65%	1.527
2007	11	722,097.817	788,700.329	-66,602.512	-9.22%	-1.999
2007	12	830,371.874	775,301.067	55,070.807	6.63%	1.653
2008	1	852,797.880	820,526.564	32,271.316	3.78%	0.969
2008	2	776,637.251	803,928.415	-27,291.165	-3.51%	-0.819
2008	3	839,968.279	761,201.113	78,767.165	9.38%	2.364
2008	4	828,234.092	813,911.446	14,322.646	1.73%	0.430
2008	5	767,142.642	809,651.262	-42,508.620	-5.54%	-1.276
2008	6	860,088.712	853,919.529	6,169.183	0.72%	0.185
2008	7	914,299.756	890,570.187	23,729.569	2.60%	0.712
2008	8	890,822.678	887,391.955	3,430.723	0.39%	0.103
2008	9	936,555.696	923,009.541	13,546.155	1.45%	0.407
2008	10	864,646.046	842,072.895	22,573.150	2.61%	0.678
2008	11	727,177.566	732,938.946	-5,761.380	-0.79%	-0.173
2008	12	826,559.200	821,056.363	5,502.837	0.67%	0.165
2009	1	774,942.419	795,894.831	-20,952.412	-2.70%	-0.629
2009	2	742,382.678	743,971.085	-1,588.407	-0.21%	-0.048
2009	3	748,961.063	764,423.578	-15,462.515	-2.06%	-0.464
2009	4	754,608.003	753,677.570	930.433	0.12%	0.028
2009	5	710,924.305	732,394.586	-21,470.281	-3.02%	-0.645
2009	6	784,646.481	836,825.913	-52,179.431	-6.65%	-1.566
2009	7	847,739.866	847,365.420	374.446	0.04%	0.011
2009	8	842,109.412	851,717.665	-9,608.253	-1.14%	-0.288
2009	9	844,855.780	851,401.986	-6,546.206	-0.77%	-0.197
2009	10	808,612.523	781,525.098	27,087.425	3.35%	0.813
2009	11	721,395.681	718,083.279	3,312.401	0.46%	0.099
2009	12	766,808.404	792,887.568	-26,079.165	-3.40%	-0.783
2010	1	752,226.619	749,673.469	2,553.151	0.34%	0.077
2010	2	752,792.688	721,566.300	31,226.389	4.15%	0.937
2010	3	774,877.704	783,910.879	-9,033.175	-1.17%	-0.271
2010	4	767,029.121	764,242.762	2,786.359	0.36%	0.084
2010	5	756,377.956	728,069.719	28,308.237	3.74%	0.850
2010	6	862,658.292	853,106.181	9,552.111	1.11%	0.287
2010	7	868,455.340	858,339.777	10,115.563	1.16%	0.304
2010	8	961,551.112	908,715.107	52,836.005	5.49%	1.586
2010	9	887,371.428	886,801.767	569.661	0.06%	0.017
2010	10	780,807.101	803,346.906	-22,539.805	-2.89%	-0.677
2010	11	780,039.761	757,049.051	22,990.710	2.95%	0.690
2010	12	799,203.493	778,687.553	20,515.940	2.57%	0.616
2011	1	842,464.811	799,216.597	43,248.214	5.13%	1.298

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2011	2	753,462.795	757,677.678	-4,214.884	-0.56%	-0.127
2011	3	811,502.925	810,142.356	1,360.569	0.17%	0.041
2011	4	763,738.135	740,698.711	23,039.424	3.02%	0.692
2011	5	786,721.661	788,526.767	-1,805.106	-0.23%	-0.054
2011	6	842,269.679	865,422.075	-23,152.396	-2.75%	-0.695
2011	7	889,790.818	853,479.346	36,311.472	4.08%	1.090
2011	8	955,653.007	918,627.954	37,025.053	3.87%	1.111
2011	9	900,831.012	899,928.947	902.065	0.10%	0.027
2011	10	802,927.793	808,488.208	-5,560.415	-0.69%	-0.167
2011	11	780,333.011	772,257.682	8,075.329	1.03%	0.242
2011	12	798,862.098	786,538.793	12,323.305	1.54%	0.370
2012	1	807,811.596	805,800.675	2,010.920	0.25%	0.060
2012	2	771,561.555	777,040.187	-5,478.631	-0.71%	-0.164
2012	3	804,017.419	781,878.107	22,139.312	2.75%	0.665
2012	4	789,694.271	757,966.652	31,727.619	4.02%	0.952
2012	5	827,940.616	808,504.903	19,435.713	2.35%	0.583
2012	6	840,317.332	857,545.339	-17,228.007	-2.05%	-0.517
2012	7	907,192.641	878,091.074	29,101.567	3.21%	0.874
2012	8	968,799.558	942,093.142	26,706.416	2.76%	0.802
2012	9	851,824.472	865,804.375	-13,979.903	-1.64%	-0.420
2012	10	835,864.928	850,565.525	-14,700.596	-1.76%	-0.441
2012	11	810,696.473	773,910.480	36,785.993	4.54%	1.104
2012	12	767,442.384	770,149.123	-2,706.739	-0.35%	-0.081
2013	1	820,234.108	838,014.394	-17,780.286	-2.17%	-0.534
2013	2	745,909.945	757,533.946	-11,624.002	-1.56%	-0.349
2013	3	796,399.703	742,548.722	53,850.981	6.76%	1.617
2013	4	834,908.430	811,993.084	22,915.346	2.74%	0.688
2013	5	799,557.459	819,609.414	-20,051.955	-2.51%	-0.602
2013	6	812,805.857	836,844.618	-24,038.762	-2.96%	-0.722
2013	7	888,454.847	893,967.798	-5,512.951	-0.62%	-0.165
2013	8	913,430.785	917,471.220	-4,040.434	-0.44%	-0.121
2013	9	860,386.989	873,707.480	-13,320.491	-1.55%	-0.400
2013	10	886,146.730	839,345.654	46,801.076	5.28%	1.405
2013	11	771,072.837	754,283.186	16,789.651	2.18%	0.504
2013	12	808,504.680	819,485.095	-10,980.415	-1.36%	-0.330
2014	1	808,518.910	840,034.047	-31,515.138	-3.90%	-0.946
2014	2	788,105.823	749,118.324	38,987.499	4.95%	1.170
2014	3	817,668.493	787,007.416	30,661.077	3.75%	0.920
2014	4	777,425.265	811,006.610	-33,581.346	-4.32%	-1.008
2014	5	754,779.464	793,895.867	-39,116.403	-5.18%	-1.174
2014	6	817,015.400	847,372.484	-30,357.084	-3.72%	-0.911
2014	7	869,846.826	886,615.594	-16,768.768	-1.93%	-0.503
2014	8	855,156.650	893,903.208	-38,746.558	-4.53%	-1.163
2014	9	929,381.843	887,650.593	41,731.250	4.49%	1.253
2014	10	850,823.463	837,004.409	13,819.054	1.62%	0.415
2014	11	755,010.987	746,365.573	8,645.414	1.15%	0.260
2014	12	842,429.542	836,381.216	6,048.326	0.72%	0.182
2015	1	808,192.291	825,248.114	-17,055.823	-2.11%	-0.512
2015	2	764,870.456	761,972.305	2,898.151	0.38%	0.087
2015	3	827,871.566	814,420.577	13,450.989	1.62%	0.404
2015	4	792,339.659	804,911.799	-12,572.140	-1.59%	-0.377
2015	5	768,937.428	776,292.242	-7,354.814	-0.96%	-0.221

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	6		881,977.387			
2015	7		910,015.854			
2015	8		919,585.693			
2015	9		910,460.859			
2015	10		843,438.402			
2015	11		770,752.272			
2015	12		838,522.677			
2016	1		804,638.776			
2016	2		790,419.084			
2016	3		841,387.398			
2016	4		787,415.608			
2016	5		799,733.079			
2016	6		892,167.160			
2016	7		875,186.836			
2016	8		968,584.511			
2016	9		917,635.928			
2016	10		828,552.246			
2016	11		800,033.648			
2016	12		816,197.309			
2017	1		833,095.599			
2017	2		770,147.541			
2017	3		848,944.112			
2017	4		771,998.070			
2017	5		825,401.980			
2017	6		896,391.419			
2017	7		881,642.156			
2017	8		972,401.369			
2017	9		902,714.163			
2017	10		854,069.334			
2017	11		806,814.949			
2017	12		797,144.672			
2018	1		861,309.025			
2018	2		776,008.822			
2018	3		833,201.617			
2018	4		798,701.029			
2018	5		829,805.243			
2018	6		880,509.574			
2018	7		908,131.952			
2018	8		975,821.396			
2018	9		887,228.594			
2018	10		878,853.958			
2018	11		812,694.003			
2018	12		802,902.208			
2019	1		839,793.811			
2019	2		781,523.336			
2019	3		837,202.737			
2019	4		821,378.138			
2019	5		793,881.745			
2019	6		905,066.304			
2019	7		931,208.396			
2019	8		939,634.152			
2019	9		929,683.478			

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2019	10		862,106.228			
2019	11		788,957.576			
2019	12		856,446.409			
2020	1		822,331.115			
2020	2		807,924.361			
2020	3		858,737.071			
2020	4		804,628.876			
2020	5		816,821.668			
2020	6		909,158.017			
2020	7		892,085.404			
2020	8		985,394.599			
2020	9		934,240.914			
2020	10		844,953.849			
2020	11		816,233.012			
2020	12		832,208.415			

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 MWh Electric Sales

Variable	Coefficient	StdErr	T-Stat	P-Value	Definition
CONST	-707.2492	1605.162	-0.44061	0.660033	Constant term
MSP.NR_MSP	2.849	0.489	5.830	0.00%	Population; Minneapolis-St. Paul MSA, 000's
Binary.Jan	7078.674	342.465	20.670	0.00%	Binary variable January
Binary.Feb	4359.959	284.564	15.322	0.00%	Binary variable February
Binary.Mar	3984.209	284.039	14.027	0.00%	Binary variable March
Binary.Apr	1986.434	281.726	7.051	0.00%	Binary variable April
Binary.May	730.266	281.699	2.592	1.03%	Binary variable May
Binary.Sep	1724.138	288.071	5.985	0.00%	Binary variable September
Binary.Oct	3354.466	288.216	11.639	0.00%	Binary variable October
Binary.Nov	4607.574	291.225	15.821	0.00%	Binary variable November
Binary.Dec	6235.851	288.237	21.634	0.00%	Binary variable December
BinaryTrans.JanCRS	-1249.052	484.083	-2.580	1.07%	Binary variable for January before CRS conversion
Binary2.Nov2004	7131.782	676.586	10.541	0.00%	Binary variable November 2004
Binary2.Feb2005	-8985.695	679.603	-13.222	0.00%	Binary variable February 2005
BinaryTrans.Jan08	-3124.872	681.850	-4.583	0.00%	Binary variable January 2008
SAR(1)	0.302	0.075	4.051	0.01%	First order seasonal autoregressive term

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 MWh Electric Sales

Model Statistics	
Iterations	8
Adjusted Observations	197
Deg. of Freedom for Error	181
R-Squared	0.928
Adjusted R-Squared	0.923
AIC	13.234
BIC	13.501
F-Statistic	156.5521618
Prob (F-Statistic)	0
Log-Likelihood	-1,567.07
Model Sum of Squares	1,214,497,475.32
Sum of Squared Errors	93,610,564.28
Mean Squared Error	517,185.44
Std. Error of Regression	719.16
Mean Abs. Dev. (MAD)	488.72
Mean Abs. % Err. (MAPE)	4.33%
Durbin-Watson Statistic	1.930
Durbin-H Statistic	#NA
Ljung-Box Statistic	52.51
Prob (Ljung-Box)	0.0007
Skewness	0.297
Kurtosis	5.777
Jarque-Bera	66.221
Prob (Jarque-Bera)	0.0000

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
1998	1	13,302.000				
1998	2	11,213.000				
1998	3	10,805.000				
1998	4	9,576.000				
1998	5	8,139.000				
1998	6	7,613.000				
1998	7	7,570.000				
1998	8	9,143.000				
1998	9	10,080.000				
1998	10	11,750.000				
1998	11	12,581.000				
1998	12	14,232.000				
1999	1	13,596.000	13,556.659	39.341	0.29%	0.055
1999	2	11,388.000	11,908.280	-520.280	-4.57%	-0.723
1999	3	10,751.000	11,531.156	-780.156	-7.26%	-1.085
1999	4	8,911.000	9,773.944	-862.944	-9.68%	-1.200
1999	5	7,825.000	8,471.525	-646.525	-8.26%	-0.899
1999	6	7,825.000	7,811.414	13.586	0.17%	0.019
1999	7	7,923.000	7,806.886	116.114	1.47%	0.161
1999	8	8,931.000	8,290.445	640.555	7.17%	0.891
1999	9	10,047.000	9,785.292	261.708	2.60%	0.364
1999	10	11,449.000	11,436.054	12.946	0.11%	0.018
1999	11	13,155.000	12,570.123	584.877	4.45%	0.813
1999	12	14,163.000	14,213.707	-50.707	-0.36%	-0.071
2000	1	13,398.000	13,746.523	-348.523	-2.60%	-0.485
2000	2	11,578.000	12,062.300	-484.300	-4.18%	-0.673
2000	3	11,301.000	11,615.652	-314.652	-2.78%	-0.438
2000	4	9,172.000	9,673.538	-501.538	-5.47%	-0.697
2000	5	8,287.000	8,476.775	-189.775	-2.29%	-0.264
2000	6	7,457.000	7,973.477	-516.477	-6.93%	-0.718
2000	7	7,900.000	8,009.480	-109.480	-1.39%	-0.152
2000	8	9,147.000	8,320.333	826.667	9.04%	1.149
2000	9	10,228.000	9,867.212	360.788	3.53%	0.502
2000	10	12,048.000	11,434.998	613.002	5.09%	0.852
2000	11	12,989.000	12,831.315	157.685	1.21%	0.219
2000	12	14,451.000	14,278.685	172.315	1.19%	0.240
2001	1	13,900.000	13,770.533	129.467	0.93%	0.180
2001	2	11,786.997	12,201.493	-414.496	-3.52%	-0.576
2001	3	11,348.841	11,862.154	-513.313	-4.52%	-0.714
2001	4	9,369.687	9,831.328	-461.641	-4.93%	-0.642
2001	5	8,418.721	8,693.850	-275.129	-3.27%	-0.383
2001	6	7,688.629	7,937.444	-248.815	-3.24%	-0.346
2001	7	8,031.742	8,075.228	-43.486	-0.54%	-0.060
2001	8	8,888.600	8,455.847	432.753	4.87%	0.602
2001	9	10,413.791	9,989.722	424.069	4.07%	0.590
2001	10	12,432.312	11,681.325	750.987	6.04%	1.044
2001	11	13,192.101	12,844.152	347.949	2.64%	0.484
2001	12	14,321.500	14,426.199	-104.699	-0.73%	-0.146
2002	1	12,119.150	13,980.236	-1,861.086	-15.36%	-2.588
2002	2	14,311.874	12,320.253	1,991.621	13.92%	2.769
2002	3	11,533.722	11,929.650	-395.928	-3.43%	-0.551
2002	4	9,379.434	9,941.494	-562.060	-5.99%	-0.782
2002	5	8,464.140	8,781.504	-317.364	-3.75%	-0.441

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2002	6	7,634.191	8,055.624	-421.433	-5.52%	-0.586
2002	7	8,042.762	8,163.590	-120.828	-1.50%	-0.168
2002	8	9,081.436	8,426.725	654.711	7.21%	0.910
2002	9	10,343.557	10,095.114	248.443	2.40%	0.345
2002	10	12,032.413	11,847.030	185.383	1.54%	0.258
2002	11	13,196.398	12,955.478	240.920	1.83%	0.335
2002	12	14,520.993	14,437.423	83.570	0.58%	0.116
2003	1	14,130.173	13,493.050	637.123	4.51%	0.886
2003	2	11,741.449	13,133.899	-1,392.450	-11.86%	-1.936
2003	3	11,438.222	12,036.893	-598.671	-5.23%	-0.832
2003	4	9,358.255	9,996.197	-637.942	-6.82%	-0.887
2003	5	8,490.886	8,847.336	-356.450	-4.20%	-0.496
2003	6	7,684.099	8,091.767	-407.668	-5.31%	-0.567
2003	7	8,041.661	8,219.973	-178.312	-2.22%	-0.248
2003	8	9,000.419	8,538.492	461.927	5.13%	0.642
2003	9	10,233.576	10,127.895	105.681	1.03%	0.147
2003	10	12,010.000	11,780.710	229.290	1.91%	0.319
2003	11	12,967.554	13,011.710	-44.156	-0.34%	-0.061
2003	12	14,379.136	14,553.081	-173.945	-1.21%	-0.242
2004	1	13,936.753	14,156.321	-219.568	-1.58%	-0.305
2004	2	11,637.595	12,413.885	-776.290	-6.67%	-1.079
2004	3	11,300.361	12,064.861	-764.500	-6.77%	-1.063
2004	4	9,404.632	10,047.083	-642.451	-6.83%	-0.893
2004	5	8,677.116	8,913.167	-236.051	-2.72%	-0.328
2004	6	7,824.804	8,164.184	-339.380	-4.34%	-0.472
2004	7	8,233.303	8,276.575	-43.272	-0.53%	-0.060
2004	8	9,894.535	8,570.547	1,323.988	13.38%	1.841
2004	9	10,377.777	10,150.792	226.985	2.19%	0.316
2004	10	12,416.486	11,829.646	586.840	4.73%	0.816
2004	11	20,431.777	20,129.668	302.109	1.48%	0.420
2004	12	15,643.359	14,565.118	1,078.241	6.89%	1.499
2005	1	15,364.313	14,152.374	1,211.939	7.89%	1.685
2005	2	3,447.332	3,450.884	-3.552	-0.10%	-0.005
2005	3	12,810.801	12,076.872	733.929	5.73%	1.021
2005	4	12,228.550	10,114.327	2,114.223	17.29%	2.940
2005	5	11,027.582	9,022.239	2,005.343	18.18%	2.788
2005	6	8,421.651	8,261.534	160.117	1.90%	0.223
2005	7	8,984.609	8,391.338	593.271	6.60%	0.825
2005	8	8,515.000	8,899.510	-384.510	-4.52%	-0.535
2005	9	11,674.154	10,255.289	1,418.865	12.15%	1.973
2005	10	12,521.207	12,015.396	505.811	4.04%	0.703
2005	11	14,163.571	13,163.307	1,000.264	7.06%	1.391
2005	12	17,416.000	15,014.011	2,401.989	13.79%	3.340
2006	1	14,951.194	15,901.693	-950.499	-6.36%	-1.322
2006	2	12,736.202	12,747.963	-11.761	-0.09%	-0.016
2006	3	12,057.903	12,606.261	-548.358	-4.55%	-0.763
2006	4	10,432.392	11,042.480	-610.088	-5.85%	-0.848
2006	5	9,571.105	9,809.441	-238.336	-2.49%	-0.331
2006	6	8,424.684	8,518.482	-93.798	-1.11%	-0.130
2006	7	7,846.324	8,694.337	-848.013	-10.81%	-1.179
2006	8	9,283.720	8,558.321	725.399	7.81%	1.009
2006	9	8,474.070	10,721.714	-2,247.643	-26.52%	-3.125

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	10	12,482.630	12,121.297	361.333	2.89%	0.502
2006	11	12,441.272	13,497.805	-1,056.533	-8.49%	-1.469
2006	12	13,186.709	15,622.472	-2,435.763	-18.47%	-3.387
2007	1	16,356.598	15,472.118	884.480	5.41%	1.230
2007	2	13,423.656	12,911.385	512.271	3.82%	0.712
2007	3	12,307.567	12,450.105	-142.538	-1.16%	-0.198
2007	4	10,953.823	10,570.616	383.207	3.50%	0.533
2007	5	9,369.852	9,439.566	-69.714	-0.74%	-0.097
2007	6	8,380.592	8,588.581	-207.989	-2.48%	-0.289
2007	7	7,213.106	8,418.871	-1,205.765	-16.72%	-1.677
2007	8	9,333.251	8,857.988	475.263	5.09%	0.661
2007	9	9,608.703	9,821.816	-213.113	-2.22%	-0.296
2007	10	11,784.029	12,175.433	-391.404	-3.32%	-0.544
2007	11	12,624.320	13,042.549	-418.229	-3.31%	-0.582
2007	12	14,052.441	14,409.167	-356.726	-2.54%	-0.496
2008	1	12,744.834	12,834.959	-90.125	-0.71%	-0.125
2008	2	15,000.458	13,181.400	1,819.058	12.13%	2.529
2008	3	12,347.249	12,587.038	-239.789	-1.94%	-0.333
2008	4	11,534.268	10,788.778	745.490	6.46%	1.037
2008	5	9,279.552	9,438.598	-159.046	-1.71%	-0.221
2008	6	8,478.678	8,634.777	-156.099	-1.84%	-0.217
2008	7	8,428.808	8,286.827	141.981	1.68%	0.197
2008	8	8,543.196	8,931.853	-388.657	-4.55%	-0.540
2008	9	10,349.830	10,223.113	126.717	1.22%	0.176
2008	10	11,356.243	12,022.725	-666.482	-5.87%	-0.927
2008	11	13,675.623	13,155.823	519.800	3.80%	0.723
2008	12	14,537.045	14,728.327	-191.282	-1.32%	-0.266
2009	1	15,571.747	15,870.144	-298.397	-1.92%	-0.415
2009	2	13,446.434	13,714.712	-268.278	-2.00%	-0.373
2009	3	12,867.049	12,655.776	211.273	1.64%	0.294
2009	4	11,300.037	11,020.534	279.503	2.47%	0.389
2009	5	9,171.835	9,467.455	-295.620	-3.22%	-0.411
2009	6	9,069.958	8,719.581	350.377	3.86%	0.487
2009	7	8,376.211	8,708.236	-332.025	-3.96%	-0.462
2009	8	9,130.649	8,746.502	384.147	4.21%	0.534
2009	9	10,039.388	10,499.272	-459.884	-4.58%	-0.639
2009	10	11,614.636	11,944.871	-330.235	-2.84%	-0.459
2009	11	13,067.008	13,523.745	-456.736	-3.50%	-0.635
2009	12	14,081.914	14,924.118	-842.204	-5.98%	-1.171
2010	1	15,338.939	15,828.607	-489.668	-3.19%	-0.681
2010	2	13,650.728	13,292.833	357.895	2.62%	0.498
2010	3	13,157.800	12,859.512	298.288	2.27%	0.415
2010	4	11,145.884	10,995.776	150.108	1.35%	0.209
2010	5	9,367.104	9,480.158	-113.054	-1.21%	-0.157
2010	6	9,261.745	8,945.988	315.757	3.41%	0.439
2010	7	8,515.440	8,742.753	-227.313	-2.67%	-0.316
2010	8	9,222.895	8,976.920	245.975	2.67%	0.342
2010	9	10,524.006	10,461.080	62.926	0.60%	0.087
2010	10	11,529.161	12,081.073	-551.912	-4.79%	-0.767
2010	11	13,660.172	13,400.666	259.506	1.90%	0.361
2010	12	14,563.826	14,849.985	-286.159	-1.96%	-0.398
2011	1	16,659.503	15,824.211	835.292	5.01%	1.161

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2011	2	13,917.525	13,423.044	494.481	3.55%	0.688
2011	3	13,396.475	13,018.136	378.339	2.82%	0.526
2011	4	10,945.257	11,022.322	-77.065	-0.70%	-0.107
2011	5	10,340.652	9,614.541	726.111	7.02%	1.010
2011	6	9,174.966	9,078.628	96.338	1.05%	0.134
2011	7	8,433.935	8,858.829	-424.894	-5.04%	-0.591
2011	8	9,035.347	9,078.115	-42.768	-0.47%	-0.059
2011	9	10,744.304	10,680.101	64.203	0.60%	0.089
2011	10	12,240.792	12,127.223	113.569	0.93%	0.158
2011	11	13,574.427	13,651.106	-76.679	-0.56%	-0.107
2011	12	14,678.359	15,066.147	-387.788	-2.64%	-0.539
2012	1	16,580.110	16,292.999	287.111	1.73%	0.399
2012	2	14,411.054	13,572.882	838.172	5.82%	1.165
2012	3	13,074.207	13,158.879	-84.672	-0.65%	-0.118
2012	4	10,427.767	11,029.780	-602.013	-5.77%	-0.837
2012	5	11,062.085	9,976.039	1,086.046	9.82%	1.510
2012	6	9,363.310	9,120.924	242.386	2.59%	0.337
2012	7	8,695.308	8,903.769	-208.461	-2.40%	-0.290
2012	8	9,252.646	9,092.079	160.567	1.74%	0.223
2012	9	10,168.695	10,818.303	-649.608	-6.39%	-0.903
2012	10	12,308.153	12,414.879	-106.726	-0.87%	-0.148
2012	11	13,817.235	13,698.981	118.254	0.86%	0.164
2012	12	15,567.053	15,175.569	391.484	2.51%	0.544
2013	1	16,549.207	16,344.906	204.301	1.23%	0.284
2013	2	13,955.081	13,798.888	156.193	1.12%	0.217
2013	3	13,021.471	13,139.545	-118.074	-0.91%	-0.164
2013	4	12,519.360	10,952.541	1,566.819	12.52%	2.179
2013	5	10,118.515	10,274.056	-155.541	-1.54%	-0.216
2013	6	8,646.034	9,256.520	-610.486	-7.06%	-0.849
2013	7	9,127.534	9,060.014	67.520	0.74%	0.094
2013	8	9,372.200	9,233.602	138.598	1.48%	0.193
2013	9	10,808.983	10,718.927	90.056	0.83%	0.125
2013	10	12,165.510	12,508.289	-342.779	-2.82%	-0.477
2013	11	13,009.232	13,843.968	-834.736	-6.42%	-1.161
2013	12	16,128.016	15,514.217	613.799	3.81%	0.853
2014	1	16,352.786	16,404.385	-51.599	-0.32%	-0.072
2014	2	13,616.320	13,728.564	-112.244	-0.82%	-0.156
2014	3	13,821.730	13,189.589	632.141	4.57%	0.879
2014	4	11,656.308	11,648.823	7.485	0.06%	0.010
2014	5	9,889.429	10,052.191	-162.762	-1.65%	-0.226
2014	6	9,339.286	9,102.435	236.851	2.54%	0.329
2014	7	8,663.165	9,252.548	-589.383	-6.80%	-0.820
2014	8	8,675.595	9,331.130	-655.535	-7.56%	-0.912
2014	9	11,152.734	10,972.926	179.808	1.61%	0.250
2014	10	11,555.383	12,525.006	-969.623	-8.39%	-1.348
2014	11	13,014.621	13,658.915	-644.294	-4.95%	-0.896
2014	12	15,829.741	15,741.865	87.876	0.56%	0.122
2015	1	16,482.912	16,402.502	80.410	0.49%	0.112
2015	2	11,496.875	13,682.914	-2,186.039	-19.01%	-3.040
2015	3	15,733.859	13,487.179	2,246.680	14.28%	3.124
2015	4	11,154.162	11,443.254	-289.092	-2.59%	-0.402
2015	5	9,435.186	10,037.319	-602.133	-6.38%	-0.837

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	6		9,365.979			
2015	7		9,166.290			
2015	8		9,174.568			
2015	9		11,130.712			
2015	10		12,394.813			
2015	11		13,714.753			
2015	12		15,706.190			
2016	1		16,496.424			
2016	2		13,097.593			
2016	3		14,119.723			
2016	4		11,346.794			
2016	5		9,955.518			
2016	6		9,429.680			
2016	7		9,374.132			
2016	8		9,381.397			
2016	9		11,180.435			
2016	10		12,704.976			
2016	11		13,983.096			
2016	12		15,725.940			
2017	1		16,557.759			
2017	2		13,638.506			
2017	3		13,689.836			
2017	4		11,462.811			
2017	5		10,170.709			
2017	6		9,507.123			
2017	7		9,495.281			
2017	8		9,502.412			
2017	9		11,254.147			
2017	10		12,857.499			
2017	11		14,123.137			
2017	12		15,791.068			
2018	1		16,635.616			
2018	2		13,861.382			
2018	3		13,619.813			
2018	4		11,557.985			
2018	5		10,296.152			
2018	6		9,591.174			
2018	7		9,592.745			
2018	8		9,600.046			
2018	9		11,337.569			
2018	10		12,964.800			
2018	11		14,226.743			
2018	12		15,871.828			
2019	1		16,720.001			
2019	2		13,989.348			
2019	3		13,658.713			
2019	4		11,646.179			
2019	5		10,392.887			
2019	6		9,674.651			
2019	7		9,679.517			
2019	8		9,686.114			
2019	9		11,418.620			

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2019	10		13,052.338			
2019	11		14,312.440			
2019	12		15,950.130			
2020	1		16,798.905			
2020	2		14,080.920			
2020	3		13,723.137			
2020	4		11,725.244			
2020	5		10,474.284			
2020	6		9,752.036			
2020	7		9,757.889			
2020	8		9,764.266			
2020	9		11,495.297			
2020	10		13,131.016			
2020	11		14,390.603			
2020	12		16,026.078			

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 MWh Electric Sales

Variable	Coefficient	StdErr	T-Stat	P-Value	Definition
MNOSCusts.Filled	9.536	0.888	10.744	0.00%	Minnesota Other Public Authority Customers
BillingDayscellnet.BillDaysCellnet21	221.092	39.788	5.557	0.00%	Average number of billing days per month
BinaryTrans.AfterApr2011	-1409.167	157.895	-8.925	0.00%	Binary variable beginning in May 2011
Binary.Jan	-20087.675	2308.149	-8.703	0.00%	Binary variable January
Binary.Feb	-19940.456	2206.878	-9.036	0.00%	Binary variable February
Binary.Mar	-20023.065	2241.846	-8.932	0.00%	Binary variable March
Binary.Apr	-20090.000	2240.443	-8.967	0.00%	Binary variable April
Binary.May	-19747.755	2234.350	-8.838	0.00%	Binary variable May
Binary.Jun	-19178.224	2255.777	-8.502	0.00%	Binary variable June
Binary.Jul	-18065.041	2250.220	-8.028	0.00%	Binary variable July
Binary.Aug	-16794.758	2246.569	-7.476	0.00%	Binary variable August
Binary.Sep	-17739.993	2236.987	-7.930	0.00%	Binary variable September
Binary.Oct	-18671.122	2244.960	-8.317	0.00%	Binary variable October
Binary.Nov	-19825.875	2197.077	-9.024	0.00%	Binary variable November
Binary.Dec	-20248.387	2263.413	-8.946	0.00%	Binary variable December
MA(1)	0.257	0.070	3.682	0.03%	First order moving average correction term

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 MWh Electric Sales

Model Statistics	
Iterations	9
Adjusted Observations	209
Deg. of Freedom for Error	193
R-Squared	0.839
Adjusted R-Squared	0.826
AIC	13.235
BIC	13.491
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-1,663.58
Model Sum of Squares	522,317,111.77
Sum of Squared Errors	100,320,552.03
Mean Squared Error	519,795.61
Std. Error of Regression	720.97
Mean Abs. Dev. (MAD)	492.20
Mean Abs. % Err. (MAPE)	6.80%
Durbin-Watson Statistic	1.989
Durbin-H Statistic	#NA
Ljung-Box Statistic	31.95
Prob (Ljung-Box)	0.1283
Skewness	0.862
Kurtosis	6.671
Jarque-Bera	143.217
Prob (Jarque-Bera)	0.0000

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
1998	1	9,053.000	8,940.017	112.983	1.25%	0.157
1998	2	8,220.000	8,176.032	43.968	0.53%	0.061
1998	3	7,679.000	8,378.877	-699.877	-9.11%	-0.971
1998	4	8,250.000	8,322.033	-72.033	-0.87%	-0.100
1998	5	8,443.000	8,430.491	12.509	0.15%	0.017
1998	6	9,270.000	9,184.221	85.779	0.93%	0.119
1998	7	9,093.000	10,021.586	-928.586	-10.21%	-1.288
1998	8	10,298.000	10,920.867	-622.867	-6.05%	-0.864
1998	9	9,940.000	10,362.014	-422.014	-4.25%	-0.585
1998	10	9,791.000	9,131.814	659.186	6.73%	0.914
1998	11	7,421.000	8,146.718	-725.718	-9.78%	-1.007
1998	12	7,525.000	8,061.595	-536.595	-7.13%	-0.744
1999	1	8,788.000	8,356.070	431.930	4.92%	0.599
1999	2	7,582.000	8,131.948	-549.948	-7.25%	-0.763
1999	3	7,503.000	7,663.799	-160.799	-2.14%	-0.223
1999	4	7,591.000	7,791.285	-200.285	-2.64%	-0.278
1999	5	7,342.000	7,441.596	-99.596	-1.36%	-0.138
1999	6	8,688.000	8,785.523	-97.523	-1.12%	-0.135
1999	7	9,299.000	9,886.726	-587.726	-6.32%	-0.815
1999	8	10,431.000	10,754.857	-323.857	-3.10%	-0.449
1999	9	8,606.000	9,951.435	-1,345.435	-15.63%	-1.866
1999	10	8,908.000	8,693.535	214.465	2.41%	0.297
1999	11	7,800.000	7,864.883	-64.883	-0.83%	-0.090
1999	12	8,486.000	8,070.101	415.899	4.90%	0.577
2000	1	8,143.000	7,980.719	162.281	1.99%	0.225
2000	2	8,016.000	7,728.971	287.029	3.58%	0.398
2000	3	7,474.000	7,726.063	-252.063	-3.37%	-0.350
2000	4	7,224.000	7,403.726	-179.726	-2.49%	-0.249
2000	5	8,718.000	7,992.190	725.810	8.33%	1.007
2000	6	9,094.000	8,787.601	306.399	3.37%	0.425
2000	7	9,691.000	9,712.870	-21.870	-0.23%	-0.030
2000	8	10,734.000	11,129.962	-395.962	-3.69%	-0.549
2000	9	9,043.000	9,723.134	-680.134	-7.52%	-0.943
2000	10	9,780.000	8,711.732	1,068.268	10.92%	1.482
2000	11	7,505.000	8,169.868	-664.868	-8.86%	-0.922
2000	12	7,765.000	7,327.449	437.551	5.63%	0.607
2001	1	8,736.000	8,426.919	309.081	3.54%	0.429
2001	2	7,379.070	7,442.427	-63.357	-0.86%	-0.088
2001	3	7,228.292	7,474.011	-245.719	-3.40%	-0.341
2001	4	7,967.904	7,365.611	602.293	7.56%	0.835
2001	5	8,194.218	7,983.738	210.480	2.57%	0.292
2001	6	8,606.398	8,311.032	295.366	3.43%	0.410
2001	7	11,193.968	9,557.461	1,636.507	14.62%	2.270
2001	8	12,721.100	11,153.148	1,567.952	12.33%	2.175
2001	9	10,499.423	10,266.382	233.041	2.22%	0.323
2001	10	7,917.886	8,697.203	-779.317	-9.84%	-1.081
2001	11	7,699.928	7,375.359	324.569	4.22%	0.450
2001	12	7,496.189	7,558.384	-62.195	-0.83%	-0.086
2002	1	8,221.272	8,012.560	208.712	2.54%	0.289
2002	2	7,352.727	7,378.519	-25.792	-0.35%	-0.036
2002	3	7,275.303	7,123.268	152.035	2.09%	0.211
2002	4	7,623.641	7,728.545	-104.904	-1.38%	-0.146
2002	5	7,388.438	7,417.407	-28.969	-0.39%	-0.040

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2002	6	8,485.393	8,239.041	246.352	2.90%	0.342
2002	7	9,590.700	9,472.560	118.140	1.23%	0.164
2002	8	9,269.937	10,360.904	-1,090.967	-11.77%	-1.513
2002	9	8,984.466	9,518.111	-533.645	-5.94%	-0.740
2002	10	8,890.909	8,549.077	341.832	3.84%	0.474
2002	11	6,977.016	7,489.125	-512.109	-7.34%	-0.710
2002	12	8,033.484	7,525.190	508.294	6.33%	0.705
2003	1	8,131.741	8,082.708	49.033	0.60%	0.068
2003	2	7,565.238	7,251.707	313.531	4.14%	0.435
2003	3	7,596.538	7,210.368	386.170	5.08%	0.536
2003	4	7,373.155	7,238.751	134.404	1.82%	0.186
2003	5	7,694.953	7,668.341	26.612	0.35%	0.037
2003	6	8,742.137	8,216.156	525.981	6.02%	0.730
2003	7	9,685.084	9,399.312	285.772	2.95%	0.396
2003	8	11,036.375	10,527.902	508.473	4.61%	0.705
2003	9	12,647.811	9,721.850	2,925.961	23.13%	4.058
2003	10	9,401.905	9,109.911	291.994	3.11%	0.405
2003	11	7,214.798	7,209.323	5.475	0.08%	0.008
2003	12	7,399.860	7,433.150	-33.290	-0.45%	-0.046
2004	1	7,690.406	7,634.569	55.837	0.73%	0.077
2004	2	7,307.352	7,169.614	137.738	1.88%	0.191
2004	3	6,791.094	6,915.322	-124.228	-1.83%	-0.172
2004	4	7,085.952	7,039.387	46.565	0.66%	0.065
2004	5	7,072.641	7,185.694	-113.053	-1.60%	-0.157
2004	6	7,920.725	7,974.481	-53.756	-0.68%	-0.075
2004	7	8,920.784	9,076.868	-156.084	-1.75%	-0.216
2004	8	9,573.011	10,464.148	-891.137	-9.31%	-1.236
2004	9	9,268.337	9,148.827	119.510	1.29%	0.166
2004	10	7,598.835	8,221.851	-623.016	-8.20%	-0.864
2004	11	6,764.148	6,816.308	-52.160	-0.77%	-0.072
2004	12	6,819.425	7,357.172	-537.747	-7.89%	-0.746
2005	1	8,420.477	7,459.912	960.565	11.41%	1.332
2005	2	4,627.197	6,684.494	-2,057.297	-44.46%	-2.854
2005	3	5,863.526	6,501.042	-637.516	-10.87%	-0.884
2005	4	7,170.119	6,662.672	507.447	7.08%	0.704
2005	5	6,460.286	7,088.251	-627.965	-9.72%	-0.871
2005	6	8,866.131	7,934.857	931.274	10.50%	1.292
2005	7	7,631.150	8,748.842	-1,117.692	-14.65%	-1.550
2005	8	13,506.000	10,199.562	3,306.438	24.48%	4.586
2005	9	9,096.472	9,960.273	-863.801	-9.50%	-1.198
2005	10	7,494.998	7,710.982	-215.984	-2.88%	-0.300
2005	11	7,910.924	6,430.702	1,480.222	18.71%	2.053
2005	12	6,242.000	6,891.721	-649.721	-10.41%	-0.901
2006	1	7,351.950	7,032.113	319.837	4.35%	0.444
2006	2	6,325.673	6,262.554	63.119	1.00%	0.088
2006	3	7,203.564	7,049.072	154.492	2.14%	0.214
2006	4	5,904.076	5,979.397	-75.321	-1.28%	-0.104
2006	5	7,135.962	7,240.780	-104.818	-1.47%	-0.145
2006	6	8,599.104	7,801.140	797.964	9.28%	1.107
2006	7	10,140.943	8,478.206	1,662.737	16.40%	2.306
2006	8	11,333.722	10,634.733	698.989	6.17%	0.970
2006	9	8,437.982	8,718.648	-280.666	-3.33%	-0.389

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	10	7,496.316	7,927.581	-431.265	-5.75%	-0.598
2006	11	6,039.233	6,110.417	-71.184	-1.18%	-0.099
2006	12	6,130.232	5,791.247	338.985	5.53%	0.470
2007	1	7,358.124	7,356.785	1.339	0.02%	0.002
2007	2	5,716.821	5,942.398	-225.577	-3.95%	-0.313
2007	3	7,458.776	6,440.785	1,017.991	13.65%	1.412
2007	4	7,645.313	6,316.028	1,329.285	17.39%	1.844
2007	5	7,181.252	7,163.273	17.979	0.25%	0.025
2007	6	5,260.303	7,211.662	-1,951.359	-37.10%	-2.707
2007	7	9,945.786	7,812.782	2,133.004	21.45%	2.959
2007	8	11,180.911	10,457.842	723.069	6.47%	1.003
2007	9	7,291.552	8,181.110	-889.558	-12.20%	-1.234
2007	10	7,869.178	7,847.738	21.440	0.27%	0.030
2007	11	5,479.928	6,104.636	-624.708	-11.40%	-0.866
2007	12	6,230.586	5,584.397	646.189	10.37%	0.896
2008	1	6,348.694	7,250.487	-901.793	-14.20%	-1.251
2008	2	6,513.434	5,853.780	659.654	10.13%	0.915
2008	3	6,108.036	6,019.620	88.416	1.45%	0.123
2008	4	5,890.511	6,494.355	-603.844	-10.25%	-0.838
2008	5	6,194.260	6,126.929	67.331	1.09%	0.093
2008	6	6,088.780	7,063.209	-974.429	-16.00%	-1.352
2008	7	7,958.535	8,185.695	-227.160	-2.85%	-0.315
2008	8	9,516.255	8,726.274	789.981	8.30%	1.096
2008	9	9,459.255	8,948.541	510.714	5.40%	0.708
2008	10	7,150.092	7,934.208	-784.116	-10.97%	-1.088
2008	11	4,165.246	4,882.359	-717.113	-17.22%	-0.995
2008	12	5,932.340	6,179.634	-247.294	-4.17%	-0.343
2009	1	5,904.093	6,549.743	-645.650	-10.94%	-0.896
2009	2	5,201.949	5,413.955	-212.006	-4.08%	-0.294
2009	3	5,767.891	6,074.347	-306.456	-5.31%	-0.425
2009	4	5,908.611	5,857.822	50.789	0.86%	0.070
2009	5	5,704.346	5,941.361	-237.015	-4.15%	-0.329
2009	6	8,225.208	7,137.828	1,087.380	13.22%	1.508
2009	7	8,752.395	8,620.567	131.828	1.51%	0.183
2009	8	8,769.913	9,048.443	-278.530	-3.18%	-0.386
2009	9	7,268.484	8,208.437	-939.953	-12.93%	-1.304
2009	10	7,547.472	7,262.476	284.996	3.78%	0.395
2009	11	5,375.916	5,408.855	-32.939	-0.61%	-0.046
2009	12	5,763.485	6,170.099	-406.614	-7.06%	-0.564
2010	1	5,772.109	5,964.137	-192.028	-3.33%	-0.266
2010	2	5,755.410	5,378.809	376.601	6.54%	0.522
2010	3	6,184.276	6,368.639	-184.363	-2.98%	-0.256
2010	4	5,525.995	5,821.802	-295.807	-5.35%	-0.410
2010	5	5,426.347	5,505.735	-79.388	-1.46%	-0.110
2010	6	7,254.918	7,077.361	177.557	2.45%	0.246
2010	7	6,712.465	7,907.085	-1,194.620	-17.80%	-1.657
2010	8	7,545.071	8,939.966	-1,394.895	-18.49%	-1.935
2010	9	7,368.481	7,846.584	-478.103	-6.49%	-0.663
2010	10	5,963.574	6,998.429	-1,034.855	-17.35%	-1.435
2010	11	5,700.973	5,455.640	245.333	4.30%	0.340
2010	12	5,801.809	5,875.026	-73.217	-1.26%	-0.102
2011	1	6,454.082	6,405.690	48.392	0.75%	0.067

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2011	2	5,272.893	5,477.674	-204.781	-3.88%	-0.284
2011	3	6,154.114	6,284.174	-130.060	-2.11%	-0.180
2011	4	5,746.992	5,365.556	381.436	6.64%	0.529
2011	5	6,021.028	4,943.825	1,077.203	17.89%	1.494
2011	6	5,907.685	6,028.852	-121.167	-2.05%	-0.168
2011	7	6,754.495	6,423.830	330.665	4.90%	0.459
2011	8	7,283.789	8,043.697	-759.908	-10.43%	-1.054
2011	9	7,233.142	6,630.010	603.132	8.34%	0.837
2011	10	6,967.809	5,858.257	1,109.552	15.92%	1.539
2011	11	5,379.389	4,608.435	770.954	14.33%	1.069
2011	12	5,033.012	4,585.290	447.722	8.90%	0.621
2012	1	5,328.588	5,189.441	139.147	2.61%	0.193
2012	2	4,799.214	4,435.264	363.950	7.58%	0.505
2012	3	4,706.284	4,782.428	-76.144	-1.62%	-0.106
2012	4	4,329.705	4,606.938	-277.233	-6.40%	-0.385
2012	5	5,209.702	5,389.414	-179.712	-3.45%	-0.249
2012	6	5,846.341	5,847.111	-0.770	-0.01%	-0.001
2012	7	7,385.460	7,047.347	338.113	4.58%	0.469
2012	8	8,270.228	8,730.991	-460.763	-5.57%	-0.639
2012	9	7,529.852	6,572.965	956.887	12.71%	1.327
2012	10	7,577.162	6,998.354	578.808	7.64%	0.803
2012	11	4,906.583	4,867.147	39.437	0.80%	0.055
2012	12	4,933.062	4,383.851	549.211	11.13%	0.762
2013	1	5,283.695	5,873.643	-589.948	-11.17%	-0.818
2013	2	4,781.849	4,295.631	486.218	10.17%	0.674
2013	3	5,317.398	4,479.724	837.674	15.75%	1.162
2013	4	5,150.923	5,440.010	-289.087	-5.61%	-0.401
2013	5	5,130.985	5,218.306	-87.321	-1.70%	-0.121
2013	6	4,904.890	5,469.157	-564.267	-11.50%	-0.783
2013	7	6,046.994	7,131.733	-1,084.739	-17.94%	-1.505
2013	8	7,778.826	8,003.229	-224.403	-2.88%	-0.311
2013	9	8,177.335	6,980.073	1,197.262	14.64%	1.661
2013	10	7,444.261	6,999.863	444.398	5.97%	0.616
2013	11	4,646.212	4,389.470	256.742	5.53%	0.356
2013	12	4,815.782	5,207.032	-391.250	-8.12%	-0.543
2014	1	5,725.575	5,994.609	-269.034	-4.70%	-0.373
2014	2	4,878.774	4,550.868	327.906	6.72%	0.455
2014	3	5,722.949	5,317.338	405.611	7.09%	0.563
2014	4	4,938.672	5,326.958	-388.286	-7.86%	-0.539
2014	5	4,913.665	5,221.287	-307.622	-6.26%	-0.427
2014	6	5,353.353	6,044.135	-690.782	-12.90%	-0.958
2014	7	6,065.070	7,383.356	-1,318.286	-21.74%	-1.828
2014	8	6,762.896	7,914.509	-1,151.613	-17.03%	-1.597
2014	9	7,185.102	7,298.301	-113.199	-1.58%	-0.157
2014	10	5,790.667	6,937.053	-1,146.386	-19.80%	-1.590
2014	11	4,266.707	3,923.756	342.951	8.04%	0.476
2014	12	5,118.007	5,538.446	-420.439	-8.21%	-0.583
2015	1	5,334.107	5,534.790	-200.683	-3.76%	-0.278
2015	2	4,742.561	4,463.517	279.044	5.88%	0.387
2015	3	5,260.980	5,486.144	-225.164	-4.28%	-0.312
2015	4	4,513.529	5,079.221	-565.692	-12.53%	-0.785
2015	5	4,493.071	4,765.536	-272.465	-6.06%	-0.378

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	6		6,257.464			
2015	7		7,446.129			
2015	8		8,142.977			
2015	9		7,403.460			
2015	10		6,593.894			
2015	11		4,497.424			
2015	12		5,354.707			
2016	1		5,268.695			
2016	2		4,790.239			
2016	3		5,640.189			
2016	4		4,779.255			
2016	5		5,148.761			
2016	6		6,282.550			
2016	7		6,749.312			
2016	8		8,731.368			
2016	9		7,371.448			
2016	10		6,236.258			
2016	11		4,814.329			
2016	12		4,893.256			
2017	1		5,576.518			
2017	2		4,361.798			
2017	3		5,633.572			
2017	4		4,425.896			
2017	5		5,417.242			
2017	6		6,225.327			
2017	7		6,724.332			
2017	8		8,664.925			
2017	9		7,021.386			
2017	10		6,497.461			
2017	11		4,791.894			
2017	12		4,481.892			
2018	1		5,881.675			
2018	2		4,330.650			
2018	3		5,276.640			
2018	4		4,711.762			
2018	5		5,366.778			
2018	6		5,870.109			
2018	7		7,011.889			
2018	8		8,605.600			
2018	9		6,678.340			
2018	10		6,765.582			
2018	11		4,776.280			
2018	12		4,466.795			
2019	1		5,456.490			
2019	2		4,316.567			
2019	3		5,241.996			
2019	4		4,961.868			
2019	5		4,732.999			
2019	6		6,152.757			
2019	7		7,273.949			
2019	8		7,973.227			
2019	9		7,236.106			

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 MWh Electric Sales

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2019	10		6,428.902			
2019	11		4,334.761			
2019	12		5,194.340			
2020	1		5,110.591			
2020	2		4,634.367			
2020	3		5,486.517			
2020	4		4,627.752			
2020	5		4,999.396			
2020	6		6,135.294			
2020	7		6,604.134			
2020	8		8,588.239			
2020	9		7,230.340			
2020	10		6,097.141			
2020	11		4,677.176			
2020	12		4,758.039			

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 Customer Counts

Variable	Coefficient	StdErr	T-Stat	P-Value	Definition
MSP.HH_MSP	652.721	24.988	26.122	0.00%	Households, Minneapolis-St. Paul MSA, 000's
Binary.CRS	9339.475	1172.089	7.968	0.00%	Binary variable for CRS conversion
Binary.Jan	205018.192	31951.332	6.417	0.00%	Binary variable January
Binary.Feb	205714.957	31927.365	6.443	0.00%	Binary variable February
Binary.Mar	205759.162	31927.280	6.445	0.00%	Binary variable March
Binary.Apr	204906.372	31929.124	6.418	0.00%	Binary variable April
Binary.May	204023.838	31932.761	6.389	0.00%	Binary variable May
Binary.Jun	202773.330	31932.128	6.350	0.00%	Binary variable June
Binary.Jul	202351.139	31931.331	6.337	0.00%	Binary variable July
Binary.Aug	203130.298	31932.824	6.361	0.00%	Binary variable August
Binary.Sep	202993.755	31933.434	6.357	0.00%	Binary variable September
Binary.Oct	204320.994	31935.799	6.398	0.00%	Binary variable October
Binary.Nov	203978.522	31939.803	6.386	0.00%	Binary variable November
Binary.Dec	204251.753	31946.013	6.394	0.00%	Binary variable December
Binary2.May1999	-10200.019	974.341	-10.469	0.00%	Binary variable May 1999
Binary2.Jun1999	14943.930	952.761	15.685	0.00%	Binary variable June 1999
AR(1)	0.935	0.027	34.314	0.00%	First order autoregressive term
MA(1)	0.257	0.076	3.382	0.09%	First order moving average term

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 Customer Counts

Model Statistics	
Iterations	20
Adjusted Observations	208
Deg. of Freedom for Error	190
R-Squared	0.999
Adjusted R-Squared	0.999
AIC	14.159
BIC	14.448
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-1,749.65
Model Sum of Squares	344,582,311,844.94
Sum of Squared Errors	246,587,091.98
Mean Squared Error	1,297,826.80
Std. Error of Regression	1,139.22
Mean Abs. Dev. (MAD)	771.97
Mean Abs. % Err. (MAPE)	0.08%
Durbin-Watson Statistic	2.011
Durbin-H Statistic	#NA
Ljung-Box Statistic	43.38
Prob (Ljung-Box)	0.0090
Skewness	-0.650
Kurtosis	6.609
Jarque-Bera	127.518
Prob (Jarque-Bera)	0.0000

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
1998	1	945,082.000					
1998	2	948,193.000	946,469.482	1,723.518	0.18%	1.513	
1998	3	944,190.000	949,425.701	-5,235.701	-0.55%	-4.596	
1998	4	942,439.000	943,060.832	-621.832	-0.07%	-0.546	
1998	5	941,766.000	942,587.760	-821.760	-0.09%	-0.721	
1998	6	942,388.000	942,696.381	-308.381	-0.03%	-0.271	
1998	7	942,862.000	944,293.308	-1,431.308	-0.15%	-1.256	
1998	8	945,822.000	945,757.987	64.013	0.01%	0.056	
1998	9	945,142.000	947,063.776	-1,921.776	-0.20%	-1.687	
1998	10	949,428.000	947,435.873	1,992.127	0.21%	1.749	
1998	11	950,677.000	950,929.825	-252.825	-0.03%	-0.222	
1998	12	949,449.000	952,259.263	-2,810.263	-0.30%	-2.467	
1999	1	951,432.000	951,033.700	398.300	0.04%	0.350	
1999	2	957,487.000	953,762.485	3,724.515	0.39%	3.269	
1999	3	959,827.000	959,708.971	118.029	0.01%	0.104	
1999	4	956,378.000	960,140.931	-3,762.931	-0.39%	-3.303	
1999	5	946,334.000	945,700.354	633.646	0.07%	0.556	
1999	6	972,329.000	971,651.024	677.976	0.07%	0.595	
1999	7	958,868.000	958,320.358	547.642	0.06%	0.481	
1999	8	961,057.000	960,906.426	150.574	0.02%	0.132	
1999	9	963,064.000	962,041.910	1,022.090	0.11%	0.897	
1999	10	965,518.000	965,656.508	-138.508	-0.01%	-0.122	
1999	11	964,061.000	966,128.113	-2,067.113	-0.21%	-1.814	
1999	12	965,433.000	964,898.285	534.715	0.06%	0.469	
2000	1	965,679.000	967,419.317	-1,740.317	-0.18%	-1.528	
2000	2	967,204.000	967,102.233	101.767	0.01%	0.089	
2000	3	969,371.000	968,528.829	842.171	0.09%	0.739	
2000	4	968,831.000	969,913.626	-1,082.626	-0.11%	-0.950	
2000	5	970,688.000	968,891.109	1,796.891	0.19%	1.577	
2000	6	971,677.000	971,010.120	666.880	0.07%	0.585	
2000	7	972,065.000	972,453.556	-388.556	-0.04%	-0.341	
2000	8	974,476.000	973,781.675	694.325	0.07%	0.609	
2000	9	976,316.000	975,514.574	801.426	0.08%	0.703	
2000	10	977,533.000	978,780.198	-1,247.198	-0.13%	-1.095	
2000	11	977,639.000	977,870.979	-231.979	-0.02%	-0.204	
2000	12	978,831.000	978,958.464	-127.464	-0.01%	-0.112	
2001	1	981,192.000	980,678.609	513.391	0.05%	0.451	
2001	2	981,327.000	983,098.717	-1,771.717	-0.18%	-1.555	
2001	3	982,512.000	981,986.882	525.118	0.05%	0.461	
2001	4	983,181.000	982,852.261	328.739	0.03%	0.289	
2001	5	982,882.000	983,402.328	-520.328	-0.05%	-0.457	
2001	6	982,354.000	982,487.407	-133.407	-0.01%	-0.117	
2001	7	984,648.000	982,897.506	1,750.494	0.18%	1.537	
2001	8	985,950.000	986,757.542	-807.542	-0.08%	-0.709	

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2001	9	986,723.000	986,511.303	211.697	0.02%	0.186
2001	10	989,747.000	989,008.536	738.464	0.07%	0.648
2001	11	988,980.000	990,445.062	-1,465.062	-0.15%	-1.286
2001	12	989,356.000	989,832.000	-476.000	-0.05%	-0.418
2002	1	992,699.000	991,007.949	1,691.051	0.17%	1.484
2002	2	993,761.000	994,729.432	-968.432	-0.10%	-0.850
2002	3	994,139.000	994,462.960	-323.960	-0.03%	-0.284
2002	4	996,432.000	994,145.184	2,286.816	0.23%	2.007
2002	5	996,286.000	996,931.843	-645.843	-0.06%	-0.567
2002	6	995,615.000	995,652.051	-37.051	-0.00%	-0.033
2002	7	996,639.000	995,984.024	654.976	0.07%	0.575
2002	8	999,753.000	998,348.784	1,404.216	0.14%	1.233
2002	9	1,000,376.000	1,000,645.695	-269.695	-0.03%	-0.237
2002	10	1,002,135.000	1,002,308.056	-173.056	-0.02%	-0.152
2002	11	999,812.000	1,002,450.025	-2,638.025	-0.26%	-2.316
2002	12	1,001,519.000	1,000,308.858	1,210.142	0.12%	1.062
2003	1	1,003,982.000	1,003,462.698	519.302	0.05%	0.456
2003	2	1,006,477.000	1,005,624.316	852.684	0.08%	0.748
2003	3	1,007,632.000	1,007,473.857	158.143	0.02%	0.139
2003	4	1,008,980.000	1,007,536.317	1,443.683	0.14%	1.267
2003	5	1,008,816.000	1,009,097.352	-281.352	-0.03%	-0.247
2003	6	1,009,652.000	1,008,175.104	1,476.896	0.15%	1.296
2003	7	1,010,831.000	1,010,214.258	616.742	0.06%	0.541
2003	8	1,010,692.000	1,012,327.308	-1,635.308	-0.16%	-1.435
2003	9	1,012,355.000	1,010,814.543	1,540.457	0.15%	1.352
2003	10	1,013,734.000	1,014,699.916	-965.916	-0.10%	-0.848
2003	11	1,012,932.000	1,013,819.724	-887.724	-0.09%	-0.779
2003	12	1,014,896.000	1,013,735.594	1,160.406	0.11%	1.019
2004	1	1,018,119.000	1,016,667.843	1,451.157	0.14%	1.274
2004	2	1,020,315.000	1,019,793.860	521.140	0.05%	0.457
2004	3	1,024,677.000	1,021,077.274	3,599.726	0.35%	3.160
2004	4	1,023,633.000	1,025,111.981	-1,478.981	-0.14%	-1.298
2004	5	1,023,368.000	1,022,803.407	564.593	0.06%	0.496
2004	6	1,022,938.000	1,022,723.999	214.001	0.02%	0.188
2004	7	1,023,434.000	1,023,038.701	395.299	0.04%	0.347
2004	8	1,026,214.000	1,024,782.937	1,431.063	0.14%	1.256
2004	9	1,027,101.000	1,026,846.027	254.973	0.02%	0.224
2004	10	1,029,674.000	1,028,887.651	786.349	0.08%	0.690
2004	11	1,030,685.000	1,029,906.687	778.313	0.08%	0.683
2004	12	1,033,628.000	1,031,445.851	2,182.149	0.21%	1.915
2005	1	1,033,990.000	1,035,125.476	-1,135.476	-0.11%	-0.997
2005	2	1,025,002.000	1,025,307.640	-305.640	-0.03%	-0.268
2005	3	1,022,000.000	1,025,402.583	-3,402.583	-0.33%	-2.987
2005	4	1,018,694.000	1,020,969.176	-2,275.176	-0.22%	-1.997

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2005	5	1,017,341.000	1,018,147.426	-806.426	-0.08%	-0.708
2005	6	1,014,105.000	1,016,768.177	-2,663.177	-0.26%	-2.338
2005	7	1,011,764.000	1,014,067.372	-2,303.372	-0.23%	-2.022
2005	8	1,013,218.000	1,013,200.692	17.308	0.00%	0.015
2005	9	1,013,509.000	1,014,348.905	-839.905	-0.08%	-0.737
2005	10	1,016,265.000	1,015,910.151	354.849	0.03%	0.311
2005	11	1,018,625.000	1,017,265.532	1,359.468	0.13%	1.193
2005	12	1,019,653.000	1,020,382.988	-729.988	-0.07%	-0.641
2006	1	1,021,680.000	1,021,372.453	307.547	0.03%	0.270
2006	2	1,023,467.000	1,023,569.725	-102.725	-0.01%	-0.090
2006	3	1,024,912.000	1,024,579.532	332.468	0.03%	0.292
2006	4	1,025,850.000	1,025,203.092	646.908	0.06%	0.568
2006	5	1,027,215.000	1,026,130.327	1,084.673	0.11%	0.952
2006	6	1,026,388.000	1,027,078.650	-690.650	-0.07%	-0.606
2006	7	1,026,530.000	1,026,645.978	-115.978	-0.01%	-0.102
2006	8	1,029,544.000	1,028,150.934	1,393.066	0.14%	1.223
2006	9	1,031,388.000	1,030,543.632	844.368	0.08%	0.741
2006	10	1,034,744.000	1,033,631.403	1,112.597	0.11%	0.977
2006	11	1,036,121.000	1,035,304.773	816.227	0.08%	0.716
2006	12	1,037,212.000	1,037,157.200	54.800	0.01%	0.048
2007	1	1,039,940.000	1,038,542.529	1,397.471	0.13%	1.227
2007	2	1,041,148.000	1,041,468.697	-320.697	-0.03%	-0.282
2007	3	1,042,690.000	1,041,606.952	1,083.048	0.10%	0.951
2007	4	1,043,467.000	1,042,566.356	900.644	0.09%	0.791
2007	5	1,043,404.000	1,043,211.171	192.829	0.02%	0.169
2007	6	1,041,448.000	1,042,833.578	-1,385.578	-0.13%	-1.216
2007	7	1,041,668.000	1,041,412.439	255.561	0.02%	0.224
2007	8	1,042,741.000	1,043,280.795	-539.795	-0.05%	-0.474
2007	9	1,042,952.000	1,043,283.942	-331.942	-0.03%	-0.291
2007	10	1,045,234.000	1,045,056.330	177.670	0.02%	0.156
2007	11	1,045,799.000	1,045,804.183	-5.183	-0.00%	-0.005
2007	12	1,046,598.000	1,046,685.471	-87.471	-0.01%	-0.077
2008	1	1,047,649.000	1,047,971.969	-322.969	-0.03%	-0.283
2008	2	1,048,424.000	1,048,923.927	-499.927	-0.05%	-0.439
2008	3	1,049,090.000	1,049,486.734	-396.734	-0.04%	-0.348
2008	4	1,049,496.000	1,049,320.332	175.668	0.02%	0.154
2008	5	1,048,674.000	1,049,840.288	-1,166.288	-0.11%	-1.024
2008	6	1,047,528.000	1,047,143.686	384.314	0.04%	0.337
2008	7	1,047,716.000	1,047,216.108	499.892	0.05%	0.439
2008	8	1,049,594.000	1,048,593.182	1,000.818	0.10%	0.879
2008	9	1,050,599.000	1,049,609.865	989.135	0.09%	0.868
2008	10	1,051,817.000	1,051,998.839	-181.839	-0.02%	-0.160
2008	11	1,052,371.000	1,051,250.750	1,120.250	0.11%	0.983
2008	12	1,053,353.000	1,052,808.234	544.766	0.05%	0.478

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2009	1	1,053,628.000	1,054,094.250	-466.250	-0.04%	-0.409
2009	2	1,054,098.000	1,054,076.772	21.228	0.00%	0.019
2009	3	1,055,007.000	1,053,849.382	1,157.618	0.11%	1.016
2009	4	1,055,026.000	1,054,090.112	935.888	0.09%	0.822
2009	5	1,053,720.000	1,053,958.112	-238.112	-0.02%	-0.209
2009	6	1,053,488.000	1,052,519.205	968.795	0.09%	0.850
2009	7	1,052,493.000	1,053,386.130	-893.130	-0.08%	-0.784
2009	8	1,052,833.000	1,053,177.345	-344.345	-0.03%	-0.302
2009	9	1,052,577.000	1,052,761.524	-184.524	-0.02%	-0.162
2009	10	1,053,864.000	1,054,042.446	-178.446	-0.02%	-0.157
2009	11	1,054,270.000	1,053,688.129	581.871	0.06%	0.511
2009	12	1,054,905.000	1,054,741.108	163.892	0.02%	0.144
2010	1	1,055,616.000	1,055,753.157	-137.157	-0.01%	-0.120
2010	2	1,056,628.000	1,056,335.696	292.304	0.03%	0.257
2010	3	1,058,391.000	1,057,059.785	1,331.215	0.13%	1.169
2010	4	1,058,092.000	1,058,112.823	-20.823	-0.00%	-0.018
2010	5	1,057,846.000	1,057,431.955	414.045	0.04%	0.363
2010	6	1,057,609.000	1,056,999.149	609.851	0.06%	0.535
2010	7	1,057,335.000	1,057,611.789	-276.789	-0.03%	-0.243
2010	8	1,058,130.000	1,058,338.464	-208.464	-0.02%	-0.183
2010	9	1,058,379.000	1,058,269.260	109.740	0.01%	0.096
2010	10	1,059,587.000	1,060,075.778	-488.778	-0.05%	-0.429
2010	11	1,060,949.000	1,059,504.882	1,444.118	0.14%	1.268
2010	12	1,061,459.000	1,061,903.341	-444.341	-0.04%	-0.390
2011	1	1,062,226.000	1,062,441.957	-215.957	-0.02%	-0.190
2011	2	1,062,713.000	1,063,234.925	-521.925	-0.05%	-0.458
2011	3	1,063,276.000	1,063,039.002	236.998	0.02%	0.208
2011	4	1,063,452.000	1,062,903.157	548.843	0.05%	0.482
2011	5	1,063,018.000	1,063,099.157	-81.157	-0.01%	-0.071
2011	6	1,062,311.000	1,062,404.242	-93.242	-0.01%	-0.082
2011	7	1,062,261.000	1,062,540.783	-279.783	-0.03%	-0.246
2011	8	1,063,631.000	1,063,673.661	-42.661	-0.00%	-0.037
2011	9	1,063,112.000	1,064,204.456	-1,092.456	-0.10%	-0.959
2011	10	1,064,134.000	1,064,957.957	-823.957	-0.08%	-0.723
2011	11	1,064,629.000	1,064,453.193	175.807	0.02%	0.154
2011	12	1,065,320.000	1,065,820.577	-500.577	-0.05%	-0.439
2012	1	1,065,730.000	1,066,857.298	-1,127.298	-0.11%	-0.990
2012	2	1,066,405.000	1,067,113.541	-708.541	-0.07%	-0.622
2012	3	1,067,202.000	1,067,299.271	-97.271	-0.01%	-0.085
2012	4	1,067,043.000	1,067,361.286	-318.286	-0.03%	-0.279
2012	5	1,066,991.000	1,067,124.214	-133.214	-0.01%	-0.117
2012	6	1,066,314.000	1,066,461.989	-147.989	-0.01%	-0.130
2012	7	1,066,609.000	1,066,606.992	2.008	0.00%	0.002
2012	8	1,067,107.000	1,068,130.039	-1,023.039	-0.10%	-0.898

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2012	9	1,066,833.000	1,067,500.930	-667.930	-0.06%	-0.586	
2012	10	1,068,688.000	1,068,826.014	-138.014	-0.01%	-0.121	
2012	11	1,069,163.000	1,069,148.099	14.901	0.00%	0.013	
2012	12	1,069,600.000	1,070,258.660	-658.660	-0.06%	-0.578	
2013	1	1,070,545.000	1,071,039.673	-494.673	-0.05%	-0.434	
2013	2	1,071,164.000	1,071,980.387	-816.387	-0.08%	-0.717	
2013	3	1,071,593.000	1,071,903.013	-310.013	-0.03%	-0.272	
2013	4	1,072,473.000	1,071,574.975	898.025	0.08%	0.788	
2013	5	1,072,390.000	1,072,657.629	-267.629	-0.02%	-0.235	
2013	6	1,071,924.000	1,071,672.816	251.184	0.02%	0.220	
2013	7	1,072,908.000	1,072,138.009	769.991	0.07%	0.676	
2013	8	1,073,926.000	1,074,385.585	-459.585	-0.04%	-0.403	
2013	9	1,074,232.000	1,074,211.192	20.808	0.00%	0.018	
2013	10	1,075,509.000	1,076,098.592	-589.592	-0.05%	-0.518	
2013	11	1,076,452.000	1,075,574.995	877.005	0.08%	0.770	
2013	12	1,077,648.000	1,077,863.411	-215.411	-0.02%	-0.189	
2014	1	1,078,564.000	1,079,261.090	-697.090	-0.06%	-0.612	
2014	2	1,079,061.000	1,080,023.623	-962.623	-0.09%	-0.845	
2014	3	1,079,956.000	1,079,656.371	299.629	0.03%	0.263	
2014	4	1,080,271.000	1,079,960.056	310.944	0.03%	0.273	
2014	5	1,080,714.000	1,080,208.325	505.675	0.05%	0.444	
2014	6	1,080,566.000	1,080,356.422	209.578	0.02%	0.184	
2014	7	1,081,126.000	1,080,929.689	196.311	0.02%	0.172	
2014	8	1,081,570.000	1,082,664.645	-1,094.645	-0.10%	-0.961	
2014	9	1,081,318.000	1,081,804.466	-486.466	-0.04%	-0.427	
2014	10	1,082,977.000	1,083,213.753	-236.753	-0.02%	-0.208	
2014	11	1,083,659.000	1,083,279.051	379.949	0.04%	0.334	
2014	12	1,084,975.000	1,084,775.695	199.305	0.02%	0.175	
2015	1	1,085,784.000	1,086,508.489	-724.489	-0.07%	-0.636	
2015	2	1,086,787.000	1,087,045.544	-258.544	-0.02%	-0.227	
2015	3	1,087,599.000	1,087,516.901	82.099	0.01%	0.072	
2015	4	1,088,591.000	1,087,506.503	1,084.497	0.10%	0.952	
2015	5	1,088,413.000	1,088,643.245	-230.245	-0.02%	-0.202	Rounded
2015	6		1,087,769.200				1,087,769
2015	7		1,088,011.693				1,088,012
2015	8		1,089,450.464				1,089,450
2015	9		1,090,030.107				1,090,030
2015	10		1,092,069.102				1,092,069
2015	11		1,092,434.246				1,092,434
2015	12		1,093,386.827				1,093,387
2016	1		1,094,828.999				1,094,829
2016	2		1,096,198.116				1,096,198
2016	3		1,096,941.873				1,096,942
2016	4		1,096,785.682				1,096,786

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2016	5		1,096,596.988				1,096,597
2016	6		1,095,966.929				1,095,967
2016	7		1,096,162.777				1,096,163
2016	8		1,097,557.722				1,097,558
2016	9		1,098,021.547				1,098,022
2016	10		1,099,947.186				1,099,947
2016	11		1,100,201.276				1,100,201
2016	12		1,101,084.845				1,101,085
2017	1		1,102,460.016				1,102,460
2017	2		1,103,764.010				1,103,764
2017	3		1,104,357.096				1,104,357
2017	4		1,104,051.875				1,104,052
2017	5		1,103,715.685				1,103,716
2017	6		1,103,039.875				1,103,040
2017	7		1,103,191.311				1,103,191
2017	8		1,104,543.097				1,104,543
2017	9		1,105,034.959				1,105,035
2017	10		1,106,989.729				1,106,990
2017	11		1,107,273.972				1,107,274
2017	12		1,108,109.237				1,108,109
2018	1		1,109,436.997				1,109,437
2018	2		1,110,694.415				1,110,694
2018	3		1,111,380.868				1,111,381
2018	4		1,111,169.744				1,111,170
2018	5		1,110,928.331				1,110,928
2018	6		1,110,267.411				1,110,267
2018	7		1,110,434.332				1,110,434
2018	8		1,111,802.158				1,111,802
2018	9		1,112,258.689				1,112,259
2018	10		1,114,178.612				1,114,179
2018	11		1,114,428.463				1,114,428
2018	12		1,115,358.039				1,115,358
2019	1		1,116,780.505				1,116,781
2019	2		1,118,133.001				1,118,133
2019	3		1,118,833.433				1,118,833
2019	4		1,118,636.612				1,118,637
2019	5		1,118,409.805				1,118,410
2019	6		1,117,858.591				1,117,859
2019	7		1,118,135.483				1,118,135
2019	8		1,119,613.528				1,119,614
2019	9		1,120,169.309				1,120,169
2019	10		1,122,188.699				1,122,189
2019	11		1,122,538.218				1,122,538
2019	12		1,123,505.902				1,123,506

Xcel Energy Minnesota Residential without Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2020	1		1,124,966.653				1,124,967
2020	2		1,126,357.598				1,126,358
2020	3		1,127,096.615				1,127,097
2020	4		1,126,938.522				1,126,939
2020	5		1,126,750.578				1,126,751
2020	6		1,126,120.178				1,126,120
2020	7		1,126,318.002				1,126,318
2020	8		1,127,717.088				1,127,717
2020	9		1,128,159.714				1,128,160
2020	10		1,130,066.046				1,130,066
2020	11		1,130,302.595				1,130,303
2020	12		1,131,160.034				1,131,160

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 Customer Counts

Variable	Coefficient	StdErr	T-Stat	P-Value	Definition
CONST	-37789.73	15468.5	-2.44301	1.54%	Constant term
MN.HH_MN	32.461	7.295	4.450	0.00%	Households, Minnesota, 000's
Binary.CRS	1130.245	94.187	12.000	0.00%	Binary variable for CRS conversion
Binary2.Jun1999	422.394	66.143	6.386	0.00%	Binary February 2005
Binary2.Mar2005	799.440	81.406	9.820	0.00%	Binary March 2005
Binary2.Apr2005	677.954	93.658	7.239	0.00%	Binary April 2005
Binary2.May2005	228.432	81.443	2.805	0.55%	Binary June 1999
AR(1)	0.980	0.007	142.535	0.00%	First order autoregressive term
SMA(1)	0.239	0.075	3.194	0.16%	First order seasonal moving average term

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 Customer Counts

Model Statistics	
Iterations	43
Adjusted Observations	208
Deg. of Freedom for Error	199
R-Squared	0.996
Adjusted R-Squared	0.996
AIC	9.163
BIC	9.307
F-Statistic	6979.012477
Prob (F-Statistic)	0
Log-Likelihood	-1,239.04
Model Sum of Squares	510,198,561.73
Sum of Squared Errors	1,818,479.23
Mean Squared Error	9,138.09
Std. Error of Regression	95.59
Mean Abs. Dev. (MAD)	72.54
Mean Abs. % Err. (MAPE)	0.25%
Durbin-Watson Statistic	1.864
Durbin-H Statistic	#NA
Ljung-Box Statistic	48.53
Prob (Ljung-Box)	0.0022
Skewness	-0.122
Kurtosis	4.688
Jarque-Bera	25.219
Prob (Jarque-Bera)	0.0000

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
1998	1	27,923.000					
1998	2	28,028.000	27,870.923	157.077	0.56%	1.643	
1998	3	27,808.000	27,989.957	-181.957	-0.65%	-1.903	
1998	4	27,776.000	27,775.683	0.317	0.00%	0.003	
1998	5	27,710.000	27,745.600	-35.600	-0.13%	-0.372	
1998	6	27,703.000	27,760.656	-57.656	-0.21%	-0.603	
1998	7	27,696.000	27,756.656	-60.656	-0.22%	-0.635	
1998	8	27,708.000	27,752.656	-44.656	-0.16%	-0.467	
1998	9	27,827.000	27,695.143	131.857	0.47%	1.379	
1998	10	27,814.000	27,813.129	0.871	0.00%	0.009	
1998	11	27,699.000	27,801.789	-102.789	-0.37%	-1.075	
1998	12	27,670.000	27,698.909	-28.909	-0.10%	-0.302	
1999	1	27,757.000	27,672.064	84.936	0.31%	0.889	
1999	2	28,047.000	27,796.384	250.616	0.89%	2.622	
1999	3	28,101.000	27,994.005	106.995	0.38%	1.119	
1999	4	27,679.000	28,091.868	-412.868	-1.49%	-4.319	
1999	5	27,570.000	27,671.263	-101.263	-0.37%	-1.059	
1999	6	28,132.000	27,973.894	158.106	0.56%	1.654	
1999	7	27,843.000	27,688.799	154.201	0.55%	1.613	
1999	8	27,697.000	27,824.549	-127.549	-0.46%	-1.334	
1999	9	27,746.000	27,724.712	21.288	0.08%	0.223	
1999	10	27,875.000	27,742.668	132.332	0.47%	1.384	
1999	11	27,740.000	27,845.529	-105.529	-0.38%	-1.104	
1999	12	27,904.000	27,731.952	172.048	0.62%	1.800	
2000	1	27,775.000	27,921.050	-146.050	-0.53%	-1.528	
2000	2	27,741.000	27,835.466	-94.466	-0.34%	-0.988	
2000	3	27,878.000	27,769.385	108.615	0.39%	1.136	
2000	4	27,847.000	27,780.678	66.322	0.24%	0.694	
2000	5	27,747.000	27,825.968	-78.968	-0.28%	-0.826	
2000	6	27,732.000	27,791.362	-59.362	-0.21%	-0.621	
2000	7	27,708.000	27,776.973	-68.973	-0.25%	-0.722	
2000	8	27,644.000	27,687.405	-43.405	-0.16%	-0.454	
2000	9	27,784.000	27,661.670	122.330	0.44%	1.280	
2000	10	27,757.000	27,826.599	-69.599	-0.25%	-0.728	
2000	11	27,673.000	27,744.578	-71.578	-0.26%	-0.749	
2000	12	27,782.000	27,730.008	51.992	0.19%	0.544	
2001	1	27,925.000	27,762.070	162.930	0.58%	1.704	
2001	2	27,863.000	27,915.741	-52.741	-0.19%	-0.552	
2001	3	27,939.000	27,904.930	34.070	0.12%	0.356	
2001	4	28,003.000	27,970.539	32.461	0.12%	0.340	
2001	5	27,871.000	27,999.792	-128.792	-0.46%	-1.347	
2001	6	27,791.000	27,876.586	-85.586	-0.31%	-0.895	
2001	7	27,832.000	27,797.166	34.834	0.13%	0.364	
2001	8	27,717.000	27,844.697	-127.697	-0.46%	-1.336	

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2001	9	27,992.000	27,773.051	218.949	0.78%	2.290	
2001	10	27,958.000	27,997.896	-39.896	-0.14%	-0.417	
2001	11	27,887.000	27,965.371	-78.371	-0.28%	-0.820	
2001	12	27,846.000	27,926.765	-80.765	-0.29%	-0.845	
2002	1	28,009.000	27,914.355	94.645	0.34%	0.990	
2002	2	28,059.000	28,023.803	35.197	0.13%	0.368	
2002	3	28,097.000	28,094.972	2.028	0.01%	0.021	
2002	4	28,258.000	28,133.084	124.916	0.44%	1.307	
2002	5	28,162.000	28,253.573	-91.573	-0.33%	-0.958	
2002	6	28,053.000	28,171.291	-118.291	-0.42%	-1.237	
2002	7	28,084.000	28,094.530	-10.530	-0.04%	-0.110	
2002	8	28,092.000	28,087.353	4.647	0.02%	0.049	
2002	9	28,140.000	28,179.443	-39.443	-0.14%	-0.413	
2002	10	28,150.000	28,165.920	-15.920	-0.06%	-0.167	
2002	11	27,963.000	28,167.801	-204.801	-0.73%	-2.142	
2002	12	28,115.000	27,985.476	129.524	0.46%	1.355	
2003	1	28,200.000	28,177.569	22.431	0.08%	0.235	
2003	2	28,327.000	28,247.926	79.074	0.28%	0.827	
2003	3	28,380.000	28,365.896	14.104	0.05%	0.148	
2003	4	28,379.000	28,448.455	-69.455	-0.24%	-0.727	
2003	5	28,339.000	28,397.049	-58.049	-0.20%	-0.607	
2003	6	28,336.000	28,352.947	-16.947	-0.06%	-0.177	
2003	7	28,280.000	28,377.030	-97.030	-0.34%	-1.015	
2003	8	28,147.000	28,327.075	-180.075	-0.64%	-1.884	
2003	9	28,335.000	28,187.713	147.287	0.52%	1.541	
2003	10	28,345.000	28,378.811	-33.811	-0.12%	-0.354	
2003	11	28,328.000	28,344.784	-16.784	-0.06%	-0.176	
2003	12	28,335.000	28,409.457	-74.457	-0.26%	-0.779	
2004	1	28,423.000	28,392.029	30.971	0.11%	0.324	
2004	2	28,620.000	28,493.067	126.933	0.44%	1.328	
2004	3	28,730.000	28,672.043	57.957	0.20%	0.606	
2004	4	28,644.000	28,761.153	-117.153	-0.41%	-1.226	
2004	5	28,664.000	28,680.916	-16.916	-0.06%	-0.177	
2004	6	28,546.000	28,711.814	-165.814	-0.58%	-1.735	
2004	7	28,416.000	28,578.377	-162.377	-0.57%	-1.699	
2004	8	28,643.000	28,432.477	210.523	0.73%	2.202	
2004	9	28,481.000	28,734.556	-253.556	-0.89%	-2.652	
2004	10	28,634.000	28,533.889	100.111	0.35%	1.047	
2004	11	28,503.000	28,689.160	-186.160	-0.65%	-1.947	
2004	12	28,509.000	28,548.535	-39.535	-0.14%	-0.414	
2005	1	28,663.000	28,580.902	82.098	0.29%	0.859	
2005	2	27,602.000	27,625.765	-23.765	-0.09%	-0.249	
2005	3	28,508.000	28,478.074	29.926	0.10%	0.313	
2005	4	28,457.000	28,420.476	36.524	0.13%	0.382	

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2005	5	28,094.000	28,065.265	28.735	0.10%	0.301	
2005	6	27,904.000	27,880.822	23.178	0.08%	0.242	
2005	7	27,789.000	27,920.477	-131.477	-0.47%	-1.375	
2005	8	27,773.000	27,898.051	-125.051	-0.45%	-1.308	
2005	9	27,715.000	27,772.868	-57.868	-0.21%	-0.605	
2005	10	27,793.000	27,801.698	-8.698	-0.03%	-0.091	
2005	11	27,808.000	27,810.926	-2.926	-0.01%	-0.031	
2005	12	27,799.000	27,861.980	-62.980	-0.23%	-0.659	
2006	1	27,816.000	27,883.400	-67.400	-0.24%	-0.705	
2006	2	27,833.000	27,875.957	-42.957	-0.15%	-0.449	
2006	3	27,849.000	27,906.779	-57.779	-0.21%	-0.604	
2006	4	27,878.000	27,925.220	-47.220	-0.17%	-0.494	
2006	5	27,864.000	27,952.961	-88.961	-0.32%	-0.931	
2006	6	27,802.000	27,933.871	-131.871	-0.47%	-1.379	
2006	7	27,773.000	27,837.272	-64.272	-0.23%	-0.672	
2006	8	27,888.000	27,811.477	76.523	0.27%	0.801	
2006	9	27,976.000	27,941.407	34.593	0.12%	0.362	
2006	10	28,073.000	28,040.454	32.546	0.12%	0.340	
2006	11	28,100.000	28,137.953	-37.953	-0.14%	-0.397	
2006	12	28,125.000	28,151.277	-26.277	-0.09%	-0.275	
2007	1	28,221.000	28,175.803	45.197	0.16%	0.473	
2007	2	28,224.000	28,276.785	-52.785	-0.19%	-0.552	
2007	3	28,281.000	28,277.400	3.600	0.01%	0.038	
2007	4	28,290.000	28,336.858	-46.858	-0.17%	-0.490	
2007	5	28,261.000	28,336.797	-75.797	-0.27%	-0.793	
2007	6	28,180.000	28,315.904	-135.904	-0.48%	-1.422	
2007	7	28,139.000	28,254.120	-115.120	-0.41%	-1.204	
2007	8	28,171.000	28,249.007	-78.007	-0.28%	-0.816	
2007	9	28,164.000	28,271.998	-107.998	-0.38%	-1.130	
2007	10	28,222.000	28,266.084	-44.084	-0.16%	-0.461	
2007	11	28,286.000	28,307.504	-21.504	-0.08%	-0.225	
2007	12	28,296.000	28,374.651	-78.651	-0.28%	-0.823	
2008	1	28,344.000	28,402.958	-58.958	-0.21%	-0.617	
2008	2	28,385.000	28,428.021	-43.021	-0.15%	-0.450	
2008	3	28,414.000	28,483.320	-69.320	-0.24%	-0.725	
2008	4	28,446.000	28,501.123	-55.123	-0.19%	-0.577	
2008	5	28,434.000	28,527.005	-93.005	-0.33%	-0.973	
2008	6	28,344.000	28,419.776	-75.776	-0.27%	-0.793	
2008	7	28,401.000	28,336.334	64.666	0.23%	0.676	
2008	8	28,474.000	28,400.813	73.187	0.26%	0.766	
2008	9	28,528.000	28,464.943	63.057	0.22%	0.660	
2008	10	28,656.000	28,532.884	123.116	0.43%	1.288	
2008	11	28,721.000	28,663.453	57.547	0.20%	0.602	
2008	12	28,808.000	28,713.265	94.735	0.33%	0.991	

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2009	1	28,897.000	28,802.976	94.024	0.33%	0.984	
2009	2	28,935.000	28,893.749	41.251	0.14%	0.432	
2009	3	28,980.000	28,924.473	55.527	0.19%	0.581	
2009	4	28,997.000	28,971.722	25.278	0.09%	0.264	
2009	5	28,991.000	28,979.100	11.900	0.04%	0.124	
2009	6	28,990.000	29,013.649	-23.649	-0.08%	-0.247	
2009	7	28,950.000	29,046.724	-96.724	-0.33%	-1.012	
2009	8	29,014.000	29,010.080	3.920	0.01%	0.041	
2009	9	29,052.000	29,068.456	-16.456	-0.06%	-0.172	
2009	10	29,085.000	29,120.492	-35.492	-0.12%	-0.371	
2009	11	29,145.000	29,137.624	7.376	0.03%	0.077	
2009	12	29,340.000	29,203.353	136.647	0.47%	1.429	
2010	1	29,377.000	29,394.645	-17.645	-0.06%	-0.185	
2010	2	29,437.000	29,418.703	18.297	0.06%	0.191	
2010	3	29,532.000	29,472.139	59.861	0.20%	0.626	
2010	4	29,576.000	29,558.217	17.783	0.06%	0.186	
2010	5	29,682.000	29,598.357	83.643	0.28%	0.875	
2010	6	29,678.000	29,696.078	-18.078	-0.06%	-0.189	
2010	7	29,608.000	29,674.976	-66.976	-0.23%	-0.701	
2010	8	29,681.000	29,630.703	50.297	0.17%	0.526	
2010	9	29,676.000	29,697.632	-21.632	-0.07%	-0.226	
2010	10	29,738.000	29,688.457	49.543	0.17%	0.518	
2010	11	29,820.000	29,759.710	60.290	0.20%	0.631	
2010	12	29,904.000	29,871.191	32.809	0.11%	0.343	
2011	1	29,966.000	29,916.908	49.092	0.16%	0.514	
2011	2	30,095.000	29,986.506	108.494	0.36%	1.135	
2011	3	30,204.000	30,123.090	80.910	0.27%	0.846	
2011	4	30,226.000	30,220.101	5.899	0.02%	0.062	
2011	5	30,278.000	30,257.656	20.344	0.07%	0.213	
2011	6	30,218.000	30,313.076	-95.076	-0.31%	-0.995	
2011	7	30,233.000	30,243.460	-10.460	-0.03%	-0.109	
2011	8	30,339.000	30,287.014	51.986	0.17%	0.544	
2011	9	30,306.000	30,374.534	-68.534	-0.23%	-0.717	
2011	10	30,392.000	30,360.050	31.950	0.11%	0.334	
2011	11	30,441.000	30,447.722	-6.722	-0.02%	-0.070	
2011	12	30,492.000	30,490.016	1.984	0.01%	0.021	
2012	1	30,553.000	30,544.720	8.280	0.03%	0.087	
2012	2	30,650.000	30,619.519	30.481	0.10%	0.319	
2012	3	30,903.000	30,708.810	194.190	0.63%	2.031	
2012	4	30,947.000	30,939.615	7.385	0.02%	0.077	
2012	5	31,046.000	30,987.022	58.978	0.19%	0.617	
2012	6	31,089.000	31,037.101	51.899	0.17%	0.543	
2012	7	31,072.000	31,099.878	-27.878	-0.09%	-0.292	
2012	8	31,101.000	31,098.576	2.424	0.01%	0.025	

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2012	9	31,194.000	31,098.641	95.359	0.31%	0.998	
2012	10	31,257.000	31,214.195	42.805	0.14%	0.448	
2012	11	31,279.000	31,267.121	11.879	0.04%	0.124	
2012	12	31,322.000	31,291.193	30.807	0.10%	0.322	
2013	1	31,365.000	31,335.264	29.736	0.09%	0.311	
2013	2	31,473.000	31,383.134	89.866	0.29%	0.940	
2013	3	31,718.000	31,528.485	189.515	0.60%	1.983	
2013	4	31,792.000	31,724.342	67.658	0.21%	0.708	
2013	5	31,759.000	31,809.604	-50.604	-0.16%	-0.529	
2013	6	31,708.000	31,777.615	-69.615	-0.22%	-0.728	
2013	7	31,760.000	31,709.065	50.935	0.16%	0.533	
2013	8	31,834.000	31,767.720	66.280	0.21%	0.693	
2013	9	31,828.000	31,864.571	-36.571	-0.11%	-0.383	
2013	10	31,901.000	31,846.645	54.355	0.17%	0.569	
2013	11	31,951.000	31,911.284	39.716	0.12%	0.415	
2013	12	31,998.000	31,967.002	30.998	0.10%	0.324	
2014	1	32,079.000	32,013.333	65.667	0.20%	0.687	
2014	2	32,135.000	32,107.593	27.407	0.09%	0.287	
2014	3	32,145.000	32,188.517	-43.517	-0.14%	-0.455	
2014	4	32,229.000	32,169.783	59.217	0.18%	0.619	
2014	5	32,313.000	32,224.409	88.591	0.27%	0.927	
2014	6	32,259.000	32,304.524	-45.524	-0.14%	-0.476	
2014	7	32,275.000	32,281.021	-6.021	-0.02%	-0.063	
2014	8	32,375.000	32,300.972	74.028	0.23%	0.774	
2014	9	32,318.000	32,387.042	-69.042	-0.21%	-0.722	
2014	10	32,456.000	32,353.768	102.232	0.31%	1.069	
2014	11	32,805.000	32,486.330	318.670	0.97%	3.334	
2014	12	32,896.000	32,836.333	59.667	0.18%	0.624	
2015	1	33,107.000	32,934.813	172.187	0.52%	1.801	
2015	2	33,206.000	33,133.443	72.557	0.22%	0.759	
2015	3	33,238.000	33,220.700	17.300	0.05%	0.181	
2015	4	33,262.000	33,277.757	-15.757	-0.05%	-0.165	
2015	5	33,210.000	33,309.455	-99.455	-0.30%	-1.040	Rounded
2015	6		33,226.477				33,226
2015	7		33,253.200				33,253
2015	8		33,299.644				33,300
2015	9		33,312.635				33,313
2015	10		33,367.424				33,367
2015	11		33,473.953				33,474
2015	12		33,513.826				33,514
2016	1		33,580.844				33,581
2016	2		33,623.787				33,624
2016	3		33,659.320				33,659
2016	4		33,687.428				33,687

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2016	5		33,696.168				33,696
2016	6		33,737.773				33,738
2016	7		33,779.889				33,780
2016	8		33,822.508				33,823
2016	9		33,877.599				33,878
2016	10		33,933.172				33,933
2016	11		33,989.217				33,989
2016	12		34,029.640				34,030
2017	1		34,070.516				34,071
2017	2		34,111.836				34,112
2017	3		34,152.313				34,152
2017	4		34,193.216				34,193
2017	5		34,234.536				34,235
2017	6		34,274.810				34,275
2017	7		34,315.483				34,315
2017	8		34,356.549				34,357
2017	9		34,402.605				34,403
2017	10		34,449.037				34,449
2017	11		34,495.838				34,496
2017	12		34,539.464				34,539
2018	1		34,583.443				34,583
2018	2		34,627.770				34,628
2018	3		34,676.174				34,676
2018	4		34,724.910				34,725
2018	5		34,773.972				34,774
2018	6		34,821.039				34,821
2018	7		34,868.419				34,868
2018	8		34,916.105				34,916
2018	9		34,958.235				34,958
2018	10		35,000.659				35,001
2018	11		35,043.371				35,043
2018	12		35,085.102				35,085
2019	1		35,127.110				35,127
2019	2		35,169.389				35,169
2019	3		35,213.449				35,213
2019	4		35,257.770				35,258
2019	5		35,302.346				35,302
2019	6		35,351.857				35,352
2019	7		35,401.614				35,402
2019	8		35,451.610				35,452
2019	9		35,501.090				35,501
2019	10		35,550.800				35,551
2019	11		35,600.736				35,601
2019	12		35,651.619				35,652

Xcel Energy Minnesota Residential with Space Heat
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2020	1		35,702.719				35,703
2020	2		35,754.031				35,754
2020	3		35,805.836				35,806
2020	4		35,857.844				35,858
2020	5		35,910.053				35,910
2020	6		35,956.261				35,956
2020	7		36,002.661				36,003
2020	8		36,049.248				36,049
2020	9		36,092.884				36,093
2020	10		36,136.699				36,137
2020	11		36,180.691				36,181
2020	12		36,220.001				36,220

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 Customer Counts

Variable	Coefficient	StdErr	T-Stat	P-Value	Definition
MNSmCICusts.MNResCusts	0.118	0.001	115.656	0.00%	MN Total Residential Customers (MNRXCusts+MNRHCusts)
Binary.CIReclass01Pre	-7737.363	305.010	-25.368	0.00%	Binary variable for 2001 C&I reclassification
Binary.CRS2	-1786.467	293.581	-6.085	0.00%	Binary variable for CRS conversion
Binary2.Jan2000	-1347.052	265.820	-5.068	0.00%	Binary variable January 2000
Binary2.May1998	-837.056	248.382	-3.370	0.09%	Binary variable May 1998
BinaryTrans.May09	-579.793	246.879	-2.348	1.98%	Binary variable May 2009
AR(1)	0.661	0.066	10.023	0.00%	First order autoregressive term
AR(2)	0.310	0.066	4.716	0.00%	Second order autoregressive term
SMA(1)	0.271	0.073	3.690	0.03%	First order seasonal moving average term

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 Customer Counts

Model Statistics	
Iterations	19
Adjusted Observations	207
Deg. of Freedom for Error	198
R-Squared	0.998
Adjusted R-Squared	0.998
AIC	11.573
BIC	11.718
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-1,482.52
Model Sum of Squares	13,115,522,380.96
Sum of Squared Errors	20,149,798.34
Mean Squared Error	101,766.66
Std. Error of Regression	319.01
Mean Abs. Dev. (MAD)	206.25
Mean Abs. % Err. (MAPE)	0.18%
Durbin-Watson Statistic	2.117
Durbin-H Statistic	#NA
Ljung-Box Statistic	39.18
Prob (Ljung-Box)	0.0261
Skewness	0.229
Kurtosis	6.049
Jarque-Bera	82.015
Prob (Jarque-Bera)	0.0000

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
1998	1	103,376.000					
1998	2	102,778.000					
1998	3	103,209.000	102,712.736	496.264	0.48%	1.556	
1998	4	103,301.000	102,813.351	487.649	0.47%	1.529	
1998	5	102,050.000	102,376.145	-326.145	-0.32%	-1.022	
1998	6	103,018.000	103,163.077	-145.077	-0.14%	-0.455	
1998	7	103,031.000	103,155.420	-124.420	-0.12%	-0.390	
1998	8	103,564.000	103,495.559	68.441	0.07%	0.215	
1998	9	103,891.000	103,537.627	353.373	0.34%	1.108	
1998	10	103,839.000	104,356.789	-517.789	-0.50%	-1.623	
1998	11	103,715.000	104,245.526	-530.526	-0.51%	-1.663	
1998	12	103,315.000	103,755.711	-440.711	-0.43%	-1.381	
1999	1	103,118.000	103,753.010	-635.010	-0.62%	-1.991	
1999	2	104,956.000	104,130.491	825.509	0.79%	2.588	
1999	3	106,434.000	105,131.151	1,302.849	1.22%	4.084	
1999	4	105,132.000	105,801.644	-669.644	-0.64%	-2.099	
1999	5	103,509.000	104,197.820	-688.820	-0.67%	-2.159	
1999	6	107,041.000	106,826.559	214.441	0.20%	0.672	
1999	7	104,746.000	105,350.510	-604.510	-0.58%	-1.895	
1999	8	105,690.000	105,322.083	367.917	0.35%	1.153	
1999	9	106,162.000	105,896.241	265.759	0.25%	0.833	
1999	10	105,974.000	106,333.930	-359.930	-0.34%	-1.128	
1999	11	106,853.000	105,889.500	963.500	0.90%	3.020	
1999	12	107,118.000	106,646.520	471.480	0.44%	1.478	
2000	1	105,196.000	105,646.560	-450.560	-0.43%	-1.412	
2000	2	106,441.000	107,202.274	-761.274	-0.72%	-2.386	
2000	3	107,258.000	107,237.120	20.880	0.02%	0.065	
2000	4	106,776.000	106,909.761	-133.761	-0.13%	-0.419	
2000	5	107,272.000	107,006.423	265.577	0.25%	0.833	
2000	6	107,484.000	107,428.480	55.520	0.05%	0.174	
2000	7	107,358.000	107,403.219	-45.219	-0.04%	-0.142	
2000	8	108,754.000	107,861.681	892.319	0.82%	2.797	
2000	9	107,649.000	108,754.341	-1,105.341	-1.03%	-3.465	
2000	10	108,512.000	108,187.880	324.120	0.30%	1.016	
2000	11	108,237.000	108,612.323	-375.323	-0.35%	-1.177	
2000	12	107,679.000	108,672.631	-993.631	-0.92%	-3.115	
2001	1	116,158.000	115,898.957	259.043	0.22%	0.812	
2001	2	115,367.000	115,898.271	-531.271	-0.46%	-1.665	
2001	3	116,513.000	115,869.037	643.963	0.55%	2.019	
2001	4	116,456.000	116,324.605	131.395	0.11%	0.412	
2001	5	116,491.000	116,596.603	-105.603	-0.09%	-0.331	
2001	6	116,288.000	116,480.349	-192.349	-0.17%	-0.603	
2001	7	116,698.000	116,667.506	30.494	0.03%	0.096	
2001	8	117,414.000	117,109.973	304.027	0.26%	0.953	

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2001	9	117,054.000	117,114.259	-60.259	-0.05%	-0.189
2001	10	117,032.000	117,712.942	-680.942	-0.58%	-2.135
2001	11	116,968.000	117,028.058	-60.058	-0.05%	-0.188
2001	12	116,720.000	116,806.887	-86.887	-0.07%	-0.272
2002	1	117,958.000	117,379.922	578.078	0.49%	1.812
2002	2	117,497.000	117,752.694	-255.694	-0.22%	-0.802
2002	3	117,547.000	117,985.074	-438.074	-0.37%	-1.373
2002	4	118,980.000	117,952.199	1,027.801	0.86%	3.222
2002	5	118,064.000	118,615.600	-551.600	-0.47%	-1.729
2002	6	117,725.000	118,268.555	-543.555	-0.46%	-1.704
2002	7	117,822.000	118,014.861	-192.861	-0.16%	-0.605
2002	8	118,735.000	118,361.859	373.141	0.31%	1.170
2002	9	118,159.000	118,694.055	-535.055	-0.45%	-1.677
2002	10	118,146.000	118,470.351	-324.351	-0.27%	-1.017
2002	11	118,371.000	117,994.369	376.631	0.32%	1.181
2002	12	118,687.000	118,481.021	205.979	0.17%	0.646
2003	1	119,279.000	119,186.561	92.439	0.08%	0.290
2003	2	119,297.000	119,492.154	-195.154	-0.16%	-0.612
2003	3	119,877.000	119,483.472	393.528	0.33%	1.234
2003	4	120,146.000	120,238.614	-92.614	-0.08%	-0.290
2003	5	119,763.000	119,995.039	-232.039	-0.19%	-0.727
2003	6	119,816.000	119,892.344	-76.344	-0.06%	-0.239
2003	7	119,885.000	119,978.613	-93.613	-0.08%	-0.293
2003	8	119,995.000	120,044.414	-49.414	-0.04%	-0.155
2003	9	120,013.000	120,090.218	-77.218	-0.06%	-0.242
2003	10	119,681.000	120,222.802	-541.802	-0.45%	-1.698
2003	11	120,565.000	119,927.340	637.660	0.53%	1.999
2003	12	120,223.000	120,607.064	-384.064	-0.32%	-1.204
2004	1	120,851.000	120,890.497	-39.497	-0.03%	-0.124
2004	2	120,382.000	121,073.775	-691.775	-0.57%	-2.169
2004	3	121,259.000	121,337.665	-78.665	-0.06%	-0.247
2004	4	121,302.000	121,072.088	229.912	0.19%	0.721
2004	5	121,624.000	121,230.363	393.637	0.32%	1.234
2004	6	121,403.000	121,494.339	-91.339	-0.08%	-0.286
2004	7	121,145.000	121,538.022	-393.022	-0.32%	-1.232
2004	8	121,594.000	121,656.474	-62.474	-0.05%	-0.196
2004	9	121,672.000	121,703.843	-31.843	-0.03%	-0.100
2004	10	121,672.000	121,923.299	-251.299	-0.21%	-0.788
2004	11	122,198.000	122,132.492	65.508	0.05%	0.205
2004	12	122,902.000	122,382.147	519.853	0.42%	1.630
2005	1	122,715.000	122,902.969	-187.969	-0.15%	-0.589
2005	2	119,563.000	119,704.217	-141.217	-0.12%	-0.443
2005	3	119,469.000	119,426.123	42.877	0.04%	0.134
2005	4	119,416.000	119,158.868	257.132	0.22%	0.806

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2005	5	119,270.000	119,274.528	-4.528	-0.00%	-0.014
2005	6	119,241.000	118,882.803	358.197	0.30%	1.123
2005	7	119,421.000	118,776.463	644.537	0.54%	2.020
2005	8	119,636.000	119,460.962	175.038	0.15%	0.549
2005	9	119,406.000	119,672.224	-266.224	-0.22%	-0.835
2005	10	119,554.000	119,790.346	-236.346	-0.20%	-0.741
2005	11	119,756.000	119,953.444	-197.444	-0.16%	-0.619
2005	12	119,935.000	120,087.911	-152.911	-0.13%	-0.479
2006	1	120,005.000	120,151.553	-146.553	-0.12%	-0.459
2006	2	120,179.000	120,282.181	-103.181	-0.09%	-0.323
2006	3	120,184.000	120,425.902	-241.902	-0.20%	-0.758
2006	4	120,251.000	120,475.671	-224.671	-0.19%	-0.704
2006	5	120,406.000	120,481.086	-75.086	-0.06%	-0.235
2006	6	120,644.000	120,457.712	186.288	0.15%	0.584
2006	7	120,967.000	120,773.712	193.288	0.16%	0.606
2006	8	121,324.000	121,325.299	-1.299	-0.00%	-0.004
2006	9	121,508.000	121,521.557	-13.557	-0.01%	-0.042
2006	10	121,828.000	121,903.874	-75.874	-0.06%	-0.238
2006	11	122,136.000	122,009.198	126.802	0.10%	0.397
2006	12	122,406.000	122,220.173	185.827	0.15%	0.583
2007	1	122,511.000	122,690.027	-179.027	-0.15%	-0.561
2007	2	122,706.000	122,737.115	-31.115	-0.03%	-0.098
2007	3	123,054.000	122,851.921	202.079	0.16%	0.633
2007	4	123,202.000	123,070.931	131.069	0.11%	0.411
2007	5	123,354.000	123,186.853	167.147	0.14%	0.524
2007	6	123,518.000	123,142.783	375.217	0.30%	1.176
2007	7	123,533.000	123,482.829	50.171	0.04%	0.157
2007	8	123,752.000	123,681.148	70.852	0.06%	0.222
2007	9	123,618.000	123,758.724	-140.724	-0.11%	-0.441
2007	10	123,923.000	123,940.365	-17.365	-0.01%	-0.054
2007	11	124,107.000	124,039.971	67.029	0.05%	0.210
2007	12	124,145.000	124,233.005	-88.005	-0.07%	-0.276
2008	1	124,236.000	124,259.697	-23.697	-0.02%	-0.074
2008	2	124,246.000	124,352.789	-106.789	-0.09%	-0.335
2008	3	124,268.000	124,429.106	-161.106	-0.13%	-0.505
2008	4	124,392.000	124,395.259	-3.259	-0.00%	-0.010
2008	5	124,448.000	124,336.252	111.748	0.09%	0.350
2008	6	124,525.000	124,371.488	153.512	0.12%	0.481
2008	7	124,550.000	124,506.862	43.138	0.03%	0.135
2008	8	124,815.827	124,808.415	7.412	0.01%	0.023
2008	9	125,093.000	124,898.425	194.575	0.16%	0.610
2008	10	125,271.000	125,202.256	68.744	0.05%	0.215
2008	11	125,294.000	125,358.197	-64.197	-0.05%	-0.201
2008	12	125,393.000	125,415.110	-22.110	-0.02%	-0.069

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2009	1	125,390.000	125,442.246	-52.246	-0.04%	-0.164
2009	2	125,404.000	125,440.922	-36.922	-0.03%	-0.116
2009	3	125,606.000	125,494.015	111.985	0.09%	0.351
2009	4	125,646.000	125,586.146	59.854	0.05%	0.188
2009	5	125,115.000	124,934.584	180.416	0.14%	0.566
2009	6	125,847.000	125,643.563	203.437	0.16%	0.638
2009	7	125,895.000	125,673.442	221.558	0.18%	0.695
2009	8	126,046.000	125,879.085	166.915	0.13%	0.523
2009	9	126,151.000	126,025.117	125.883	0.10%	0.395
2009	10	126,344.000	126,264.670	79.330	0.06%	0.249
2009	11	126,344.000	126,348.824	-4.824	-0.00%	-0.015
2009	12	126,402.000	126,433.353	-31.353	-0.02%	-0.098
2010	1	126,411.000	126,470.012	-59.012	-0.05%	-0.185
2010	2	126,516.000	126,535.825	-19.825	-0.02%	-0.062
2010	3	126,673.000	126,756.379	-83.379	-0.07%	-0.261
2010	4	126,691.000	126,664.990	26.010	0.02%	0.082
2010	5	126,789.000	126,693.822	95.178	0.08%	0.298
2010	6	126,953.000	126,762.190	190.810	0.15%	0.598
2010	7	127,070.000	126,889.147	180.853	0.14%	0.567
2010	8	127,217.000	127,140.074	76.926	0.06%	0.241
2010	9	127,359.000	127,236.082	122.918	0.10%	0.385
2010	10	127,552.000	127,461.625	90.375	0.07%	0.283
2010	11	127,688.000	127,672.590	15.410	0.01%	0.048
2010	12	127,806.000	127,726.390	79.610	0.06%	0.250
2011	1	127,862.000	127,837.707	24.293	0.02%	0.076
2011	2	127,833.000	127,908.275	-75.275	-0.06%	-0.236
2011	3	127,888.000	127,890.213	-2.213	-0.00%	-0.007
2011	4	127,865.000	127,895.831	-30.831	-0.02%	-0.097
2011	5	127,884.000	127,831.598	52.402	0.04%	0.164
2011	6	127,932.000	127,795.173	136.827	0.11%	0.429
2011	7	127,891.000	127,899.483	-8.483	-0.01%	-0.027
2011	8	128,041.000	128,063.448	-22.448	-0.02%	-0.070
2011	9	128,018.000	127,983.903	34.097	0.03%	0.107
2011	10	128,215.000	128,125.829	89.171	0.07%	0.280
2011	11	128,318.000	128,226.519	91.481	0.07%	0.287
2011	12	128,468.000	128,377.627	90.373	0.07%	0.283
2012	1	128,431.000	128,471.539	-40.539	-0.03%	-0.127
2012	2	128,432.000	128,493.758	-61.758	-0.05%	-0.194
2012	3	128,494.000	128,549.143	-55.143	-0.04%	-0.173
2012	4	128,524.000	128,459.367	64.633	0.05%	0.203
2012	5	128,500.000	128,497.150	2.850	0.00%	0.009
2012	6	128,517.000	128,439.420	77.580	0.06%	0.243
2012	7	128,587.000	128,484.090	102.910	0.08%	0.323
2012	8	128,656.000	128,595.321	60.679	0.05%	0.190

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2012	9	128,710.000	128,605.523	104.477	0.08%	0.328	
2012	10	128,853.000	128,898.038	-45.038	-0.03%	-0.141	
2012	11	128,902.000	128,925.858	-23.858	-0.02%	-0.075	
2012	12	129,010.000	128,950.160	59.840	0.05%	0.188	
2013	1	129,198.000	129,062.014	135.986	0.11%	0.426	
2013	2	129,080.000	129,205.156	-125.156	-0.10%	-0.392	
2013	3	129,131.000	129,174.037	-43.037	-0.03%	-0.135	
2013	4	129,133.000	129,237.010	-104.010	-0.08%	-0.326	
2013	5	129,149.000	129,125.016	23.984	0.02%	0.075	
2013	6	129,134.000	129,069.872	64.128	0.05%	0.201	
2013	7	129,203.000	129,238.100	-35.100	-0.03%	-0.110	
2013	8	129,200.000	129,334.397	-134.397	-0.10%	-0.421	
2013	9	129,273.000	129,278.330	-5.330	-0.00%	-0.017	
2013	10	129,464.000	129,380.807	83.193	0.06%	0.261	
2013	11	129,551.000	129,536.308	14.692	0.01%	0.046	
2013	12	129,578.000	129,695.508	-117.508	-0.09%	-0.368	
2014	1	129,791.000	129,745.447	45.553	0.04%	0.143	
2014	2	129,708.000	129,765.973	-57.973	-0.04%	-0.182	
2014	3	129,727.000	129,826.565	-99.565	-0.08%	-0.312	
2014	4	129,734.000	129,753.324	-19.324	-0.01%	-0.061	
2014	5	129,803.000	129,796.545	6.455	0.00%	0.020	
2014	6	129,867.000	129,775.902	91.098	0.07%	0.286	
2014	7	129,910.000	129,876.913	33.087	0.03%	0.104	
2014	8	129,931.000	129,924.827	6.173	0.00%	0.019	
2014	9	129,884.000	129,887.377	-3.377	-0.00%	-0.011	
2014	10	130,190.000	130,102.468	87.532	0.07%	0.274	
2014	11	130,298.000	130,264.369	33.631	0.03%	0.105	
2014	12	130,422.000	130,414.581	7.419	0.01%	0.023	
2015	1	130,491.000	130,547.237	-56.237	-0.04%	-0.176	
2015	2	130,504.000	130,602.263	-98.263	-0.08%	-0.308	
2015	3	130,431.000	130,597.429	-166.429	-0.13%	-0.522	
2015	4	130,505.000	130,588.774	-83.774	-0.06%	-0.263	
2015	5	130,452.000	130,485.234	-33.234	-0.03%	-0.104	Rounded
2015	6		130,403.126				130,403
2015	7		130,427.513				130,428
2015	8		130,597.885				130,598
2015	9		130,659.873				130,660
2015	10		130,924.411				130,924
2015	11		130,974.901				130,975
2015	12		131,086.893				131,087
2016	1		131,242.501				131,243
2016	2		131,381.262				131,381
2016	3		131,429.578				131,430
2016	4		131,399.778				131,400

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2016	5		131,369.139				131,369
2016	6		131,298.094				131,298
2016	7		131,321.971				131,322
2016	8		131,487.839				131,488
2016	9		131,545.451				131,545
2016	10		131,775.277				131,775
2016	11		131,808.526				131,809
2016	12		131,914.086				131,914
2017	1		132,077.612				132,078
2017	2		132,232.885				132,233
2017	3		132,304.479				132,304
2017	4		132,270.489				132,270
2017	5		132,232.970				132,233
2017	6		132,155.430				132,155
2017	7		132,175.337				132,175
2017	8		132,336.591				132,337
2017	9		132,397.307				132,397
2017	10		132,630.260				132,630
2017	11		132,666.750				132,667
2017	12		132,767.758				132,768
2018	1		132,926.811				132,927
2018	2		133,077.681				133,078
2018	3		133,161.900				133,162
2018	4		133,140.596				133,141
2018	5		133,115.815				133,116
2018	6		133,041.487				133,041
2018	7		133,064.650				133,065
2018	8		133,229.201				133,229
2018	9		133,285.915				133,286
2018	10		133,514.899				133,515
2018	11		133,547.450				133,547
2018	12		133,659.908				133,660
2019	1		133,830.436				133,830
2019	2		133,992.803				133,993
2019	3		134,078.694				134,079
2019	4		134,059.078				134,059
2019	5		134,036.002				134,036
2019	6		133,975.372				133,975
2019	7		134,012.247				134,012
2019	8		134,190.518				134,191
2019	9		134,260.245				134,260
2019	10		134,502.248				134,502
2019	11		134,547.825				134,548
2019	12		134,666.282				134,666

Xcel Energy Minnesota Small Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2020	1		134,842.812				134,843
2020	2		135,011.185				135,011
2020	3		135,102.936				135,103
2020	4		135,089.182				135,089
2020	5		135,071.968				135,072
2020	6		135,002.014				135,002
2020	7		135,029.563				135,030
2020	8		135,198.508				135,199
2020	9		135,254.590				135,255
2020	10		135,482.945				135,483
2020	11		135,514.871				135,515
2020	12		135,619.327				135,619

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 Customer Counts

Variable	Coefficient	StdErr	T-Stat	P-Value	Definition
Binary.CRS	105.629	11.795	8.956	0.00%	Binary variable for CRS conversion
Binary2.May2005	188.004	11.050	17.015	0.00%	Binary variable May 2005
Binary2.Apr2005	85.713	11.371	7.538	0.00%	Binary variable April 2005
Binary2.Jun2005	185.453	10.849	17.094	0.00%	Binary variable June 2005
Binary2.Aug2005	-38.336	10.842	-3.536	0.05%	Binary variable August 2005
BinaryTrans.After2014	73.489	11.612	6.329	0.00%	Binary variable beginning in January 2015
AR(1)	0.709	0.090	7.888	0.00%	First order autoregressive term
AR(2)	0.290	0.090	3.231	0.15%	Second order autoregressive term

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 Customer Counts

Model Statistics	
Iterations	37
Adjusted Observations	170
Deg. of Freedom for Error	162
R-Squared	0.970
Adjusted R-Squared	0.969
AIC	5.035
BIC	5.182
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-661.17
Model Sum of Squares	771,565.36
Sum of Squared Errors	23,774.46
Mean Squared Error	146.76
Std. Error of Regression	12.11
Mean Abs. Dev. (MAD)	7.83
Mean Abs. % Err. (MAPE)	1.47%
Durbin-Watson Statistic	2.088
Durbin-H Statistic	#NA
Ljung-Box Statistic	35.86
Prob (Ljung-Box)	0.0567
Skewness	-0.461
Kurtosis	6.684
Jarque-Bera	102.149
Prob (Jarque-Bera)	0.0000

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2001	2	583.000					
2001	3	577.000					
2001	4	581.000	578.344	2.656	0.46%	0.219	
2001	5	603.000	579.440	23.560	3.91%	1.945	
2001	6	579.000	596.200	-17.200	-2.97%	-1.420	
2001	7	567.000	585.564	-18.564	-3.27%	-1.532	
2001	8	594.000	570.093	23.907	4.02%	1.973	
2001	9	610.000	585.757	24.243	3.97%	2.001	
2001	10	603.000	604.934	-1.934	-0.32%	-0.160	
2001	11	613.000	604.613	8.387	1.37%	0.692	
2001	12	603.000	609.672	-6.672	-1.11%	-0.551	
2002	1	634.000	605.483	28.517	4.50%	2.354	
2002	2	618.000	624.563	-6.563	-1.06%	-0.542	
2002	3	600.000	622.211	-22.211	-3.70%	-1.833	
2002	4	623.000	604.806	18.194	2.92%	1.502	
2002	5	602.000	615.893	-13.893	-2.31%	-1.147	
2002	6	607.000	607.675	-0.675	-0.11%	-0.056	
2002	7	604.000	605.128	-1.128	-0.19%	-0.093	
2002	8	632.000	604.451	27.549	4.36%	2.274	
2002	9	601.000	623.435	-22.435	-3.73%	-1.852	
2002	10	599.000	609.577	-10.577	-1.77%	-0.873	
2002	11	597.000	599.165	-2.165	-0.36%	-0.179	
2002	12	608.000	597.167	10.833	1.78%	0.894	
2003	1	604.000	604.387	-0.387	-0.06%	-0.032	
2003	2	613.000	604.741	8.259	1.35%	0.682	
2003	3	596.000	609.963	-13.963	-2.34%	-1.153	
2003	4	594.000	600.519	-6.519	-1.10%	-0.538	
2003	5	611.000	594.170	16.830	2.75%	1.389	
2003	6	614.000	605.643	8.357	1.36%	0.690	
2003	7	613.000	612.702	0.298	0.05%	0.025	
2003	8	616.000	612.864	3.136	0.51%	0.259	
2003	9	637.000	614.701	22.299	3.50%	1.841	
2003	10	617.000	630.461	-13.461	-2.18%	-1.111	
2003	11	624.000	622.372	1.628	0.26%	0.134	
2003	12	595.000	621.534	-26.534	-4.46%	-2.190	
2004	1	598.000	603.002	-5.002	-0.84%	-0.413	
2004	2	626.000	596.716	29.284	4.68%	2.417	
2004	3	604.000	617.440	-13.440	-2.23%	-1.109	
2004	4	619.000	609.963	9.037	1.46%	0.746	
2004	5	607.000	614.217	-7.217	-1.19%	-0.596	
2004	6	625.000	610.060	14.940	2.39%	1.233	
2004	7	610.000	619.342	-9.342	-1.53%	-0.771	
2004	8	628.000	613.928	14.072	2.24%	1.162	
2004	9	613.000	622.339	-9.339	-1.52%	-0.771	

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2004	10	599.000	616.925	-17.925	-2.99%	-1.480	
2004	11	617.000	602.647	14.353	2.33%	1.185	
2004	12	586.000	611.348	-25.348	-4.33%	-2.092	
2005	1	608.000	594.589	13.411	2.21%	1.107	
2005	2	507.000	495.566	11.434	2.26%	0.944	
2005	3	466.000	505.231	-39.231	-8.42%	-3.238	
2005	4	585.000	563.215	21.785	3.72%	1.798	
2005	5	701.000	677.215	23.785	3.39%	1.963	
2005	6	711.000	694.041	16.959	2.39%	1.400	
2005	7	562.000	521.464	40.536	7.21%	3.346	
2005	8	472.000	512.617	-40.617	-8.61%	-3.353	
2005	9	472.000	524.895	-52.895	-11.21%	-4.366	
2005	10	472.000	482.724	-10.724	-2.27%	-0.885	
2005	11	471.000	471.603	-0.603	-0.13%	-0.050	
2005	12	485.000	470.894	14.106	2.91%	1.164	
2006	1	479.000	480.531	-1.531	-0.32%	-0.126	
2006	2	480.000	480.338	-0.338	-0.07%	-0.028	
2006	3	467.000	479.306	-12.306	-2.64%	-1.016	
2006	4	469.000	470.379	-1.379	-0.29%	-0.114	
2006	5	464.000	468.026	-4.026	-0.87%	-0.332	
2006	6	472.000	465.060	6.940	1.47%	0.573	
2006	7	472.000	469.282	2.718	0.58%	0.224	
2006	8	471.000	471.603	-0.603	-0.13%	-0.050	
2006	9	475.000	470.894	4.106	0.86%	0.339	
2006	10	468.000	473.440	-5.440	-1.16%	-0.449	
2006	11	464.000	469.637	-5.637	-1.21%	-0.465	
2006	12	461.000	464.770	-3.770	-0.82%	-0.311	
2007	1	471.000	461.483	9.517	2.02%	0.786	
2007	2	456.000	467.703	-11.703	-2.57%	-0.966	
2007	3	459.000	459.968	-0.968	-0.21%	-0.080	
2007	4	475.000	457.744	17.256	3.63%	1.424	
2007	5	481.000	469.959	11.041	2.30%	0.911	
2007	6	479.000	478.855	0.145	0.03%	0.012	
2007	7	486.000	479.178	6.822	1.40%	0.563	
2007	8	482.000	483.561	-1.561	-0.32%	-0.129	
2007	9	488.000	482.755	5.245	1.07%	0.433	
2007	10	496.000	485.849	10.151	2.05%	0.838	
2007	11	499.000	493.262	5.738	1.15%	0.474	
2007	12	503.000	497.710	5.290	1.05%	0.437	
2008	1	505.000	501.417	3.583	0.71%	0.296	
2008	2	508.000	503.995	4.005	0.79%	0.331	
2008	3	505.000	506.703	-1.703	-0.34%	-0.141	
2008	4	495.000	505.446	-10.446	-2.11%	-0.862	
2008	5	491.000	497.485	-6.485	-1.32%	-0.535	

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2008	6	489.000	491.748	-2.748	-0.56%	-0.227	
2008	7	486.000	489.169	-3.169	-0.65%	-0.262	
2008	8	487.173	486.462	0.712	0.15%	0.059	
2008	9	483.000	486.423	-3.423	-0.71%	-0.283	
2008	10	490.000	483.805	6.195	1.26%	0.511	
2008	11	488.000	487.557	0.443	0.09%	0.037	
2008	12	483.000	488.170	-5.170	-1.07%	-0.427	
2009	1	470.000	484.044	-14.044	-2.99%	-1.159	
2009	2	466.000	473.376	-7.376	-1.58%	-0.609	
2009	3	461.000	466.769	-5.769	-1.25%	-0.476	
2009	4	457.000	462.063	-5.063	-1.11%	-0.418	
2009	5	461.000	457.776	3.224	0.70%	0.266	
2009	6	459.000	459.452	-0.452	-0.10%	-0.037	
2009	7	459.000	459.194	-0.194	-0.04%	-0.016	
2009	8	464.000	458.614	5.386	1.16%	0.445	
2009	9	461.000	462.159	-1.159	-0.25%	-0.096	
2009	10	460.000	461.483	-1.483	-0.32%	-0.122	
2009	11	461.000	459.903	1.097	0.24%	0.091	
2009	12	446.000	460.322	-14.322	-3.21%	-1.182	
2010	1	447.000	449.977	-2.977	-0.67%	-0.246	
2010	2	444.000	446.334	-2.334	-0.53%	-0.193	
2010	3	444.000	444.497	-0.497	-0.11%	-0.041	
2010	4	446.000	443.627	2.373	0.53%	0.196	
2010	5	457.000	445.045	11.955	2.62%	0.987	
2010	6	458.000	453.425	4.575	1.00%	0.378	
2010	7	463.000	457.325	5.675	1.23%	0.468	
2010	8	462.000	461.160	0.840	0.18%	0.069	
2010	9	463.000	461.902	1.098	0.24%	0.091	
2010	10	466.000	462.321	3.679	0.79%	0.304	
2010	11	464.000	464.738	-0.738	-0.16%	-0.061	
2010	12	465.000	464.190	0.810	0.17%	0.067	
2011	1	464.000	464.319	-0.319	-0.07%	-0.026	
2011	2	462.000	463.900	-1.900	-0.41%	-0.157	
2011	3	461.000	462.192	-1.192	-0.26%	-0.098	
2011	4	463.000	460.903	2.097	0.45%	0.173	
2011	5	465.000	462.031	2.969	0.64%	0.245	
2011	6	468.000	464.029	3.971	0.85%	0.328	
2011	7	471.000	466.736	4.264	0.91%	0.352	
2011	8	470.000	469.734	0.266	0.06%	0.022	
2011	9	470.000	469.895	0.105	0.02%	0.009	
2011	10	465.000	469.605	-4.605	-0.99%	-0.380	
2011	11	462.000	466.060	-4.060	-0.88%	-0.335	
2011	12	462.000	462.482	-0.482	-0.10%	-0.040	
2012	1	454.000	461.612	-7.612	-1.68%	-0.628	

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2012	2	454.000	455.939	-1.939	-0.43%	-0.160	
2012	3	458.000	453.618	4.382	0.96%	0.362	
2012	4	461.000	456.455	4.545	0.99%	0.375	
2012	5	465.000	459.742	5.258	1.13%	0.434	
2012	6	465.000	463.449	1.551	0.33%	0.128	
2012	7	461.000	464.609	-3.609	-0.78%	-0.298	
2012	8	465.000	461.773	3.227	0.69%	0.266	
2012	9	462.000	463.449	-1.449	-0.31%	-0.120	
2012	10	464.000	462.482	1.518	0.33%	0.125	
2012	11	460.000	463.030	-3.030	-0.66%	-0.250	
2012	12	457.000	460.774	-3.774	-0.83%	-0.312	
2013	1	458.000	457.486	0.514	0.11%	0.042	
2013	2	458.000	457.325	0.675	0.15%	0.056	
2013	3	458.000	457.615	0.385	0.08%	0.032	
2013	4	455.000	457.615	-2.615	-0.57%	-0.216	
2013	5	454.000	455.488	-1.488	-0.33%	-0.123	
2013	6	456.000	453.908	2.092	0.46%	0.173	
2013	7	460.000	455.036	4.964	1.08%	0.410	
2013	8	458.000	458.453	-0.453	-0.10%	-0.037	
2013	9	460.000	458.195	1.805	0.39%	0.149	
2013	10	457.000	459.033	-2.033	-0.44%	-0.168	
2013	11	451.000	457.486	-6.486	-1.44%	-0.535	
2013	12	445.000	452.361	-7.361	-1.65%	-0.608	
2014	1	441.000	446.367	-5.367	-1.22%	-0.443	
2014	2	440.000	441.790	-1.790	-0.41%	-0.148	
2014	3	438.000	439.920	-1.920	-0.44%	-0.159	
2014	4	442.000	438.212	3.788	0.86%	0.313	
2014	5	444.000	440.468	3.532	0.80%	0.292	
2014	6	443.000	443.047	-0.047	-0.01%	-0.004	
2014	7	444.000	442.918	1.082	0.24%	0.089	
2014	8	435.000	443.337	-8.337	-1.92%	-0.688	
2014	9	441.000	437.245	3.755	0.85%	0.310	
2014	10	432.000	438.889	-6.889	-1.59%	-0.569	
2014	11	425.000	434.248	-9.248	-2.18%	-0.763	
2014	12	429.000	426.673	2.327	0.54%	0.192	
2015	1	505.000	500.968	4.032	0.80%	0.333	
2015	2	490.000	503.909	-13.909	-2.84%	-1.148	
2015	3	496.000	494.001	1.999	0.40%	0.165	
2015	4	501.000	493.904	7.096	1.42%	0.586	
2015	5	508.000	499.190	8.810	1.73%	0.727	Rounded
2015	6		505.604				506
2015	7		505.936				506
2015	8		505.476				505
2015	9		505.246				505

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2015	10		504.950				505
2015	11		504.673				505
2015	12		504.391				504
2016	1		504.111				504
2016	2		503.830				504
2016	3		503.550				504
2016	4		503.269				503
2016	5		502.989				503
2016	6		502.710				503
2016	7		502.430				502
2016	8		502.150				502
2016	9		501.871				502
2016	10		501.592				502
2016	11		501.313				501
2016	12		501.034				501
2017	1		500.756				501
2017	2		500.477				500
2017	3		500.199				500
2017	4		499.921				500
2017	5		499.643				500
2017	6		499.366				499
2017	7		499.088				499
2017	8		498.811				499
2017	9		498.534				499
2017	10		498.257				498
2017	11		497.980				498
2017	12		497.704				498
2018	1		497.427				497
2018	2		497.151				497
2018	3		496.875				497
2018	4		496.599				497
2018	5		496.323				496
2018	6		496.048				496
2018	7		495.773				496
2018	8		495.498				495
2018	9		495.223				495
2018	10		494.948				495
2018	11		494.673				495
2018	12		494.399				494
2019	1		494.125				494
2019	2		493.851				494
2019	3		493.577				494
2019	4		493.303				493
2019	5		493.029				493

Xcel Energy Minnesota Large Commercial and Industrial
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2019	6		492.756				493
2019	7		492.483				492
2019	8		492.210				492
2019	9		491.937				492
2019	10		491.664				492
2019	11		491.392				491
2019	12		491.120				491
2020	1		490.848				491
2020	2		490.576				491
2020	3		490.304				490
2020	4		490.032				490
2020	5		489.761				490
2020	6		489.490				489
2020	7		489.219				489
2020	8		488.948				489
2020	9		488.677				489
2020	10		488.407				488
2020	11		488.136				488
2020	12		487.866				488

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 Customer Counts

Variable	Coefficient	StdErr	T-Stat	P-Value	Definition
CONST	-9741.742	761.1647	-12.7985	0.00%	Constant term
MSP.NR_MSP	3.960	0.229	17.263	0.00%	Population, Minneapolis-St. Paul MSA, 000's
Binary2.May1999	-1915.932	18.286	-104.776	0.00%	Binary variable May 1999
Binary2.Jun1999	1917.533	18.286	104.864	0.00%	Binary variable June 1999
Binary2.Dec1999	-1086.110	20.024	-54.240	0.00%	Binary variable December 1999
Binary2.Jan2000	-1552.213	24.513	-63.322	0.00%	Binary variable January 2000
Binary2.Feb2000	-1540.280	24.513	-62.837	0.00%	Binary variable February 2000
Binary2.Mar2000	-442.687	20.023	-22.109	0.00%	Binary variable March 2000
Binary2.Nov2004	128.942	18.284	7.052	0.00%	Binary variable November 2004
Binary2.Dec2004	169.607	18.284	9.276	0.00%	Binary variable December 2004
BinaryTrans.SLReclass	279.874	22.079	12.676	0.00%	Binary variable Street Lighting reclassification
AR(1)	0.956	0.021	46.463	0.00%	First order autoregressive term

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 Customer Counts

Model Statistics	
Iterations	14
Adjusted Observations	208
Deg. of Freedom for Error	196
R-Squared	0.999
Adjusted R-Squared	0.999
AIC	6.235
BIC	6.428
F-Statistic	14854.39138
Prob (F-Statistic)	0
Log-Likelihood	-931.63
Model Sum of Squares	78,881,873.50
Sum of Squared Errors	94,620.61
Mean Squared Error	482.76
Std. Error of Regression	21.97
Mean Abs. Dev. (MAD)	14.69
Mean Abs. % Err. (MAPE)	0.53%
Durbin-Watson Statistic	2.170
Durbin-H Statistic	#NA
Ljung-Box Statistic	28.91
Prob (Ljung-Box)	0.2234
Skewness	0.258
Kurtosis	7.891
Jarque-Bera	209.635
Prob (Jarque-Bera)	0.0000

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
1998	1	2,236.000					
1998	2	2,254.000	2,246.569	7.431	0.33%	0.338	
1998	3	2,313.000	2,264.435	48.565	2.10%	2.210	
1998	4	2,394.000	2,321.484	72.516	3.03%	3.300	
1998	5	2,287.000	2,399.571	-112.571	-4.92%	-5.123	
1998	6	2,284.000	2,299.367	-15.367	-0.67%	-0.699	
1998	7	2,270.000	2,297.191	-27.191	-1.20%	-1.238	
1998	8	2,340.000	2,284.496	55.504	2.37%	2.526	
1998	9	2,315.000	2,352.166	-37.166	-1.61%	-1.692	
1998	10	2,306.000	2,328.954	-22.954	-1.00%	-1.045	
1998	11	2,321.000	2,321.042	-0.042	-0.00%	-0.002	
1998	12	2,404.000	2,336.118	67.882	2.82%	3.090	
1999	1	2,379.000	2,416.186	-37.186	-1.56%	-1.692	
1999	2	2,437.000	2,392.975	44.025	1.81%	2.004	
1999	3	2,413.000	2,449.173	-36.173	-1.50%	-1.646	
1999	4	2,407.000	2,426.920	-19.920	-0.83%	-0.907	
1999	5	494.000	505.949	-11.949	-2.42%	-0.544	
1999	6	4,331.000	4,343.495	-12.495	-0.29%	-0.569	
1999	7	2,417.000	2,430.066	-13.066	-0.54%	-0.595	
1999	8	2,463.000	2,434.168	28.832	1.17%	1.312	
1999	9	2,441.000	2,478.880	-37.880	-1.55%	-1.724	
1999	10	2,427.000	2,458.565	-31.565	-1.30%	-1.437	
1999	11	2,508.000	2,445.900	62.100	2.48%	2.826	
1999	12	1,424.000	1,437.973	-13.973	-0.98%	-0.636	
2000	1	960.000	974.611	-14.611	-1.52%	-0.665	
2000	2	974.000	989.279	-15.279	-1.57%	-0.695	
2000	3	2,073.000	2,088.977	-15.977	-0.77%	-0.727	
2000	4	2,517.000	2,533.707	-16.707	-0.66%	-0.760	
2000	5	2,539.000	2,535.660	3.340	0.13%	0.152	
2000	6	2,558.000	2,555.340	2.660	0.10%	0.121	
2000	7	2,551.000	2,574.117	-23.117	-0.91%	-1.052	
2000	8	2,571.000	2,568.030	2.970	0.12%	0.135	
2000	9	2,580.000	2,587.787	-7.787	-0.30%	-0.354	
2000	10	2,591.000	2,597.003	-6.003	-0.23%	-0.273	
2000	11	2,605.000	2,608.130	-3.130	-0.12%	-0.142	
2000	12	2,629.000	2,622.151	6.849	0.26%	0.312	
2001	1	2,645.000	2,645.712	-0.712	-0.03%	-0.032	
2001	2	2,658.000	2,661.622	-3.622	-0.14%	-0.165	
2001	3	2,684.000	2,674.688	9.312	0.35%	0.424	
2001	4	2,687.000	2,700.162	-13.162	-0.49%	-0.599	
2001	5	2,708.000	2,703.641	4.359	0.16%	0.198	
2001	6	2,737.000	2,720.097	16.903	0.62%	0.769	
2001	7	2,702.000	2,748.255	-46.255	-1.71%	-2.105	
2001	8	2,703.000	2,715.210	-12.210	-0.45%	-0.556	

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2001	9	2,748.000	2,716.605	31.395	1.14%	1.429	
2001	10	2,793.000	2,760.064	32.936	1.18%	1.499	
2001	11	2,803.000	2,803.523	-0.523	-0.02%	-0.024	
2001	12	2,791.000	2,813.525	-22.525	-0.81%	-1.025	
2002	1	2,841.000	2,802.476	38.524	1.36%	1.753	
2002	2	2,858.000	2,850.718	7.282	0.25%	0.331	
2002	3	2,871.000	2,867.414	3.586	0.12%	0.163	
2002	4	2,862.000	2,880.273	-18.273	-0.64%	-0.832	
2002	5	2,872.000	2,872.094	-0.094	-0.00%	-0.004	
2002	6	2,875.000	2,881.275	-6.275	-0.22%	-0.286	
2002	7	2,884.000	2,884.536	-0.536	-0.02%	-0.024	
2002	8	2,898.000	2,893.534	4.466	0.15%	0.203	
2002	9	2,901.000	2,907.326	-6.326	-0.22%	-0.288	
2002	10	2,931.000	2,910.587	20.413	0.70%	0.929	
2002	11	2,926.000	2,939.668	-13.668	-0.47%	-0.622	
2002	12	2,945.000	2,935.291	9.709	0.33%	0.442	
2003	1	2,953.000	2,953.854	-0.854	-0.03%	-0.039	
2003	2	2,957.000	2,961.897	-4.897	-0.17%	-0.223	
2003	3	2,973.000	2,966.127	6.873	0.23%	0.313	
2003	4	2,961.000	2,981.821	-20.821	-0.70%	-0.948	
2003	5	2,977.000	2,970.739	6.261	0.21%	0.285	
2003	6	2,702.000	2,706.943	-4.943	-0.18%	-0.225	
2003	7	2,690.000	2,712.014	-22.014	-0.82%	-1.002	
2003	8	2,709.000	2,700.949	8.051	0.30%	0.366	
2003	9	2,680.000	2,719.540	-39.540	-1.48%	-1.800	
2003	10	2,677.000	2,692.219	-15.219	-0.57%	-0.693	
2003	11	2,712.000	2,689.760	22.240	0.82%	1.012	
2003	12	2,712.000	2,723.653	-11.653	-0.43%	-0.530	
2004	1	2,719.000	2,724.064	-5.064	-0.19%	-0.230	
2004	2	2,720.000	2,731.170	-11.170	-0.41%	-0.508	
2004	3	2,722.000	2,732.549	-10.549	-0.39%	-0.480	
2004	4	2,814.000	2,734.873	79.127	2.81%	3.601	
2004	5	2,862.000	2,823.264	38.736	1.35%	1.763	
2004	6	2,853.000	2,869.101	-16.101	-0.56%	-0.733	
2004	7	2,886.000	2,860.885	25.115	0.87%	1.143	
2004	8	2,914.000	2,892.833	21.167	0.73%	0.963	
2004	9	2,960.000	2,920.011	39.989	1.35%	1.820	
2004	10	2,996.000	2,964.391	31.609	1.06%	1.439	
2004	11	3,136.000	3,128.151	7.849	0.25%	0.357	
2004	12	3,188.000	3,179.792	8.208	0.26%	0.374	
2005	1	3,030.000	3,021.417	8.583	0.28%	0.391	
2005	2	3,011.000	3,032.908	-21.908	-0.73%	-0.997	
2005	3	3,004.000	3,015.141	-11.141	-0.37%	-0.507	
2005	4	3,035.000	3,008.839	26.161	0.86%	1.191	

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2005	5	3,099.000	3,038.876	60.124	1.94%	2.736	
2005	6	3,096.000	3,103.126	-7.126	-0.23%	-0.324	
2005	7	3,103.000	3,100.765	2.235	0.07%	0.102	
2005	8	3,130.000	3,107.968	22.032	0.70%	1.003	
2005	9	3,130.000	3,134.315	-4.315	-0.14%	-0.196	
2005	10	3,134.000	3,134.824	-0.824	-0.03%	-0.037	
2005	11	3,170.000	3,139.158	30.842	0.97%	1.404	
2005	12	3,151.000	3,174.113	-23.113	-0.73%	-1.052	
2006	1	3,159.000	3,156.453	2.547	0.08%	0.116	
2006	2	3,168.000	3,164.613	3.387	0.11%	0.154	
2006	3	3,205.000	3,173.749	31.251	0.98%	1.422	
2006	4	3,212.000	3,209.642	2.358	0.07%	0.107	
2006	5	3,228.000	3,216.847	11.153	0.35%	0.508	
2006	6	3,228.000	3,232.577	-4.577	-0.14%	-0.208	
2006	7	3,253.000	3,233.084	19.916	0.61%	0.906	
2006	8	3,245.000	3,257.499	-12.499	-0.39%	-0.569	
2006	9	3,272.000	3,250.374	21.626	0.66%	0.984	
2006	10	3,276.000	3,276.702	-0.702	-0.02%	-0.032	
2006	11	3,279.000	3,281.035	-2.035	-0.06%	-0.093	
2006	12	3,276.000	3,284.431	-8.431	-0.26%	-0.384	
2007	1	3,290.000	3,282.071	7.929	0.24%	0.361	
2007	2	3,279.000	3,295.968	-16.968	-0.52%	-0.772	
2007	3	3,288.000	3,285.976	2.024	0.06%	0.092	
2007	4	3,287.000	3,295.092	-8.092	-0.25%	-0.368	
2007	5	3,298.000	3,294.646	3.354	0.10%	0.153	
2007	6	3,316.000	3,304.433	11.567	0.35%	0.526	
2007	7	3,317.000	3,322.102	-5.102	-0.15%	-0.232	
2007	8	3,328.000	3,323.513	4.487	0.13%	0.204	
2007	9	3,331.000	3,334.503	-3.503	-0.11%	-0.159	
2007	10	3,343.000	3,337.828	5.172	0.15%	0.235	
2007	11	3,341.000	3,349.760	-8.760	-0.26%	-0.399	
2007	12	3,346.000	3,348.319	-2.319	-0.07%	-0.106	
2008	1	3,342.000	3,353.557	-11.557	-0.35%	-0.526	
2008	2	3,343.000	3,350.188	-7.188	-0.22%	-0.327	
2008	3	3,344.000	3,351.617	-7.617	-0.23%	-0.347	
2008	4	3,346.000	3,353.030	-7.030	-0.21%	-0.320	
2008	5	3,339.000	3,355.400	-16.400	-0.49%	-0.746	
2008	6	3,341.000	3,348.337	-7.337	-0.22%	-0.334	
2008	7	3,341.000	3,350.671	-9.671	-0.29%	-0.440	
2008	8	3,351.000	3,351.092	-0.092	-0.00%	-0.004	
2008	9	3,337.000	3,361.088	-24.088	-0.72%	-1.096	
2008	10	3,328.000	3,348.121	-20.121	-0.60%	-0.916	
2008	11	3,344.000	3,339.936	4.064	0.12%	0.185	
2008	12	3,346.000	3,355.670	-9.670	-0.29%	-0.440	

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2009	1	3,351.000	3,358.005	-7.005	-0.21%	-0.319	
2009	2	3,345.000	3,363.209	-18.209	-0.54%	-0.829	
2009	3	3,362.000	3,357.905	4.095	0.12%	0.186	
2009	4	3,367.000	3,374.584	-7.584	-0.23%	-0.345	
2009	5	3,367.000	3,379.789	-12.789	-0.38%	-0.582	
2009	6	3,368.000	3,378.617	-10.617	-0.32%	-0.483	
2009	7	3,365.000	3,379.926	-14.926	-0.44%	-0.679	
2009	8	3,360.000	3,377.411	-17.411	-0.52%	-0.792	
2009	9	3,363.000	3,372.982	-9.982	-0.30%	-0.454	
2009	10	3,372.000	3,376.204	-4.204	-0.12%	-0.191	
2009	11	3,383.000	3,385.164	-2.164	-0.06%	-0.098	
2009	12	3,381.000	3,396.036	-15.036	-0.44%	-0.684	
2010	1	3,382.000	3,394.477	-12.477	-0.37%	-0.568	
2010	2	3,392.000	3,395.786	-3.786	-0.11%	-0.172	
2010	3	3,405.000	3,406.014	-1.014	-0.03%	-0.046	
2010	4	3,423.000	3,418.812	4.188	0.12%	0.191	
2010	5	3,480.000	3,436.392	43.608	1.25%	1.985	
2010	6	3,488.000	3,494.075	-6.075	-0.17%	-0.276	
2010	7	3,492.000	3,502.215	-10.215	-0.29%	-0.465	
2010	8	3,533.000	3,506.529	26.471	0.75%	1.205	
2010	9	3,541.000	3,546.227	-5.227	-0.15%	-0.238	
2010	10	3,571.000	3,554.366	16.634	0.47%	0.757	
2010	11	3,585.000	3,583.545	1.455	0.04%	0.066	
2010	12	3,616.000	3,597.422	18.578	0.51%	0.846	
2011	1	3,589.000	3,627.557	-38.557	-1.07%	-1.755	
2011	2	3,610.000	3,602.226	7.774	0.22%	0.354	
2011	3	3,619.000	3,622.798	-3.798	-0.10%	-0.173	
2011	4	3,619.000	3,631.894	-12.894	-0.36%	-0.587	
2011	5	3,639.000	3,632.383	6.617	0.18%	0.301	
2011	6	3,644.000	3,651.981	-7.981	-0.22%	-0.363	
2011	7	3,658.000	3,657.251	0.749	0.02%	0.034	
2011	8	3,659.000	3,671.128	-12.128	-0.33%	-0.552	
2011	9	3,699.000	3,672.583	26.417	0.71%	1.202	
2011	10	3,719.000	3,711.323	7.677	0.21%	0.349	
2011	11	3,755.000	3,730.938	24.062	0.64%	1.095	
2011	12	3,768.000	3,765.864	2.136	0.06%	0.097	
2012	1	3,779.000	3,778.785	0.215	0.01%	0.010	
2012	2	3,767.000	3,789.794	-22.794	-0.61%	-1.037	
2012	3	3,786.000	3,778.818	7.182	0.19%	0.327	
2012	4	3,773.000	3,797.478	-24.478	-0.65%	-1.114	
2012	5	3,780.000	3,785.536	-5.536	-0.15%	-0.252	
2012	6	3,789.000	3,794.147	-5.147	-0.14%	-0.234	
2012	7	3,807.000	3,803.306	3.694	0.10%	0.168	
2012	8	3,825.000	3,821.071	3.929	0.10%	0.179	

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2012	9	3,848.000	3,838.853	9.147	0.24%	0.416	
2012	10	3,887.000	3,861.401	25.599	0.66%	1.165	
2012	11	3,910.000	3,899.249	10.751	0.27%	0.489	
2012	12	3,917.000	3,921.813	-4.813	-0.12%	-0.219	
2013	1	3,953.000	3,929.061	23.939	0.61%	1.090	
2013	2	3,956.000	3,964.041	-8.041	-0.20%	-0.366	
2013	3	3,963.000	3,967.480	-4.480	-0.11%	-0.204	
2013	4	3,968.000	3,974.728	-6.728	-0.17%	-0.306	
2013	5	3,982.000	3,980.064	1.936	0.05%	0.088	
2013	6	3,974.000	3,992.440	-18.440	-0.46%	-0.839	
2013	7	3,976.000	3,985.275	-9.275	-0.23%	-0.422	
2013	8	3,987.000	3,987.674	-0.674	-0.02%	-0.031	
2013	9	3,985.000	3,998.691	-13.691	-0.34%	-0.623	
2013	10	4,009.000	3,997.265	11.735	0.29%	0.534	
2013	11	4,028.000	4,020.702	7.298	0.18%	0.332	
2013	12	4,035.000	4,039.370	-4.370	-0.11%	-0.199	
2014	1	4,039.000	4,046.551	-7.551	-0.19%	-0.344	
2014	2	4,039.000	4,050.863	-11.863	-0.29%	-0.540	
2014	3	4,043.000	4,051.361	-8.361	-0.21%	-0.381	
2014	4	4,048.000	4,055.674	-7.674	-0.19%	-0.349	
2014	5	4,054.000	4,060.943	-6.943	-0.17%	-0.316	
2014	6	4,053.000	4,065.884	-12.884	-0.32%	-0.586	
2014	7	4,064.000	4,065.359	-1.359	-0.03%	-0.062	
2014	8	4,083.000	4,076.309	6.691	0.16%	0.305	
2014	9	4,109.000	4,094.588	14.412	0.35%	0.656	
2014	10	4,126.000	4,119.868	6.132	0.15%	0.279	
2014	11	4,149.000	4,136.543	12.457	0.30%	0.567	
2014	12	4,167.000	4,159.012	7.988	0.19%	0.364	
2015	1	4,195.000	4,176.644	18.356	0.44%	0.835	
2015	2	4,197.000	4,203.840	-6.840	-0.16%	-0.311	
2015	3	4,210.000	4,206.172	3.828	0.09%	0.174	
2015	4	4,220.000	4,219.024	0.976	0.02%	0.044	
2015	5	4,232.000	4,229.006	2.994	0.07%	0.136	Rounded
2015	6		4,240.566				4,241
2015	7		4,249.163				4,249
2015	8		4,257.789				4,258
2015	9		4,266.417				4,266
2015	10		4,275.072				4,275
2015	11		4,283.752				4,284
2015	12		4,292.639				4,293
2016	1		4,301.549				4,302
2016	2		4,310.482				4,310
2016	3		4,319.412				4,319
2016	4		4,328.362				4,328

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2016	5		4,337.332				4,337
2016	6		4,346.344				4,346
2016	7		4,355.374				4,355
2016	8		4,364.421				4,364
2016	9		4,373.562				4,374
2016	10		4,382.718				4,383
2016	11		4,391.889				4,392
2016	12		4,401.204				4,401
2017	1		4,410.534				4,411
2017	2		4,419.876				4,420
2017	3		4,429.213				4,429
2017	4		4,438.562				4,439
2017	5		4,447.923				4,448
2017	6		4,457.389				4,457
2017	7		4,466.866				4,467
2017	8		4,476.353				4,476
2017	9		4,485.927				4,486
2017	10		4,495.511				4,496
2017	11		4,505.104				4,505
2017	12		4,514.847				4,515
2018	1		4,524.599				4,525
2018	2		4,534.358				4,534
2018	3		4,544.312				4,544
2018	4		4,554.274				4,554
2018	5		4,564.241				4,564
2018	6		4,574.187				4,574
2018	7		4,584.140				4,584
2018	8		4,594.098				4,594
2018	9		4,603.950				4,604
2018	10		4,613.807				4,614
2018	11		4,623.669				4,624
2018	12		4,633.274				4,633
2019	1		4,642.883				4,643
2019	2		4,652.497				4,652
2019	3		4,661.834				4,662
2019	4		4,671.175				4,671
2019	5		4,680.520				4,681
2019	6		4,689.589				4,690
2019	7		4,698.661				4,699
2019	8		4,707.736				4,708
2019	9		4,716.689				4,717
2019	10		4,725.645				4,726
2019	11		4,734.604				4,735
2019	12		4,743.502				4,744

Xcel Energy Minnesota Public Street and Highway Lighting
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2020	1		4,752.402				4,752
2020	2		4,761.305				4,761
2020	3		4,770.130				4,770
2020	4		4,778.958				4,779
2020	5		4,787.789				4,788
2020	6		4,796.598				4,797
2020	7		4,805.409				4,805
2020	8		4,814.222				4,814
2020	9		4,822.975				4,823
2020	10		4,831.729				4,832
2020	11		4,840.486				4,840
2020	12		4,849.208				4,849

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 Customer Counts

Variable	Coefficient	StdErr	T-Stat	P-Value	Definition
CONST	2042.376	32.291	63.249	0.00%	Constant term
Binary2.May1999	-53.547	10.350	-5.174	0.00%	Binary variable May 1999
AR(1)	0.986	0.005	217.064	0.00%	First order autoregressive term
MA(1)	-0.582	0.057	-10.174	0.00%	First order moving average term

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 Customer Counts

Model Statistics	
Iterations	15
Adjusted Observations	208
Deg. of Freedom for Error	204
R-Squared	0.976
Adjusted R-Squared	0.976
AIC	4.917
BIC	4.981
F-Statistic	2792.912
Prob (F-Statistic)	0.0000
Log-Likelihood	-802.49
Model Sum of Squares	1,122,741.53
Sum of Squared Errors	27,335.78
Mean Squared Error	134.00
Std. Error of Regression	11.58
Mean Abs. Dev. (MAD)	7.41
Mean Abs. % Err. (MAPE)	0.35%
Durbin-Watson Statistic	2.069
Durbin-H Statistic	#NA
Ljung-Box Statistic	63.36
Prob (Ljung-Box)	0.0000
Skewness	0.637
Kurtosis	6.900
Jarque-Bera	145.899
Prob (Jarque-Bera)	0.0000

Forecast Statistics	
Forecast Observations	0
Mean Abs. Dev. (MAD)	0.00
Mean Abs. % Err. (MAPE)	0.00%
Avg. Forecast Error	0.00
Mean % Error	0.00%
Root Mean-Square Error	0.00
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
1998	1	2,280.000					
1998	2	2,262.000	2,276.646	-14.646	-0.65%	-1.265	
1998	3	2,296.000	2,267.430	28.570	1.24%	2.468	
1998	4	2,295.000	2,275.780	19.220	0.84%	1.660	
1998	5	2,258.000	2,280.240	-22.240	-0.98%	-1.921	
1998	6	2,264.000	2,267.910	-3.910	-0.17%	-0.338	
1998	7	2,232.000	2,263.149	-31.149	-1.40%	-2.691	
1998	8	2,248.000	2,247.466	0.534	0.02%	0.046	
1998	9	2,256.000	2,244.787	11.213	0.50%	0.969	
1998	10	2,238.000	2,246.454	-8.454	-0.38%	-0.730	
1998	11	2,230.000	2,240.163	-10.163	-0.46%	-0.878	
1998	12	2,232.000	2,233.271	-1.271	-0.06%	-0.110	
1999	1	2,231.000	2,230.064	0.936	0.04%	0.081	
1999	2	2,251.000	2,227.792	23.208	1.03%	2.005	
1999	3	2,237.000	2,234.539	2.461	0.11%	0.213	
1999	4	2,216.000	2,232.819	-16.819	-0.76%	-1.453	
1999	5	2,171.000	2,169.799	1.201	0.06%	0.104	
1999	6	2,223.000	2,221.276	1.724	0.08%	0.149	
1999	7	2,225.000	2,219.446	5.554	0.25%	0.480	
1999	8	2,217.000	2,219.188	-2.188	-0.10%	-0.189	
1999	9	2,206.000	2,215.809	-9.809	-0.44%	-0.847	
1999	10	2,218.000	2,209.404	8.596	0.39%	0.743	
1999	11	2,208.000	2,210.514	-2.514	-0.11%	-0.217	
1999	12	2,214.000	2,207.127	6.873	0.31%	0.594	
2000	1	2,166.000	2,207.574	-41.574	-1.92%	-3.592	
2000	2	2,216.000	2,188.469	27.531	1.24%	2.378	
2000	3	2,221.000	2,197.515	23.485	1.06%	2.029	
2000	4	2,201.000	2,204.800	-3.800	-0.17%	-0.328	
2000	5	2,205.000	2,200.974	4.026	0.18%	0.348	
2000	6	2,201.000	2,200.360	0.640	0.03%	0.055	
2000	7	2,197.000	2,198.388	-1.388	-0.06%	-0.120	
2000	8	2,240.000	2,195.626	44.374	1.98%	3.833	
2000	9	2,184.000	2,211.366	-27.366	-1.25%	-2.364	
2000	10	2,202.000	2,197.940	4.060	0.18%	0.351	
2000	11	2,217.000	2,197.382	19.618	0.88%	1.695	
2000	12	2,160.000	2,203.109	-43.109	-2.00%	-3.724	
2001	1	2,210.000	2,183.448	26.552	1.20%	2.294	
2001	2	2,182.000	2,192.169	-10.169	-0.47%	-0.879	
2001	3	2,204.000	2,185.952	18.048	0.82%	1.559	
2001	4	2,188.000	2,191.207	-3.207	-0.15%	-0.277	
2001	5	2,193.000	2,187.813	5.187	0.24%	0.448	
2001	6	2,166.000	2,187.853	-21.853	-1.01%	-1.888	
2001	7	2,181.000	2,176.983	4.017	0.18%	0.347	
2001	8	2,200.000	2,176.704	23.296	1.06%	2.013	

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2001	9	2,187.000	2,184.207	2.793	0.13%	0.241	
2001	10	2,177.000	2,183.332	-6.332	-0.29%	-0.547	
2001	11	2,179.000	2,178.788	0.212	0.01%	0.018	
2001	12	2,162.000	2,176.948	-14.948	-0.69%	-1.291	
2002	1	2,180.000	2,169.018	10.982	0.50%	0.949	
2002	2	2,178.000	2,171.661	6.339	0.29%	0.548	
2002	3	2,164.000	2,172.394	-8.394	-0.39%	-0.725	
2002	4	2,201.000	2,167.172	33.828	1.54%	2.922	
2002	5	2,167.000	2,179.059	-12.059	-0.56%	-1.042	
2002	6	2,166.000	2,172.264	-6.264	-0.29%	-0.541	
2002	7	2,169.000	2,167.904	1.096	0.05%	0.095	
2002	8	2,160.000	2,166.574	-6.574	-0.30%	-0.568	
2002	9	2,179.000	2,162.169	16.831	0.77%	1.454	
2002	10	2,181.000	2,167.269	13.731	0.63%	1.186	
2002	11	2,174.000	2,171.046	2.954	0.14%	0.255	
2002	12	2,170.000	2,170.422	-0.422	-0.02%	-0.036	
2003	1	2,172.000	2,168.444	3.556	0.16%	0.307	
2003	2	2,169.000	2,168.099	0.901	0.04%	0.078	
2003	3	2,164.000	2,166.688	-2.688	-0.12%	-0.232	
2003	4	2,161.000	2,163.849	-2.849	-0.13%	-0.246	
2003	5	2,167.000	2,160.985	6.015	0.28%	0.520	
2003	6	2,161.000	2,161.738	-0.738	-0.03%	-0.064	
2003	7	2,156.000	2,159.755	-3.755	-0.17%	-0.324	
2003	8	2,173.000	2,156.583	16.417	0.76%	1.418	
2003	9	2,154.000	2,161.595	-7.595	-0.35%	-0.656	
2003	10	2,150.000	2,156.848	-6.848	-0.32%	-0.592	
2003	11	2,146.000	2,152.469	-6.469	-0.30%	-0.559	
2003	12	2,142.000	2,148.305	-6.305	-0.29%	-0.545	
2004	1	2,144.000	2,144.266	-0.266	-0.01%	-0.023	
2004	2	2,158.000	2,142.721	15.279	0.71%	1.320	
2004	3	2,140.000	2,147.469	-7.469	-0.35%	-0.645	
2004	4	2,145.000	2,142.972	2.028	0.09%	0.175	
2004	5	2,132.000	2,142.370	-10.370	-0.49%	-0.896	
2004	6	2,135.000	2,136.775	-1.775	-0.08%	-0.153	
2004	7	2,140.000	2,134.727	5.273	0.25%	0.456	
2004	8	2,176.000	2,135.551	40.449	1.86%	3.494	
2004	9	2,136.000	2,150.555	-14.555	-0.68%	-1.257	
2004	10	2,128.000	2,143.156	-15.156	-0.71%	-1.309	
2004	11	2,125.000	2,135.619	-10.619	-0.50%	-0.917	
2004	12	2,140.000	2,130.018	9.982	0.47%	0.862	
2005	1	2,137.000	2,132.809	4.191	0.20%	0.362	
2005	2	2,117.000	2,133.223	-16.223	-0.77%	-1.401	
2005	3	2,117.000	2,125.396	-8.396	-0.40%	-0.725	
2005	4	2,116.000	2,120.837	-4.837	-0.23%	-0.418	

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2005	5	2,116.000	2,117.778	-1.778	-0.08%	-0.154	
2005	6	2,116.000	2,115.996	0.004	0.00%	0.000	
2005	7	2,110.000	2,114.959	-4.959	-0.24%	-0.428	
2005	8	2,109.000	2,111.934	-2.934	-0.14%	-0.253	
2005	9	2,107.000	2,109.768	-2.768	-0.13%	-0.239	
2005	10	2,102.000	2,107.700	-5.700	-0.27%	-0.492	
2005	11	2,099.000	2,104.478	-5.478	-0.26%	-0.473	
2005	12	2,093.000	2,101.392	-8.392	-0.40%	-0.725	
2006	1	2,093.000	2,097.173	-4.173	-0.20%	-0.360	
2006	2	2,090.000	2,094.716	-4.716	-0.23%	-0.407	
2006	3	2,092.000	2,092.075	-0.075	-0.00%	-0.006	
2006	4	2,097.000	2,091.343	5.657	0.27%	0.489	
2006	5	2,098.000	2,092.934	5.066	0.24%	0.438	
2006	6	2,089.000	2,094.264	-5.264	-0.25%	-0.455	
2006	7	2,083.000	2,091.408	-8.408	-0.40%	-0.726	
2006	8	2,082.000	2,087.324	-5.324	-0.26%	-0.460	
2006	9	2,079.000	2,084.541	-5.541	-0.27%	-0.479	
2006	10	2,077.000	2,081.711	-4.711	-0.23%	-0.407	
2006	11	2,069.000	2,079.255	-10.255	-0.50%	-0.886	
2006	12	2,058.000	2,074.597	-16.597	-0.81%	-1.434	
2007	1	2,064.000	2,067.446	-3.446	-0.17%	-0.298	
2007	2	2,065.000	2,065.702	-0.702	-0.03%	-0.061	
2007	3	2,068.000	2,065.089	2.911	0.14%	0.251	
2007	4	2,066.000	2,065.943	0.057	0.00%	0.005	
2007	5	2,062.000	2,065.633	-3.633	-0.18%	-0.314	
2007	6	2,057.000	2,063.839	-6.839	-0.33%	-0.591	
2007	7	2,053.000	2,060.777	-7.777	-0.38%	-0.672	
2007	8	2,053.000	2,057.380	-4.380	-0.21%	-0.378	
2007	9	2,054.000	2,055.401	-1.401	-0.07%	-0.121	
2007	10	2,053.000	2,054.652	-1.652	-0.08%	-0.143	
2007	11	2,054.000	2,053.812	0.188	0.01%	0.016	
2007	12	2,049.000	2,053.727	-4.727	-0.23%	-0.408	
2008	1	2,049.000	2,051.659	-2.659	-0.13%	-0.230	
2008	2	2,048.000	2,050.455	-2.455	-0.12%	-0.212	
2008	3	2,053.000	2,049.351	3.649	0.18%	0.315	
2008	4	2,049.000	2,050.725	-1.725	-0.08%	-0.149	
2008	5	2,044.000	2,049.911	-5.911	-0.29%	-0.511	
2008	6	2,039.000	2,047.420	-8.420	-0.41%	-0.727	
2008	7	2,036.000	2,043.952	-7.952	-0.39%	-0.687	
2008	8	2,031.000	2,040.721	-9.721	-0.48%	-0.840	
2008	9	2,030.000	2,036.823	-6.823	-0.34%	-0.589	
2008	10	2,031.000	2,034.148	-3.148	-0.16%	-0.272	
2008	11	2,027.000	2,032.994	-5.994	-0.30%	-0.518	
2008	12	2,030.000	2,030.708	-0.708	-0.03%	-0.061	

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2009	1	2,036.000	2,030.587	5.413	0.27%	0.468	
2009	2	2,027.000	2,032.937	-5.937	-0.29%	-0.513	
2009	3	2,027.000	2,030.675	-3.675	-0.18%	-0.317	
2009	4	2,026.000	2,029.358	-3.358	-0.17%	-0.290	
2009	5	2,029.000	2,028.187	0.813	0.04%	0.070	
2009	6	2,023.000	2,028.715	-5.715	-0.28%	-0.494	
2009	7	2,025.000	2,026.602	-1.602	-0.08%	-0.138	
2009	8	2,022.000	2,026.178	-4.178	-0.21%	-0.361	
2009	9	2,022.000	2,024.721	-2.721	-0.13%	-0.235	
2009	10	2,025.000	2,023.873	1.127	0.06%	0.097	
2009	11	2,017.000	2,024.589	-7.589	-0.38%	-0.656	
2009	12	2,015.000	2,021.778	-6.778	-0.34%	-0.586	
2010	1	2,012.000	2,019.334	-7.334	-0.36%	-0.634	
2010	2	2,010.000	2,016.700	-6.700	-0.33%	-0.579	
2010	3	2,010.000	2,014.359	-4.359	-0.22%	-0.377	
2010	4	2,009.000	2,012.996	-3.996	-0.20%	-0.345	
2010	5	2,007.000	2,011.799	-4.799	-0.24%	-0.415	
2010	6	2,008.000	2,010.294	-2.294	-0.11%	-0.198	
2010	7	2,010.000	2,009.821	0.179	0.01%	0.015	
2010	8	2,011.000	2,010.353	0.647	0.03%	0.056	
2010	9	2,013.000	2,011.066	1.934	0.10%	0.167	
2010	10	2,018.000	2,012.288	5.712	0.28%	0.493	
2010	11	2,021.000	2,015.017	5.983	0.30%	0.517	
2010	12	2,013.000	2,017.817	-4.817	-0.24%	-0.416	
2011	1	2,014.000	2,016.220	-2.220	-0.11%	-0.192	
2011	2	2,015.000	2,015.694	-0.694	-0.03%	-0.060	
2011	3	2,019.000	2,015.790	3.210	0.16%	0.277	
2011	4	2,016.000	2,017.461	-1.461	-0.07%	-0.126	
2011	5	2,018.000	2,017.223	0.777	0.04%	0.067	
2011	6	2,018.000	2,017.891	0.109	0.01%	0.009	
2011	7	2,018.000	2,018.281	-0.281	-0.01%	-0.024	
2011	8	2,016.000	2,018.508	-2.508	-0.12%	-0.217	
2011	9	2,015.000	2,017.833	-2.833	-0.14%	-0.245	
2011	10	2,016.000	2,017.036	-1.036	-0.05%	-0.090	
2011	11	2,020.000	2,016.976	3.024	0.15%	0.261	
2011	12	2,018.000	2,018.554	-0.554	-0.03%	-0.048	
2012	1	2,018.000	2,018.667	-0.667	-0.03%	-0.058	
2012	2	2,019.000	2,018.733	0.267	0.01%	0.023	
2012	3	2,026.000	2,019.174	6.826	0.34%	0.590	
2012	4	2,064.000	2,022.256	41.744	2.02%	3.606	
2012	5	2,067.000	2,039.382	27.618	1.34%	2.386	
2012	6	2,067.000	2,050.567	16.433	0.80%	1.420	
2012	7	2,068.000	2,057.081	10.919	0.53%	0.943	
2012	8	2,068.000	2,061.279	6.721	0.33%	0.581	

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2012	9	2,065.000	2,063.724	1.276	0.06%	0.110	
2012	10	2,062.000	2,063.937	-1.937	-0.09%	-0.167	
2012	11	2,057.000	2,062.851	-5.851	-0.28%	-0.505	
2012	12	2,053.000	2,060.202	-7.202	-0.35%	-0.622	
2013	1	2,055.000	2,057.044	-2.044	-0.10%	-0.177	
2013	2	2,056.000	2,056.013	-0.013	-0.00%	-0.001	
2013	3	2,055.000	2,055.815	-0.815	-0.04%	-0.070	
2013	4	2,055.000	2,055.297	-0.297	-0.01%	-0.026	
2013	5	2,056.000	2,054.995	1.005	0.05%	0.087	
2013	6	2,058.000	2,055.222	2.778	0.13%	0.240	
2013	7	2,060.000	2,056.162	3.838	0.19%	0.332	
2013	8	2,062.000	2,057.516	4.484	0.22%	0.387	
2013	9	2,066.000	2,059.111	6.889	0.33%	0.595	
2013	10	2,059.000	2,061.654	-2.654	-0.13%	-0.229	
2013	11	2,058.000	2,060.311	-2.311	-0.11%	-0.200	
2013	12	2,086.000	2,059.126	26.874	1.29%	2.322	
2014	1	2,093.000	2,069.732	23.268	1.11%	2.010	
2014	2	2,094.000	2,078.733	15.267	0.73%	1.319	
2014	3	2,093.000	2,084.380	8.620	0.41%	0.745	
2014	4	2,089.000	2,087.265	1.735	0.08%	0.150	
2014	5	2,091.000	2,087.331	3.669	0.18%	0.317	
2014	6	2,090.000	2,088.177	1.823	0.09%	0.157	
2014	7	2,092.000	2,088.266	3.734	0.18%	0.323	
2014	8	2,091.000	2,089.125	1.875	0.09%	0.162	
2014	9	2,089.000	2,089.221	-0.221	-0.01%	-0.019	
2014	10	2,091.000	2,088.471	2.529	0.12%	0.218	
2014	11	2,084.000	2,088.841	-4.841	-0.23%	-0.418	
2014	12	2,082.000	2,086.232	-4.232	-0.20%	-0.366	
2015	1	2,082.000	2,083.905	-1.905	-0.09%	-0.165	
2015	2	2,083.000	2,082.551	0.449	0.02%	0.039	
2015	3	2,080.000	2,082.165	-2.165	-0.10%	-0.187	
2015	4	2,080.000	2,080.730	-0.730	-0.04%	-0.063	
2015	5	2,080.000	2,079.894	0.106	0.01%	0.009	Rounded
2015	6		2,079.407				2,079
2015	7		2,078.885				2,079
2015	8		2,078.369				2,078
2015	9		2,077.861				2,078
2015	10		2,077.360				2,077
2015	11		2,076.867				2,077
2015	12		2,076.380				2,076
2016	1		2,075.900				2,076
2016	2		2,075.427				2,075
2016	3		2,074.960				2,075
2016	4		2,074.500				2,075

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2016	5		2,074.047				2,074
2016	6		2,073.600				2,074
2016	7		2,073.159				2,073
2016	8		2,072.725				2,073
2016	9		2,072.296				2,072
2016	10		2,071.874				2,072
2016	11		2,071.458				2,071
2016	12		2,071.047				2,071
2017	1		2,070.642				2,071
2017	2		2,070.243				2,070
2017	3		2,069.850				2,070
2017	4		2,069.462				2,069
2017	5		2,069.080				2,069
2017	6		2,068.703				2,069
2017	7		2,068.331				2,068
2017	8		2,067.965				2,068
2017	9		2,067.604				2,068
2017	10		2,067.248				2,067
2017	11		2,066.897				2,067
2017	12		2,066.551				2,067
2018	1		2,066.210				2,066
2018	2		2,065.873				2,066
2018	3		2,065.541				2,066
2018	4		2,065.214				2,065
2018	5		2,064.892				2,065
2018	6		2,064.574				2,065
2018	7		2,064.261				2,064
2018	8		2,063.952				2,064
2018	9		2,063.648				2,064
2018	10		2,063.347				2,063
2018	11		2,063.051				2,063
2018	12		2,062.759				2,063
2019	1		2,062.472				2,062
2019	2		2,062.188				2,062
2019	3		2,061.909				2,062
2019	4		2,061.633				2,062
2019	5		2,061.361				2,061
2019	6		2,061.093				2,061
2019	7		2,060.829				2,061
2019	8		2,060.568				2,061
2019	9		2,060.312				2,060
2019	10		2,060.058				2,060
2019	11		2,059.809				2,060
2019	12		2,059.563				2,060

Xcel Energy Minnesota Other Public Authority
Test Year 2016-2020 Customer Counts

Year	Month	Actual	Pred	Resid	%Resid	StdResid	
2020	1		2,059.320				2,059
2020	2		2,059.081				2,059
2020	3		2,058.845				2,059
2020	4		2,058.613				2,059
2020	5		2,058.384				2,058
2020	6		2,058.158				2,058
2020	7		2,057.935				2,058
2020	8		2,057.715				2,058
2020	9		2,057.499				2,057
2020	10		2,057.285				2,057
2020	11		2,057.075				2,057
2020	12		2,056.867				2,057

General High-Level Description of How Billed Customers are Counted	CSS	CRS - active service
Active Metered Services	CSS counted customers as they were billed (all accounts "Billed" with current "Revenue Month" revenue). Billed Customer counts were primarily derived from RV931b and RV773 (or variations of these depending on roll-ups- i.e. by Division, etc.) New customers were counted even if they only had a partial bill. Final bills were also counted if invoiced in the same month. If a customer had two load points for the same product, that customer was counted as one customer. If a customer was supplied with more than one product, that customer was counted as a customer of each product (unless on lighting or other period billing).	Count of unique premise, service, utility type, and tariff (rate schedule) having a meter connected for at least one day during the calendar month, having a customer current for at least one service day during the calendar month, for which one or more invoices for a never before billed service period were created during the calendar This only counts a service once as billed if it received a bill, regardless of how many physical invoices were generated. Exceptions to Active Metered Service Count where 1 service is counted multiple times by different tariffs (rate schedules) LGINT - if a service is classed by the LGINT tariff found on register number 50, then count that service as 4 active services under tariffs found on registers 50, 51, 79, and 80. RTP - if a service is classed by RTP tariff found on register number 31, then count that service as 3 active services under tariffs found on registers 31, 32, and 41.
Electric Lighting Services. Periodic Billing Contracts, including individual street light and signal devices, as well as the "special C" rates (phone booths, air raid sirens, etc.), whether provided to a government agency or private corporation.	These types of customers, including "Night Watch" (lighting) are not counted as billed customers.	Count unique combinations of distinct tariff classes assigned to each Periodic Billing (PBL) contract. For example, if a contract has multiple street lights (SL) and signal devices (TSL), this contract would count as two customers (one SL and one TSL).

Electric Specific Scenarios	CSS	CRS - active service
Service is supplied at more than one site.	Each site counted as separate customer	No change
Customer receives gas and electricity at the same address.	Counted as one gas customer and one electric customer	No change
Customer begins service prior to the end of the billing period.	Customer is counted	Service is counted once if occupied by any one or more customer for 1 day during the period.
Customer discontinues service prior to the end of the billing period (creating the account status of final).	Customer is counted	Service is counted once if occupied by any one or more customer for 1 day during the period

Electric Specific Scenarios	CSS	CRS - active service
Customers in apartment houses. For example if an apartment has 50 electric units metered separately.	Each counted as a customer as long as billed separately	Each metered service still counted as a customer
Two different types of utility services are used at the same premise. For example if a residence has both a residential and a commercial meter for a business in the basement.	Each counted as separate customer (unless additional service is lighting or periodic billing)	No change
Same type of utility service for the same premise is metered separately. For example if a customer has an electric meter for the house and an electric meter for the garage at the same address.	One customer counted	No change
Same type of utility service for two premises is metered separately. For example if the landlord lives on the first floor and the basement is metered separately.	Two customers counted	No change
Customers with electric service in unincorporated areas with a street light (SLUs). For example, three residential customers share one street light.	Not applicable, because even if customers are sharing the street light, one customer pays the utility (and gets reimbursed directly from other customers). And, as discussed above, that customer would not be counted a second time as a “Night Watch” customer.	Counted consistent with CIS
Electric customers with area lights.	As discussed above, that customer would not be counted a second time as a “Night Watch” customer.	Counted consistent with CIS
Phone booths, sprinkler systems, air raid sirens and other types of non-metered accounts.	Not counted as customers	Counted consistent with CIS
Interdepartmental Sales	Not billed out of CSS so not counted.	Counted consistent with CIS

NSP MN - Electric

Minnesota	Rate	CRS 2_28_05 Production	CSS Counts Jan_05	Adj for Move-in & Move-outs	Adj for Additive Meters	Adj CSS Counts Jan_05	CRS less CSS - Increase (Decrease)	% Diff
Residential	A00	48	49			49	(1)	-2.04%
Residential	A01	728,431	737,822	(1,914)	(2,188)	733,720	(5,289)	-0.72%
Residential	A02	84	83		(2)	81	3	3.70%
Residential	A03	322,758	323,421	(403)	(18)	323,000	(242)	-0.07%
Residential	A04	49	48			48	1	2.08%
Residential	A05	940	942		(5)	937	3	0.32%
Residential	A06	294	288		(2)	286	8	2.80%
sub-total		1,052,604	1,062,653	(2,317)	(2,215)	1,058,121	(5,517)	-0.52%
C&I	A05	33	33			33	-	0.00%
C&I	A06	75	77			77	(2)	-2.60%
C&I	A09	103	-		(17)	(17)	120	-705.88%
C&I	A10	69,465	71,883	(82)	(240)	71,561	(2,096)	-2.93%
C&I	A11	117	114	(1)		113	4	3.54%
C&I	A12	4,561	4,578	(1)		4,577	(16)	-0.35%
C&I	A13	10	11			11	(1)	-9.09%
C&I	A14	35,081	35,887	(26)	(1,561)	34,300	781	2.28%
C&I	A15	2,847	2,883	(1)	(917)	1,965	882	44.89%
C&I	A17	1	-			-	1	---
C&I	A18	5,565	5,623			5,623	(58)	-1.03%
C&I	A20	39	36		(13)	23	16	69.57%
C&I	A21	3	3		(8)	(5)	8	-160.00%
C&I	A23	1,814	1,822		(289)	1,533	281	18.33%
C&I	A24	339	352		(415)	(63)	402	-638.10%
C&I	A27	15	15		(5)	10	5	50.00%
C&I	A38	1	-			-	1	---
C&I	5558					-	-	---
C&I	4631					-	-	---
C&I	W01		6		(6)	-	-	---
C&I	A60				(6)	(6)	6	-100.00%
C&I	A61	1	-			-	1	---
sub-total		120,070	123,323	(111)	(3,477)	119,735	335	0.28%
Street Lighting	A30	1,410	1,398			1,398	12	0.86%
Street Lighting	A31	7	7			7	-	0.00%
Street Lighting	A32	548	540			540	8	1.48%
Street Lighting	A34	1,038	1,077			1,077	(39)	-3.62%
Street Lighting	A35	7	7			7	-	0.00%
Street Lighting	A37	1	1			1	-	0.00%
sub-total		3,011	3,030	-	-	3,030	(19)	-0.63%
Other Pub Auth	A40	1,033	1,037			1,037	(4)	-0.39%
Other Pub Auth	A41	613	620		(9)	611	2	0.33%
Other Pub Auth	A42	471	477			477	(6)	-1.26%
Other Pub Auth	A43		3			3	(3)	-100.00%
		2,117	2,137	-	(9)	2,128	(11)	-0.52%
Res Auto Prot Ltg	A07	11,598	11,590	(19)		11,571	27	0.23%
C&I Auto Prot Ltg	A07	13,263	13,277			13,277	(14)	-0.11%
		24,861	24,867	(19)	-	24,848	13	0.05%
Interdep & Co Use	CUSE	198				-	198	---
Total Minnesota		*1,202,861*	*1,216,010*	*(2,447)*	*(5,701)*	*1,207,862*	*(5,001)*	*-0.41%*

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A01												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A03												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A05												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A07_APL												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A00												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A01												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A03												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A05												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A01												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A03												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A05												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A07_APL												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A00												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A01												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A03												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A05												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A01												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A03												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A05												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A07_APL												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A00												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A01												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A03												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A05												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A01												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A03												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A05												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A07_APL												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A00												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A01												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A03												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A05												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A01												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A03												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A05												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A07_APL												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A00												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A01												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A03												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A05												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A05												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_1Phs												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_3P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A07_APL												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A09												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A10												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A11												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A13												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A16												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A18												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A22												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A29												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A29_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A05												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_1Phs												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_3P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A07_APL												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A09												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A10												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A11												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A13												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A16												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A18												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A22												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A29												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A29_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A05												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_1Phs												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_3P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A07_APL												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A09												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A10												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A11												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A13												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A16												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A18												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A22												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A29												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A29_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A05												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_1Phs												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_3P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A07_APL												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A09												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A10												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A11												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A13												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A16												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A18												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A22												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A29												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A29_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A05												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_1Phs												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_3P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A07_APL												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A09												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A10												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A11												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A13												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A16												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A18												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A22												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A29												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A29_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P1												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P2												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP												
NSPM	MN	PSHL	NSPM_MN_E_PSHL												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A40												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_P												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_S												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A42												
NSPM	MN	Interdepartmental	NSPM_MN_E_Interdept												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P1												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P2												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP												
NSPM	MN	PSHL	NSPM_MN_E_PSHL												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A40												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_P												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_S												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A42												
NSPM	MN	Interdepartmental	NSPM_MN_E_Interdept												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P1												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P2												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP												
NSPM	MN	PSHL	NSPM_MN_E_PSHL												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A40												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_P												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_S												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A42												
NSPM	MN	Interdepartmental	NSPM_MN_E_Interdept												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P1												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P2												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP												
NSPM	MN	PSHL	NSPM_MN_E_PSHL												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A40												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_P												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_S												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A42												
NSPM	MN	Interdepartmental	NSPM_MN_E_Interdept												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **kWh SALES**

Company	State	Class	Rate Schedules	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P1												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P2												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP												
NSPM	MN	PSHL	NSPM_MN_E_PSHL												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A40												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_P												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_S												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A42												
NSPM	MN	Interdepartmental	NSPM_MN_E_Interdept												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA **CUSTOMER COUNTS**

Company	State	Class	Rate Schedules	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A01												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A03												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A05												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A07_APL												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A00												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A01												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A03												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A05												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A01												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A03												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A05												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A07_APL												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A00												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A01												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A03												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A05												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A01												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A03												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A05												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A07_APL												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A00												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A01												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A03												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A05												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A01												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A03												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A05												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A07_APL												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A00												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A01												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A03												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A05												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A01												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A02_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A03												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A04_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A05												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A06_Off												
NSPM	MN	Residential w/o	NSPM_MN_E_RES_A07_APL												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A00												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A01												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A02_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A03												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A04_Off												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A05												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06												
NSPM	MN	Residential w/SH	NSPM_MN_E_RSH_A06_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A05												
NSPM	MN	Small C&I	MN_E_SCI_A06_1Phs												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_3P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A07_APL												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A09												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A10												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A11												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A13												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A16												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A18												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A22												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_SCI_A29												
NSPM	MN	Small C&I	NSPM_MN_SCI_A29_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A05												
NSPM	MN	Small C&I	MN_E_SCI_A06_1Phs												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_3P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A07_APL												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A09												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A10												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A11												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A13												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A16												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A18												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A22												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_SCI_A29												
NSPM	MN	Small C&I	NSPM_MN_SCI_A29_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A05												
NSPM	MN	Small C&I	MN_E_SCI_A06_1Phs												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_3P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A07_APL												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A09												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A10												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A11												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A13												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A16												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A18												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A22												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_SCI_A29												
NSPM	MN	Small C&I	NSPM_MN_SCI_A29_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A05												
NSPM	MN	Small C&I	MN_E_SCI_A06_1Phs												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_3P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A07_APL												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A09												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A10												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A11												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A13												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A16												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A18												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A22												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_SCI_A29												
NSPM	MN	Small C&I	NSPM_MN_SCI_A29_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A05												
NSPM	MN	Small C&I	MN_E_SCI_A06_1Phs												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_3P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A06_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A07_APL												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A09												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A10												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A11												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A12_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A13												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A14_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A15_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A16												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A18												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A22												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A23_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A24_U_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_P_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_S_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Off												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int												
NSPM	MN	Small C&I	NSPM_MN_E_SCI_A27_T_Int_Off												
NSPM	MN	Small C&I	NSPM_MN_SCI_A29												
NSPM	MN	Small C&I	NSPM_MN_SCI_A29_Off												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P1												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P2												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP												
NSPM	MN	PSHL	NSPM_MN_E_PSHL												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A40												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_P												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_S												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A42												
NSPM	MN	Interdepartmental	NSPM_MN_E_Interdept												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P1												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P2												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP												
NSPM	MN	PSHL	NSPM_MN_E_PSHL												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A40												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_P												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_S												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A42												
NSPM	MN	Interdepartmental	NSPM_MN_E_Interdept												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P1												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P2												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP												
NSPM	MN	PSHL	NSPM_MN_E_PSHL												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A40												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_P												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_S												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A42												
NSPM	MN	Interdepartmental	NSPM_MN_E_Interdept												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P1												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P2												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP												
NSPM	MN	PSHL	NSPM_MN_E_PSHL												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A40												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_P												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_S												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A42												
NSPM	MN	Interdepartmental	NSPM_MN_E_Interdept												

YELLOW HIGHLIGHT DENOTES TRADE SECRET DATA

CUSTOMER COUNTS

Company	State	Class	Rate Schedules	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A14_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A15_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A23_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A24_U_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_P_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_S_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A27_T_Int_Off												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P1												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_P2												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP_U												
NSPM	MN	Large C&I	NSPM_MN_E_LCI_A63_RTP												
NSPM	MN	PSHL	NSPM_MN_E_PSHL												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A40												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_P												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A41_S												
NSPM	MN	OSPA	NSPM_MN_E_OPA_A42												
NSPM	MN	Interdepartmental	NSPM_MN_E_Interdept												

Sales Forecast Prefiled Discovery - 2016 TY Minnesota Electric Rate Case
Index

Case	IR No.		Description	Addressed in 2016 TY Case
12-961	DOC	502	Subject: Regression Models Provide the following: A. a list of any, and all, variables included in the Company's regression analyses that have a t-statistic less than 1. As part of this response, identify the specific rate class; B. a list of any, and all, variables included in the Company's regression analyses that have a t-statistic between 1 and 2. As part of this response, identify the specific rate class; C. a full discussion detailing why Xcel Energy includes the variables listed in Parts A and B in its various regression analyses; D. a list of any, and all, variables considered by Xcel Energy, but not included in the Company's regression analyses, that have a t-statistic between 1 and 2. As part of this response, identify the specific rate class and discuss why Xcel Energy did not include the variables listed in Part D in its various regression analyses.	Sales Forecast Data Prefiling (10-02-15) IR No. 1 and/or 2
12-961	DOC	517	Subject: Initially Filed Forecasting Models Fully explain, and provide sufficient support, why the Company classifies certain regression statistics and outputs as trade secret.	Sales Forecast Data Prefiling (10-02-15) IR No. 1 and/or 2
12-961	DOC	518	Subject: Initially Filed Forecasting Models Provide a detailed discussion of the source material used to specify the trade secret variables used in the Company's regression models.	Sales Forecast Data Prefiling (10-02-15) IR No. 1 and/or 2
12-961	DOC	521	Reference: Response to DOC Information Request No. 7, Page 3 In the above-referenced response, the Company states the following regarding price: For the rate case test year forecast, growth in average prices was derived from the annual change in costs for production and delivery of electricity for NSP developed in the Strategist model. A. Provide a detailed derivation and explanation of how these data were calculated in Strategist. B. Provide any, and all, input and output data, in Microsoft Excel format with all links and formulae intact, used in the calculation of average prices.	Sales Forecast Data Prefiling (10-02-15) IR No. 13
12-961	DOC	522	Reference: Response to DOC Information Request No. 9 In the above-referenced response, the Company discusses the exogenous adjustments it makes to its test year sales forecast. Provide the following: A. A detailed discussion and step-by-step explanation of how the Company calculates all of the DSM adjustments in the spreadsheet attachment. Specifically, this discussion should include, but not necessarily be limited to, all assumptions that Xcel Energy used in the creation of this file, a justification of why the Company bases its adjustments on incremental DSM, and the source(s) for any, and all, data in the file; B. If statistical methods were used in the calculation of any DSM adjustment, apart from the sales forecast without DSM, provide a discussion of what method was used, any relevant input data, and relevant model statistics (e.g., coefficients, t-statistics, F-statistics); C. A detailed discussion and step-by-step explanation of how the Company calculates all of the exogenous adjustments. Specifically, this discussion should include, but not necessarily be limited to, all assumptions used. This discussion should also include the source for any, and all, data in the attachment file; and D. If statistical methods were used in the calculation of any figures, provide a discussion of what method was used, any relevant input data, and relevant model statistics (e.g., coefficients, t-statistics, F-statistics).	Sales Forecast Data Prefiling (10-02-15) IR No. 9

Sales Forecast Prefiled Discovery - 2016 TY Minnesota Electric Rate Case
Index

Case	IR No.		Description	Addressed in 2016 TY Case
12-961	DOC	523	Re: Large commercial and industrial customers information provided in sales forecast data prefiling. Provide a full explanation detailing whether large commercial and industrial customer information is input data for the regression model, or whether it represents additional sales included in the test year forecast.	Sales Forecast Data Prefiling (10-02-15) IR No. 14
12-961	MCC	506	a) Explain what is meant by the electric price variable. b) How was this formulated? c) What was the data used for this variable? d) Provide statistical results of the regression analysis by class with and without this variable. I.e.: coefficients, related t-stats, R-squared, DW statistics, etc.	Sales Forecast Data Prefiling (10-02-15) IR No. 13
12-961	MCC	509	Provide the projected MW and MWh reductions by class related to CIP.	Sales Forecast Data Prefiling (10-02-15) IR No. 9
12-961	MCC	510	How does Xcel Energy account for MW and MWh reductions by class related to the CIP in the regression model?	Sales Forecast Data Prefiling (10-02-15) IR No. 9
12-961	MCC	511	Provide the actual and projected MW and MWhs reductions due to CIP by class in Excel spreadsheet format, along with a narrative explanation.	Sales Forecast Data Prefiling (10-02-15) IR No. 9
12-961	MCC	513	Provide the equation used to conduct the regression analysis by customer class including the dependent and all explanatory variables.	Sales Forecast Data Prefiling (10-02-15) IR Nos. 1 and 2
12-961	MCC	514	Provide the regression model and data used to forecast MWh sales by class. Provide a narrative explanation of each variable along with the data used for each variable.	Sales Forecast Data Prefiling (10-02-15) IR Nos. 1 and 2
12-961	MCC	522	How does Xcel Energy account for behavioral impacts in CIP? How is Xcel Energy compensated for such impacts in CIP? How are these impacts accounted for, in MWh sales.	Sales Forecast Data Prefiling (10-02-15) IR No. 9
12-961	MCC	524	Reference: Response to MCC Information Request No. 514 Provide the narrative explanation for each explanatory variable (for example, what is IP trend etc.).	Sales Forecast Data Prefiling (10-02-15) IR Nos. 1 and 2
12-961	MCC	526	Reference: Response to MCC Information Request No. 510 1. Explain why Xcel Energy takes the difference between the embedded DSM and future DSM to adjust test year MWh sales. 2. Define what is meant by embedded DSM (e.g.: continued savings from past programs v. historical trends embedded in the model) 3. Explain how the embedded DSM was calculated.	Sales Forecast Data Prefiling (10-02-15) IR No. 9
12-961	MCC	532	Reference: Response to MCC Information Request No. 510, Attachment A Explain whether Xcel Energy gets CIP financial incentive for business cooling.	Sales Forecast Data Prefiling (10-02-15) IR No. 9
12-961	MCC	707	Provide year by year MWh sales by class - actual sales for 2010-2014 and projected for 2015, 2016, 2017, 2018, 2019 and 2020. Provide in Excel spreadsheet format.	Appendix A
12-961	MCC	710	Provide actual monthly MWh sales by class for 2013, 2014 and year-to-date 2015 and projected for balance-of-year 2015, 2016, 2017, 2018, 2019 and 2020.	Appendix A
12-961	MCC	724	Provide the energy and demand allocators used to assign fixed production plant at the jurisdictional level approved in the last rate case and used in this rate case. How does Xcel Energy treat interruptible load on a jurisdictional basis?	Appendix A

Sales Forecast Prefiled Discovery - 2016 TY Minnesota Electric Rate Case
Index

Case	IR No.		Description	Addressed in 2016 TY Case
12-961	MCC	737	Provide the net monthly system peaks for the period 2009-2015.	Appendix A
12-961	MCC	738	Provide the base monthly system peaks for the period 2009-2015.	Appendix A
13-868	DOC	112	Provide a copy of the 2015 and 2016 sales budgets.	Appendix A
13-868	DOC	507	i. Has Xcel Energy identified any potential new large commercial and industrial customers? Provide a detailed explanation. ii. If the answer to the above question is "yes", provide the associated monthly kWh and/or kw for the 2016 test year.	Direct Testimony Schedule 6
13-868	DOC	508	Reference: Response to DOC Information Request No. 504 that includes the Company's supplemental response to IR no. 7. The Company states the following: Historical DSM Impacts: Differences in the values of the historical DSM impacts for the Residential and Commercial and Industrial classes are due to a re-estimation of these impacts by the DSM Strategy and Planning Department. The re-estimation is the result of increasing the level of detail used for calculating the lifetime of DSM measures, which we incorporated into the model. i. Provide a detailed explanation of all the DSM changes between the Company's initial filing and the DSM referenced above. ii. Provide a detailed explanation of how the Company's DSM Strategy and Planning Department re-estimated the impacts referenced above, and provide all of the Company's calculations showing the re-estimation by the DSM Strategy and Planning Department of the DSM referenced above.	Sales Forecast Data Prefiling (10-02-15) IR No. 9
13-868	DOC	512	1) Does this proceeding offer any unique opportunities to take additional advantage of actual sales to develop the test year forecast? 2) What calculation is required to calculate test year sales based on 2016 actual sales? 3) How would your proposal to use actual weather-normalized sales be implemented in this proceeding?	Direct Testimony Section III
13-868	MCC	102	Provide the results of the entire regression equation for the classes. Provide the coefficient, standard error and related t statistics for the price variable. Provide this information in Excel spreadsheet format.	Sales Forecast Data Prefiling (10-02-15) IR Nos. 1 and 2
13-868	MCC	148	Regarding the sales forecast, explain how the monthly historical DSM numbers were calculated? Also provide relevant workpapers indicating the numerical calculations.	Sales Forecast Data Prefiling (10-02-15) IR No. 9
13-868	MCC	155	Provide by customer class, the DSM adjustments for existing DSM and future DSM separately in Excel spreadsheet format. Also provide a narrative explanation.	Sales Forecast Data Prefiling (10-02-15) IR No. 9
13-868	OAG	504	Explain and provide the calculation for how you quantified the DSM adjustment. Include all necessary data to replicate your analysis.	Sales Forecast Data Prefiling 10-02-15) IR No. 9
13-868	OAG	506	Provide the instances where variances occurred between the original source data and the data provided by IHS Global Insight. Include the explanations obtained from IHS Global Insight for these variances.	Sales Forecast Data Prefiling (10-02-15) IR No. 13
13-868	XLI	2	Provide electronic copies, in native format (e.g., Excel spreadsheets, etc.) of all sales forecast data filed on October 2, 2015.	Sales Forecast Data Prefiling (10-02-15)

Docket No. E002/GR-12-961
Information Request No. MCC-707

Question:

Please provide year by year MWH sales by class - actual sales for 2010-2014 and projected for 2015, 2016, 2017, 2018, 2019 and 2020. Please provide in Excel spreadsheet format.

Response:

The requested information is provided as Attachment A to this response.

Witness: Jannell E. Marks
Preparer: Jannell E. Marks
Title: Director
Department: Sales, Energy and Demand Forecasting

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-12-961
Information Request No. MCC-707, Attachment A, Page 1 of 1

Xcel Energy Minnesota Jurisdiction MWh Sales by Class

	Actual Sales							
	Residential w/o Space Heat	Residential w/ Space Heat	Small Comm/Ind	Large Comm/Ind	Street Lighting	Public Authority	Interdepart-mental	Firm Wholesale
2010	8,570,740	377,036	13,434,890	9,053,962	140,268	75,397	10,006	297,982
2011	8,579,451	389,580	13,393,931	9,064,449	143,220	74,454	8,049	42,590
2012	8,548,894	357,914	13,439,448	8,614,827	145,337	70,120	7,034	29,820
2013	8,520,133	413,440	13,500,258	8,293,190	145,806	69,637	7,840	18,502
2014	8,360,382	424,196	13,567,125	8,179,537	143,362	66,823	11,228	0
2015 Act+Fcst	8,093,781	393,743	13,435,980	8,258,855	138,404	65,853	10,902	0
2016 Forecast	8,173,053	392,054	13,546,742	8,351,402	146,796	70,706	9,235	0
2017 Forecast	8,093,962	387,888	13,625,191	8,361,801	148,050	69,822	9,235	0
2018 Forecast	8,053,280	385,444	13,679,239	8,409,141	149,156	69,742	9,235	0
2019 Forecast	7,998,276	381,621	13,779,025	8,479,166	150,181	69,304	9,235	0
2020 Forecast	7,958,504	374,570	13,889,746	8,550,282	151,120	68,949	9,235	0

	Weather Normalized Sales							
	Residential w/o Space Heat	Residential w/ Space Heat	Small Comm/Ind	Large Comm/Ind	Street Lighting	Public Authority	Interdepart-mental	Firm Wholesale
2010	8,311,540	380,305	13,304,428	9,053,962	140,268	75,397	10,006	297,982
2011	8,347,934	388,042	13,272,536	9,064,449	143,220	74,454	8,049	42,590
2012	8,349,850	382,321	13,327,316	8,637,190	145,337	70,120	7,034	29,820
2013	8,247,730	390,755	13,333,416	8,293,190	145,806	69,637	7,840	18,502
2014	8,297,636	391,123	13,532,519	8,179,537	143,362	66,823	11,228	0
2015 Act+Fcst	8,200,115	395,244	13,497,666	8,258,855	138,404	65,853	10,902	0
2016 Forecast	8,173,053	392,054	13,546,742	8,351,402	146,796	70,706	9,235	0
2017 Forecast	8,093,962	387,888	13,625,191	8,361,801	148,050	69,822	9,235	0
2018 Forecast	8,053,280	385,444	13,679,239	8,409,141	149,156	69,742	9,235	0
2019 Forecast	7,998,276	381,621	13,779,025	8,479,166	150,181	69,304	9,235	0
2020 Forecast	7,958,504	374,570	13,889,746	8,550,282	151,120	68,949	9,235	0

Docket No. E002/GR-12-961
Information Request No. MCC-710

Question:

Please provide actual monthly MWh sales by class for 2013, 2014 and year-to-date 2015 and projected for balance-of-year 2015, 2016, 2017, 2018, 2019 and 2020.

Response:

The requested information is provided as Attachment A to this response.

Witness: Jannell E. Marks
Preparer: Jannell E. Marks
Title: Director
Department: Sales, Energy and Demand Forecasting

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-12-961
Information Request No. MCC-710, Attachment A, Page 1 of 4

Xcel Energy Minnesota Jurisdiction MWh Sales by Class

	Actual Sales							
	Residential w/o Space Heat	Residential w/ Space Heat	Small Comm/Ind	Large Comm/Ind	Street Lighting	Public Authority	Interdepart-mental	Firm Wholesale
Jan-13 Actual	754,428	53,418	1,118,900	650,749	17,223	4,845	555	1,656
Feb-13 Actual	646,789	49,861	971,359	612,573	12,175	4,390	610	1,470
Mar-13 Actual	658,406	43,191	1,114,863	682,654	12,381	5,476	441	1,583
Apr-13 Actual	589,807	26,081	1,051,425	650,701	12,175	4,969	511	1,435
May-13 Actual	569,115	30,923	1,107,215	668,579	8,471	6,100	725	1,478
Jun-13 Actual	738,002	21,237	1,145,615	695,101	7,636	6,587	592	1,518
Jul-13 Actual	969,371	25,514	1,257,030	768,307	9,458	6,492	647	1,699
Aug-13 Actual	909,177	23,654	1,301,413	773,301	9,540	8,282	670	1,629
Sep-13 Actual	683,015	20,193	1,173,653	741,963	11,795	7,734	716	1,544
Oct-13 Actual	596,760	28,132	1,077,794	736,927	13,096	5,812	602	1,383
Nov-13 Actual	633,428	34,892	1,092,326	655,709	13,588	4,323	1,211	1,420
Dec-13 Actual	771,836	56,343	1,088,665	656,626	18,268	4,626	560	1,687
Jan-14 Actual	796,875	62,033	1,151,599	648,766	16,507	5,354	582	0
Feb-14 Actual	694,319	58,786	1,029,644	622,864	11,739	4,504	610	0
Mar-14 Actual	676,015	43,796	1,142,283	679,455	13,963	5,606	578	0
Apr-14 Actual	559,219	27,838	1,046,050	635,186	10,170	5,123	460	0
May-14 Actual	593,126	31,286	1,092,416	658,223	8,677	5,663	975	0
Jun-14 Actual	747,883	19,657	1,176,799	667,190	8,962	5,568	1,792	0
Jul-14 Actual	819,159	22,308	1,207,615	759,128	8,199	7,008	1,199	0
Aug-14 Actual	876,113	23,499	1,316,268	747,702	8,684	8,411	89	0
Sep-14 Actual	631,988	19,751	1,119,159	725,280	12,852	6,061	1,805	0
Oct-14 Actual	590,534	24,903	1,096,118	713,646	11,832	3,843	1,149	0
Nov-14 Actual	648,050	43,406	1,082,710	649,554	14,016	4,549	70	0
Dec-14 Actual	727,100	46,933	1,106,464	672,544	17,761	5,133	1,918	0
Jan-15 Actual	750,009	56,048	1,152,604	634,857	16,931	5,101	533	0
Feb-15 Actual	656,271	58,137	1,003,965	614,632	8,076	4,428	93	0
Mar-15 Actual	622,708	39,308	1,106,905	673,207	18,641	4,777	994	0
Apr-15 Actual	525,021	25,454	1,007,807	676,715	8,012	4,476	669	0
May-15 Actual	562,013	17,214	1,084,389	670,707	8,256	5,367	67	0
Jun-15 Actual	709,956	19,713	1,142,102	687,788	8,889	5,181	2,765	0
Jul-15 Actual	869,477	23,662	1,263,316	750,469	5,896	6,409	1,763	0
Aug-15 Actual	806,718	22,808	1,251,563	759,639	10,757	6,263	599	0
Sep-15 Forecast	642,591	20,152	1,148,741	736,669	11,131	7,403	1,074	0
Oct-15 Forecast	594,202	24,933	1,093,620	729,026	12,395	6,594	755	0
Nov-15 Forecast	622,462	36,071	1,074,694	656,425	13,715	4,497	587	0
Dec-15 Forecast	732,354	50,244	1,106,274	668,720	15,706	5,355	1,005	0
Jan-16 Forecast	751,433	56,903	1,162,756	651,765	16,496	5,269	557	0
Feb-16 Forecast	651,841	49,826	1,028,703	647,576	13,098	4,790	438	0
Mar-16 Forecast	641,284	38,194	1,121,105	691,530	14,120	5,640	671	0
Apr-16 Forecast	537,388	24,770	1,031,472	651,406	11,347	4,779	547	0
May-16 Forecast	559,886	24,525	1,086,509	672,140	9,956	5,149	589	0
Jun-16 Forecast	733,879	19,848	1,163,019	690,165	9,430	6,283	1,716	0
Jul-16 Forecast	911,925	24,563	1,245,366	772,894	9,374	6,749	842	0
Aug-16 Forecast	815,094	22,511	1,275,800	769,913	9,381	8,731	454	0
Sep-16 Forecast	639,488	19,882	1,145,611	742,875	11,180	7,371	1,074	0
Oct-16 Forecast	588,849	24,747	1,100,050	734,530	12,705	6,236	755	0
Nov-16 Forecast	616,512	36,012	1,078,278	657,420	13,983	4,814	587	0
Dec-16 Forecast	725,473	50,273	1,108,074	669,189	15,726	4,893	1,005	0
Jan-17 Forecast	742,784	56,791	1,168,806	666,453	16,558	5,577	557	0
Feb-17 Forecast	629,208	48,553	1,002,505	638,680	13,639	4,362	438	0
Mar-17 Forecast	633,388	38,002	1,128,058	690,079	13,690	5,634	671	0
Apr-17 Forecast	529,951	24,477	1,050,328	650,037	11,463	4,426	547	0
May-17 Forecast	554,761	24,126	1,105,244	671,216	10,171	5,417	589	0
Jun-17 Forecast	728,797	19,547	1,170,753	689,192	9,507	6,225	1,716	0
Jul-17 Forecast	907,252	24,288	1,253,874	772,436	9,495	6,724	842	0
Aug-17 Forecast	811,016	22,206	1,282,604	769,410	9,502	8,665	454	0
Sep-17 Forecast	635,513	19,499	1,150,035	742,686	11,254	7,021	1,074	0
Oct-17 Forecast	585,954	24,498	1,110,820	734,914	12,857	6,497	755	0
Nov-17 Forecast	613,374	35,689	1,086,934	662,611	14,123	4,792	587	0
Dec-17 Forecast	721,964	50,214	1,115,230	674,086	15,791	4,482	1,005	0
Jan-18 Forecast	741,039	56,799	1,173,935	657,438	16,636	5,882	557	0
Feb-18 Forecast	627,556	48,496	1,006,842	629,469	13,861	4,331	438	0

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-12-961
Information Request No. MCC-710, Attachment A, Page 2 of 4

Xcel Energy Minnesota Jurisdiction MWh Sales by Class

	Actual Sales							
	Residential w/o Space Heat	Residential w/ Space Heat	Small Comm/Ind	Large Comm/Ind	Street Lighting	Public Authority	Interdepart-mental	Firm Wholesale
Mar-18 Forecast	630,775	37,866	1,131,364	696,882	13,620	5,277	671	0
Apr-18 Forecast	528,140	24,224	1,060,344	657,059	11,558	4,712	547	0
May-18 Forecast	551,989	23,795	1,112,764	678,049	10,296	5,367	589	0
Jun-18 Forecast	725,057	19,222	1,173,790	695,622	9,591	5,870	1,716	0
Jul-18 Forecast	903,810	24,035	1,258,866	779,265	9,593	7,012	842	0
Aug-18 Forecast	806,838	21,888	1,285,712	775,878	9,600	8,606	454	0
Sep-18 Forecast	630,610	19,045	1,151,514	749,012	11,338	6,678	1,074	0
Oct-18 Forecast	581,568	24,254	1,115,550	741,421	12,965	6,766	755	0
Nov-18 Forecast	608,051	35,577	1,090,154	668,713	14,227	4,776	587	0
Dec-18 Forecast	717,846	50,243	1,118,403	680,333	15,872	4,467	1,005	0
Jan-19 Forecast	734,851	56,751	1,181,132	663,595	16,720	5,456	557	0
Feb-19 Forecast	623,293	48,338	1,015,236	635,700	13,989	4,317	438	0
Mar-19 Forecast	626,252	37,615	1,139,739	703,051	13,659	5,242	671	0
Apr-19 Forecast	523,923	23,895	1,071,073	663,171	11,646	4,962	547	0
May-19 Forecast	546,172	23,348	1,120,335	683,742	10,393	4,733	589	0
Jun-19 Forecast	720,469	18,802	1,182,779	701,553	9,675	6,153	1,716	0
Jul-19 Forecast	899,029	23,630	1,267,943	785,124	9,680	7,274	842	0
Aug-19 Forecast	801,128	21,425	1,291,864	781,479	9,686	7,973	454	0
Sep-19 Forecast	627,032	18,606	1,160,852	754,653	11,419	7,236	1,074	0
Oct-19 Forecast	576,939	23,837	1,122,759	746,942	13,052	6,429	755	0
Nov-19 Forecast	603,570	35,277	1,096,775	674,184	14,312	4,335	587	0
Dec-19 Forecast	715,618	50,098	1,128,538	685,971	15,950	5,194	1,005	0
Jan-20 Forecast	726,711	56,329	1,186,004	667,786	16,799	5,111	557	0
Feb-20 Forecast	654,412	47,922	1,055,155	659,573	14,081	4,634	438	0
Mar-20 Forecast	620,269	37,094	1,146,555	707,227	13,723	5,487	671	0
Apr-20 Forecast	517,626	23,245	1,076,905	667,481	11,725	4,628	547	0
May-20 Forecast	541,100	22,632	1,128,074	688,133	10,474	4,999	589	0
Jun-20 Forecast	714,532	18,097	1,189,084	705,772	9,752	6,135	1,716	0
Jul-20 Forecast	892,325	22,925	1,272,099	789,425	9,758	6,604	842	0
Aug-20 Forecast	795,566	20,770	1,300,243	785,857	9,764	8,588	454	0
Sep-20 Forecast	620,852	17,868	1,167,575	759,053	11,495	7,230	1,074	0
Oct-20 Forecast	570,282	23,141	1,128,876	751,133	13,131	6,097	755	0
Nov-20 Forecast	597,309	34,829	1,104,988	678,589	14,391	4,677	587	0
Dec-20 Forecast	707,519	49,718	1,134,187	690,251	16,026	4,758	1,005	0
Jan-13 WN Actual	759,873	54,553	1,120,221	650,749	17,223	4,845	555	1,656
Feb-13 WN Actual	642,791	48,813	970,212	612,573	12,175	4,390	610	1,470
Mar-13 WN Actual	646,288	39,067	1,111,574	682,654	12,381	5,476	441	1,583
Apr-13 WN Actual	560,888	19,752	1,041,193	650,701	12,175	4,969	511	1,435
May-13 WN Actual	565,900	30,584	1,105,640	668,579	8,471	6,100	725	1,478
Jun-13 WN Actual	717,887	20,715	1,134,282	695,101	7,636	6,587	592	1,518
Jul-13 WN Actual	926,106	24,657	1,236,005	768,307	9,458	6,492	647	1,699
Aug-13 WN Actual	831,063	22,132	1,252,684	773,301	9,540	8,282	670	1,629
Sep-13 WN Actual	635,874	20,258	1,105,194	741,963	11,795	7,734	716	1,544
Oct-13 WN Actual	599,935	27,846	1,084,891	736,927	13,096	5,812	602	1,383
Nov-13 WN Actual	627,510	33,576	1,091,035	655,709	13,588	4,323	1,211	1,420
Dec-13 WN Actual	733,613	48,802	1,080,484	656,626	18,268	4,626	560	1,687
Jan-14 WN Actual	760,519	54,137	1,138,252	648,766	16,507	5,354	582	0
Feb-14 WN Actual	641,811	47,366	1,010,387	622,864	11,739	4,504	610	0
Mar-14 WN Actual	654,342	37,854	1,109,673	679,455	13,963	5,606	578	0
Apr-14 WN Actual	552,703	24,578	1,046,050	635,186	10,170	5,123	460	0
May-14 WN Actual	575,606	30,525	1,084,170	658,223	8,677	5,663	975	0
Jun-14 WN Actual	748,810	19,685	1,177,365	667,190	8,962	5,568	1,792	0
Jul-14 WN Actual	927,483	24,606	1,247,385	759,128	8,199	7,008	1,199	0
Aug-14 WN Actual	830,364	22,544	1,287,788	747,702	8,684	8,411	89	0
Sep-14 WN Actual	655,763	20,018	1,144,450	725,280	12,852	6,061	1,805	0
Oct-14 WN Actual	594,136	24,648	1,102,591	713,646	11,832	3,843	1,149	0
Nov-14 WN Actual	616,497	35,576	1,074,722	649,554	14,016	4,549	70	0
Dec-14 WN Actual	739,601	49,585	1,109,686	672,544	17,761	5,133	1,918	0
Jan-15 WN Actual	762,285	58,922	1,155,983	634,857	16,931	5,101	533	0
Feb-15 WN Actual	630,115	50,382	993,903	614,632	8,076	4,428	93	0
Mar-15 WN Actual	628,293	41,359	1,108,651	673,207	18,641	4,777	994	0
Apr-15 WN Actual	527,902	27,204	1,007,810	676,715	8,012	4,476	669	0

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-12-961
Information Request No. MCC-710, Attachment A, Page 3 of 4

Xcel Energy Minnesota Jurisdiction MWh Sales by Class

	Actual Sales							
	Residential w/o Space Heat	Residential w/ Space Heat	Small Comm/Ind	Large Comm/Ind	Street Lighting	Public Authority	Interdepart-mental	Firm Wholesale
May-15 WN Actual	570,661	17,552	1,088,893	670,707	8,256	5,367	67	0
Jun-15 WN Actual	736,289	20,430	1,158,987	687,788	8,889	5,181	2,765	0
Jul-15 WN Actual	910,291	24,488	1,285,794	750,469	5,896	6,409	1,763	0
Aug-15 WN Actual	842,670	23,506	1,274,318	759,639	10,757	6,263	599	0
Sep-15 Forecast	642,591	20,152	1,148,741	736,669	11,131	7,403	1,074	0
Oct-15 Forecast	594,202	24,933	1,093,620	729,026	12,395	6,594	755	0
Nov-15 Forecast	622,462	36,071	1,074,694	656,425	13,715	4,497	587	0
Dec-15 Forecast	732,354	50,244	1,106,274	668,720	15,706	5,355	1,005	0
Jan-16 Forecast	751,433	56,903	1,162,756	651,765	16,496	5,269	557	0
Feb-16 Forecast	651,841	49,826	1,028,703	647,576	13,098	4,790	438	0
Mar-16 Forecast	641,284	38,194	1,121,105	691,530	14,120	5,640	671	0
Apr-16 Forecast	537,388	24,770	1,031,472	651,406	11,347	4,779	547	0
May-16 Forecast	559,886	24,525	1,086,509	672,140	9,956	5,149	589	0
Jun-16 Forecast	733,879	19,848	1,163,019	690,165	9,430	6,283	1,716	0
Jul-16 Forecast	911,925	24,563	1,245,366	772,894	9,374	6,749	842	0
Aug-16 Forecast	815,094	22,511	1,275,800	769,913	9,381	8,731	454	0
Sep-16 Forecast	639,488	19,882	1,145,611	742,875	11,180	7,371	1,074	0
Oct-16 Forecast	588,849	24,747	1,100,050	734,530	12,705	6,236	755	0
Nov-16 Forecast	616,512	36,012	1,078,278	657,420	13,983	4,814	587	0
Dec-16 Forecast	725,473	50,273	1,108,074	669,189	15,726	4,893	1,005	0
Jan-17 Forecast	742,784	56,791	1,168,806	666,453	16,558	5,577	557	0
Feb-17 Forecast	629,208	48,553	1,002,505	638,680	13,639	4,362	438	0
Mar-17 Forecast	633,388	38,002	1,128,058	690,079	13,690	5,634	671	0
Apr-17 Forecast	529,951	24,477	1,050,328	650,037	11,463	4,426	547	0
May-17 Forecast	554,761	24,126	1,105,244	671,216	10,171	5,417	589	0
Jun-17 Forecast	728,797	19,547	1,170,753	689,192	9,507	6,225	1,716	0
Jul-17 Forecast	907,252	24,288	1,253,874	772,436	9,495	6,724	842	0
Aug-17 Forecast	811,016	22,206	1,282,604	769,410	9,502	8,665	454	0
Sep-17 Forecast	635,513	19,499	1,150,035	742,686	11,254	7,021	1,074	0
Oct-17 Forecast	585,954	24,498	1,110,820	734,914	12,857	6,497	755	0
Nov-17 Forecast	613,374	35,689	1,086,934	662,611	14,123	4,792	587	0
Dec-17 Forecast	721,964	50,214	1,115,230	674,086	15,791	4,482	1,005	0
Jan-18 Forecast	741,039	56,799	1,173,935	657,438	16,636	5,882	557	0
Feb-18 Forecast	627,556	48,496	1,006,842	629,469	13,861	4,331	438	0
Mar-18 Forecast	630,775	37,866	1,131,364	696,882	13,620	5,277	671	0
Apr-18 Forecast	528,140	24,224	1,060,344	657,059	11,558	4,712	547	0
May-18 Forecast	551,989	23,795	1,112,764	678,049	10,296	5,367	589	0
Jun-18 Forecast	725,057	19,222	1,173,790	695,622	9,591	5,870	1,716	0
Jul-18 Forecast	903,810	24,035	1,258,866	779,265	9,593	7,012	842	0
Aug-18 Forecast	806,838	21,888	1,285,712	775,878	9,600	8,606	454	0
Sep-18 Forecast	630,610	19,045	1,151,514	749,012	11,338	6,678	1,074	0
Oct-18 Forecast	581,568	24,254	1,115,550	741,421	12,965	6,766	755	0
Nov-18 Forecast	608,051	35,577	1,090,154	668,713	14,227	4,776	587	0
Dec-18 Forecast	717,846	50,243	1,118,403	680,333	15,872	4,467	1,005	0
Jan-19 Forecast	734,851	56,751	1,181,132	663,595	16,720	5,456	557	0
Feb-19 Forecast	623,293	48,338	1,015,236	635,700	13,989	4,317	438	0
Mar-19 Forecast	626,252	37,615	1,139,739	703,051	13,659	5,242	671	0
Apr-19 Forecast	523,923	23,895	1,071,073	663,171	11,646	4,962	547	0
May-19 Forecast	546,172	23,348	1,120,335	683,742	10,393	4,733	589	0
Jun-19 Forecast	720,469	18,802	1,182,779	701,553	9,675	6,153	1,716	0
Jul-19 Forecast	899,029	23,630	1,267,943	785,124	9,680	7,274	842	0
Aug-19 Forecast	801,128	21,425	1,291,864	781,479	9,686	7,973	454	0
Sep-19 Forecast	627,032	18,606	1,160,852	754,653	11,419	7,236	1,074	0
Oct-19 Forecast	576,939	23,837	1,122,759	746,942	13,052	6,429	755	0
Nov-19 Forecast	603,570	35,277	1,096,775	674,184	14,312	4,335	587	0
Dec-19 Forecast	715,618	50,098	1,128,538	685,971	15,950	5,194	1,005	0
Jan-20 Forecast	726,711	56,329	1,186,004	667,786	16,799	5,111	557	0
Feb-20 Forecast	654,412	47,922	1,055,155	659,573	14,081	4,634	438	0
Mar-20 Forecast	620,269	37,094	1,146,555	707,227	13,723	5,487	671	0
Apr-20 Forecast	517,626	23,245	1,076,905	667,481	11,725	4,628	547	0
May-20 Forecast	541,100	22,632	1,128,074	688,133	10,474	4,999	589	0
Jun-20 Forecast	714,532	18,097	1,189,084	705,772	9,752	6,135	1,716	0

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-12-961
Information Request No. MCC-710, Attachment A, Page 4 of 4

Xcel Energy Minnesota Jurisdiction MWh Sales by Class

	Actual Sales							
	Residential w/o Space Heat	Residential w/ Space Heat	Small Comm/Ind	Large Comm/Ind	Street Lighting	Public Authority	Interdepart-mental	Firm Wholesale
Jul-20 Forecast	892,325	22,925	1,272,099	789,425	9,758	6,604	842	0
Aug-20 Forecast	795,566	20,770	1,300,243	785,857	9,764	8,588	454	0
Sep-20 Forecast	620,852	17,868	1,167,575	759,053	11,495	7,230	1,074	0
Oct-20 Forecast	570,282	23,141	1,128,876	751,133	13,131	6,097	755	0
Nov-20 Forecast	597,309	34,829	1,104,988	678,589	14,391	4,677	587	0
Dec-20 Forecast	707,519	49,718	1,134,187	690,251	16,026	4,758	1,005	0

Docket No. E002/GR-12-961
Information Request No. MCC-724

Question:

Please provide the energy and demand allocators used to assign fixed production plant at the jurisdictional level approved in the last rate case and used in this rate case. How does Xcel treat interruptible load on a jurisdictional basis?

Response:

The energy and demand allocators used to assign fixed production plant at the jurisdictional level approved in the Company's last rate case in Docket No. E002/GR-13-868 and used in the present rate case are provided in Attachment A to this response.

We develop our demand loss factors by using a five-year average of metered sales and energy and applying those ratios to a demand loss study undertaken several years ago. Since the resultant loss factors are developed using interrupted rather than uninterrupted data, the magnitude of any interruption has no impact. However, even if uninterrupted data were used, since both the sales and energy values would be affected by the same magnitude, it should still have no impact on the subsequent calculations.

Witness: Jannell E. Marks
Preparer: John Sarles / Jannell E. Marks
Title: Associate Quantitative Risk Analyst / Director
Department: Sales, Energy and Demand Forecasting

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-12-961
Information Request No. MCC-724, Attachment A, Page 1 of 1

Energy and Demand Allocators Used in
Rate Case Docket Nos. E002/GR-13-868 and E002/GR-15-826

Energy Allocator

	Total Company	MN	ND	SD	WHSL
E002/GR-13-868 - 2014 Test Year	100.0000%	87.5707%	6.5250%	5.9043%	0.0000%
E002/GR-13-868 - 2015 Test Year	100.0000%	87.4074%	6.5817%	6.0109%	0.0000%
E002/GR-15-826 - 2016 Test Year	100.0000%	87.3278%	6.5597%	6.1125%	0.0000%
E002/GR-15-826 - 2017 Test Year	100.0000%	87.2004%	6.5864%	6.2132%	0.0000%
E002/GR-15-826 - 2018 Test Year	100.0000%	87.1101%	6.6131%	6.2768%	0.0000%

Demand Allocator

E002/GR-13-868 - 2014 Test Year	100.0000%	87.6729%	6.1432%	6.1839%	0.0000%
E002/GR-13-868 - 2015 Test Year	100.0000%	87.5039%	6.2008%	6.2953%	0.0000%
E002/GR-15-826 - 2016 Test Year	100.0000%	87.3786%	6.2311%	6.3903%	0.0000%
E002/GR-15-826 - 2017 Test Year	100.0000%	87.2406%	6.2622%	6.4972%	0.0000%
E002/GR-15-826 - 2018 Test Year	100.0000%	87.1535%	6.2716%	6.5749%	0.0000%

Docket No. E002/GR-12-961
Information Request No. MCC-737

Question:

Please provide the net monthly system peaks for the period 2009-2015.

Response:

Attachment A to this response provides the monthly net (served) system peak for the period 2009-August 2015.

Witness: Jannell E. Marks
Preparer: Jannell E. Marks
Title: Director
Department: Sales, Energy and Demand Forecasting

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-12-961
Information Request No. MCC-737, Attachment A, Page 1 of 1

NSP System Peak Demand (MW)
Net (Served) Peak

	January	February	March	April	May	June	July	August	September	October	November	December
2009	6,889	6,597	6,247	5,757	6,994	8,546	7,448	8,172	7,112	5,882	6,165	6,971
2010	6,722	6,414	5,895	5,844	8,474	8,366	8,889	9,131	6,888	6,277	6,631	6,848
2011	6,691	6,601	6,235	5,768	6,318	9,084	9,544	8,324	8,698	6,434	6,184	6,492
2012	6,488	6,048	6,037	5,668	7,098	8,639	9,475	8,743	8,307	5,936	6,287	6,480
2013	6,674	6,349	5,994	5,659	6,281	8,013	9,310	9,524	8,481	6,013	6,195	6,819
2014	7,050	6,586	6,407	5,782	7,270	7,363	8,848	7,883	7,433	5,681	6,443	6,643
2015	6,379	6,541	6,279	5,670	6,583	7,827	8,426	8,621				

Docket No. E002/GR-12-961
Information Request No. MCC-738

Question:

Please provide the base monthly system peaks for the period 2009-2015.

Response:

Attachment A to this response provides the monthly base (or uninterrupted) system peak for the period 2009-August 2015.

Witness: Jannell E. Marks
Preparer: Jannell E. Marks
Title: Director
Department: Sales, Energy and Demand Forecasting

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-12-961
Information Request No. MCC-738, Attachment A, Page 1 of 1

NSP System Peak Demand (MW)
Base (Uninterrupted) Peak

	January	February	March	April	May	June	July	August	September	October	November	December
2009	6,948	6,597	6,247	5,757	6,994	8,609	7,448	8,248	7,112	5,882	6,165	6,971
2010	6,722	6,414	5,895	5,844	8,540	8,433	9,082	9,131	6,888	6,277	6,631	6,848
2011	6,691	6,601	6,235	5,768	6,318	9,143	9,623	8,324	8,698	6,434	6,184	6,492
2012	6,488	6,048	6,037	5,668	7,098	8,639	9,475	8,743	8,307	5,936	6,287	6,480
2013	6,674	6,349	5,994	5,569	6,281	8,013	9,310	9,524	8,481	6,013	6,195	6,819
2014	7,050	6,586	6,407	5,782	7,270	7,363	8,848	7,883	7,433	5,681	6,443	6,643
2015	6,379	6,541	6,279	5,670	6,583	7,827	8,426	8,621				

Docket No. E002/GR-13-868
Information Request No. DOC-112

Question:

Please provide a copy of the 2015 and 2016 sales budgets.

Response:

The 2015 and 2016 sales budgets are provided as Attachment A to this response. Attachment A provides the sales budgets for the NSPM operating company and the state of Minnesota jurisdiction. The 2015 sales budget was developed in August, 2014 and the 2016 sales budget was developed in August 2015. Please note that the state of Minnesota 2016 sales budget provided in Attachment A is the same forecast as provided in Company witness Ms. Jannell E. Marks' Direct Testimony, Exhibit___(JEM-1), Schedule 4 submitted in this proceeding. Additional information concerning the 2016 sales budgets can be found in the responses to Information Requests Nos. 1, 8 and 16, which were part of the Company's sales forecast pre-filing submitted to the Minnesota Public Utilities Commission on October 2, 2015 in this proceeding.

Witness: Jannell E. Marks
Preparer: Jannell E. Marks
Title: Director
Department: Sales, Energy and Demand Forecasting

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-13-868
Information Request No. DOC-112. Attachment A, Page 1 of 4

NSPM Company Calendar Month Electric Sales Budget (MWh)

	2015	2016
Residential w/o Sp Heat	9,517,271	9,385,805
Residential w/ Sp Heat	720,409	728,825
Total Residential	10,237,680	10,114,630
Small C&I	15,590,791	15,674,559
Large C&I	8,933,870	9,062,845
Total C&I	24,524,661	24,737,404
Street Lighting	175,778	176,126
Public Authority	88,014	84,593
Interdepartmental	7,986	9,235
Total Other	271,778	269,954
Total Retail	35,034,119	35,121,988

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-13-868
Information Request No. DOC-112, Attachment A, Page 2 of 4

State of Minnesota Calendar Month Electric Sales Budget (MWh)

	2015	2016
Residential w/o Sp Heat	8,291,589	8,173,053
Residential w/ Sp Heat	389,350	392,054
Total Residential	8,680,939	8,565,106
Small C&I	13,473,923	13,546,742
Large C&I	8,234,735	8,351,402
Total C&I	21,708,659	21,898,143
Street Lighting	146,091	146,796
Public Authority	73,593	70,706
Interdepartmental	7,986	9,235
Total Other	227,669	226,736
Total Retail	30,617,266	30,689,986

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-13-868
Information Request No. DOC-112, Attachment A, Page 3 of 4

NSPM Company Calendar Month Electric Sales (Mwh)
2015 Budget (August 2014 Update)

	Residential w/o Sp Heat	Residential w/ Sp Heat	Total Residential	Small C&I	Large C&I	Total C&I	Street Lighting	Public Authority	Interdept	Total Other	Total Retail
Jan-15	862,313	102,437	964,751	1,332,655	694,725	2,027,380	19,668	7,030	595	27,294	3,019,424
Feb-15	742,703	87,194	829,898	1,175,769	660,770	1,836,539	16,961	5,750	607	23,318	2,689,755
Mar-15	739,368	75,832	815,201	1,290,209	733,139	2,023,348	15,304	6,969	463	22,737	2,861,286
Apr-15	628,243	45,766	674,009	1,209,700	698,494	1,908,193	13,687	6,533	482	20,701	2,602,904
May-15	659,548	42,302	701,850	1,259,174	722,517	1,981,691	11,884	6,366	722	18,972	2,702,513
Jun-15	849,690	35,946	885,636	1,340,954	746,699	2,087,653	10,896	7,658	1,113	19,668	2,992,957
Jul-15	1,056,782	44,286	1,101,068	1,444,640	828,808	2,273,448	11,160	8,987	779	20,926	3,395,441
Aug-15	958,488	41,325	999,813	1,444,434	833,912	2,278,346	11,399	9,561	496	21,456	3,299,615
Sep-15	732,000	37,295	769,295	1,288,076	802,194	2,090,271	13,403	8,884	747	23,033	2,882,599
Oct-15	707,684	49,212	756,896	1,272,987	795,024	2,068,010	15,384	7,942	590	23,917	2,848,823
Nov-15	728,762	65,807	794,570	1,259,174	708,491	1,967,665	17,187	5,798	861	23,846	2,786,081
Dec-15	851,689	93,005	944,695	1,273,019	709,097	1,982,117	18,844	6,534	530	25,908	2,952,719

NSPM Company Calendar Month Electric Sales (Mwh)
2016 Budget (August 2015 Update)

	Residential w/o Sp Heat	Residential w/ Sp Heat	Total Residential	Small C&I	Large C&I	Total C&I	Street Lighting	Public Authority	Interdept	Total Other	Total Retail
Jan-16	868,411	107,137	975,548	1,350,457	707,417	2,057,873	19,879	6,484	557	26,919	3,060,341
Feb-16	753,497	90,947	844,444	1,193,064	699,373	1,892,437	15,692	5,895	438	22,025	2,758,906
Mar-16	738,621	72,793	811,413	1,305,058	749,136	2,054,194	16,889	6,923	671	24,483	2,890,090
Apr-16	618,449	48,784	667,233	1,191,448	707,561	1,899,009	13,487	5,988	547		2,566,242
May-16	640,016	42,932	682,948	1,252,109	733,389	1,985,498	11,723	6,399	589	18,711	2,687,157
Jun-16	835,589	36,277	871,866	1,339,408	750,219	2,089,626	11,281	7,425	1,716	20,422	2,981,915
Jul-16	1,039,968	44,421	1,084,388	1,443,743	838,472	2,282,214	11,012	7,948	842	19,802	3,386,404
Aug-16	936,480	41,339	977,819	1,468,069	836,047	2,304,115	11,274	9,894	454	21,622	3,303,557
Sep-16	730,307	35,838	766,145	1,317,322	807,084	2,124,406	13,562	8,606	1,074	23,241	2,913,793
Oct-16	674,010	45,608	719,617	1,270,854	796,491	2,067,344	15,375	7,256	755	23,386	2,810,347
Nov-16	709,481	68,467	777,949	1,253,220	714,255	1,967,475	16,868	5,879	587	23,334	2,768,758
Dec-16	840,976	94,282	935,258	1,289,808	723,402	2,013,211	19,086	5,896	1,005	25,988	2,974,457

Northern States Power Company

Docket No. E002/GR-15-826
Exhibit___(JEM-1), Appendix A

Docket No. E002/GR-13-868
Information Request No. DOC-112, Attachment A, Page 4 of 4

State of Minnesota Calendar Month Electric Sales (Mwh)
2015 Budget (August 2014 Update)

	Residential w/o Sp Heat	Residential w/ Sp Heat	Total Residential	Small C&I	Large C&I	Total C&I	Street Lighting	Public Authority	Interdept	Total Other	Total Retail
Jan-15	744,831	54,313	799,144	1,141,175	642,795	1,783,970	16,378	5,810	595	22,783	2,605,897
Feb-15	642,474	47,267	689,741	1,017,427	609,511	1,626,937	13,806	4,629	607	19,043	2,335,721
Mar-15	639,501	40,495	679,995	1,110,911	678,937	1,789,848	12,977	5,604	463	19,045	2,488,888
Apr-15	545,106	24,353	569,459	1,047,506	644,723	1,692,229	11,269	5,340	482	17,091	2,278,779
May-15	576,049	24,692	600,741	1,091,664	661,262	1,752,926	10,157	5,064	722	15,943	2,369,610
Jun-15	747,357	19,557	766,914	1,166,001	688,545	1,854,546	9,113	6,488	1,113	16,715	2,638,174
Jul-15	929,344	24,792	954,136	1,249,335	763,303	2,012,638	9,487	7,695	779	17,960	2,984,735
Aug-15	835,347	22,232	857,579	1,251,184	768,814	2,019,998	9,493	8,378	496	18,367	2,895,944
Sep-15	639,663	20,622	660,285	1,115,063	738,389	1,853,452	11,117	7,586	747	19,449	2,533,187
Oct-15	621,734	27,963	649,697	1,103,979	733,129	1,837,108	12,707	6,827	590	20,124	2,506,929
Nov-15	633,350	33,758	667,109	1,087,467	652,002	1,739,469	14,043	4,632	861	19,536	2,426,114
Dec-15	736,832	49,307	786,139	1,092,211	653,326	1,745,537	15,544	5,539	530	21,613	2,553,288

State of Minnesota Calendar Month Electric Sales (Mwh)
2016 Budget (August 2015 Update)

	Residential w/o Sp Heat	Residential w/ Sp Heat	Total Residential	Small C&I	Large C&I	Total C&I	Street Lighting	Public Authority	Interdept	Total Other	Total Retail
Jan-16	751,433	56,903	808,337	1,162,756	651,765	1,814,521	16,496	5,269	557	22,322	2,645,179
Feb-16	651,841	49,826	701,667	1,028,703	647,576	1,676,278	13,098	4,790	438	18,326	2,396,271
Mar-16	641,284	38,194	679,478	1,121,105	691,530	1,812,635	14,120	5,640	671	20,430	2,512,544
Apr-16	537,388	24,770	562,158	1,031,472	651,406	1,682,877	11,347	4,779	547		2,245,035
May-16	559,886	24,525	584,410	1,086,509	672,140	1,758,649	9,956	5,149	589	15,693	2,358,753
Jun-16	733,879	19,848	753,727	1,163,019	690,165	1,853,184	9,430	6,283	1,716	17,428	2,624,339
Jul-16	911,925	24,563	936,488	1,245,366	772,894	2,018,260	9,374	6,749	842	16,966	2,971,714
Aug-16	815,094	22,511	837,604	1,275,800	769,913	2,045,713	9,381	8,731	454	18,567	2,901,884
Sep-16	639,488	19,882	659,370	1,145,611	742,875	1,888,485	11,180	7,371	1,074	19,626	2,567,481
Oct-16	588,849	24,747	613,596	1,100,050	734,530	1,834,580	12,705	6,236	755	19,696	2,467,872
Nov-16	616,512	36,012	652,525	1,078,278	657,420	1,735,697	13,983	4,814	587	19,384	2,407,606
Dec-16	725,473	50,273	775,746	1,108,074	669,189	1,777,264	15,726	4,893	1,005	21,625	2,574,634