NOTICE OF CONFIDENTIALITY*:*
PORTION OF THIS DOCUMENT HAS BEEN FILED UNDER SEAL.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

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RE: IN THE MATTER OF ADVICE LETTER NO. 1672-ELECTRIC FILED BY PUBLIC SERVICE COMPANY OF COLORADO TO REVISE ITS COLORADO PUC NO. 7-ELECTRIC TARIFF TO IMPLEMENT A GENERAL RATE SCHEDULE ADJUSTMENT AND OTHER RATE CHANGES EFFECTIVE JULY 18, 2014.	)	**PROCEEDING NO. 14AL-_____E**

DIRECT TESTIMONY AND ATTACHMENTS OF JANNELL E. MARKS

ON

BEHALF OF

PUBLIC SERVICE COMPANY OF COLORADO

June 17, 2014

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

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RE: IN THE MATTER OF ADVICE LETTER NO. 1672-ELECTRIC FILED BY PUBLIC SERVICE COMPANY OF COLORADO TO REVISE ITS COLORADO PUC NO. 7-ELECTRIC TARIFF TO IMPLEMENT A GENERAL RATE SCHEDULE ADJUSTMENT AND OTHER RATE CHANGES EFFECTIVE JULY 18, 2014.	)))))))))	**PROCEEDING NO. 14AL-_____E**

SUMMARY OF DIRECT TESTIMONY OF JANNELL E. MARKS

Ms. Jannell E. Marks is Director, Sales, Energy and Demand Forecasting of Xcel Energy Services, Inc. Ms. Marks is responsible for the development of forecasted sales data and economic conditions for Public Service Company of Colorado ("Public Service" or "Company") and the other utility subsidiaries of Xcel Energy Inc. ("Xcel Energy") and the presentation of this information to Xcel Energy's senior management, Xcel Energy departments, and externally to various regulatory and reporting agencies, including the Colorado Public Utilities Commission ("Commission"). Ms. Marks is responsible for developing and implementing forecasting, planning, and load analysis studies for regulatory proceedings.

In her testimony, Ms. Marks describes the Company's historical customer and MWh sales trends for its related service territory, and presents and supports its retail electric MWh sales and customer forecasts for the January 1, 2015 through December 31, 2015 Test Year ("Test Year"). Ms. Marks presents the Company's

forecast both by customer class and by rate schedule level. Ms. Marks includes in her testimony a discussion regarding her forecast methodology.

Ms. Marks testifies that the Company expects the number of electric customers to increase at a slightly faster rate than actual growth experienced over the past five years due to improvement in residential housing activity. Total retail sales are expected to increase at a slightly stronger average annual rate through 2015 than the average rate over the past five years. Average growth over the past five years was negatively impacted by the economic recession. The improved economy is expected to lead to stronger sales growth, although that growth will be dampened somewhat by expected increases in customer-owned solar generation.

The forecast accounts for the expected incremental impacts of Demand-Side Management ("DSM") programs approved in Proceeding No. 10A-554EG, the effects of the Company's tiered rates, and customer-owned solar generation. The Company's proposal and the Commission's decision addressing the Company's DSM Strategic Issues filing (Proceeding No. 13A-0686EG) have not been incorporated into this forecast. Further, no adjustments have been made to the forecast to account for the City of Boulder's plans to create its own municipal utility.

Finally, Ms. Marks discusses the methodology the Company uses to weather normalize historical sales and billing demand.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

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DIRECT TESTIMONY AND ATTACHMENTS OF JANNELL E. MARKS

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LIST OF ATTACHMENTS

Attachment No. JEM-1	Monthly Test Year Retail MWh Sales and Number of Customers for Each Customer Class
HIGHLY CONFIDENTIAL Attachment No. JEM-1A	Highly Confidential Version of Monthly Test Year Retail MWh Sales and Number of Customers for Each Customer Class – Filed Under Seal
Attachment No. JEM-2	Regression Models and Associated Statistics Used in the Company's Projections of Sales
HIGHLY CONFIDENTIAL Attachment No. JEM-2A	Highly Confidential Portion of Regression Models and Associated Statistics Used in the Company's Projections of Sales – Filed Under Seal
Attachment No. JEM-3	Regression Models and Associated Statistics Used in the Company's Projections of Customers
Attachment No. JEM-4	Monthly Test Year MWh Sales and Number of Customers for Each Rate Class
HIGHLY CONFIDENTIAL Attachment No. JEM-4A	Highly Confidential Version of Monthly Test Year MWh Sales and Number of Customers for Each Rate Class – Filed Under Seal

GLOSSARY OF ACRONYMS AND DEFINED TERMS

Acronym/Defined Term	Meaning
CEO	Chief Executive Officer
Commission	Colorado Public Utilities Commission
DIA	Denver International Airport
DSM	Demand-Side Management
DW	Durbin-Watson
GDP	Gross Domestic Product
GSP	Gross State Product
NCE	New Century Energies, Inc.
NOAA	National Oceanic and Atmospheric Administration
Other Category	The other category is comprised of the Street Lighting, Public Authority, and Interdepartmental customer classes.
Public Service, or Company	Public Service Company of Colorado
R-Squared	Coefficient of Determination Test Statistic
SAE	Statistically-Adjusted End-Use
Test Year	January 1, 2015 through December 31, 2015
Tiered Rates	The two-tiered, summer-only inverted block rate structure that was implemented for the Residential class in June 2010.
Weather Normalized	The Company's estimation of the calculation of energy and demand per MWh impact of deviation from normal weather sales due to abnormal weather.

Acronym/Defined Term	Meaning
Xcel Energy	Xcel Energy Inc.
XES	Xcel Energy Services Inc.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

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DIRECT TESTIMONY AND ATTACHMENTS OF JANNELL E. MARKS

I. INTRODUCTION, QUALIFICATIONS, PURPOSE OF TESTIMONY, AND RECOMMENDATION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jannell E. Marks. My business address is 1800 Larimer Street, Denver, Colorado 80202.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT POSITION?

A. I am employed by Xcel Energy Services Inc. ("XES") as Director, Sales, Energy and Demand Forecasting. XES is a wholly-owned subsidiary of Xcel Energy Inc. ("Xcel Energy") and provides an array of support services to Public Service Company of Colorado ("Public Service" or "Company") and the other utility operating company subsidiaries of Xcel Energy on a coordinated basis.

Q. FOR WHOM ARE YOU PROVIDING TESTIMONY?

A. I am testifying on behalf of Public Service.

Q. PLEASE DESCRIBE YOUR DUTIES, RESPONSIBILITIES, AND QUALIFICATIONS.

A. In my current position, I have responsibility for the development of forecasted sales data and economic conditions for Public Service and the other Xcel Energy utility 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. I also am responsible for developing and implementing forecasting, planning, and load analysis studies for regulatory proceedings. A description of my qualifications is included as Attachment A.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to: (1) describe the historical customer and MWh sales trends for Public Service's retail service territory, and (2) present and support the Company's retail electric MWh sales and customer forecasts for the January 1, 2015 through December 31, 2015 Test Year period ("Test Year"). I also provide a description of the methodology the Company uses to weather normalize historical sales and billing demand.

Q. ARE YOU SPONSORING ANY ATTACHMENTS AS PART OF YOUR DIRECT TESTIMONY?

A. Yes, I'm sponsoring the public and highly confidential version of Attachment No. JEM-1 (monthly test year retail MWh sales and number of customers for each customer class), the public and highly confidential version of Attachment No. JEM-2 (regression models and associated statistics used in the Company's projections of sales), Attachment No. JEM-3 (regression models

and associated statistics used in the Company's projections of customers), and the public and highly confidential version of Attachment No. JEM-4 (monthly test year MWh sales and number of customers for each rate schedule). My Highly Confidential Attachment Nos. JEM-1A, JEM-2A and JEM-4A are being filed under seal.

Q. WHAT RECOMMENDATIONS ARE YOU MAKING IN YOUR TESTIMONY?

A. I recommend that the Colorado Public Utilities Commission ("Commission") adopt the Company's forecasts of sales and customers, as reflected in Attachment No. JEM-1 and Highly Confidential Attachment No. JEM-1A, for the purpose of determining the revenue requirement and final rates in this proceeding for the Company's 2015 Test Year.

II. HISTORICAL CUSTOMER AND MWH SALES TRENDS

Q. PLEASE DISCUSS THE COMPANY'S HISTORICAL RETAIL CUSTOMER COUNTS AND MWH SALES GROWTH TRENDS.

A. Total retail electric customers in the Company's service territory averaged 1,392,244 per month in 2013. Total retail customer counts increased an average of 10,128 customers per year from 2009 through 2013, for an annual growth rate of 0.7 percent per year on average. The largest class of customers is the Residential class, which averaged 1,182,095 customers per month during 2013 and represents 85 percent of total customers. Residential customer counts averaged a growth rate of 0.8 percent or 9,789 additions per year during the period from 2009 through 2013.

After normalizing for weather – a process I explain below – the Company's total retail electric sales have increased an average of 0.1 percent per year during the period of 2009 through 2013. Residential sales have averaged annual growth of 0.5 percent and total Commercial and Industrial sales have declined at an annual average rate of -0.01 percent over this period of time, with 2013 sales at nearly the same level as in 2008. The 0.1 percent historical average annual retail sales growth rate includes both years when sales decreased and years when sales increased. Total retail sales declined 1.3 percent in 2009 due to the impacts of the economic recession, particularly on the Commercial and Industrial class (which declined 2.2 percent in that year). Total retail sales gained a modest 0.4 percent per year in both 2010 and 2011. Total retail sales then declined 0.1 percent in 2012 as a result of a 1.5 percent decline in Residential sales. In 2013, total retail

sales increased 1.2 percent, driven by a 2.5 percent increase in Residential sales.

For the year 2013, weather normalized total retail electric sales were 28,459,747 MWh. Weather normalized Residential sales in 2013 totaled 9,077,448 MWh and weather normalized Commercial and Industrial sales were 19,156,625 MWh. The average annual percent change in customers and MWh sales by customer class during the period of 2009 through 2013 is presented in Table 1. The "Other" category is comprised of the Street Lighting, Public Authority, and Interdepartmental customer classes.

Table 1

Historical Customer and Sales Growth by Class

	2009-2013 Average Annual Percent Change		
Customer Class	**Number of Customers**	**Weather Normalized Sales**	**2013 % of Total Sales**
Residential	0.8%	0.5%	31.9%
Commercial & Industrial	0.8%	0.0%	67.3%
Other	-1.5%	-0.3%	0.8%
Total Retail	**0.7%**	**0.1%**	**100.0%**

III. CUSTOMER AND MWH SALES FORECAST

Q. PLEASE DESCRIBE THE CUSTOMER CATEGORIES INCLUDED IN THE COMPANY'S RETAIL CUSTOMER AND SALES FORECASTS.

A. The Residential, Commercial and Industrial, Street Lighting, Public Authority, and Interdepartmental classes comprise the Company's total retail customer and sales forecasts.

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

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

a) The monthly and annual electric supply requirements;

b) Test year revenue under present rates; and

c) Test year revenue under proposed rates.

Q. WHAT IS PUBLIC SERVICE'S FORECAST OF RETAIL ELECTRIC SALES AND CUSTOMERS FOR THE TEST YEAR ENDING DECEMBER 31, 2015?

A. Attachment No. JEM-1 and Highly Confidential Attachment No. JEM-1A summarize monthly Test Year retail MWh sales and number of customers for each customer class. Total retail customers are projected to average 1,418,111 per month for 2015 and annual total retail sales are projected to be 28,700,554 MWh in 2015.[1]

[1] While preparing this testimony we discovered a slight discrepancy in the Test Year customer counts for the Commercial and Industrial customer class relative to the forecast provided to Commission Staff and the OCC on April 3, 2014 as a courtesy and consistent with commitments we have made in the past to provide copies of our most recent sales forecast at least 60 days prior to the date on which we expect to file a Phase I rate case based on a forecast test year. The Commercial and Industrial customer counts have been updated by 1 to 12 customers per month.

Q. HOW DOES ELECTRIC CUSTOMER GROWTH DURING THE TEST YEAR COMPARE WITH HISTORICAL CUSTOMER GROWTH?

A. As I stated earlier, the Company's total number of retail electric customers increased at an average annual rate of 0.7 percent from 2009 through 2013, or 10,128 customers per year. During the Test Year, the total number of electric customers is expected to increase by 1.9 percent or 25,867 customers compared to 2013 customer levels. The 1.9 percent growth rate for the two-year time period 2013 to 2015 equals a 0.9 percent average annual growth rate, slightly higher than historically experienced.

Q. HOW DO THE TEST YEAR RETAIL ELECTRIC SALES COMPARE WITH 2013 WEATHER NORMALIZED ELECTRIC SALES?

A. Total electric retail sales are expected to increase 0.8 percent during the Test Year compared to weather normalized 2013 electric sales (a 0.4 percent annual average rate of growth). Residential sales are predicted to increase 0.5 percent in the Test Year from 2013 sales (0.2 percent annual average). Commercial and Industrial sales are projected to increase 0.9 percent (0.4 percent annual average) from 2013 to 2015. Sales to the "Other" category (Street Lighting, Public Authority, and Interdepartmental) are expected to increase 13.0 percent (6.3 percent annual average) from 2013 to 2015. I will explain the methodologies used to develop the customer and sales forecast in the following section of my testimony.

Table 2 provides the Company's weather normalized retail MWh sales by customer class for 2013 and 2015, as well as the 2015 growth rate

compared to 2013 and the average annual growth rate for the 2013 through 2015 time period.

Table 2

Weather Normalized Sales by Class 2013 to 2015 (MWh)

Customer Class	2013 Sales	2015 Sales	2015 % Change from 2013	Average Annual % Change from 2013
Residential	9,077,448	9,120,213	0.5%	0.2%
Commercial & Industrial	19,156,625	19,325,242	0.9%	0.4%
Other	225,675	255,098	13.0%	6.3%
Total Retail	**28,459,747**	**28,700,554**	**0.8%**	**0.4%**

Q. WHY IS THE TEST YEAR'S AVERAGE ANNUAL GROWTH RATE FOR CUSTOMERS HIGHER THAN THE AVERAGE HISTORICAL GROWTH RATE?

A. The higher customer growth rate of 0.9 percent per year compared to the historical average growth rate of 0.7 percent reflects the improvement in residential housing activity that has occurred recently and the projections for continued improvement throughout the Test Year period. Colorado total housing stock averaged growth of 0.8 percent per year for the time period 2009 to 2013, with growth in 2013 of 1.1 percent. Housing stock growth is expected to average 1.2 percent per year through 2015.

Q. PLEASE DISCUSS THE TEST YEAR AVERAGE ANNUAL GROWTH RATES FOR SALES COMPARED TO THE AVERAGE HISTORICAL GROWTH RATES.

A. Sales in the Residential class are expected to increase at a slightly slower rate than historical growth due to expected increases in customer-owned solar generation. The projected growth in the Commercial and Industrial class is slightly stronger than the average historical growth. The primary cause for this difference is the fact that the historical period of time includes 2009, which experienced a significant negative impact from the economic recession. Excluding 2009 from the historical average, the projected growth in the Commercial and Industrial class would be slightly lower than historical growth. Similar to the Residential class, this is in large part due to increases in customer-owned solar generation. The strong growth in the Other category is due in large part to planned expansions in customers' operations

Q. WHY IS THE PROJECTED SALES GROWTH LOWER THAN THE HISTORICAL AVERAGE WHILE THE PROJECTED CUSTOMER COUNT GROWTH IS HIGHER?

A. Both the Residential and the Small Commercial and Industrial classes have experienced declining use per customer since 2007 and this declining trend is projected to continue. The declining use per customer is due to increased energy efficiency as well as increased customer-owned solar. Thus, while there is improvement in the growth in the number of customers, the same rate of improvement has not been seen and is not projected for sales in these classes.

Q. PLEASE PROVIDE AN OVERVIEW OF THE ECONOMIC OUTLOOK FOR THE TEST YEAR.

A. Real personal income growth in Colorado is expected to average 3.3 percent per year through 2015, compared to the average annual growth of 1.6 percent from 2009 to 2013. Following the recovery from the recession, in 2011-2013, real personal income increased at an average annual rate of 3.0 percent. Total employment is expected to improve at a 2.3 percent average annual rate through 2015. The post-recession employment growth of the past three years has averaged 2.1 percent per year.

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

A. Yes. The Company will make available to parties more current information about the performance of the economy and any associated impacts on Test Year sales as the case progresses through Rebuttal and/or Surrebuttal Testimony. 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 will be current and remain appropriate for ratemaking purposes. Should more current information reflect material changes and thereby indicate that adjustments to the Test Year are needed, the Company will propose appropriate adjustments to its cost of service.

IV. OVERVIEW OF SALES AND CUSTOMER FORECASTING METHODOLOGY

Q. WHAT IS THE SOURCE OF THE CUSTOMER AND ENERGY SALES FORECASTS YOU ARE USING FOR THE TEST YEAR?

A. The customer and sales forecast was completed in February 2014 as part of the Company's semi-annual forecasting process.

Q. PLEASE DESCRIBE THE METHODS USED TO FORECAST ENERGY SALES AND CUSTOMERS.

A. The electric sales and customer forecast was prepared by the Sales, Energy, and Demand Forecasting Department of XES on behalf of the Company, using a combination of econometric and statistical forecasting techniques and analyses. The primary forecasting technique used is regression modeling. Regression models are designed to identify and quantify the statistical relationship between historical sales or customers and a set of independent predictor variables, such as historical economic and demographic indicators, historical electricity prices, or historical weather. Once this relationship is defined, a forecast is developed by simulating the relationship over the forecast period using projected levels of the independent predictor variables.

Regression modeling is a very well known and proven method of forecasting, and is 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. The Company has been using these types of regression models for more than thirty years.

Q. HOW ARE TEST YEAR BILLING DEMANDS DEVELOPED?

A. Test Year billing demands are developed by the Revenue Analysis group based on the sales forecast by rate schedule that my department develops. Ms. Deborah Blair provides a description of the methodology used to develop Test Year billing demands in her Direct Testimony.

Q. WERE THE FORECASTS THAT YOU DEVELOPED REVIEWED BY UPPER MANAGEMENT?

A. Yes, after the customer and sales forecasts were prepared, both the forecasts and the underlying assumptions were presented to and reviewed by various levels of upper management within the Company, including Mr. David Eves, the President and Chief Executive Officer ("CEO") of Public Service, Ms. Karen Hyde, Vice President and Chief Risk Officer, and Mr. Jerome Davis, Regional Vice President.

Q. PLEASE PROVIDE A MORE DETAILED DESCRIPTION OF HOW THE SALES FORECASTS WERE DEVELOPED FOR THE RESIDENTIAL, COMMERCIAL AND INDUSTRIAL, AND PUBLIC AUTHORITY CUSTOMER CLASSES.

A. Public Service's Residential sales, Commercial and Industrial sales, and Public Authority sales forecasts were developed using a Statistically-Adjusted End Use ("SAE") modeling approach. The SAE method entails specifying energy use as a function of the primary end-use variables (heating, cooling, and base use) and the factors that affect these end-use energy requirements.

Each end-use variable (heating, cooling, and base use) is defined as the product of an appliance index variable, which indicates relative saturation

and efficiency of the stock of appliances, and a utilization variable, which reflects how the stock is utilized. The appliance index variables reflect both changes in saturation resulting from end-use competition, and improvements in appliance efficiency standards. The utilization variables are designed to capture energy demand driven by the use of the appliance stock. For the Residential sector, the primary factors that impact appliance use are weather conditions (as measured by heating degree days and cooling degree days), electricity prices, household income, household size, and hours of daylight. For the Commercial and Industrial sector and the Public Authority sector, the utilization of the stock of equipment is a function of electricity prices, business activity (as measured by Colorado Gross State Product ("GSP")), weather conditions (heating degree days and cooling degree days), and hours of daylight.

The Residential sales, Commercial and Industrial sales, and Public Authority sales forecast models were estimated by regressing historical monthly sales on Cooling Use, Heating Use, Base Use, and monthly binary variables. Monthly binary variables were included to account for non-weather-related seasonal factors. Monthly historical data through December 2013 was used in each of the models. The regression models effectively calibrated the end-use concepts to actual monthly sales.

In the final Commercial and Industrial sales forecast model, the Heating Use variable was excluded because it did not provide significant explanatory value. In the final Public Authority sales forecast model, only the

Base Use variable proved to be significant, and the Heating Use and Cooling Use variables were excluded.

Q. WHAT METHODOLOGY WAS USED TO DEVELOP THE REMAINDER OF THE CUSTOMER AND MWH SALES FORECAST?

A. Regression models provided the foundation for the customer forecasts of the Residential and Commercial and Industrial customer classes and the sales forecast of the Interdepartmental customer class. Monthly historical data through December 2013 was used in each of the regression models. The modeled relationships were simulated over the forecast period using the projected levels of the independent predictor variables.

The Street Lighting sales forecast was based on trend forecasts of light counts or customer counts by rate and wattage. The monthly historical light counts for each light type and size within each lighting rate were used to develop a projection of light counts for the Test Year. The projected counts were then multiplied by the size and expected hours of use for each light type to arrive at a monthly sales forecast. The predicted monthly sales were aggregated by rate to produce the rate level and class level monthly sales forecast.

The customer count forecast for the Street Lighting class was developed using an exponential smoothing model, with a dampening factor to account for the gradual decline in customer counts.

Customer counts in the Public Authority and Interdepartmental customer classes are small and generally do not exhibit growth. Therefore,

the customer forecasts for these two classes were developed by holding constant the customer counts as of February 2014.

Q. HOW ARE BINARY VARIABLES USED IN THE REGRESSION MODELS?

A. Binary variables were included as explanatory variables in some of the regression models. A binary variable is a variable made up of 1 and 0 data points. The variable takes the value of 1 during a specific period of time, and a value of 0 for all other periods of time. The binary variable can be structured to account for shifts in characteristics, such as a change in the make-up of a class due to a reclassification of customers. Binary variables also can be monthly or seasonal to account for usage characteristics specific to a given month or season. Finally, binary variables can be structured for individual months to account for data outliers.

As I described above, monthly binary variables were included in the Residential sales model and the Commercial and Industrial sales model to account for non-weather-related seasonal factors. In addition, monthly binary variables were included in the Interdepartmental sales model to account for non-weather-related seasonal factors.

Binary variables also were used in several models to account for changes in customer counts and sales resulting from the conversion to a new billing system. The conversion occurred in two phases, the first phase being in mid-2003 and the second phase in mid-2004. The conversion resulted in changes in how customers were counted and how sales were reported on a billing-month basis. The inclusion of binary variables to account for these

changes allows for the use of both the pre-conversion data and the post-conversion data in the same regression model.

Finally, the Public Authority sales model includes binary variables to account for significant increases in sales in this class in 2002 and 2006.

Q. WERE ANY ADJUSTMENTS MADE TO THE FORECAST MODEL RESULTS?

A. Yes. The Residential and Commercial and Industrial sales forecast model results were adjusted to reflect the expected incremental impact of Demand-Side Management ("DSM") programs and to account for customer-owned solar generation, as discussed later in my testimony. The Commercial and Industrial sales forecast model results also were adjusted to include the projected new load growth for large customers. Adjustments for new load growth for large customers are made when the projected load growth is greater than the amount of growth that is implicitly reflected through the economic variables used in the model. In addition, the Residential sales forecast model results were adjusted to account for the impact of the tiered rates structure that was implemented for the Residential class in June 2010. While some of the impact is embedded in the actual historical sales used in the model, the full impact is not yet embedded and, therefore, we continue to make an adjustment to the sales forecast.

A. STATISTICALLY MODELED FORECASTS

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

A. The regression models and associated statistics used in the Company's projections of sales are provided in Attachment No. JEM-2 and Highly Confidential Attachment No. JEM-2A, and the regression models and associated statistics used in the Company's projections of customers are provided in Attachment No. JEM-3. These schedules include, by customer class, the models with their summary statistics and output, and descriptions for each variable included in the model.

Q. WHAT TECHNIQUES DID PUBLIC SERVICE EMPLOY TO EVALUATE THE VALIDITY OF ITS QUANTITATIVE FORECASTING MODELS AND SALES PROJECTIONS?

A. There are a number of quantitative and qualitative validity tests that are applicable to regression analysis. I will describe several of the more common tests the Company uses.

The 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 set of explanatory variables specified in the model is explaining a high degree of the historical sales variability. The regression models used to develop the sales

forecast generally demonstrate very high R-squared statistics. The R-squared statistics are larger than 87.5 percent for all regression models except Interdepartmental sales, which is a class with small customer counts and small sales volumes.

The t-statistic of each explanatory variable in a given model indicates 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 criterion 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 with all t-statistics greater than 2.0.

Each model was inspected 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, under the presence of first-order autocorrelation, an overestimate in one time period is likely to lead to an overestimate in the succeeding time period, and vice versa. Thus, when forecasting with a regression model, absence of autocorrelation between the error terms 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.

Q. IS A MODEL REJECTED IF FIRST-ORDER AUTOCORRELATION IS PRESENT?

A. No, not if the model is otherwise theoretically and statistically valid. It is not uncommon for autocorrelation to be present in time-series data. Because the observations are ordered chronologically, there is likely to be intercorrelations among successive observations, especially if the time interval between successive observations is short, such as a month, rather than a year.[2] If the overall regression model is theoretically sound and statistically sound in all facets except for the presence of autocorrelation, then it is a common forecasting practice to correct for the autocorrelation by applying an autocorrelation correction process. The use of an autocorrelation correction process effectively removes the correlation from the error terms and produces a more reliable forecast. 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.

Q. WHAT OTHER ANALYSIS DID PUBLIC SERVICE RELY ON TO EVALUATE THE VALIDITY OF THE FORECASTING MODELS AND SALES PROJECTIONS?

A. 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

[2] Damodar Gujarati, Basic Econometrics (McGraw-Hill, Inc., 1978) p. 125.

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. HOW ACCURATE HAVE THE COMPANY'S SALES AND CUSTOMER FORECASTS BEEN HISTORICALLY?

A. The historical forecasts of retail sales have averaged a -0.6 percent variance to actual retail sales levels over the last five years after adjusting for abnormal weather (actual sales have been lower than forecast on average), while the historical forecasts of the number of retail customers have averaged a 0.2 percent variance to actual retail customer counts (actual customer counts have been higher than forecast on average).

Q. HAVE THE COMPANY AND THE COMMISSION RELIED ON FORECASTS OF ELECTRICITY SALES IN OTHER REGULATORY FILINGS?

A. Yes. The Company and the Commission have relied on forecasts of electricity sales in multiple regulatory filings, including Resource Plans,

Renewable Energy Standard Compliance Plans, Demand Side Management Cost Adjustments, and Electric Cost Adjustments.

Q. FROM YOUR PERSPECTIVE AS A FORECASTER, IS THERE ANY CAUSE FOR CONCERN IN USING PROJECTED SALES AND CUSTOMER NUMBERS TO DEVELOP RATES?

A. I believe the Company's methodology for forecasting sales and customer numbers is sufficiently robust to provide an accurate forecast for this proceeding. The Company's forecast relies upon the analysis of relationships between sales and several explanatory variables, such as weather, price, and economic indicators, including population, households, personal income, housing stock and Gross State Product. These relationships and their ultimate explanatory power have been tested as described above and provide viable, reasonable results.

Q. IS YOUR FORECASTING METHODOLOGY SUFFICIENTLY FLEXIBLE TO ALLOW MODIFICATION IN THE EVENT OF ANY NEW SIGNIFICANT CHANGES IN ECONOMIC OR OTHER CONDITIONS?

A. Yes. As new economic information or other information becomes available, our models can be quickly updated to reflect this new outlook and provide the most up-to-date forecast available.

B. <u>DATA PREPARATION</u>

Q. PLEASE DESCRIBE THE DATA AND DATA SOURCES THE COMPANY RELIED ON TO DEVELOP THE SALES AND CUSTOMER FORECASTS.

A. Historical billing month sales, monthly number of customers, and billing month rate revenues (which exclude service and facility fees) by rate class were

obtained from Company billing system reports. Historical electricity prices were calculated by dividing the billing month rate revenues by total sales volumes. The forecast of electricity prices was based on the historical annual average growth rate over the previous five-year period.

Q. WHAT WAS THE COMPANY'S MEASURE OF WEATHER AND WHAT WAS THE SOURCE?

A. The measure of weather used was heating degree days and cooling degree days, using a sixty-five degree temperature base. This information was obtained from the National Oceanic and Atmospheric Administration ("NOAA") and was measured at the Denver International Airport ("DIA") weather station. Heating degree days were calculated for each day by subtracting the average daily temperature from 65 degrees Fahrenheit. Cooling degree days were calculated for each day by subtracting 65 degrees Fahrenheit from the average daily temperature. 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. If the average daily temperature was less than 65 degrees Fahrenheit, then that day recorded zero cooling degree days.

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

A. Yes. The heating degree days and cooling degree days were weighted by the number of times a particular day was included in a particular billing month. These weighted heating degree days and cooling degree days were divided

by the total billing cycle days to arrive at average heating degree days and cooling degree days for a billing month.

Q. WHY IS IT APPROPRIATE TO USE THE DIA WEATHER STATION TO REPRESENT THE COMPANY'S SERVICE TERRITORY?

A. Public Service uses data from the DIA weather station because a large majority (90.3 percent) of its Residential electric sales are within the Front Range region or the eastern part of the state. Based on total Residential electric sales in 2013, only 9.7 percent of sales were made to customers located outside the Front Range region. These include the Western Division (5.0 percent), the San Luis Valley Division (1.4 percent), and the Mountain Division (3.3 percent). Since these sales represent such a small proportion of the total, it is appropriate to use only the one weather station at DIA.

Q. WHAT WEATHER ASSUMPTION WAS USED FOR THE TEST YEAR?

A. Normal weather was used for the Test Year, where normal is defined as a thirty-year rolling average of historical values. Daily normal heating degree days or cooling degree days were calculated by averaging thirty years of daily heating degree days or cooling degree days using data from 1984 to 2013. These daily normal heating degree days and cooling degree days were weighted by billing cycle information to derive normal billing month heating degree days and cooling degree days in the same manner as were the historical actual heating degree days and cooling degree days.

WHAT WAS YOUR SOURCE OF ECONOMIC AND DEMOGRAPHIC DATA?

A. Historical and forecasted economic and demographic variables for the state of Colorado and the nation were obtained from Global Insight, Inc. The forecasts from Global Insight were obtained in December 2013, and reflected the most current information available at the time the forecast was developed. The variables used in the forecast process include Colorado population, households, personal income, housing stock, and Gross State Product, Denver-Boulder Consumer Price Index, and U.S. Gross Domestic Product ("GDP") Chained Price Index. This information is used to determine the historical relationship between customers and sales, and economic and demographic measures.

Q. WHY DOES PUBLIC SERVICE USE STATEWIDE DATA RATHER THAN DATA THAT MATCHES THE GEOGRAPHY OF THE PUBLIC SERVICE SYSTEM?

A. There are several reasons. First, to develop economic and demographic data at the service territory level requires summing the various economic and demographic indicators on a county-level basis for the counties in which Public Service provides retail electric service. Statewide economic and demographic data generally is more readily available from reliable and credible sources and is more commonly reported and analyzed than is county-level data.

Second, it is appropriate to use statewide data because the counties in which Public Service provides retail electric service account for the majority of the state's economy, with nearly all large counties and cities represented in

Public Service's service territory. In fact, 70 percent of the state's population is located in these counties.

Third, an assessment of population trends for both the state and the service territory indicates very little difference between the two, on both a historical and a forecast basis. Historical and forecast population is available from the Colorado State Demography Office and is one of the few indicators that is available at an annual frequency and on a county-level basis. Historically, the average annual percent growth in the service territory population has been almost identical to the growth in the state's population. For the time period 2003 to 2013, both service territory and statewide population increased at an annual average rate of 1.5 percent. The forecast of population growth from 2013 to 2015 is also nearly identical, with the service territory level projected to increase a total of 3.44 percent (1.70 percent annual average), and the state projected to grow a total of 3.46 percent (1.71 percent annual average). As is evident from these statistics, there is very little difference in either the historical or projected rate of growth between the two series of data.

C. <u>FORECAST ADJUSTMENTS</u>

Q. DOES THE COMPANY'S SALES FORECAST REFLECT REDUCED VOLUMES TO ACCOUNT FOR THE IMPACT OF DEMAND-SIDE MANAGEMENT PROGRAMS?

Yes. The regression model results for the Residential and Commercial and Industrial classes were reduced to account for the expected incremental impacts of DSM programs approved in Proceeding No. 10A-554EG. The

monthly forecast of the impact of new DSM programs (excluding Saver's Switch) is developed by XES's DSM Regulatory Strategy and Planning Department. The DSM sales impact volumes are used to reduce the class level sales forecasts that result from the regression modeling process. Impacts from all program installations through 2013 are assumed to be embedded in the historical data, so only new program installations are included in the DSM adjustment. While the Company's Saver's Switch program is included as a DSM program, it results in short-term interruptions of service designed to reduce system capacity requirements rather than permanent reductions in energy use, so it is not considered in this adjustment. The Company's forecast does not reflect the Company's proposal or the Commission's recent decision addressing the Company's DSM Strategic Issues filing in Proceeding No. 13A-0686EG. Company witness Ms. Alice Jackson addresses how the Company proposes to incorporate any final decision reached in Proceeding No. 13A-0686EG.

Q. HOW DOES THE COMPANY'S SALES FORECAST ACCOUNT FOR THE IMPACT OF RESIDENTIAL TIERED RATES?

A. The Residential sales forecast model results were adjusted to account for the impact of the tiered rate structure that was implemented in June 2010. Estimates for the tiered rate impacts were based on the price elasticity assumptions used to develop the tiered rates that were approved by the Commission in Decision No. C10-0286 in the Phase II proceeding of Public Service's 2009 Electric Rate Case Proceeding No. 09AL-299E. The

adjustments were tempered to reflect the fact that some of the impact is embedded in the actual historical sales used in the model.

Q. HAS THE COMPANY'S SALES FORECAST BEEN ADJUSTED TO INCORPORATE THE IMPACTS OF CUSTOMER-OWNED SOLAR GENERATION?

A. Yes. The sales forecast reflects reduced volumes to account for customer-owned solar generation for the Residential customer class and the Commercial and Industrial customer class. The forecasts of solar generation by customer class are based on the Solar Rewards goals filed with the Commission in Public Service's 2012 Renewable Energy Standards Compliance Plan Proceeding No. 11A-418E.

Q. DOES THE COMPANY'S FORECAST ACCOUNT FOR THE CITY OF BOULDER'S PLANS TO CREATE A MUNICIPAL UTILITY?

A. No, it does not for reasons that Ms. Jackson explains.

V. WEATHER NORMALIZATION OF HISTORICAL SALES AND BILLING DEMAND

Q. HOW ARE HISTORICAL MWh SALES WEATHER-NORMALIZED?

A. In order to calculate sales growth from year to year not influenced by weather, the Company estimates the MWh impact of deviation from normal weather, or "weather normalized" sales. The Company uses actual and normal weather as I previously described, along with the actual number of customers and weather response coefficients to conduct this weather normalization of historical sales. The weather normalization is performed for the Residential sales class, the Commercial service sales class, and the Primary General service and Secondary General service sales classes.

The weather response coefficients are developed using regression models with the class-level sales as the dependent variable, and customer counts and monthly weather as the explanatory variables. The weather variables are expressed as customer-weighted heating degree days or cooling degree days, with a different variable defined for each month that exhibits a statistically significant weather response. Each monthly coefficient effectively represents the MWh of weather response per heating or cooling degree day per customer.

In the weather normalization regression models, each month's heating degree days and cooling degree days are used as individual variables (i.e., January heating degree days, February heating degree days, July cooling degree days, etc.). This allows each model to identify and quantify a unique weather response for each month, which is appropriate because our customers' response to weather varies from month to month.

The impact of the deviation from normal weather is calculated by multiplying the weather response coefficient for a given month times the number of customers in the month times the deviation from normal in heating degree days or cooling degree days. This impact is then added to the actual billed sales to derive weather-normalized sales. If winter (heating) weather is warmer than normal, the normalization process results in weather-normalized sales that are higher than actual sales. Conversely, if winter (heating) weather is colder than normal, the normalization process results in weather-normalized sales that are lower than actual sales. For summer (cooling) weather, the opposite is the case: hotter than normal weather results in weather-normalized sales that are lower than actual sales, while cooler than normal weather results in weather-normalized sales that are higher than actual sales.

Q. HOW IS HISTORICAL KW BILLING DEMAND WEATHER-NORMALIZED?

A. The Company adjusts KW billing demand for weather variances from normal weather based on weather normalized KWh sales and a Calculated Demand Factor. The Calculated Demand Factor quantifies the relationship of billing demand to sales for a given month by service class, and is calculated as the ratio of billing demand to sales as follows:

Calculated Demand Factor = Billing Demand (KW) / Sales (KWh)

The Calculated Demand Factor is then applied to the respective month's weather normalized KWh sales, resulting in a weather normalized KW billing demand estimate.

*Weather Normalized Billing Demand = Calculated Demand Factor * Weather Normalized Sales*

The weather normalized sales and weather normalized billing demands are then used to calculate weather adjusted revenues.

Q. IS THIS WEATHER NORMALIZATION PROCESS A NEW PROCESS FOR THE COMPANY?

A. No. The Company has been weather normalizing sales for business analysis and internal and external reporting purposes using this weather normalization process since 2001. This is the same process approved by the Commission for use in the Company's last rate case, Proceeding No. 12AL-1268G. The methodology to weather normalize billing demand was approved in Proceeding No. 11AL-947E and has been used since then.

VI. RATE SHEET FORECAST

Q. IN ADDITION TO THE CUSTOMER CLASS LEVEL FORECAST YOU DESCRIBED ABOVE, DO YOU 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 three rate schedules: Residential General, Residential Demand, and Residential Outdoor Area Lighting. Table 3 provides a mapping of the rate schedule level of detail to the rate class level. Attachment No. JEM-4 and Highly Confidential JEM-4A provides the monthly test year customer and sales forecast at the rate schedule level of detail.

Table 3

Rate Schedule to Rate Class Mapping

Rate Class	Rate Schedules within Rate Class
Residential Sales	o Residential General o Residential Demand o Residential Outdoor Area Lighting
Commercial and Industrial Sales	o Commercial o Non-metered Service o Secondary General Low Load Factor o Secondary General o Secondary Standby o Secondary Time-of-Use o Secondary Photovoltaic Time-of-Use o Primary General o Primary Standby Service o Primary Time-of-Use o Transmission General o Transmission Standby Service o Commercial Outdoor Area Lighting

	º Parking Lot Lighting Serviceº
Street Lighting Sales	º Metered Intersection Service º Metered Street Lighting Service º Street Lighting Service º Special Street Lighting Service º Customer-Owned Lighting Service º Street Lighting Service – Unincorporated Areas º Traffic Signal Lighting Service
Public Authority	º Special Contract Service

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

A. For all classes except Street Lighting sales, after the class level sales and customer forecasts are completed, the rate sheet level forecasts are developed. Monthly rate sheet sales and customer allocation factors are developed based on historical rate sheet level sales and customer data. The monthly rate sheet allocation factors are averaged over several years, and the average allocation factors are then applied to the class level forecasts to derive the rate sheet level forecasts. As I previously described, the Street Lighting sales forecast is developed for each light type and size and then aggregated by rate to produce the rate level and class level monthly sales forecast.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

Attachment A

Statement of Qualifications

Jannell E. Marks

I have a Bachelor of Science in Statistics from Colorado State University. I began my employment with Public Service in 1982 in the Economics and Forecasting Department. In 1985, I became a Research Analyst, and, in 1991, I was promoted to Senior Research Analyst. In that position, I was responsible for developing the customer and sales forecasts for Public Service and the economic, customer, sales, and demand forecasts for Cheyenne Light, Fuel and Power Company. In 1997, when Public Service merged with Southwestern Public Service to form New Centuries Energy, Inc. ("NCE"), I assumed the position as Manager, Demand, Energy and Customer Forecasts. In this position, I was responsible for developing demand, energy, and customer forecasts for NCE's operating companies, including Public Service. I also directed the preparation of statistical reporting for regulatory agencies and others regarding historical and forecasted reports. In August 2000, following the merger of NCE and Northern States Power, I was named Manager, Energy Forecasting with the added responsibility for Northern States Power's operating companies. I assumed my current position in February 2007.

In my current position, I have responsibility 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. I also am responsible for developing and implementing forecasting, planning, and load analysis studies for regulatory proceedings.

I have attended the Institute for Professional Education's Economic Modeling and Forecasting class and Itron's Forecasting Workshops. I have also attended industry forecasting conferences and REEPS (Residential End-Use Energy Planning System), COMMEND (Commercial End-Use Planning System), and INFORM (Industrial End-Use Forecasting Model) User Group meetings and training classes sponsored by the Electric Power Research Institute. I am a member of Itron's Energy Forecasting Group and Edison Electric Institute's Load Forecasting Group.

I have testified before the Public Utility Commission of Texas, the Colorado Public Utilities Commission, the Minnesota Public Utilities Commission, the North Dakota Public Service Commission, the South Dakota Public Utilities Commission, the New Mexico Public Regulation Commission, and the Public Service Commission of Wisconsin.

Public Service Company of Colorado
Test Year Sales and Customers
12 months ending December 31, 2015

Weather Normalized Billing Month Sales (MWh)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Residential	908,659	717,411	756,654	668,508	595,271	727,244	908,008	884,365	817,128	682,932	608,228	845,807	9,120,213
Commercial & Industrial	1,681,161	1,465,442	1,600,110	1,534,165	1,451,171	1,630,400	1,766,712	1,741,293	1,716,888	1,612,856	1,464,616	1,660,428	19,325,242
Other*	24,812	22,167	21,898	19,715	18,275	17,626	18,276	19,521	20,774	22,817	23,925	25,293	255,098
Total Retail	2,614,632	2,205,019	2,378,661	2,222,388	2,064,717	2,375,271	2,692,995	2,645,179	2,554,790	2,318,605	2,096,769	2,531,527	28,700,554

Number of Customers

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
Residential	1,200,606	1,201,713	1,202,831	1,203,961	1,205,102	1,206,252	1,207,410	1,208,577	1,209,750	1,210,928	1,212,111	1,213,300	1,206,878
Commercial & Industrial	157,605	157,714	157,823	157,934	158,043	158,153	158,265	158,376	158,488	158,599	158,713	158,826	158,212
Other*	53,196	53,161	53,128	53,096	53,063	53,032	53,002	52,972	52,943	52,915	52,887	52,860	53,021
Total Retail	1,411,407	1,412,588	1,413,782	1,414,991	1,416,208	1,417,437	1,418,677	1,419,925	1,421,181	1,422,442	1,423,711	1,424,986	1,418,111

*The "Other" category is comprised of the Street Lighting, Public Authority and Interdepartmental customer classes.

Highly Confidential Attachment No. JEM-1A

(Monthly Test Year Retail MWh Sales and Number of Customers for Each Customer Class)

Filed Under Seal

Variable	Description
AvgRes_Use	historical residential average use per customer (kWh)
Cooling	residential cooling SAE (Statistically Adjusted End-use) variable
Heating	residential heating SAE (Statistically Adjusted End-use) variable
Base	residential base SAE (Statistically Adjusted End-use) variable
Feb	Monthly seasonal variable for month of February
Mar	Monthly seasonal variable for month of March
Apr	Monthly seasonal variable for month of April
May	Monthly seasonal variable for month of May
Jun	Monthly seasonal variable for month of June
Sep	Monthly seasonal variable for month of September
Oct	Monthly seasonal variable for month of October
Nov	Monthly seasonal variable for month of November
Dec	Monthly seasonal variable for month of December
Residential	historical residential billed sales (MWh)
BilledResCust	historical residential billed customers
Pers_Income	Colorado personal income ($million)
Households	Colorado households (000)
CPI_CO	consumer price index for Colorado
Index_2005	CPI_CO indexed to the 2005 level
Res_RevperkWh	Quarterly Average Price (cents per kWh) excluding Service and Facility fees
Res_RevperkWh90	real average price (deflated by the indexed CPI)(cents per kWh)
ResPrice	residential price variable (cents per kWh)
Population	Colorado population (000)
CDD_Fcst	actual and forecasted cooling degree days
HDD_Fcst	actual and forecasted heating degree days
Res_Heat	residential saturation/efficiency index for electric heating
Res_Cool	residential saturation/efficiency index for electric cooling
Res_Other	residential saturation/efficiency index for electric base uses
Hlight	monthly hours of daylight
HeatUse	residential heating utilization variable
CoolUse	residential cooling utilization variable
BaseUse	residential base utilization variable
RealInc_PerHH	real income per household ($million)
HH_Size	household size (persons per household)

Definition
(Residential [sales] / Billed ResCust)*1000
Res_Cool * CoolUse
Res_Heat * HeatUse
Res_Other * BaseUse
= 1 if month is February, = 0 for all other months
= 1 if month is March, = 0 for all other months
= 1 if month is April, = 0 for all other months
= 1 if month is May, = 0 for all other months
= 1 if month is June, = 0 for all other months
= 1 if month is September, = 0 for all other months
= 1 if month is October, = 0 for all other months
= 1 if month is November, = 0 for all other months
= 1 if month is December, = 0 for all other months
from company records
from company records and forecast model
from Global Insight, Inc.
from Global Insight, Inc.
from Global Insight, Inc.
CPI_CO / 1.984
average of the monthly prices for the 3 months in the quarter
Res_RevperkWh / Index_2005
3 month moving average of Res_RevperkWh05
from Global Insight, Inc.
Actual CDD 2000 - Jun 2011, Normal CDD Jul 2011 - 2012
Actual HDD 2000 - Jun 2011, Normal HDD Jul 2011 - 2013
from Itron, Inc. updated with PSCo customer saturations
from Itron, Inc. updated with PSCo customer saturations
from Itron, Inc. updated with PSCo customer saturations
from company records
(ResPrice^-0.15) * (RealInc_PerHH^0.2) * (HH_Size^0.01) * HDD_Fcst
(ResPrice^-0.15) * (RealInc_PerHH^0.2) * (HH_Size^0.01) * CDD_Fcst
(ResPrice^-0.15) * (RealInc_PerHH^0.2) * (HH_Size^0.01) * (Hlight^-0.2)
(Pers_Income / Households * 1000) / Index_2005
Population / Households

Variable	Coefficient	StdErr	T-Stat	P-Value
Cooling	0.085	0.005	16.218	0.00%
Heating	0.019	0.001	12.941	0.00%
Base	269.091	5.521	48.744	0.00%
Feb	-98.885	6.619	-14.939	0.00%
Mar	-96.312	7.380	-13.050	0.00%
Apr	-99.555	8.377	-11.885	0.00%
May	-88.901	8.909	-9.979	0.00%
Jun	-44.806	8.437	-5.310	0.00%
Sep	-19.334	7.711	-2.507	1.37%
Oct	-105.747	10.138	-10.431	0.00%
Nov	-121.628	9.342	-13.019	0.00%
Dec	-42.469	6.838	-6.211	0.00%
AR(1)	0.301	0.097	3.119	0.23%

Model Statistics	
Iterations	14
Adjusted Observations	119
Deg. of Freedom for Error	106
R-Squared	0.967
Adjusted R-Squared	0.963
AIC	5.763
BIC	6.067
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-498.77
Model Sum of Squares	878,635.36
Sum of Squared Errors	30,453.31
Mean Squared Error	287.30
Std. Error of Regression	16.95
Mean Abs. Dev. (MAD)	11.70
Mean Abs. % Err. (MAPE)	1.84%
Durbin-Watson Statistic	2.077
Durbin-H Statistic	#NA
Ljung-Box Statistic	23.90
Prob (Ljung-Box)	0.4670
Skewness	0.495
Kurtosis	7.077
Jarque-Bera	87.278
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%

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2004	1	739.989				
2004	2	650.076	647.245	2.831	0.004	0.167
2004	3	635.122	605.997	29.125	0.046	1.718
2004	4	528.271	539.621	-11.349	-0.021	-0.670
2004	5	596.874	523.389	73.485	0.123	4.335
2004	6	589.943	573.268	16.675	0.028	0.984
2004	7	622.094	632.217	-10.123	-0.016	-0.597
2004	8	642.953	661.452	-18.499	-0.029	-1.091
2004	9	602.426	592.924	9.502	0.016	0.561
2004	10	533.313	519.410	13.903	0.026	0.820
2004	11	540.992	549.539	-8.548	-0.016	-0.504
2004	12	684.932	690.572	-5.640	-0.008	-0.333
2005	1	762.756	769.943	-7.186	-0.009	-0.424
2005	2	618.500	627.728	-9.228	-0.015	-0.544
2005	3	604.115	596.904	7.212	0.012	0.425
2005	4	588.752	567.950	20.802	0.035	1.227
2005	5	536.603	543.832	-7.229	-0.013	-0.427
2005	6	576.204	568.549	7.655	0.013	0.452
2005	7	743.199	713.234	29.966	0.040	1.768
2005	8	769.230	785.318	-16.089	-0.021	-0.949
2005	9	653.182	671.976	-18.794	-0.029	-1.109
2005	10	557.512	532.177	25.336	0.045	1.495
2005	11	552.454	548.094	4.360	0.008	0.257
2005	12	703.355	710.895	-7.539	-0.011	-0.445
2006	1	738.831	745.376	-6.545	-0.009	-0.386
2006	2	631.655	639.335	-7.680	-0.012	-0.453
2006	3	619.994	625.245	-5.251	-0.008	-0.310
2006	4	560.530	552.559	7.971	0.014	0.470
2006	5	521.834	527.719	-5.886	-0.011	-0.347
2006	6	658.892	632.749	26.143	0.040	1.542
2006	7	729.278	719.551	9.727	0.013	0.574
2006	8	778.615	798.079	-19.464	-0.025	-1.148
2006	9	635.147	640.159	-5.012	-0.008	-0.296
2006	10	536.713	537.805	-1.092	-0.002	-0.064
2006	11	592.491	571.737	20.754	0.035	1.224
2006	12	703.372	699.119	4.253	0.006	0.251
2007	1	818.666	807.469	11.198	0.014	0.661
2007	2	670.420	695.711	-25.291	-0.038	-1.492
2007	3	623.247	610.908	12.340	0.020	0.728
2007	4	569.083	564.970	4.113	0.007	0.243
2007	5	551.620	541.153	10.467	0.019	0.618
2007	6	584.195	581.525	2.670	0.005	0.158
2007	7	786.903	745.699	41.204	0.052	2.431
2007	8	817.112	819.544	-2.432	-0.003	-0.143
2007	9	727.466	700.539	26.927	0.037	1.589
2007	10	561.782	553.359	8.423	0.015	0.497
2007	11	568.740	564.821	3.920	0.007	0.231
2007	12	709.168	708.087	1.081	0.002	0.064
2008	1	812.787	818.011	-5.223	-0.006	-0.308
2008	2	687.547	675.815	11.732	0.017	0.692
2008	3	612.785	615.055	-2.270	-0.004	-0.134

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2008	4	588.621	595.958	-7.336	-0.012	-0.433
2008	5	530.182	544.037	-13.854	-0.026	-0.817
2008	6	574.705	584.053	-9.348	-0.016	-0.551
2008	7	734.679	737.839	-3.160	-0.004	-0.186
2008	8	788.607	790.371	-1.765	-0.002	-0.104
2008	9	669.898	647.429	22.469	0.034	1.326
2008	10	524.783	535.508	-10.725	-0.020	-0.633
2008	11	548.148	543.724	4.424	0.008	0.261
2008	12	699.767	697.079	2.688	0.004	0.159
2009	1	773.309	773.774	-0.465	-0.001	-0.027
2009	2	636.946	628.162	8.784	0.014	0.518
2009	3	590.812	596.629	-5.817	-0.010	-0.343
2009	4	580.541	577.061	3.480	0.006	0.205
2009	5	539.171	529.690	9.481	0.018	0.559
2009	6	547.402	558.332	-10.930	-0.020	-0.645
2009	7	673.805	656.940	16.865	0.025	0.995
2009	8	684.056	684.675	-0.619	-0.001	-0.037
2009	9	645.641	658.533	-12.892	-0.020	-0.761
2009	10	559.789	551.553	8.236	0.015	0.486
2009	11	578.678	571.133	7.545	0.013	0.445
2009	12	733.271	720.123	13.148	0.018	0.776
2010	1	796.556	792.047	4.510	0.006	0.266
2010	2	665.121	657.190	7.931	0.012	0.468
2010	3	628.329	635.540	-7.211	-0.011	-0.425
2010	4	560.704	568.156	-7.452	-0.013	-0.440
2010	5	520.296	535.740	-15.444	-0.030	-0.911
2010	6	611.028	586.466	24.562	0.040	1.449
2010	7	727.573	715.221	12.352	0.017	0.729
2010	8	756.571	758.993	-2.422	-0.003	-0.143
2010	9	682.754	683.031	-0.277	-0.000	-0.016
2010	10	555.411	533.191	22.220	0.040	1.311
2010	11	551.448	559.293	-7.844	-0.014	-0.463
2010	12	699.999	694.700	5.300	0.008	0.313
2011	1	777.509	776.565	0.944	0.001	0.056
2011	2	677.563	660.988	16.575	0.024	0.978
2011	3	610.591	623.451	-12.860	-0.021	-0.759
2011	4	549.068	554.084	-5.017	-0.009	-0.296
2011	5	543.032	548.872	-5.840	-0.011	-0.345
2011	6	579.709	586.681	-6.972	-0.012	-0.411
2011	7	725.375	710.947	14.427	0.020	0.851
2011	8	807.891	822.534	-14.643	-0.018	-0.864
2011	9	708.847	730.577	-21.730	-0.031	-1.282
2011	10	535.596	552.489	-16.893	-0.032	-0.997
2011	11	569.683	577.857	-8.173	-0.014	-0.482
2011	12	712.141	714.894	-2.753	-0.004	-0.162
2012	1	762.714	770.359	-7.645	-0.010	-0.451
2012	2	651.077	659.523	-8.447	-0.013	-0.498
2012	3	595.507	612.977	-17.471	-0.029	-1.031
2012	4	535.833	538.214	-2.380	-0.004	-0.140
2012	5	522.592	537.055	-14.462	-0.028	-0.853
2012	6	623.858	633.088	-9.229	-0.015	-0.545

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2012	7	851.638	832.597	19.042	0.022	1.123
2012	8	783.544	843.353	-59.808	-0.076	-3.529
2012	9	700.788	709.352	-8.564	-0.012	-0.505
2012	10	534.751	561.066	-26.315	-0.049	-1.553
2012	11	561.197	573.013	-11.817	-0.021	-0.697
2012	12	671.186	685.930	-14.744	-0.022	-0.870
2013	1	787.145	786.114	1.031	0.001	0.061
2013	2	642.036	638.883	3.153	0.005	0.186
2013	3	625.634	622.235	3.399	0.005	0.201
2013	4	598.397	597.258	1.139	0.002	0.067
2013	5	542.537	560.069	-17.532	-0.032	-1.034
2013	6	600.703	598.143	2.560	0.004	0.151
2013	7	780.350	765.243	15.108	0.019	0.891
2013	8	708.782	750.479	-41.697	-0.059	-2.460
2013	9	740.772	732.477	8.295	0.011	0.489
2013	10	534.118	557.467	-23.349	-0.044	-1.378
2013	11	556.149	561.620	-5.471	-0.010	-0.323
2013	12	707.365	705.983	1.382	0.002	0.082
2014	1		772.307			
2014	2		637.264			
2014	3		606.759			
2014	4		567.423			
2014	5		533.127			
2014	6		582.880			
2014	7		725.707			
2014	8		741.338			
2014	9		687.964			
2014	10		549.973			
2014	11		561.316			
2014	12		708.057			
2015	1		764.246			
2015	2		635.490			
2015	3		609.655			
2015	4		565.214			
2015	5		529.532			
2015	6		585.411			
2015	7		727.959			
2015	8		742.581			
2015	9		686.089			
2015	10		548.067			
2015	11		564.751			
2015	12		706.222			

Variable	Description
GSxStandby (GS)	historical commercial-industrial billed sales (MWh)
GS_Cool	commercial-industrial cooling SAE (Statistically Adjusted End-use) variable
GS_Base	commercial-industrial base SAE (Statistically Adjusted End-use) variable
Jan	Monthly seasonal variable for month of January
Feb	Monthly seasonal variable for month of February
Mar	Monthly seasonal variable for month of March
Apr	Monthly seasonal variable for month of April
May	Monthly seasonal variable for month of May
Jun	Monthly seasonal variable for month of June
Jul	Monthly seasonal variable for month of July
Aug	Monthly seasonal variable for month of August
Sep	Monthly seasonal variable for month of September
Oct	Monthly seasonal variable for month of October
Nov	Monthly seasonal variable for month of November
Dec	Monthly seasonal variable for month of December
Jul04	Binary variable for July 2004
CRSPh2	CRS billing system implementation - phase 2
BillCycleDays	average number of days billed each month
GS_RevperkWh	Monthly average price (cents per kWh)
GS_RevperkWh05	real average price (cents per kWh)
GSPrice	3-month moving average of real average price (cents per KWh)
CPI_CO	consumer price index for Colorado
Index_2005	CPI_CO indexed to the 2005 level
GDP_CO	Colorado gross state product ($billion)
JPGDP	U S - Chained Price Index, Gross Domestic Product
GDP_Index2005	JPGDP indexed to the 2005 level
CO_GSP2005	real GDP_CO (deflated by indexed JPGDP)($billion)
CDD_Fcst	actual and forecasted cooling degree days
Com_Cool	C & I saturation/efficiency index for electric cooling
Com_Other	C & I saturation/efficiency index for electric base uses
Hlight	monthly hours of daylight

Definition
from company records
(GSPrice^-0.25) * (CO_GSP2005^0.3) * CDD_Fcst * Com_Cool
(GSPrice^-0.25) * (CO_GSP2005^0.6) * (Hlight^ -0.2) * Com_Other
= 1 if month is January, = 0 for all other months
= 1 if month is February, = 0 for all other months
= 1 if month is March, = 0 for all other months
= 1 if month is April, = 0 for all other months
= 1 if month is May, = 0 for all other months
= 1 if month is June, = 0 for all other months
= 1 if month is July, = 0 for all other months
= 1 if month is August, = 0 for all other months
= 1 if month is September, = 0 for all other months
= 1 if month is October, = 0 for all other months
= 1 if month is November, = 0 for all other months
= 1 if month is December, = 0 for all other months
= 1 for July 2004, = 0 for all other months
= 1 beginning in May 2004, = 0 before that
developed from company records
from company records
GS_RevperkWh / Index_2005
=average(GS_RevperkWh05,3)
from Global Insight, Inc.
CPI_CO / 1.984
from Global Insight, Inc.
from Global Insight, Inc.
=(JPGDP/100) / 0.99996
=GDP_CO / GDP_Index2005
Actual CDD 1999 - Dec 2013, Normal Jan 2014 - Dec 2017
from Itron, Inc.
from Itron, Inc.
Calculated from National Oceanic and Atmospheric Administration data

Variable	Coefficient	StdErr	T-Stat	P-Value
GS_Cool	10.337	4.356	2.373	1.88%
GS_Base	3838.190	413.882	9.274	0.00%
Jan	-708306.599	165874.883	-4.270	0.00%
Feb	-745044.368	158961.719	-4.687	0.00%
Mar	-693724.495	157272.265	-4.411	0.00%
Apr	-718072.965	154621.629	-4.644	0.00%
May	-690772.037	152805.439	-4.521	0.00%
Jun	-653177.825	153772.259	-4.248	0.00%
Jul	-560531.328	151011.023	-3.712	0.03%
Aug	-530667.047	152844.520	-3.472	0.07%
Sep	-593020.275	153533.227	-3.862	0.02%
Oct	-699940.315	158510.602	-4.416	0.00%
Nov	-751168.363	158414.284	-4.742	0.00%
Dec	-744127.810	164298.478	-4.529	0.00%
Jul04	-381355.290	51728.229	-7.372	0.00%
CRSPh2	92973.416	8807.116	10.557	0.00%
BillCycleDays	31039.006	3049.121	10.180	0.00%

Model Statistics	
Iterations	1
Adjusted Observations	180
Deg. of Freedom for Error	163
R-Squared	0.886
Adjusted R-Squared	0.875
AIC	21.658
BIC	21.960
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-2,187.66
Model Sum of Squares	2,942,646,790,330.82
Sum of Squared Errors	379,630,916,108.47
Mean Squared Error	2,329,024,025.21
Std. Error of Regression	48,259.96
Mean Abs. Dev. (MAD)	31,948.30
Mean Abs. % Err. (MAPE)	2.15%
Durbin-Watson Statistic	1.792
Durbin-H Statistic	#NA
Ljung-Box Statistic	93.90
Prob (Ljung-Box)	0.0000
Skewness	-1.353
Kurtosis	6.973
Jarque-Bera	173.266
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%

Year	Month	Actual	Pred	Resid	%Resid	StdResid
1999	1	1,379,917.965	1,370,789.867	9,128.098	0.66%	0.189
1999	2	1,308,699.264	1,303,898.815	4,800.449	0.37%	0.099
1999	3	1,239,385.488	1,251,201.754	-11,816.266	-0.95%	-0.245
1999	4	1,248,011.683	1,214,283.343	33,728.340	2.70%	0.699
1999	5	1,253,505.579	1,222,065.600	31,439.979	2.51%	0.651
1999	6	1,233,060.183	1,293,606.600	-60,546.417	-4.91%	-1.255
1999	7	1,539,120.072	1,457,463.356	81,656.716	5.31%	1.692
1999	8	1,617,337.215	1,575,651.247	41,685.968	2.58%	0.864
1999	9	1,375,091.828	1,452,281.853	-77,190.025	-5.61%	-1.599
1999	10	1,285,724.551	1,277,206.306	8,518.245	0.66%	0.177
1999	11	1,212,870.621	1,241,216.027	-28,345.406	-2.34%	-0.587
1999	12	1,443,834.073	1,385,072.381	58,761.692	4.07%	1.218
2000	1	1,375,898.441	1,438,401.434	-62,502.993	-4.54%	-1.295
2000	2	1,315,051.505	1,315,040.785	10.720	0.00%	0.000
2000	3	1,286,224.851	1,317,287.984	-31,063.133	-2.42%	-0.644
2000	4	1,288,215.083	1,284,539.028	3,676.055	0.29%	0.076
2000	5	1,294,509.393	1,285,478.016	9,031.377	0.70%	0.187
2000	6	1,385,314.870	1,385,212.638	102.232	0.01%	0.002
2000	7	1,525,852.677	1,515,871.698	9,980.979	0.65%	0.207
2000	8	1,573,246.284	1,577,024.605	-3,778.321	-0.24%	-0.078
2000	9	1,528,415.637	1,533,934.269	-5,518.632	-0.36%	-0.114
2000	10	1,433,140.672	1,401,853.406	31,287.266	2.18%	0.648
2000	11	1,370,168.434	1,350,985.247	19,183.187	1.40%	0.397
2000	12	1,453,483.452	1,441,484.314	11,999.138	0.83%	0.249
2001	1	1,458,157.686	1,480,621.986	-22,464.300	-1.54%	-0.465
2001	2	1,395,378.184	1,380,447.654	14,930.530	1.07%	0.309
2001	3	1,388,281.116	1,412,031.531	-23,750.415	-1.71%	-0.492
2001	4	1,330,939.373	1,337,531.846	-6,592.473	-0.50%	-0.137
2001	5	1,346,572.056	1,335,609.259	10,962.797	0.81%	0.227
2001	6	1,427,794.806	1,420,864.087	6,930.719	0.49%	0.144
2001	7	1,543,834.032	1,567,737.576	-23,903.544	-1.55%	-0.495
2001	8	1,585,255.362	1,620,768.713	-35,513.351	-2.24%	-0.736
2001	9	1,546,896.286	1,567,797.969	-20,901.683	-1.35%	-0.433
2001	10	1,441,742.985	1,438,899.924	2,843.061	0.20%	0.059
2001	11	1,393,215.043	1,412,602.817	-19,387.774	-1.39%	-0.402
2001	12	1,484,300.982	1,488,830.323	-4,529.341	-0.31%	-0.094
2002	1	1,433,686.231	1,508,297.047	-74,610.816	-5.20%	-1.546
2002	2	1,390,473.084	1,410,756.025	-20,282.941	-1.46%	-0.420
2002	3	1,394,982.295	1,439,216.880	-44,234.585	-3.17%	-0.917
2002	4	1,353,756.675	1,359,933.848	-6,177.173	-0.46%	-0.128
2002	5	1,361,570.818	1,358,501.993	3,068.825	0.23%	0.064
2002	6	1,427,813.627	1,452,085.411	-24,271.784	-1.70%	-0.503
2002	7	1,593,553.296	1,595,188.640	-1,635.344	-0.10%	-0.034
2002	8	1,624,256.473	1,633,889.327	-9,632.854	-0.59%	-0.200
2002	9	1,565,046.336	1,578,763.009	-13,716.673	-0.88%	-0.284
2002	10	1,459,208.913	1,445,095.127	14,113.786	0.97%	0.292
2002	11	1,349,987.021	1,392,128.359	-42,141.338	-3.12%	-0.873
2002	12	1,466,051.014	1,493,173.601	-27,122.586	-1.85%	-0.562
2003	1	1,490,511.869	1,537,959.964	-47,448.095	-3.18%	-0.983
2003	2	1,385,643.362	1,413,731.374	-28,088.012	-2.03%	-0.582
2003	3	1,415,438.647	1,433,687.593	-18,248.946	-1.29%	-0.378

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2003	4	1,341,761.408	1,345,847.840	-4,086.432	-0.30%	-0.085
2003	5	1,378,390.662	1,377,580.256	810.406	0.06%	0.017
2003	6	1,450,240.161	1,428,718.949	21,521.212	1.48%	0.446
2003	7	1,534,760.442	1,522,048.325	12,712.117	0.83%	0.263
2003	8	1,594,827.606	1,606,454.446	-11,626.840	-0.73%	-0.241
2003	9	1,587,480.484	1,554,017.087	33,463.397	2.11%	0.693
2003	10	1,404,091.565	1,391,062.571	13,028.994	0.93%	0.270
2003	11	1,401,093.258	1,365,172.842	35,920.416	2.56%	0.744
2003	12	1,447,090.909	1,435,994.722	11,096.187	0.77%	0.230
2004	1	1,493,146.990	1,436,749.618	56,397.372	3.78%	1.169
2004	2	1,402,857.136	1,330,592.371	72,264.765	5.15%	1.497
2004	3	1,410,855.712	1,345,524.941	65,330.771	4.63%	1.354
2004	4	1,356,473.091	1,275,730.391	80,742.699	5.95%	1.673
2004	5	1,444,326.946	1,607,740.713	-163,413.767	-11.31%	-3.386
2004	6	1,513,086.765	1,554,687.046	-41,600.281	-2.75%	-0.862
2004	7	1,226,461.448	1,226,461.448	-0.000	-0.00%	-0.000
2004	8	1,785,254.452	1,687,568.989	97,685.463	5.47%	2.024
2004	9	1,653,112.320	1,611,633.883	41,478.437	2.51%	0.859
2004	10	1,341,831.226	1,485,912.171	-144,080.945	-10.74%	-2.986
2004	11	1,501,838.269	1,419,956.228	81,882.041	5.45%	1.697
2004	12	1,370,820.552	1,576,666.348	-205,845.796	-15.02%	-4.265
2005	1	1,531,879.568	1,562,602.455	-30,722.887	-2.01%	-0.637
2005	2	1,342,106.205	1,425,543.041	-83,436.836	-6.22%	-1.729
2005	3	1,515,663.710	1,519,206.892	-3,543.182	-0.23%	-0.073
2005	4	1,309,235.944	1,461,572.009	-152,336.065	-11.64%	-3.157
2005	5	1,416,069.843	1,423,861.029	-7,791.186	-0.55%	-0.161
2005	6	1,491,450.599	1,569,284.264	-77,833.665	-5.22%	-1.613
2005	7	1,427,889.313	1,612,460.255	-184,570.942	-12.93%	-3.825
2005	8	1,815,294.768	1,785,399.049	29,895.719	1.65%	0.619
2005	9	1,616,653.473	1,654,488.751	-37,835.278	-2.34%	-0.784
2005	10	1,456,189.723	1,504,081.017	-47,891.294	-3.29%	-0.992
2005	11	1,382,583.581	1,435,947.782	-53,364.201	-3.86%	-1.106
2005	12	1,467,731.404	1,528,217.022	-60,485.618	-4.12%	-1.253
2006	1	1,572,638.883	1,612,954.402	-40,315.519	-2.56%	-0.835
2006	2	1,321,429.984	1,425,914.023	-104,484.039	-7.91%	-2.165
2006	3	1,549,218.468	1,547,926.208	1,292.260	0.08%	0.027
2006	4	1,314,948.491	1,378,080.236	-63,131.745	-4.80%	-1.308
2006	5	1,501,190.776	1,466,109.847	35,080.928	2.34%	0.727
2006	6	1,628,171.199	1,586,711.874	41,459.325	2.55%	0.859
2006	7	1,610,464.238	1,602,555.066	7,909.172	0.49%	0.164
2006	8	1,765,882.184	1,781,837.132	-15,954.948	-0.90%	-0.331
2006	9	1,546,950.009	1,585,789.065	-38,839.056	-2.51%	-0.805
2006	10	1,526,756.650	1,535,219.656	-8,463.006	-0.55%	-0.175
2006	11	1,412,282.128	1,433,326.446	-21,044.318	-1.49%	-0.436
2006	12	1,424,636.981	1,469,316.647	-44,679.666	-3.14%	-0.926
2007	1	1,739,609.027	1,680,511.115	59,097.912	3.40%	1.225
2007	2	1,449,587.501	1,441,712.220	7,875.281	0.54%	0.163
2007	3	1,511,165.770	1,532,854.319	-21,688.549	-1.44%	-0.449
2007	4	1,443,388.108	1,444,201.491	-813.383	-0.06%	-0.017
2007	5	1,514,926.546	1,520,287.683	-5,361.137	-0.35%	-0.111
2007	6	1,584,019.661	1,558,229.251	25,790.410	1.63%	0.534

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2007	7	1,705,315.123	1,707,010.629	-1,695.506	-0.10%	-0.035
2007	8	1,839,172.791	1,833,056.177	6,116.614	0.33%	0.127
2007	9	1,599,371.490	1,617,786.956	-18,415.466	-1.15%	-0.382
2007	10	1,620,532.138	1,638,712.494	-18,180.356	-1.12%	-0.377
2007	11	1,475,743.628	1,495,302.952	-19,559.324	-1.33%	-0.405
2007	12	1,524,173.167	1,526,104.206	-1,931.039	-0.13%	-0.040
2008	1	1,714,738.430	1,727,386.265	-12,647.835	-0.74%	-0.262
2008	2	1,553,351.103	1,529,817.962	23,533.140	1.51%	0.488
2008	3	1,479,122.735	1,498,046.328	-18,923.593	-1.28%	-0.392
2008	4	1,564,341.284	1,572,260.606	-7,919.322	-0.51%	-0.164
2008	5	1,509,078.499	1,495,780.765	13,297.734	0.88%	0.276
2008	6	1,558,771.551	1,584,047.644	-25,276.093	-1.62%	-0.524
2008	7	1,765,375.288	1,768,356.305	-2,981.017	-0.17%	-0.062
2008	8	1,670,125.662	1,745,062.661	-74,936.999	-4.49%	-1.553
2008	9	1,730,268.031	1,673,128.680	57,139.351	3.30%	1.184
2008	10	1,615,268.565	1,595,954.771	19,313.794	1.20%	0.400
2008	11	1,392,903.638	1,382,455.000	10,448.638	0.75%	0.217
2008	12	1,586,809.451	1,528,053.298	58,756.153	3.70%	1.217
2009	1	1,644,364.049	1,606,383.915	37,980.134	2.31%	0.787
2009	2	1,409,725.306	1,408,433.758	1,291.548	0.09%	0.027
2009	3	1,528,493.722	1,494,728.920	33,764.802	2.21%	0.700
2009	4	1,472,424.922	1,437,625.425	34,799.497	2.36%	0.721
2009	5	1,403,041.086	1,385,851.372	17,189.714	1.23%	0.356
2009	6	1,544,936.481	1,545,620.267	-683.786	-0.04%	-0.014
2009	7	1,645,278.130	1,670,749.831	-25,471.702	-1.55%	-0.528
2009	8	1,628,919.760	1,646,538.121	-17,618.361	-1.08%	-0.365
2009	9	1,603,859.355	1,643,720.110	-39,860.755	-2.49%	-0.826
2009	10	1,531,362.518	1,548,180.886	-16,818.368	-1.10%	-0.348
2009	11	1,373,667.030	1,391,494.383	-17,827.353	-1.30%	-0.369
2009	12	1,629,407.385	1,597,777.578	31,629.806	1.94%	0.655
2010	1	1,588,822.049	1,584,983.495	3,838.554	0.24%	0.080
2010	2	1,441,162.940	1,444,175.589	-3,012.649	-0.21%	-0.062
2010	3	1,612,195.406	1,570,149.950	42,045.455	2.61%	0.871
2010	4	1,480,890.210	1,480,761.333	128.877	0.01%	0.003
2010	5	1,385,374.571	1,386,384.925	-1,010.354	-0.07%	-0.021
2010	6	1,619,132.566	1,576,539.104	42,593.463	2.63%	0.883
2010	7	1,672,163.628	1,649,344.215	22,819.413	1.36%	0.473
2010	8	1,729,782.484	1,722,748.439	7,034.045	0.41%	0.146
2010	9	1,701,429.053	1,643,476.083	57,952.970	3.41%	1.201
2010	10	1,558,718.236	1,491,049.141	67,669.096	4.34%	1.402
2010	11	1,469,754.755	1,422,881.848	46,872.907	3.19%	0.971
2010	12	1,559,845.560	1,520,657.035	39,188.525	2.51%	0.812
2011	1	1,690,781.847	1,617,605.789	73,176.058	4.33%	1.516
2011	2	1,488,051.577	1,429,958.085	58,093.492	3.90%	1.204
2011	3	1,579,066.535	1,560,305.622	18,760.913	1.19%	0.389
2011	4	1,453,732.366	1,404,649.391	49,082.974	3.38%	1.017
2011	5	1,447,602.958	1,474,149.704	-26,546.745	-1.83%	-0.550
2011	6	1,613,886.150	1,578,106.220	35,779.930	2.22%	0.741
2011	7	1,641,317.323	1,622,769.041	18,548.282	1.13%	0.384
2011	8	1,821,377.716	1,809,616.468	11,761.248	0.65%	0.244
2011	9	1,738,308.804	1,686,170.632	52,138.172	3.00%	1.080

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2011	10	1,542,138.690	1,523,776.802	18,361.888	1.19%	0.380
2011	11	1,463,278.237	1,457,391.153	5,887.084	0.40%	0.122
2011	12	1,588,854.127	1,541,086.580	47,767.546	3.01%	0.990
2012	1	1,673,368.975	1,644,469.950	28,899.025	1.73%	0.599
2012	2	1,554,108.083	1,495,033.125	59,074.959	3.80%	1.224
2012	3	1,520,800.585	1,537,485.394	-16,684.809	-1.10%	-0.346
2012	4	1,450,082.978	1,449,558.840	524.138	0.04%	0.011
2012	5	1,583,602.531	1,518,002.832	65,599.700	4.14%	1.359
2012	6	1,630,948.264	1,575,031.629	55,916.635	3.43%	1.159
2012	7	1,761,831.896	1,738,541.325	23,290.571	1.32%	0.483
2012	8	1,834,817.460	1,830,462.339	4,355.121	0.24%	0.090
2012	9	1,616,296.576	1,618,124.395	-1,827.819	-0.11%	-0.038
2012	10	1,658,000.177	1,628,287.522	29,712.656	1.79%	0.616
2012	11	1,486,455.770	1,489,274.487	-2,818.717	-0.19%	-0.058
2012	12	1,548,965.512	1,522,029.271	26,936.241	1.74%	0.558
2013	1	1,736,555.121	1,714,359.830	22,195.291	1.28%	0.460
2013	2	1,476,471.452	1,479,041.859	-2,570.407	-0.17%	-0.053
2013	3	1,503,535.349	1,474,776.072	28,759.277	1.91%	0.596
2013	4	1,602,315.258	1,563,941.247	38,374.012	2.39%	0.795
2013	5	1,538,435.876	1,520,794.148	17,641.728	1.15%	0.366
2013	6	1,529,116.378	1,528,998.278	118.099	0.01%	0.002
2013	7	1,823,628.997	1,760,288.192	63,340.804	3.47%	1.312
2013	8	1,725,047.309	1,754,519.813	-29,472.504	-1.71%	-0.611
2013	9	1,685,773.994	1,673,840.934	11,933.060	0.71%	0.247
2013	10	1,648,871.804	1,618,286.620	30,585.184	1.85%	0.634
2013	11	1,420,838.796	1,416,544.637	4,294.159	0.30%	0.089
2013	12	1,633,166.284	1,574,707.527	58,458.757	3.58%	1.211
2014	1		1,705,612.857			
2014	2		1,446,644.286			
2014	3		1,546,149.271			
2014	4		1,520,832.102			
2014	5		1,481,940.893			
2014	6		1,575,038.159			
2014	7		1,754,773.770			
2014	8		1,726,467.356			
2014	9		1,718,318.758			
2014	10		1,635,183.040			
2014	11		1,400,280.166			
2014	12		1,651,535.516			
2015	1		1,680,205.260			
2015	2		1,467,329.485			
2015	3		1,605,928.766			
2015	4		1,537,707.292			
2015	5		1,455,389.055			
2015	6		1,634,933.580			
2015	7		1,772,770.047			
2015	8		1,744,132.582			
2015	9		1,721,572.920			
2015	10		1,617,529.032			
2015	11		1,465,256.170			
2015	12		1,662,364.539			

Variable	Description	Definition
Interdept	historical interdepartmental billed sales (MWh)	from company records
Dec08	Binary variable for December 2008	Binary Variable Dec 08 = 1, otherwise = 0
Jun12	Binary variable for June 2012	Binary Variable Jun 12 = 1, otherwise = 0
Feb12	Binary variable for February 2012	Binary Variable Feb 12 = 1, otherwise = 0
Jun10	Binary variable for June 2010	Binary Variable Jun 10 = 1, otherwise = 0
Feb11	Binary variable for February 2011	Binary Variable Feb 11 = 1, otherwise = 0
Sep10	Binary variable for September 2010	Binary Variable Sep 10 = 1, otherwise = 0
Jun11	Binary variable for June 2011	Binary Variable Jun 11 = 1, otherwise = 0
Jan	Monthly seasonal variable for month of January	Binary Variable Jan = 1, otherwise = 0
Feb	Monthly seasonal variable for month of February	Binary Variable Feb = 1, otherwise = 0
Mar	Monthly seasonal variable for month of March	Binary Variable Mar = 1, otherwise = 0
Apr	Monthly seasonal variable for month of April	Binary Variable Apr = 1, otherwise = 0
May	Monthly seasonal variable for month of May	Binary Variable May = 1, otherwise = 0
Jun	Monthly seasonal variable for month of June	Binary Variable Jun = 1, otherwise = 0
Jul	Monthly seasonal variable for month of July	Binary Variable Jul = 1, otherwise = 0
Aug	Monthly seasonal variable for month of August	Binary Variable Aug = 1, otherwise = 0
Sep	Monthly seasonal variable for month of September	Binary Variable Sep = 1, otherwise = 0
Oct	Monthly seasonal variable for month of October	Binary Variable Oct = 1, otherwise = 0
Nov	Monthly seasonal variable for month of November	Binary Variable Nov = 1, otherwise = 0
Dec	Monthly seasonal variable for month of December	Binary Variable Dec = 1, otherwise = 0
Jan09	Binary variable for January 2009	Binary Variable Jan 09 = 1, otherwise = 0
AR(1)	First order autoregressive term	

Variable	Coefficient	StdErr	T-Stat	P-Value
Dec08	-255.075	56.785	-4.492	0.00%
Jun12	-177.488	51.345	-3.457	0.09%
Feb12	185.195	50.858	3.641	0.05%
Jun10	-218.335	51.616	-4.230	0.01%
Feb11	153.278	51.158	2.996	0.36%
Sep10	-128.612	50.329	-2.555	1.24%
Jun11	-114.627	51.250	-2.237	2.79%
Jan	371.650	27.356	13.586	0.00%
Feb	271.956	27.362	9.939	0.00%
Mar	334.065	25.786	12.955	0.00%
Apr	224.153	25.690	8.725	0.00%
May	275.244	25.641	10.735	0.00%
Jun	197.147	27.934	7.058	0.00%
Jul	137.369	25.600	5.366	0.00%
Aug	158.030	25.592	6.175	0.00%
Sep	174.369	26.193	6.657	0.00%
Oct	212.900	25.585	8.321	0.00%
Nov	249.372	25.584	9.747	0.00%
Dec	301.210	26.348	11.432	0.00%
Jan09	301.325	57.200	5.268	0.00%
AR(1)	-0.664	0.079	-8.385	0.00%

Model Statistics	
Iterations	6
Adjusted Observations	107
Deg. of Freedom for Error	86
R-Squared	0.802
Adjusted R-Squared	0.756
AIC	8.270
BIC	8.795
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-573.27
Model Sum of Squares	1,144,424.86
Sum of Squared Errors	282,185.62
Mean Squared Error	3,281.23
Std. Error of Regression	57.28
Mean Abs. Dev. (MAD)	39.54
Mean Abs. % Err. (MAPE)	23.65%
Durbin-Watson Statistic	1.791
Durbin-H Statistic	#NA
Ljung-Box Statistic	28.81
Prob (Ljung-Box)	0.2275
Skewness	0.163
Kurtosis	3.321
Jarque-Bera	0.933
Prob (Jarque-Bera)	0.6272

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%

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2005	1	237.707				
2005	2	320.195	360.919	-40.724	-0.127	-0.711
2005	3	302.785	302.025	0.760	0.003	0.013
2005	4	242.948	244.929	-1.981	-0.008	-0.035
2005	5	308.918	262.760	46.158	0.149	0.806
2005	6	207.949	174.781	33.168	0.159	0.579
2005	7	134.364	130.194	4.170	0.031	0.073
2005	8	195.057	160.026	35.031	0.180	0.612
2005	9	176.718	149.777	26.941	0.152	0.470
2005	10	172.159	211.340	-39.181	-0.228	-0.684
2005	11	253.968	276.432	-22.464	-0.088	-0.392
2005	12	269.656	298.157	-28.501	-0.106	-0.498
2006	1	321.633	392.607	-70.974	-0.221	-1.239
2006	2	309.585	305.176	4.409	0.014	0.077
2006	3	426.077	309.072	117.005	0.275	2.043
2006	4	150.357	163.040	-12.683	-0.084	-0.221
2006	5	291.887	324.259	-32.372	-0.111	-0.565
2006	6	227.283	186.093	41.190	0.181	0.719
2006	7	98.215	117.353	-19.138	-0.195	-0.334
2006	8	191.383	184.036	7.347	0.038	0.128
2006	9	166.481	152.217	14.264	0.086	0.249
2006	10	182.100	218.140	-36.040	-0.198	-0.629
2006	11	222.649	269.830	-47.181	-0.212	-0.824
2006	12	411.916	318.959	92.957	0.226	1.623
2007	1	230.485	298.119	-67.634	-0.293	-1.181
2007	2	434.565	365.716	68.849	0.158	1.202
2007	3	327.568	226.061	101.507	0.310	1.772
2007	4	311.259	228.468	82.791	0.266	1.445
2007	5	278.648	217.389	61.259	0.220	1.069
2007	6	331.782	194.886	136.896	0.413	2.390
2007	7	51.104	47.945	3.159	0.062	0.055
2007	8	182.287	215.327	-33.040	-0.181	-0.577
2007	9	195.650	158.258	37.392	0.191	0.653
2007	10	188.028	198.766	-10.738	-0.057	-0.187
2007	11	221.844	265.892	-44.048	-0.199	-0.769
2007	12	220.960	319.494	-98.534	-0.446	-1.720
2008	1	547.307	424.951	122.356	0.224	2.136
2008	2	71.364	155.285	-83.921	-1.176	-1.465
2008	3	554.940	467.297	87.643	0.158	1.530
2008	4	49.613	77.450	-27.837	-0.561	-0.486
2008	5	498.121	391.172	106.949	0.215	1.867
2008	6	15.029	49.114	-34.085	-2.268	-0.595
2008	7	263.625	258.330	5.295	0.020	0.092
2008	8	30.038	74.172	-44.134	-1.469	-0.770
2008	9	203.187	259.381	-56.194	-0.277	-0.981
2008	10	182.501	193.760	-11.259	-0.062	-0.197
2008	11	235.950	269.563	-33.613	-0.142	-0.587
2008	12	55.668	55.050	0.618	0.011	0.011
2009	1	665.713	666.643	-0.930	-0.001	-0.016
2009	2	278.180	276.779	1.401	0.005	0.024
2009	3	235.254	329.931	-94.677	-0.402	-1.653

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2009	4	267.353	289.783	-22.430	-0.084	-0.392
2009	5	226.139	246.551	-20.412	-0.090	-0.356
2009	6	181.189	229.762	-48.573	-0.268	-0.848
2009	7	158.711	147.968	10.743	0.068	0.188
2009	8	134.553	143.855	-9.302	-0.069	-0.162
2009	9	110.354	189.963	-79.609	-0.721	-1.390
2009	10	222.949	255.419	-32.470	-0.146	-0.567
2009	11	265.421	242.698	22.723	0.086	0.397
2009	12	287.222	290.550	-3.328	-0.012	-0.058
2010	1	364.642	380.940	-16.298	-0.045	-0.285
2010	2	268.801	276.610	-7.809	-0.029	-0.136
2010	3	213.949	336.161	-122.212	-0.571	-2.134
2010	4	230.357	303.933	-73.576	-0.319	-1.284
2010	5	138.028	271.123	-133.095	-0.964	-2.324
2010	6	45.144	69.950	-24.806	-0.549	-0.433
2010	7	130.659	93.311	37.348	0.286	0.652
2010	8	162.465	162.487	-0.022	-0.000	-0.000
2010	9	14.817	42.812	-27.995	-1.889	-0.489
2010	10	275.599	233.450	42.149	0.153	0.736
2010	11	216.817	207.728	9.089	0.042	0.159
2010	12	301.390	322.833	-21.443	-0.071	-0.374
2011	1	465.211	371.530	93.681	0.201	1.635
2011	2	404.922	363.091	41.831	0.103	0.730
2011	3	284.575	347.556	-62.981	-0.221	-1.099
2011	4	282.311	257.024	25.287	0.090	0.441
2011	5	254.761	236.616	18.145	0.071	0.317
2011	6	117.492	96.125	21.367	0.182	0.373
2011	7	81.971	114.141	-32.170	-0.392	-0.562
2011	8	180.840	194.825	-13.985	-0.077	-0.244
2011	9	172.000	159.219	12.781	0.074	0.223
2011	10	194.643	214.474	-19.831	-0.102	-0.346
2011	11	298.458	261.499	36.959	0.124	0.645
2011	12	308.638	268.607	40.031	0.130	0.699
2012	1	331.487	366.716	-35.229	-0.106	-0.615
2012	2	499.195	483.826	15.369	0.031	0.268
2012	3	283.000	306.140	-23.140	-0.082	-0.404
2012	4	241.492	258.070	-16.578	-0.069	-0.289
2012	5	222.987	263.727	-40.740	-0.183	-0.711
2012	6	39.000	54.368	-15.368	-0.394	-0.268
2012	7	147.660	124.522	23.138	0.157	0.404
2012	8	180.000	151.195	28.805	0.160	0.503
2012	9	180.919	159.777	21.142	0.117	0.369
2012	10	258.919	208.550	50.369	0.195	0.879
2012	11	237.000	218.807	18.193	0.077	0.318
2012	12	266.610	309.427	-42.817	-0.161	-0.747
2013	1	369.660	394.631	-24.971	-0.068	-0.436
2013	2	273.874	273.277	0.597	0.002	0.010
2013	3	328.886	332.791	-3.905	-0.012	-0.068
2013	4	274.600	227.593	47.007	0.171	0.821
2013	5	235.845	241.737	-5.892	-0.025	-0.103
2013	6	113.528	223.316	-109.788	-0.967	-1.917

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2013	7	160.364	192.908	-32.544	-0.203	-0.568
2013	8	172.056	142.757	29.299	0.170	0.511
2013	9	216.332	165.054	51.278	0.237	0.895
2013	10	242.029	185.029	57.000	0.236	0.995
2013	11	290.368	230.025	60.343	0.208	1.053
2013	12	334.999	273.981	61.018	0.182	1.065
2014	1		349.207			
2014	2		286.862			
2014	3		324.165			
2014	4		230.729			
2014	5		270.876			
2014	6		200.048			
2014	7		135.442			
2014	8		159.310			
2014	9		173.519			
2014	10		213.465			
2014	11		248.997			
2014	12		301.459			
2015	1		371.484			
2015	2		272.066			
2015	3		333.992			
2015	4		224.201			
2015	5		275.212			
2015	6		197.169			
2015	7		137.354			
2015	8		158.040			
2015	9		174.363			
2015	10		212.904			
2015	11		249.370			
2015	12		301.212			

Highly Confidential Attachment No. JEM-2A

(Regression Models and Associated Statistics Used in the Company's Projection of Sales)

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Variable	Description	Definition
Residential	calendar month customer count - historical data	from company records
HstockMA12	12-month moving average of Housing Stock	=Average(HSTOCKCO,12)
CRSPh1	CRS billing system implementation - phase 1	= 1 beginning in June 2003, = 0 before that
CRSPh2	CRS billing system implementation - phase 2	= 1 beginning in May 2004, = 0 before that
HSTOCKCO	Colorado Housing stock - historical and forecast (000)	from Global Insight, Inc.
AR(1)	First order autoregressive term	

Variable	Coefficient	StdErr	T-Stat	P-Value
HstockMA12	529.502	5.444	97.262	0.00%
CRSPh1	-4288.975	1569.941	-2.732	0.70%
CRSPh2	-10095.385	1567.392	-6.441	0.00%
AR(1)	0.985	0.007	148.869	0.00%

Model Statistics	
Iterations	8
Adjusted Observations	167
Deg. of Freedom for Error	163
R-Squared	0.999
Adjusted R-Squared	0.999
AIC	14.725
BIC	14.799
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-1,462.47
Model Sum of Squares	463,421,208,308.04
Sum of Squared Errors	395,151,407.58
Mean Squared Error	2,424,241.76
Std. Error of Regression	1,557.00
Mean Abs. Dev. (MAD)	991.63
Mean Abs. % Err. (MAPE)	0.09%
Durbin-Watson Statistic	1.768
Durbin-H Statistic	#NA
Ljung-Box Statistic	40.73
Prob (Ljung-Box)	0.0178
Skewness	2.927
Kurtosis	23.685
Jarque-Bera	3215.584
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%

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2000	1	998,754.000				
2000	2	1,002,144.000	1,000,035.377	2,108.623	0.002	1.354
2000	3	1,003,325.000	1,003,410.708	-85.708	-0.000	-0.055
2000	4	1,004,013.000	1,004,610.207	-597.207	-0.001	-0.384
2000	5	1,005,869.000	1,005,324.155	544.845	0.001	0.350
2000	6	1,005,953.000	1,007,181.887	-1,228.887	-0.001	-0.789
2000	7	1,007,523.000	1,007,294.136	228.864	0.000	0.147
2000	8	1,007,911.000	1,008,870.071	-959.071	-0.001	-0.616
2000	9	1,010,937.000	1,009,308.916	1,628.084	0.002	1.046
2000	10	1,014,626.000	1,012,346.589	2,279.411	0.002	1.464
2000	11	1,017,508.000	1,016,037.691	1,470.309	0.001	0.944
2000	12	1,019,961.000	1,018,962.999	998.001	0.001	0.641
2001	1	1,023,211.000	1,021,466.534	1,744.466	0.002	1.120
2001	2	1,024,514.000	1,024,755.921	-241.921	-0.000	-0.155
2001	3	1,024,937.000	1,026,112.601	-1,175.601	-0.001	-0.755
2001	4	1,025,970.000	1,026,603.032	-633.032	-0.001	-0.407
2001	5	1,027,646.000	1,027,694.883	-48.883	-0.000	-0.031
2001	6	1,027,803.000	1,029,399.724	-1,596.724	-0.002	-1.026
2001	7	1,029,403.000	1,029,608.579	-205.579	-0.000	-0.132
2001	8	1,030,019.000	1,031,239.055	-1,220.055	-0.001	-0.784
2001	9	1,032,449.000	1,031,876.455	572.545	0.001	0.368
2001	10	1,035,831.000	1,034,300.555	1,530.445	0.001	0.983
2001	11	1,038,563.000	1,037,662.273	900.727	0.001	0.579
2001	12	1,040,029.000	1,040,367.835	-338.835	-0.000	-0.218
2002	1	1,043,671.000	1,041,826.023	1,844.977	0.002	1.185
2002	2	1,044,908.000	1,045,427.248	-519.248	-0.000	-0.333
2002	3	1,045,896.000	1,046,639.794	-743.794	-0.001	-0.478
2002	4	1,048,160.000	1,047,606.432	553.568	0.001	0.356
2002	5	1,048,389.000	1,049,829.307	-1,440.307	-0.001	-0.925
2002	6	1,048,652.000	1,050,070.366	-1,418.366	-0.001	-0.911
2002	7	1,050,004.000	1,050,344.626	-340.626	-0.000	-0.219
2002	8	1,050,559.000	1,051,691.274	-1,132.274	-0.001	-0.727
2002	9	1,051,843.000	1,052,252.495	-409.495	-0.000	-0.263
2002	10	1,052,326.000	1,053,531.499	-1,205.499	-0.001	-0.774
2002	11	1,053,546.000	1,054,021.217	-475.217	-0.000	-0.305
2002	12	1,058,082.000	1,055,227.671	2,854.329	0.003	1.833

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2003	1	1,059,729.000	1,059,700.000	29.000	0.000	0.019
2003	2	1,060,835.000	1,061,326.204	-491.204	-0.000	-0.315
2003	3	1,062,745.000	1,062,444.904	300.096	0.000	0.193
2003	4	1,062,849.000	1,064,355.514	-1,506.514	-0.001	-0.968
2003	5	1,062,851.000	1,064,487.155	-1,636.155	-0.002	-1.051
2003	6	1,060,183.000	1,060,197.301	-14.301	-0.000	-0.009
2003	7	1,062,968.750	1,061,790.614	1,178.136	0.001	0.757
2003	8	1,067,180.145	1,064,530.727	2,649.418	0.002	1.702
2003	9	1,065,909.311	1,068,672.247	-2,762.937	-0.003	-1.775
2003	10	1,072,673.000	1,067,413.152	5,259.848	0.005	3.378
2003	11	1,075,688.000	1,074,067.607	1,620.393	0.002	1.041
2003	12	1,078,394.000	1,077,047.768	1,346.232	0.001	0.865
2004	1	1,080,610.000	1,079,723.287	886.713	0.001	0.570
2004	2	1,083,496.000	1,081,915.879	1,580.121	0.001	1.015
2004	3	1,084,108.000	1,084,788.487	-680.487	-0.001	-0.437
2004	4	1,084,889.000	1,085,421.211	-532.211	-0.000	-0.342
2004	5	1,076,271.000	1,076,125.049	145.951	0.000	0.094
2004	6	1,089,560.000	1,077,639.834	11,920.166	0.011	7.656
2004	7	1,088,713.000	1,090,789.679	-2,076.679	-0.002	-1.334
2004	8	1,088,226.000	1,090,015.869	-1,789.869	-0.002	-1.150
2004	9	1,086,525.000	1,089,584.000	-3,059.000	-0.003	-1.965
2004	10	1,085,204.000	1,087,956.606	-2,752.606	-0.003	-1.768
2004	11	1,083,352.000	1,086,703.795	-3,351.795	-0.003	-2.153
2004	12	1,083,870.000	1,084,915.929	-1,045.929	-0.001	-0.672
2005	1	1,085,849.000	1,085,462.637	386.363	0.000	0.248
2005	2	1,086,004.000	1,087,448.542	-1,444.542	-0.001	-0.928
2005	3	1,085,795.000	1,087,639.871	-1,844.871	-0.002	-1.185
2005	4	1,085,908.000	1,087,472.780	-1,564.780	-0.001	-1.005
2005	5	1,086,477.000	1,087,622.987	-1,145.987	-0.001	-0.736
2005	6	1,084,974.000	1,088,197.682	-3,223.682	-0.003	-2.070
2005	7	1,083,878.000	1,086,731.185	-2,853.185	-0.003	-1.832
2005	8	1,085,114.000	1,085,665.341	-551.341	-0.001	-0.354
2005	9	1,084,991.000	1,086,906.592	-1,915.592	-0.002	-1.230
2005	10	1,087,105.000	1,086,809.120	295.880	0.000	0.190
2005	11	1,089,125.000	1,088,915.026	209.974	0.000	0.135
2005	12	1,091,072.000	1,090,944.266	127.734	0.000	0.082

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	1	1,093,730.000	1,092,901.748	828.252	0.001	0.532
2006	2	1,095,369.000	1,095,559.720	-190.720	-0.000	-0.122
2006	3	1,097,977.000	1,097,179.884	797.116	0.001	0.512
2006	4	1,099,253.000	1,099,754.159	-501.159	-0.000	-0.322
2006	5	1,102,050.000	1,101,016.033	1,033.967	0.001	0.664
2006	6	1,102,604.000	1,103,789.969	-1,185.969	-0.001	-0.762
2006	7	1,102,900.000	1,104,354.370	-1,454.370	-0.001	-0.934
2006	8	1,105,606.000	1,104,664.487	941.513	0.001	0.605
2006	9	1,107,091.000	1,107,333.117	-242.117	-0.000	-0.156
2006	10	1,110,653.000	1,108,798.668	1,854.332	0.002	1.191
2006	11	1,112,407.000	1,112,309.708	97.292	0.000	0.062
2006	12	1,113,293.000	1,114,014.067	-721.067	-0.001	-0.463
2007	1	1,114,945.000	1,114,862.675	82.325	0.000	0.053
2007	2	1,116,573.000	1,116,465.040	107.960	0.000	0.069
2007	3	1,118,074.000	1,118,053.291	20.709	0.000	0.013
2007	4	1,118,836.000	1,119,515.838	-679.838	-0.001	-0.437
2007	5	1,119,161.000	1,120,249.855	-1,088.855	-0.001	-0.699
2007	6	1,118,683.000	1,120,559.626	-1,876.626	-0.002	-1.205
2007	7	1,119,279.000	1,120,077.927	-798.927	-0.001	-0.513
2007	8	1,121,500.000	1,120,653.626	846.374	0.001	0.544
2007	9	1,121,575.000	1,122,836.311	-1,261.311	-0.001	-0.810
2007	10	1,124,364.000	1,122,904.758	1,459.242	0.001	0.937
2007	11	1,124,988.000	1,125,646.125	-658.125	-0.001	-0.423
2007	12	1,126,019.000	1,126,256.452	-237.452	-0.000	-0.153
2008	1	1,128,206.000	1,127,267.306	938.694	0.001	0.603
2008	2	1,128,873.000	1,129,416.460	-543.460	-0.000	-0.349
2008	3	1,129,038.000	1,130,066.164	-1,028.164	-0.001	-0.660
2008	4	1,129,193.000	1,130,220.991	-1,027.991	-0.001	-0.660
2008	5	1,129,686.000	1,130,365.566	-679.566	-0.001	-0.436
2008	6	1,129,051.000	1,130,846.841	-1,795.841	-0.002	-1.153
2008	7	1,129,607.000	1,130,216.684	-609.684	-0.001	-0.392
2008	8	1,134,953.000	1,130,759.336	4,193.664	0.004	2.693
2008	9	1,137,365.000	1,136,024.305	1,340.695	0.001	0.861
2008	10	1,139,447.000	1,138,398.975	1,048.025	0.001	0.673
2008	11	1,140,307.000	1,140,448.319	-141.319	-0.000	-0.091
2008	12	1,142,106.000	1,141,274.374	831.626	0.001	0.534

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2009	1	1,143,341.000	1,143,024.793	316.207	0.000	0.203
2009	2	1,143,251.000	1,144,219.103	-968.103	-0.001	-0.622
2009	3	1,144,991.000	1,144,100.289	890.711	0.001	0.572
2009	4	1,145,399.000	1,145,783.374	-384.374	-0.000	-0.247
2009	5	1,145,102.000	1,146,153.750	-1,051.750	-0.001	-0.675
2009	6	1,146,015.000	1,145,841.267	173.733	0.000	0.112
2009	7	1,145,742.000	1,146,720.160	-978.160	-0.001	-0.628
2009	8	1,146,301.000	1,146,430.338	-129.338	-0.000	-0.083
2009	9	1,146,796.000	1,146,933.468	-137.468	-0.000	-0.088
2009	10	1,148,474.000	1,147,372.676	1,101.324	0.001	0.707
2009	11	1,149,311.000	1,148,976.273	334.727	0.000	0.215
2009	12	1,150,181.000	1,149,810.637	370.363	0.000	0.238
2010	1	1,152,270.000	1,150,677.526	1,592.474	0.001	1.023
2010	2	1,153,358.000	1,152,745.163	612.837	0.001	0.394
2010	3	1,154,935.000	1,153,827.877	1,107.123	0.001	0.711
2010	4	1,154,699.000	1,155,392.296	-693.296	-0.001	-0.445
2010	5	1,155,163.000	1,155,170.924	-7.924	-0.000	-0.005
2010	6	1,156,812.000	1,155,619.485	1,192.515	0.001	0.766
2010	7	1,156,467.000	1,157,235.026	-768.026	-0.001	-0.493
2010	8	1,157,221.000	1,156,886.193	334.807	0.000	0.215
2010	9	1,157,289.000	1,157,659.642	-370.642	-0.000	-0.238
2010	10	1,157,862.000	1,157,757.713	104.287	0.000	0.067
2010	11	1,159,354.000	1,158,353.555	1,000.445	0.001	0.643
2010	12	1,159,953.000	1,159,817.050	135.950	0.000	0.087
2011	1	1,161,212.000	1,160,400.702	811.298	0.001	0.521
2011	2	1,162,005.000	1,161,634.235	370.765	0.000	0.238
2011	3	1,162,773.000	1,162,420.388	352.612	0.000	0.226
2011	4	1,162,985.000	1,163,181.867	-196.867	-0.000	-0.126
2011	5	1,163,256.000	1,163,395.630	-139.630	-0.000	-0.090
2011	6	1,163,175.000	1,163,679.375	-504.375	-0.000	-0.324
2011	7	1,162,924.000	1,163,616.524	-692.524	-0.001	-0.445
2011	8	1,163,932.000	1,163,386.351	545.649	0.000	0.350
2011	9	1,163,607.000	1,164,389.484	-782.484	-0.001	-0.503
2011	10	1,164,575.000	1,164,079.620	495.380	0.000	0.318
2011	11	1,165,328.000	1,165,043.402	284.598	0.000	0.183
2011	12	1,166,567.000	1,165,810.044	756.956	0.001	0.486

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2012	1	1,167,758.000	1,167,055.645	702.355	0.001	0.451
2012	2	1,168,658.000	1,168,254.210	403.790	0.000	0.259
2012	3	1,170,079.000	1,169,178.650	900.350	0.001	0.578
2012	4	1,170,338.000	1,170,616.710	-278.710	-0.000	-0.179
2012	5	1,170,511.000	1,170,910.613	-399.613	-0.000	-0.257
2012	6	1,170,492.000	1,171,130.873	-638.873	-0.001	-0.410
2012	7	1,170,835.000	1,171,162.597	-327.597	-0.000	-0.210
2012	8	1,171,682.000	1,171,551.483	130.517	0.000	0.084
2012	9	1,171,869.000	1,172,433.215	-564.215	-0.000	-0.362
2012	10	1,173,759.000	1,172,665.364	1,093.636	0.001	0.702
2012	11	1,174,860.000	1,174,575.513	284.487	0.000	0.183
2012	12	1,176,356.000	1,175,710.729	645.271	0.001	0.414
2013	1	1,178,232.000	1,177,235.575	996.425	0.001	0.640
2013	2	1,179,260.000	1,179,135.275	124.725	0.000	0.080
2013	3	1,180,108.000	1,180,182.680	-74.680	-0.000	-0.048
2013	4	1,180,758.000	1,181,053.070	-295.070	-0.000	-0.190
2013	5	1,181,078.000	1,181,728.715	-650.715	-0.001	-0.418
2013	6	1,181,305.000	1,182,065.337	-760.337	-0.001	-0.488
2013	7	1,182,006.000	1,182,310.426	-304.426	-0.000	-0.196
2013	8	1,182,494.000	1,183,022.484	-528.484	-0.000	-0.339
2013	9	1,182,767.000	1,183,518.729	-751.729	-0.001	-0.483
2013	10	1,184,294.000	1,183,803.179	490.821	0.000	0.315
2013	11	1,185,507.000	1,185,322.816	184.184	0.000	0.118
2013	12	1,187,308.000	1,186,526.500	781.500	0.001	0.502
2014	1		1,188,309.253			
2014	2		1,189,304.129			
2014	3		1,190,299.706			
2014	4		1,191,295.961			
2014	5		1,192,292.874			
2014	6		1,193,295.783			
2014	7		1,194,304.667			
2014	8		1,195,319.507			
2014	9		1,196,347.763			
2014	10		1,197,389.417			
2014	11		1,198,444.449			
2014	12		1,199,516.714			

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	1		1,200,606.194			
2015	2		1,201,712.871			
2015	3		1,202,831.080			
2015	4		1,203,960.805			
2015	5		1,205,102.027			
2015	6		1,206,251.833			
2015	7		1,207,410.205			
2015	8		1,208,577.128			
2015	9		1,209,749.634			
2015	10		1,210,927.708			
2015	11		1,212,111.332			
2015	12		1,213,300.030			

Variable	Description
GS	calendar month customer count - historical data
MA12_NRCO	12 month moving average of Colorado Resident Population
Trendvar	Linear trend variable

Definition
from company records
=Average(NRCO,12)
Dec 1989=1, Dec 1990=2, … Dec 2004=16, …Dec 2015=27

Variable	Coefficient	StdErr	T-Stat	P-Value
MA12_NRCO	37.251	0.208	179.426	0.00%
Trendvar	-1601.260	49.845	-32.125	0.00%
AR(1)	0.710	0.065	10.971	0.00%

Model Statistics	
Iterations	9
Adjusted Observations	119
Deg. of Freedom for Error	116
R-Squared	0.994
Adjusted R-Squared	0.993
AIC	11.472
BIC	11.542
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-848.41
Model Sum of Squares	1,661,348,784.09
Sum of Squared Errors	10,856,608.26
Mean Squared Error	93,591.45
Std. Error of Regression	305.93
Mean Abs. Dev. (MAD)	180.10
Mean Abs. % Err. (MAPE)	0.12%
Durbin-Watson Statistic	1.972
Durbin-H Statistic	#NA
Ljung-Box Statistic	19.39
Prob (Ljung-Box)	0.7308
Skewness	1.463
Kurtosis	21.953
Jarque-Bera	1823.581
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%

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2004	1	144,367.000				
2004	2	143,695.000	144,530.041	-835.041	-0.006	-2.730
2004	3	146,086.000	144,055.965	2,030.035	0.014	6.636
2004	4	146,082.000	145,758.087	323.913	0.002	1.059
2004	5	144,364.000	145,759.681	-1,395.681	-0.010	-4.562
2004	6	144,808.000	144,545.095	262.905	0.002	0.859
2004	7	144,948.000	144,866.930	81.070	0.001	0.265
2004	8	145,088.000	144,973.625	114.375	0.001	0.374
2004	9	145,152.000	145,081.124	70.876	0.000	0.232
2004	10	145,002.000	145,135.432	-133.432	-0.001	-0.436
2004	11	144,426.000	145,038.532	-612.532	-0.004	-2.002
2004	12	144,147.000	144,639.857	-492.857	-0.003	-1.611
2005	1	144,222.000	144,452.933	-230.933	-0.002	-0.755
2005	2	144,384.000	144,518.246	-134.246	-0.001	-0.439
2005	3	144,494.000	144,646.164	-152.164	-0.001	-0.497
2005	4	144,476.000	144,737.948	-261.948	-0.002	-0.856
2005	5	144,749.000	144,739.616	9.384	0.000	0.031
2005	6	144,905.000	144,954.110	-49.110	-0.000	-0.161
2005	7	144,955.000	145,087.847	-132.847	-0.001	-0.434
2005	8	145,344.000	145,148.638	195.362	0.001	0.639
2005	9	145,421.000	145,452.624	-31.624	-0.000	-0.103
2005	10	145,327.000	145,537.365	-210.365	-0.001	-0.688
2005	11	145,576.000	145,503.011	72.989	0.001	0.239
2005	12	145,556.000	145,714.711	-158.711	-0.001	-0.519
2006	1	145,875.000	145,737.726	137.274	0.001	0.449
2006	2	145,632.000	146,003.910	-371.910	-0.003	-1.216
2006	3	146,023.000	145,873.359	149.641	0.001	0.489
2006	4	145,965.000	146,195.528	-230.528	-0.002	-0.754
2006	5	146,403.000	146,201.180	201.820	0.001	0.660
2006	6	146,573.000	146,551.952	21.048	0.000	0.069
2006	7	146,571.000	146,711.993	-140.993	-0.001	-0.461
2006	8	146,931.000	146,749.489	181.511	0.001	0.593
2006	9	147,012.000	147,043.719	-31.719	-0.000	-0.104
2006	10	147,410.000	147,139.401	270.599	0.002	0.885
2006	11	147,416.000	147,459.863	-43.863	-0.000	-0.143
2006	12	147,386.000	147,501.500	-115.500	-0.001	-0.378

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2007	1	147,569.000	147,517.184	51.816	0.000	0.169
2007	2	147,781.000	147,683.774	97.226	0.001	0.318
2007	3	148,135.000	147,870.566	264.434	0.002	0.864
2007	4	148,325.000	148,157.830	167.170	0.001	0.546
2007	5	148,755.000	148,328.220	426.780	0.003	1.395
2007	6	148,962.000	148,670.648	291.352	0.002	0.952
2007	7	149,205.000	148,854.862	350.138	0.002	1.145
2007	8	149,475.000	149,064.826	410.174	0.003	1.341
2007	9	149,300.000	149,294.151	5.849	0.000	0.019
2007	10	149,440.000	149,207.580	232.420	0.002	0.760
2007	11	149,359.000	149,344.929	14.071	0.000	0.046
2007	12	149,179.000	149,325.490	-146.490	-0.001	-0.479
2008	1	149,317.000	149,235.914	81.086	0.001	0.265
2008	2	149,271.000	149,372.390	-101.390	-0.001	-0.331
2008	3	149,309.000	149,378.360	-69.360	-0.000	-0.227
2008	4	149,568.000	149,444.176	123.824	0.001	0.405
2008	5	149,824.000	149,667.148	156.852	0.001	0.513
2008	6	149,995.000	149,886.676	108.324	0.001	0.354
2008	7	150,204.000	150,045.579	158.421	0.001	0.518
2008	8	150,509.000	150,231.222	277.778	0.002	0.908
2008	9	150,632.000	150,484.792	147.208	0.001	0.481
2008	10	150,787.000	150,608.838	178.162	0.001	0.582
2008	11	150,805.000	150,755.360	49.640	0.000	0.162
2008	12	150,843.000	150,804.310	38.690	0.000	0.126
2009	1	150,937.000	150,867.210	69.790	0.000	0.228
2009	2	150,821.000	150,969.630	-148.630	-0.001	-0.486
2009	3	151,037.000	150,922.625	114.375	0.001	0.374
2009	4	151,148.000	151,111.176	36.824	0.000	0.120
2009	5	151,191.000	151,224.889	-33.889	-0.000	-0.111
2009	6	151,361.000	151,289.398	71.602	0.000	0.234
2009	7	151,389.000	151,443.667	-54.667	-0.000	-0.179
2009	8	151,446.000	151,496.630	-50.630	-0.000	-0.165
2009	9	151,423.000	151,569.656	-146.656	-0.001	-0.479
2009	10	151,630.000	151,585.389	44.611	0.000	0.146
2009	11	151,638.000	151,764.016	-126.016	-0.001	-0.412
2009	12	151,707.000	151,800.735	-93.735	-0.001	-0.306

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2010	1	151,833.000	151,880.284	-47.284	-0.000	-0.155
2010	2	151,893.000	151,999.822	-106.822	-0.001	-0.349
2010	3	152,146.000	152,072.180	73.820	0.000	0.241
2010	4	152,265.000	152,281.182	-16.182	-0.000	-0.053
2010	5	152,309.000	152,394.566	-85.566	-0.001	-0.280
2010	6	152,517.000	152,453.644	63.356	0.000	0.207
2010	7	152,473.000	152,628.597	-155.597	-0.001	-0.509
2010	8	152,600.000	152,623.946	-23.946	-0.000	-0.078
2010	9	152,698.000	152,740.141	-42.141	-0.000	-0.138
2010	10	152,753.000	152,835.125	-82.125	-0.001	-0.268
2010	11	152,750.000	152,898.955	-148.955	-0.001	-0.487
2010	12	152,708.000	152,920.975	-212.975	-0.001	-0.696
2011	1	152,641.000	152,914.683	-273.683	-0.002	-0.895
2011	2	152,602.000	152,890.021	-288.021	-0.002	-0.941
2011	3	152,992.000	152,884.349	107.651	0.001	0.352
2011	4	153,216.000	153,182.694	33.306	0.000	0.109
2011	5	153,351.000	153,362.436	-11.436	-0.000	-0.037
2011	6	153,514.000	153,481.465	32.535	0.000	0.106
2011	7	153,606.000	153,620.612	-14.612	-0.000	-0.048
2011	8	153,735.000	153,709.560	25.440	0.000	0.083
2011	9	153,719.000	153,825.082	-106.082	-0.001	-0.347
2011	10	153,803.000	153,837.863	-34.863	-0.000	-0.114
2011	11	153,650.000	153,921.922	-271.922	-0.002	-0.889
2011	12	153,470.000	153,837.957	-367.957	-0.002	-1.203
2012	1	153,547.000	153,735.081	-188.081	-0.001	-0.615
2012	2	153,569.000	153,815.016	-246.016	-0.002	-0.804
2012	3	154,008.000	153,856.218	151.782	0.001	0.496
2012	4	154,385.000	154,193.894	191.106	0.001	0.625
2012	5	154,655.000	154,487.819	167.181	0.001	0.546
2012	6	154,715.000	154,705.392	9.608	0.000	0.031
2012	7	154,781.000	154,773.907	7.093	0.000	0.023
2012	8	154,890.000	154,846.786	43.214	0.000	0.141
2012	9	154,716.000	154,950.442	-234.442	-0.002	-0.766
2012	10	154,918.000	154,853.228	64.772	0.000	0.212
2012	11	154,704.000	155,023.220	-319.220	-0.002	-1.043
2012	12	154,943.000	154,898.006	44.994	0.000	0.147

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2013	1	155,172.000	155,094.728	77.272	0.000	0.253
2013	2	155,231.000	155,284.526	-53.526	-0.000	-0.175
2013	3	155,537.000	155,353.866	183.134	0.001	0.599
2013	4	155,819.000	155,598.858	220.142	0.001	0.720
2013	5	156,146.000	155,827.014	318.986	0.002	1.043
2013	6	156,341.000	156,087.359	253.641	0.002	0.829
2013	7	156,451.000	156,254.161	196.839	0.001	0.643
2013	8	156,594.000	156,360.804	233.196	0.001	0.762
2013	9	156,497.000	156,491.025	5.975	0.000	0.020
2013	10	156,569.000	156,450.970	118.030	0.001	0.386
2013	11	156,118.000	156,531.146	-413.146	-0.003	-1.350
2013	12	156,005.000	156,239.999	-234.999	-0.002	-0.768
2014	1		156,189.110			
2014	2		156,349.434			
2014	3		156,493.034			
2014	4		156,624.930			
2014	5		156,748.693			
2014	6		156,866.834			
2014	7		156,981.153			
2014	8		157,092.929			
2014	9		157,203.105			
2014	10		157,312.325			
2014	11		157,421.049			
2014	12		157,529.594			
2015	1		157,638.193			
2015	2		157,747.009			
2015	3		157,856.136			
2015	4		157,965.658			
2015	5		158,075.634			
2015	6		158,186.097			
2015	7		158,297.077			
2015	8		158,408.595			
2015	9		158,520.598			
2015	10		158,633.096			
2015	11		158,746.097			
2015	12		158,859.576			

Variable	Description	Definition
StreetLight	calendar month customer count - historical data	from company records

Variable	Coefficient	StdErr	T-Stat	P-Value
Simple	0.955	0.097	9.835	0.000
Trend	-0.078	0.020	-3.909	0.000
Damp Factor	0.978	0.010	100.259	0.000

Model Statistics	
Iterations	33
Adjusted Observations	132
Deg. of Freedom for Error	129
R-Squared	0.997
Adjusted R-Squared	0.997
AIC	11.081
BIC	11.147
F-Statistic	#NA
Prob (F-Statistic)	#NA
Log-Likelihood	-915.66
Model Sum of Squares	3,090,672,266
Sum of Squared Errors	8,190,573
Mean Squared Error	63,492.81
Std. Error of Regression	251.98
Mean Abs. Dev. (MAD)	162.43
Mean Abs. % Err. (MAPE)	0.26%
Durbin-Watson Statistic	2.012
Durbin-H Statistic	0.000
Ljung-Box Statistic	17.89
Prob (Ljung-Box)	0.8083
Skewness	0.154
Kurtosis	8.733
Jarque-Bera	181.3
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	0.000
Theil's Inequality Coefficient	0.0000
-- Bias Proportion	0.00%
-- Variance Proportion	0.00%
-- Covariance Proportion	0.00%

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2003	1	68,567.000	68,576.151	-9.151	-0.000	-0.036
2003	2	68,565.000	68,428.813	136.187	0.002	0.540
2003	3	68,606.000	68,413.421	192.579	0.003	0.764
2003	4	68,677.000	68,441.023	235.977	0.003	0.936
2003	5	68,651.000	68,496.269	154.731	0.002	0.614
2003	6	68,598.000	68,466.341	131.659	0.002	0.523
2003	7	68,731.000	68,408.672	322.328	0.005	1.279
2003	8	69,501.000	68,513.614	987.386	0.014	3.919
2003	9	68,162.000	69,186.079	-1,024.079	-0.015	-4.064
2003	10	68,250.000	68,017.965	232.035	0.003	0.921
2003	11	68,259.000	68,037.067	221.933	0.003	0.881
2003	12	68,395.000	68,034.756	360.244	0.005	1.430
2004	1	68,449.000	68,142.945	306.055	0.004	1.215
2004	2	68,451.000	68,182.183	268.817	0.004	1.067
2004	3	68,514.000	68,171.773	342.227	0.005	1.358
2004	4	68,508.000	68,212.354	295.646	0.004	1.173
2004	5	68,577.000	68,193.133	383.867	0.006	1.523
2004	6	68,974.000	68,236.768	737.232	0.011	2.926
2004	7	68,528.000	68,571.147	-43.147	-0.001	-0.171
2004	8	68,134.000	68,171.379	-37.379	-0.001	-0.148
2004	9	67,757.000	67,787.818	-30.818	-0.000	-0.122
2004	10	67,534.000	67,420.504	113.496	0.002	0.450
2004	11	66,988.000	67,190.242	-202.242	-0.003	-0.803
2004	12	66,742.000	66,680.680	61.320	0.001	0.243
2005	1	66,589.000	66,425.435	163.565	0.002	0.649
2005	2	66,342.000	66,262.852	79.148	0.001	0.314
2005	3	66,337.000	66,020.902	316.098	0.005	1.254
2005	4	65,844.000	65,989.209	-145.209	-0.002	-0.576
2005	5	65,572.000	65,534.860	37.140	0.001	0.147
2005	6	65,308.000	65,258.999	49.001	0.001	0.194
2005	7	64,888.000	64,997.790	-109.790	-0.002	-0.436
2005	8	64,423.000	64,599.763	-176.763	-0.003	-0.702
2005	9	63,742.000	64,157.210	-415.210	-0.007	-1.648
2005	10	63,473.000	63,523.354	-50.354	-0.001	-0.200
2005	11	62,957.000	63,247.008	-290.008	-0.005	-1.151
2005	12	62,915.000	62,768.025	146.975	0.002	0.583

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2006	1	62,601.000	62,700.219	-99.219	-0.002	-0.394
2006	2	62,442.000	62,409.107	32.893	0.001	0.131
2006	3	62,259.000	62,246.153	12.847	0.000	0.051
2006	4	61,957.000	62,067.422	-110.422	-0.002	-0.438
2006	5	61,707.000	61,783.257	-76.257	-0.001	-0.303
2006	6	61,424.000	61,541.283	-117.283	-0.002	-0.465
2006	7	61,065.000	61,272.461	-207.461	-0.003	-0.823
2006	8	60,830.000	60,936.167	-106.167	-0.002	-0.421
2006	9	60,604.000	60,707.485	-103.485	-0.002	-0.411
2006	10	60,407.000	60,491.771	-84.771	-0.001	-0.336
2006	11	60,359.000	60,302.738	56.262	0.001	0.223
2006	12	60,294.000	60,246.715	47.285	0.001	0.188
2007	1	60,353.000	60,181.088	171.912	0.003	0.682
2007	2	60,272.000	60,224.387	47.613	0.001	0.189
2007	3	59,620.000	60,148.136	-528.136	-0.009	-2.096
2007	4	60,630.000	59,563.246	1,066.754	0.018	4.234
2007	5	60,363.000	60,425.637	-62.637	-0.001	-0.249
2007	6	60,516.000	60,217.156	298.844	0.005	1.186
2007	7	60,318.000	60,335.416	-17.416	-0.000	-0.069
2007	8	59,731.000	60,156.531	-425.531	-0.007	-1.689
2007	9	59,183.000	59,622.536	-439.536	-0.007	-1.744
2007	10	59,060.000	59,110.190	-50.190	-0.001	-0.199
2007	11	58,658.000	58,975.525	-317.525	-0.005	-1.260
2007	12	58,526.000	58,610.653	-84.653	-0.001	-0.336
2008	1	58,423.000	58,475.817	-52.817	-0.001	-0.210
2008	2	58,302.000	58,376.462	-74.462	-0.001	-0.296
2008	3	58,326.000	58,262.969	63.031	0.001	0.250
2008	4	58,574.000	58,277.150	296.850	0.005	1.178
2008	5	58,622.000	58,493.980	128.020	0.002	0.508
2008	6	58,484.000	58,541.626	-57.626	-0.001	-0.229
2008	7	58,470.000	58,417.798	52.202	0.001	0.207
2008	8	58,103.000	58,396.594	-293.594	-0.005	-1.165
2008	9	58,348.000	58,068.126	279.874	0.005	1.111
2008	10	58,141.000	58,268.071	-127.071	-0.002	-0.504
2008	11	58,035.000	58,090.055	-55.055	-0.001	-0.218
2008	12	58,162.000	57,986.128	175.872	0.003	0.698

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2009	1	58,226.000	58,091.068	134.932	0.002	0.535
2009	2	58,283.000	58,148.412	134.588	0.002	0.534
2009	3	58,695.000	58,197.157	497.843	0.008	1.976
2009	4	58,680.000	58,558.232	121.768	0.002	0.483
2009	5	58,508.000	58,553.653	-45.653	-0.001	-0.181
2009	6	58,153.000	58,395.160	-242.160	-0.004	-0.961
2009	7	58,203.000	58,069.228	133.772	0.002	0.531
2009	8	58,302.000	58,094.735	207.265	0.004	0.823
2009	9	58,391.000	58,177.539	213.461	0.004	0.847
2009	10	58,463.000	58,253.182	209.818	0.004	0.833
2009	11	58,424.000	58,312.821	111.179	0.002	0.441
2009	12	58,338.000	58,273.209	64.791	0.001	0.257
2010	1	58,213.000	58,187.771	25.229	0.000	0.100
2010	2	58,151.000	58,065.961	85.039	0.001	0.337
2010	3	58,114.000	57,998.298	115.702	0.002	0.459
2010	4	57,971.000	57,954.757	16.243	0.000	0.064
2010	5	57,841.000	57,818.430	22.570	0.000	0.090
2010	6	57,682.000	57,689.864	-7.864	-0.000	-0.031
2010	7	57,568.000	57,536.132	31.868	0.001	0.126
2010	8	57,413.000	57,421.268	-8.268	-0.000	-0.033
2010	9	57,221.000	57,271.892	-50.892	-0.001	-0.202
2010	10	57,054.000	57,088.665	-34.665	-0.001	-0.138
2010	11	56,914.000	56,926.467	-12.467	-0.000	-0.049
2010	12	56,804.000	56,789.254	14.746	0.000	0.059
2011	1	56,673.000	56,679.739	-6.739	-0.000	-0.027
2011	2	56,554.000	56,552.936	1.064	0.000	0.004
2011	3	56,543.000	56,436.181	106.819	0.002	0.424
2011	4	56,508.000	56,415.246	92.754	0.002	0.368
2011	5	56,411.000	56,376.809	34.191	0.001	0.136
2011	6	56,335.000	56,282.740	52.260	0.001	0.207
2011	7	56,183.000	56,204.918	-21.918	-0.000	-0.087
2011	8	56,075.000	56,060.672	14.328	0.000	0.057
2011	9	55,826.000	55,952.741	-126.741	-0.002	-0.503
2011	10	55,728.000	55,722.026	5.974	0.000	0.024
2011	11	55,537.000	55,620.094	-83.094	-0.001	-0.330
2011	12	55,509.000	55,441.549	67.451	0.001	0.268

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2012	1	55,343.000	55,404.083	-61.083	-0.001	-0.242
2012	2	55,270.000	55,250.562	19.438	0.000	0.077
2012	3	55,400.000	55,174.653	225.347	0.004	0.894
2012	4	54,836.000	55,281.044	-445.044	-0.008	-1.766
2012	5	54,675.000	54,782.010	-107.010	-0.002	-0.425
2012	6	54,490.000	54,615.388	-125.388	-0.002	-0.498
2012	7	54,451.000	54,441.824	9.176	0.000	0.036
2012	8	54,486.000	54,397.334	88.666	0.002	0.352
2012	9	54,323.000	54,423.470	-100.470	-0.002	-0.399
2012	10	54,360.000	54,277.579	82.421	0.002	0.327
2012	11	54,305.000	54,301.479	3.521	0.000	0.014
2012	12	54,324.000	54,250.963	73.037	0.001	0.290
2013	1	54,333.000	54,262.703	70.297	0.001	0.279
2013	2	54,395.000	54,267.964	127.036	0.002	0.504
2013	3	54,468.000	54,319.497	148.503	0.003	0.589
2013	4	54,470.000	54,382.209	87.791	0.002	0.348
2013	5	54,527.000	54,382.247	144.753	0.003	0.574
2013	6	54,520.000	54,427.959	92.041	0.002	0.365
2013	7	53,698.000	54,418.626	-720.626	-0.013	-2.860
2013	8	53,705.000	53,687.879	17.121	0.000	0.068
2013	9	53,596.000	53,661.607	-65.607	-0.001	-0.260
2013	10	53,674.000	53,562.055	111.945	0.002	0.444
2013	11	53,482.000	53,624.741	-142.741	-0.003	-0.566
2013	12	53,640.000	53,455.557	184.443	0.003	0.732
2014	1		53,586.158			
2014	2		53,541.568			
2014	3		53,497.968			
2014	4		53,455.335			
2014	5		53,413.649			
2014	6		53,372.888			
2014	7		53,333.032			
2014	8		53,294.060			
2014	9		53,255.953			
2014	10		53,218.692			
2014	11		53,182.259			
2014	12		53,146.633			

Year	Month	Actual	Pred	Resid	%Resid	StdResid
2015	1		53,111.799			
2015	2		53,077.738			
2015	3		53,044.433			
2015	4		53,011.867			
2015	5		52,980.023			
2015	6		52,948.887			
2015	7		52,918.442			
2015	8		52,888.672			
2015	9		52,859.564			
2015	10		52,831.101			
2015	11		52,803.270			
2015	12		52,776.057			

Sales by Rate - Revenue Month, KWh

	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
CO_E_R_TIER_1	903,509,649	713,125,070	752,117,448	665,068,321	592,662,730	609,870,815	534,784,626	465,008,079	460,543,646	533,301,316	605,356,204	841,390,524
CO_E_R_TIER_2	-	-	-	-	-	114,618,772	370,602,115	416,726,678	354,187,779	147,135,045	-	-
CO_E_R_MED	-	-	-	-	-	642,248	882,189	858,693	705,501	326,855	-	-
CO_E_RAL	286,044	245,847	240,242	205,883	182,945	171,576	183,019	205,809	223,057	257,364	274,475	297,339
CO_E_RD	4,863,546	4,039,868	4,295,988	3,233,640	2,424,865	1,940,962	1,555,670	1,565,822	1,468,050	1,911,386	2,596,981	4,118,810
CO_E_C	122,068,260	104,665,577	116,753,906	102,442,473	92,650,613	104,794,419	118,784,945	117,241,617	111,770,183	102,125,445	88,296,352	116,567,727
CO_E_CAL	1,098,178	941,756	921,867	789,570	700,753	658,062	702,076	788,247	855,585	987,093	1,052,052	1,139,546
CO_E_NMTR	2,589,532	2,739,137	2,882,164	2,567,217	2,046,027	2,373,300	2,127,224	2,218,838	2,241,937	2,144,942	2,204,596	2,250,403
CO_E_PG_SM	54,570,973	42,139,187	47,892,398	46,172,934	43,740,107	47,661,862	54,398,365	50,407,397	50,546,555	48,586,588	42,772,404	50,341,559
CO_E_PLL	453,630	383,062	379,309	324,375	285,361	270,276	288,899	320,837	351,124	405,223	429,870	465,177
CO_E_PST_SM												
CO_E_SG_SM	920,592,793	774,037,737	886,536,940	826,236,717	777,725,977	899,509,731	1,011,014,574	982,054,650	962,905,543	888,190,387	779,309,056	905,786,587
CO_E_SGL_SM	225,322	221,078	258,040	227,367	226,832	335,922	305,620	346,366	267,137	259,960	253,422	274,947
CO_E_SPVTOU_ONP_SM	1,791	(1,833)	-	-	4,753	248,146	420,972	620,755	625,309	521,075	47,138	-
CO_E_SPVTOU_OFFP_SM	1,628,595	2,090,224	2,776,050	2,689,219	2,706,507	2,782,844	1,000,864	1,861,213	2,129,909	2,442,915	3,876,583	5,157,200
CO_E_STOU_ONP_SM												
CO_E_STOU_OFFP_SM												
CO_E_TG_SM	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_TST_SM												
CO_E_PG_LG	237,456,130	216,855,360	224,249,255	222,215,847	211,307,199	239,114,397	238,080,799	242,866,753	247,793,169	236,090,595	221,087,708	244,976,321
CO_E_PST_LG												
CO_E_PTOU_ON_LG												
CO_E_PTOU_OFF_LG												
CO_E_SG_LG	101,485,869	87,536,032	97,548,533	92,853,980	85,065,692	96,631,153	103,260,339	101,325,936	97,871,234	97,265,953	89,895,394	101,167,056
CO_E_SGL_LG	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_SPVTOU_ONP_LG												
CO_E_SPVTOU_OFFP_LG												
CO_E_STOU_ONP_LG												
CO_E_STOU_OFFP_LG												
CO_E_TG_LG	231,477,768	228,394,914	214,778,331	233,088,155	229,627,830	231,881,629	232,171,612	233,942,941	234,527,612	229,323,017	229,346,460	226,953,987
CO_E_TST_LG												
CO_E_PE_COL	885,979	760,179	776,749	690,384	639,553	611,320	645,773	691,212	728,629	814,927	843,506	901,739
CO_E_PE_SL	15,610,203	13,225,460	13,078,292	11,194,106	9,869,453	9,349,762	9,978,626	11,089,824	12,118,603	13,959,672	14,813,039	16,033,448
CO_E_PE_SLU	356,908	305,921	305,921	254,934	254,934	203,947	254,934	254,934	305,921	305,921	356,908	356,908
CO_E_PE_SSL												
CO_E_PE_TSL	2,006,476	2,006,476	2,006,476	2,006,476	2,006,476	2,006,476	2,006,476	2,006,476	2,006,476	2,006,476	2,006,476	2,006,476
CO_E_PE_MI	65,857	66,857	67,857	68,857	69,857	70,857	71,857	72,857	73,857	74,857	75,857	76,857
CO_E_PE_MSL	18,494	18,116	14,886	15,006	12,936	11,935	11,512	13,290	14,392	15,308	16,226	16,989
CO_E_SCS7												
CO_E_C_IDS												
CO_E_PG_IDS												
CO_E_SG_IDS												
Total IDS & SCS7	5,867,283	5,783,038	5,646,788	5,484,787	5,421,755	5,371,297	5,306,068	5,391,518	5,525,902	5,639,065	5,812,081	5,899,784
Sum of all other highlighted rows	7,512,790	5,440,184	5,133,788	4,557,261	5,084,223	4,138,863	4,156,344	7,298,092	5,003,157	4,513,869	6,045,792	5,347,874

Customers by Rate - Active Service Counts

Rate Schedules	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
CO_E_R	1,195,152	1,196,272	1,197,403	1,198,546	1,199,700	1,199,984	1,201,168	1,202,356	1,203,547	1,205,591	1,206,787	1,207,989
CO_E_R_MED	-	-	-	-	-	879	866	858	853	-	-	-
CO_E_RAL	4,271	4,259	4,247	4,235	4,223	4,211	4,199	4,187	4,175	4,163	4,151	4,139
CO_E_RCPP	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_RD	1,183	1,182	1,181	1,180	1,179	1,178	1,177	1,176	1,175	1,174	1,173	1,172
CO_E_RPTR	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_RTOU	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_C	108,758	108,834	108,909	108,985	109,061	109,138	109,215	109,292	109,369	109,447	109,526	109,604
CO_E_CAL	7,307	7,312	7,317	7,322	7,327	7,332	7,337	7,343	7,348	7,353	7,358	7,364
CO_E_NMTR	767	768	768	769	770	770	771	771	772	772	773	773
CO_E_PG_SM	399	399	399	400	400	400	401	401	401	401	402	402
CO_E_PLL	545	545	545	545	545	545	545	545	545	545	545	545
CO_E_PST_SM	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_SG_SM	39,097	39,124	39,152	39,179	39,206	39,234	39,261	39,289	39,317	39,345	39,373	39,401
CO_E_SGL_SM	328	328	329	329	329	329	330	330	330	330	330	331
CO_E_SPVTOU_SM	65	65	65	65	65	65	65	65	65	65	65	65
CO_E_STOU_SM	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_TG_SM	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_TST_SM	6	6	6	6	6	6	6	6	6	6	6	6
CO_E_PG_LG	166	166	166	166	166	166	166	166	167	167	167	167
CO_E_PST_LG	5	5	5	5	5	5	5	5	5	5	5	5
CO_E_PTOU_LG												
CO_E_SG_LG	136	136	136	137	137	137	137	137	137	137	137	137
CO_E_SGL_LG	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_SPVTOU_LG	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_STOU_LG	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_TG_LG_020	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_030	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_040	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_200	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_250	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_260	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_270	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_320	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_TG_LG_330	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_370	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_410	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_420	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_520	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_530	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_540	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_550	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_570	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_580	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TG_LG_STORY	-	-	-	-	-	-	-	-	-	-	-	-
CO_E_TG_LG_590 (Climax WTP)	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_TST_LG	7	7	7	7	7	7	7	7	7	7	7	7
CO_E_PE_COL	67	66	66	66	66	66	66	66	66	66	66	66

Rate Schedules	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
CO_E_PE_SL	581	581	581	581	581	581	581	581	581	581	581	581
CO_E_PE_SLU	52,153	52,119	52,086	52,054	52,021	51,990	51,960	51,930	51,901	51,873	51,845	51,818
CO_E_PE_SSL	2	2	2	2	2	2	2	2	2	2	2	2
CO_E_PE_TSL	160	160	160	160	159	159	159	159	159	159	159	159
CO_E_PE_MI	92	92	92	92	93	93	93	93	93	93	93	93
CO_E_PE_MSL	57	57	57	57	57	57	57	57	57	57	57	57
CO_E_SCS7	50	50	50	50	50	50	50	50	50	50	50	50
CO_E_C_IDS	28	28	28	28	28	28	28	28	28	28	28	28
CO_E_PG_IDS	1	1	1	1	1	1	1	1	1	1	1	1
CO_E_SG_IDS	5	5	5	5	5	5	5	5	5	5	5	5

Highly Confidential Attachment No. JEM-4A

(Monthly Test Year MWh Sales and Number of Customers for Each Rate Class)

Filed Under Seal