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State Corporation Commission
of Kansas

BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of the Application of Black Hills/Kansas Gas Utility Company, LLC, d/b/a Black Hills Energy, for Approval of the Commission to Make Certain Changes in its Rates for Natural Gas Service	**Docket No.** **14-BHCG-502-RTS**

DIRECT TESTIMONY OF

THOMAS J. SULLIVAN

FOR BLACK HILLS/KANSAS GAS UTILITY COMPANY, LLC

I. NAME, BACKGROUND AND QUALIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Thomas J. Sullivan, Navillus Utility Consulting LLC, 15898 Millville Road, Richmond, Missouri 64085.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I earned a Bachelor of Science Degree in Civil Engineering from the University of Missouri - Rolla in 1980, summa cum laude, and a Master of Business Administration degree from the University of Missouri - Kansas City in 1985.

Q. ARE YOU A REGISTERED PROFESSIONAL ENGINEER?

A. Yes, I am a registered Professional Engineer in the State of Missouri.

Q. TO WHAT PROFESSIONAL ORGANIZATIONS DO YOU BELONG?

A. I am a member of the American Society of Civil Engineers and I am an associate member of the American Public Gas Association.

Q. WHAT IS YOUR PROFESSIONAL EXPERIENCE?

A. I have been a utility management consultant for over 30 years. Over this period, I have been responsible for the preparation and presentation of numerous studies for gas, electric, water, and wastewater utilities. Clients I have served include investor owned utilities, publicly owned utilities, and their customers. For these clients, I have prepared studies involving valuation and depreciation, cost of service, cost allocation, rate design, cost of capital, supply analysis, load forecasting, economic and financial feasibility, cost recovery mechanisms, and other engineering and economic matters.

Prior to starting my own consulting practice in June 2011, I worked for Black & Veatch Corporation for over 31 years. For most of that time I worked in Black & Veatch's management consulting divisions. I also worked for two years as a staff engineer in Black & Veatch's energy and water divisions.

Q. HAVE YOU PREVIOUSLY APPEARED AS AN EXPERT WITNESS?

A. Yes, I have. In Exhibit__ (TJS-1), I list cases where I have filed testimony as an expert witness.

Q. FOR WHOM ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of Black Hills Kansas Gas Utility, LLC ("Black Hills Kansas" or "Company").

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE NATURE OF YOUR WORK IN THIS ENGAGEMENT?

A. The Company asked me to:

1. Prepare a heating adjustment to reflect normal weather conditions.
2. Prepare an irrigation adjustment to reflect normal usage.
3. Annualize billing determinants and revenues associated with the customers served from the recently acquired Anadarko system.
4. Determine test year revenues under existing rates.
5. Prepare a class cost of service study.
6. Design rates proposed by the Company which will produce revenues equal to the Company's proposed test year revenue requirement.
7. Develop a rider to share revenues associated with at-risk customers served from the Anadarko system.

After this initial introductory section, my direct testimony is divided into sections that parallel these issues.

Q. DO YOU SPONSOR ANY EXHIBITS?

A. Yes, in addition to Exhibit__ (TJS-1) previously discussed, I sponsor the following exhibits:

- Exhibit___ (TJS-2) – Heating Degree-Days Summary
- Exhibit___ (TJS-3) – Heating Adjustment Regression Analysis Summary
- Exhibit___ (TJS-4) – Heating Adjustment
- Exhibit___ (TJS-5) – Irrigation Adjustment Weather Data
- Exhibit___ (TJS-6) – Irrigation Adjustment Regression Analysis Summary
- Exhibit___ (TJS-7) – Irrigation Adjustment

- Exhibit___ (TJS-8) – Historical Irrigation Use per Customer
- Exhibit ___ (TJS-9) – Anadarko Test Year Adjustment and Anadarko Revenue Sharing Rider
- Exhibit ___ (TJS-10) – Test Year Revenues Under Existing Rates
- Exhibit ___ (TJS-11) – Functional Cost Classification
- Exhibit ___ (TJS-12) – Class Cost of Service Allocation
- Exhibit ___ (TJS-13) – Rate Design

I also sponsor Section 17 of the Company's filing. Section 17 summarizes revenues under current and Company proposed rates and the following tariff sheets (found in Section 18 of the Company's filing):

- Residential Service – Index Number 15
- Small Commercial Service – Index Number 18
- Small Volume Firm Service – Index Number 20
- Large Volume Firm Service – Index Number 21
- Small Volume Interruptible Service – Index Number 22
- Large Volume Interruptible Service – Index Number 23
- Small Commercial Transportation Service – Aggregated – Index Number 31
- Small Volume Transportation Service - Aggregated – Index Number 32
- Large Volume Transportation Service- Aggregated – Index Number 33
- Large Volume Transportation Service – Index Number 34
- Optional Large Volume Transportation Service – Aggregated – Index Number 36

o Bypass Revenue Rider - Index Number 17C

III. HEATING ADJUSTMENT

Q. IN YOUR OPINION, WERE ACTUAL HEATING SEASON WEATHER CONDITIONS IN THE COMPANY'S KANSAS SERVICE TERRITORY FOR THE 12-MONTH PERIOD ENDED DECEMBER 31, 2013, NORMAL?

A. No, they were not. Based on a comparison of actual heating degree-days (HDDs) to normal HDDs for the thirty-year period 1981-2010 (as reported by NOAA), conditions were colder than normal. As shown on Line 27 in Exhibit ___(TJS-2), weather conditions ranged from 2.7 percent colder than normal in Topeka to 11.7 percent colder than normal in Liberal during calendar year 2013. Taking into consideration that the methodology I use also includes the impact of the prior month's HDDs, a better measure of the conditions that impact the test year is the 13-month period that also includes December 2012. As shown on line 28 of Exhibit___(TJS-2), weather conditions ranged from 0.4 percent warmer than normal in Topeka to 9.5 percent colder than normal in Liberal. These deviations are significant enough that I concluded a heating adjustment to reflect normal weather conditions is warranted.

Q. PLEASE OUTLINE YOUR PREPARED DIRECT TESTIMONY CONCERNING WEATHER NORMALIZATION.

A. I will describe:

1. The methodology used to determine the relationship between volumes (usage) and weather;

2. The weather stations and weather data used in the analysis;

3. The analysis used to adjust heat sensitive volumes to reflect normal weather conditions; and

4. The results of the heating adjustment analysis.

Q. PLEASE SUMMARIZE THE METHODOLOGY YOU USE TO DETERMINE THE RELATIONSHIP BETWEEN SALES AND WEATHER.

A. I use multiple linear regression analysis to define the relationship between volumes and variables that represent weather conditions. Multiple linear regression is a statistical approach commonly used to predict the value of a dependent variable (use per customer) using multiple independent variables (including current month heating degree days (HDD) and previous month HDDs). In this regard, the goal of multiple regression is to explain (predict) the dependent variable with reasonable accuracy using as few independent variables as possible.

Multiple regression yields an equation of the form:

$$Y = B + A_1X_1 + A_2X_2 + ... + A_KX_K$$

where

Y	is the dependent variable
$X_1...X_K$	are the independent variables
B	is the intercept (or constant)
$A_1...A_K$	are the regression coefficients

With respect to my use of multiple regression as a tool in developing adjustments to reflect normal weather conditions, the dependent variable (Y) is monthly use

per customer. I calculate monthly use per customer by dividing monthly billed volumes by monthly number of customers. I use monthly use per customer as the dependent variable instead of total monthly volumes because use per customer reduces the effect of growth or decline in total volumes due to changes in numbers of customers (particularly on a seasonal basis). Independent variables ($X_1...X_K$) are typically weather variables such as HDDs. The intercept (B) is a monthly constant. The constant represents use that is not affected by the independent variables. This non-weather sensitive use is generally referred to as base use (and includes usage such as water heating, cooking, and clothes drying, which are not weather dependent). The coefficients ($A_1...A_K$) are developed from the regression analysis to produce the best fit which in this case is the sum of the difference between actual and predicted use per customer squared (least squares).

I calculate several statistics in connection with my regression analyses to assist in the evaluation of the significance (degree to which the independent variables explain the dependent variable) of the various variables in explaining use per customer. In this regard, I primarily focus on the coefficient of determination (R-squared) and the F statistic, which are commonly used to measure how well the independent variables (HDDs, for example) explain the dependent variable (usage).

Q. WHAT DATA DO YOU USE IN PERFORMING THE MULTIPLE LINEAR REGRESSION ANALYSIS DESCRIBED ABOVE?

A. My analysis is based on regressing actual use per customer versus actual monthly HDDs. This regression analysis provides coefficients that I use to determine use per customer per HDD.

Q. WHAT RATE SCHEDULES ARE YOU PROPOSING TO ADJUST?

A. The rate schedules I adjust are the Company's Residential service (RS), Small Commercial service (SC), Small Volume Firm (SVF), and Large Volume Firm (LVF) sales rate schedules. These are the same rate schedules to which the Company currently applies its Weather Normalization Adjustment Rider. Historically, I have adjusted volumes under those rate schedules that exhibit use sensitive to changes in winter temperature conditions. Customers who take service under these rate schedules primarily use natural gas for space heating. The variation in monthly HDDs typically explains most of the variation in volumes used by customers who use gas in space heating applications. I did not run regression analyses on volumes for interruptible or transportation customers. Historically, these customer classes have not been weather normalized.

Q. WHAT VARIABLES DO YOU DETERMINE BEST EXPLAIN THE VARIATION IN HEAT SENSITIVE VOLUMES AND WHAT IS THE BASIS FOR YOUR RECOMMENDATION REGARDING THESE VARIABLES?

A. The correlation between HDDs and sales to space heating customers is quite high. In other words, the colder the weather, the greater are the space heating requirements. HDDs are typically used as a basis to predict a customer's natural gas space heating requirement. The results of my analyses in this case confirm this fact.

A heating degree-day is defined as 65 degrees less average daily temperature where average daily temperature equals the average of the high and low temperatures. Sixty-five degrees is typically used as the base temperature. If the average daily temperature exceeds 65 degrees, the HDD for that day is set equal to zero. The sum of the monthly HDDs for a particular month is the sum of the daily HDDs for that calendar month.

In my regression analyses, I include current and previous month's HDDs as independent variables. Because volumes are based on the reading of a customer's meter, which for space heating customers, usually lags the customer's actual usage, and the reading of meters for most customers is done on a cycle that does not correspond to a calendar month, I include HDDs for the previous month as a variable.

Q. PLEASE DESCRIBE THE WEATHER DATA YOU UTILIZE FOR YOUR ANALYSIS.

A. I use data reported for the weather stations from Topeka, Garden City, Dodge City, Liberal, Hutchinson, Wichita, and Goodland. As part of the Stipulation and Agreement in Docket No. 05-AQLG-367-RTS, the parties agreed to use Topeka for the Lawrence area service territory. In the Company' last case in Docket No. 07-AQLG-431-RTS, the parties also used Topeka for this area.

Q. WHAT IS THE SOURCE OF THE DATA YOU USE FOR ACTUAL AND NORMAL HDDS?

A. I use the actual monthly normal HDDs for each weather station as published by NOAA. The normal HDDs are the NOAA 30-year normal HDDs for the 1981-2010 time period.

Q. WHAT SALES AND CUSTOMER DATA DO YOU USE?

A. At my request, the Company provided monthly sales and number of customers for the period 2006 through December 2013 for each rate schedule that existed during those years. This data combined with the data used in the Company's prior case for the period 1986 through 2006 form the database that I use. I combine the Small Commercial, Small Volume Firm, and Large Volume Firm customers into one non-residential group for the purposes of regression analysis. I then separate these customers into their respective customer classes for the purposes of calculating the heating adjustment to recognize the differences in the rates for these classes.

Q. DOES THE COMPANY'S WNA RIDER USE SEPARATE COEFFICIENTS FOR THESE NON-RESIDENTIAL CUSTOMER CLASSES?

A. Yes. In the Company's last case (Docket No. 07-AQLG-432-RTS), the Staff developed separate analyses for the Small Commercial, Small Volume Firm, and Large Volume Firm classes and the Staff's analysis was agreed to in the settlement of that case and forms the basis for the current coefficients used.

Q. DO YOU BELIEVE THAT PERFORMING SEPARATE REGRESSION ANALYSES FOR THE SMALL COMMERCIAL, SMALL VOLUME FIRM, AND LARGE VOLUME FIRM CLASSES ARE APPROPRIATE FOR THIS CASE?

A. No. Customers are routinely reassigned between the Small Commercial, Small Volume Firm, and Large Volume Firm classes. This makes it particularly problematic for running any meaningful analyses separately for the Small Commercial, Small Volume Firm, and Large Volume Firm classes in this case.

Close examination of the number of Small Volume Firm customers shows very large variations in the number of customers served over time. For example, the total number of Small Volume Firm customers declined from 1,162 customers in December 2012 to 901 in February 2013 to 884 in December 2013. Based on my discussion with the Company, they regularly review customer usage data to determine whether customers should be moved from one rate schedule to another based on the usage definitions for Small Commercial, Small Volume, and Large Volume customers. The customer changes shown above are the result of the Company transferring Small Volume customers to a more appropriate Small Commercial rate schedule. Examination of the historical data shows that this is not an isolated case and the transfers can go in both directions. However, the magnitude of the transfer (about 25 percent of the customers) in 2013 was larger than normal. Similar changes also occur relative to the Large Volume class. The total number of Large Volume customers declined from 33 in December 2012 to 23 in December 2013 (30 percent of the customers). These large customer transfers also resulted in large changes in use per customers that are clearly not weather related. For example, the November and December HDDs for Goodland have been relatively constant over the last four years, yet the

use per Small Volume customer increased substantially in 2013. This would be expected if “smaller” customers are transferred to Small Commercial service.

Since customers are routinely transferred among the Small Commercial, Small Volume, and Large Volume classes and the transfers can be a very large percentage of the number of customers served in the Small Volume and Large Volume classes and these transfers also significantly impact the use per customer (independent of the weather), it is reasonable to combine these classes for purposes of determining the coefficients for these classes in order to eliminate the impact of these transfers on the regression analyses.

Q. OVER WHAT PERIOD DO YOU ANALYZE USE AND HDDS?

A. I used a 10-year period, 2004 through 2013. My goal is to use a sufficiently long period of time such that the average heating degree-days over that period are approximately equal to normal.

Q. WHY DID YOU PERFORM YOUR ANALYSES OVER SUCH AN EXTENDED PERIOD OF TIME?

A. By so doing, I am able to isolate conditions which more closely approximate normal conditions. In connection with the numerous studies I have conducted, I have observed some anomalies. One of these anomalies is that for a specific customer group, the relationship between sales and HDDs can appear to change substantially from year to year. In studying this question, I found that significant changes in the relationship generally correspond to years where weather conditions are more abnormal. Therefore, it is important that I examine

conditions over a long enough period to ensure that any weather adjustment I make encompasses periods with truly normal usage characteristics. For example, using only the test year of data for my analysis, violates this principle because weather during the test year (in this case) was colder than normal. It is unreasonable to assume that usage characteristics during one year which was colder than normal would be representative of normal usage characteristics.

Q. WERE THERE ANY OTHER CONSIDERATIONS THAT INFLUENCE THE TIME PERIOD YOU ANALYZED?

A. Yes. The Company has experienced a decline in use per customer (especially in the Residential class) over the 1986-2013 period. In order to reflect this declining customer use in the coefficients that are the basis for my weather normalization adjustment, I had to temper my desire to use a longer period of time (as discussed in the prior answer) with the need to use a shorter time period that reflects the change in customers' usage as a result of declining use (primarily due to improvements in the efficiency of equipment).

Q. PLEASE DESCRIBE YOUR WEATHER NORMALIZATION REGRESSION RESULTS.

A. In order to identify anomalies in usage patterns over the 10-year period I analyzed, I perform regression analyses in decreasing blocks of time (2004-2013, 2005-2013, 2006-2013, etc.) for each residential and non-residential customer group. Exhibit___ (TJS-3) summarizes the results of each of the regression analyses. Consistent with the methodology I have used in prior rate

Kansas cases, I evaluate the results of each of these time periods using five criteria. These five criteria are:

1. Consistency of predicted normal use per customer;
2. Average annual HDDs for the period evaluated being near normal;
3. R Squared – values in the high 90 percent range are common for the residential and non-residential customer groups;
4. F statistic – higher values equate to higher level of significance;
5. Obvious changes in the database as reflected in coefficients and statistics.

In Exhibit___(TJS-3) I used the five-year period 2009-2013 period to compute my weather normalization adjustment.

Q. WHY DID YOU USE THE FIVE-YEAR TIME PERIOD?

A. As discussed earlier, I wanted to balance using a long enough time period to capture normal conditions with using a shorter time period to capture current usage characteristics. A significant factor that impacted my decision was the weather conditions during 2012. As shown on Line 29 of Exhibit___(TJS-2), weather conditions during 2012 were substantially warmer than normal. For each year added to the analysis beyond 2012, the average HDDs get closer to normal through 2008 (see Lines 19 through 25 of Exhibit___(TJS-2). Beyond

2009 (2009-2013, 2008-2013, 2007-2013, and 2006-2013), the average annual HDDs level out.

Generally, the statistics for each analysis are fairly consistent with the statistics for a five-year analysis being better than shorter time periods. The five-year time period is the shortest time period that is reasonably close to normal. A six-year period (2008-2013) is closest to normal, but I believe that the five-year time period represents the best balance between meeting the statistical criteria I established, using a period of approximately normal conditions, and using the shortest time period reasonable to reflect changes in usage characteristics over time.

Q. HOW DID YOU DETERMINE THE HEATING VOLUME ADJUSTMENT?

A. I summarize this calculation in Exhibit___(TJS-4). The heating adjustment per customer is the difference between normal and actual HDDs multiplied by its respective coefficient (current and prior months) for each month of the test year. As previously indicated, normal HDDs are the published NOAA normals for the 1981-2010 period. Using coefficients from Exhibit___(TJS-3) and weather data shown in Exhibit___(TJS-4), I determine the heating adjustment per customer. After I calculate the monthly heating adjustment per customer (therm/customer), I multiply each of these figures by the respective number of customers for each month of the test year to determine the total volumetric adjustment. As I show in Column J of Exhibit___(TJS-4), Page 5 of 5, my heating adjustment represents an decrease in sales of 1,290,154 therms for the Residential class, 516,570

therms for the Small Commercial class, 42,628 therms for the Small Volume class, and 574 therms for the Large Volume class for a total recommended heating adjustment of 1,849,926 therms. These adjustments result in a decrease in volumes which is consistent with actual conditions being colder than normal during the test year.

Q. HOW DID YOU DETERMINE THE REVENUE AND COST OF GAS ADJUSTMENTS FOR EACH OF THE CUSTOMER CLASSES YOU ADJUST?

A. The margin revenue adjustment is equal to the margin rate times the sales adjustment. I show the margin adjustment in Column L of Exhibit___(TJS-4) and I calculate it by multiplying Column J by Column K. I show the cost of gas adjustment in Column N and I calculate it by multiplying Column J by Column M. As with the adjustment to margin revenues, the adjustment to cost of gas (revenues and cost) is equal to the cost of gas rate ($/therm) times the heating sales adjustment (therm). The cost of gas I use is the total gas purchases made by the Company divided by the total sales volumes (excluding transportation) for the test year for each customer class. The total revenue adjustment, shown in Column O, is the sum of Columns L and N. I summarize these adjustments in the table below.

	Margin ($)	**Cost of Gas ($)**	**Total ($)**
Residential	(187,382)	(642,786)	(830,168)
Small Commercial	(75,027)	(256,281)	(331,307)
Small Volume	(5,328)	(21,344)	(26,673)
Large Volume	(34)	(289)	(323)
Total	(267,771)	(920,700)	(1,188,470)

Q. ARE THE RESULTS OF YOUR ANALYSES CONSISTENT WITH THE GENERAL WEATHER CONDITIONS EXPERIENCED IN THE COMPANY'S KANSAS SERVICE TERRITORY?

A. Yes, they are. A negative adjustment is intuitively correct because HDDs for the test year were greater than normal, i.e. the test year winter period was colder than normal. This implies that actual sales are more than sales that would be expected if actual temperatures had been normal. Further, for each weather station the volumetric adjustment was slightly less than the deviation in HDDs for those stations. Again this result is consistent with expectations because only the heat sensitive portion of annual usage is being adjusted (not base usage).

Q. WILL ANY OF YOUR INFORMATION FROM THE CURRENT RATE CASE BE USED FOR THE COMPANY'S WNA CALCULATION?

A. Yes, I understand the Company will update their heat sensitive factors.

Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY REGARDING YOUR PROPOSED WEATHER NORMALIZATION ADJUSTMENT?

A. Yes, it does.

IV. <u>IRRIGATION ADJUSTMENT</u>

Q. WHAT IRRIGATION SERVICE CLASSIFICATIONS OR RATE SCHEDULES DO YOU PROPOSE TO ADJUST?

A. The Company provides service to irrigation customers under the Irrigation Sales Service (Schedule IR) and Irrigation Transportation Service (Schedule ITS) Rate

Schedules. Consistent with the Staff's approach in the Company' prior case, I am only adjusting volumes during the April through September period which generally coincides with the expected irrigation (growing) season.

Q. PLEASE OUTLINE YOUR PREPARED DIRECT TESTIMONY CONCERNING YOUR PROPOSED IRRIGATION ADJUSTMENT.

A. I will describe:

1. The methodology used to determine the relationship between volumes (usage) and weather;
2. The weather stations and weather data used in the analysis;
3. The analysis used to adjust irrigation volumes to reflect normal weather conditions; and
4. The results of the irrigation adjustment analysis.

Q. PLEASE SUMMARIZE THE METHODOLOGY YOU USE TO DETERMINE THE RELATIONSHIP BETWEEN SALES AND WEATHER.

A. I use multiple linear regression analysis to define the relationship between volumes and variables that represent weather conditions. The methodology is similar to the methodology I describe above for the heating adjustment except that rather than using current and previous month's HDDs as the independent variables I use current and previous month's rainfall and current and previous month's average temperature. The current and prior month's data are used to reflect cycle billing. Also, the underlying hypothesis is that irrigation usage increases as rainfall decreases and temperature increases. These are the

independent variables that both the Staff and I have used in prior cases for the irrigation adjustment regression analysis.

In addition, I also provide an analysis based on the five-year average of irrigation volumes as a reasonableness check on the analysis. This analysis is a broader consideration than the regression analysis approach which focuses only the weather influences on irrigation usage.

Q. PLEASE DESCRIBE THE WEATHER DATA YOU USE.

A. Because the irrigation customers are located across a large geographic area, I considered inches of rainfall and average monthly temperature data as reported by the National Oceanic and Atmospheric Administration (NOAA) from weather stations located in reasonable proximity to the majority of the rate code's customers. I use the same weather stations that were used for the heating adjustment. However, the Company has no irrigation customers in the Topeka area. The normal rainfall and normal average monthly temperature are based on the NOAA normals for the 30-year period 1981 through 2010.

Q. IN YOUR OPINION, WERE ACTUAL WEATHER CONDITIONS (TEMPERATURE AND RAINFALL) IN THE COMPANY'S SERVICE TERRITORY FOR THE 12-MONTH PERIOD ENDED DECEMBER 31, 2013, NORMAL?

A. No, they were not. As shown in Exhibit___(TJS-5), actual temperatures were slightly hotter than normal and actual rainfall was slightly lower than normal. The deviations are significant enough (particularly for the stations that I am proposing

to adjust as discussed below) that I concluded a heating adjustment to reflect normal weather conditions is warranted.

Q. WHAT VOLUME AND CUSTOMER DATA DO YOU USE?

A. At my request, the Company provided me monthly volumes and number of customers for the period June 2006 through December 2013 for each irrigation rate schedule that existed during those years. As shown in Exhibit____(TJS-5), this period includes both periods of higher and lower than normal average temperature and higher and lower than normal rainfall.

Q. WHAT VARIABLES DO YOU FIND BEST AT EXPLAINING THE VARIATION IN IRRIGATION SALES?

A. Based on my analysis, I find that changes in current and previous month's average temperature and previous month's inches of precipitation produce the strongest correlation with changes in use by irrigation customers in the Goodland, Dodge City, and Garden City areas. These areas account for approximately 95 percent of the irrigation customers the Company serves.

Q. WERE YOU ABLE TO OBTAIN REASONABLE RESULTS FOR THE OTHER THREE AREAS YOU ANALYZED?

A. No. In the Liberal area the number of customers increased from 4 to 6 and the average usage declined significantly in 2013. Further, NOAA temperature data was missing for July and August 2013. These factors contributed to regression results that were inconsistent and not significant. In the Hutchinson area, the usage characteristics changed significantly between 2009 and 2010 (use per customer declined significantly). Limiting the analysis for Hutchinson to the 2010

through 2013 period produced results that are inconsistent with the underlying hypothesis of the model. The results produced a positive correlation with rainfall which means that the model determined that usage increases as rainfall increases, a result that does not make intuitive sense. In the Wichita area, there was an increase in customers from 31 to 38 and a significant reduction in use per customer. Due to the data and analysis issues combined with the fact that these three areas contain only about 5 percent of irrigation customers, I am not proposing an adjustment for these three areas.

Q. PLEASE SUMMARIZE EACH OF THE REGRESSION EQUATIONS YOU DEVELOP.

A. Exhibit ___ (TJS-6) is a summary of statistical results of my study for the Goodland, Dodge City, and Garden City weather stations based on data for the June 2006 through 2013 period.

Q. HOW DO YOU DETERMINE THE IRRIGATION VOLUME ADJUSTMENT?

A. The irrigation adjustment per customer is calculated as the difference between normal and actual weather conditions multiplied by its respective coefficient. Monthly normals are the published NOAA normals for the 30-year period 1981 through 2010 for each weather station.

Exhibit ___ (TJS-7) shows actual and normal monthly precipitation and temperature data for each weather station. Using coefficients from Exhibit ___ (TJS-6), weather data and the number of customers shown in Exhibit ___ (TJS-

7), the irrigation volume adjustment (Column N) is the product of the use per customer adjustment (Column L) and the number of customers (Column M).

As shown in Column N of Exhibit ___ (TJS-7), my recommended irrigation adjustment is to reduce sales volumes by 1,673,601 therms and transportation volumes by 648,798 therms for a total reduction of 2,322,399 therms.

Q. HOW DO YOU DETERMINE THE IRRIGATION REVENUE AND COST OF GAS ADJUSTMENT?

A. The margin revenue adjustment is equal to the marginal rate (excluding gas cost) times the volume adjustment. The margin revenue adjustments are shown in Columns O and P of Exhibit ___ (TJS-7) and are calculated by multiplying Column O by Columns N. As shown in Exhibit ___ (TJS-7), the margin adjustment amounts to a reduction in test year margin of $85,354 for sales service and $33,089 for transportation service customers, and the total margin adjustment equals $118,442.

The adjustment to cost of gas is also shown in Exhibit ___ (TJS-7). This adjustment is shown in Columns Q and R and is the product of Columns N and Q. As with the adjustment to margin revenues, the adjustment to cost of gas (revenues and cost) is equal to the cost of gas rate ($/therm) times the irrigation sales adjustment (therms). As shown in Exhibit ___ (TJS-7), this adjustment results in a reduction in cost of gas (and in revenues) of $672,579. Note that there is no cost of gas adjustment associated with transportation customers.

The total revenue adjustment is equal to the sum of the margin and cost of gas adjustments (for sales service) and is shown in Column S of Exhibit ___ (TJS-7). The total sales and transportation revenue adjustment equals a reduction of $791,022.

Q. ARE THE RESULTS OF YOUR ANALYSIS CONSISTENT WITH THE GENERAL WEATHER CONDITIONS EXPERIENCED IN THE COMPANY'S SERVICE TERRITORY?

A. Yes, they are. The negative adjustment is intuitively correct because for the 2013 test period rainfall in Goodland, Dodge City, and Garden City was less than normal and average temperatures were also slightly warmer than normal. This implies that actual irrigation requirements were greater than expected if precipitation and temperatures were normal.

Q. DID YOU PERFORM ANY OTHER ANALYSES TO TEST THE REASONABLENESS OF YOUR PROPOSED IRRIGATION ADJUSTMENT?

A. Yes, I did. In order to get a longer term perspective of the average irrigation use per customer and test the results of my proposed irrigation adjustment, I prepared Exhibit___(TJS-8). This exhibit shows the actual use per irrigation customer for each year 1989 through 2013. During 2013, the average use per customer was 23,990 therms per customer. My proposed adjusted irrigation use per customer is 22,648 therms per customer. This is slightly less than the five-year average use per customer of 22,999 therms per customer but more than the eight year average (the 2006-2013 regression analysis period) of 21,435 therms

per customer. This analysis also shows that the total number of irrigation customers remained fairly stable over the 2006 to 2013 period (after declining in 2004 and 2005).

Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY REGARDING YOUR PROPOSED IRRIGATION ADJUSTMENT?

A. Yes, it does.

V. ANADARKO ANNUALIZATION ADJUSTMENT

Q. PLEASE DESCRIBE THE ANADARKO ANNUALIZATION ADJUSTMENT THE COMPANY IS PROPOSING.

A. Since the acquisition of the Anadarko system did not occur until late in 2013, the volume and revenues associated with these customers are not in the Company's per books figures. Therefore, the Company is proposing to include the sales associated with the three customers who are not presently considered as by-pass threats in test year revenues. One of these customers is a full margin large transportation customer and the other two are large volume firm customers. The 2013 volumes and revenues under the Company's existing rates will be included in the cost of service study for these customers. There are three other customers who are considered bypass threats and the Company is not highly confident that these customers can be retained. Therefore, the Company is proposing a Bypass Revenue Rider ("BRR") to share 100 percent of any net revenues received from these customers with the Company's full tariff customers (excluding irrigation and any negotiated margin customers).

Q. HAVE YOU PREPARED AN EXHIBIT SHOWING THE TEST YEAR VOLUMES AND REVENUES ASSOCIATED WITH THE ANADARKO CUSTOMERS WHO ARE NOT CONSIDERED BYPASS THREATS?

A. Yes. Exhibit___(TJS-9), Lines 1 through 4 show the volumes and test year revenues associated with these customers. The total volumes are 1,734,770 therms associated with the three customers. Margin revenues equal $111, 567, gas cost equals $675,065, and total revenues equal $786,632.

Q. PLEASE DESCRIBE THE BRR RIDER THAT THE COMPANY IS PROPOSING.

A. The proposed rider is included in Index No. 17C of the Company proposed tariff. The proposed rider would share 100 percent of the net revenues (excluding gas cost) recovered from the three existing Anadarko system customers who are considered bypass threats. On an annual basis, the Company would determine the amount of net revenues, if any, generated by these three customers. These revenues would be shared among the full margin customers (excluding irrigation and negotiated margin customers) based on the same percentage as the revenue credits (negotiated large volume and irrigation customers) are shared in the most recent rate case. As discussed later in my cost of service testimony, the net revenues associated with irrigation and negotiated margin customers are credited to the cost of service for the full margin customers based on the mains allocation basis. Based on the Company's filed case, the allocation of these revenue credits to each class are as follows:

Residential – 68.17 percent

Small Commercial – 10.59 percent

Small Volume – 9.37 percent

Large Volume – 11.87 percent

The net shared revenue associated with this rider allocated to each class would then be divided by the number of bills rendered to each class during the most recent twelve month period. This would result in a $/bill amount that would be credited to each customer in those classes over the next twelve months. The credit would be recalculated in the same fashion each year until the Company's next Kansas rate case is concluded. After each rate case, the allocation to each class would be updated to reflect the most recent rate case and to reflect the Anadarko customers determined to be bypass threats in that case.

Q. HAVE YOU PREPARED AN EXAMPLE OF HOW THE BRR WILL BE DETERMINED?

A. Yes, it is included in Lines 5 through 33 of Exhibit ___(TJS-9). Lines 7 through 10 show the 2013 actual volumes for the existing Anadarko customers who are considered to be bypass threats and the rates the Company expects to be able to charge these customers. The total estimated net revenues (all the customers are currently transportation customers) associated with these customers would be $714,555 if these sales levels and rates were realized. The class allocation discussed above is shown on Lines 12 through 21. The 2013 test year number of bills for each customer is shown on Lines 23 through 26, and the resulting ARS revenue credits are shown on Lines 28 through 31.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY REGARDING THE ANADARKO SYSTEM REVENUE ADJUSTMENT AND BRR?

A. Yes, it does.

VI. TEST YEAR REVENUES UNDER EXISTING RATES

Q. WHERE DO YOU SHOW THE DEVELOPMENT OF TEST YEAR REVENUES UNDER EXISTING RATES.

A. I show the development of revenues under existing rates in Exhibit ___(TJS-10) which consists of 12 pages.

Q. PLEASE EXPLAIN EXHIBIT ___(TJS-10).

A. On Pages 1 through 4 Columns D through F, I summarize number of bills, number of customers (number of bills divided by 12), and volumes (therms) based on the information contained in the Company's billing records for the test year ended December 31, 2013 for each customer class and rate schedule. I show the winter period volumes (November through March) in Column G which are used later in my class cost of service study. Columns H and I summarize the Company's existing rates. Colum J shows total margin revenues which are equal to the number of bills times the customer charges plus the volumes time the commodity (or margin) rate. Column K shows the actual test year average cost of gas for each sales rate schedule. Gas cost revenues (Column L) are equal to the product of the volumes and average cost of gas. Total Revenues (Column M) equal the sum of the Margin Revenues (Column J) and the Gas Cost Revenues (Column L). Columns N and O summarize the actual Gas System

Reliability Surcharge ("GSRS") revenues collected during the test year and the Ad Valorem Tax Surcharge ("AVTS") revenues, respectively. Total Revenues in Column P equal the sum of Columns M, N and O. These revenues equal Restated Test Period Revenues.

On Pages 5 through 8 of Exhibit ___(TJS-10), I summarize each of the three pro forma adjustments I sponsor that are discussed in the prior sections of my direct testimony: Heating Adjustment, Irrigation Adjustment, and Anadarko Adjustment. The Heating Adjustment figures (Columns Q through U) are taken from Exhibit ___(TJS-4), the Irrigation Adjustment figures (Columns V through Y) are taken from Exhibit ___(TJS-7), and the Anadarko Adjustment figures (Columns Z through AF) are taken from Exhibit ___(TJS-9).

On Pages 9 through 12 of Exhibit ___(TJS-10) I summarize the adjusted test year number of bills (Column AG), number of customers (Column AH), Volumes (Column AI), Winter Period Volumes (Column AJ), Margin Revenues (Column AK), Gas Cost Revenues (Column AL), and Total Revenues (Column AM). The Total Revenues exclude the AVTS revenues and are equal to the revenues shown in the Company's Adjusted Income Statement.

Q. WHY IS THE COMPANY PROPOSING TO ELIMINATE AVTS REVENUES?

A. The costs associated with the AVTS revenues are included in the test year property tax costs and are included as part of the test year revenues requirement. As such, the Company is proposing that these costs will now be

collected through base rates and the AVTS will be reset such that the base level of Ad Valorem taxes in the AVTS will be reset to the level in the test year.

Q. WHY DO TEST YEAR REVENUES NOT INCLUDE WNA REVENUES?

A. Since the level of sales and revenues in the test year are being weather normalized, there are by definition no WNA revenues in test year revenues. The WNA revenues are calculated and tracked separately from base rate revenues (similar to cost of gas). Therefore, the WNA revenues are not included in the test year figures I use.

Q. WHY IS THE COMPANY PROPOSING TO INCLUDE THE GSRS REVENUES?

A. I am including the GSRS revenues in test year revenues at the actual level of GSRS revenues collected during the test year. The GSRS revenues have been previously reviewed and approved by the Commission, so the Company's application does not attempt to remove or adjust these revenues. My proposed rate design converts these revenues from surcharge revenue to base rates. The AVTS surcharge revenues are handled differently. The company proposes to build the most recent ad valorem taxes into base rates, so future AVTS surcharge filings reflect the difference between future ad valorem tax levels and the amount included in base rates in this case.

Q. WHAT ARE THE APPLICABLE EXISTING RATES YOU USE IN EXHIBIT ___ (TJS-10)?

A. The applicable existing rates are the rates that the Company actually charged during the test year.

Q. PLEASE RECONCILE THE RESTATED TEST PERIOD REVENUES SHOWN IN SECTION 3, SCHEDULE 2, PAGE 2 OF 24 WITH EXHIBIT ___ (TJS-10).

A. The Gas Sales Revenues on Line 1 of Section 3, Schedule 2, Page 2 of 24 equal $105,678,718. This figure equals the Total Sales Revenue shown on Page 1, Column P, Line 33 of Exhibit ___(TJS-10). The Other Revenues shown on Line 2 of Section 3, Schedule 2, Page 2 of 24 equal $7,969,215. This figures equals the Transportation Revenues shown on Page 4, Column P, Line 154 of Exhibit ___(TJS-10) of $6,287,286 plus the following other revenues:

1. Account 487 – Forfeited Discounts – $444,424
2. Account 488 – Misc. Service Revenues – $772,974
3. Account 495 – Other Gas Revenues – $441,103 plus $23,428 (Balancing Penalties)

Q. PLEASE RECONCILE THE ADJUSTED INCOME STATEMENT REVENUES SHOWN IN SECTION 3, SCHEDULE 2, PAGE 3 OF 24 WITH EXHIBIT ___ (TJS-10).

A. The Gas Sales Revenues on Line 1 of Section 3, Schedule 2, Page 3 of 24 equal $102,920,942. This figure equals the Total Sales Revenue shown on Page 9, Column AM, Line 33 of Exhibit ___(TJS-10). The Other Revenues shown on Line 2 of Section 3, Schedule 2, Page 3 of 24 equal $7,474,216. This figures equals the Transportation Revenues shown on Page 12, Column AM, Line 154 of Exhibit ___(TJS-10) of $5,611,244 plus the following other revenues:

1. Account 487 – Forfeited Discounts – $444,424

2. Account 488 – Misc. Service Revenues – $772,974

3. Account 495 - Other Gas Revenues – $441,103 plus $23,428 (Balancing Penalties) plus $181,043 (WNA Rider Revenue Adjustment)

Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY REGARDING THE COMPANY'S REVENUES UNDER EXISTING RATES?

A. Yes, it does.

VII. CLASS COST OF SERVICE

Q. PLEASE DESCRIBE THE CLASS COST OF SERVICE STUDY YOU SPONSOR IN THIS MATTER.

A. The class cost of service study is based upon Black Hills Kansas gas operations for the twelve-month period ended December 31, 2013 as adjusted for known and measurable changes. Test period figures applicable to Kansas operations were provided by Company personnel.

The class cost of service study I sponsor is contained in Exhibits___(TJS-11) and (TJS-12). The form and structure of these exhibits are the same as the class cost of service studies filed in Docket No. 00-UTCG-336-RTS, Docket No. 05-AQLG-367-RTS, and Docket No. 07-AQLG-431-RTS.

Q. PLEASE DESCRIBE EXHIBIT___(TJS-11).

A. In Exhibit___(TJS-11), I classify test period costs into functional categories. This is my first step. Exhibit___(TJS-11) consists of four tables. Table 1 shows a summary of rate base and total cost of service by functional classification. Table 2 shows the functional classification of rate base. Table 3 shows the functional classification of operation and maintenance expenses. Table 4 shows the functional classification of depreciation expenses, taxes other than income taxes, and other operating revenues.

I classify costs in Exhibit___(TJS-11) into ten functions: gas supply - demand and commodity, transmission - demand and commodity, distribution - demand and customer, services, meters and regulators, customer accounts, and direct.

Gas supply demand costs include purchased gas demand charges and underground storage related costs. Gas supply commodity costs include purchased gas costs, transportation commodity charges, and other gas supply expenses. Rate base, return and income taxes associated with the purchased gas cash working capital requirements are split between gas supply demand and commodity on the basis of purchased gas costs.

Gathering, transmission, and a portion of distribution mains related costs are classified as transmission. Also classified as transmission commodity is a $0.001 per therm allowance. Two-thirds of fixed gathering and transmission related costs are classified as transmission demand and one-third as transmission commodity. Variable gathering and transmission related costs which include compressor station fuel and load dispatching costs are classified as commodity.

The classification of investment in transmission and distribution mains is based on a detailed study of the Company's investment and the relative capacity of these facilities. Using the results of this study, I classify 19.40 percent of the fixed costs associated with distribution mains as transmission related costs with

two-thirds of these costs classified as demand related and one-third as commodity related.

I classify the remaining 80.60 percent of the fixed costs associated with distribution mains as distribution with a demand component (40.68 percent) and a customer component (39.92 percent)

I classify costs associated with the services as services related costs.

I classify costs associated with meters and regulators as meters and regulators related costs.

I classify customer accounting expenses as customer accounts related costs. Fifty percent of customer service and information expenses and sales expenses are classified as customer accounts related costs. The remaining 50 percent are classified as transmission commodity related costs and allocated on a volumetric basis.

The direct assigned classification includes revenues associated with forfeited discounts.

Q. PLEASE EXPLAIN THE $0.001 PER THERM SUPPLY ALLOWANCE YOU ASSIGN TO TRANSMISSION COMMODITY COST.

A. Consistent with past treatment, I assign a portion of administrative and general salaries equal to $0.001 per therm to transmission commodity related costs to recognize the administrative and general salaries devoted to obtaining gas supply, addressing gas supply and transmission matters, and maintaining relationships with gas suppliers and transporters for the benefit of all customers and all gas (sales and transportation) delivered through the Company's system.

Q. PLEASE DISCUSS THE CONTENTS OF EXHIBIT___(TJS-12).

A. Exhibit___(TJS-12) sets forth the results of my allocation of functionally classified costs to customer classes. Exhibit___(TJS-12) consists of five tables. Table 1 shows the development of class rates of return under current and proposed rates. Table 2 shows the allocation of total functional cost to customer classes. Table 3 shows the allocation of rate base to customer classes. Table 4 shows the allocation bases I use to allocate total functional cost of service and rate base to customer classes. Table 5 shows the unit ($/therm or $/bill) functionalized cost of service.

Q. HOW DO YOU DEFINE CUSTOMER CLASSES IN YOUR COST OF SERVICE STUDY?

A. I define six customer classes in my cost of service study: Residential, Small Commercial, Small Volume Firm and Transportation, Large Volume Firm and Transportation, Small Volume Interruptible, and Large Volume Interruptible. Customers served under the Company's Transportation Service rate schedule at full margin are included with the small volume firm or large volume firm classes. The Company is proposing to eliminate the Wholesale tariff and merge those

customers into the Large Volume rate. I have included the Wholesale customers in the Large Volume Firm class. I credit revenues from customers taking service under the Company's Transportation Service rate schedules at negotiated margins and Irrigation customers (sales and transportation) to cost of service.

Q. PLEASE DISCUSS THE PRINCIPAL ALLOCATION BASES YOU USE IN YOUR CLASS COST OF SERVICE STUDY.

A. Table 4 of Exhibit___(TJS-12) shows the allocation factors I use to allocate functionally classified costs to the six customer classes.

Firm winter peak demand represents estimated class peak day requirements. The peak day requirements for the firm classes are estimated based on regression analysis of monthly sales and HDDs and analysis of winter period throughput to average throughput. The peak day requirements for the Interruptible customers are set equal to zero.

Winter period throughput represents test year throughput for each class during the months of November through March. The firm winter period sales allocation basis represents the same figure except that no volumes attributable to Interruptible Service or Transportation Service are included. The commodity allocation basis represents annual test period throughput for each class.

I develop the distribution-customer, services, meters and regulators, and customer accounting allocation bases by weighting average number of

customers. I weight the number of customers by factors that represent the relative cost or investment associated with service to each class. I use the customer weighting factors that I developed in my mains classification and customer weighting factor study included in my workpapers.

Q. HOW DO YOU ALLOCATE FUNCTIONALLY CLASSIFIED COSTS TO CUSTOMER CLASSES?

A. I allocate gas supply demand related costs to classes using an approach that results in 50 percent of the costs being allocated on the basis of firm winter period sales and 50 percent of the costs being allocated on the basis of the firm peak day sales.

I allocate transmission and distribution demand related costs to classes using an approach that results in 50 percent of the costs being allocated on the basis of winter period throughput and 50 percent of the costs being allocated on the basis of peak day deliveries. The only difference between this allocation basis and the one used to allocate gas supply demand related costs is that winter period Interruptible Service and Transportation Service customers are included in the allocation of transmission and distribution demand related costs whereas these customers are not allocated demand related gas supply costs. I allocate transmission commodity related costs to customer classes using annual throughput.

I allocate distribution customer, services, meters and regulators, and customer accounting related costs to classes on the basis of weighted number of customers. Weighting factors are used for each functional classification in order to recognize the relative difference in costs of these functions in serving the various customer classes.

Q. HOW DO YOU TREAT OTHER OPERATING REVENUES IN YOUR CLASS COST OF SERVICE STUDY?

A. In my class cost of service study, I credit other operating revenues to cost of service. The other operating revenues I credit to cost of service include: forfeited discounts, miscellaneous service revenues, transportation and sales revenues from customers served in competitive markets, other gas revenues, and customers' deposits interest expense. I directly assign forfeited discount revenues to the Residential class because this is the class that generally fails to pay bills prior to the "discount" date. I assign miscellaneous service revenues and other gas revenues based on supervised O&M. I assign transportation and sales revenues from customers served in competitive markets to the transmission and distribution function in the same proportions as distribution and transmission mains. This treatment recognizes that the throughput resulting from supplying gas to these customers increases the efficiency of the Company's gas system. I assign interest expense on customer's deposits to Customer Accounting (the same function to which I assign customer deposits).

Q. WHAT REVENUES DID YOU INCLUDE WITH TRANSPORTATION AND SALES REVENUES FROM CUSTOMERS SERVED IN COMPETITIVE MARKETS?

A. I include revenues from transportation service provided at negotiated margin and revenues from Irrigation service (sales and transportation). Revenues, volumes, and number of customers from transportation service provided at full margin are included with the appropriate sales customer class in the class cost of service study.

Q. WHAT ARE THE PRINCIPAL FINDINGS OF YOUR STUDY?

A. The principal finding is that the overall rate of return on Black Hills Kansas gas utility operations under current rates amounts to 4.17 percent based on Kansas jurisdictional rate base of $131,193,233. I summarize rates of return under current rates for Kansas jurisdictional sales customer classes in the table below.

Customer Class	Rate of Return
Residential	4.36%
Small Commercial	2.96%
Small Volume Firm	3.54%
Large Volume Firm	4.70%
Small Volume Interruptible	3.68%
Large Volume Interruptible	9.69%

For purposes of rate design (as discussed in the next section of my testimony), some of these classes are aggregated. The rate of return under current rates for the Residential and Small Commercial classes is 4.17 percent, for the Small Volume Firm, Transportation (full margin) and Interruptible classes is 3.54

percent, and for the Large Volume Firm, Transportation (full margin) and Interruptible classes is 4.85 percent.

As indicated by the rates of return under current rates, current rate revenues associated with service to Black Hills Kansas customers are insufficient to cover cost, including an opportunity for the Company to earn a reasonable return on its investment devoted to public service. In order for the Company to earn the 7.52 percent rate of return requested by the Company, current Kansas rate revenues must be increased by $7.28 million.

Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY REGARDING YOUR CLASS COST OF SERVICE STUDY?

A. Yes, it does.

VIII. RATE DESIGN

Q. WHAT GUIDELINES DID YOU FOLLOW IN THE DESIGN OF PROPOSED RATES?

A. The guidelines are as follows:

1. The overall increase should be approximately $7.28 million.
2. The increases for each class should align with the class cost of service study to the extent practical.
3. The proposed customer charges should reflect customer related costs to the extent practical.

4. The commodity charge for the Residential and Small Commercial rates should be equal maintaining past practice.
5. Maintain the existing differential between the Residential and Small Commercial commodity charge and the Small Volume commodity charge to the extent practical.
6. The Wholesale rate is eliminated and those customers are transferred to the Large Volume rate.
7. Pricing should reflect market pressures.
8. The customer and commodity (non-gas portion) should be the same for the Firm, Interruptible, and Transportation rates within the Small and Large Volume services.

Q. HAVE YOU PREPARED AN EXHIBIT SUMMARIZING YOUR PROPOSED RATE DESIGN?

A. Yes, I have. Exhibit ___(TJS-13) summarizes my proposed rates. Lines 1 through 15 show billing determinants, rates, and revenues under existing rates and Lines 16 through 41 show billing determinants, rates, and revenues under proposed rates. As shown on Line 11, revenues under existing rates include test year revenues collected under the Company's Gas System Reliability Surcharge ("GSRS") surcharge. Under proposed rates, the surcharge is assumed to be reset and the proposed customer charges will recover these revenues.

I also sponsor the Company's Schedule 17 which summarizes information from Exhibit___(TJS-13) and my class cost of service study.

Q. WHAT ARE THE SPECIFIC RATE DESIGN RECOMMENDATIONS YOU ARE MAKING?

A. I am making the following recommendations:

1. Increase the Residential customer charge from $16.00 per month to $21.70 per month.
2. Increase the Small Commercial customer charge from $22.75 per month to $36.00 per month.
3. Decrease the Residential and Small Commercial commodity charge slightly from $0.14524 per therm to $0.14355.
4. Increase the Small Volume customer charge from $40.00 per month to $96.00 per month.
5. Decrease the Small Volume commodity charge slightly from $0.12500 per therm to $0.12482 per therm.
6. Increase the Large Volume customer charge from $256.00 per month to $400.00 per month.
7. Increase the Large Volume commodity charge from $0.5900 per therm to $0.06393 per therm.
8. Increase the customer charge for the Large Volume negotiated margin customers to the same level as that recommended for the Large Volume customer charge, consistent with prior practice.
9. No changes to the Irrigation rates.

Q. PLEASE EXPLAIN MORE FULLY YOUR RECOMMENDED RESIDENTIAL AND SMALL COMMERCIAL RATES.

A. In designing the customer charges for these two classes, I am guided by two factors. First, the customer charge should be no less than the level that the customers are currently paying (including the GSRS). Currently, the Residential customers are paying a $16.00 per month customer charge plus a GSRS of $1.53 per month for a total of $17.53 per month. The Small Commercial customers are paying a $22.75 per month customer charge plus a GSRS of $3.11 per month for a total of $25.86 per month. Second, customer charges should reflect customer related costs. As shown in Table 5 of Exhibit ___(TJS-12), customer related costs for the Residential class are $24.35 per month and for the Small Commercial class, $40.51.

If the customer charges for the Residential and Small Commercial classes were increased to a level that fully reflected customer related costs, the commodity charge for these rates would be reduced by over 30 percent to approximately $0.10 per therm. Rather than recommending such a significant change in one rate case, I am recommending that all of the increase for the Residential and Small Commercial classes be recovered through increases in the customer charges with a small decrease to the existing commodity charge. I also designed the Residential and Small Commercial rates such that each class comes as close as practical (within rounding) of collecting its specific cost of service.

Following these parameters resulted in the customer charges and commodity charge I recommend above.

Q. PLEASE EXPLAIN THE RATES YOU ARE RECOMMENDING FOR THE SMALL VOLUME CLASS.

A. My guidelines are essentially the same for the Small Volume class as those for the Residential and Small Commercial classes with the additional guideline to maintain the existing differential between the commodity charges to the extent practical. The Small Volume customers are paying a $40.00 per month customer charge plus a GSRS of $11.80 per month for a total of $51.80 per month. My class cost of service study indicates that customer related costs for this class are $147.05 per month. Setting the proposed Small Volume customer charge at $96 per month with a slight reduction in the commodity charge meets the parameters I recommend above.

Q. PLEASE EXPLAIN THE RATE YOU ARE RECOMMENDING FOR THE LARGE VOLUME CLASS.

A. The Large Volume customer are currently paying a $256.00 per month customer charge plus a GSRS of $19.00 per month for a total of $275.00 per month. My class cost of service study indicates that customer related costs for the Large Volume class are $456. I am therefore recommending that the Large Volume customer charge be increased to $400.00 per month with the remainder of the increase needed to recover class cost being recovered through an increase in the commodity charge. This results in an increase in the commodity charge for $0.5900 per therm to $0.6393 per therm.

Q. HOW ARE YOU REFLECTING THE PROPOSED INCREASE IN LARGE VOLUME RATES FOR THE NEGOTIATED MARGIN LARGE VOLUME CUSTOMERS?

A. I am recommending that the negotiated margin Large Volume customer charges be increased to $400.00. Traditionally, the commodity charge has been treated as the negotiated portion of the rate. The test year number of bills rendered for the negotiated margin customers was 183. Therefore, this increase will result in $26,352 in additional revenues. I have credited these additional revenues against the $7.28 million overall increase thus reducing the revenue increase to the other customer classes to $7.25 million as shown in Table 1 of Exhibit ___(TJS-12).

Q. WHAT ARE YOU RECOMMENDING REGARDING THE IRRIGATION RATES?

A. I am recommending no changes to the irrigation rates. The Company continues to receive competitive threats to service to these customers.

Q. PLEASE DISCUSS THE IMPACT OF YOUR PROPOSED RATES BY CLASS.

A. As shown in Exhibit ___(TJS-12), the overall increase in rates equals 7.8 percent. For each class the percentage increases are as follows:

Residential – 7.5 percent

Small Commercial – 10.0 percent

Small Volume – 7.9 percent

Large Volume – 8.0 percent

Small Volume Interruptible – 9.2 percent

Large Volume Interruptible – 3.3 percent

Q. HOW DO REVENUES UNDER YOUR PROPOSED RATES COMPARE TO COST OF SERVICE?

A. As shown in Exhibit ____(TJS-12), the rates of return under proposed rates for the Residential and Small Commercial classes, Small Volume classes, and Large Volume classes are each 7.52 percent.

Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

A. Yes, it does.

State of Missouri)
) ss
County of Ray)

AFFIDAVIT OF THOMAS J. SULLIVAN

I, Thomas J. Sullivan, being first duly sworn on oath, depose and state that I am the same Thomas J. Sullivan identified in the foregoing Direct Testimony; that I have caused the foregoing Direct Testimony to be prepared and am familiar with the contents thereof, and that the foregoing Direct Testimony as identified therein is true and correct to the best of my knowledge, information, and belief as of the date of this Affidavit.

Thomas J. Sullivan

Subscribed and sworn to before me,
A Notary Public, in and for said County
and State, this 14th day of April, 2014

Notary Public

JAN M. WANSING
Notary Public - Notary Seal
State of Missouri
Commissioned for Ray County
My Commission Expires: March 14, 2016
Commission Number: 12379779

My Commission expires: 3/14/16

Expert Witness Testimony of Thomas J. Sullivan

- *Peoples Natural Gas Company of South Carolina, South Carolina Public Service Commission Docket No. 88-52-G (1988).* Natural gas utility revenue requirements and rate design.

- *Peoples Natural Gas (UtiliCorp United, Inc.), Iowa Utilities Board Docket No. RPU-92-6 (1992).* Natural gas utility class cost of service study and peak day demand requirements.

- *Peoples Natural Gas (UtiliCorp United, Inc.), Kansas Corporation Commission Docket No. 193,787-U (1996).* Natural gas utility class cost of service study, rate design, and peak day demand requirements.

- *Southern Union Gas Company, Railroad Commission of Texas Gas Utilities Docket No. 8878 (1998).* Natural gas utility depreciation rates.

- *Southern Union Gas Company, City of El Paso (1999).* Natural Gas utility depreciation rates.

- *UtiliCorp United, Inc., Kansas Corporation Commission Docket No. 00-UTCG-336-RTS (1999).* Natural gas utility weather normalization, class cost of service, and rate design.

- *Philadelphia Gas Works, Pennsylvania Public Utility Commission Docket No. R-00006042 (2001)*. Natural gas utility revenue requirements.

- *Missouri Gas Energy, Missouri Public Service Commission Docket No. GR-2001-292 (2001).* Natural gas utility depreciation rates.

- *Aquila Networks, Iowa Utilities Board Docket No. RPU-02-5 (2002).* Natural gas utility class cost of service study, rate design, and weather normalization adjustment.

- *Aquila Networks, Michigan Gas Utilities, Michigan Public Service Commission Case No. U-13470 (2002).* Natural gas utility class cost of service study, rate design, and weather normalization adjustment.

- *Aquila Networks, Nebraska Public Service Commission Docket No. NG-0001, NG0002, NG0003 (2003).* Natural gas utility weather normalization adjustment.

- *Aquila Networks, Missouri Public Service Commission Docket No. GR-2003 (2003).* Natural gas utility class cost of service study, rate design, annualization adjustment, and weather normalization adjustment.

- *North Carolina Natural Gas, North Carolina Utilities Commission Docket No. G-21-Sub 442 (2003).* Filed intervenor testimony on behalf of the municipal customers regarding natural gas cost of service and rates related to intrastate transmission service.

- *Texas Gas Service Company, Division of ONEOK, Railroad Commission of Texas Gas Utilities Docket No. 9465 (2004)*. Natural gas utility depreciation rates.

- *Missouri Gas Energy, Missouri Public Service Commission Docket No. GR-2004-0209 (2004).* Natural gas utility depreciation rates.

- *Aquila Networks, Kansas Corporation Commission Docket No. 05-AQLG-367-RTS (2004).* Natural gas utility class cost of service study, rate design, and weather normalization adjustment.

- *Aquila Networks, Iowa Utilities Board Docket No. RPU-05-02 (2005).* Natural gas utility class cost of service study, rate design, grain drying adjustment and weather normalization adjustment.

- *PJM Interconnection, LLC, Federal Energy Regulatory Commission Docket No. ER05-1181 (2005).* Operating cash reserve requirements.

- *Kinder Morgan, Inc., Wyoming Public Service Commission Docket No. 30022-GR-6-73 (2006)*. Natural gas utility weather normalization adjustment, development of load factors, billing cycle adjustment, determination of test year billing units and revenue, and depreciation rates.

- *Missouri Gas Energy, Missouri Public Service Commission Docket No. GR-2006-0422 (2006)*. Natural gas utility depreciation rates.

- *Kinder Morgan, Inc., Nebraska Public Service Commission Docket No. NG-0036 (2006)*. Natural gas utility weather normalization adjustment, test year billing determinates and revenue under existing rates and customer and usage trends.

- *Aquila Networks, Kansas Corporation Commission Docket No. 07-AQLG-431-RTS (2006).* Natural gas utility class cost of service study, rate design, irrigation adjustment, and weather normalization adjustment.

- *Aquila Networks, Nebraska Public Service Commission Docket No. NG-0041-RTS (2006).* Natural gas utility jurisdictional and class cost of service study, rate design, and revenue synchronization adjustment.

- *Zia Natural Gas Company, New Mexico Public Regulation Commission Case No. 08-00036-UT (2008).* Natural gas utility billing determinants and revenues, weather normalization adjustment, customer growth adjustment, peak day analysis, revenue requirement, class cost of service study, and rate design.

- *SourceGas Distribution, LLC, The Public Utilities Commission of the State of Colorado Docket No. 08S-0108G (2008).* Natural gas utility weather normalization adjustment, irrigation adjustment, group load factor analysis, therm billing, test year billing determinants and revenues, and trends in customer usage.

- *Black Hills/Iowa Gas Utility Company, LLC (fka Aquila Networks), Iowa Utilities Board Docket No. RPU-08-3 (2008).* Natural gas utility weather normalization adjustment, grain drying adjustment, revenue synchronization adjustment, class cost of service study, and rate design.

- *Black Hills/Colorado Gas Utility Company, LLC (fka Aquila Networks), The Public Utilities Commission of the State of Colorado Docket No. 08S-430G (2008.)* Natural gas utility weather normalization, revenue synchronization adjustment, customer reclassification, thermal billing, test year billing determinants, revenues under existing and proposed rates, class cost of service study, and rate design.

- *Wyoming Gas Company, Wyoming Public Service Commission Docket No 30009-48-GR-8 (2008).* Natural gas utility weather normalization adjustment, test year billing determinants, revenues under existing and proposed rates, rate of return, revenue requirement, class cost of service study, and rate design.

- *Missouri Gas Energy, Missouri Public Service Commission Docket No. GR-2009-0355 (2009).* Natural gas utility depreciation rates.

- *Empire District Gas Company, Missouri Public Service Commission Docket No. GR-2009-0434 (2009).* Natural gas utility depreciation rates.

- *SourceGas Distribution, LLC, Nebraska Public Service Commission Docket No. NG-0060-RTS (2009).* Natural gas utility customer and usage trends and adjustments; weather normalization adjustment, customer change adjustment, use per customer adjustment, and inflation adjustment riders; and competitive factors.

- *Black Hills/Nebraska Gas Utility Company, LLC (f.k.a. Aquila Networks), Nebraska Public Service Commission Docket No. NG-0061 (2009).* Natural Gas Utility jurisdictional class cost of service study, rate design, weather normalization adjustment, and synchronization adjustment.

- *SourceGas Distribution, LLC, Wyoming Public Service Commission Docket No. 30022-148-GR-10 (2010).* Natural gas utility use per customer adjustment factor, inflation adjustment factor, and uncollectible accounts factor and competitive issues.

- *Black Hill/Iowa Gas Utility Company, LLC (f.k.a. Aquila Networks), Iowa Utilities Board Docket No. RPU-2010-0002 (2010).* Natural gas utility class cost of service study, rate design, weather normalization adjustment, grain dryer adjustment, annualization adjustment, ethanol plant adjustment, and synchronization adjustment.

- *The Empire District Electric Company, Missouri Public Service Commission Docket No. ER-2011-0004 (2010).* Electric utility depreciation rates.

- *The Empire District Electric Company, Corporation Commission of Oklahoma Cause No. PUD 201100082 (2011).* Electric utility depreciation rates.

- *SourceGas Distribution, LLC, Public Service Commission of the State of Nebraska Docket No. NG-67 (2011).* Natural gas utility jurisdictional and class cost of service study, rate design, customer adjustment factor rider, use per customer adjustment factor rider, and competitive issues.

- Interstate Power and Light Company, Iowa Utilities Board Docket No. RPU-2012-0002 (2012). Natural gas utility weather normalization adjustment and class cost of service study.

- *The Empire District Electric Company, Missouri Public Service Commission Docket No. ER-2012-0345 (2012).* Electric utility depreciation rates.

- *Rocky Mountain Natural Gas Company LLC, Public Utilities Commission of the State of Colorado Docket No. 13AL-0067G (2013).* Intrastate natural gas pipeline cost of service study and rate design.

- *Rocky Mountain Natural Gas Company LLC, Public Utilities Commission of the State of Colorado Docket No. 13AL-067G (2013).* Safety and System Integrity Rider (SSIR).

- *SourceGas Distribution LLC, Public Utilities Commission of the State of Colorado Docket No. 13AL-143G (2013).* Tariff provisions to incorporate Docket No. 13AL-0067G unbundling and tariff changes.

Black Hills Energy - KGO
Heating Degree-Days Summary

Exhibit TJS-2
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Line No.	Month	Year	Goodland Renner Field	Dodge City	Garden City Exp. Station	Liberal	Hutchinson 10 SW	Wichita Mid-Continent	Topeka
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1	1981-2010 NOAA Normal HDDs								
2	January		1,096	1,018	1,073	959	1,076	1,017	1,114
3	February		914	815	872	774	840	780	878
4	March		758	640	687	609	646	577	649
5	April		480	352	399	325	345	291	332
6	May		211	115	146	104	109	80	108
7	June		37	13	20	11	8	6	11
8	July		4	1	1	1	1	0	0
9	August		8	3	4	2	3	1	3
10	September		112	61	73	53	58	42	64
11	October		416	291	336	273	294	243	317
12	November		779	658	705	628	662	590	653
13	December		1,088	1,000	1,041	951	1,035	967	1,049
14	Total		5,903	4,967	5,357	4,690	5,077	4,594	5,178
15	Actual Annual Averages								
16		2013	6,083	5,294	5,571	5,239	5,578	4,867	5,318
17		2012	5,015	4,190	4,520	4,146	4,108	3,507	3,778
18		2011	5,943	5,035	5,522	4,862	4,988	4,548	5,014
19		2012-13	5,549	4,742	5,046	4,693	4,843	4,187	4,548
20		2011-13	5,680	4,840	5,204	4,749	4,891	4,307	4,703
21		2010-13	5,695	4,860	5,193	4,684	4,910	4,337	4,773
22		2009-13	5,759	4,882	5,230	4,691	4,958	4,378	4,810
23		2008-13	5,791	4,897	5,254	4,692	5,023	4,498	4,901
24		2007-13	5,833	4,890	5,271	4,687	5,025	4,522	4,882
25		2006-13	5,787	4,813	5,211	4,611	4,938	4,430	4,800
26	Difference - Actual from Normal								
27		2013	3.0%	6.6%	4.0%	11.7%	9.9%	5.9%	2.7%
28		13 mo, 2013	2.9%	4.6%	2.5%	9.5%	6.9%	2.7%	-0.4%
29		2012	-15.0%	-15.6%	-15.6%	-11.6%	-19.1%	-23.7%	-27.0%
30		2011	0.7%	1.4%	3.1%	3.7%	-1.8%	-1.0%	-3.2%
31		2012-13	-6.0%	-4.5%	-5.8%	0.1%	-4.6%	-8.9%	-12.2%
32		2011-13	-3.8%	-2.6%	-2.8%	1.3%	-3.7%	-6.2%	-9.2%
33		2010-13	-3.5%	-2.1%	-3.1%	-0.1%	-3.3%	-5.6%	-7.8%
34		2009-13	-2.4%	-1.7%	-2.4%	0.0%	-2.3%	-4.7%	-7.1%
35		2008-13	-1.9%	-1.4%	-1.9%	0.0%	-1.1%	-2.1%	-5.3%
36		2007-13	-1.2%	-1.6%	-1.6%	-0.1%	-1.0%	-1.6%	-5.7%
37		2006-13	-2.0%	-3.1%	-2.7%	-1.7%	-2.7%	-3.6%	-7.3%

38 Note: Data taken from July Kansas Climatological Data - Monthly and Seasonal Heating Degree Days prior to July 2013
39 After July 2013, data taken from NOAA Online Weather Data

Black Hills Energy - KGO
Summary of Statistical Results from Heating
Degree Day Regression Analysis

Line No.	[A] Description	[B] Annual HDDs	[C] 2004-2013	[D] 2005-2013	[E] 2006-2013	[F] 2007-2013	[G] 2008-2013	[H] 2009-2013	[I] 2010-2013	[J] 2011-2013	[K] 2012-2013	[L] 2013	[M] Comments
1	**Residential**												
2	Weather Station - Dodge City												
3	Constant		1.1078	1.0945	1.0778	1.0612	1.0394	1.0383	1.0218	1.0473	1.1084	1.0812	
4	Current Month's HDD		0.0042	0.0043	0.0041	0.0041	0.0042	0.0042	0.0040	0.0041	0.0037	0.0044	
5	Previous Month's HDD		0.0078	0.0076	0.0078	0.0078	0.0077	0.0078	0.0079	0.0077	0.0079	0.0073	
6	Adjusted R Squared		0.9719	0.9727	0.9757	0.9757	0.9749	0.9745	0.9754	0.9742	0.9696	0.9587	
7	F		2,059.0038	1,910.5883	1,910.7383	1,668.8150	1,379.0497	1,129.0830	931.0032	661.0427	367.7302	128.6284	
8	1981 - 2010 NOAA Normal	4,967											
9	Predicted Normal Use/Customer - dekatherms		72.78	72.40	71.85	72.13	71.73	72.06	71.52	71.20	70.73	71.24	L3 x 12 + (L4 + L5) * Column B, L8
10	Predicted Peak Day Use/Customer - dekatherms		0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.86	0.85	0.86	(L3 x 12) / 365 + (L4 * Note(1) + L5 x Note(1))
11	Load Factor		22.79%	22.77%	22.74%	22.66%	22.61%	22.59%	22.56%	22.66%	22.91%	22.78%	L9 / 365 / L10
12	Time Period Used							XXXXX					
13	Weather Station - Garden City												
14	Constant		0.9778	0.9678	0.9516	0.9284	0.9096	0.9143	0.9017	0.9138	0.9902	0.9514	
15	Current Month's HDD		0.0035	0.0035	0.0034	0.0034	0.0035	0.0035	0.0033	0.0035	0.0031	0.0041	
16	Previous Month's HDD		0.0078	0.0077	0.0077	0.0077	0.0077	0.0077	0.0079	0.0075	0.0078	0.0070	
17	Adjusted R Squared		0.9668	0.9694	0.9717	0.9712	0.9691	0.9684	0.9682	0.9656	0.9639	0.9564	
18	F		1,732.7164	1,695.3568	1,629.8342	1,398.7734	1,113.6353	904.6845	716.3901	492.1626	308.0500	121.5916	
19	1981 - 2010 NOAA Normal	5,357											
20	Predicted Normal Use/Customer - dekatherms		71.83	71.27	70.76	71.01	70.97	70.86	70.50	69.98	70.01	70.92	L14 x 12 + (L15 + L16) * Column B, L19
21	Predicted Peak Day Use/Customer - dekatherms		0.82	0.81	0.81	0.81	0.81	0.81	0.81	0.80	0.79	0.81	(L14 x 12) / 365 + (L15 * Note(1) + L16 x Note(1))
22	Load Factor		24.08%	24.07%	24.03%	23.93%	23.87%	23.89%	23.86%	23.93%	24.21%	24.02%	L20 / 365 / L21
23	Time Period Used							XXXXX					
24	Weather Station - Goodland												
25	Constant		0.9390	0.9166	0.8983	0.8762	0.8346	0.8350	0.8118	0.8436	0.8990	0.8618	
26	Current Month's HDD		0.0017	0.0017	0.0016	0.0016	0.0017	0.0018	0.0016	0.0020	0.0015	0.0025	
27	Previous Month's HDD		0.0109	0.0108	0.0108	0.0109	0.0109	0.0109	0.0110	0.0105	0.0107	0.0101	
28	Adjusted R Squared		0.9766	0.9771	0.9789	0.9786	0.9781	0.9768	0.9759	0.9759	0.9735	0.9733	
29	F		2,485.1335	2,282.2911	2,204.6200	1,900.9132	1,582.9044	1,242.4878	954.1778	709.0608	422.8646	201.5793	
30	1981 - 2010 NOAA Normal	5,903											
31	Predicted Normal Use/Customer - dekatherms		85.35	84.88	84.30	84.44	84.72	84.75	84.07	83.84	83.31	84.40	L25 x 12 + (L26 + L27) * Column B, L30
32	Predicted Peak Day Use/Customer - dekatherms		0.91	0.91	0.90	0.91	0.91	0.91	0.91	0.90	0.89	0.91	(L25 x 12) / 365 + (L26 * Note(1) + L27 x Note(1))
33	Load Factor		25.71%	25.66%	25.62%	25.55%	25.41%	25.41%	25.36%	25.47%	25.66%	25.51%	L31 / 365 / L32
34	Time Period Used							XXXXX					
35	Weather Station - Hutchinson												
36	Constant		1.1445	1.1190	1.0527	1.0050	0.9562	0.9503	0.9571	1.0260	1.1610	1.0800	
37	Current Month's HDD		0.0012	0.0011	0.0008	0.0008	0.0011	0.0010	0.0010	0.0008	0.0006	0.0021	
38	Previous Month's HDD		0.0130	0.0129	0.0133	0.0134	0.0132	0.0132	0.0131	0.0128	0.0123	0.0110	
39	Adjusted R Squared		0.9679	0.9729	0.9729	0.9732	0.9733	0.9718	0.9717	0.9722	0.9718	0.9701	
40	F		1,793.1045	1,660.6605	1,706.4912	1,506.8270	1,295.7028	1,017.5179	808.1230	612.4285	396.6017	179.5194	
41	1981 - 2010 NOAA Normal	5,077											
42	Predicted Normal Use/Customer - dekatherms		85.58	84.94	83.87	84.10	83.87	83.43	82.87	81.52	79.69	79.42	L36 x 12 + (L37 + L38) * Column B, L41
43	Predicted Peak Day Use/Customer - dekatherms		1.03	1.02	1.02	1.03	1.03	1.02	1.02	0.99	0.94	0.95	(L36 x 12) / 365 + (L37 * Note(1) + L38 x Note(1))
44	Load Factor		22.80%	22.75%	22.60%	22.45%	22.32%	22.31%	22.35%	22.61%	23.11%	22.86%	L42 / 365 / L43
45	Time Period Used							XXXXX					

Black Hills Energy - KGO
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Line No.	[A] Description	[B] Annual HDDs	[C] 2004-2013	[D] 2005-2013	[E] 2006-2013	[F] 2007-2013	[G] 2008-2013	[H] 2009-2013	[I] 2010-2013	[J] 2011-2013	[K] 2012-2013	[L] 2013	[M] Comments
46	Weather Station - Topeka (Lawrence)												
47	Constant		0.7741	0.7646	0.7613	0.7364	0.7110	0.7123	0.7117	0.7449	0.8436	0.7709	
48	Current Month's HDD		0.0031	0.0030	0.0028	0.0026	0.0026	0.0025	0.0023	0.0017	0.0009	0.0016	
49	Previous Month's HDD		0.0087	0.0087	0.0089	0.0092	0.0092	0.0092	0.0094	0.0098	0.0104	0.0101	
50	Adjusted R Squared		0.9728	0.9739	0.9758	0.9768	0.9767	0.9747	0.9750	0.9799	0.9800	0.9779	
51	F		2,129.4216	2,001.1927	1,918.9760	1,750.9627	1,487.6756	1,139.4836	917.4750	854.8773	564.4602	244.5765	
52	1981 - 2010 NOAA Normal	5,178											
53	Predicted Normal Use/Customer - dekatherms		70.35	70.03	69.59	69.94	69.65	69.42	68.90	68.20	68.58	69.94	L47 x 12 + (L48 + L49) * Column B, L52
54	Predicted Peak Day Use/Customer - dekatherms		0.85	0.85	0.84	0.85	0.85	0.85	0.84	0.83	0.82	0.85	(L47 x 12) / 365 + (L48 * Note(1) + L49 x Note(1))
55	Load Factor		22.65%	22.63%	22.64%	22.54%	22.46%	22.47%	22.49%	22.63%	22.97%	22.66%	L53 / 365 / L54
56	Time Period Used							XXXXX					
57	Weather Station - Liberal												
58	Constant		1.1953	1.1665	1.1427	1.1042	1.0861	1.0926	1.0792	1.0913	1.1743	1.1665	
59	Current Month's HDD		0.0034	0.0034	0.0033	0.0034	0.0035	0.0034	0.0031	0.0031	0.0027	0.0036	
60	Previous Month's HDD		0.0089	0.0088	0.0088	0.0089	0.0087	0.0087	0.0090	0.0086	0.0087	0.0079	
61	Adjusted R Squared		0.9695	0.9706	0.9724	0.9711	0.9708	0.9692	0.9707	0.9697	0.9691	0.9617	
62	F		1,890.2040	1,767.1247	1,676.1007	1,397.2332	1,180.8558	928.6844	780.8440	560.2002	362.2621	139.0926	
63	1981 - 2010 NOAA Normal	4,690											
64	Predicted Normal Use/Customer - dekatherms		72.07	71.36	70.67	70.63	70.14	70.01	69.35	68.27	67.65	68.11	L58 x 12 + (L59 + L60) * Column B, L63
65	Predicted Peak Day Use/Customer - dekatherms		0.90	0.89	0.89	0.89	0.89	0.89	0.88	0.86	0.84	0.85	(L58 x 12) / 365 + (L59 * Note(1) + L60 x Note(1))
66	Load Factor		21.92%	21.86%	21.81%	21.68%	21.64%	21.67%	21.66%	21.76%	22.12%	22.06%	L64 / 365 / L65
67	Time Period Used							XXXXX					
68	Weather Station - Wichita												
69	Constant		0.9771	0.9650	0.9730	0.9417	0.9332	0.9523	0.9610	0.9979	1.0821	1.0205	
70	Current Month's HDD		0.0042	0.0041	0.0039	0.0038	0.0040	0.0037	0.0036	0.0035	0.0030	0.0038	
71	Previous Month's HDD		0.0087	0.0087	0.0089	0.0091	0.0089	0.0093	0.0094	0.0093	0.0096	0.0092	
72	Adjusted R Squared		0.9727	0.9737	0.9759	0.9759	0.9766	0.9795	0.9805	0.9788	0.9752	0.9691	
73	F		2,124.0618	1,978.6801	1,927.5581	1,680.3029	1,480.6473	1,407.4538	1,180.8805	807.9385	454.0827	173.5208	
74	1981 - 2010 NOAA Normal	4,594											
75	Predicted Normal Use/Customer - dekatherms		71.04	70.64	70.25	70.41	70.54	71.38	71.35	70.63	70.66	71.96	L69 x 12 + (L70 + L71) * Column B, L74
76	Predicted Peak Day Use/Customer - dekatherms		0.94	0.93	0.92	0.93	0.93	0.94	0.94	0.93	0.91	0.94	(L69 x 12) / 365 + (L70 * Note(1) + L71 x Note(1))
77	Load Factor		20.80%	20.77%	20.82%	20.71%	20.67%	20.70%	20.73%	20.88%	21.17%	20.90%	L75 / 365 / L76
78	Time Period Used							XXXXX					
79	**SC, SV, and LV**												
80	Weather Station - Dodge City												
81	Constant		7.6585	7.7159	7.7876	7.6975	7.5435	7.4671	7.5034	7.6570	8.3178	8.1367	
82	Current Month's HDD		0.0103	0.0107	0.0098	0.0102	0.0109	0.0110	0.0094	0.0097	0.0064	0.0079	
83	Previous Month's HDD		0.0318	0.0312	0.0319	0.0319	0.0316	0.0319	0.0335	0.0326	0.0334	0.0330	
84	Adjusted R Squared		0.9527	0.9533	0.9566	0.9569	0.9628	0.9615	0.9599	0.9567	0.9548	0.9461	
85	F		1,199.6797	1,094.1866	1,049.1710	921.7560	919.7272	737.6963	563.1488	387.3220	243.7415	97.5793	
86	1981 - 2010 NOAA Normal	4,967											
87	Predicted Normal Use/Customer - dekatherms		301.01	300.93	300.34	301.33	301.68	302.49	303.17	302.26	297.92	300.99	L81 x 12 + (L82 + L83) * Column B, L86
88	Predicted Peak Day Use/Customer - dekatherms		3.20	3.19	3.17	3.20	3.22	3.25	3.25	3.22	3.07	3.13	(L81 x 12) / 365 + (L82 * Note(1) + L83 x Note(1))
89	Load Factor		25.78%	25.85%	25.94%	25.82%	25.64%	25.53%	25.55%	25.75%	26.63%	26.32%	L87 / 365 / L88
90	Time Period Used							XXXXX					

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Line No.	[A] Description	[B] Annual HDDs	[C] 2004-2013	[D] 2005-2013	[E] 2006-2013	[F] 2007-2013	[G] 2008-2013	[H] 2009-2013	[I] 2010-2013	[J] 2011-2013	[K] 2012-2013	[L] 2013	[M] Comments
91	Weather Station - Garden City												
92	Constant		3.0372	2.9482	2.8736	2.8592	2.7402	2.8186	2.9191	3.0117	3.3049	3.4460	
93	Current Month's HDD		0.0134	0.0133	0.0132	0.0136	0.0142	0.0138	0.0128	0.0137	0.0133	0.0177	
94	Previous Month's HDD		0.0267	0.0268	0.0270	0.0272	0.0270	0.0275	0.0285	0.0278	0.0283	0.0255	
95	Adjusted R Squared		0.9611	0.9614	0.9619	0.9640	0.9635	0.9634	0.9620	0.9600	0.9502	0.9491	
96	F		1,469.3303	1,331.7886	1,199.1772	1,112.7277	938.8091	778.0390	595.8458	420.5777	220.2559	103.4788	
97	1981 - 2010 NOAA Normal	5,357											
98	Predicted Normal Use/Customer - dekatherms		251.24	250.12	249.90	252.93	253.47	255.09	256.51	258.44	262.72	272.41	L92 x 12 + (L93 + L94) * Column B, L97
99	Predicted Peak Day Use/Customer - dekatherms		2.91	2.90	2.91	2.95	2.97	2.98	2.99	3.00	3.02	3.13	(L92 x 12) / 365 + (L93 * Note(1) + L94 x Note(1))
100	Load Factor		23.68%	23.61%	23.53%	23.48%	23.36%	23.42%	23.50%	23.57%	23.81%	23.83%	L98 / 365 / L99
101	Time Period Used							XXXXX					
102	Weather Station - Goodland												
103	Constant		2.4891	2.5306	2.5342	2.5714	2.4767	2.4961	2.6649	3.1818	3.4037	3.8225	
104	Current Month's HDD		0.0038	0.0041	0.0040	0.0045	0.0064	0.0068	0.0052	0.0075	0.0078	0.0145	
105	Previous Month's HDD		0.0315	0.0306	0.0304	0.0301	0.0287	0.0283	0.0293	0.0265	0.0266	0.0208	
106	Adjusted R Squared		0.9476	0.9549	0.9555	0.9554	0.9561	0.9526	0.9530	0.9598	0.9530	0.9606	
107	F		1,076.0388	1,133.2555	1,021.4104	889.8210	774.3605	593.2265	477.7032	418.6967	233.9511	135.1527	
108	1981 - 2010 NOAA Normal	5,903											
109	Predicted Normal Use/Customer - dekatherms		238.44	234.90	233.50	235.19	236.74	236.83	236.03	239.07	243.76	254.19	L103 x 12 + (L104 + L105) * Column B, L108
110	Predicted Peak Day Use/Customer - dekatherms		2.56	2.51	2.49	2.51	2.54	2.54	2.51	2.49	2.52	2.60	(L103 x 12) / 365 + (L104 * Note(1) + L105 x Note(1))
111	Load Factor		25.57%	25.65%	25.68%	25.70%	25.57%	25.59%	25.79%	26.34%	26.52%	26.83%	L109 / 365 / L110
112	Time Period Used							XXXXX					
113	Weather Station - Hutchinson												
114	Constant		1.6593	1.6914	1.6362	1.6340	1.4714	1.4241	1.6360	1.3041	2.0826	2.8810	
115	Current Month's HDD												Not a significant variable
116	Previous Month's HDD		0.0624	0.0634	0.0650	0.0664	0.0683	0.0708	0.0727	0.0763	0.0697	0.0568	
117	Adjusted R Squared		0.8914	0.8912	0.8974	0.9001	0.9019	0.9044	0.9040	0.8953	0.8539	0.9679	
118	F		977.7788	877.2915	831.6720	748.8575	653.4829	559.1335	443.6094	300.2006	135.4427	332.1638	
119	1981 - 2010 NOAA Normal	5,077											
120	Predicted Normal Use/Customer - dekatherms		336.55	341.94	349.57	356.56	364.64	376.34	388.93	403.09	378.94	322.86	L114 x 12 + (L115 + L116) * Column B, L119
121	Predicted Peak Day Use/Customer - dekatherms		4.42	4.49	4.60	4.70	4.83	5.00	5.15	5.38	4.95	4.07	(L114 x 12) / 365 + (L115 * Note(1) + L116 x Note(1))
122	Load Factor		20.86%	20.86%	20.81%	20.79%	20.67%	20.62%	20.71%	20.51%	20.98%	21.74%	L120 / 365 / L121
123	Time Period Used							XXXXX					
124	Weather Station - Topeka (Lawrence)												
125	Constant		5.1409	5.0823	5.0672	4.9673	4.8481	4.8141	4.8179	5.0339	5.3739	4.9760	
126	Current Month's HDD		0.0104	0.0101	0.0093	0.0087	0.0084	0.0078	0.0064	0.0042	0.0025	0.0047	
127	Previous Month's HDD		0.0306	0.0311	0.0319	0.0328	0.0333	0.0336	0.0344	0.0355	0.0366	0.0359	
128	Adjusted R Squared		0.9659	0.9685	0.9685	0.9710	0.9706	0.9698	0.9721	0.9738	0.9758	0.9701	
129	F		1,687.1393	1,461.2816	1,461.2816	1,391.0979	1,171.6419	947.9054	818.4678	650.7857	463.8510	179.3449	
130	1981 - 2010 NOAA Normal	5,178											
131	Predicted Normal Use/Customer - dekatherms		273.99	274.27	273.76	274.91	273.85	272.15	269.47	265.90	267.12	270.13	L125 x 12 + (L126 + L127) * Column B, L130
132	Predicted Peak Day Use/Customer - dekatherms		3.04	3.05	3.05	3.07	3.08	3.06	3.02	2.94	2.92	3.01	(L125 x 12) / 365 + (L126 * Note(1) + L127 x Note(1))
133	Load Factor		24.70%	24.63%	24.63%	24.50%	24.40%	24.40%	24.45%	24.75%	25.10%	24.60%	L131 / 365 / L132
134	Time Period Used							XXXXX					

Black Hills Energy - KGO
Summary of Statistical Results from Heating
Degree Day Regression Analysis

Line No.	[A] Description	[B] Annual HDDs	[C] 2004-2013	[D] 2005-2013	[E] 2006-2013	[F] 2007-2013	[G] 2008-2013	[H] 2009-2013	[I] 2010-2013	[J] 2011-2013	[K] 2012-2013	[L] 2013	[M] Comments
135	Weather Station - Liberal												
136	Constant		2.0561	2.0305	2.0187	1.9731	1.9568	2.0409	2.1885	2.3758	2.7111	2.9532	
137	Current Month's HDD		0.0067	0.0067	0.0065	0.0066	0.0069	0.0067	0.0061	0.0059	0.0049	0.0066	
138	Previous Month's HDD		0.0316	0.0315	0.0315	0.0318	0.0314	0.0316	0.0319	0.0312	0.0312	0.0299	
139	Adjusted R Squared		0.9650	0.9644	0.9646	0.9644	0.9634	0.9622	0.9645	0.9649	0.9650	0.9648	
140	F		1,641.1254	1,450.4514	1,297.1536	1,125.3227	935.9694	751.0253	639.5086	481.4539	317.8738	151.8002	
141	1981 - 2010 NOAA Normal	4,690											
142	Predicted Normal Use/Customer - dekatherms		204.06	203.44	202.53	203.81	203.17	204.07	204.62	202.43	201.73	206.54	L136 x 12 + (L137 + L138) * Column B, L141
143	Predicted Peak Day Use/Customer - dekatherms		2.74	2.74	2.73	2.75	2.75	2.75	2.73	2.67	2.61	2.65	(L136 x 12) / 365 + (L137 * Note(1) + L138 x Note(1))
144	Load Factor		20.37%	20.35%	20.34%	20.28%	20.27%	20.35%	20.50%	20.74%	21.14%	21.35%	L142 / 365 / L143
145	Time Period Used							XXXXX					
146	Weather Station - Wichita												
147	Constant		4.2227	4.1728	4.1954	3.9173	3.7879	3.9874	4.0338	4.0068	4.5138	3.9301	
148	Current Month's HDD		0.0199	0.0195	0.0179	0.0177	0.0182	0.0171	0.0167	0.0157	0.0134	0.0186	
149	Previous Month's HDD		0.0384	0.0382	0.0389	0.0395	0.0386	0.0393	0.0392	0.0391	0.0392	0.0365	
150	Adjusted R Squared		0.9564	0.9589	0.9649	0.9633	0.9643	0.9650	0.9662	0.9620	0.9568	0.9518	
151	F		1,306.2125	1,250.5391	1,308.3611	1,091.7628	959.4083	814.4607	672.2190	443.8446	255.8066	109.5816	
152	1981 - 2010 NOAA Normal	4,594											
153	Predicted Normal Use/Customer - dekatherms		318.42	315.14	311.25	309.58	306.40	307.03	305.23	300.04	295.72	300.19	L147 x 12 + (L148 + L149) * Column B, L152
154	Predicted Peak Day Use/Customer - dekatherms		4.22	4.18	4.11	4.13	4.10	4.08	4.05	3.97	3.83	3.98	(L147 x 12) / 365 + (L148 * Note(1) + L149 x Note(1))
155	Load Factor		20.68%	20.67%	20.73%	20.54%	20.47%	20.62%	20.67%	20.70%	21.16%	20.64%	L153 / 365 / L154
156	Time Period Used							XXXXX					

Notes: (1) Peak HDD used to calculate load factor:

Current	Previous
70.0	70.0

Black Hills Energy - KGO
Heating Adjustment

Line No.	[A] Customer Classification	[B] Weather Station	[C] 2013 Month	[D] HDD Current Month Actual	[E] HDD Current Month Normal (1)	[F] HDD Previous Month Actual	[G] HDD Previous Month Normal (1)	[H] Per Customer Adjustment therms/cust. (3)	[I] Test Year # of Cust.	[J] Volumetric Adjustment therms [H]X[I]	[K] Margin $/therms (4)	[L] Margin $ [J]X[K]	[M] Cost of Gas $/therms (4)	[N] Cost of Gas $ [J]X[M]	[O] Total Adjustment $ [L]+[N]
1	**Residential (KS001)**														
2															
3		Dodge City			0.0042	(2)	0.0078	(2)							
4			January	989	1,018	946	1,000	5.44	10,605	57,639	0.14524	8,371	0.4982	28,717	37,088
5			February	863	815	989	1,018	0.26	10,615	2,780	0.14524	404	0.4982	1,385	1,789
6			March	698	640	863	815	(6.18)	10,654	(65,818)	0.14524	(9,559)	0.4982	(32,792)	(42,352)
7			April	486	352	698	640	(10.14)	10,643	(107,879)	0.14524	(15,668)	0.4982	(53,748)	(69,416)
8			May	138	115	486	352	(11.44)	10,568	(120,905)	0.14524	(17,560)	0.4982	(60,238)	(77,798)
9			June	12	13	138	115	(1.76)	10,536	(18,511)	0.14524	(2,689)	0.4982	(9,223)	(11,911)
10			July	-	1	12	13	0.12	10,511	1,261	0.14524	183	0.4982	628	812
11			August	-	3	-	1	0.20	10,490	2,136	0.14524	310	0.4982	1,064	1,374
12			September	16	61	-	3	2.12	10,461	22,128	0.14524	3,214	0.4982	11,025	14,239
13			October	324	291	16	61	2.14	10,483	22,434	0.14524	3,258	0.4982	11,177	14,435
14			November	688	658	324	291	(3.83)	10,514	(40,316)	0.14524	(5,856)	0.4982	(20,087)	(25,942)
15			December	1,080	1,000	688	658	(5.69)	10,635	(60,509)	0.14524	(8,788)	0.4982	(30,147)	(38,935)
16			Total	5,294	4,967	5,160	4,967	(28.76)	10,560	(305,561)		(44,380)		(152,238)	(196,617)
17		Garden City			0.0035	(2)	0.0077	(2)							
18			January	1,059	1,073	985	1,041	4.80	17,467	83,908	0.14524	12,187	0.4982	41,805	53,992
19			February	887	872	1,059	1,073	0.56	17,465	9,768	0.14524	1,419	0.4982	4,866	6,285
20			March	734	687	887	872	(2.79)	17,490	(48,743)	0.14524	(7,079)	0.4982	(24,285)	(31,364)
21			April	541	399	734	687	(8.55)	17,529	(149,865)	0.14524	(21,766)	0.4982	(74,666)	(96,433)
22			May	167	146	541	399	(11.68)	17,410	(203,317)	0.14524	(29,530)	0.4982	(101,297)	(130,827)
23			June	15	20	167	146	(1.45)	17,393	(25,149)	0.14524	(3,653)	0.4982	(12,530)	(16,182)
24			July	-	1	15	20	0.42	17,310	7,274	0.14524	1,057	0.4982	3,624	4,681
25			August	-	4	-	1	0.22	17,260	3,726	0.14524	541	0.4982	1,856	2,397
26			September	19	73	-	4	2.18	17,191	37,501	0.14524	5,447	0.4982	18,684	24,131
27			October	338	336	19	73	4.09	17,177	70,333	0.14524	10,215	0.4982	35,042	45,257
28			November	714	705	338	336	(0.47)	17,295	(8,066)	0.14524	(1,172)	0.4982	(4,019)	(5,190)
29			December	1,097	1,041	714	705	(2.64)	17,463	(46,039)	0.14524	(6,687)	0.4982	(22,938)	(29,625)
30			Total	5,571	5,357	5,459	5,357	(15.29)	17,371	(268,668)		(39,021)		(133,857)	(172,878)
31		Goodland			0.0018	(2)	0.0109	(2)							
32			January	1,068	1,096	1,112	1,088	(2.10)	2,315	(4,872)	0.14524	(708)	0.4982	(2,428)	(3,135)
33			February	951	914	1,068	1,096	2.38	2,323	5,523	0.14524	802	0.4982	2,752	3,554
34			March	843	758	951	914	(5.55)	2,313	(12,826)	0.14524	(1,863)	0.4982	(6,390)	(8,253)
35			April	620	480	843	758	(11.75)	2,319	(27,242)	0.14524	(3,957)	0.4982	(13,572)	(17,529)
36			May	204	211	620	480	(15.08)	2,323	(35,039)	0.14524	(5,089)	0.4982	(17,457)	(22,547)
37			June	31	37	204	211	0.87	2,278	1,978	0.14524	287	0.4982	985	1,273
38			July	7	4	31	37	0.60	2,278	1,362	0.14524	198	0.4982	679	877
39			August	-	8	7	4	(0.18)	2,265	(413)	0.14524	(60)	0.4982	(206)	(266)
40			September	47	112	-	8	2.04	2,264	4,609	0.14524	669	0.4982	2,296	2,966
41			October	457	416	47	112	6.33	2,268	14,346	0.14524	2,084	0.4982	7,148	9,231
42			November	762	779	457	416	(4.15)	2,292	(9,510)	0.14524	(1,381)	0.4982	(4,738)	(6,119)
43			December	1,093	1,088	762	779	1.76	2,305	4,050	0.14524	588	0.4982	2,018	2,606
44			Total	6,083	5,903	6,102	5,903	(24.85)	2,295	(58,034)		(8,429)		(28,914)	(37,342)
45		Hutchinson			0.0010	(2)	0.0132	(2)							
46			January	1,027	1,076	954	1,035	11.16	666	7,435	0.14524	1,080	0.4982	3,704	4,784
47			February	969	840	1,027	1,076	5.13	666	3,414	0.14524	496	0.4982	1,701	2,197
48			March	827	646	969	840	(18.83)	667	(12,563)	0.14524	(1,825)	0.4982	(6,259)	(8,084)
49			April	481	345	827	646	(25.22)	665	(16,769)	0.14524	(2,436)	0.4982	(8,355)	(10,790)
50			May	156	109	481	345	(18.38)	669	(12,297)	0.14524	(1,786)	0.4982	(6,127)	(7,913)
51			June	13	8	156	109	(6.24)	665	(4,148)	0.14524	(602)	0.4982	(2,066)	(2,669)
52			July	3	1	13	8	(0.68)	665	(451)	0.14524	(66)	0.4982	(225)	(290)
53			August	-	3	3	1	(0.23)	664	(154)	0.14524	(22)	0.4982	(77)	(99)
54			September	13	58	-	3	0.86	664	569	0.14524	83	0.4982	283	366
55			October	295	294	13	58	5.91	665	3,932	0.14524	571	0.4982	1,959	2,530
56			November	692	662	295	294	(0.44)	668	(294)	0.14524	(43)	0.4982	(146)	(189)
57			December	1,102	1,035	692	662	(4.64)	673	(3,120)	0.14524	(453)	0.4982	(1,554)	(2,008)
58			Total	5,578	5,077	5,430	5,077	(51.60)	666	(34,447)		(5,003)		(17,162)	(22,166)
59		Topeka (Lawrence)			0.0025	(2)	0.0092	(2)							
60			January	940	1,114	881	1,049	19.90	31,339	623,717	0.14524	90,589	0.4982	310,751	401,339
61			February	849	878	940	1,114	16.80	31,357	526,940	0.14524	76,533	0.4982	262,534	339,067
62			March	764	649	849	878	(0.22)	31,458	(6,838)	0.14524	(993)	0.4982	(3,407)	(4,400)
63			April	442	332	764	649	(13.39)	31,488	(421,757)	0.14524	(61,256)	0.4982	(210,129)	(271,385)
64			May	133	108	442	332	(10.79)	31,597	(340,978)	0.14524	(49,524)	0.4982	(169,883)	(219,407)
65			June	5	11	133	108	(2.16)	31,725	(68,475)	0.14524	(9,945)	0.4982	(34,116)	(44,061)
66			July	2	-	5	11	0.50	31,590	15,918	0.14524	2,312	0.4982	7,931	10,243
67			August	-	3	2	-	(0.11)	32,491	(3,548)	0.14524	(515)	0.4982	(1,768)	(2,283)
68			September	21	64	-	3	1.36	31,633	43,025	0.14524	6,249	0.4982	21,436	27,685
69			October	325	317	21	64	3.77	31,280	117,952	0.14524	17,131	0.4982	58,767	75,898
70			November	711	653	325	317	(2.20)	31,447	(69,178)	0.14524	(10,047)	0.4982	(34,466)	(44,514)
71			December	1,126	1,049	711	653	(7.30)	31,660	(231,035)	0.14524	(33,556)	0.4982	(115,107)	(148,663)
72			Total	5,318	5,178	5,073	5,178	6.17	31,589	185,744		26,977		92,542	119,520
73		Liberal			0.0034	(2)	0.0087	(2)							
74			January	993	959	939	951	(0.11)	6,522	(728)	0.14524	(106)	0.4982	(363)	(469)
75			February	857	774	993	959	(5.79)	6,535	(37,865)	0.14524	(5,500)	0.4982	(18,865)	(24,365)
76			March	679	609	857	774	(9.63)	6,561	(63,156)	0.14524	(9,173)	0.4982	(31,466)	(40,638)
77			April	513	325	679	609	(12.51)	6,535	(81,769)	0.14524	(11,876)	0.4982	(40,739)	(52,616)
78			May	134	104	513	325	(17.42)	6,515	(113,510)	0.14524	(16,486)	0.4982	(56,553)	(73,040)
79			June	7	11	134	104	(2.48)	6,485	(16,088)	0.14524	(2,337)	0.4982	(8,016)	(10,352)
80			July	-	1	7	11	0.38	6,479	2,482	0.14524	360	0.4982	1,236	1,597
81			August	-	2	-	1	0.16	6,451	1,002	0.14524	146	0.4982	499	645
82			September	12	53	-	2	1.57	6,432	10,108	0.14524	1,468	0.4982	5,036	6,504
83			October	294	273	12	53	2.86	6,449	18,452	0.14524	2,680	0.4982	9,193	11,873
84			November	688	628	294	273	(3.88)	6,487	(25,146)	0.14524	(3,652)	0.4982	(12,529)	(16,181)
85			December	1,062	951	688	628	(9.02)	6,507	(58,670)	0.14524	(8,521)	0.4982	(29,231)	(37,752)
86			Total	5,239	4,690	5,116	4,690	(55.87)	6,497	(364,889)		(52,997)		(181,797)	(234,793)

Line No.	[A] Customer Classification	[B] Weather Station	[C] 2013 Month	[D] HDD Current Month Actual	[E] HDD Current Month Normal (1)	[F] HDD Previous Month Actual	[G] HDD Previous Month Normal (1)	[H] Per Customer Adjustment therms/cust. (3)	[I] Test Year # of Cust.	[J] Volumetric Adjustment therms [H]X[I]	[K] Margin $/therms	[L] Margin $ [J]X[K]	[M] Cost of Gas $/therms (4)	[N] Cost of Gas $ [J]X[M]	[O] Total Adjustment $ [L]+[N]
87	**Residential Cont.**														
88		Wichita			0.0037	(2)	0.0093	(2)							
89			January	891	1,017	845	967	16.07	29,928	480,980	0.14524	69,857	0.4982	239,635	309,493
90			February	816	780	891	1,017	10.39	29,992	311,505	0.14524	45,243	0.4982	155,199	200,442
91			March	666	577	816	780	(6.68)	30,089	(200,993)	0.14524	(29,192)	0.4982	(100,139)	(129,331)
92			April	421	291	666	577	(13.15)	30,103	(395,795)	0.14524	(57,485)	0.4982	(197,194)	(254,680)
93			May	116	80	421	291	(13.45)	29,954	(402,909)	0.14524	(58,518)	0.4982	(200,739)	(259,257)
94			June	3	6	116	80	(3.24)	29,896	(96,861)	0.14524	(14,068)	0.4982	(48,258)	(62,327)
95			July	1	-	3	6	0.24	29,807	7,212	0.14524	1,047	0.4982	3,593	4,641
96			August	-	1	1	-	(0.06)	29,752	(1,658)	0.14524	(241)	0.4982	(826)	(1,067)
97			September	4	42	-	1	1.51	29,668	44,917	0.14524	6,524	0.4982	22,379	28,902
98			October	248	243	4	42	3.35	29,712	99,576	0.14524	14,462	0.4982	49,611	64,074
99			November	631	590	248	243	(2.00)	29,847	(59,653)	0.14524	(8,664)	0.4982	(29,720)	(38,384)
100			December	1,070	967	631	590	(7.67)	30,072	(230,622)	0.14524	(33,495)	0.4982	(114,901)	(148,397)
101			Total	4,867	4,594	4,642	4,594	(14.68)	29,902	(444,300)		(64,530)		(221,361)	(285,891)
102	**Small Commercial (KS050, KS052, KS055)**														
103		Dodge City			0.0110	(2)	0.0319	(2)							
104			January	989	1,018	946	1,000	20.40	1,019	20,785	0.14524	3,019	0.4961	10,312	13,330
105			February	863	815	989	1,018	3.97	1,033	4,098	0.14524	595	0.4961	2,033	2,628
106			March	698	640	863	815	(21.67)	1,011	(21,911)	0.14524	(3,182)	0.4961	(10,870)	(14,053)
107			April	486	352	698	640	(33.21)	1,039	(34,507)	0.14524	(5,012)	0.4961	(17,120)	(22,132)
108			May	138	115	486	352	(45.23)	1,028	(46,500)	0.14524	(6,754)	0.4961	(23,070)	(29,823)
109			June	12	13	138	115	(7.22)	1,030	(7,437)	0.14524	(1,080)	0.4961	(3,690)	(4,770)
110			July	-	1	12	13	0.43	994	426	0.14524	62	0.4961	211	273
111			August	-	3	-	1	0.65	1,020	661	0.14524	96	0.4961	328	424
112			September	16	61	-	3	5.90	1,015	5,990	0.14524	870	0.4961	2,972	3,842
113			October	324	291	16	61	10.71	1,012	10,843	0.14524	1,575	0.4961	5,380	6,954
114			November	688	658	324	291	(13.81)	1,026	(14,173)	0.14524	(2,059)	0.4961	(7,032)	(9,090)
115			December	1,080	1,000	688	658	(18.35)	1,010	(18,537)	0.14524	(2,692)	0.4961	(9,197)	(11,889)
116			Total	5,294	4,967	5,160	4,967	(97.45)	1,020	(100,262)		(14,562)		(49,742)	(64,304)
117		Garden City			0.0138	(2)	0.0275	(2)							
118			January	1,059	1,073	985	1,041	17.32	1,941	33,611	0.14524	4,882	0.4961	16,675	21,557
119			February	887	872	1,059	1,073	1.77	1,971	3,485	0.14524	506	0.4961	1,729	2,235
120			March	734	687	887	872	(10.63)	1,970	(20,932)	0.14524	(3,040)	0.4961	(10,385)	(13,425)
121			April	541	399	734	687	(32.56)	1,968	(64,085)	0.14524	(9,308)	0.4961	(31,794)	(41,101)
122			May	167	146	541	399	(41.90)	1,959	(82,086)	0.14524	(11,922)	0.4961	(40,725)	(52,647)
123			June	15	20	167	146	(5.07)	1,961	(9,952)	0.14524	(1,445)	0.4961	(4,937)	(6,383)
124			July	-	1	15	20	1.51	1,960	2,963	0.14524	430	0.4961	1,470	1,900
125			August	-	4	-	1	0.83	1,946	1,612	0.14524	234	0.4961	800	1,034
126			September	19	73	-	4	8.57	1,949	16,710	0.14524	2,427	0.4961	8,290	10,717
127			October	338	336	19	73	14.55	1,949	28,362	0.14524	4,119	0.4961	14,071	18,191
128			November	714	705	338	336	(1.80)	1,945	(3,491)	0.14524	(507)	0.4961	(1,732)	(2,239)
129			December	1,097	1,041	714	705	(10.22)	1,968	(20,120)	0.14524	(2,922)	0.4961	(9,982)	(12,904)
130			Total	5,571	5,357	5,459	5,357	(57.63)	1,957	(113,923)		(16,546)		(56,519)	(73,065)
131		Goodland			0.0068	(2)	0.0283	(2)							
132			January	1,068	1,096	1,112	1,088	(4.89)	331	(1,619)	0.14524	(235)	0.4961	(803)	(1,038)
133			February	951	914	1,068	1,096	5.41	343	1,857	0.14524	270	0.4961	921	1,191
134			March	843	758	951	914	(16.22)	345	(5,595)	0.14524	(813)	0.4961	(2,776)	(3,588)
135			April	620	480	843	758	(33.51)	343	(11,495)	0.14524	(1,669)	0.4961	(5,703)	(7,372)
136			May	204	211	620	480	(39.11)	342	(13,377)	0.14524	(1,943)	0.4961	(6,636)	(8,579)
137			June	31	37	204	211	2.39	337	804	0.14524	117	0.4961	399	516
138			July	7	4	31	37	1.49	336	502	0.14524	73	0.4961	249	322
139			August	-	8	7	4	(0.31)	334	(102)	0.14524	(15)	0.4961	(51)	(66)
140			September	47	112	-	8	6.66	334	2,225	0.14524	323	0.4961	1,104	1,427
141			October	457	416	47	112	15.60	334	5,212	0.14524	757	0.4961	2,586	3,343
142			November	762	779	457	416	(10.44)	335	(3,498)	0.14524	(508)	0.4961	(1,736)	(2,244)
143			December	1,093	1,088	762	779	4.47	335	1,497	0.14524	217	0.4961	743	960
144			Total	6,083	5,903	6,102	5,903	(68.45)	337	(23,589)		(3,426)		(11,703)	(15,129)
145		Hutchinson			-	(2)	0.0708	(2)							
146			January	1,027	1,076	954	1,035	57.32	55	3,152	0.14524	458	0.4961	1,564	2,022
147			February	969	840	1,027	1,076	34.67	59	2,046	0.14524	297	0.4961	1,015	1,312
148			March	827	646	969	840	(91.28)	60	(5,477)	0.14524	(795)	0.4961	(2,717)	(3,513)
149			April	481	345	827	646	(128.08)	59	(7,557)	0.14524	(1,098)	0.4961	(3,749)	(4,846)
150			May	156	109	481	345	(96.23)	57	(5,485)	0.14524	(797)	0.4961	(2,721)	(3,518)
151			June	13	8	156	109	(33.26)	55	(1,829)	0.14524	(266)	0.4961	(907)	(1,173)
152			July	3	1	13	8	(3.54)	55	(195)	0.14524	(28)	0.4961	(97)	(125)
153			August	-	3	3	1	(1.42)	53	(75)	0.14524	(11)	0.4961	(37)	(48)
154			September	13	58	-	3	2.12	55	117	0.14524	17	0.4961	58	75
155			October	295	294	13	58	31.84	55	1,751	0.14524	254	0.4961	869	1,123
156			November	692	662	295	294	(0.71)	54	(38)	0.14524	(6)	0.4961	(19)	(25)
157			December	1,102	1,035	692	662	(21.23)	54	(1,146)	0.14524	(166)	0.4961	(569)	(735)
158			Total	5,578	5,077	5,430	5,077	(249.78)	56	(14,736)		(2,140)		(7,311)	(9,451)
159		Topeka (Lawrence)			0.0078	(2)	0.0336	(2)							
160			January	940	1,114	881	1,049	70.02	1,973	138,157	0.14524	20,066	0.4961	68,543	88,609
161			February	849	878	940	1,114	60.70	2,033	123,405	0.14524	17,923	0.4961	61,224	79,147
162			March	764	649	849	878	0.75	2,041	1,524	0.14524	221	0.4961	756	978
163			April	442	332	764	649	(47.22)	2,063	(97,417)	0.14524	(14,149)	0.4961	(48,330)	(62,479)
164			May	133	108	442	332	(38.90)	2,063	(80,241)	0.14524	(11,654)	0.4961	(39,809)	(51,464)
165			June	5	11	133	108	(7.93)	2,045	(16,210)	0.14524	(2,354)	0.4961	(8,042)	(10,396)
166			July	2	-	5	11	1.86	2,034	3,780	0.14524	549	0.4961	1,875	2,425
167			August	-	3	2	-	(0.44)	2,045	(894)	0.14524	(130)	0.4961	(443)	(573)
168			September	21	64	-	3	4.37	2,054	8,975	0.14524	1,304	0.4961	4,453	5,756
169			October	325	317	21	64	13.81	2,075	28,666	0.14524	4,163	0.4961	14,222	18,385
170			November	711	653	325	317	(7.22)	2,082	(15,036)	0.14524	(2,184)	0.4961	(7,459)	(9,643)
171			December	1,126	1,049	711	653	(25.50)	2,149	(54,796)	0.14524	(7,959)	0.4961	(27,186)	(35,144)
172			Total	5,318	5,178	5,073	5,178	24.31	2,055	39,915		5,797		19,802	25,600

Line No.	[A] Customer Classification	[B] Weather Station	[C] 2005-2006 Month	[D] HDD Current Month Actual	[E] HDD Current Month Normal (1)	[F] HDD Previous Month Actual	[G] HDD Previous Month Normal (1)	[H] Per Customer Adjustment therms/cust. (3)	[I] Test Year # of Cust.	[J] Volumetric Adjustment therms [H]X[I]	[K] Margin $/therms	[L] Margin $ [J]X[K]	[M] Cost of Gas $/therms (4)	[N] Cost of Gas $ [J]X[M]	[O] Total Adjustment $ [L]+[N]
173	**Small Commercial Cont.**														
174		Liberal			0.0067	(2)	0.0316	(2)							
175			January	993	959	939	951	1.51	770	1,163	0.14524	169	0.4961	577	746
176			February	857	774	993	959	(16.30)	775	(12,635)	0.14524	(1,835)	0.4961	(6,269)	(8,104)
177			March	679	609	857	774	(30.91)	779	(24,078)	0.14524	(3,497)	0.4961	(11,945)	(15,442)
178			April	513	325	679	609	(34.71)	774	(26,868)	0.14524	(3,902)	0.4961	(13,330)	(17,232)
179			May	134	104	513	325	(61.39)	768	(47,148)	0.14524	(6,848)	0.4961	(23,391)	(30,239)
180			June	7	11	134	104	(9.21)	770	(7,090)	0.14524	(1,030)	0.4961	(3,517)	(4,547)
181			July	-	1	7	11	1.33	762	1,014	0.14524	147	0.4961	503	650
182			August	-	2	-	1	0.45	762	343	0.14524	50	0.4961	170	220
183			September	12	53	-	2	3.38	757	2,559	0.14524	372	0.4961	1,270	1,641
184			October	294	273	12	53	11.54	761	8,783	0.14524	1,276	0.4961	4,358	5,633
185			November	688	628	294	273	(10.66)	763	(8,130)	0.14524	(1,181)	0.4961	(4,033)	(5,214)
186			December	1,062	951	688	628	(26.39)	768	(20,269)	0.14524	(2,944)	0.4961	(10,056)	(13,000)
187			Total	5,239	4,690	5,116	4,690	(171.36)	767	(132,356)		(19,223)		(65,664)	(84,888)
188		Wichita			0.0171	(2)	0.0393	(2)							
189			January	891	1,017	845	967	69.51	2,409	167,457	0.14524	24,321	0.4961	83,079	107,400
190			February	816	780	891	1,017	43.37	2,484	107,729	0.14524	15,647	0.4961	53,446	69,093
191			March	666	577	816	780	(29.38)	2,494	(73,268)	0.14524	(10,641)	0.4961	(36,350)	(46,991)
192			April	421	291	666	577	(57.23)	2,491	(142,549)	0.14524	(20,704)	0.4961	(70,722)	(91,425)
193			May	116	80	421	291	(57.26)	2,468	(141,317)	0.14524	(20,525)	0.4961	(70,110)	(90,635)
194			June	3	6	116	80	(13.64)	2,450	(33,412)	0.14524	(4,853)	0.4961	(16,576)	(21,429)
195			July	1	-	3	6	1.01	2,445	2,465	0.14524	358	0.4961	1,223	1,581
196			August	-	1	1	-	(0.22)	2,449	(544)	0.14524	(79)	0.4961	(270)	(349)
197			September	4	42	-	1	6.89	2,460	16,960	0.14524	2,463	0.4961	8,414	10,878
198			October	248	243	4	42	14.08	2,476	34,866	0.14524	5,064	0.4961	17,298	22,362
199			November	631	590	248	243	(8.98)	2,523	(22,657)	0.14524	(3,291)	0.4961	(11,240)	(14,531)
200			December	1,070	967	631	590	(33.74)	2,589	(87,349)	0.14524	(12,687)	0.4961	(43,335)	(56,022)
201			Total	4,867	4,594	4,642	4,594	(65.57)	2,478	(171,619)		(24,926)		(85,143)	(110,069)
202	**Small Volume Firm (KS110, KS111)**														
203		Dodge City			0.0110	(2)	0.0319	(2)							
204			January	989	1,018	946	1,000	20.40	154	3,141	0.12500	393	0.5007	1,573	1,965
205			February	863	815	989	1,018	3.97	134	532	0.12500	66	0.5007	266	333
206			March	698	640	863	815	(21.67)	134	(2,904)	0.12500	(363)	0.5007	(1,454)	(1,817)
207			April	486	352	698	640	(33.21)	135	(4,484)	0.12500	(560)	0.5007	(2,245)	(2,805)
208			May	138	115	486	352	(45.23)	135	(6,107)	0.12500	(763)	0.5007	(3,058)	(3,821)
209			June	12	13	138	115	(7.22)	134	(968)	0.12500	(121)	0.5007	(484)	(605)
210			July	-	1	12	13	0.43	132	57	0.12500	7	0.5007	28	35
211			August	-	3	-	1	0.65	130	84	0.12500	11	0.5007	42	53
212			September	16	61	-	3	5.90	130	767	0.12500	96	0.5007	384	480
213			October	324	291	16	61	10.71	130	1,393	0.12500	174	0.5007	697	872
214			November	688	658	324	291	(13.81)	130	(1,796)	0.12500	(224)	0.5007	(899)	(1,124)
215			December	1,080	1,000	688	658	(18.35)	130	(2,386)	0.12500	(298)	0.5007	(1,195)	(1,493)
216			Total	5,294	4,967	5,160	4,967	(97.45)	134	(12,670)		(1,584)		(6,344)	(7,928)
217		Garden City			0.0138	(2)	0.0275	(2)							
218			January	1,059	1,073	985	1,041	17.32	206	3,567	0.12500	446	0.5007	1,786	2,232
219			February	887	872	1,059	1,073	1.77	178	315	0.12500	39	0.5007	158	197
220			March	734	687	887	872	(10.63)	177	(1,881)	0.12500	(235)	0.5007	(942)	(1,177)
221			April	541	399	734	687	(32.56)	177	(5,764)	0.12500	(720)	0.5007	(2,886)	(3,606)
222			May	167	146	541	399	(41.90)	177	(7,417)	0.12500	(927)	0.5007	(3,714)	(4,641)
223			June	15	20	167	146	(5.07)	177	(898)	0.12500	(112)	0.5007	(450)	(562)
224			July	-	1	15	20	1.51	177	268	0.12500	33	0.5007	134	167
225			August	-	4	-	1	0.83	176	146	0.12500	18	0.5007	73	91
226			September	19	73	-	4	8.57	176	1,509	0.12500	189	0.5007	756	944
227			October	338	336	19	73	14.55	176	2,561	0.12500	320	0.5007	1,282	1,603
228			November	714	705	338	336	(1.80)	174	(312)	0.12500	(39)	0.5007	(156)	(195)
229			December	1,097	1,041	714	705	(10.22)	176	(1,799)	0.12500	(225)	0.5007	(901)	(1,126)
230			Total	5,571	5,357	5,459	5,357	(57.63)	179	(9,706)		(1,213)		(4,860)	(6,073)
231		Goodland			0.0068	(2)	0.0283	(2)							
232			January	1,068	1,096	1,112	1,088	(4.89)	36	(176)	0.12500	(22)	0.5007	(88)	(110)
233			February	951	914	1,068	1,096	5.41	28	152	0.12500	19	0.5007	76	95
234			March	843	758	951	914	(16.22)	27	(438)	0.12500	(55)	0.5007	(219)	(274)
235			April	620	480	843	758	(33.51)	27	(905)	0.12500	(113)	0.5007	(453)	(566)
236			May	204	211	620	480	(39.11)	27	(1,056)	0.12500	(132)	0.5007	(529)	(661)
237			June	31	37	204	211	2.39	27	64	0.12500	8	0.5007	32	40
238			July	7	4	31	37	1.49	27	40	0.12500	5	0.5007	20	25
239			August	-	8	7	4	(0.31)	27	(8)	0.12500	(1)	0.5007	(4)	(5)
240			September	47	112	-	8	6.66	27	180	0.12500	22	0.5007	90	113
241			October	457	416	47	112	15.60	27	421	0.12500	53	0.5007	211	264
242			November	762	779	457	416	(10.44)	27	(282)	0.12500	(35)	0.5007	(141)	(176)
243			December	1,093	1,088	762	779	4.47	27	121	0.12500	15	0.5007	60	75
244			Total	6,083	5,903	6,102	5,903	(68.45)	28	(1,887)		(236)		(945)	(1,181)
245		Hutchinson			-	(2)	0.0708	(2)							
246			January	1,027	1,076	954	1,035	57.32	15	860	0.12500	107	0.5007	430	538
247			February	969	840	1,027	1,076	34.67	12	416	0.12500	52	0.5007	208	260
248			March	827	646	969	840	(91.28)	11	(1,004)	0.12500	(126)	0.5007	(503)	(628)
249			April	481	345	827	646	(128.08)	11	(1,409)	0.12500	(176)	0.5007	(705)	(882)
250			May	156	109	481	345	(96.23)	11	(1,059)	0.12500	(132)	0.5007	(530)	(662)
251			June	13	8	156	109	(33.26)	8	(266)	0.12500	(33)	0.5007	(133)	(166)
252			July	3	1	13	8	(3.54)	8	(28)	0.12500	(4)	0.5007	(14)	(18)
253			August	-	3	3	1	(1.42)	8	(11)	0.12500	(1)	0.5007	(6)	(7)
254			September	13	58	-	3	2.12	8	17	0.12500	2	0.5007	9	11
255			October	295	294	13	58	31.84	8	255	0.12500	32	0.5007	128	159
256			November	692	662	295	294	(0.71)	8	(6)	0.12500	(1)	0.5007	(3)	(4)
257			December	1,102	1,035	692	662	(21.23)	8	(170)	0.12500	(21)	0.5007	(85)	(106)
258			Total	5,578	5,077	5,430	5,077	(249.78)	10	(2,405)		(301)		(1,204)	(1,505)

Line No.	[A] Customer Classification	[B] Weather Station	[C] 2005-2006 Month	[D] HDD Current Month Actual	[E] HDD Current Month Normal (1)	[F] HDD Previous Month Actual	[G] HDD Previous Month Normal (1)	[H] Per Customer Adjustment therms/cust. (3)	[I] Test Year # of Cust.	[J] Volumetric Adjustment therms [H]X[I]	[K] Margin $/therms	[L] Margin $ [J]X[K]	[M] Cost of Gas $/therms (4)	[N] Cost of Gas $ [J]X[M]	[O] Total Adjustment $ [L]+[N]
259	**Small Volume Firm Cont.**														
260		Topeka (Lawrence)			0.0078	(2)	0.0336	(2)							
261			January	940	1,114	881	1,049	70.02	265	18,556	0.12500	2,320	0.5007	9,292	11,611
262			February	849	878	940	1,114	60.70	211	12,808	0.12500	1,601	0.5007	6,413	8,014
263			March	764	649	849	878	0.75	215	161	0.12500	20	0.5007	80	100
264			April	442	332	764	649	(47.22)	212	(10,011)	0.12500	(1,251)	0.5007	(5,013)	(6,264)
265			May	133	108	442	332	(38.90)	214	(8,324)	0.12500	(1,040)	0.5007	(4,168)	(5,208)
266			June	5	11	133	108	(7.93)	209	(1,657)	0.12500	(207)	0.5007	(830)	(1,037)
267			July	2	-	5	11	1.86	204	379	0.12500	47	0.5007	190	237
268			August	-	3	2	-	(0.44)	205	(90)	0.12500	(11)	0.5007	(45)	(56)
269			September	21	64	-	3	4.37	208	909	0.12500	114	0.5007	455	569
270			October	325	317	21	64	13.81	207	2,860	0.12500	357	0.5007	1,432	1,789
271			November	711	653	325	317	(7.22)	206	(1,488)	0.12500	(186)	0.5007	(745)	(931)
272			December	1,126	1,049	711	653	(25.50)	204	(5,202)	0.12500	(650)	0.5007	(2,605)	(3,255)
273			Total	5,318	5,178	5,073	5,178	24.31	213	8,902		1,113		4,458	5,570
274		Liberal			0.0067	(2)	0.0316	(2)							
275			January	993	959	939	951	1.51	71	107	0.12500	13	0.5007	54	67
276			February	857	774	993	959	(16.30)	62	(1,011)	0.12500	(126)	0.5007	(506)	(632)
277			March	679	609	857	774	(30.91)	62	(1,916)	0.12500	(240)	0.5007	(960)	(1,199)
278			April	513	325	679	609	(34.71)	62	(2,152)	0.12500	(269)	0.5007	(1,078)	(1,347)
279			May	134	104	513	325	(61.39)	63	(3,868)	0.12500	(483)	0.5007	(1,937)	(2,420)
280			June	7	11	134	104	(9.21)	63	(580)	0.12500	(73)	0.5007	(290)	(363)
281			July	-	1	7	11	1.33	63	84	0.12500	10	0.5007	42	52
282			August	-	2	-	1	0.45	63	28	0.12500	4	0.5007	14	18
283			September	12	53	-	2	3.38	64	216	0.12500	27	0.5007	108	135
284			October	294	273	12	53	11.54	64	739	0.12500	92	0.5007	370	462
285			November	688	628	294	273	(10.66)	64	(682)	0.12500	(85)	0.5007	(341)	(427)
286			December	1,062	951	688	628	(26.39)	65	(1,716)	0.12500	(214)	0.5007	(859)	(1,073)
287			Total	5,239	4,690	5,116	4,690	(171.36)	64	(10,750)		(1,344)		(5,383)	(6,727)
288		Wichita			0.0171	(2)	0.0393	(2)							
289			January	891	1,017	845	967	69.51	333	23,148	0.12500	2,893	0.5007	11,591	14,484
290			February	816	780	891	1,017	43.37	276	11,970	0.12500	1,496	0.5007	5,994	7,490
291			March	666	577	816	780	(29.38)	275	(8,079)	0.12500	(1,010)	0.5007	(4,045)	(5,055)
292			April	421	291	666	577	(57.23)	278	(15,909)	0.12500	(1,989)	0.5007	(7,966)	(9,954)
293			May	116	80	421	291	(57.26)	276	(15,804)	0.12500	(1,975)	0.5007	(7,913)	(9,889)
294			June	3	6	116	80	(13.64)	269	(3,669)	0.12500	(459)	0.5007	(1,837)	(2,295)
295			July	1	-	3	6	1.01	271	273	0.12500	34	0.5007	137	171
296			August	-	1	1	-	(0.22)	271	(60)	0.12500	(8)	0.5007	(30)	(38)
297			September	4	42	-	1	6.89	273	1,882	0.12500	235	0.5007	942	1,178
298			October	248	243	4	42	14.08	272	3,830	0.12500	479	0.5007	1,918	2,397
299			November	631	590	248	243	(8.98)	273	(2,452)	0.12500	(306)	0.5007	(1,228)	(1,534)
300			December	1,070	967	631	590	(33.74)	274	(9,244)	0.12500	(1,156)	0.5007	(4,629)	(5,784)
301			Total	4,867	4,594	4,642	4,594	(65.57)	278	(14,113)		(1,764)		(7,066)	(8,831)
302	**Large Volume Firm (KS275, KS276, KS277) (5)**														
303		Dodge City			0.0110	(2)	0.0319	(2)							
304			January	989	1,018	946	1,000	20.40	2	41	0.05900	2	0.5026	21	23
305			February	863	815	989	1,018	3.97	2	8	0.05900	0	0.5026	4	4
306			March	698	640	863	815	(21.67)	2	(43)	0.05900	(3)	0.5026	(22)	(24)
307			April	486	352	698	640	(33.21)	2	(66)	0.05900	(4)	0.5026	(33)	(37)
308			May	138	115	486	352	(45.23)	2	(90)	0.05900	(5)	0.5026	(45)	(51)
309			June	12	13	138	115	(7.22)	2	(14)	0.05900	(1)	0.5026	(7)	(8)
310			July	-	1	12	13	0.43	2	1	0.05900	0	0.5026	0	0
311			August	-	3	-	1	0.65	2	1	0.05900	0	0.5026	1	1
312			September	16	61	-	3	5.90	2	12	0.05900	1	0.5026	6	7
313			October	324	291	16	61	10.71	2	21	0.05900	1	0.5026	11	12
314			November	688	658	324	291	(13.81)	2	(28)	0.05900	(2)	0.5026	(14)	(16)
315			December	1,080	1,000	688	658	(18.35)	2	(37)	0.05900	(2)	0.5026	(18)	(21)
316			Total	5,294	4,967	5,160	4,967	(97.45)	2	(195)		(11)		(98)	(109)
317		Garden City			0.0138	(2)	0.0275	(2)							
318			January	1,059	1,073	985	1,041	17.32	9	156	0.05900	9	0.5026	78	88
319			February	887	872	1,059	1,073	1.77	9	16	0.05900	1	0.5026	8	9
320			March	734	687	887	872	(10.63)	9	(96)	0.05900	(6)	0.5026	(48)	(54)
321			April	541	399	734	687	(32.56)	9	(293)	0.05900	(17)	0.5026	(147)	(165)
322			May	167	146	541	399	(41.90)	7	(293)	0.05900	(17)	0.5026	(147)	(165)
323			June	15	20	167	146	(5.07)	8	(41)	0.05900	(2)	0.5026	(20)	(23)
324			July	-	1	15	20	1.51	8	12	0.05900	1	0.5026	6	7
325			August	-	4	-	1	0.83	8	7	0.05900	0	0.5026	3	4
326			September	19	73	-	4	8.57	8	69	0.05900	4	0.5026	34	39
327			October	338	336	19	73	14.55	8	116	0.05900	7	0.5026	59	65
328			November	714	705	338	336	(1.80)	7	(13)	0.05900	(1)	0.5026	(6)	(7)
329			December	1,097	1,041	714	705	(10.22)	8	(82)	0.05900	(5)	0.5026	(41)	(46)
330			Total	5,571	5,357	5,459	5,357	(57.63)	8	(441)		(26)		(222)	(248)
331		Hutchinson			-	(2)	0.0708	(2)							
332			January	1,068	1,096	1,112	1,088	(16.98)		-	0.05900	-	0.5026	-	-
333			February	951	914	1,068	1,096	19.81		-	0.05900	-	0.5026	-	-
334			March	843	758	951	914	(26.18)		-	0.05900	-	0.5026	-	-
335			April	620	480	843	758	(60.15)		-	0.05900	-	0.5026	-	-
336			May	204	211	620	480	(99.06)		-	0.05900	-	0.5026	-	-
337			June	31	37	204	211	4.95		-	0.05900	-	0.5026	-	-
338			July	7	4	31	37	4.25		-	0.05900	-	0.5026	-	-
339			August	-	8	7	4	(2.12)		-	0.05900	-	0.5026	-	-
340			September	47	112	-	8	5.66		-	0.05900	-	0.5026	-	-
341			October	457	416	47	112	45.99		-	0.05900	-	0.5026	-	-
342			November	762	779	457	416	(29.01)		-	0.05900	-	0.5026	-	-
343			December	1,093	1,088	762	779	12.03	1	12	0.05900	1	0.5026	6	7
344			Total	6,083	5,903	6,102	5,903	(140.81)	1	12		1		6	7

Line No.	[A] Customer Classification	[B] Weather Station	[C] 2005-2006 Month	[D] HDD Current Month Actual	[E] HDD Current Month Normal (1)	[F] HDD Previous Month Actual	[G] HDD Previous Month Normal (1)	[H] Per Customer Adjustment therms/cust. (3)	[I] Test Year # of Cust.	[J] Volumetric Adjustment therms [H]X[I]	[K] Margin $/therms	[L] Margin $ [J]X[K]	[M] Cost of Gas $/therms (4)	[N] Cost of Gas $ [J]X[M]	[O] Total Adjustment $ [L]+[N]
345	**Large Volume Firm Cont.**														
346		Topeka (Lawrence)			0.0078	(2)	0.0336	(2)							
347			January	940	1,114	881	1,049	70.02	5	350	0.05900	21	0.5026	176	197
348			February	849	878	940	1,114	60.70	5	304	0.05900	18	0.5026	153	170
349			March	764	649	849	878	0.75	5	4	0.05900	0	0.5026	2	2
350			April	442	332	764	649	(47.22)	5	(236)	0.05900	(14)	0.5026	(119)	(133)
351			May	133	108	442	332	(38.90)	5	(194)	0.05900	(11)	0.5026	(98)	(109)
352			June	5	11	133	108	(7.93)	4	(32)	0.05900	(2)	0.5026	(16)	(18)
353			July	2	-	5	11	1.86	4	7	0.05900	0	0.5026	4	4
354			August	-	3	2	-	(0.44)	4	(2)	0.05900	(0)	0.5026	(1)	(1)
355			September	21	64	-	3	4.37	5	22	0.05900	1	0.5026	11	12
356			October	325	317	21	64	13.81	5	69	0.05900	4	0.5026	35	39
357			November	711	653	325	317	(7.22)	5	(36)	0.05900	(2)	0.5026	(18)	(20)
358			December	1,126	1,049	711	653	(25.50)	5	(127)	0.05900	(8)	0.5026	(64)	(72)
359			Total	5,318	5,178	5,073	5,178	24.31	5	128		8		64	72
360		Liberal			0.0067	(2)	0.0316	(2)							
361			January	993	959	939	951	1.51	1	2	0.05900	0	0.5026	1	1
362			February	857	774	993	959	(16.30)	1	(16)	0.05900	(1)	0.5026	(8)	(9)
363			March	679	609	857	774	(30.91)	1	(31)	0.05900	(2)	0.5026	(16)	(17)
364			April	513	325	679	609	(34.71)	1	(35)	0.05900	(2)	0.5026	(17)	(19)
365			May	134	104	513	325	(61.39)	1	(61)	0.05900	(4)	0.5026	(31)	(34)
366			June	7	11	134	104	(9.21)	1	(9)	0.05900	(1)	0.5026	(5)	(5)
367			July	-	1	7	11	1.33	1	1	0.05900	0	0.5026	1	1
368			August	-	2	-	1	0.45	1	0	0.05900	0	0.5026	0	0
369			September	12	53	-	2	3.38	1	3	0.05900	0	0.5026	2	2
370			October	294	273	12	53	11.54	1	12	0.05900	1	0.5026	6	6
371			November	688	628	294	273	(10.66)	1	(11)	0.05900	(1)	0.5026	(5)	(6)
372			December	1,062	951	688	628	(26.39)	1	(26)	0.05900	(2)	0.5026	(13)	(15)
373			Total	5,239	4,690	5,116	4,690	(171.36)	1	(171)		(10)		(86)	(96)
374		Wichita			0.0171	(2)	0.0393	(2)							
375			January	891	1,017	845	967	69.51	13	904	0.05900	53	0.5026	454	508
376			February	816	780	891	1,017	43.37	6	260	0.05900	15	0.5026	131	146
377			March	666	577	816	780	(29.38)	6	(176)	0.05900	(10)	0.5026	(89)	(99)
378			April	421	291	666	577	(57.23)	6	(343)	0.05900	(20)	0.5026	(173)	(193)
379			May	116	80	421	291	(57.26)	6	(344)	0.05900	(20)	0.5026	(173)	(193)
380			June	3	6	116	80	(13.64)	6	(82)	0.05900	(5)	0.5026	(41)	(46)
381			July	1	-	3	6	1.01	6	6	0.05900	0	0.5026	3	3
382			August	-	1	1	-	(0.22)	6	(1)	0.05900	(0)	0.5026	(1)	(1)
383			September	4	42	-	1	6.89	6	41	0.05900	2	0.5026	21	23
384			October	248	243	4	42	14.08	6	84	0.05900	5	0.5026	42	47
385			November	631	590	248	243	(8.98)	6	(54)	0.05900	(3)	0.5026	(27)	(30)
386			December	1,070	967	631	590	(33.74)	6	(202)	0.05900	(12)	0.5026	(102)	(114)
387			Total	4,867	4,594	4,642	4,594	(65.57)	7	93		5		47	52
388	**Summary**														
389	Residential (KS001)								98,879	(1,290,154)		(187,382)		(642,786)	(830,168)
390	Small Commercial (KS050, KS052, KS055)								8,671	(516,570)		(75,027)		(256,281)	(331,307)
391	Small Volume Firm (KS110, KS111)								906	(42,628)		(5,328)		(21,344)	(26,673)
392	Large Volume Firm (KS275)								24	(574)		(34)		(289)	(323)
393	**Total System**								108,479	(1,849,926)		(267,771)		(920,700)	(1,188,470)

Notes (1) 1981 - 2010 NOAA Normal
(2) Exhibit__(TJS-3)
(3) [(Current Month Normal HDD - Current Month Actual HDD) x Current Month HDD Statistic + (Previous Month Normal HDD - Previous Month Actual HDD) * Previous Month HDD Statistic] *10
(4) Current rates effective 1/1/2013
(5) There were no Large Volume Firm customers in Goodland during the test year.

Black Hills Energy - KGO
NOAA Rainfall and Average Temperature- 2006-2013
Irrigation Stations

Year	Month	Rainfall - inches						Average Temperature					
		Goodland	Dodge City	Garden City	Liberal	Hutchinson	Wichita	Goodland	Dodge City	Garden City	Liberal	Hutchinson	Wichita
Total Actual													
2006		24.81	21.13	22.79	23.87	23.10	29.36	52.7	57.5	55.8	58.0	57.3	59.5
2007		15.10	19.12	17.59	14.21	37.76	37.97	51.0	55.6	53.9	56.1	55.1	57.5
2008		20.42	18.29	17.31	20.74	37.99	53.82	50.9	55.2	53.6	55.8	53.5	56.1
2009		22.66	25.52	21.68	18.81	33.60	37.53	50.2	54.5	53.1	55.5	53.9	56.4
2010		19.46	25.32	16.19	17.12	35.46	28.17	51.9	55.8	55.0	57.1	56.2	58.3
2011		19.30	10.30	12.12	11.52	17.79	26.06	51.4	56.4	54.3	57.3	57.0	58.5
2012		9.58	18.08	12.14	11.65	18.12	25.01	54.7	58.1	56.9		59.0	61.5
2013		16.72	20.72	17.41	10.24	42.97	40.45	51.2	54.6	53.7	54.9	54.7	56.2
NOAA Normal - 1981-2010													
	January	0.38	0.58	0.47	0.45	0.79	0.83	29.6	32.2	30.4	34.1	30.3	32.2
	February	0.49	0.68	0.52	0.65	1.25	1.18	32.3	35.9	33.9	37.3	35.0	37.2
	March	1.07	1.59	1.23	1.34	2.58	2.69	40.5	44.4	42.9	45.4	44.2	46.5
	April	1.59	1.82	1.74	1.69	2.70	2.59	49.2	53.9	52.1	54.7	53.9	56.1
	May	2.95	2.85	3.00	2.69	4.68	4.57	59.4	64.2	62.7	64.7	64.2	66.0
	June	3.25	3.24	3.10	3.01	4.57	5.20	69.7	73.9	72.6	74.1	73.8	75.8
	July	3.47	3.08	2.80	2.97	4.09	3.32	75.7	79.6	77.9	79.3	78.9	81.1
	August	2.70	2.75	2.51	2.23	3.36	3.71	73.7	78.1	76.2	78.2	77.4	80.0
	September	1.22	1.67	1.42	1.83	2.66	3.14	64.6	69.2	67.6	69.6	68.7	71.0
	October	1.37	1.74	1.22	1.91	2.44	2.78	51.9	56.6	54.7	57.0	56.4	58.3
	November	0.71	0.76	0.54	0.78	1.32	1.43	39.0	43.1	41.5	44.1	43.0	45.4
	December	0.46	0.84	0.60	0.70	1.17	1.20	29.9	32.8	31.4	34.3	31.6	33.8
Total		19.66	21.60	19.15	20.25	31.61	32.64	51.3	55.3	53.7	56.1	54.8	57.0
2013													
Difference from Normal													
Amount		-2.94	-0.88	-1.74	-10.01	11.36	7.81	-0.1	-0.7	0.0	-1.2	-0.1	-0.8
Percentage		-15.0%	-4.1%	-9.1%	-49.4%	35.9%	23.9%	-0.2%	-1.3%	0.0%	-2.1%	-0.2%	-1.4%
April-September Difference													
Amount		-2.22	-0.45	-1.05	-6.13	12.21	8.54	0.8	0.1	0.9	-0.1	0.4	-0.5
Percentage		-13.7%	-2.6%	-6.6%	-38.9%	49.6%	33.9%	1.2%	0.1%	1.4%	-0.1%	0.6%	-0.7%
2006-13 Average		18.51	19.81	17.15	16.02	30.85	34.80	51.75	55.96	54.54	56.39	55.84	58.00
Relative to Normal		-5.9%	-8.3%	-10.4%	-20.9%	-2.4%	6.6%	0.9%	1.2%	1.6%	0.5%	1.9%	1.8%

Note: Data for 2012 and prior taken from Climatological Data - Kansas - Annual Summary. 2013 data from NOAA Online Weather Data (NOWDATA).

Black Hills Energy - KGO
Irrigation Weather Normalization Adjustment
Regression Analyses Statistical Results

Exhibit TJS-6

The X Variables in order are:
1 - Current Month's Rainfall
2 - Prior Month's Rainfall
3 - Current Month's Average Temperature
4 - Prior Month's Average Temperature

Goodland
6/2006 through 12/2013

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.876763301
R Square	0.768713885
Adjusted R Square	0.757956392
Standard Error	75.17677374
Observations	91

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	1615403.37	403850.8424	71.45845557	1.55099E-26
Residual	86	486033.0687	5651.54731		
Total	90	2101436.438			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-307.7825236	27.06813208	-11.37065989	8.02E-19	-361.5921893	-253.972858	-361.5921893	-253.972858
X Variable 1	-7.041802612	6.60418399	-1.066263845	0.28928867	-20.17048587	6.086880645	-20.17048587	6.086880645
X Variable 2	-23.43601746	6.518575945	-3.59526646	0.000539743	-36.39451756	-10.47751737	-36.39451756	-10.47751737
X Variable 3	5.699134269	0.873556178	6.524061546	4.52265E-09	3.962562061	7.435706476	3.962562061	7.435706476
X Variable 4	3.440037498	0.876405757	3.925165335	0.000174151	1.697800514	5.182274481	1.697800514	5.182274481

High Correlation
Negative Correlation with Rainfall
Positive Correlation with Temperature

Dodge City
6/2006 through 12/2013

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.859455338
R Square	0.738663478
Adjusted R Square	0.726508291
Standard Error	80.41977169
Observations	91

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	1572065.519	393016.3796	60.76940429	2.8509E-24
Residual	86	556191.2124	6467.339679		
Total	90	2128256.731			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-285.6813609	29.98213561	-9.528385988	4.1335E-15	-345.2838738	-226.0788479	-345.2838738	-226.0788479
X Variable 1	-6.441875237	5.85876138	-1.099528521	0.274606048	-18.08870739	5.204956916	-18.08870739	5.204956916
X Variable 2	-3.103026632	5.836551292	-0.531654136	0.596336226	-14.70570659	8.499653329	-14.70570659	8.499653329
X Variable 3	7.208387748	0.913791107	7.888441566	8.8883E-12	5.39183115	9.024944346	5.39183115	9.024944346
X Variable 4	0.714265585	0.902140741	0.791745182	0.430687667	-1.079130853	2.507662024	-1.079130853	2.507662024

High Correlation
Negative Correlation with Rainfall
Positive Correlation with Temperature

Black Hills Energy - KGO
Irrigation Weather Normalization Adjustment
Regression Analyses Statistical Results

Exhibit TJS-6

The X Variables in order are:
1 - Current Month's Rainfall
2 - Prior Month's Rainfall
3 - Current Month's Average Temperature
4 - Prior Month's Average Temperature

Garden City
6/2006 through 12/2013

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.86724611
R Square	0.752115816
Adjusted R Square	0.740586319
Standard Error	142.1574756
Observations	91

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	5273194.137	1318298.534	65.23405322	2.99004E-25
Residual	86	1737952.317	20208.74787		
Total	90	7011146.453			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-475.6606041	50.08597006	-9.49688313	4.79079E-15	-575.2282172	-376.092991	-575.2282172	-376.092991
X Variable 1	-9.358603959	13.1810191	-0.710006099	0.479621158	-35.5616027	16.84439478	-35.5616027	16.84439478
X Variable 2	-27.19014791	13.33459791	-2.039067702	0.044513653	-53.69845122	-0.681844606	-53.69845122	-0.681844606
X Variable 3	13.92770508	1.614908244	8.624455991	2.86134E-13	10.71737374	17.13803642	10.71737374	17.13803642
X Variable 4	0.465102943	1.541541461	0.301712899	0.763599316	-2.599380057	3.529585943	-2.599380057	3.529585943

High Correlation
Negative Correlation with Rainfall
Positive Correlation with Temperature

Black Hills Energy - Kansas
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Exhibit TJS-7
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	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]	[Q]	[R]	[S]
Line No.	Weather Station	Rate Schedule	2013 Month	Rainfall - Inches Current Month		Rainfall - Inches Previous Month		Average Temperature Current Month		Average Temperature Previous Month		Per Customer Adjustment	Test Year # of Cust.	Volumetric Adjustment	Margin		Cost of Gas		Total Adjustment
				Actual	Normal (1)	Actual	Normal (1)	Actual	Normal (1)	Actual	Normal (1)	therms/cust. (3)		therms [L]X[M]	$/therms (4)	$ [N]X[O]	$/therms (4)	$ [N]X[Q]	$ [P]+[R]
1	**Goodland**				(7.0418) (2)		(23.4360) (2)		5.6991 (2)		3.4400 (2)								
2		KS300 - Sales	January	0.07	0.38	0.57	0.46	30.3	29.6	28.9	29.9		389	0	0.0510	0	0.40188	0	0
3			February	0.78	0.49	0.07	0.38	30.8	32.3	30.3	29.6		391	0	0.0510	0	0.40188	0	0
4			March	1.45	1.07	0.78	0.49	37.5	40.5	30.8	32.3		398	0	0.0510	0	0.40188	0	0
5			April	0.79	1.59	1.45	1.07	44.1	49.2	37.5	40.5	427	373	159,114	0.0510	8,115	0.40188	63,944	72,059
6			May	1.27	2.95	0.79	1.59	61.0	59.4	44.1	49.2	(222)	375	(83,075)	0.0510	(4,237)	0.40188	(33,386)	(37,623)
7			June	3.04	3.25	1.27	2.95	72.3	69.7	61.0	59.4	(612)	377	(230,623)	0.0510	(11,762)	0.40188	(92,682)	(104,443)
8			July	0.44	3.47	3.04	3.25	75.0	75.7	72.3	69.7	(312)	388	(121,106)	0.0510	(6,176)	0.40188	(48,670)	(54,846)
9			August	0.93	2.70	0.44	3.47	75.2	73.7	75.0	75.7	(896)	384	(344,125)	0.0510	(17,550)	0.40188	(138,295)	(155,846)
10			September	6.49	1.22	0.93	2.70	69.3	64.6	75.2	73.7	(363)	383	(139,096)	0.0510	(7,094)	0.40188	(55,899)	(62,993)
11			October	1.24	1.37	6.49	1.22	50.0	51.9	69.3	64.6		382	0	0.0510	0	0.40188	0	0
12			November	0.17	0.71	1.24	1.37	39.4	39.0	50.0	51.9		386	0	0.0510	0	0.40188	0	0
13			December	0.05	0.46	0.17	0.71	29.5	29.9	39.4	39.0		389	0	0.0510	0	0.40188	0	0
14			Total	16.72	19.66	17.24	19.66						385	(758,911)		(38,704)		(304,988)	(343,692)
15		KS02U - Transportation	January	0.07	0.38	0.57	0.46	30.3	29.6	28.9	29.9		206	0	0.0510	0			0
16			February	0.78	0.49	0.07	0.38	30.8	32.3	30.3	29.6		205	0	0.0510	0			0
17			March	1.45	1.07	0.78	0.49	37.5	40.5	30.8	32.3		205	0	0.0510	0			0
18			April	0.79	1.59	1.45	1.07	44.1	49.2	37.5	40.5	427	222	94,701	0.0510	4,830			4,830
19			May	1.27	2.95	0.79	1.59	61.0	59.4	44.1	49.2	(222)	220	(48,738)	0.0510	(2,486)			(2,486)
20			June	3.04	3.25	1.27	2.95	72.3	69.7	61.0	59.4	(612)	221	(135,193)	0.0510	(6,895)			(6,895)
21			July	0.44	3.47	3.04	3.25	75.0	75.7	72.3	69.7	(312)	220	(68,668)	0.0510	(3,502)			(3,502)
22			August	0.93	2.70	0.44	3.47	75.2	73.7	75.0	75.7	(896)	220	(197,155)	0.0510	(10,055)			(10,055)
23			September	6.49	1.22	0.93	2.70	69.3	64.6	75.2	73.7	(363)	220	(79,898)	0.0510	(4,075)			(4,075)
24			October	1.24	1.37	6.49	1.22	50.0	51.9	69.3	64.6		220	0	0.0510	0			0
25			November	0.17	0.71	1.24	1.37	39.4	39.0	50.0	51.9		219	0	0.0510	0			0
26			December	0.05	0.46	0.17	0.71	29.5	29.9	39.4	39.0		219	0	0.0510	0			0
27			Total	16.72	19.66	17.24	19.66						216	(434,951)		(22,183)			(22,183)
28	**Dodge City**				(6.4419) (2)		(3.1030) (2)		7.2084 (2)		0.7143 (2)								
29		KS300 - Sales	January	0.48	0.58	0.87	0.84	32.9	32.2	34.3	32.8		230	0	0.0510	0	0.40188	0	0
30			February	0.90	0.68	0.48	0.58	33.8	35.9	32.9	32.2		231	0	0.0510	0	0.40188	0	0
31			March	0.26	1.59	0.90	0.68	42.3	44.4	33.8	35.9		226	0	0.0510	0	0.40188	0	0
32			April	0.88	1.82	0.26	1.59	49.1	53.9	42.3	44.4	259	210	54,427	0.0510	2,776	0.40188	21,873	24,649
33			May	0.91	2.85	0.88	1.82	65.0	64.2	49.1	53.9	(178)	233	(41,363)	0.0510	(2,110)	0.40188	(16,623)	(18,732)
34			June	2.61	3.24	0.91	2.85	77.3	73.9	65.0	64.2	(352)	225	(79,106)	0.0510	(4,034)	0.40188	(31,791)	(35,825)
35			July	2.52	3.08	2.61	3.24	79.0	79.6	77.3	73.9	(37)	239	(8,761)	0.0510	(447)	0.40188	(3,521)	(3,968)
36			August	6.92	2.75	2.52	3.08	76.6	78.1	79.0	79.6	364	236	85,824	0.0510	4,377	0.40188	34,491	38,868
37			September	1.12	1.67	6.92	2.75	72.4	69.2	76.6	78.1	(126)	237	(29,859)	0.0510	(1,523)	0.40188	(12,000)	(13,523)
38			October	2.84	1.74	1.12	1.67	55.3	56.6	72.4	69.2		237	0	0.0510	0	0.40188	0	0
39			November	0.80	0.76	2.84	1.74	41.8	43.1	55.3	56.6		228	0	0.0510	0	0.40188	0	0
40			December	0.48	0.84	0.80	0.76	29.9	32.8	41.8	43.1		234	0	0.0510	0	0.40188	0	0
41			Total	20.72	21.60	21.11	21.60						231	(18,838)		(961)		(7,571)	(8,531)
42		KS01U - Transportation	January	0.48	0.58	0.87	0.84	32.9	32.2	34.3	32.8		71	0	0.0510	0			0
43			February	0.90	0.68	0.48	0.58	33.8	35.9	32.9	32.2		71	0	0.0510	0			0
44			March	0.26	1.59	0.90	0.68	42.3	44.4	33.8	35.9		70	0	0.0510	0			0
45			April	0.88	1.82	0.26	1.59	49.1	53.9	42.3	44.4	259	70	18,142	0.0510	925			925
46			May	0.91	2.85	0.88	1.82	65.0	64.2	49.1	53.9	(178)	68	(12,072)	0.0510	(616)			(616)
47			June	2.61	3.24	0.91	2.85	77.3	73.9	65.0	64.2	(352)	68	(23,908)	0.0510	(1,219)			(1,219)
48			July	2.52	3.08	2.61	3.24	79.0	79.6	77.3	73.9	(37)	69	(2,529)	0.0510	(129)			(129)
49			August	6.92	2.75	2.52	3.08	76.6	78.1	79.0	79.6	364	69	25,093	0.0510	1,280			1,280
50			September	1.12	1.67	6.92	2.75	72.4	69.2	76.6	78.1	(126)	67	(8,441)	0.0510	(431)			(431)
51			October	2.84	1.74	1.12	1.67	55.3	56.6	72.4	69.2		67	0	0.0510	0			0
52			November	0.80	0.76	2.84	1.74	41.8	43.1	55.3	56.6		67	0	0.0510	0			0
53			December	0.48	0.84	0.80	0.76	29.9	32.8	41.8	43.1		67	0	0.0510	0			0
54			Total	20.72	21.60	21.11	21.60						69	(3,715)		(189)			(189)

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	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]	[Q]	[R]	[S]
Line No.	Weather Station	Rate Schedule	2013 Month	Rainfall - Inches Current Month Actual	Rainfall - Inches Current Month Normal (1)	Rainfall - Inches Previous Month Actual	Rainfall - Inches Previous Month Normal (1)	Average Temperature Current Month Actual	Average Temperature Current Month Normal (1)	Average Temperature Previous Month Actual	Average Temperature Previous Month Normal (1)	Per Customer Adjustment therms/cust. (3)	Test Year # of Cust.	Volumetric Adjustment therms [L]X[M]	Margin $/therms (4)	Margin $ [N]X[O]	Cost of Gas $/therms (4)	Cost of Gas $ [N]X[Q]	Total Adjustment $ [P]+[R]
55		KS08U - Transportation	January	0.48	0.58	0.87	0.84	32.9	32.2	34.3	32.8		10	0	0.0510	0			0
56			February	0.90	0.68	0.48	0.58	33.8	35.9	32.9	32.2		9	0	0.0510	0			0
57			March	0.26	1.59	0.90	0.68	42.3	44.4	33.8	35.9		9	0	0.0510	0			0
58			April	0.88	1.82	0.26	1.59	49.1	53.9	42.3	44.4	259	10	2,592	0.0510	132			132
59			May	0.91	2.85	0.88	1.82	65.0	64.2	49.1	53.9	(178)	10	(1,775)	0.0510	(91)			(91)
60			June	2.61	3.24	0.91	2.85	77.3	73.9	65.0	64.2	(352)	10	(3,516)	0.0510	(179)			(179)
61			July	2.52	3.08	2.61	3.24	79.0	79.6	77.3	73.9	(37)	10	(367)	0.0510	(19)			(19)
62			August	6.92	2.75	2.52	3.08	76.6	78.1	79.0	79.6	364	10	3,637	0.0510	185			185
63			September	1.12	1.67	6.92	2.75	72.4	69.2	76.6	78.1	(126)	10	(1,260)	0.0510	(64)			(64)
64			October	2.84	1.74	1.12	1.67	55.3	56.6	72.4	69.2		10	0	0.0510	0			0
65			November	0.80	0.76	2.84	1.74	41.8	43.1	55.3	56.6		10	0	0.0510	0			0
66			December	0.48	0.84	0.80	0.76	29.9	32.8	41.8	43.1		10	0	0.0510	0			0
67			Total	20.72	21.60	21.11	21.60						10	(689)		(35)			(35)
68	**Garden City**				(9.3586) (2)		(27.1901) (2)		13.9277 (2)		0.4651 (2)								
69		KS300 - Sales	January	0.60	0.47	0.73	0.60	30.6	30.4	33.0	31.4		582	0	0.0510	0	0.40188	0	0
70			February	1.54	0.52	0.60	0.47	33.1	33.9	30.6	30.4		576	0	0.0510	0	0.40188	0	0
71			March	0.13	1.23	1.54	0.52	41.1	42.9	33.1	33.9		546	0	0.0510	0	0.40188	0	0
72			April	0.28	1.74	0.13	1.23	46.8	52.1	41.1	42.9	311	555	172,501	0.0510	8,798	0.40188	69,324	78,122
73			May	1.25	3.00	0.28	1.74	63.2	62.7	46.8	52.1	(606)	576	(348,906)	0.0510	(17,794)	0.40188	(140,217)	(158,011)
74			June	1.84	3.10	1.25	3.00	76.8	72.6	63.2	62.7	(1,181)	577	(681,457)	0.0510	(34,754)	0.40188	(273,861)	(308,615)
75			July	2.23	2.80	1.84	3.10	79.0	77.9	76.8	72.6	(569)	581	(330,402)	0.0510	(16,851)	0.40188	(132,781)	(149,631)
76			August	6.09	2.51	2.23	2.80	76.2	76.2	79.0	77.9	175	578	101,114	0.0510	5,157	0.40188	40,635	45,792
77			September	1.83	1.42	6.09	2.51	72.4	67.6	76.2	76.2	343	584	200,457	0.0510	10,223	0.40188	80,559	90,782
78			October	0.88	1.22	1.83	1.42	54.4	54.7	72.4	67.6		586	0	0.0510	0	0.40188	0	0
79			November	0.74	0.54	0.88	1.22	41.0	41.5	54.4	54.7		572	0	0.0510	0	0.40188	0	0
80			December	0.00	0.60	0.74	0.54	29.4	31.4	41.0	41.5		578	0	0.0510	0	0.40188	0	0
81			Total	17.41	19.15	18.14	19.15						574	(886,694)		(45,221)		(356,341)	(401,562)
82		KS301 - Sales	January	0.60	0.47	0.73	0.60	30.6	30.4	33.0	31.4		5	0	0.0510	0	0.40188	0	0
83			February	1.54	0.52	0.60	0.47	33.1	33.9	30.6	30.4		5	0	0.0510	0	0.40188	0	0
84			March	0.13	1.23	1.54	0.52	41.1	42.9	33.1	33.9		5	0	0.0510	0	0.40188	0	0
85			April	0.28	1.74	0.13	1.23	46.8	52.1	41.1	42.9	311	6	1,865	0.0510	95	0.40188	749	845
86			May	1.25	3.00	0.28	1.74	63.2	62.7	46.8	52.1	(606)	6	(3,634)	0.0510	(185)	0.40188	(1,461)	(1,646)
87			June	1.84	3.10	1.25	3.00	76.8	72.6	63.2	62.7	(1,181)	6	(7,086)	0.0510	(361)	0.40188	(2,848)	(3,209)
88			July	2.23	2.80	1.84	3.10	79.0	77.9	76.8	72.6	(569)	6	(3,412)	0.0510	(174)	0.40188	(1,371)	(1,545)
89			August	6.09	2.51	2.23	2.80	76.2	76.2	79.0	77.9	175	6	1,050	0.0510	54	0.40188	422	475
90			September	1.83	1.42	6.09	2.51	72.4	67.6	76.2	76.2	343	6	2,059	0.0510	105	0.40188	828	933
91			October	0.88	1.22	1.83	1.42	54.4	54.7	72.4	67.6		6	0	0.0510	0	0.40188	0	0
92			November	0.74	0.54	0.88	1.22	41.0	41.5	54.4	54.7		6	0	0.0510	0	0.40188	0	0
93			December	0.00	0.60	0.74	0.54	29.4	31.4	41.0	41.5		6	0	0.0510	0	0.40188	0	0
94			Total	17.41	19.15	18.14	19.15						6	(9,159)		(467)		(3,681)	(4,148)
95		KS01U - Transportation	January	0.60	0.47	0.73	0.60	30.6	30.4	33.0	31.4		79	0	0.0510	0			0
96			February	1.54	0.52	0.60	0.47	33.1	33.9	30.6	30.4		78	0	0.0510	0			0
97			March	0.13	1.23	1.54	0.52	41.1	42.9	33.1	33.9		65	0	0.0510	0			0
98			April	0.28	1.74	0.13	1.23	46.8	52.1	41.1	42.9	311	78	24,243	0.0510	1,236			1,236
99			May	1.25	3.00	0.28	1.74	63.2	62.7	46.8	52.1	(606)	76	(46,036)	0.0510	(2,348)			(2,348)
100			June	1.84	3.10	1.25	3.00	76.8	72.6	63.2	62.7	(1,181)	66	(77,948)	0.0510	(3,975)			(3,975)
101			July	2.23	2.80	1.84	3.10	79.0	77.9	76.8	72.6	(569)	75	(42,651)	0.0510	(2,175)			(2,175)
102			August	6.09	2.51	2.23	2.80	76.2	76.2	79.0	77.9	175	76	13,295	0.0510	678			678
103			September	1.83	1.42	6.09	2.51	72.4	67.6	76.2	76.2	343	74	25,400	0.0510	1,295			1,295
104			October	0.88	1.22	1.83	1.42	54.4	54.7	72.4	67.6		70	0	0.0510	0			0
105			November	0.74	0.54	0.88	1.22	41.0	41.5	54.4	54.7		66	0	0.0510	0			0
106			December	0.00	0.60	0.74	0.54	29.4	31.4	41.0	41.5		73	0	0.0510	0			0
107			Total	17.41	19.15	18.14	19.15						73	(103,696)		(5,289)			(5,289)

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	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]	[Q]	[R]	[S]
Line No.	Weather Station	Rate Schedule	2013 Month	Rainfall - Inches Current Month Actual	Rainfall - Inches Current Month Normal (1)	Rainfall - Inches Previous Month Actual	Rainfall - Inches Previous Month Normal (1)	Average Temperature Current Month Actual	Average Temperature Current Month Normal (1)	Average Temperature Previous Month Actual	Average Temperature Previous Month Normal (1)	Per Customer Adjustment therms/cust. (3)	Test Year # of Cust.	Volumetric Adjustment therms [L]X[M]	Margin $/therms (4)	Margin $ [N]X[O]	Cost of Gas $/therms (4)	Cost of Gas $ [N]X[Q]	Total Adjustment $ [P]+[R]
108		KS03U - Transportation	January	0.60	0.47	0.73	0.60	30.6	30.4	33.0	31.4		40	0	0.0510	0			0
109			February	1.54	0.52	0.60	0.47	33.1	33.9	30.6	30.4		36	0	0.0510	0			0
110			March	0.13	1.23	1.54	0.52	41.1	42.9	33.1	33.9		36	0	0.0510	0			0
111			April	0.28	1.74	0.13	1.23	46.8	52.1	41.1	42.9	311	37	11,500	0.0510	587			587
112			May	1.25	3.00	0.28	1.74	63.2	62.7	46.8	52.1	(606)	36	(21,807)	0.0510	(1,112)			(1,112)
113			June	1.84	3.10	1.25	3.00	76.8	72.6	63.2	62.7	(1,181)	36	(42,517)	0.0510	(2,168)			(2,168)
114			July	2.23	2.80	1.84	3.10	79.0	77.9	76.8	72.6	(569)	36	(20,472)	0.0510	(1,044)			(1,044)
115			August	6.09	2.51	2.23	2.80	76.2	76.2	79.0	77.9	175	36	6,298	0.0510	321			321
116			September	1.83	1.42	6.09	2.51	72.4	67.6	76.2	76.2	343	36	12,357	0.0510	630			630
117			October	0.88	1.22	1.83	1.42	54.4	54.7	72.4	67.6		36	0	0.0510	0			0
118			November	0.74	0.54	0.88	1.22	41.0	41.5	54.4	54.7		36	0	0.0510	0			0
119			December	0.00	0.60	0.74	0.54	29.4	31.4	41.0	41.5		36	0	0.0510	0			0
120			Total	17.41	19.15	18.14	19.15						36	(54,642)		(2,787)			(2,787)
121		KS08U - Transportation	January	0.60	0.47	0.73	0.60	30.6	30.4	33.0	31.4		13	0	0.0510	0			0
122			February	1.54	0.52	0.60	0.47	33.1	33.9	30.6	30.4		7	0	0.0510	0			0
123			March	0.13	1.23	1.54	0.52	41.1	42.9	33.1	33.9		13	0	0.0510	0			0
124			April	0.28	1.74	0.13	1.23	46.8	52.1	41.1	42.9	311	13	4,041	0.0510	206			206
125			May	1.25	3.00	0.28	1.74	63.2	62.7	46.8	52.1	(606)	12	(7,269)	0.0510	(371)			(371)
126			June	1.84	3.10	1.25	3.00	76.8	72.6	63.2	62.7	(1,181)	13	(15,353)	0.0510	(783)			(783)
127			July	2.23	2.80	1.84	3.10	79.0	77.9	76.8	72.6	(569)	13	(7,393)	0.0510	(377)			(377)
128			August	6.09	2.51	2.23	2.80	76.2	76.2	79.0	77.9	175	13	2,274	0.0510	116			116
129			September	1.83	1.42	6.09	2.51	72.4	67.6	76.2	76.2	343	13	4,462	0.0510	228			228
130			October	0.88	1.22	1.83	1.42	54.4	54.7	72.4	67.6		12	0	0.0510	0			0
131			November	0.74	0.54	0.88	1.22	41.0	41.5	54.4	54.7		12	0	0.0510	0			0
132			December	0.00	0.60	0.74	0.54	29.4	31.4	41.0	41.5		12	0	0.0510	0			0
133			Total	17.41	19.15	18.14	19.15						12	(19,238)		(981)			(981)
134		KS23U - Transportation	January	0.60	0.47	0.73	0.60	30.6	30.4	33.0	31.4		25	0	0.0510	0			0
135			February	1.54	0.52	0.60	0.47	33.1	33.9	30.6	30.4		22	0	0.0510	0			0
136			March	0.13	1.23	1.54	0.52	41.1	42.9	33.1	33.9		22	0	0.0510	0			0
137			April	0.28	1.74	0.13	1.23	46.8	52.1	41.1	42.9	311	21	6,527	0.0510	333			333
138			May	1.25	3.00	0.28	1.74	63.2	62.7	46.8	52.1	(606)	20	(12,115)	0.0510	(618)			(618)
139			June	1.84	3.10	1.25	3.00	76.8	72.6	63.2	62.7	(1,181)	21	(24,802)	0.0510	(1,265)			(1,265)
140			July	2.23	2.80	1.84	3.10	79.0	77.9	76.8	72.6	(569)	19	(10,805)	0.0510	(551)			(551)
141			August	6.09	2.51	2.23	2.80	76.2	76.2	79.0	77.9	175	18	3,149	0.0510	161			161
142			September	1.83	1.42	6.09	2.51	72.4	67.6	76.2	76.2	343	18	6,178	0.0510	315			315
143			October	0.88	1.22	1.83	1.42	54.4	54.7	72.4	67.6		18	0	0.0510	0			0
144			November	0.74	0.54	0.88	1.22	41.0	41.5	54.4	54.7		18	0	0.0510	0			0
145			December	0.00	0.60	0.74	0.54	29.4	31.4	41.0	41.5		18	0	0.0510	0			0
146			Total	17.41	19.15	18.14	19.15						20	(31,867)		(1,625)			(1,625)
147	Summary																		
148		Sales											1,195	(1,673,601)		(85,354)		(672,579)	(757,933)
149		Transportation											437	(648,798)		(33,089)		0	(33,089)
150		Total											1,632	(2,322,399)		(118,442)		(672,579)	(791,022)
151		Not Adjusted (5)																	
152		Hutchinson											58						
153		Liberal											6						
154		Wichita											35						
155		Total											99						
156		Total Irrigation Customers											1,730						

157 (1) 1981-2010 NOAA Normals
158 (2) Exhibit TJS-6
159 (3) [(Current Month Normal Rainfall - Current Month Actual Rainfall) x Current Month Rainfall Statistic + (Previous Month Normal Rainfall - Previous Month Actual Rainfall) * Previous Month Rainfall Statistic+
160 (Current Month Normal Temperature - Current Month Actual Temperature) x Current Month Temperature Statistic + (Previous Month Normal Temperature - Previous Month Actual Temperature) x Previous Month Temperature Statistic] *10
161 (4) Current rates effective 1/1/2013
162 (5) No meaningful statistical analyses for these locations.

Black Hills Energy - Kansas Exhibit TJS-8
Historical Irrigation Average Use Per Customer Page 1 of 1

Line No.	[A] Year	[B] Volume	[C] Avg. Annual Customers	[D] Use Per Customer
		therms		Therms/Cust
	Historical (1)			
1	1989	26,117,496	1,611	16,208
2	1990	27,560,366	1,648	16,729
3	1991	32,295,939	1,665	19,395
4	1992	23,699,287	1,692	14,005
5	1993	23,055,917	1,725	13,366
6	1994	37,635,392	1,903	19,782
7	1995	35,684,237	1,863	19,152
8	1996	31,050,818	1,782	17,421
9	1997	32,223,447	1,978	16,290
10	1998	35,220,842	1,906	18,477
11	1999	24,434,518	1,689	14,467
12	2000	33,715,873	1,694	19,902
13	2001	30,699,639	1,729	17,752
14	2002	43,371,558	1,834	23,655
15	2003	35,971,060	1,841	19,542
16	2004	30,898,753	1,857	16,641
17	2005	25,416,054	1,745	14,566
18	2006	31,541,927	1,717	18,375
19	2007	30,936,469	1,716	18,032
20	2008	34,985,201	1,743	20,077
21	2009	31,529,216	1,730	18,224
22	2010	32,899,503	1,724	19,084
23	2011	46,644,190	1,725	27,043
24	2012	45,929,047	1,723	26,656
25	2013	41,516,765	1,731	23,990
26	Average	31,335,429	1,765	17,717
27	10-yr Average	35,229,713	1,741	20,269
28	8-yr Average	36,997,790	1,726	21,435
29	5-yr. Average	39,703,744	1,726	22,999
30	Test Year Adjustment -Exhibit TJS-7			
31	2013 Adjustment	(2,322,399)	1,731	-1,342
32	2013 Adjusted	39,194,366	1,731	22,648

33 (1) Data from 1989 through 2005 from Exhibit KAH-1 in 2006 Kansas
34 Rate Case.

Black Hills Energy - Kansas
Andarko Test Year Adjustment and Estimated Bypass Revenue Rider (BRR)
Test Year Ended December 31, 2013

Exhibit ___(TJS-9)

Line No.	[A] Rate Schedule Customer Class	[B] Rate Number	[C] Tariff Number	[D] 2013 Test Period Total Number of Bills	[E] Total Number of Customers	[F] Volumes	[G] Winter Period Volumes (Nov-Mar)	[H] Existing Rates Margin	[I] Customer Charge	[J] Total Margin Revenues	[K] Gas Cost Unit Cost (1)	[L] Gas Cost Revenues	[M] Total Revenues
						therms	therms	$/therm	$/bill	$	$/therm	$	$
1	**Test Year Pro Forma Adjustment**												
2	Large Volume Firm	KS54K	LVF	24	2	1,343,060	574,450	0.05900	256.00	85,385	0.50263	675,065	760,450
3	Large Volume Transportatior	KS51K	LVTS	12	1	391,710	173,130	0.05900	256.00	26,183			26,183
4	Total			36	3	1,734,770	747,580			111,567		675,065	786,632
5	**Estimated Bypass Revenue Rider**												
6	Estimated Throughput and Revenues												
7	Large Volume Transportatior	KS50K	LVTS	12	1	11,379,820		0.02000	256.00	230,668			230,668
8	Large Volume Transportatior	KS52K	LVTS	12	1	3,377,200		0.05900	256.00	202,327			202,327
9	Large Volume Transportatior	KS52K	LVTS	12	1	223,750		0.02000	256.00	7,547			7,547
10	Large Volume Transportatior	KS53K	LVTS	24	2	4,541,840		0.05900	256.00	274,113			274,113
11	Total			60	5	19,522,610				714,655			714,655
12	Revenue Rider Allocation (1)												
13	Residential												68.17%
14	Small Commercial												10.59%
15	Small Volume												9.37%
16	Large Volume												11.87%
17	Class Revenue												
18	Residential												487,163
19	Small Commercial												75,682
20	Small Volume												66,978
21	Large Volume												84,832
22	Test Year Number of Bills (2)												
23	Residential												1,186,548
24	Small Commercial												105,494
25	Small Volume												17,568
26	Large Volume												1,941
27	Estimated Bypass Revenue Rider Rate - $/month												
28	Residential												
29	Small Commercial												0.4106
30	Small Volume												0.7174
31	Large Volume												3.8125
													43.7052

32 (1) See Exhibit TJS-12, Table 1, Lines 21-24
33 (2) See Exhibit TJS-13 Line 17 times 12

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

Line No.	Rate Schedule: Customer Class	Rate Number	Tariff Number	Total Number of Bills	Total Number of Customers	Volumes	Winter Period Volumes (Nov-Mar)	Existing Rates: Margin	Customer Charge	Total Margin Revenues	Gas Cost: Unit Cost (1)	Gas Cost: Revenues	Total Revenues	Per Books GSRS Revenues	Per Books AVTS Revenues	Total Revenues
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
						therms	therms	$/therm	$/bill	$	$/therm	$	$	$	$	
1	**Sales**															
2	Residential	KS001	RS-1	1,186,548	98,879	71,637,399	50,386,759	0.14524	16.00	29,389,384	0.49822	35,691,456	65,080,839	1,693,992	1,106,967	67,881,799
3	Small Commercial															
4		KS050	SC-1	104,012	8,668	13,020,585	9,623,519	0.14524	22.75	4,257,383	0.49612	6,459,777	10,717,160	296,258	199,402	11,212,820
5		KS052	SC-1	24	2	3,800	2,700	0.14524	22.75	1,098	0.49612	1,885	2,983	68	56	3,107
6		KS055	SC-1	12	1	1,090	850	0.14524	22.75	431	0.49612	541	972	68	15	1,055
7	Total			104,048	8,671	13,025,475	9,627,069			4,258,912		6,462,203	10,721,115	296,394	199,473	11,216,982
8	Small Volume Firm															
9		KS110	SVF	10,836	903	11,877,865	7,785,853	0.12500	40.00	1,918,173	0.50072	5,947,474	7,865,647	116,804	185,564	8,168,015
10		KS111	SVF	36	3	8,630	6,460	0.12500	40.00	2,519	0.50072	4,321	6,840	386	125	7,351
11	Total			10,872	906	11,886,495	7,792,313			1,920,692		5,951,796	7,872,487	117,190	185,689	8,175,367
12	Small Volume Interruptible															
13		KS125	SVI	1,063	89	920,940	564,454	0.12500	40.00	157,638	0.37519	345,523	503,161	11,496	14,720	529,377
14		KS126	SVI	12	1	21,610	15,240	0.12500	40.00	3,181	0.37519	8,108	11,289	257	316	11,863
15	Total			1,075	90	942,550	579,694			160,819		353,631	514,450	11,753	15,036	541,239
16	Large Volume Firm															
17		KS275	LVF	243	20	2,030,308	1,258,941	0.05900	256.00	181,996	0.50263	1,020,498	1,202,494	4,173	32,030	1,238,697
18		KS276	LVF	4	0	29,720	20,490	0.05900	256.00	2,777	0.50263	14,938	17,716	76	528	18,320
19		KS277	LVF	24	2	285,680	192,830	0.05900	256.00	22,999	0.50263	143,592	166,591	415	4,266	171,272
20	Total			271	23	2,345,708	1,472,261			207,773		1,179,028	1,386,801	4,664	36,825	1,428,289
21	Large Volume Interruptible															
22		KS250	LVI	122	10	1,464,004	449,313	0.05900	256.00	117,608	0.38896	569,444	687,052	2,213	25,187	714,452
23		KS251	LVI	16	1	151,070	132,850	0.05900	256.00	13,009	0.38896	58,761	71,770	358	2,645	74,773
24	Total			138	12	1,615,074	582,163			130,617		628,205	758,822	2,570	27,832	789,224
25	Irrigation (Interruptible)															
26		KS300	IR	15,421	1,285	31,695,201	2,069,114	0.05100	25.00	2,001,980	0.40188	12,737,527	14,739,507			14,739,507
27		KS301	IR	69	6	517,500	30,660	0.05100	25.00	28,118	0.40188	207,971	236,088			236,088
28	Total			15,490	1,291	32,212,701	2,099,774			2,030,098		12,945,497	14,975,595			14,975,595
29	Wholesale															
30		KS350	WGS	60	5	505,295	362,668	0.05900	256.00	45,172	0.49820	251,736	296,908			296,908
31		KS351	WGS	24	2	660,020	437,430	0.05900	256.00	45,085	0.49730	328,230	373,315			373,315
32	Total			84	7	1,165,315	800,098			90,258		579,966	670,223			670,223
33	Total Sales			1,318,526	109,877	134,830,717	73,340,131			38,188,552		63,791,781	101,980,333	2,126,563	1,571,822	105,678,718

34 (1) Average Actual Unit Cost of Gas for Year Ended December 31, 2013

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

Line No.	Rate Schedule: Customer Class	Rate Number	Tariff Number	Total Number of Bills	Total Number of Customers	Volumes	Winter Period Volumes (Nov-Mar)	Existing Rates: Margin	Customer Charge	Total Margin Revenues	Gas Cost: Unit Cost (1)	Gas Cost: Revenues	Total Revenues	Per Books GSRS Revenues	Per Books AVTS Revenues	Total Revenues
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
						therms	therms	$/therm	$/bill	$	$/therm	$	$	$	$	
35	**Transportation**															
36	Small Commercial															
37		KS63U	SCTS-A	552	46	59,841	45,844	0.14524	22.75	21,249		0	21,249	1,578	891	23,718
38		KS64U	SCTS-A	12	1	2,953	2,580	0.14524	22.75	702		0	702	35	46	782
39		KS65U	SCTS-A	456	38	51,101	36,959	0.14524	22.75	17,796		0	17,796	1,301	778	19,875
40		KS66U	SCTS-A	84	7	13,697	9,950	0.14524	22.75	3,900		0	3,900	239	205	4,344
41		KS67U	SCTS-A	52	4	14,396	9,828	0.14524	22.75	3,274		0	3,274	152	225	3,651
42		KS68U	SCTS-A	48	4	6,944	5,591	0.14524	22.75	2,101		0	2,101	138	105	2,344
43		KS69U	SCTS-A	242	20	83,386	56,513	0.14524	22.75	17,616		0	17,616	689	1,310	19,616
44		KS27U	SCTS-A					0.14524	22.75	0		0	0			0
45	Total			1,446	121	232,318	167,265			66,638		0	66,638	4,132	3,561	74,331
46	Small Volume															
47		KS60U	SVTS-A	1,065	89	800,343	513,870	0.12500	40.00	142,643		0	142,643	11,613	12,387	166,643
48		KS12Z	SVTS-A	155	13	268,463	204,387	0.12500	40.00	39,758		0	39,758	1,706	4,203	45,667
49		KS07U	SVTS-A	1,063	89	1,707,005	1,147,201	0.12500	40.00	255,896		0	255,896	11,610	26,871	294,376
50		KS96U	SVTS-A	12	1	10,681	9,335	0.12500	40.00	1,815		0	1,815	133	164	2,112
51		KS94U	SVTS-A	408	34	396,210	205,062	0.12500	40.00	65,846		0	65,846	4,402	6,304	76,552
52		KS09U	SVTS-A	1,072	89	1,263,318	810,944	0.12500	40.00	200,795		0	200,795	11,733	19,691	232,219
53		KS84U	SVTS-A	61	5	38,472	26,165	0.12500	40.00	7,249		0	7,249	638	602	8,489
54		KS52U	SVTS-A	12	1	12,954	10,183	0.12500	40.00	2,099		0	2,099	131	201	2,431
55		KS46U	SVTS-A	1,521	127	1,914,979	1,239,455	0.12500	40.00	300,212		0	300,212	16,587	29,931	346,731
56		KS26U	SVTS-A	24	2	50,336	32,873	0.12500	40.00	7,252		0	7,252	261	815	8,328
57		KS49U	SVTS-A	48	4	143,470	100,240	0.12500	40.00	19,854		0	19,854	1,416	2,080	23,349
58		KS87U	SVTS-A		0			0.12500	40.00	0		0	0			0
59		KS59U	SVTS-A	12	1	237,090	158,830	0.12500	40.00	30,116		0	30,116	1,802	3,576	35,494
60		KS50U	SVTS-A	24	2	58,000	42,310	0.12500	40.00	8,210		0	8,210	386	850	9,446
61		KS74U	SVTS-A	24	2	181,680	126,170	0.12500	40.00	23,670		0	23,670	644	2,716	27,030
62		KS70U	SVTS-A	12	1	149,430	108,300	0.12500	40.00	19,159		0	19,159	1,673	2,170	23,002
63		KS80U	SVTS-A	48	4	196,860	138,740	0.12500	40.00	26,528		0	26,528	901	2,921	30,350
64		KS02V	SVTS-A	12	1	106,890	69,040	0.12500	40.00	13,841		0	13,841	644	1,605	16,090
65		KS16Z	SVTS-A		0			0.12500	40.00	0		0	0			0
66		KS89U	SVTS-A	24	2	364,900	241,950	0.12500	40.00	46,573		0	46,573	2,703	5,501	54,777
67		KS06Q	SVTS-A	12	1	8,980	6,730	0.12500	40.00	1,603		0	1,603	901	149	2,653
68		KS01T	SVTS	12	1	16,030	11,440	0.12500	40.00	2,484		0	2,484	129	224	2,837
69	Total			5,621	468	7,926,091	5,203,225			1,215,601		0	1,215,601	70,012	122,963	1,408,576
70	Irrigation															
71		KS04U	ITS-A		0			0.05100	25.00	0		0	0			0
72		KS02U	ITS-A	2,597	216	4,032,615	52,036	0.05100	25.00	270,588		0	270,588			270,588
73		KS01U	ITS-A	1,700	142	2,829,538	188,527	0.05100	25.00	186,806		0	186,806			186,806
74		KS23U	ITS-A	240	20	333,594	31,954	0.05100	25.00	23,013		0	23,013			23,013
75		KS03U	ITS-A	437	36	1,551,374	41,021	0.05100	25.00	90,045		0	90,045			90,045
76		KS08U	ITS-A	300	25	543,833	40,684	0.05100	25.00	35,235		0	35,235			35,235
77		KS05U	ITS-A		0			0.05100	25.00	0		0	0			0
78		KS48U	ITS-A	3	0	13,110	13,110	0.05100	25.00	744		0	744			744
79	Total			5,277	440	9,304,064	367,332			606,432		0	606,432			606,432

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

Line No.	Rate Schedule: Customer Class	Rate Schedule: Rate Number	Tariff Number	Total Number of Bills	Total Number of Customers	Volumes	Winter Period Volumes (Nov-Mar)	Existing Rates: Margin	Existing Rates: Customer Charge	Existing Rates: Total Margin Revenues	Existing Rates: Gas Cost: Unit Cost (1)	Existing Rates: Gas Cost: Revenues	Existing Rates: Total Revenues	Per Books GSRS Revenues	Per Books AVTS Revenues	Total Revenues
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
						therms	therms	$/therm	$/bill	$	$/therm	$	$	$	$	
80	Large Volume (Full Margin)															
81		KS06U	LVTS-A	24	2	95,935	51,897	0.05900	256.00	11,804		0	11,804	417	1,500	13,722
82		KS04Z	LVTS-A	24	2	91,822	72,061	0.05900	256.00	11,561		0	11,561	424	1,424	13,409
83		KS98U	LVTS-A	52	4	177,734	102,539	0.05900	256.00	23,798		0	23,798	898	2,814	27,511
84		KS09Z	LVTS-A	24	2	108,877	66,404	0.05900	256.00	12,568		0	12,568	417	1,703	14,688
85		KS99U	LVTS-A	108	9	619,134	371,476	0.05900	256.00	64,177		0	64,177	1,885	9,830	75,892
86		KS93U	LVTS-A	101	8	608,457	313,371	0.05900	256.00	61,755		0	61,755	1,774	9,885	73,414
87		KS28U	LVTS-A		0			0.05900	256.00	0		0	0			0
88		KS91U	LVTS-A		0			0.05900	256.00	0		0	0			0
89		KS55U	LVTS-A		0			0.05900	256.00	0		0	0			0
90		KS57U	LVTS-A	12	1	176,580	48,610	0.05900	256.00	13,490		0	13,490	415	2,938	16,843
91		KS62U	LVTS-A	1	0	10,750	10,750	0.05900	256.00	890		0	890	12	104	1,006
92		KS05V	OLVTS-A		0			0.05900	256.00	0		0	0			0
93		KS51U	LVTS-A	24	2	75,230	52,350	0.05900	256.00	10,583		0	10,583	829	1,107	12,518
94		KS86U	LVTS-A	60	5	212,120	137,280	0.05900	256.00	27,875		0	27,875	1,037	3,196	32,108
95		KS03V	OLVTS-A	60	5	425,300	270,260	0.05900	256.00	40,453		0	40,453	1,037	6,477	47,966
96		KS04V	OLVTS-A	24	2	405,250	223,660	0.05900	256.00	30,054		0	30,054	415	6,385	36,853
97		KS56U	LVTS-A	12	1	47,200	32,770	0.05900	256.00	5,857		0	5,857	415	693	6,964
98		KS78U	LVTS-A	50	4	245,230	144,430	0.05900	256.00	27,269		0	27,269	874	3,859	32,002
99		KS79U	OLVTS-A	12	1	290,490	148,020	0.05900	256.00	20,211		0	20,211	207	4,612	25,030
100		KS01V	LVTS-A	12	1	63,970	41,220	0.05900	256.00	6,846		0	6,846	207	957	8,011
101		KS18Z	LVTS-A		0			0.05900	256.00	0		0	0			0
102		KS23Z	OLVTS-A		0			0.05900	256.00	0		0	0			0
103		KS88U	LVTS-A	12	1	59,350	44,250	0.05900	256.00	6,574		0	6,574	207	861	7,642
104		KS90U	OLVTS-A	12	1	143,830	93,750	0.05900	256.00	11,558		0	11,558	207	2,170	13,935
105		KS01Q	LVTS-A	36	3	2,965,990	1,377,450	0.05900	256.00	184,209		0	184,209	829	46,996	232,035
106		KS01K	LVTS	34	3	2,937,290	1,354,030	0.05900	256.00	182,004		0	182,004	622	47,455	230,081
107		KS03K	LVTS	12	1	227,200	127,220	0.05900	256.00	16,477		0	16,477	207	3,608	20,292
108		KS41K	LVTS	11	1	498,990	214,280	0.05900	256.00	32,256		0	32,256	207	8,157	40,620
109		KS42K	LVTS	12	1	428,600	176,210	0.05900	256.00	28,359		0	28,359	207	7,080	35,646
110		KS502	LVTS	101	8	2,600,670	1,488,270	0.05900	256.00	179,296		0	179,296	2,280	40,464	222,039
111		KS504	LVTS	35	3	1,250,990	607,730	0.05900	256.00	82,768		0	82,768	622	20,036	103,426
112		KS508	LVTS	47	4	491,720	306,660	0.05900	256.00	41,043		0	41,043	886	7,562	49,492
113		KS509	LVTS	34	3	1,784,210	848,960	0.05900	256.00	113,972		0	113,972	829	28,917	143,719
114		KS510	LVTS	12	1	1,093,200	490,140	0.05900	256.00	67,571		0	67,571	207	17,766	85,544
115		KS516	LVTS	288	24	5,393,750	2,541,070	0.05900	256.00	391,959		0	391,959	5,628	86,319	483,907
116		KS524	LVTS	12	1	3,596,060	1,925,050	0.05900	256.00	215,240		0	215,240	622	56,604	272,465
117		KS527	LVTS	12	1	1,878,440	911,170	0.05900	256.00	113,900		0	113,900	207	30,252	144,359
118		KS591	LVTS	142	12	5,018,960	2,340,060	0.05900	256.00	332,471		0	332,471	3,674	80,882	417,027
119	Total			1,412	118	34,023,329	16,933,398			2,368,848		0	2,368,848	28,706	542,612	2,940,167

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
	Rate Schedule			Total	Total		Winter Period	Existing Rates						Per Books	Per Books	Total
	Customer	Rate	Tariff	Number of	Number of	Volumes	Volumes		Customer	Total Margin	Gas Cost		Total	GSRS	AVTS	Revenues
Line No.	Class	Number	Number	Bills	Customers		(Nov-Mar)	Margin	Charge	Revenues	Unit Cost (1)	Revenues	Revenues	Revenues	Revenues	
						therms	therms	$/therm	$/bill	$	$/therm	$	$	$	$	
120	Large Volume (Negotiated Margin)															
121		KS02Q	LVTS-A	12	1	1,593,740		0.05000	256.00	82,759		0	82,759			82,759
122		KS03Q	LVTS-A	12	1	2,172,460		0.03650	256.00	82,367		0	82,367			82,367
123		KS02H	LVTS-A	12	1	724,960		0.03600	256.00	29,171		0	29,171			29,171
124		KS513	LVTS		0			0.00000	0.00							0
125		KS27K	LVTS	8	1	167,440		0.02200	256.00	5,732		0	5,732			5,732
126		KS29K	LVTS	4	0	12,031,930		0.01500	256.00	181,503		0	181,503			181,503
127		KS32K	LVTS	12	1	3,579,830		0.01500	256.00	56,769		0	56,769			56,769
128		KS43K			0			0.05400	256.00							0
129								0.04500								0
130								0.02500								0
131		KS44K	LVTS	2	0	193,970		0.02500	256.00	5,361		0	5,361			5,361
132		KS45K		12	1	0		0.02700	256.00	3,072		0	3,072			3,072
133								0.02100								0
134								0.01500								0
135								0.00800								0
136		KS50K	LVTS		0			0.02300	0.00							0
137		KS51K	LVTS		0			0.07500	0.00							0
138		KS52K	LVTS		0			0.02000	0.00							0
139		KS53K	LVTS		0			0.05000	0.00							0
140		KS54K	LVTS		0			0.01000	0.00							0
141		KS503	LVTS	12	1	10,169,330		0.01000	256.00	104,765		0	104,765			104,765
142		KS512	LVTS	12	1	8,854,730		0.01110	256.00	101,360		0	101,360			101,360
143		KS514	LVTS	4	0	427,720		0.02900	256.00	13,428		0	13,428			13,428
144		KS515	LVTS	4	0	1,180,850		0.04600	256.00	55,343		0	55,343			55,343
145		KS520	LVTS	7	1	7,857,720		0.00900	256.00	72,511		0	72,511			72,511
146		KS523	LVTS	10	1	1,770,260		0.02600	256.00	48,587		0	48,587			48,587
147		KS545	LVTS	4	0	8,466,240		0.00450	256.00	39,122		0	39,122			39,122
148		KS555	LVTS	9	1	1,526,600		0.04300	256.00	67,948		0	67,948			67,948
149		KS588	LVTS	12	1	413,650		0.02610	256.00	13,868		0	13,868			13,868
150		KS592	LVTS	12	1	10,150,520		0.00400	256.00	43,674		0	43,674			43,674
151		KS593	LVTS	12	1	9,968,520		0.01500	256.00	152,600		0	152,600			152,600
152		KS594	LVTS	11	1	10,859,930		0.00875	256.00	97,840		0	97,840			97,840
153	Total			183	15	92,110,400				1,257,780			1,257,780			1,257,780
154	Total Transportation			13,939	1,162	143,596,202	22,671,220			5,515,301			5,515,301	102,850	669,136	6,287,286
155	Total Sales & Transportation			1,332,465	111,039	278,426,919	96,011,351			43,703,852			107,495,634	2,229,412	2,240,959	111,966,004

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

	[A]	[B]	[C]	[Q]	[R]	[S]	[T]	[U]	[V]	[W]	[X]	[Y]	[Z]	[AA]	[AB]	[AC]	[AD]	[AE]	[AF]
	Rate Schedule			Adjustments															
	Customer	Rate	Tariff	Heating Adjustment					Irrigation Adjustment				Andarko Adjustment						
Line No.	Class	Number	Number	Volumes	Nov-Mar Vol.	Margin	Gas Cost	Total Revenues	Volumes	Margin	Gas Cost	Total Revenues	Number of Bills	Number of Cust	Volumes	Nov-Mar Vol.	Margin	Gas Cost	Total Revenues
				therms	therms	$	$	$	therms	$	$	$			therms	therms	$	$	$
1	**Sales**																		
2	Residential	KS001	RS-1	(1,290,154)	821,098	(187,382)	(642,786)	(830,168)											
3	Small Commercial																		
4		KS050	SC-1																
5		KS052	SC-1																
6		KS055	SC-1																
7	Total			(516,570)	203,889	(75,027)	(256,281)	(331,307)											
8	Small Volume Firm																		
9		KS110	SVF																
10		KS111	SVF																
11	Total			(42,628)	37,761	(5,328)	(21,344)	(26,673)											
12	Small Volume Interruptible																		
13		KS125	SVI																
14		KS126	SVI																
15	Total																		
16	Large Volume Firm																		
17		KS275	LVF																
18		KS276	LVF																
19		KS277	LVF																
20	Total			(574)	1,229	(34)	(289)	(323)					24	2	1,343,060	574,450	85,385	675,065	760,450
21	Large Volume Interruptible																		
22		KS250	LVI																
23		KS251	LVI																
24	Total																		
25	Irrigation (Interruptible)																		
26		KS300	IR																
27		KS301	IR																
28	Total								(1,673,601)	(85,354)	(672,579)	(757,933)							
29	Wholesale																		
30		KS350	WGS																
31		KS351	WGS																
32	Total																		
33	Total Sales			(1,849,926)	1,063,976	(267,771)	(920,700)	(1,188,470)	(1,673,601)	(85,354)	(672,579)	(757,933)	24	2	1,343,060	574,450	85,385	675,065	760,450

34 (1) Average Actual Unit Cost of Gas for Year E

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

	[A]	[B]	[C]	[Q]	[R]	[S]	[T]	[U]	[V]	[W]	[X]	[Y]	[Z]	[AA]	[AB]	[AC]	[AD]	[AE]	[AF]
	Rate Schedule			Adjustments															
	Customer	Rate	Tariff	Heating Adjustment					Irrigation Adjustment				Andarko Adjustment						
Line No.	Class	Number	Number	Volumes	Nov-Mar Vol.	Margin	Gas Cost	Total Revenues	Volumes	Margin	Gas Cost	Total Revenues	Number of Bills	Number of Cust	Volumes	Nov-Mar Vol.	Margin	Gas Cost	Total Revenues
				therms	therms	$	$	$	therms	$	$	$			therms	therms	$	$	$
35	**Transportation**																		
36	Small Commercial																		
37		KS63U	SCTS-A																
38		KS64U	SCTS-A																
39		KS65U	SCTS-A																
40		KS66U	SCTS-A																
41		KS67U	SCTS-A																
42		KS68U	SCTS-A																
43		KS69U	SCTS-A																
44		KS27U	SCTS-A																
45	Total																		
46	Small Volume																		
47		KS60U	SVTS-A																
48		KS12Z	SVTS-A																
49		KS07U	SVTS-A																
50		KS96U	SVTS-A																
51		KS94U	SVTS-A																
52		KS09U	SVTS-A																
53		KS84U	SVTS-A																
54		KS52U	SVTS-A																
55		KS46U	SVTS-A																
56		KS26U	SVTS-A																
57		KS49U	SVTS-A																
58		KS87U	SVTS-A																
59		KS59U	SVTS-A																
60		KS50U	SVTS-A																
61		KS74U	SVTS-A																
62		KS70U	SVTS-A																
63		KS80U	SVTS-A																
64		KS02V	SVTS-A																
65		KS16Z	SVTS-A																
66		KS89U	SVTS-A																
67		KS06Q	SVTS-A																
68		KS01T	SVTS																
69	Total																		
70	Irrigation																		
71		KS04U	ITS-A																
72		KS02U	ITS-A																
73		KS01U	ITS-A																
74		KS23U	ITS-A																
75		KS03U	ITS-A																
76		KS08U	ITS-A																
77		KS05U	ITS-A																
78		KS48U	ITS-A																
79	Total								(648,798)	(33,089)	0	(33,089)							

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

	[A]	[B]	[C]	[Q]	[R]	[S]	[T]	[U]	[V]	[W]	[X]	[Y]	[Z]	[AA]	[AB]	[AC]	[AD]	[AE]	[AF]
	Rate Schedule			Adjustments															
	Customer	Rate	Tariff	Heating Adjustment					Irrigation Adjustment				Andarko Adjustment						
Line No.	Class	Number	Number	Volumes	Nov-Mar Vol.	Margin	Gas Cost	Total Revenues	Volumes	Margin	Gas Cost	Total Revenues	Number of Bills	Number of Cust	Volumes	Nov-Mar Vol.	Margin	Gas Cost	Total Revenues
				therms	therms	$	$	$	therms	$	$	$			therms	therms	$	$	$
80	Large Volume (Full Margin)																		
81		KS06U	LVTS-A																
82		KS04Z	LVTS-A																
83		KS98U	LVTS-A																
84		KS09Z	LVTS-A																
85		KS99U	LVTS-A																
86		KS93U	LVTS-A																
87		KS28U	LVTS-A																
88		KS91U	LVTS-A																
89		KS55U	LVTS-A																
90		KS57U	LVTS-A																
91		KS62U	LVTS-A																
92		KS05V	OLVTS-A																
93		KS51U	LVTS-A																
94		KS86U	LVTS-A																
95		KS03V	OLVTS-A																
96		KS04V	OLVTS-A																
97		KS56U	LVTS-A																
98		KS78U	LVTS-A																
99		KS79U	OLVTS-A																
100		KS01V	LVTS-A																
101		KS18Z	LVTS-A																
102		KS23Z	OLVTS-A																
103		KS88U	LVTS-A																
104		KS90U	OLVTS-A																
105		KS01Q	LVTS-A																
106		KS01K	LVTS																
107		KS03K	LVTS																
108		KS41K	LVTS																
109		KS42K	LVTS																
110		KS502	LVTS																
111		KS504	LVTS																
112		KS508	LVTS																
113		KS509	LVTS																
114		KS510	LVTS																
115		KS516	LVTS																
116		KS524	LVTS																
117		KS527	LVTS																
118		KS591	LVTS																
119	Total												12	1	391,710	173,130	26,183	0	26,183

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

	[A]	[B]	[C]	[Q]	[R]	[S]	[T]	[U]	[V]	[W]	[X]	[Y]	[Z]	[AA]	[AB]	[AC]	[AD]	[AE]	[AF]
	Rate Schedule			Adjustments															
	Customer	Rate	Tariff	Heating Adjustment					Irrigation Adjustment				Andarko Adjustment						
Line No.	Class	Number	Number	Volumes	Nov-Mar Vol.	Margin	Gas Cost	Total Revenues	Volumes	Margin	Gas Cost	Total Revenues	Number of Bills	Number of Cust	Volumes	Nov-Mar Vol.	Margin	Gas Cost	Total Revenues
				therms	therms	$	$	$	therms	$	$	$			therms	therms	$	$	$
120	Large Volume (Negotiated Margin)																		
121		KS02Q	LVTS-A																
122		KS03Q	LVTS-A																
123		KS02H	LVTS-A																
124		KS513	LVTS																
125		KS27K	LVTS																
126		KS29K	LVTS																
127		KS32K	LVTS																
128		KS43K																	
129																			
130																			
131		KS44K	LVTS																
132		KS45K																	
133																			
134																			
135																			
136		KS50K	LVTS																
137		KS51K	LVTS																
138		KS52K	LVTS																
139		KS53K	LVTS																
140		KS54K	LVTS																
141		KS503	LVTS																
142		KS512	LVTS																
143		KS514	LVTS																
144		KS515	LVTS																
145		KS520	LVTS																
146		KS523	LVTS																
147		KS545	LVTS																
148		KS555	LVTS																
149		KS588	LVTS																
150		KS592	LVTS																
151		KS593	LVTS																
152		KS594	LVTS																
153	Total																		
154	Total Transportation			0	0	0	0	0	(648,798)	(33,089)	0	(33,089)	12	1	391,710	173,130	26,183	0	26,183
155	Total Sales & Transportation			(1,849,926)	1,063,976	(267,771)	(920,700)	(1,188,470)	(2,322,399)	(118,442)	(672,579)	(791,022)	36	3	1,734,770	747,580	111,567	675,065	786,632

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

Line No.	[A] Customer Class	[B] Rate Number	[C] Tariff Number	[AG] Total Number of Bills	[AH] Total Number of Customers	[AI] Volumes	[AJ] Winter Period Volumes (Nov-Mar)	[AK] Revenues Margin Revenues	[AL] Revenues Gas Cost Revenues	[AM] Revenues Total Revenues
				Adjusted Test Year (Including GSRS and Excluding AVTS Revenues)						
	Rate Schedule							Revenues		
						therms	therms	$	$	$
1	**Sales**									
2	Residential	KS001	RS-1	1,186,548	98,879	70,347,245	51,207,857	30,895,994	35,048,670	65,944,664
3	Small Commercial									
4		KS050	SC-1							
5		KS052	SC-1							
6		KS055	SC-1							
7	Total			104,048	8,671	12,508,905	9,830,958	4,480,279	6,205,923	10,686,202
8	Small Volume Firm									
9		KS110	SVF							
10		KS111	SVF							
11	Total			10,872	906	11,843,867	7,830,074	2,032,553	5,930,451	7,963,004
12	Small Volume Interruptible									
13		KS125	SVI							
14		KS126	SVI							
15	Total			1,075	90	942,550	579,694	172,572	353,631	526,203
16	Large Volume Firm									
17		KS275	LVF							
18		KS276	LVF							
19		KS277	LVF							
20	Total			295	25	3,688,194	2,047,940	297,787	1,853,804	2,151,591
21	Large Volume Interruptible									
22		KS250	LVI							
23		KS251	LVI							
24	Total			138	12	1,615,074	582,163	133,188	628,205	761,392
25	Irrigation (Interruptible)									
26		KS300	IR							
27		KS301	IR							
28	Total			15,490	1,291	30,539,100	2,014,420	1,944,744	12,272,918	14,217,662
29	Wholesale									
30		KS350	WGS							
31		KS351	WGS							
32	Total			84	7	1,165,315	800,098	90,258	579,966	670,223
33	Total Sales			1,318,550	109,879	132,650,250	74,893,203	40,047,375	62,873,567	102,920,942
34	(1) Average Actual Unit Cost of Gas for Year E									

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

	[A]	[B]	[C]	[AG]	[AH]	[AI]	[AJ]	[AK]	[AL]	[AM]
				Adjusted Test Year (Including GSRS and Excluding AVTS Revenues)						
	Rate Schedule			Total	Total		Winter Period	Revenues		
Line No.	Customer Class	Rate Number	Tariff Number	Number of Bills	Number of Customers	Volumes	Volumes (Nov-Mar)	Margin Revenues	Gas Cost Revenues	Total Revenues
						therms	therms	$	$	$
35	**Transportation**									
36	Small Commercial									
37		KS63U	SCTS-A							
38		KS64U	SCTS-A							
39		KS65U	SCTS-A							
40		KS66U	SCTS-A							
41		KS67U	SCTS-A							
42		KS68U	SCTS-A							
43		KS69U	SCTS-A							
44		KS27U	SCTS-A							
45	Total			1,446	121	232,318	167,265	70,770	0	70,770
46	Small Volume									
47		KS60U	SVTS-A							
48		KS12Z	SVTS-A							
49		KS07U	SVTS-A							
50		KS96U	SVTS-A							
51		KS94U	SVTS-A							
52		KS09U	SVTS-A							
53		KS84U	SVTS-A							
54		KS52U	SVTS-A							
55		KS46U	SVTS-A							
56		KS26U	SVTS-A							
57		KS49U	SVTS-A							
58		KS87U	SVTS-A							
59		KS59U	SVTS-A							
60		KS50U	SVTS-A							
61		KS74U	SVTS-A							
62		KS70U	SVTS-A							
63		KS80U	SVTS-A							
64		KS02V	SVTS-A							
65		KS16Z	SVTS-A							
66		KS89U	SVTS-A							
67		KS06Q	SVTS-A							
68		KS01T	SVTS							
69	Total			5,621	468	7,926,091	5,203,225	1,285,613	0	1,285,613
70	Irrigation									
71		KS04U	ITS-A							
72		KS02U	ITS-A							
73		KS01U	ITS-A							
74		KS23U	ITS-A							
75		KS03U	ITS-A							
76		KS08U	ITS-A							
77		KS05U	ITS-A							
78		KS48U	ITS-A							
79	Total			5,277	440	8,655,266	334,243	573,344	0	573,344

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

	[A]	[B]	[C]	[AG]	[AH]	[AI]	[AJ]	[AK]	[AL]	[AM]
				Adjusted Test Year (Including GSRS and Excluding AVTS Revenues)						
	Rate Schedule			Total	Total		Winter Period	Revenues		
	Customer	Rate	Tariff	Number of	Number of	Volumes	Volumes	Margin	Gas Cost	Total
Line No.	Class	Number	Number	Bills	Customers		(Nov-Mar)	Revenues	Revenues	Revenues
						therms	therms	$	$	$
80	Large Volume (Full Margin)									
81		KS06U	LVTS-A							
82		KS04Z	LVTS-A							
83		KS98U	LVTS-A							
84		KS09Z	LVTS-A							
85		KS99U	LVTS-A							
86		KS93U	LVTS-A							
87		KS28U	LVTS-A							
88		KS91U	LVTS-A							
89		KS55U	LVTS-A							
90		KS57U	LVTS-A							
91		KS62U	LVTS-A							
92		KS05V	OLVTS-A							
93		KS51U	LVTS-A							
94		KS86U	LVTS-A							
95		KS03V	OLVTS-A							
96		KS04V	OLVTS-A							
97		KS56U	LVTS-A							
98		KS78U	LVTS-A							
99		KS79U	OLVTS-A							
100		KS01V	LVTS-A							
101		KS18Z	LVTS-A							
102		KS23Z	OLVTS-A							
103		KS88U	LVTS-A							
104		KS90U	OLVTS-A							
105		KS01Q	LVTS-A							
106		KS01K	LVTS							
107		KS03K	LVTS							
108		KS41K	LVTS							
109		KS42K	LVTS							
110		KS502	LVTS							
111		KS504	LVTS							
112		KS508	LVTS							
113		KS509	LVTS							
114		KS510	LVTS							
115		KS516	LVTS							
116		KS524	LVTS							
117		KS527	LVTS							
118		KS591	LVTS							
119	Total			1,424	119	34,415,039	17,106,528	2,423,738	0	2,423,738

Black Hills Energy - Kansas
Test Year Revenues Under Existing Rates
Test Year Ended December 31, 2013

Exhibit ___(TJS-10)

	[A]	[B]	[C]	[AG]	[AH]	[AI]	[AJ]	[AK]	[AL]	[AM]
				Adjusted Test Year (Including GSRS and Excluding AVTS Revenues)						
	Rate Schedule			Total	Total		Winter Period	Revenues		
	Customer	Rate	Tariff	Number of	Number of	Volumes	Volumes	Margin	Gas Cost	Total
Line No.	Class	Number	Number	Bills	Customers		(Nov-Mar)	Revenues	Revenues	Revenues
						therms	therms	$	$	$
120	Large Volume (Negotiated Margin)									
121		KS02Q	LVTS-A							
122		KS03Q	LVTS-A							
123		KS02H	LVTS-A							
124		KS513	LVTS							
125		KS27K	LVTS							
126		KS29K	LVTS							
127		KS32K	LVTS							
128		KS43K								
129										
130										
131		KS44K	LVTS							
132		KS45K								
133										
134										
135										
136		KS50K	LVTS							
137		KS51K	LVTS							
138		KS52K	LVTS							
139		KS53K	LVTS							
140		KS54K	LVTS							
141		KS503	LVTS							
142		KS512	LVTS							
143		KS514	LVTS							
144		KS515	LVTS							
145		KS520	LVTS							
146		KS523	LVTS							
147		KS545	LVTS							
148		KS555	LVTS							
149		KS588	LVTS							
150		KS592	LVTS							
151		KS593	LVTS							
152		KS594	LVTS							
153	Total			183	15	92,110,400	0	1,257,780	0	1,257,780
154	Total Transportation			13,951	1,163	143,339,114	22,811,261	5,611,244	0	5,611,244
155	Total Sales & Transportation			1,332,501	111,042	275,989,364	97,704,465	45,658,619	62,873,567	108,532,186

Black Hills Energy - Kansas
Functional Classification of Rate Base
Test Year Ended December 31, 2013

Line Number	Acct. No.	Description	Total Gas Utility Adjusted	Gas Supply Demand	Gas Supply Commodity	Transmission Demand	Transmission Commodity	Distribution Demand	Distribution Customer	Services	Meters and Regulators	Customer Accounts	Direct	Allocation Basis or Reference
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
			$	$	$	$	$	$	$	$	$	$	$	
1	Gas Plant in Service													
2		Intangible Plant												
3	301	Organization	186,932	35	0	7,238	11,428	22,773	22,347	33,328	38,514	51,269	0	Supervised O&M
4	302	Franchises & Consents	74,990	14	0	2,904	4,584	9,136	8,965	13,370	15,450	20,567	0	Supervised O&M
5	303	Miscellaneous Intangible Plant	3,246,838	605	0	125,721	198,493	395,541	388,152	578,881	668,953	890,491	0	Supervised O&M
6		Total Intangible Plant	3,508,760	654	0	135,863	214,506	427,449	419,464	625,579	722,917	962,327	0	Sum of Lines 3 thru 5
7		Production & Gathering Plant												
8	336	Purification Equipment	18,719			2,420	1,211	7,615	7,473					Mains Allocation
9		Total Product. & Gather. Plant	18,719	0	0	2,420	1,211	7,615	7,473	0	0	0	0	Sum of Line 8
10		Transmission Plant												
11	365	Land & Land Rights	514,663			66,546	33,299	209,365	205,453					Mains Allocation
12	366	Structures & Improvements	120,118			15,531	7,772	48,864	47,951					Mains Allocation
13	367	Mains	31,894,978			4,124,021	2,063,605	12,974,877	12,732,475					Mains Allocation
14	368	Compressor Station Equipment	21,484			2,778	1,390	8,740	8,576					Mains Allocation
15	369	Measuring & Reg. Station Eq.	3,408,850			440,764	220,553	1,386,720	1,360,813					Mains Allocation
16	371	Other Equipment	108,344			14,009	7,010	44,074	43,251					Mains Allocation
17		Total Transmission Plant	36,068,437	0	0	4,663,649	2,333,628	14,672,640	14,398,520	0	0	0	0	Sum of Lines 11 thru 16
18		Distribution Plant												
19	374	Land & Land Rights	401,173			51,872	25,956	163,197	160,148					Mains Allocation
20	375	Structures & Improvements	238,651			30,858	15,441	97,083	95,269					Mains Allocation
21	376	Mains	75,664,300			9,783,394	4,895,480	30,780,237	30,205,189					Mains Allocation
22	377	Compressor Station Equipment	174,659			22,583	11,300	71,051	69,724					Mains Allocation
23	378	Meas. & Reg. Sta. Equip.	4,102,876			530,502	265,456	1,669,050	1,637,868					Mains Allocation
24	379	Meas. & Reg. Sta. Equip. - CG	72,796			9,413	4,710	29,613	29,060					Mains Allocation
25	380	Services	48,308,962							48,308,962				Services
26	381	Meters	20,087,681								20,087,681			Meters and Regulators
27	382	Meter Installations	1,987,481								1,987,481			Meters and Regulators
28	383	House Regulators	13,648,208								13,648,208			Meters and Regulators
29	385	Indust. Meas. & Reg. Sta. Equip.	6,098,000								6,098,000			Meters and Regulators
30	387	Other Equipment	368,084			47,593	23,815	149,737	146,939					Mains Allocation
31		Total Distribution Plant	171,152,871	0	0	10,476,214	5,242,158	32,959,969	32,344,198	48,308,962	41,821,370	0	0	Sum of Lines 19 thru 30
32		General Plant												
33	389	Land & Land Rights	484,956	90	0	18,778	29,647	59,079	57,975	86,463	99,917	133,006	0	Supervised O&M
34	390	Structures and Improvements	7,315,754	1,364	0	283,275	447,243	891,231	874,581	1,304,331	1,507,280	2,006,450	0	Supervised O&M
35	391	Office Furniture & Equipment	14,908,988	2,780	0	577,294	911,450	1,816,265	1,782,333	2,658,133	3,071,730	4,089,002	0	Supervised O&M
36	392	Transportation Equipment	4,239,909	791	0	164,174	259,204	516,521	506,871	755,936	873,557	1,162,855	0	Supervised O&M
37	393	Stores Equipment	24,007	4	0	930	1,468	2,925	2,870	4,280	4,946	6,584	0	Supervised O&M
38	394	Tools & Work Equipment	2,180,840	407	0	84,445	133,324	265,678	260,714	388,823	449,323	598,126	0	Supervised O&M
39	395	Laboratory Equipment	91,380	17	0	3,538	5,586	11,132	10,924	16,292	18,827	25,062	0	Supervised O&M
40	396	Power Operated Equipment	557,596	104	0	21,591	34,088	67,928	66,659	99,414	114,883	152,929	0	Supervised O&M
41	397	Communication Equipment	1,159,961	216	0	44,915	70,913	141,311	138,671	206,810	238,989	318,136	0	Supervised O&M
42	398	Misc. Equipment	18,536	3	0	718	1,133	2,258	2,216	3,305	3,819	5,084	0	Supervised O&M
43	399.1	Asset Retirement Obligation for Gen Plt	4,062	1	0	157	248	495	486	724	837	1,114	0	Supervised O&M
44		General Plant	30,985,989	5,778	0	1,199,814	1,894,307	3,774,822	3,704,299	5,524,512	6,384,108	8,498,348	0	Sum of Lines 33 thru 43
45		Total Plant in Service	241,734,776	6,432	0	16,477,961	9,685,809	51,842,496	50,873,953	54,459,053	48,928,396	9,460,675	0	Sum of Lines 6, 9, 17, 31 and 44

Black Hills Energy - Kansas
Functional Classification of Rate Base
Test Year Ended December 31, 2013

Line Number	Acct. No.	Description	Total Gas Utility Adjusted	Gas Supply		Transmission		Distribution		Services	Meters and Regulators	Customer Accounts	Direct	Allocation Basis or Reference
				Demand	Commodity	Demand	Commodity	Demand	Customer					
			[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
			$	$	$	$	$	$	$	$	$	$	$		
46		Accumulated Depreciation													
47		Intangible	1,649,801	308	0	63,882	100,859	200,985	197,230	294,144	339,912	452,481	0	Intangible Plant
48		Production & Gathering	8,580	0	0	1,109	555	3,490	3,425	0	0	0	0	Prod. & Gathering Plant
49		Transmission	12,332,507	0	0	1,594,593	797,913	5,016,864	4,923,137	0	0	0	0	Transmission Plant
50		Distribution	65,358,968	0	0	4,000,602	2,001,848	12,586,581	12,351,434	18,447,975	15,970,527	0	0	Distribution Plant
51		General	14,537,261	2,711	0	562,900	888,725	1,770,980	1,737,894	2,591,858	2,995,142	3,987,051	0	General Plant
52		Total Accumulated Depreciation	93,887,117	3,018	0	6,223,087	3,789,901	19,578,900	19,213,120	21,333,977	19,305,582	4,439,532	0	Sum of Lines 47 thru 51
53		Net Plant	147,847,659	3,414	0	10,254,874	5,895,908	32,263,595	31,660,834	33,125,076	29,622,814	5,021,143	0	Line 45 - Line 52
54		Other Rate Base Items												
55		Working Capital	724,090	135	0	28,038	44,267	88,211	86,563	129,098	149,186	198,592	0	Supervised O&M
56		Materials & Supplies	948,379	25	0	64,647	38,000	203,390	199,590	213,655	191,957	37,116	0	Plant in Service
57		Gas Storage	2,980,645	2,980,645										Gas Supply - Demand
58		Prepayments	389,491	9	0	27,016	15,532	84,995	83,408	87,265	78,039	13,228	0	Net Plant
59		Customer Advances	(541,465)	(101)	0	(20,966)	(33,102)	(65,963)	(64,731)	(96,538)	(111,559)	(148,504)	0	Supervised O&M
60		Customer Deposits	(1,552,797)									(1,552,797)		Customer Accounts
61		Reserves for Injuries and Damages	(811,616)	(151)	0	(31,427)	(49,618)	(98,874)	(97,027)	(144,704)	(167,219)	(222,597)	0	Supervised O&M
62		Accum. Deferred Income Taxes	(18,790,961)	(434)	0	(1,303,361)	(749,351)	(4,100,599)	(4,023,990)	(4,210,090)	(3,764,964)	(638,171)	0	Net Plant
63		Unclaimed Check Reserves	(192)									(192)		Customer Accounts
64		Total Other Rate Base Items	(16,654,426)	2,980,128	0	(1,236,055)	(734,272)	(3,888,840)	(3,816,187)	(4,021,314)	(3,624,561)	(2,313,326)	0	Sum of Lines 55 thru 63
65		Total Rate Base	131,193,233	2,983,542	0	9,018,820	5,161,636	28,374,755	27,844,647	29,103,762	25,998,253	2,707,818	0	Line 53 + Line 64

Black Hills Energy - Kansas
Functional Classification of Operation and Maintenance Expenses
Test Year Ended December 31, 2013

Exhibit__(TJS-11)
Table 3

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
Line Number	Acct. No.	Description	Total Gas Utility Adjusted	Gas Supply		Transmission		Distribution		Services	Meters and Regulators	Customer Accounts	Direct	Allocation Basis or Reference
				Demand	Commodity	Demand	Commodity	Demand	Customer					
			$	$	$	$	$	$	$	$	$	$	$	
1	O & M Expenses													
2		Production & Gathering Expenses												
3		Operation												
4	750	Supervision & Engineering	0			0	0	0	0					Mains Allocation
5	752	Gas Wells Expenses	0			0	0	0	0					Mains Allocation
6	753	Field Lines Expenses	0			0	0	0	0					Mains Allocation
7	756	Field Meas. & Reg. Sta. Exp.	0			0	0	0	0					Mains Allocation
8	759	Other Expenses	0			0	0	0	0					Mains Allocation
9		Total Operation	0	0	0	0	0	0	0	0	0	0	0	Sum of Lines 4 thru 8
10		Maintenance												
11	764	Field Lines	0			0	0	0	0					Mains Allocation
12	767	Purification Equipment	0				0							Transmission - Commodity
13	769	Maintenance of Other Equipment	0			0	0	0	0					Mains Allocation
14		Total Maintenance	0	0	0	0	0	0	0	0	0	0	0	Sum of Lines 11 thru 13
15		Total Production & Gathering Exp.	0	0	0	0	0	0	0	0	0	0	0	Line 9 + Line 14
16	813	Other Gas Supply Expenses	690	690										Gas Supply - Demand
17	814	Underground Storage Expenses	2,870	2,870										Gas Supply - Demand
18		Transmission Expenses												
19		Operation												
20	850	Supervision & Engineering	77,349			10,001	5,004	31,466	30,878					Mains Allocation
21	851	Sys. Control & Load Dispatch.	712				712							Transmission - Commodity
22	854	Gas for Compressor Sta. Fuel	0			0	0	0	0					Mains Allocation
23	856	Mains Expenses	65,557			8,477	4,242	26,669	26,170					Mains Allocation
24	857	Meas. & Reg. Sta. Expenses	48,967			6,331	3,168	19,920	19,548					Mains Allocation
25	859	Other Expenses	0			0	0	0	0					Mains Allocation
26		Total Operation	192,585	0	0	24,809	13,126	78,054	76,596	0	0	0	0	Sum of Lines 20 thru 25
27		Maintenance												
28	861	Supervision & Engineering	17,630			2,280	1,141	7,172	7,038					Mains Allocation
29	863	Mains	248,655			32,151	16,088	101,153	99,263					Mains Allocation
30	864	Compressor Station Equipment	0			0	0	0	0					Mains Allocation
31	865	Meas. & Reg. Sta. Equip.	40,446			5,230	2,617	16,453	16,146					Mains Allocation
32	867	Other Equipment	26,502			3,427	1,715	10,781	10,580					Mains Allocation
33		Total Maintenance	333,233	0	0	43,087	21,560	135,559	133,027	0	0	0	0	Sum of Lines 28 thru 32
34		Total Transmission Expenses	525,818	0	0	67,896	34,686	213,613	209,622	0	0	0	0	Line 26 + Line 33
35		Distribution Expenses												
36		Operation												
37	870	Supervision & Engineering	863,936			42,171	21,108	132,678	130,199	262,963	274,816			Accounts 871 - 880
38	871	Load Dispatching	55				55							Transmission - Commodity
39	872	Compressor Station Expenses	0				0							Transmission - Commodity
40	874	Mains & Services	2,338,754			184,564	92,353	580,669	569,820	911,348				Accounts 376 and 380
41	875	Measuring & Regulating Sta. Equip, - Gener	131,017			16,940	8,477	53,298	52,302					Account 378
42	876	Measuring & Regulating Sta. Equip, - Ind.	144,272								144,272			Meters and Regulators
43	877	Measuring & Regulating Sta. Equp. - CG	7,900			1,021	511	3,214	3,154					Account 379
44	878	Meters & House Regulators	1,605,561								1,605,561			Meters and Regulators
45	879	Customer Installation Expenses	628,195							628,195				Services
46	880	Other Expenses	2,782,848			170,337	85,235	535,910	525,898	785,476	679,992			Distribution Plant
47	881	Rents	30			2	1	6	6	8	7			Distribution Plant
48		Total Operation	8,502,568	0	0	415,036	207,740	1,305,774	1,281,379	2,587,990	2,704,648	0	0	Sum of Lines 37 thru 47
49		Maintenance												
50	885	Supervision & Engineering	163,718	0	0	12,363	6,186	38,897	38,170	17,083	51,019	0	0	Accounts 886 - 894
51	886	Structures & Improvements	19,117	0	0	2,472	1,237	7,777	7,632	0	0	0	0	Account 375
52	887	Mains	461,902			59,724	29,885	187,902	184,391					Account 376
53	888	Main. Of Compressor Sta. Eq.	76,319			9,868	4,938	31,047	30,467					Account 377
54	889	Meas. & Reg. Sta. Eq. - Gen.	213,025			27,544	13,783	86,659	85,040					Mains Allocation
55	890	Meas. & Reg. Sta. Eq. - Ind.	20,453								20,453			Meters and Regulators
56	891	Meas. & Reg. Sta. Eq. - City Gate	200,358								200,358			Meters and Regulators
57	892	Services	134,135							134,135				Services
58	893	Meters & House Regulators	190,387								190,387			Meters and Regulators
59	894	Other Equipment	17,694			1,083	542	3,407	3,344	4,994	4,324			Distribution Plant
60		Total Maintenance	1,497,108	0	0	113,054	56,571	355,688	349,043	156,212	466,541	0	0	Sum of Lines 50 thru 59
61		Total Distribution	9,999,676	0	0	528,090	264,310	1,661,462	1,630,422	2,744,202	3,171,189	0	0	Line 48 + Line 60

Black Hills Energy - Kansas
Functional Classification of Operation and Maintenance Expenses
Test Year Ended December 31, 2013

Line Number	Acct. No.	Description	Total Gas Utility Adjusted	Gas Supply Demand	Gas Supply Commodity	Transmission Demand	Transmission Commodity	Distribution Demand	Distribution Customer	Services	Meters and Regulators	Customer Accounts	Direct	Allocation Basis or Reference
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
			$	$	$	$	$	$	$	$	$	$	$	
62		Customer Accounts Expenses												
63	901	Supervision	307,664									307,664		Customer Accounts
64	902	Meter Reading Expenses	660,178									660,178		Customer Accounts
65	903	Customer Records & Collection	2,434,272									2,434,272		Customer Accounts
66	904	Uncollectible Accounts	672,679									672,679		Customer Accounts
67	905	Miscellaneous	177,311									177,311		Customer Accounts
68		Total Customer Accounts Expenses	4,252,104	0	0	0	0	0	0	0	0	4,252,104	0	Sum of Lines 63 thru 67
69		Customer Service & Inform. Exp.												
70	907	Supervision	348,347				174,174					174,174		50% Trans Com., 50% Cust Accts.
71	908	Customer Assistance Expenses	403,395				201,698					201,698		50% Trans Com., 50% Cust Accts.
72	909	Information & Instruction Exp.	41,855				20,928					20,928		50% Trans Com., 50% Cust Accts.
73	910	Miscellaneous	39,090				19,545					19,545		50% Trans Com., 50% Cust Accts.
74		Total Cust. Service & Inf. Exp.	832,687	0	0	0	416,344	0	0	0	0	416,344	0	Sum of Lines 70 thru 73
75		Sales Expenses												
76	911	Supervision	229,909				114,955					114,955		50% Trans Com., 50% Cust Accts.
77	912	Demonstrating & Selling Exp.	199,958				99,979					99,979		50% Trans Com., 50% Cust Accts.
78	913	Advertising Expenses	115				58					58		50% Trans Com., 50% Cust Accts.
79	916	Miscellaneous	21,259				10,630					10,630		50% Trans Com., 50% Cust Accts.
80		Total Sales Expenses	451,241	0	0	0	225,621	0	0	0	0	225,621	0	Sum of Lines 76 thru 79
81		Administrative & General Expenses												
82		Operation												
83	920	A & G Salaries	7,844,877	1,463	0	303,763	479,591	955,691	937,836	1,398,668	1,616,297	2,151,569	0	Supervised O&M
84		Supply Allowance	144,685				144,685							$0.01 per dt of Throughput
85	921	Office Supplies & Expenses	1,642,319	306	0	63,593	100,402	200,073	196,335	292,810	338,370	450,429	0	Supervised O&M
86	922	Transfers	(362,816)	(68)	0	(14,049)	(22,181)	(44,200)	(43,374)	(64,687)	(74,752)	(99,507)	0	Supervised O&M
87	923	Outside Services Employed	1,030,197	192	0	39,890	62,980	125,502	123,158	183,674	212,254	282,546	0	Supervised O&M
88	924	Property Insurance	5,601	0	0	388	223	1,222	1,199	1,255	1,122	190	0	Net Plant
89	925	Injuries & Damages	594,226	111	0	23,009	36,328	72,391	71,038	105,945	122,430	162,975	0	Supervised O&M
90	926	Employee Pensions & Benefits	90,597	17	0	3,508	5,539	11,037	10,831	16,153	18,666	24,848	0	Supervised O&M
91	928	Regulatory Commission Expense	213,047				213,047							Transmission - Commodity
92	930	Miscellaneous	800,152	149	0	30,983	48,917	97,477	95,656	142,660	164,857	219,453	0	Supervised O&M
93	931	Rents	221,737	41	0	8,586	13,556	27,013	26,508	39,534	45,685	60,815	0	Supervised O&M
94	935	Maintenance of General Plant	568,989	106	0	22,032	34,785	69,316	68,021	101,445	117,230	156,053	0	Supervised O&M
95		Total A & G Expenses	12,793,611	2,318	0	481,704	1,117,871	1,515,523	1,487,209	2,217,457	2,562,159	3,409,371	0	Sum of Lines 83 thru 94
96		Total Operation & Maintenance	28,858,697	5,878	0	1,077,690	2,058,832	3,390,598	3,327,253	4,961,660	5,733,348	8,303,439	0	Sum of Lines 15,16,17,34,61,68,74,80,95
97		Supervised O & M before General	15,391,687	2,870	0	595,984	940,960	1,875,069	1,840,039	2,744,194	3,171,182	4,221,389	0	L15+L16+L34+L61-L47+L68-L66+L74+L80

Black Hills Energy - Kansas
Functional Classification of Other Cost of Service Components
Test Year Ended December 31, 2013

Exhibit__(TJS-11)
Table 4

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
Line Number	Acct. No.	Description	Total Gas Utility Adjusted	Gas Supply Demand	Gas Supply Commodity	Transmission Demand	Transmission Commodity	Distribution Demand	Distribution Customer	Services	Meters and Regulators	Customer Accounts	Direct	Allocation Basis or Reference
			$	$	$	$	$	$	$	$	$	$	$	
1		Depreciation Expense												
2		Intangible	113,835	21	0	4,408	6,959	13,868	13,609	20,296	23,454	31,221	0	Intangible Plant
3		Production & Gathering	623	0	0	81	40	253	249	0	0	0	0	Prod. & Gathering Plant
4		Transmission	497,414	0	0	64,316	32,183	202,348	198,568	0	0	0	0	Transmission Plant
5		Distribution	4,035,534	0	0	247,014	123,602	777,148	762,629	1,139,055	986,087	0	0	Distribution Plant
6		General	1,221,339	228	0	47,292	74,666	148,788	146,008	217,753	251,635	334,970	0	General Plant
7		Total Depreciation Expense	5,868,745	249	0	363,110	237,450	1,142,405	1,121,062	1,377,104	1,261,175	366,190	0	Sum of Lines 2 thru 6
8		Taxes Other Than Income Taxes												
9		Property Taxes	5,520,920	127	0	382,937	220,165	1,204,786	1,182,277	1,236,955	1,106,174	187,499	0	Net Plant
10		Payroll Taxes	(64,361)	(12)	0	(2,492)	(3,935)	(7,841)	(7,694)	(11,475)	(13,260)	(17,652)	0	Supervised O&M
11		Miscellaneous	165,051	31	0	6,391	10,090	20,107	19,731	29,427	34,006	45,268	0	Supervised O&M
12		Total Taxes Other than Income Taxes	5,621,610	146	0	386,836	226,320	1,217,052	1,194,315	1,254,907	1,126,919	215,115	0	Sum of Lines 9 thru 11
13		Other Operating Revenues												
14	487	Forfeited Discounts	444,424										444,424	Direct
15	488	Misc. Service Revenues	772,974	144	0	29,930	47,255	94,166	92,407	137,814	159,257	211,999	0	Supervised O&M
16	489	Trans. And Irrig. Revenues & Revenue Credits	3,799,296			491,249	245,814	1,545,553	1,516,679					Mains Allocation
17	492	Incidental Gasoline & Oil Sales	0		0									
18	495	Other Gas Revenues	622,146	116	0	24,090	38,034	75,792	74,376	110,923	128,182	170,632	0	Supervised O&M
19		Customer Deposits Interest Expense	(2,839)									(2,839)		Customer Accounts
20		Total Other Operating Revenues	5,636,001	260	0	545,270	331,104	1,715,512	1,683,462	248,737	287,440	379,792	444,424	Sum of Lines 14 thru 19

Black Hills Energy - Kansas
Functional Classification of Cost of Service and Rate Base
Test Year Ended December 31, 2013

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
Line Number	Acct. No.	Description	Total Gas Utility Adjusted	Gas Supply Demand	Gas Supply Commodity	Transmission Demand	Transmission Commodity	Distribution Demand	Distribution Customer	Services	Meters and Regulators	Customer Accounts	Direct	Allocation Basis or Reference
			$	$	$	$	$	$	$	$	$	$	$	
1	Summary													
2		Rate Base	131,193,233	2,983,542	0	9,018,820	5,161,636	28,374,755	27,844,647	29,103,762	25,998,253	2,707,818	0	Table 2 Line 65
3		Rate of Return	7.5220%	7.5220%	7.5220%	7.5220%	7.5220%	7.5220%	7.5220%	7.5220%	7.5220%	7.5220%	7.5220%	
4		Total Cost of Service												
5		Operation & Maintenance Expenses	28,858,697	5,878	0	1,077,690	2,058,832	3,390,598	3,327,253	4,961,660	5,733,348	8,303,439	0	Table 3 Line 96
6		Depreciation Expenses	5,868,745	249	0	363,110	237,450	1,142,405	1,121,062	1,377,104	1,261,175	366,190	0	Table 4 Line 7
7		Taxes Other Than Income Taxes	5,621,610	146	0	386,836	226,320	1,217,052	1,194,315	1,254,907	1,126,919	215,115	0	Table 4 Line 12
8		Return	9,868,355	224,422	0	678,396	388,258	2,134,349	2,094,474	2,189,185	1,955,589	203,682	0	Line 2 x Line 3
9		Income Taxes	4,580,045	104,157	0	314,853	180,196	990,582	972,076	1,016,032	907,617	94,532	0	Rate Base
10		Other Operating Revenues	(5,636,001)	(260)	0	(545,270)	(331,104)	(1,715,512)	(1,683,462)	(248,737)	(287,440)	(379,792)	(444,424)	Table 4 Line 20
11		Total Cost of Service	49,161,451	334,592	0	2,275,614	2,759,953	7,159,474	7,025,718	10,550,151	10,697,208	8,803,166	(444,424)	Sum of Lines 5 thru 10

Black Hills Energy - Kansas
Rate of Return Under Current and Traditional Rate Design
Test Year Ended December 31, 2013

Exhibit__(TJS-12)
Table 1

Line Number	[A] Description	[B] Total Gas Utility Adjusted	[C] Residential Service	[D] Firm and Transportation Small Commercial	[E] Firm and Transportation Small Volume	[F] Firm and Transportation Large Volume	[G] Interruptible Small Volume	[H] Interruptible Large Volume	[I] Basis of Allocation or Reference
		$	$	$	$	$	$	$	
1	Return Under Existing Rates								
2	Rate Base	131,193,233	94,882,673	14,278,954	11,396,251	9,831,846	505,912	297,596	Table 3 Line 18
3	Sales Revenues	92,483,400	65,944,664	10,756,972	9,248,617	5,245,552	526,203	761,392	Exhibit TJS-10
4	Cost of Gas	50,600,649	35,048,670	6,205,923	5,930,451	2,433,770	353,631	628,205	Exhibit TJS-10
5	Sales Revenues Excluding Gas Cost	41,882,751	30,895,994	4,551,049	3,318,166	2,811,782	172,572	133,188	Line 3 - Line 4
6	Net Cost of Service	49,161,451	35,865,914	5,627,919	4,069,671	3,270,675	204,736	122,536	Table 2 Line 19
7	Revenue Deficiency	7,278,700	4,969,920	1,076,870	751,504	458,893	32,164	(10,651)	Line 6 - Line 5
8	Additional Customer Charge Revenues from Negotiated LV	26,352	17,964	2,791	2,395	3,061	75	67	Mains Allocation
9	Net Revenue Deficiency	7,252,348	4,951,957	1,074,079	749,109	455,832	32,090	(10,719)	
10	Percent	7.8418%	7.5093%	9.9850%	8.0997%	8.6899%	6.0983%	-1.4078%	Line 9 / Line 3
11	Increase Under Proposed Rates	7,252,427	4,950,445	1,075,738	732,848	419,856	48,277	25,264	
12	Percent	7.8419%	7.5070%	10.0004%	7.9239%	8.0040%	9.1746%	3.3181%	Line 11 / Line 3
13	Increase Under Proposed Rates (Incl LV Credit)	7,278,779	4,968,408	1,078,528	735,243	422,916	48,352	25,332	Section 17
14	Incremental Taxes at 39.55%	2,878,757	1,965,005	426,558	290,789	167,263	19,123	10,019	Line 13 x 39.55%
15	Incremental Return	4,400,022	3,003,403	651,970	444,454	255,653	29,229	15,313	Line 13 - Line 14
16	Return Under Proposed Rates	9,868,403	7,136,161	1,075,065	847,396	717,804	47,840	44,137	Line 15 + Line 18
17	Rate of Return Under Proposed Rates	7.5220%	7.5210%	7.5290%	7.4357%	7.3008%	9.4562%	14.8311%	Line 16 / Line 2
18	Return Under Current Rates	5,468,381	4,132,758	423,095	402,942	462,151	18,611	28,824	(Line 2 X 7.52%) - Line 7 X (100 - 39.55%)
19	Rate of Return Under Current Rates	4.1682%	4.3557%	2.9631%	3.5357%	4.7005%	3.6788%	9.6856%	Line 18 / Line 2
20	Bypass Revenue Rider Allocation								Line 8
21	Residential	68.17%							
22	Small Commercial	10.59%							
23	Small Volume	9.37%							
24	Large Volume	11.87%							

25	Rate of Return Under Current Rates		Rate of Return Under Proposed Rates	
26	Residential + Small Commercial	4.1735%	Residential + Small Commercial	7.5221%
27	Small Volume (Firm + Interruptible + Full Margin Trans.)	3.5418%	Small Volume (Firm + Interruptible + Full Margin Trans.)	7.5216%
28	Large Volume (Firm + Interruptible + Full Margin Trans.)	4.8470%	Large Volume (Firm + Interruptible + Full Margin Trans.)	7.5220%
29	Total	4.1682%	Total	7.5220%

Black Hills Energy - Kansas
Allocation of Cost of Service
Test Year Ended December 31, 2013

Line Number	[A] Description	[B] Total Gas Utility Adjusted	[C] Residential Service	[D] Firm and Transportation Small Commercial	[E] Firm and Transportation Small Volume	[F] Firm and Transportation Large Volume	[G] Interruptible Small Volume	[H] Interruptible Large Volume	[I] Basis of Allocation or Reference
		$	$	$	$	$	$	$	
		Exhibit TJS-11							
1	Total Cost of Service								
2	Gas Supply								
3	Demand	334,592	243,430	47,183	33,572	10,407	0	0	50% Peak (Sales), 50% Firm Winter Period Sales
4	Commodity	0	0	0	0	0	0	0	Annual Sales
5	Total Gas Supply	334,592	243,430	47,183	33,572	10,407	0	0	Line 3 + Line 4
6	Transmission								
7	Demand	2,275,614	1,300,214	256,609	297,552	407,376	6,917	6,947	50% Peak, 50% Winter Period Throughput
8	Commodity	2,759,953	1,341,920	243,047	377,125	749,073	17,980	30,809	Annual Throughput
9	Total Transmission	5,035,568	2,642,133	499,656	674,677	1,156,449	24,897	37,755	Line 7 + Line 8
10	Distribution								
11	Demand	7,159,474	4,090,695	807,336	936,151	1,281,675	21,762	21,855	50% Peak, 50% Winter Period Throughput
12	Customer	7,025,718	6,052,610	699,566	210,328	45,986	13,709	3,520	Distribution - Customer
13	Total Distribution	14,185,191	10,143,305	1,506,901	1,146,479	1,327,661	35,471	25,375	Line 11 + Line 12
14	Services	10,550,151	9,088,885	1,050,501	315,838	69,054	20,586	5,285	Services
15	Meters and Regulators	10,697,208	7,259,633	1,290,884	1,513,632	496,407	98,657	37,995	Meters & Regulators
16	Customer Accounting	8,803,166	6,932,951	1,232,794	385,472	210,697	25,125	16,127	Customer Accounting
17	Direct								
18	Forfeited Discounts	(444,424)	(444,424)						Direct - Residential
19	Total Cost of Service	49,161,451	35,865,914	5,627,919	4,069,671	3,270,675	204,736	122,536	Sum of Lines 5,9,13,14,15,16 and 18

Black Hills Energy - Kansas
Allocation of Rate Base
Test Year Ended December 31, 2013

Exhibit__(TJS-12)
Table 3
Page 1 of 1

Line Number	[A] Description	[B] Total Gas Utility Adjusted	[C] Residential Service	[D] Firm and Transportation Small Commercial	[E] Firm and Transportation Small Volume	[F] Firm and Transportation Large Volume	[G] Interruptible Small Volume	[H] Interruptible Large Volume	[I] Basis of Allocation or Reference
		$ Exhibit TJS-11	$	$	$	$	$	$	
1	Rate Base								
2	Gas Supply								
3	Demand	2,983,542	2,170,655	420,724	299,362	92,801	0	0	50% Peak (Sales), 50% Firm Winter Period Sales
4	Commodity	0	0	0	0	0	0	0	Annual Sales
5	Total Gas Supply	2,983,542	2,170,655	420,724	299,362	92,801	0	0	Line 3 + Line 4
6	Transmission								
7	Demand	9,018,820	5,153,066	1,017,004	1,179,273	1,614,531	27,414	27,531	50% Peak, 50% Winter Period Throughput
8	Commodity	5,161,636	2,509,644	454,544	705,295	1,400,909	33,626	57,618	Annual Throughput
9	Total Transmission	14,180,456	7,662,710	1,471,549	1,884,569	3,015,440	61,039	85,149	Line 7 + Line 8
10	Distribution								
11	Demand	28,374,755	16,212,430	3,199,671	3,710,197	5,079,593	86,249	86,616	50% Peak, 50% Winter Period Throughput
12	Customer	27,844,647	23,987,980	2,772,551	833,581	182,253	54,332	13,949	Distribution - Customer
13	Total Distribution	56,219,402	40,200,410	5,972,221	4,543,778	5,261,846	140,581	100,566	Line 11 + Line 12
14	Services	29,103,762	25,072,700	2,897,923	871,275	190,494	56,789	14,580	Services
15	Meters and Regulators	25,998,253	17,643,650	3,137,335	3,678,697	1,206,456	239,774	92,341	Meters & Regulators
16	Customer Accounting	2,707,818	2,132,547	379,202	118,570	64,810	7,728	4,960	Customer Accounting
17	Direct	0	0	0	0	0	0	0	Direct
18	Total Rate Base	131,193,233	94,882,673	14,278,954	11,396,251	9,831,846	505,912	297,596	Sum of Lines 5,9,13,14,15,16 and 17

Black Hills Energy - Kansas
Class Allocation Bases
Test Year Ended December 31, 2013

Line Number	[A] Description		[B] Total Gas Utility Adjusted	[C] Residential Service	[D] Firm and Transportation Small Commercial	[E] Firm and Transportation Small Volume	[F] Firm and Transportation Large Volume	[G] Interruptible Small Volume	[H] Interruptible Large Volume	[I] Basis of Allocation or Reference
			$	$	$	$	$	$	$	
1	Allocation Bases									
2	Firm Winter Peak Demand	Load Factor		22.00%	20.00%	30.00%	50.00%	0.00%	0.00%	Heating Adjustment Workpapers
3	Peak Day - therms/Day		1,446,310	876,055	174,537	180,548	215,170	0	0	Line 15 / 365 / Line 2
4	Allocation Factor		100.0000%	60.5717%	12.0678%	12.4833%	14.8772%	0.0000%	0.0000%	Line 3 / Line 3 Column B
5	Firm Winter Peak Demand - Sales Only									
6	Peak Day - therms/Day		1,182,168	876,055	171,355	108,163	26,595	0	0	Line 18 / 365 / Line 2
7	Allocation Factor		100.0000%	74.1058%	14.4950%	9.1496%	2.2496%	0.0000%	0.0000%	Line 6 / Line 6 Column B
8	Winter Period Throughput									
9	Winter (Nov-Mar) Throughput - therms		95,355,801	51,207,857	9,998,223	13,033,299	19,954,566	579,694	582,163	Exhibit TJS-10
10	Allocation Factor		100.0000%	53.7019%	10.4852%	13.6681%	20.9264%	0.6079%	0.6105%	Line 9 / Line 9 Column B
11	Firm Winter Period Sales									
12	Winter (Nov-Mar) Sales - therms		71,716,926	51,207,857	9,830,958	7,830,074	2,848,038	0	0	Line 9 excluding interruptible and transportation
13	Allocation Factor		100.0000%	71.4027%	13.7080%	10.9180%	3.9712%	0.0000%	0.0000%	Line 12 / Line 12 Column B
14	Commodity									
15	Annual Throughput - therms		144,684,598	70,347,245	12,741,223	19,769,958	39,268,548	942,550	1,615,074	Exhibit TJS-10
16	Allocation Factor		100.0000%	48.6211%	8.8062%	13.6642%	27.1408%	0.6515%	1.1163%	Line 15 / Line 15 Column B
17	Commodity - Firm Sales									
18	Annual Sales - therms		99,553,526	70,347,245	12,508,905	11,843,867	4,853,509	0	0	Line 15 excluding interruptible and transportation
19	Allocation Factor		100.0000%	70.6627%	12.5650%	11.8970%	4.8753%	0.0000%	0.0000%	Line 18 / Line 18 Column B
20	Commodity - Sales									
21	Annual Sales - therms		102,111,150	70,347,245	12,508,905	11,843,867	4,853,509	942,550	1,615,074	Exhibit TJS-10
22	Allocation Factor		100.0000%	68.8928%	12.2503%	11.5990%	4.7532%	0.9231%	1.5817%	Line 21 / Line 21 Column B
23	Distribution - Customer									
24	Average Number of Customers		109,296	98,879	8,791	1,374	150	90	12	Exhibit TJS-10
25	Weighting Factor			1.00	1.30	2.50	5.00	2.50	5.00	Weighting Factor Study
26	Weighted Number of Customers		114,776	98,879	11,429	3,436	751	224	58	Line 24 x Line 25
27	Allocation Factor		100.0000%	86.1493%	9.9572%	2.9937%	0.6545%	0.1951%	0.0501%	Line 26 / Line 26 Column B
28	Services									
29	Average Number of Customers		109,296	98,879	8,791	1,374	150	90	12	Exhibit TJS-10
30	Weighting Factor			1.00	1.30	2.50	5.00	2.50	5.00	Weighting Factor Study
31	Weighted Number of Customers		114,776	98,879	11,429	3,436	751	224	58	Line 29 x Line 30
32	Services Cost Allocator		100.0000%	86.1493%	9.9572%	2.9937%	0.6545%	0.1951%	0.0501%	Line 31 / Line 31 Column B
33	Meters & Regulators									
34	Average Number of Customers		109,296	98,879	8,791	1,374	150	90	12	Exhibit TJS-10
35	Weighting Factor			1.00	2.00	15.00	45.00	15.00	45.00	Weighting Factor Study
36	Weighted Number of Customers		145,700	98,879	17,582	20,616	6,761	1,344	518	Line 34 x Line 35
37	Meters & Regulators Cost Allocator		100.0000%	67.8648%	12.0675%	14.1498%	4.6405%	0.9223%	0.3552%	Line 36 / Line 36 Column B
38	Customer Accounting									
39	Average Number of Customers		109,296	98,879	8,791	1,374	150	90	12	Exhibit TJS-10
40	Weighting Factor			1	2	4	20	4	20	Weighting Factor Study
41	Weighted Number of Customers		125,552	98,879	17,582	5,498	3,005	358	230	Line 39 x Line 40
42	Customer Accounts Cost Allocator		100.0000%	78.7552%	14.0040%	4.3788%	2.3934%	0.2854%	0.1832%	Line 41 / Line 41 Column B
43	Use per Customer		1,324	711	1,449	14,384	261,355	10,521	140,441	Line 15 / Line 24

Black Hills Energy - Kansas
Unit Cost of Service
Test Year Ended December 31, 2013

Exhibit__(TJS-12)
Table 5

Line Number	[A] Description	[B] Total Gas Utility Adjusted	[C] Residential Service	[D] Firm and Transportation Small Commercial	[E] Firm and Transportation Small Volume	[F] Firm and Transportation Large Volume	[G] Interruptible Small Volume	[H] Interruptible Large Volume	[I] Basis of Allocation or Reference
		$	$	$	$	$	$	$	
1	Other Gas Supply								
2	Demand - $	334,592	243,430	47,183	33,572	10,407	0	0	Line 3 ,Table 2
3	$/therm	0.0023	0.0035	0.0037	0.0017	0.0003	0.0000	0.0000	Line 2 / Line 15 ,Table 4
4	Commodity - $	0	0	0	0	0	0	0	Line 4 ,Table 2
5	$/therm	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	Line 4 / Line 15 ,Table 4
6	Customer Related	29,606,100	22,837,046	3,574,179	2,214,942	776,158	144,368	59,406	Line 14 + Line 15 + Line 16 + Line 18, Table 2
7	$/bill/month	22.57	19.25	33.88	134.30	430.48	134.30	430.48	Line 6 / Line 39 ,Table 4 / 12
8	Distribution - Customer	7,025,718	6,052,610	699,566	210,328	45,986	13,709	3,520	Line 12 ,Table 2
9	$/bill/month	5.36	5.10	6.63	12.75	25.51	12.75	25.51	Line 8 / Line 15 ,Table 4
10	Trans/Distr - Demand	9,435,088	5,390,908	1,063,945	1,233,703	1,689,051	28,679	28,801	Line 7 + Line 11, Table 2
11	$/therm	0.0652	0.0766	0.0835	0.0624	0.0430	0.0304	0.0178	Line 10 / Line 15 ,Table 4
12	Transmission - Commodity	2,759,953	1,341,920	243,047	377,125	749,073	17,980	30,809	Line 8 ,Table 2
13	$/therm	0.0191	0.0191	0.0191	0.0191	0.0191	0.0191	0.0191	Line 12 / Line 15 ,Table 4
14	Customer Costs - $/bill.month	27.93	24.35	40.51	147.05	455.99	147.05	455.99	Line 7 + Line 9
15	Demand Costs - $/therm	0.0675	0.0801	0.0872	0.0641	0.0433	0.0304	0.0178	Line 3 + Line 11
16	Commodity Costs - $/therm	0.0191	0.0191	0.0191	0.0191	0.0191	0.0191	0.0191	Line 13
17	Customer Costs - $	36,631,817	28,889,656	4,273,745	2,425,270	822,144	158,077	62,926	Line 6 + Line 8
18	Demand Costs - $	9,769,681	5,634,339	1,111,127	1,267,276	1,699,458	28,679	28,801	Line 2 + Line 10
19	Commodity Costs - $	2,759,953	1,341,920	243,047	377,125	749,073	17,980	30,809	Line 12
20	Total Cost of Service - $	49,161,451	35,865,914	5,627,919	4,069,671	3,270,675	204,736	122,536	Sum of Lines 17 thru 19

Black Hills Energy - Kansas
Revenues Under Current and Proposed Rate Design
Test Year Ended December 31, 2013

Line	[A] Description	[B] Total Company	[C] Residential	[D] Small Commercial Sales	[E] Small Commercial Transportation	[F] Small Volume Firm	[G] Small Volume Interruptible	[H] Small Volume Transportation	[I] Small Volume SV Total	[J] Large Volume Firm (1)	[K] Large Volume Interruptible	[L] Large Volume Transportation	[M] Large Volume LV Total	[N] Reference
1	**Units - Test Year, Current Rates**													
2	Number of Customers	109,296	98,879	8,671	121	906	90	468	1,464	32	12	119	162	Exhibit TJS-10
3	Throughput - therms	144,684,598	70,347,245	12,508,905	232,318	11,843,867	942,550	7,926,091	20,712,508	4,853,509	1,615,074	34,415,039	40,883,622	Exhibit TJS-10
4	**Current Rates**													
5	Customer Charge - $/month		16.00	22.75	22.75	40.00	40.00	40.00		256.00	256.00	256.00		Current Tariff
6	GSRS Factor - $/month		-	-	-	-	-	-		-	-	-		
7	Commodity Charge - $/therm		0.14524	0.14524	0.14524	0.12500	0.12500	0.12500		0.05900	0.05900	0.05900		Current Tariff
8	Cost of Gas - $/therm		0.49822	0.49612	-	0.50072	0.37519	-		0.50145	0.38896	-		Exhibit TJS-10
9	**Revenue Under Current Rates**													
10	Customer Charge - $	22,584,373	18,984,768	2,367,092	32,897	434,880	43,000	224,840	702,720	97,024	35,328	364,544	496,896	Line 2 x Line 5 x 12
11	GSRS Charge - $	2,229,412	1,693,992	296,394	4,132	117,190	11,753	70,012	198,955	4,664	2,570	28,706	35,940	Exhibit TJS-10
12	Delivery Charge - $	17,068,966	10,217,234	1,816,793	33,742	1,480,483	117,819	990,761	2,589,064	286,357	95,289	2,030,487	2,412,134	Line 3 x Line 7
13	Margin - $	41,882,751	30,895,994	4,480,279	70,770	2,032,553	172,572	1,285,613	3,490,738	388,045	133,188	2,423,738	2,944,970	Line 10 + Line 12
14	Cost of Gas - $	50,600,649	35,048,670	6,205,923	-	5,930,451	353,631	-	6,284,082	2,433,770	628,205	-	3,061,974	Line 3 x Line 8
15	Total - $	92,483,400	65,944,664	10,686,202	70,770	7,963,004	526,203	1,285,613	9,774,820	2,821,814	761,392	2,423,738	6,006,944	Line 13 + Line 14
16	**Units - Test Year, Proposed Rates**													
17	Number of Customers	109,296	98,879	8,671	121	906	90	468	1,464	32	12	119	162	Line 2
18	Total Throughput - therms	144,684,598	70,347,245	12,508,905	232,318	11,843,867	942,550	7,926,091	20,712,508	4,853,509	1,615,074	34,415,039	40,883,622	Line 3
19	**Proposed Rates**													
20	Customer Charge - $/month		21.70	36.00	36.00	96.00	96.00	96.00		400.00	400.00	400.00		
21	GSRS Charge - $		-	-	-	-	-	-		-	-	-		
22	Commodity Charge - $/therm		0.14355	0.14355	0.14355	0.12482	0.12482	0.12482		0.06393	0.06393	0.06393		
23	Cost of Gas - $/therm		0.49822	0.49612	-	0.50072	0.37519	-		0.50145	0.38896	-		
24	**Revenue Under Proposed Rates**													
25	Customer Charge - $	32,008,804	25,748,092	3,745,728	52,056	1,043,712	103,200	539,616	1,686,528	151,600	55,200	569,600	776,400	Line 17 x Line 20 x 12
26	GSRS Charge - $	-	-	-	-	-	-	-	-	-	-	-	-	
27	Delivery Charge - $	17,126,375	10,098,347	1,795,653	33,349	1,478,352	117,649	989,335	2,585,335	310,285	103,252	2,200,153	2,613,690	Line 18 x Line 22
28	Margin - $	49,135,178	35,846,439	5,541,381	85,405	2,522,064	220,849	1,528,951	4,271,863	461,885	158,452	2,769,753	3,390,090	Line 25 + Line 27
29	Cost of Gas - $	50,600,649	35,048,670	6,205,923	-	5,930,451	353,631	-	6,284,082	2,433,770	628,205	-	3,061,974	Line 18 x Line 23
30	Total - $	99,735,827	70,895,108	11,747,304	85,405	8,452,515	574,480	1,528,951	10,555,945	2,895,655	786,656	2,769,753	6,452,064	Line 28 + Line 29
31	**Difference**													
32	Customer Charge - $	9,424,431	6,763,324	1,378,636	19,160	608,832	60,200	314,776	983,808	54,576	19,872	205,056	279,504	Line 25 - Line 10
33	GSRS Charge - $	(2,229,412)	(1,693,992)	(296,394)	(4,132)	(117,190)	(11,753)	(70,012)	(198,955)	(4,664)	(2,570)	(28,706)	(35,940)	Line 26 - Line 11
34	Delivery Charge - $	57,408	(118,887)	(21,140)	(393)	(2,132)	(170)	(1,427)	(3,728)	23,928	7,962	169,666	201,556	Line 27 - Line 12
35	Cost of Gas - $	-	-	-	-	-	-	-	-	-	-	-	-	Line 29 - Line 14
36	Total - $ (2)	7,252,427	4,950,445	1,061,102	14,635	489,510	48,277	243,338	781,125	73,840	25,264	346,016	445,120	Sum of Lines 32 through 3
37	**Percent Difference**													
38	Customer Charge - %	41.7%	35.6%	58.2%	58.2%	140.0%	140.0%	140.0%	140.0%	56.3%	56.3%	56.3%	56.3%	
39	Delivery Charge - %	0.3%	-1.2%	-1.2%	-1.2%	-0.1%	-0.1%	-0.1%	-0.1%	8.4%	8.4%	8.4%	8.4%	
40	Cost of Gas - %	0.0%	0.0%	0.0%	n/a	0.0%	0.0%	n/a	0.0%	0.0%	0.0%	n/a	0.0%	
41	Total - %	7.8%	7.5%	9.9%	20.7%	6.1%	9.2%	18.9%	8.0%	2.6%	3.3%	14.3%	7.4%	

42 (1) Includes Wholesale customers.
43 (2) Additional customer charge revenues from Large Volume Negotiated Rate customers 26,352