MISSOURI PUBLIC SERVICE COMMISSION

RATE DESIGN
AND
CLASS COST-OF-SERVICE
REPORT

LACLEDE GAS COMPANY
CASE NO. GR-2010-0171

Jefferson City, Missouri
May 24, 2010

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I. EXECUTIVE SUMMARY

Staff conducted a Class Cost-of-Service Study in this case and allocated costs to the customer rate classes of Laclede Gas Company (Laclede or Company). At this time, Staff recommends no shift of cost between the classes.

Staff proposes the Straight Fixed Variable (SFV) rate design for the Residential class. Staff recommends the three Commercial and Industrial classes, the Large Volume, Interruptible, Basic Transportation and Firm Transportation customer classes continue to use the current rate design in place for these classes.

Staff supports continuation of the low-income programs Laclede currently has in place. Natural gas prices have moderated. Staff proposes to modify Laclede's Gas Supply Incentive Plan (GSIP) accordingly.

Staff credentials and work history are attached, except for those witnesses who have previously filed in the May 10, 2010 Cost of Service Report filing. Schedules supporting Staff's testimony are also attached.

II. Class-Cost-of-Service (CCOS)

A. Fundamental Concepts of Gas Class-Cost-of-Service

The fundamental concepts used in Staff's Class Cost-Of-Service Study (Study) are defined as follows:

Billing Demand: the charge applicable for the costs incurred by Laclede to have sufficient capacity to meet the overall peak usage during that peak hour of usage – prorated to each particular class of service making use of some portion of those joint & common facilities during that peak-usage period.

Cost-of-Service: total costs, prudently incurred by a utility to provide safe and adequate service to its customers.

Cost-of-Service Study: a study that begins with total company costs, adjusts those costs in accordance with regulatory principles (annualizations and normalizations), allocates those costs to the relevant jurisdiction, and compares the allocated costs to the revenues the utility is generating from its retail rates, off-system sales, and other revenues.

Class Cost-of-Service (CCOS) Study: a quantitative analysis of the costs incurred by a utility to serve its various classes of customers. The Staff CCOS Study consists of the following steps: 1) costs are categorized (functionalized) based upon the specific role they play in the operations of a local distribution company (LDC); 2) costs are classified by whether they are customer related, demand related, or energy related; and 3) functionalized/classified costs are allocated to customer classes. The sum of all allocated costs to a customer class is called that class' cost of service.

The cost of service of each customer class is compared to the annualized, normalized revenues the utility collects from each class through its rates, plus each class' allocated share of revenues from off-system sales and other revenues. The results of a CCOS Study are expressed in terms of additional revenue, if any, required from each class for the utility to recover its cost of serving that class.

Relationship between Cost of Service and CCOS: conceptually, class cost-of-service is a breakdown of cost of service. A cost of service Study determines what portion of total company costs is attributable to the retail jurisdiction; a CCOS Study determines what portion of retail costs is attributable to each customer class.

Cost Allocation: a procedure by which common or joint costs are apportioned among customers or classes of customers.

Cost Functionalization: the grouping of rate base and expense accounts according to the specific function they play in the operations of an LDC. The most aggregated functional categories are production, storage, transmission, distribution, and other costs.

Customer Class: a group of customers with similar characteristics (usage patterns, conditions of service, usage levels, etc.) that are identified for the purpose of setting rates for gas service. Common customer classes include: Residential General Service (RG), Commercial & Industrial General Service – Class I (C 1), Commercial & Industrial General Service – Class II (C 2), Commercial & Industrial General Service – Class I (C 3), Large Volume Service (LV), Firm Transportation (FT), Basic Transportation (BT), and Interruptible Service (IN).

Rate Design: (1) a process used to determine the rates for a gas utility's customers once total cost of service is known; (2) characteristics such as rate structure, rate values and availability that define a rate schedule and provide the information necessary to calculate a customer's gas bill.

Rate Design Study: while a CCOS Study focuses on the revenue responsibility of customer classes, a rate design study focuses on both the equitable pricing of the individual customers within each class and sending the proper price signal to customers. The purpose of the rate design process is to recover costs in each time period from each rate component for each customer in a way that equates the cost of providing service with the amount the customer is billed in accordance with the rate schedule.

Rate Schedule: one or more tariff sheets that describe the availability requirements and prices applicable to a particular type of retail gas service. A customer class used in a CCOS Study may consist of one or more rate schedules.

Rate Structure: rate structure is composed of the various types of monthly prices charged for the utility's products or services. At the most basic level there are: a) charges of a fixed dollar amount to be paid each month irrespective of the amount of the product taken and designed to collect the costs of providing service that do not vary by customer usage; b) charges of a variable monthly dollar amount that are described as a price per unit charged on the total units of the product consumed over the month and that are designed to collect the costs of providing service that do vary by customer usage; c) purchased gas adjustment (PGA) charges, which are a "pass-through" of gas costs; and d) demand charges, a price per unit charge for gas consumed over a 24-hour period of time.

One criterion for setting rate structures has to do with how well the structure tracks costs and reflects cost causation. Another criterion is the ease or difficulty in administrating the rate, as well as the customer understanding of how it works, i.e., what causes the customer to incur a higher or lower monthly bill.

Rate Values (Rates): the per-unit prices the utility charges to provide service to its customers. Rates are expressed as dollars per unit of volume (Ccf, Mcf) or per unit of energy (MMBtu, therm), etc.

Tariff: a document filed by a regulated entity with either a federal or state commission, listing the rates (prices) the regulated utility will charge to provide service to its customers as well as the terms and conditions that it will follow in providing service.

The customer's Daily Scheduled Quantities (DSQ): the daily quantity of gas ordered from the customers' supplier, also known as "daily nominations".

B. Units of Measurement:

Btu: British thermal unit.

MMBtu: one million Btus. One MMBtu is approximately the amount of energy contained in 1,000 Cf (or 1 Mcf) of natural gas, 83.3 pounds of coal, 10.917 gallons of propane, 8 gallons of gasoline, or 293.083 kWh or electricity.

Ccf: a unit of volume of one hundred cubic feet of natural gas, which contains approximately 1,000 Btus of energy.

Therm: 100,000 Btus of energy, approximately equal to the energy contained in 100 Cf of natural gas.

C. General Description of the CCOS Study filed in Case No. GR-2010-0171

The purpose of the Staff's CCOS Study is to provide the Commission with a measure of relative class cost responsibility for the overall revenue requirements of Laclede. For individual items of cost, the responsibility of a certain class of customers to pay that cost can be either directly assigned or allocated to customer classes using reasonable methods for determining the class responsibility for that item of cost.

The results are then summarized so that they can be compared to revenues being collected from each class on current rates. The difference between a particular customer class' costs responsibility and the revenues generated by that customer class is the amount that class is either paying in excess of its costs (revenues greater than costs) or less than its costs (revenues less than costs). Schedule MJE-1 reflects Staff's CCOS Study results for this case.

The annualized usage levels and customer bill counts for the RG, C 1, C 2, C 3, Residential Seasonal Air Conditioning Service (RA), Commercial & Industrial Seasonal Service (CA), General L.P. Gas Service (LP), Unmetered Gas Light Service (SL) were provided by Staff witness Lisa Hanneken, and those for the LV, IN, FT and BT, classes were provided by Staff witness Thomas M. Imhoff. The class peak demand levels for RG, C 1, C

2, C 3, LV, FT, BT and IN customers were provided by Staff witness Daniel I. Beck. All accounting information was developed using costs produced by the Commission's Auditing Department, which are based upon a test-year ending September 30, 2009, updated for known and measurable changes through March 31, 2010.

D. Customer Classes

The Staff analyzed the costs and revenues of the following customer classes:

Residential General Service (RG)
Commercial & Industrial General Service – Class I (C 1),
Commercial & Industrial General Service – Class II (C 2),
Commercial & Industrial General Service – Class I (C 3),
Large Volume Service (LV)
Firm Transportation (FT)
Basic Transportation (BT)
Interruptible Service (IN)

These classes correspond to Laclede's current customer classes.

The RG class is applicable to all gas service rendered to residential customers, including space heating service.

The three classes (C 1, C 2, C 3) are available to commercial or industrial customers, including space heating service. The classes break down as follows:

Class	**Minimum Annual Usage**	**Maximum Annual Usage**
C 1	0 Therms	5,000 Therms
C 2	5000+ Therms	50,000 Therms
C 3	50,000+ therms	

The LV class is available for qualifying firm gas customers who engage in cogeneration and who use gas for boiler plant where gas is the exclusive boiler plant fuel. Service under this rate schedule is available to customers contracting for separately metered

gas service for a minimum term of one year with a billing demand equal to, or greater than, 250 therms and an annual usage equal to, or greater than 60,000 therms.

The IN class of service is applicable to customers contracting for separately metered interruptible gas service for a minimum term of one year with a demand equal to, or greater than, 10,000 cubic feet per hour.

The BT class means Laclede will transport and deliver on a firm basis, customer-owned gas up to the DSQ. If a BT customer uses gas in excess of the DSQ Laclede, at its sole discretion delivers on an "as available" basis.

The FT class means the Company will transport and deliver customer-owned gas up to the customer's DSQ and will provide sales gas in excess of the DSQ up to the currently effective Billing Demand.

E. Functionalization

The Company's costs were first categorized into functional areas that are to be allocated in the same way. This is referred to as cost functionalization. The rate base and expense accounts are assigned to one of the following functional categories: Storage, Distribution Mains, Distribution Measuring and Regulating, Purchased Gas Related, Distribution Meters, Distribution Regulators, Distribution Services, Customer Related, Billing, Meter Reading, Assigned RG, C&I classes, and LV, Assigned BT, FT & IN.

Those costs, which cannot be directly assigned into any of these specific functional categories, are divided among several functions based upon some relational factor. For example, it is reasonable that property taxes are related to gross plant costs and can, therefore, be functionalized in the same manner as gross plant costs.

The allocation factors for Distribution Mains, as well as those for Distribution Meters, Distribution Regulators, and Distribution Service Lines were determined by using the

allocation factors developed by Staff witness Daniel I. Beck. Meter Reading costs were allocated using weighted customer numbers. Revenue Related costs were allocated based upon the Staff's annualized margin revenues.

Staff Expert: Michael J. Ensrud

III. Allocations

The allocation factor for Distribution Mains that was developed by the Staff is a Stand Alone/Integrated System factor. The Stand Alone component can be thought of as the cost to extend a main from one customer to the next using the diameter of that main extension being the same diameter as that customer's service line. To determine the split between the Stand Alone and Integrated System components, the Staff analyzed data from a random sample of customers in each of Laclede's customer classes together with Geographical Information System data from the internet to estimate the length of main required to extend the system to each customer. Staff used the installed cost-per-foot estimates for services supplied by the Company. The combination of the length, installed costs per foot, and customer numbers result in a total Stand Alone component cost. Staff then used total current cost-of-mains data provided by the Company in the previous case, Case No. GR-2007-0208, and computed the Stand Alone Component for the system. The Stand Alone cost component was then allocated to each of the classes using the same length and cost data. The Integrated System component was allocated using peak day demands. Peak day demands based on normal peak day weather were developed for the residential class and the three commercial industrial classes by Staff witness Kimberly Cox. Peak day demands for the large customer classes, which are less weather sensitive, were developed by Staff witness Daniel I. Beck by using the relationship between peak day demand and peak month usage as determined in Case No. GR-2007-0208

and applying that relationship to test-year-annualized monthly usages for each of the four large customer classes.

For the allocation of meters/regulators and service lines, a weighted customer allocator was used. For all allocators, the Residential Class is assumed to have a weight of 1 and the other classes typically had values greater than or equal to 1. Data from the Company was used to develop the weights for meters/regulators and services.

Staff Expert: Daniel I. Beck

IV. Rate Design

A. Summary of Staff's Rate Design Recommendation

Staff recommends the use of a SFV rate design to collect the cost of service for the Residential customer class. For Laclede's other customer classes, Staff generally recommends that C 1, C 2, C 3, and the other non-Residential customers' rate components be increased by an equal percentage of the revenue requirement in this case. The term revenue requirement refers to the increase or decrease in revenue a utility needs to be able to provide safe and reliable service measured against the utility's existing rates and cost of service.

Staff used the following customer classes for its rate design:

Residential -- includes RG,RA, and LP

C 1 – firm sales customers, annual usage < 5,000 therms

C 2 – firm sales customers, 5,000 ≤ annual usage < 50,000 therms

C 3 – firm sales customers, annual usage ≥ 50,000 therms

Interruptible Sales Service

Large Volume Sales service

Basic Transportation Service – transportation customers who do not have the right to purchase sales gas from Laclede Gas, but who may purchase any excess gas available after all sales customers usage requirements have been satisfied.

Firm Transportation Service – transportation customers whose contracts with the Company include the right to purchase an agreed-upon level of sales gas from the Company if needed.

Other Service Classes including LP, SL, and Vehicular (VF)

These proposed rate classes are consistent with the Company's current rate classes. The source of class revenue requirements used for Staff's rate design is the class revenue requirements determined in the attached CCOS Study performed by Staff Witness Michael Ensrud.

B. Staff's Residential Rate Design Proposal

Currently, Laclede Gas' Residential rates are designed to recover the non-gas operations and equipment costs using both a monthly customer charge, which does not vary with use, and a volumetric rate, in which the remainder of the Company's non-gas costs for this class are recovered only on the first 30 therms of customer usage in the heating season (November-April) at the rate of $.88954/therm and in the non-heating season (May-October) at the rate of $.20926/therm on the first 30 therms and $.1590/therm on the balance of usage. This rate design has been successful in reducing the Company's weather-related risk of under-collecting its Commission-approved revenue requirement.

Staff recommends that the Residential class' costs be collected using a flat monthly SFV, rather than a Customer Charge and volumetric rate. This *SFV Rate Design* would change the way in which Laclede Gas collects non-gas costs, although, given that the Company currently collects most of its margin costs in the first 30 therms of usage, the

difference in the amount that a customer would pay for non-gas costs would be relatively minor for most customers. This approach is fair to customers, and has the added benefit of completely aligning the Company's and the customers' interests in natural gas conservation.

The SFV rate design has the following advantages:

- Each customer in the Residential Class pays the appropriate share of delivery costs, regardless of that customer's end-use.
- Laclede Gas' collection of its revenues is largely unaffected by weather or customer conservation.
- Laclede Gas has no reason to promote natural gas consumption.
- Laclede still has an incentive to expand its customer base to spread fixed costs among more customers.
- Residential Customers still have the incentive to implement energy efficiency and conservation measures because they save on the gas cost portion of their bill, which is the largest portion of the bill.

The Company's cost to serve each Residential customer is essentially the same regardless of the amount of gas a customer uses. When a Residential customer begins taking natural gas service, the Company's expenditures on fixed equipment to serve that customer will not vary because of differences in the customer's expected end use. The SFV rate structure is a fair way to ensure that each Residential customer pays the appropriate cost of having natural gas service, regardless of that customer's end-use.

Not only is this rate design fair, paying a fixed charge, such as the delivery charge, in the SFV will not remove the customers' incentive for conservation. The commodity cost of natural gas is such a high percentage of a customer's bill that customers will still see a

significant decrease in gas bills if household usage is lowered through conservation or efficiency measures.

C. Programs to promote conservation

Not only is there an incentive for consumers to conserve, there are programs to promote and assist customers' conservation efforts. Laclede Gas, the Staff, Office of Public Counsel (OPC), and Missouri Department of Natural Resources (DNR) are promoting customer conservation with a collaborative and programs that provide information about, and rebates for, purchasing energy efficient appliances.

There are also specific programs designed to help low-income customers implement conservation measures. Low-income consumers often live in inefficient or substandard housing, and benefit from making energy conservation investments such as weatherization or installation of more energy-efficient gas appliances. For example, currently under the American Recovery and Reinvestment Act (ARRA) households with income at 200% or less of the Federal Policy Guideline are eligible for the Low Income Weatherization Assistance Program, which is administered by the DNR using federal, state, and utility funding. The weatherization is administered locally by Community Action Agencies or other local agencies. Most of the natural gas utilities in Missouri provide funds for the purpose of weatherizing qualifying customers. In Case No. GR-2007-0208, Laclede Gas' previous rate case, the Commission ordered Laclede Gas to contribute $950,000 annually for the weatherization of qualifying customers.

When a utility's revenue is tied to sales of natural gas, it has a disincentive to promote conservation and energy efficiency. Once the utility's concern regarding revenue loss due to lowered sales has been addressed, the utility should be a creative, active and knowledgeable leader in conservation and efficiency. Laclede Gas is in a unique position to identify

customers who could benefit from conservation efforts, for example, households with higher than normal usage that are having trouble paying their utility bills. Since costs related to collection and/or non-payment of bills is eventually passed on to all of Laclede's customers, it is hoped that by assisting and educating these customers, the customers can pay their utility bills, and the utility and all its customers should benefit..

Staff witness Lesa Jenkins addressed the Company's weatherization and energy efficiency programs in her Direct Testimony.

D. Staff's Non-Residential Rate Design Proposal

Staff recommends continuing the current rate design for the Company's Non-Residential customers. Staff proposes that any increase to these customers' rates be a fixed percentage increase. Staff recommends that no non-residential class receive a decrease so long as any non-residential class receives an increase. A percentage increase/decrease for each class will be derived from the Staff's CCOS Study results.

Due to some un-reconciled therm allocations, these class percentages cannot be determined at this time using the Staff CCOS Study that is being filed with this testimony. While Staff believes that the methodology used to allocate the costs in its CCOS Study is appropriate, we are reevaluating the revenues attributable to the non-Residential classes, and may subsequently adjust allocators. When the therm allocations are resolved, the percentage increase or decrease for each non-Residential class will be determined.

Staff Expert: Dr. Henry E. Warren

V. WEATHER-NORMALIZED COINCIDENT PEAK DAY DEMAND

Staff computed weather-normalized coincident-peak-day demand by customer class. This calculates the estimated usage per firm customer by customer class based on Staff

witness Manisha Lakhanpal's computed normally-occurring monthly or winter season (December – February) coldest days. The estimated use per customer per day is based on the regression of monthly use per customer per day and monthly heating degree days (HDD). The daily peak is the highest daily load or draw of natural gas on a system and the demand is the amount of natural gas used on that day. Staff's estimates of each class customers' natural gas peak usage -- residential (Schedule KC-1), commercial and industrial class I (Schedule KC-2), commercial and industrial class II (Schedule KC-3), commercial and industrial class III (Schedule KC-4) and propane service (Schedule KC-5) -- are at the time (coincident) of a utility's system daily peak.

Staff estimates weather-normalized coincident peak day class demands because these estimates determine the relative responsibility of the residential, commercial and industrial class I, II and III, and propane customers for that estimated single-day system peak. For cost-of-service studies, it is important to determine each class' contribution to the peak day responsibility.

Schedules KC-1 through KC-5 of this Report contain the estimated weather-normalized coincident-peak-day natural gas usage in Therms (one hundred thousand British Thermal Units, BTU) per customer by billing month and customer class for the St. Charles Division, Laclede Division, Midwest Division, Missouri Natural Division and Franklin Division. This information was provided to Staff witness Daniel I. Beck of the Commission's Energy Department, Engineering Analysis Section for his calculation of total peak day demand across Laclede's general service customer classes.

Staff Expert/Witness: Kim Cox

VI. Low-Income Energy Affordability Program

The Company's *Low-Income Energy Affordability Program* (LIEAP) was first authorized by Commission Order in Case No. GR-2005-0284. The LIEAP was modified by the Commission's Order in Case No. GR-2007-0208. Even though the Laclede Experimental Low-Income Energy Affordability Program (LELIEAP) has been more effective in the last three years, LELIEAP expenditures are still short of the goal set in the 2007 tariff sheets. Provision 3, page R-53 states, "The Program shall be funded at a total annual level of up to $600,000 plus one third of the carry-over balance as of November 7, 2007…" The carry-over balance was over $1.7 million, so the annual expenditure goal was about $1.17 million for the components of LELIEAP -- *Bill Payment Assistance Program,* the *Arrearage Repayment Program*, and administrative fees. In calendar year 2008, the total expenditures were slightly over $300,000 for bill credits to 7,700 customers and arrearage assistance to 19,500 customers, and similarly, for 2009 slightly over $300,000 to provide bill credits to 7,400 customers and arrearage credits to 16,600 customers, not including administrative fees. So, while the LELIEAP has exhausted the surplus funds, it is well short of the level of support of low income customers stated in the Company's tariff.

The GR-2007-0308 Stipulation and Agreement, Attachment 3, also provides for the Program Review and Evaluation Team (PERT) for the LELIEAP. The Company is in the process of arranging for a comprehensive third party evaluation of the LELIEAP. When this evaluation is available, Staff will be able to make more definitive statements as to how well the LELIEAP has fulfilled the objective set forth in Attachment 3.

Several jurisdictional utilities have implemented experimental bill credit programs aimed at bridging the gap between the amount a household can afford to pay for heating, and the amount utility services cost. Bill credit programs pay a portion of low-income customers'

bills. Staff has supported and helped design these experimental programs. If the programs provide a net benefit to *all* customers, Staff believes that it is appropriate to fund these programs, which assist low-income customers, through rates. Staff policy concerning these experimental programs is that, in order to include the costs of the program in customer rates, there *must* be a reasonable expectation that the program will benefit not only the households receiving the funds, but also the ratepayers who are contributing the funds, and the utility.

These programs have not been successful in attracting and/or retaining participants in the numbers required. Furthermore, it has not yet been shown that the behavior of those participants who stayed in the program was successfully modified. That is, those who were able to pay their utility bills while in the program, stayed current on their bill once the program ended. Because of these circumstances, Staff believes that the utilities should carefully design, implement, and evaluate these programs as pilot programs. However, once a pilot program has proven ineffective, if it cannot be modified to be effective, ratepayer funding should cease. If a pilot program is shown to be effective for the participants, for ratepayers and the utility, it should be implemented on a full-scale basis with appropriate funding sources. Although the LELIEAP has not reached the program goals, Staff recommends that any decision about the program be based on the third-party evaluation of the program, and the potential for coordination with the AmerenUE low-income rate program being developed as a result of the Commission Order in Case No. ER-2010-0036.

Staff Expert: Dr. Henry E. Warren

VII. Miscellaneous Issues

Laclede Gas' previous rate case, Case No. GR-2007-0208, et al., resulted in the filing of a unanimous stipulation and agreement (S&A), which was approved by the Commission on July 19, 2007. Paragraph 4(e) of that S&A includes the following requirements:

> Laclede also agrees at the time it files its next application for a general rate increase, to submit to the parties a new credit scoring study using the same methods, sampling techniques, validation report score ranges and definitions as presented to Staff and Public Counsel in this case.

Laclede Gas did not submit the referenced credit scoring study with its application for this general rate increase, which is its "next application for a general rate increase" since GR-2007-0208, et al., however, in response to Staff Data Request No. 230, it did submit an updated study on April 27, 2010, and updated it again on May 5, 2010.

Staff Expert: Thomas A. Solt

VIII. Gas Supply Incentive Plan

Laclede's current Gas Supply Incentive Plan (GSIP) was designed to encourage Laclede to work to reduce the impact of upward natural gas commodity price volatility on its customers. The theory of the GSIP is to encourage Laclede to purchase the cheapest reliable gas supply and to recognize that price hedging its gas supplies may also affect its gas costs. The Plan sets an annual benchmark price for gas supply. If Laclede purchases gas below this benchmark price, Laclede is allowed to keep 10% of the savings it achieves, up to a maximum of $3 million.

The current GSIP tier structure was proposed by OPC and implemented in Laclede's 2002 rate case. Since that time, there have been some modifications to the tier prices in subsequent rate cases. The GSIP establishes 3 tiers or bands of natural gas prices. The current tiers are:

	Tier Levels
Tier 1	less than or equal to $4.00 per MMBtu
Tier 2	greater than $4.00 per MMBtu and less than or equal to $8.99
Tier 3	greater than $8.99 per MMBtu

Under the current plan, if gas prices fall within Tier 1, it is considered a low priced market environment, and, thus, the Company is not rewarded for reducing gas prices. If gas prices fall within Tier 3, it is considered a higher price environment and rewards to the Company are suspended at this point. The Company is eligible for incentive compensation when the Company's annual commodity price is within Tier 2 and is also below the annual benchmark price.

The Staff proposes to lower the Tier 3 price to reflect the market. Natural gas prices have decreased since 2007, when the parties agreed to the Tier 3 price, and are currently around $4.00 per MMBtu. Therefore, the Staff proposes the Tier 3 price be lowered to $7.50 per MMBtu, which was the 3rd tier price prior to 2007. Incentive payments to the Company would be suspended if natural gas prices exceed this level.

Staff Expert: Anne M. Allee

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff to Increase Its Annual Revenues for Natural Gas Service	)))	Case No. GR-2010-0171

AFFIDAVIT OF THOMAS M. IMHOFF

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Thomas M. Imhoff, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages 1, and the facts therein are true and correct to the best of his knowledge and belief..

Thomas M. Imhoff

Subscribed and sworn to before me this 21st day of May, 2010.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff to Increase Its Annual Revenues for Natural Gas Service	)))	Case No. GR-2010-0171

AFFIDAVIT OF MICHAEL J. ENSRUD

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Michael J. Ensrud, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages 1 – 8, and the facts therein are true and correct to the best of his knowledge and belief..

Michael J. Ensrud

Subscribed and sworn to before me this 21st day of May, 2010.

Notary Public

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff to Increase Its Annual Revenues for Natural Gas Service	)))	Case No. GR-2010-0171

AFFIDAVIT OF DANIEL I. BECK

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Daniel I. Beck, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages 8-9, and the facts therein are true and correct to the best of his knowledge and belief..

Daniel I. Beck

Subscribed and sworn to before me this 21st day of May, 2010.

Notary Public

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff to Increase Its Annual Revenues for Natural Gas Service	)))	Case No. GR-2010-0171

AFFIDAVIT OF HENRY WARREN

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Henry Warren, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages 9-13 & 15-16, and the facts therein are true and correct to the best of his knowledge and belief..

Henry Warren

Subscribed and sworn to before me this 21st day of May, 2010.

Notary Public

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff to Increase Its Annual Revenues for Natural Gas Service	)))	Case No. GR-2010-0171

AFFIDAVIT OF KIM COX

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Kim Cox, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that she has participated in the preparation of the accompanying Staff Report on pages 13-14, and the facts therein are true and correct to the best of her knowledge and belief..

Kim Cox
Kim Cox

Subscribed and sworn to before me this 21st day of May, 2010.

Susan L. Sundermeyer
Notary Public

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff to Increase Its Annual Revenues for Natural Gas Service	)))	Case No. GR-2010-0171

AFFIDAVIT OF THOMAS A. SOLT

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Thomas A. Solt, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages 17, and the facts therein are true and correct to the best of his knowledge and belief..

Thomas A. Solt

Subscribed and sworn to before me this 21st day of May, 2010.

Notary Public

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff to Increase Its Annual Revenues for Natural Gas Service	)))	Case No. GR-2010-0171

AFFIDAVIT OF ANNE M. ALLEE

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Anne M. Allee, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that she has participated in the preparation of the accompanying Staff Report on pages 17 – 18, and the facts therein are true and correct to the best of her knowledge and belief..

Anne M. Allee

Anne M. Allee

Subscribed and sworn to before me this 21st day of May, 2010.

Susan L. Sundermeyer

Notary Public

Daniel I. Beck, P.E.
Supervisor of the Engineering Analysis Section of the Energy Department
Utility Operations Division

Missouri Public Service Commission
P.O. Box 360
Jefferson City, MO 65102

I graduated with a Bachelor of Science Degree in Industrial Engineering from the University of Missouri at Columbia. Upon graduation, I was employed by the Navy Plant Representative Office in St. Louis, Missouri as an Industrial Engineer. I began my employment at the Commission in November, 1987, in the Research and Planning Department of the Utility Division (later renamed the Economic Analysis Department of the Policy and Planning Division) where my duties consisted of weather normalization, load forecasting, integrated resource planning, cost-of-service and rate design. In December, 1997, I was transferred to the Tariffs/Rate Design Section of the Commission's Gas Department where my duties include weather normalization, annualization, tariff review, cost-of-service and rate design. Since June 2001, I have been in the Engineering Analysis Section of the Energy Department, which was created by combining the Gas and Electric Departments. I became the Supervisor of the Engineering Analysis Section, Energy Department, Utility Operations Division in November 2005.

I am a Registered Professional Engineer in the State of Missouri. My registration number is E-26953.

List of Cases in which prepared testimony was presented by:
DANIEL I. BECK

Company Name	Case No.
Union Electric Company	EO-87-175
The Empire District Electric Company	EO-91-74
Missouri Public Service	ER-93-37
St. Joseph Power & Light Company	ER-93-41
The Empire District Electric Company	ER-94-174
Union Electric Company	EM-96-149
Laclede Gas Company	GR-96-193
Missouri Gas Energy	GR-96-285
Kansas City Power & Light Company	ET-97-113
Associated Natural Gas Company	GR-97-272
Union Electric Company	GR-97-393
Missouri Gas Energy	GR-98-140
Missouri Gas Energy	GT-98-237
Ozark Natural Gas Company, Inc.	GA-98-227
Laclede Gas Company	GR-98-374
St. Joseph Power & Light Company	GR-99-246
Laclede Gas Company	GR-99-315
Utilicorp United Inc. & St. Joseph Light & Power Co.	EM-2000-292
Union Electric Company d/b/a AmerenUE	GR-2000-512
Missouri Gas Energy	GR-2001-292
Laclede Gas Company	GR-2001-629
Union Electric Company d/b/a AmerenUE	GT-2002-70
Laclede Gas Company	GR-2001-629
Laclede Gas Company	GR-2002-356
Union Electric Company d/b/a AmerenUE	GR-2003-0517
Missouri Gas Energy	GR-2004-0209
Atmos Energy Corporation	GR-2006-0387
Missouri Gas Energy	GR-2006-0422
Union Electric Company d/b/a AmerenUE	GR-2007-0003
The Empire District Electric Company	EO-2007-0029/EE-2007-0030
Laclede Gas Company	GR-2007-0208
The Empire District Electric Company	EO-2008-0043
Missouri Gas Utility, Inc.	GR-2008-0060
The Empire District Electric Company	ER-2008-0093
Union Electric Company d/b/a AmerenUE	ER-2008-0318
Kansas City Power & Light Company	ER-2009-0089

KCP&L Greater Missouri Operations Company	ER-2009-0090
Missouri Gas Energy	GR-2009-0355
The Empire District Gas Company	GR-2009-0434
Union Electric Company d/b/a AmerenUE	ER-2010-0036

Michael J. Ensrud

I have a Bachelor of Science from Drake University. I attended the NARUC Annual Regulatory Studies Program at Michigan State University. In the regulatory field, I've worked for CompTel Missouri, and CommuniGroup, Inc., Teleconnect, TeleCom* USA, and General Telephone Company of the Midwest in the private sector. In addition, I have four-years of experience with the Iowa Public Utility Board – Iowa's equivalent to the Missouri Commission.

I have filed written testimony and have testified in several cases before Missouri Public Service Commission. Schedule 1 lists the cases where I have filed testimony (or otherwise materially participated) as a Staff witness before this Commission. (There are numerous cases going back to the mid-1980s where I filed testimony on behalf of Teleconnect (TeleCom*USA), CompTel of Missouri & CommuniGroup, Inc. - various private entities or trade associations - that are not listed). I have also testified in other jurisdictions.

Michael J. Ensrud

Schedule 1

Cases that I have testified (or otherwise materially participated) in as a Staff witness:

Atmos Energy Corporation - GR-2006-0387 - Miscellaneous Rate Issues & Seasonal Reconnection Charge.

Missouri Gas Energy (a Division of Southern Union Company) - GR-2006-0422 - Miscellaneous Rate Issues & Seasonal Reconnection Charge.

AmerenUE (Union Electric Company) - GR- 2007-0003 - Miscellaneous Rate Issues & Seasonal Reconnection Charge.

Laclede Gas Company - GR-2005-0284 - Miscellaneous Rate Issues & Credit Scoring / **GR - 2007-0208** - Miscellaneous Rate Issues & Credit Scoring & Rate Switching Customers

Southern Missouri Natural Gas Company (Southern Missouri Natural Gas Company) - GE-2005-0189 - Promotional Practices

Empire District Electric Company of Joplin - ER-2006-0315 - Street Lighting

Missouri Gas Utilities, Inc. (MGU) - GR-2008-0060 - Miscellaneous Rate Issues

Trigen Kansas City Energy Corporation - HR-2008-0300 - Miscellaneous Rate Issues

Union Electric Company d/b/a AmerenUE - ER-2008-0318 – Renewable Energy Certificates

Missouri Gas Energy (a Division of Southern Union Company) - GR-2008-0355 - Miscellaneous Rate Issues & Rewrite of Transportation Tariff.

Empire District Electric Company of Joplin – GR-2009-0434 - Miscellaneous Rate Issues & Rewrite of Transportation Tariff.

Thomas A. Solt

Present Position:

I am an auditor in the Gas Rates and Tariffs Section of the Energy Department, Operations Division of the Missouri Public Service Commission.

Educational Background and Work Experience:

I have a Bachelor of Science degree in Business Administration from the University of Missouri—St. Louis, and a Master's degree in Public Administration from the University of Missouri--Columbia. I am a licensed certified public accountant, hold other professional certifications, and have been employed by the Missouri Public Service Commission since May, 1992, except for approximately four months in late 1997 and early 1998.

Thomas A. Solt

Education

Master's Degree in Public Administration
University of Missouri—Columbia, 1999

Bachelor of Science Degree in Business Administration
University of Missouri—St. Louis, 1987

Professional Certifications

Certified Government Financial Manager, November 1996
Certified Internal Auditor, August 1995
Certified Public Accountant, August 1988
Certified Flight Instructor—Instrument, Single- and Multi-engine, Airplane
Commercial Pilot, Single-engine Land and Sea, Multi-engine Land, Glider

Professional Experience

Missouri Public Service Commission, Jefferson City, MO
1992-1994, Auditor, Accounting Department,
1994-1996, Energy Department
1996-1997, Policy Analyst, Federal Telecom Department
1998-1999, Auditor, Gas Department
1999-2004, Auditor, Telecom Department
2004-Present, Auditor, Energy Department

Schedule 1
Thomas A. Solt

Company	Case Number	Issue
St. Joseph Light & Power Co.	ER-93-41 & GR-93-42	Payroll, payroll taxes, management incentive plan, 401(k) plan, advertising
Western Resources, Inc.	GR-93-240	Plant-in-service, depreciation reserve, depreciation expense, materials & supplies, prepayments, customer advances, customer deposits, property taxes, and property insurance
The Empire District Electric Co.	ER-94-174	Tariff issues
Missouri Gas Energy	GR-95-33	Recovery of FERC transition costs
Missouri Gas Energy	GR-98-140	Tariff issues
Missouri Universal Service Fund	TO-98-329	USF surcharge
Southwestern Bell Telephone Co.	TT-2000-258	Local Plus availability, ordering, and tariff approval
Southwestern Bell Telephone Co.	TT-2000-667	Local Plus
Ozark Telephone Co.	TT-2001-117 & TC-2001-402	Rate design
Relay Missouri Proceeding	TO-2003-0171	Relay surcharge
Fidelity Telephone Company	IR-2004-0272	Rate design
Atmos Energy Corporation	GR-2006-0387	
Missouri Gas Energy	GR-2006-0422	Class cost of service
Union Electric Co. d/b/a AmerenUE	GR-2007-0003	Class cost of service
Laclede Gas Company	GR-2007-0208	
Missouri Gas Utility	GR-2008-0060	Class cost of service

Laclede Gas Company	GT-2008-0026	Bad debts though PGA
Missouri Gas Energy	GR-2009-0355	Class cost of service
Empire District Gas Company	GR-2009-0434	Overview

HENRY WARREN, PHD

REGULATORY ECONOMIST
UTILITY OPERATIONS DIVISION
ENERGY DEPARTMENT

EDUCATION AND EXPERIENCE

I received my Bachelor of Arts and my Master of Arts in Economics from the University of Missouri-Columbia, and a Doctor of Philosophy (PhD) in Economics from Texas A&M University. Prior to joining the PSC Staff (Staff), I was an Economist with the U.S. National Oceanic and Atmospheric Administration (NOAA). At NOAA I conducted research on the economic impact of climate and weather. I began my employment at the Commission on October 1, 1992 as a Research Economist in the Economic Analysis Department. My duties consisted of calculating adjustments to test-year energy use based on test-year weather and normal weather, and I also assisted in the review of Electric Resource Plans for investor owned utilities in Missouri. From December 1, 1997, until May 2001, I was a Regulatory Economist II in the Commission's Gas Department, where my duties included analysis of issues in natural gas rate cases and were expanded to include reviewing tariff filings, applications and various other matters relating to jurisdictional gas utilities in Missouri. On June 1, 2001 the Commission organized an Energy Department and I was assigned to the Tariff/Rate Design Section of the Energy Department. My duties in the Energy Department include analysis of issues in rate cases of natural gas and electric utilities, tariff filings, applications, and various other matters relating to jurisdictional gas and electric utilities in Missouri, including review of Electric Resource Plans and Regulatory Plans for investor owned electric utilities in Missouri. I have also served on various task forces, collaboratives, and working groups dealing with issues relating to jurisdictional natural gas and electric utilities.

MISSOURI PUBLIC SERVICE COMMISSION

CASES IN WHICH PREPARED TESTIMONY,

REPORT, OR REVIEW WAS SUBMITTED BY:

HENRY E. WARREN, PHD

COMPANY NAME	CASE NUMBER
St. Joseph Light and Power Company	GR-93-042[1]
Laclede Gas Co.	GR-93-149
Missouri Public Service	GR-93-172[1]
Western Resources	GR-93-240[1]
Laclede Gas Co.	GR-94-220[1]
Kansas City Power & Light Co.	EO-94-3601[2]
United Cities Gas Co.	GR-95-160[1]
UtiliCorp United, Inc.	EO-95-187[2]
The Empire District Electric Co.	ER-95-279[1]
The Empire District Electric Co.	EO-96-56[2]
St. Joseph Light and Power Company	EO-96-198[2]
Laclede Gas Co.	GR-96-193[1]
Missouri Gas Energy	GR-96-285[1]
The Empire District Electric Co.	ER-97-081[1]
Union Electric Co.	GR-97-393[1]
Missouri Gas Energy	GR-98-140[1]
Laclede Gas Co.	GR-98-374[1]
St. Joseph Light & Power Company	GR-99-246[1]
Laclede Gas Co.	GR-99-315[1]
Union Electric Company (d/b/a AmerenUE)	GR-2000-512[1]
Missouri Gas Energy	GR-2001-292[1]
Laclede Gas Co.	GR-2001-629[1]

[1]Testimony includes computations to adjust test year volumes, therms, or kWh to normal weather.

[2]Staff Report or Review

MISSOURI PUBLIC SERVICE COMMISSION

CASES IN WHICH PREPARED TESTIMONY,

REPORT OR REVIEW WAS SUBMITTED BY:

HENRY E. WARREN, PHD

(CONTINUED)

COMPANY NAME	CASE NUMBER
Laclede Gas Company	GC-2002-0110[2]
Laclede Gas Company	GR-2002-0356[1]
Aquila, Inc.	GC-2003-0131[2]
Laclede Gas Company	GC-2003-0212[2]
Laclede Gas Company	GT-2003-0117
Aquila, Inc., (d/b/a Aquila Networks MPS and L&P)	GR-2004-0072[1]
Missouri Gas Energy	GR-2004-0209
Laclede Gas Company	GC-2004-0240[2]
Kansas City Power & Light Company	EO-2005-0329[2]
Union Electric Company (d/b/a AmerenUE)	EO-2006-0240[2]
The Empire District Electric Company	ER-2006-0315
The Atmos Energy Corporation	GR-2006-0387[1]
Missouri Gas Energy	GR-2006-0422[1]
Union Electric Company (d/b/a AmerenUE)	GR-2007-0003[1]
Kansas City Power & Light Company	EO-2007-0008[2]
Aquila, Inc., (d/b/a Aquila Networks MPS and L&P)	EO-2007-0298[2]
Laclede Gas Company	GR-2007-0208[2]
Missouri Gas Energy – The Empire District Gas Company	GA-2007-0289, et al
Union Electric Company (d/b/a AmerenUE)	EO-2007-0409[2]

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[1]Testimony includes computations to adjust test year volumes, therms, or kWh to normal weather.

[2]Staff Report or Review

MISSOURI PUBLIC SERVICE COMMISSION

CASES IN WHICH PREPARED TESTIMONY,

REPORT OR REVIEW WAS SUBMITTED BY:

HENRY E. WARREN, PHD

(CONTINUED)

The Empire District Electric Company	EO-2008-0069[2]
Union Electric Company (d/b/a AmerenUE)	ER-2008-0318
Missouri Gas Energy	GR-2009-0355[1]
The Empire District Gas Company	GR-2009-0434
The Empire District Electric Company	ER-2010-0130

[1]Testimony includes computations to adjust test year volumes, therms, or kWh to normal weather.

[2]Staff Report or Review

CLASS COST-OF-SERVICE SUMMARY
LACLEDE GAS COMPANY
CASE NO. GR-2010-0171
TEST YEAR ENDED September 30, 2009, UPDATED THROUGH MARCH 31, 2010

	TOTAL	RESIDENTIAL	GENERAL SERVICE CLASS 1	GENERAL SERVICE CLASS 2	GENERAL SERVICE CLASS 3	LARGE VOLUME	FIRM TRANSPORT	BASIC TRANSPORT	INTERRUPTIBLE SALES
RATE BASE	$700,131,549	$546,288,946	$51,497,238	$53,125,657	$19,841,358	$5,392,271	$16,046,133	$6,514,814	$1,425,132
REQUESTED RETURN	8.23%	8.23%	8.23%	8.23%	8.23%	8.23%	8.23%	8.23%	8.23%
RETURN ON RATE BASE	$57,599,823	$44,943,192	$4,236,678	$4,370,648	$1,632,348	$443,622	$1,320,115	$535,974	$117,246
O & M EXPENSES	$162,186,419	$130,662,151	$9,677,611	$9,699,321	$5,761,500	$1,526,728	$2,752,709	$1,743,931	$362,469
DEPRECIATION EXPENSE	$47,364,660	$38,408,745	$3,415,210	$2,893,346	$1,049,433	$295,280	$867,686	$357,949	$77,010
AMORTIZATION EXPENSE	$3,042,467	$2,430,868	$200,070	$197,193	$95,111	$25,528	$57,553	$29,822	$6,322
EXPLORATION/DEVELOPMENT	$0	$0	$0	$0	$0	$0	$0	$0	$0
LACLEDE PIPELINE/OTHER	$0	$0	$0	$0	$0	$0	$0	$0	$0
TAXES OTHER THAN INCOME	$17,408,070	$13,688,054	$1,238,916	$1,275,708	$506,293	$134,719	$368,457	$160,556	$35,366
INCOME TAXES	$18,460,290	$14,403,939	$1,357,822	$1,400,758	$523,155	$142,177	$423,087	$171,775	$37,576
TOTAL EXPENSES	$248,461,906	$199,593,757	$15,889,629	$15,466,327	$7,935,492	$2,124,432	$4,469,491	$2,464,033	$518,745
TOTAL C-O-S	$306,061,729	$244,536,949	$20,126,306	$19,836,975	$9,567,841	$2,568,054	$5,789,607	$3,000,007	$635,990
C-O-S INCLUDING TRUE-UP	$306,061,729	$244,536,949	$20,126,306	$19,836,975	$9,567,841	$2,568,054	$5,789,607	$3,000,007	$635,990
OTHER REVENUES	$14,232,988	$12,205,045	$829,460	$618,307	$261,054	$68,330	$154,048	$79,823	$16,922
REQUIRED MARGIN REVENUE	$291,828,741	$232,331,904	$19,296,847	$19,218,668	$9,306,787	$2,499,724	$5,635,559	$2,920,184	$619,068
CURRENT MARGIN REVENUES	$279,816,076	$220,102,085	$14,885,010	$21,009,873	$10,857,701	$4,237,312	$1,935,338	$6,118,505	$670,252
AVERAGE GAS REVENUES	$0	$0	$0	$0	$0	$0	$0	$0	$0
ZERO REVENUE INCREASE PLUG	($12,012,665)	($9,563,572)	($794,324)	($791,106)	($383,099)	($102,897)	($231,979)	($120,205)	($25,483)
C-O-S MARGIN REVENUES @ 0%	$279,816,076	$222,768,332	$18,502,523	$18,427,562	$8,923,688	$2,396,827	$5,403,580	$2,799,979	$593,585
AVERAGE GAS COSTS	$0	$0	$0	$0	$0	$0	$0	$0	$0
REVENUE INCREASE AT	$0	$0	$0	$0	$0	$0	$0	$0	$0
REVENUE ABOVE (BELOW) COS	$0	($2,666,247)	($3,617,513)	$2,582,311	$1,934,013	$1,840,485	($3,468,241)	$3,318,525	$76,667
%INCREASE WITHOUT GAS COSTS	0.00%	1.21%	24.30%	-12.29%	-17.81%	-43.44%	179.21%	-54.24%	-11.44%

Schedule MJE-1

LACLEDE GAS
CASE NO. GR-2010-0171
RESIDENTIAL COINCIDENT PEAK DAY DEMAND ESTIMATE

St. Charles

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	3.8447	92,153	354,304
Nov	41.75	6.0270	92,609	558,154
Dec	61.14	8.6404	93,095	804,376
Jan	63.27	8.9270	93,304	832,928
Feb	58.36	8.2656	93,387	771,904
Mar	44.16	6.3513	93,386	593,125
Apr	28.78	4.2783	93,272	399,043
May	14.72	2.3835	93,082	221,860
Jun	4.59	1.0170	92,855	94,432
Jul	0.19	0.4243	92,662	39,320
Aug	0.54	0.4715	92,604	43,662
Sep	13.56	2.2265	92,617	206,215
ANNUAL	63.27	**8.9270**	93,262	832,553

Laclede

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	4.4187	452,321	1,998,652
Nov	41.75	6.9676	456,151	3,178,256
Dec	61.14	10.0200	464,506	4,654,352
Jan	63.27	10.3548	469,180	4,858,274
Feb	58.36	9.5823	471,263	4,515,789
Mar	44.16	7.3464	471,109	3,460,942
Apr	28.78	4.9250	469,191	2,310,780
May	14.72	2.7119	465,742	1,263,052
Jun	4.59	1.1158	461,090	514,494
Jul	0.19	0.4236	456,853	193,527
Aug	0.54	0.4787	453,800	217,226
Sep	13.56	2.5286	452,566	1,144,354
ANNUAL	63.27	**10.3548**	468,316	4,849,331

Franklin

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	3.4647	4,522	15,667
Nov	41.75	5.4426	4,638	25,243
Dec	61.14	7.8112	4,733	36,970
Jan	63.27	8.0710	4,766	38,466
Feb	58.36	7.4716	4,783	35,736
Mar	44.16	5.7365	4,774	27,386
Apr	28.78	3.8576	4,736	18,270
May	14.72	2.1403	4,668	9,991
Jun	4.59	0.9017	4,598	4,146
Jul	0.19	0.3646	4,555	1,661
Aug	0.54	0.4073	4,534	1,847
Sep	13.56	1.9980	4,542	9,075
ANNUAL	63.27	**8.0710**	4,761	38,423

Midwest

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	3.4696	18,749	65,051
Nov	41.75	5.4213	18,853	102,208
Dec	61.14	7.7587	18,992	147,352
Jan	63.27	8.0150	19,044	152,638
Feb	58.36	7.4235	19,062	141,507
Mar	44.16	5.7114	19,063	108,876
Apr	28.78	3.8573	19,026	73,389
May	14.72	2.1627	18,966	41,017
Jun	4.59	0.9405	18,948	17,821
Jul	0.19	0.4105	18,897	7,756
Aug	0.54	0.4526	18,867	8,540
Sep	13.56	2.0223	18,891	38,203
ANNUAL	63.27	**8.0150**	19,033	152,547

Mo. Natural

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	Therm/C/D	CUSTOMERS	Therm/DAY
Oct	25.56	3.2949	21,867	72,051
Nov	41.75	5.1923	22,252	115,538
Dec	61.14	7.4644	22,778	170,025
Jan	63.27	7.7137	22,920	176,797
Feb	58.36	7.1386	22,992	164,131
Mar	44.16	5.4743	22,944	125,601
Apr	28.78	3.6719	22,723	83,436
May	14.72	2.0245	22,378	45,304
Jun	4.59	0.8364	22,045	18,439
Jul	0.19	0.3211	21,754	6,986
Aug	0.54	0.3621	21,525	7,795
Sep	13.56	1.8880	21,479	40,553
ANNUAL	63.27	7.7137	22,897	176,617

LACLEDE GAS
CASE NO. GR-2010-0171
COMMERCIAL AND INDUSTRIAL CLASS 1 COINCIDENT PEAK DAY DEMAND ESTIMATE

St. Charles

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	7.0387	4,088	28,774
Nov	41.75	11.2017	4,192	46,957
Dec	61.14	16.1871	4,294	69,508
Jan	63.27	16.7340	4,337	72,575
Feb	58.36	15.4723	4,349	67,289
Mar	44.16	11.8204	4,340	51,301
Apr	28.78	7.8657	4,313	33,925
May	14.72	4.2511	4,271	18,157
Jun	4.59	1.6443	4,228	6,952
Jul	0.19	0.5137	4,186	2,150
Aug	0.54	0.6037	4,143	2,501
Sep	13.56	3.9517	4,141	16,364
ANNUAL	63.27	**16.7340**	4,327	72,402

Laclede

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	8.0553	22,014	177,330
Nov	41.75	12.8400	22,308	286,436
Dec	61.14	18.5700	22,706	421,652
Jan	63.27	19.1986	22,880	439,263
Feb	58.36	17.7484	22,973	407,735
Mar	44.16	13.5512	22,954	311,053
Apr	28.78	9.0059	22,773	205,091
May	14.72	4.8514	22,483	109,075
Jun	4.59	1.8553	22,228	41,239
Jul	0.19	0.5559	22,019	12,240
Aug	0.54	0.6593	21,916	14,448
Sep	13.56	4.5073	21,852	98,494
ANNUAL	63.27	**19.1986**	22,853	438,745

Franklin

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	6.8158	819	5,582
Nov	41.75	11.0140	846	9,318
Dec	61.14	16.0415	859	13,780
Jan	63.27	16.5930	862	14,303
Feb	58.36	15.3206	863	13,222
Mar	44.16	11.6379	860	10,009
Apr	28.78	7.6498	849	6,495
May	14.72	4.0047	835	3,344
Jun	4.59	1.3758	821	1,130
Jul	0.19	0.2357	815	192
Aug	0.54	0.3264	815	266
Sep	13.56	3.7027	814	3,014
ANNUAL	63.27	**16.5930**	861	14,292

Midwest

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	8.1303	818	6,651
Nov	41.75	12.9530	834	10,803
Dec	61.14	18.7286	851	15,938
Jan	63.27	19.3621	857	16,593
Feb	58.36	17.9004	868	15,538
Mar	44.16	13.6698	863	11,797
Apr	28.78	9.0884	861	7,825
May	14.72	4.9009	861	4,220
Jun	4.59	1.8810	853	1,604
Jul	0.19	0.5713	842	481
Aug	0.54	0.6755	838	566
Sep	13.56	4.5541	837	3,812
ANNUAL	63.27	**19.3621**	859	16,626

Mo. Natural

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	6.6415	2,737	18,178
Nov	41.75	10.7030	2,793	29,893
Dec	61.14	15.5668	2,856	44,459
Jan	63.27	16.1004	2,868	46,176
Feb	58.36	14.8694	2,870	42,675
Mar	44.16	11.3066	2,875	32,506
Apr	28.78	7.4483	2,853	21,250
May	14.72	3.9219	2,796	10,966
Jun	4.59	1.3786	2,746	3,786
Jul	0.19	0.2756	2,713	748
Aug	0.54	0.3634	2,702	982
Sep	13.56	3.6298	2,695	9,782
ANNUAL	63.27	**16.1004**	2,865	46,122

Schedule KC-2

LACLEDE GAS
CASE NO. GR-2010-0171
COMMERCIAL AND INDUSTRIAL CLASS 2 COINCIDENT PEAK DAY DEMAND ESTIMATE

St. Charles

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	52.3711	988	51,743
Nov	41.75	78.5908	995	78,198
Dec	61.14	109.9904	1,005	110,540
Jan	63.27	113.4346	1,010	114,569
Feb	58.36	105.4880	1,012	106,754
Mar	44.16	82.4876	1,013	83,560
Apr	28.78	57.5800	1,012	58,271
May	14.72	34.8144	1,010	35,163
Jun	4.59	18.3958	1,007	18,525
Jul	0.19	11.2753	1,003	11,309
Aug	0.54	11.8418	1,001	11,854
Sep	13.56	32.9286	1,000	32,929
ANNUAL	63.27	**113.4346**	1,009	114,456

Laclede

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	58.3795	7,610	444,268
Nov	41.75	89.7107	7,647	686,018
Dec	61.14	127.2317	7,689	978,284
Jan	63.27	131.3473	7,711	1,012,819
Feb	58.36	121.8515	7,725	941,303
Mar	44.16	94.3672	7,732	729,647
Apr	28.78	64.6039	7,707	497,902
May	14.72	37.4001	7,654	286,260
Jun	4.59	17.7808	7,625	135,579
Jul	0.19	9.2721	7,602	70,486
Aug	0.54	9.9491	7,595	75,563
Sep	13.56	35.1467	7,573	266,166
ANNUAL	63.27	**131.3473**	7,708	1,012,469

Franklin

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	59.7523	236	14,102
Nov	41.75	88.2075	239	21,082
Dec	61.14	122.2843	245	29,960
Jan	63.27	126.0221	244	30,749
Feb	58.36	117.3980	245	28,763
Mar	44.16	92.4366	245	22,647
Apr	28.78	65.4053	246	16,090
May	14.72	40.6987	246	10,012
Jun	4.59	22.8803	246	5,629
Jul	0.19	15.1526	247	3,743
Aug	0.54	15.7675	246	3,879
Sep	13.56	38.6521	246	9,508
ANNUAL	63.27	**126.0221**	245	30,833

Midwest

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Ccf/DAY
Oct	25.56	46.2599	164	7,587
Nov	41.75	68.9887	165	11,383
Dec	61.14	96.2077	169	16,259
Jan	63.27	99.1933	169	16,764
Feb	58.36	92.3047	170	15,692
Mar	44.16	72.3666	170	12,302
Apr	28.78	50.7753	170	8,632
May	14.72	31.0407	170	5,277
Jun	4.59	16.8082	171	2,874
Jul	0.19	10.6356	171	1,819
Aug	0.54	11.1267	169	1,880
Sep	13.56	29.4060	169	4,970
ANNUAL	63.27	**99.1933**	169	16,797

Mo. Natural

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	54.9287	508	27,904
Nov	41.75	82.2422	510	41,944
Dec	61.14	114.9518	513	58,970
Jan	63.27	118.5396	513	60,811
Feb	58.36	110.2616	515	56,785
Mar	44.16	86.3016	515	44,445
Apr	28.78	60.3549	513	30,962
May	14.72	36.6395	511	18,723
Jun	4.59	19.5360	509	9,944
Jul	0.19	12.1184	507	6,144
Aug	0.54	12.7086	507	6,443
Sep	13.56	34.6750	505	17,511
ANNUAL	63.27	118.5396	514	60,890

Schedule KC-3

LACLEDE GAS
CASE NO. GR-2010-0171
COMMERCIAL AND INDUSTRIAL CLASS 3 COINCIDENT PEAK DAY DEMAND ESTIMATE

St. Charles

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	315.8472	53	16,740
Nov	41.75	470.1227	54	25,387
Dec	61.14	654.8768	55	36,018
Jan	63.27	675.1421	55	37,133
Feb	58.36	628.3849	55	34,561
Mar	44.16	493.0514	55	27,118
Apr	28.78	346.4962	56	19,404
May	14.72	212.5441	57	12,115
Jun	4.59	115.9383	57	6,608
Jul	0.19	74.0410	57	4,220
Aug	0.54	77.3745	58	4,488
Sep	13.56	201.4482	57	11,483
ANNUAL	63.27	**675.1421**	55	37,133

Laclede

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	386.3971	559	215,996
Nov	41.75	586.4144	564	330,738
Dec	61.14	825.9470	564	465,834
Jan	63.27	852.2208	564	480,653
Feb	58.36	791.6004	565	447,254
Mar	44.16	616.1413	562	346,271
Apr	28.78	426.1334	563	239,913
May	14.72	252.4652	561	141,633
Jun	4.59	127.2163	561	71,368
Jul	0.19	72.8968	562	40,968
Aug	0.54	77.2187	562	43,397
Sep	13.56	238.0794	561	133,563
ANNUAL	63.27	**852.2208**	564	480,937

Franklin

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	426.2114	19	8,098
Nov	41.75	582.5636	19	11,069
Dec	61.14	769.8046	19	14,626
Jan	63.27	790.3427	19	15,017
Feb	58.36	742.9562	19	14,116
Mar	44.16	605.8009	19	11,510
Apr	28.78	457.2730	19	8,688
May	14.72	321.5177	19	6,109
Jun	4.59	223.6115	19	4,249
Jul	0.19	181.1503	19	3,442
Aug	0.54	184.5287	19	3,506
Sep	13.56	310.2725	19	5,895
ANNUAL	63.27	**790.3427**	19	15,017

Midwest

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	349.3605	6	2,096
Nov	41.75	530.6509	6	3,184
Dec	61.14	747.7568	6	4,487
Jan	63.27	771.5707	6	4,629
Feb	58.36	716.6261	6	4,300
Mar	44.16	557.5946	6	3,346
Apr	28.78	385.3764	6	2,312
May	14.72	227.9681	6	1,368
Jun	4.59	114.4459	6	687
Jul	0.19	65.2121	6	391
Aug	0.54	69.1293	7	484
Sep	13.56	214.9293	7	1,505
ANNUAL	63.27	**771.5707**	6	4,629

Mo. Natural

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	Therm/C/D	CUSTOMERS	Therm/DAY
Oct	25.56	350.5807	20	7,012
Nov	41.75	463.7029	20	9,274
Dec	61.14	599.1735	21	12,583
Jan	63.27	614.0329	21	12,895
Feb	58.36	579.7484	21	12,175
Mar	44.16	480.5153	22	10,571
Apr	28.78	373.0540	22	8,207
May	14.72	274.8339	22	6,046
Jun	4.59	203.9979	22	4,488
Jul	0.19	173.2768	22	3,812
Aug	0.54	175.7211	22	3,866
Sep	13.56	266.6979	22	5,867
ANNUAL	63.27	614.0329	21	12,895

Schedule KC-4

LACLEDE GAS
CASE NO. GR-2010-0171
PROPANE COINCIDENT PEAK DAY DEMAND ESTIMATE

Laclede

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	19.1064	17	325
Nov	41.75	29.5155	17	502
Dec	61.14	41.9810	17	714
Jan	63.27	43.3484	19	824
Feb	58.36	40.1936	19	764
Mar	44.16	31.0625	18	559
Apr	28.78	21.1743	16	339
May	14.72	12.1364	13	158
Jun	4.59	5.6183	11	62
Jul	0.19	2.7914	11	31
Aug	0.54	3.0164	9	27
Sep	13.56	11.3877	9	102
ANNUAL	63.27	**43.3484**	18	795

Midwest

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	**Therm/C/D**	CUSTOMERS	Therm/DAY
Oct	25.56	22.3326	84	1,876
Nov	41.75	34.9176	83	2,898
Dec	61.14	49.9888	80	3,999
Jan	63.27	51.6419	70	3,615
Feb	58.36	47.8277	56	2,678
Mar	44.16	36.7880	46	1,692
Apr	28.78	24.8328	43	1,068
May	14.72	13.9057	43	598
Jun	4.59	6.0252	43	259
Jul	0.19	2.6074	41	107
Aug	0.54	2.8794	41	118
Sep	13.56	13.0006	41	533
ANNUAL	63.27	**51.6419**	69	3,546

Mo. Natural

Coincident Peak Day Demand Estimate				
MONTH	MAX HDD	Therm/C/D	CUSTOMERS	Therm/DAY
Oct	25.56	12.3812	4	50
Nov	41.75	20.0091	1	20
Dec	61.14	29.1439	2	58
Jan	63.27	30.1459	1	30
Feb	58.36	27.8341	0	0
Mar	44.16	21.1428	0	0
Apr	28.78	13.8966	0	0
May	14.72	7.2736	0	0
Jun	4.59	2.4971	0	0
Jul	0.19	0.4255	0	0
Aug	0.54	0.5903	0	0
Sep	13.56	6.7249	0	0
ANNUAL	63.27	30.1459	1	30

Schedule KC-5