BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff to Revise Natural Gas Rate Schedules.	)))	Case No. GR-99-315

A F F I D A V I T

STATE OF MISSOURI)
) SS.
CITY OF ST. LOUIS)

R. Lawrence Sherwin, of lawful age, being first duly sworn, deposes and states:

1. My name is R. Lawrence Sherwin. My business address is 720 Olive Street, St. Louis, Missouri 63101; and I am Assistant Vice President - Regulatory Administration of Laclede Gas Company.

2. Attached hereto and made a part hereof for all purposes is my direct testimony, consisting of pages 1 to 11, and Schedule Nos. 1 to 4, inclusive.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded and the information contained in the attached schedule are true and correct to the best of my knowledge and belief.

R Lawrence Sherwin
R. Lawrence Sherwin

Subscribed and sworn to before me this 10th day of March, 1999.

JOYCE L. JANSEN
Notary Public — Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: July 2, 2001

Joyce L. Jansen

Exhibit No.:
Issue: Cost of Service
Witness: R. Lawrence Sherwin
Type of Exhibit: Direct Testimony
Sponsoring Party: Laclede Gas Company
Case No.: GR-99-315

LACLEDE GAS COMPANY

GR-99-315

DIRECT TESTIMONY

OF

R. LAWRENCE SHERWIN

March 1999

DIRECT TESTIMONY OF R. LAWRENCE SHERWIN

Q. Please state your name and business address.

A. My name is R. Lawrence Sherwin and my business address is 720 Olive Street, St. Louis, Missouri 63101.

Q. What is your present position?

A. I am Assistant Vice President - Regulatory Administration for Laclede Gas Company.

Q. Please tell us how long you have held this position and describe your responsibilities.

A. I was appointed Assistant Vice President - Regulatory Administration in February 1999. In this position I am responsible for managing the administration of Laclede's tariff and other federal and state regulatory matters, and will also be responsible for conducting various projects, studies and analyses from time to time.

Q. What is your educational background?

A. I graduated from St. Louis University in 1975 with the degree of Bachelor of Science in Business Administration, majoring in accounting.

Q. Will you briefly describe your experience with the Company prior to assuming your current position?

A. I joined Laclede in 1975 as an Accountant in the Corporate Accounting Department. In 1976 I was transferred to the Budget Department, where I served in senior staff and assistant managerial capacities until

my appointment to Supervisor of Corporate Accounting in 1979. I served in this capacity for two years, until I was appointed Manager of Financial Planning in 1981. I held this position until I was promoted to Manager of Accounting in 1982. I served as Manager of Accounting until I was appointed Director of Customer Accounting in April 1988 with responsibility for Collection & Credit, Customer Accounting, Meter Reading and Methods & Procedures. The Cashiers and Mailing Department was added to my responsibilities in July 1991. In August 1992 I was elected Assistant Vice President of Customer Accounting. Effective January 1997 I was named Assistant Vice President - Human Resources. Although several recent assignments detailed above have been in other areas, I have assisted in various facets of Laclede's rate matters over much of my employment, including work at times in cases filed by Mississippi River Transmission Corporation, an interstate pipeline that serves Laclede.

Q. Have you previously filed testimony before this Commission?

A. Yes. I have also testified before the Federal Energy Regulatory Commission.

Q. What is the purpose of your testimony?

A. I will sponsor the class cost-of-service study prepared by the Company, discuss the comparison by rate class of cost-of-service to revenues produced by current rates,

and discuss the determination of customer-related costs upon which the proposed General Service customer charge for Residential customers is based.

Q. Please describe the general objective of a class cost-of-service study.

A. The general objective of a class cost-of-service study is to determine as accurately as practicable the cost responsibilities of each of the Company's rate classes.

Q. What costs and revenues did the Company use in its cost-of-service study?

A. Costs and revenues are based on the twelve-month period ended September 1998, as shown in detail on Schedule Nos. 1 and 2 of my direct testimony, respectively. Rate base components are also at September 1998 levels, as shown on Schedule No. 3.

Q. What adjustments were made to costs and revenues?

A. Gas costs and revenues reflect therms sold and transported during the twelve-month period ended September 1998, and the gas costs used in Laclede's Purchased Gas Adjustment factors effective November 19, 1998. All other expenses are at the actual levels incurred during the twelve months ended September 1998 period.

Q. Is the Company's cost-of-service study coordinated with the Company's revenue requirement evidence?

A. No, it is not. The cost-of-service study is not intended to demonstrate, or in any way be determinative of, the revenue requirement sought by the Company in

this case. Instead, such study is intended to serve as a means of determining the relative cost responsibility of the various rate classes.

Q. Please describe the first step involved in the preparation of the cost-of-service study.

A. The first step was to functionalize all rate base components and expenses into categories. The Company's investments and expenses fall into three basic categories insofar as their functional responsibility is concerned. These cost categories are a) customer-related costs, b) demand-related costs and c) variable or commodity-related costs, all of which are described in greater detail below.

Customer-related Costs are those costs which result from the mere existence of a customer and include the costs of meter reading, billing, etc., as well as the fixed costs associated with the minimum size service pipe and meter. These costs do not vary significantly from month-to-month and are unaffected by consumption differences.

Demand-related Costs are those costs which are incurred in order to meet the maximum daily gas demand imposed by customers, particularly those demands which are coincident with the total system peak demand. The capacity of Laclede's distribution system, and the investment related thereto, is a function of the non-coincident demand of each rate class. Fixed

monthly gas supply demand and capacity reservation charges are examples of demand-related costs.

Commodity-related Costs are those costs which are a function of the actual volume of gas used. The major cost component in this category is, of course, the commodity cost of the gas purchased by Laclede.

Q. Please describe the functionalization of major rate base components.

A. Certain rate base components are assignable to a single function. For example, Laclede's underground storage plant is clearly demand-related. However, other rate base components, such as mains, services and meters, are multi-functional. Mains, for example, have a dual function--one is to distribute gas to customers throughout the year, which is a commodity-related function; and the other is to meet the customer's peak demand, which is a demand-related function. In the case of mains, the commodity-related investment was determined by applying the ratio of the total system average daily usage to the total non-coincident peak day usage. The balance of mains was assigned as a demand-related investment. Services and meters are rate base components which perform all three functions. The customer-related portion of the cost of services and meters was based on the cost of the minimum size of services and meters used in the Laclede system. The balance of the cost of services and meters was then

divided between demand-related and commodity-related costs by application of the same procedure followed for the functionalization of mains.

Q. How were expense items functionalized?

A. The commodity cost of gas purchased, by far the largest cost incurred by Laclede, is clearly a variable cost and was functionalized accordingly. Gas supply demand and capacity reservation ("gas supply demand-related") costs were functionalized based on the relationship between average system demand and peak system demand. Those gas supply demand-related costs associated with serving the average system daily use were functionalized as a commodity-related expense while the gas supply demand-related costs incurred due to the system demand in excess of the average system daily use were considered to be demand-related expenses.

Q. Why was a portion of the gas supply demand-related costs assigned to the commodity-related function?

A. Gas supply demand-related costs represent fixed charges for pipeline capacity and/or gas supplies. A portion of these costs is related to delivering the company's average system volume; therefore, these costs were assigned to demand and commodity functions in a manner consistent with the methodology used to functionalize Laclede's main investment.

Q. Please describe the general procedure followed in the functionalization of operating expenses other than gas supply costs.

A. In general, expenses that are directly related to a particular plant item were functionalized in the same manner as that plant item. For example, maintenance of mains was functionalized using the same percentages as the functionalization of main investment. However, certain other expenses were functionalized by applying the relationship of customer-related, demand-related and commodity-related expenses to certain previously established expense categories. For example, most administrative and general expenses were functionalized in proportion to the previously established customer, demand and commodity components of expenses that are primarily payroll-related (Distribution Operations, Sales, Maintenance, etc.).

Q. What was the next step in the preparation of the cost-of-service study?

A. The next step was to allocate the functionalized rate base components and operating expenses to the various rate classes.

Q. Please describe the process used to allocate rate base and expenses to the various rate classes.

A. Rate base components and expenses were allocated to the rate classes by application of various allocation percentages. Customer-related allocation percentages are

proportional to the number of bills rendered annually to each rate class. An adjustment was made to certain customer class allocation percentages to recognize the additional investment required and greater complexity in the service, metering and billing process associated with very large customers. Demand-related costs were further classified into gas supply and distribution categories. Gas supply-related demand allocation percentages are proportional to the coincident peak day demand of the various rate classes. Distribution-related demand allocation percentages are proportional to the non-coincident peak day demand applicable to the various rate classes. Finally, commodity-related allocation percentages are proportional to the therms sold or transported to each rate class. Schedule No. 2 includes the bill, annual usage and demand data by rate class which were used to derive such percentages.

Q. How were the coincident peak day demands of the various rate classes determined?

A. First, the total system peak day sendout was reduced by unaccounted-for and Company use gas, thus establishing the total system coincident peak day customer usage. Since daily usage data is not generally available by rate class, it was necessary to determine the class coincident demands by application of various estimating techniques. The first step was to deduct the demand of the most easily determinable rate classes from the

total system coincident peak day customer usage. In the case of both the Large Volume Service and Large Volume Transportation and Sales Service rate classes, billing demand or reservation therms provided the basis for determining class coincident demands. Other rate classes required different methods. The balance of the total system coincident peak day demand was assigned to the General Service rate class. A final check was then made to determine whether the class load factors were within the normal range.

Q. How was the non-coincident demand of the various rate classes determined?

A. The non-coincident class demands are generally the same as the coincident class demands, with the exception of Interruptible Service customers. This class was assigned no coincident demand due to the likelihood of curtailment on peak usage days. The non-coincident demand of this Interruptible Service rate class was estimated using a 50% load factor.

Q. What was done after all rate base components and expenses were allocated to the various rate classes?

A. In order to determine the total cost of providing service to each rate class, it was then necessary to determine the utility operating income and income taxes applicable to each rate class. Under the assumption that each rate class should produce the same rate of return on rate base, utility operating income was

allocated to each rate class proportional to the net original cost rate base allocated to such class. Income taxes, which are a function of utility operating income before income taxes reduced by certain deductions related to rate base, were also allocated to each rate class. After determining income taxes and utility operating income for each rate class, these amounts were added to all other costs, thus establishing the total cost of service by rate class.

Q. What are the results of the Company's class cost-of-service study?

A. The results of the class cost-of-service study are shown on Schedule No. 4 of my direct testimony.

Q. How do the allocated costs compare to the revenues produced under each rate class?

A. Schedule No. 4 presents the subtraction of the allocated costs by rate class from the revenues produced by each rate class. The study shows that the General Service rates are producing revenues in excess of allocated costs, while the Large Volume, Interruptible and Firm and Basic Transportation Service rates are producing revenues which are less than allocated costs.

Q. Do you believe this class cost of service study accurately reflects the current relative cost responsibilities of Laclede's rate classes?

A. Yes, I do if it is assumed that each rate class should produce the same rate of return on rate base and there are no unique cost allocation concerns to be addressed.

Q. You stated earlier that you would discuss the Residential General Service customer charge proposed by the Company. Have you determined the average monthly customer-related cost associated with this class?

A. Yes, I have. A separate study was prepared which isolated the customer components of expense and rate base mentioned previously. The utility operating income and associated income taxes were then calculated and added to the other customer-related expenses to produce the total customer-related cost. This total was then divided by the normalized number of bills in the test period resulting in an average customer-related cost for the General Service rate of about $12.99 per bill. Based on this cost determination, the $12.50 per bill customer charge proposed by the Company is fully justified.

Q. Does this conclude your testimony?

A. Yes, it does.

LACLEDE GAS COMPANY
UTILITY OPERATING EXPENSES EXCLUDING INCOME TAXES

	(000)
GAS COST	$309,108
PEAKING EXPENSE - Excluding all Gas Cost	1,611
DISTRIBUTION OPERATION EXPENSE	
Supervision & Engineering	5,505
Mains & Services	5,266
Measuring & Regulating Stations	1,335
Meters & House Regulators	11,174
Customer Installation - Net	2,723
All Other	2,341
Distribution Operation Subtotal	28,344
CUSTOMER ACCOUNTS EXPENSE	
Uncollectible Accounts	5,184
All Other	21,756
Customer Accounts Subtotal	26,940
SALES EXPENSE	3,803
ADMINISTRATIVE & GENERAL EXPENSE	
Administrative & General Salaries - Net	7,434
General Supplies & Expenses - Net	1,819
Injuries & Damages and Safety	2,092
Pension & Group Insurance - Net	8,056
Regulatory Commission, Rent, Miscellaneous	4,712
Property Insurance	286
All Other	1,026
Administrative & General Expense - Net	25,425
MAINTENANCE EXPENSE	
Peaking Plant	1,140
Supervision & Engineering	2,222
Mains	5,592
Services	6,388
All Other	3,322
Maintenance Subtotal	18,664
TOTAL OPERATION & MAINTENANCE EXPENSE	413,895
DEPRECIATION & AMORTIZATION	
Peaking Plant	839
Mains	5,731
Services	10,939
Meters & House Regulators	3,492
General Plant	3,966
All Other	338
Depreciation & Amortization Subtotal	25,305
TAXES - OTHER THAN INCOME TAX	
Payroll Taxes	5,541
Property Taxes	10,738
All Other - Excluding Gross Receipts Taxes	435
Taxes - Excluding Income Tax Subtotal	16,714
TOTAL OPERATING EXPENSE - EXCLUDING INCOME TAX	$455,914

Schedule No. 1

LACLEDE GAS COMPANY
BILL, USAGE AND REVENUE DATA

Rate Classes	Number of Annual Bills	Coincident Peak Demand (Therms)	Non-Coincident Peak Demand (Therms)	Therms Sold and Transported (000)	Annual Revenue Excl. GRT (000)
General Service	7,448,622	9,277,053	9,277,053	776,565	$471,309
Air Conditioning Service	2,972	--	--	2,428	975
Unmetered Gas Light Service	1,431	365	365	133	74
Vehicular Fuel	60	1,743	1,743	636	256
Large Volume Sales Service	1,676	242,618	242,618	33,745	15,461
Interruptible Sales Service	176	--	32,156	5,868	2,168
Transportation Service					
Firm	676	390,118	390,118	73,356	8,909
Basic	1,077	592,927	592,927	125,419	6,993
Transportation Subtotal	1,753	983,045	983,045	198,775	15,902
General L. P. Gas Service	2,961	1,864	1,864	170	122
TOTAL	7,459,651	10,506,688	10,538,844	1,018,320	$506,267

LACLEDE GAS COMPANY
NET ORIGINAL COST RATE BASE

	(000)
NET UTILITY PLANT IN SERVICE	
MANUFACTURED GAS PRODUCTION, STORAGE	$3,810
DISTRIBUTION	
Mains	171,969
Services	155,747
Meters, House Regulators, Commercial & Industrial Meters/Regulators	100,630
All Other	11,321
Distribution Plant Subtotal	439,667
GENERAL PLANT	
Office Furniture & Equipment, Data Processing Systems	8,796
All Other	21,461
General Plant Subtotal	30,257
TOTAL OTHER PLANT IN SERVICE	
Other Utility Plant	11
Natural Gas Underground - Non-Current	5,884
Other Utility Plant Subtotal	5,895
Net Utility Plant In Service	479,629
OTHER RATE BASE ITEMS	
Additions:	
Cash Working Capital Provision	9,000
Natural Gas Inventory	42,224
Propane Inventory	12,890
All Other	48,209
Additions - Subtotal	112,323
Deductions:	
Deferred Income Taxes	(77,025)
All Other	(477)
Deductions - Subtotal	(77,502)
Total Net Other Rate Base Items	34,821
NET ORIGINAL COST RATE BASE	$514,450

LACLEDE GAS COMPANY
COST OF SERVICE SUMMARY
(000)

	General Service	A/C	UMGL	Vehicular Fuel	Large Volume	Interr.	Firm Transp.	Basic Transp.	L.P. Gas	Total
NET ORIGINAL COST RATE BASE	$462,254	$259	$40	$145	$9,962	$1,183	$15,626	$24,855	$126	$514,450
COST OF SERVICE										
Cost of Gas	287,738	806	45	217	11,984	1,947	5,025	1,275	71	309,108
Peaking Expense - Excluding Cost of Gas	1,423	--	--	--	37	--	60	91	--	1,611
Distribution Operation Expense	25,482	20	2	9	531	76	844	1,373	7	28,344
Customer Accounts Expense	25,630	17	5	9	319	40	342	569	9	26,940
Sales Expense	2,901	9	--	2	126	22	274	468	1	3,803
Administrative & General Expense - Net	23,616	15	4	8	380	50	512	832	8	25,425
Maintenance Expense	16,848	9	2	5	351	44	540	860	5	18,664
Depreciation and Amortization	23,111	13	3	7	438	57	643	1,026	7	25,305
Taxes Other Than Income Taxes - Excl. GRT	15,173	10	2	5	299	41	453	727	4	16,714
Income Taxes	10,949	6	1	3	235	29	368	586	3	12,180
Total Utility Operating Income	38,409	21	3	12	828	98	1,298	2,065	10	42,744
Deduct Other Income	(400)	--	--	--	(10)	--	(17)	(26)	--	(453)
Deduct Forfeited Disc. and Misc. Revenue	(3,944)	(12)	(1)	--	(85)	(16)	(26)	(32)	(2)	(4,118)
TOTAL COST OF SERVICE	466,936	914	66	277	15,433	2,388	10,316	9,814	123	506,267
GAS REVENUE - EXCL. GRT	471,309	975	74	256	15,461	2,168	8,909	6,993	122	506,267
GAS REVENUE ABOVE (BELOW) COST OF SERVICE	$4,373	$61	$8	($21)	$28	($220)	($1,407)	($2,821)	($1)	--

Schedule No. 4