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August 2, 2002

By Hand Delivery

The Honorable Dale Hardy Roberts
Secretary/Chief Regulatory Law Judge
Missouri Public Service Commission
P.O. Box 360
Jefferson City, MO 65102-0360

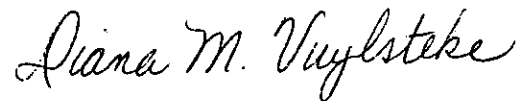
Re: Case No. GR-2002-356

Dear Judge Roberts:

Enclosed for filing on behalf of the Missouri Industrial Energy Consumers in the above-referenced case are an original and eight (8) copies of the Rebuttal Testimony of **JOHN MALLINCKRODT**. I would appreciate it if you would have the additional copy file-stamped and returned to the person delivering this testimony to you.

Thank you for your assistance in bringing this filing to the attention of the Commission

Very truly yours,



Diana M. Vuylsteke

DMV:dv

cc: All Parties of Record

Enclosures

Exhibit No.:	John W. Mallinckrodt
Witness:	Rebuttal Testimony
Type of Exhibit:	Class Cost of Service and
Issues:	Rate Design, Cost Allocation
	– Mains, Services, Meters,
	and Regulators
Sponsoring	Missouri Industrial Energy
Party:	Consumers
Case No.:	GR-2002-356

**Before the
Missouri Public Service Commission
Case No. GR-2002-356**

LACLEDE GAS COMPANY

Rebuttal Testimony and Schedules of

John W. Mallinckrodt

On Behalf of

Missouri Industrial Energy Consumers

August 2, 2002
Project 7761



BRUBAKER & ASSOCIATES, INC.
ST. LOUIS, MO 63141-2000

**Before the
Missouri Public Service Commission
Case No. GR-2002-356**

LACLEDE GAS COMPANY

STATE OF ILLINOIS)
)
COUNTY OF COOK) SS

Affidavit of John W. Mallinckrodt

John W. Mallinckrodt, being first duly sworn, on his oath states:

1. My name is John W. Mallinckrodt. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. GR-2002-356.

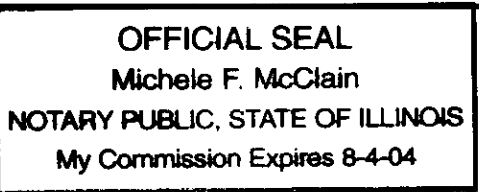
3. I hereby swear and affirm that the testimony is true and correct and that the schedules show the matters and things they purport to show.


John W. Mallinckrodt

Subscribed and sworn before this 1 day of August 2002.



Notary Public



LACLEDE GAS COMPANY

**Before the
Missouri Public Service Commission
Case No. GR-2002-356**

Rebuttal Testimony of John W. Mallinckrodt

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 **A John W. Mallinckrodt; my business address is 723 Gardner Road, Flossmoor, IL**
3 **60422.**

4 **Q ARE YOU THE SAME JOHN W. MALLINCKRODT WHO PREVIOUSLY**
5 **SUBMITTED TESTIMONY IN THIS CASE?**

6 **A Yes, I am.**

7 **Q WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

8 **A My purpose is to summarize the Missouri Industrial Energy Consumers' (MIEC)**
9 **position with respect to class cost of service in response to the testimonies submitted**
10 **by the Staff of the Missouri Public Service Commission (Staff), the Office of the Public**
11 **Counsel (OPC), and, to a lesser extent, Laclede Gas Company (Laclede or**
12 **Company).**

13 **My Rebuttal Testimony will also address the positions of the Staff and the**
14 **OPC on allocation of the cost of mains, services, and meters and regulators (M&R).**

1 Q WHAT ARE THE COST OF SERVICE ISSUES YOU WILL BE ADDRESSING?

2 A I will address the treatment of non-gas revenues in the Staff and OPC cost studies,
3 the allocation of the cost of the gas mains, and the costs of meters, regulators and
4 services. Also, I reiterate my recommendation made in direct testimony to set rates
5 based on cost of service.

6 **Allocation of the Costs of Meters, Regulators and Services**

7 Q DID YOU REVIEW THE ALLOCATION APPROACH USED BY STAFF AND OPC
8 WITH RESPECT TO METERS, REGULATORS, AND SERVICES?

9 A Yes I did. While I had relied on an approach similar to one used by Laclede (in its
10 last cost of service study filed) in the cost of service study (COSS) filed with my Direct
11 Testimony, I have determined that Staff and OPC have both proposed methods that
12 better reflect costs associated with these accounts. Consequently, I have modified
13 the MIEC study with respect to these accounts to incorporate the allocation approach
14 proposed by OPC in its direct testimony.

15 **Cost of Service Results**

16 Q WHAT ARE THE RESULTS OF THE MIEC CLASS COST OF SERVICE STUDY AS
17 MODIFIED?

18 A The results are set forth on my Rebuttal Schedule 1. The result is an upward
19 adjustment in the rates for General Service customers while the large volume classes
20 receives significant downward adjustments in their rates.

1 **Q DID STAFF, OPC, OR LACLEDE RECOMMEND ADJUSTMENTS TO RATES TO**
2 **BETTER REFLECT COSTS?**

3 A OPC recommended an adjustment in rates to better reflect the cost of service.
4 OPC's recommendation was to move half way to cost of service based on its study
5 results. Staff's COSS indicates that there should be a substantial change in rates to
6 reflect cost of service for each class. However, the Staff did not indicate its position
7 on movement to cost of service. Laclede made no recommendation, other than to
8 maintain the status quo, and in fact did not file a COSS.

9 **Q SHOULD CLASS RATES BE ADJUSTED TO REFLECT CLASS COST OF**
10 **SERVICE?**

11 A Yes. The most equitable approach is to eliminate subsidies so that each class of
12 customers will pay the costs incurred by Laclede in providing services. The cost-
13 based revenues for non-gas costs based on my COSS are set forth in Rebuttal
14 Schedule 2. In my Direct Testimony, I recommended elimination of the variation from
15 cost. The impact on ratepayers resulting from moving to cost-based rates is modest.
16 Therefore, I continue to recommend a full cost of service adjustment, as an equitable
17 approach.

18 **Q WHAT GENERAL COMMENTS DO YOU HAVE RELATIVE TO THE COST**
19 **ALLOCATIONS OF THE STAFF AND THE OPC?**

20 A The Staff and OPC allocate distribution main costs to customers who are not
21 connected to the medium pressure and low pressure parts of Laclede's distribution
22 system. Customers and/or classes that are not served by the low pressure facilities
23 do not cause Laclede to incur costs associated with those facilities. Accordingly, the
24 Staff and the OPC positions do not comport with cost of service principles.

1 OPC renewed a proposal that the cost of mains 2" and smaller be allocated
2 only to the general service class (OPC asserts that large volume and transportation
3 customers receive less benefit from 2" and smaller mains which are used only to
4 serve general service customers). This is a step in the right conceptual direction.
5 However, the determination of which facilities are connected and actually used should
6 be based on a careful study of the pressure systems that serve the customer's and/or
7 classes' facilities and not on the size of the main. OPC's approach, while a step in
8 the correct conceptual direction, is an arbitrary approximation. In contrast, I have
9 defined the facilities being used to serve the customer classes, based on careful
10 review of Laclede's records.

11 **Allocation of the Cost of Mains**

12 **Q WHAT HAVE STAFF, OPC AND PROPOSED WITH RESPECT TO ALLOCATION**
13 **OF TRANSMISSION AND DISTRIBUTION MAINS?**

14 **A STAFF**

15 Staff witness Anne Ross has sponsored the Staff's COSS. Witness Ross developed
16 the COSS in this case by updating the COSS filed by the Staff in Case No. GR-2001-
17 629. The allocators used in this case were developed in the previous case and
18 updated in this case by Daniel Beck to reflect current customer numbers and current
19 estimates of weather normalized peaks. Witness Beck did not file any testimony in
20 this proceeding to support the allocators used in the Staff's COSS. Therefore, there
21 is nothing in the record in this case that supports or even describes the Staff's
22 allocation factors.

23 However, in case the Commission should consider the Staff's allocators for
24 transmission and distribution mains, I will in this Rebuttal Testimony address the
25 Staff's allocation of mains using its capacity utilization method as it was described in

1 the Case No. GR-98-374. The capacity utilization method yields an allocation to the
2 Large Volume Transportation and Sales (LVTS) Firm and Basic Transportation
3 customer classes of approximately 4.96% and 3.06%, respectively, of both
4 transmission and distribution mains net plant in service.

5 OPC

6 OPC in the Testimony of Ms. Hong Hu has proposed that transmission and
7 distribution mains be allocated by the use of a modified RSUM (Relative System
8 Utilization Method) allocator. This is an unconventional method utilized by Mr. Barry
9 Hall, a former OPC employee, in Case No. GR-98-374 and adopted by Ms. Hong Hu.
10 For distribution mains, she has allocated all of the cost associated with mains having
11 a diameter of 2" and less to the Residential and Commercial & Industrial general
12 service classes, thereby excluding all other classes from these costs. She developed
13 RSUM allocators that yield an allocation of transmission and distribution mains net
14 plant in service costs to the LVTS Firm and Basic Transportation customer classes of
15 approximately 4.33% and 7.71%, respectively. There is a difference in the
16 transmission and distribution allocators due to the OPC's treatment of the 2" and
17 smaller mains.

18 **Q WHAT METHOD DID YOU USE FOR THE ALLOCATION OF MAINS?**

19 **A** In my Direct Testimony for the MIEC group, I utilized Laclede's COSS from a
20 previous case as a starting point and then made adjustments to reflect changes that
21 must be made to develop a proper study. I used an NCP demand/customer
22 allocation, and a 70/30 percentage split between the two. In addition, three NCP
23 demand allocators were developed to accommodate the fact that the large volume
24 customers are not served by the low pressure mains in Laclede's distribution system
25 and many of the large volume customers are not served by the medium pressure

1 mains. The use of a customer allocator, along with a demand allocator, properly
2 reflects the assignment of costs to each class because a portion of the cost is related
3 to the ability to connect customers to the system.

4 Also, the cost of mains is not a variable cost and is not related to the volume
5 of gas moving through the mains at any point in time. Consequently, there is no good
6 reason for allocating any portion of main costs based on throughput. The MIEC
7 method of allocation of mains reflects a reasonable allocation of the cost of
8 transmission and distribution mains for this case.

9 **Q PLEASE COMMENT ON THE APPROPRIATENESS OF THE STAFF'S METHOD**
10 **OF ALLOCATION OF MAINS.**

11 **A** The Staff's method does not allocate the proper amount of transmission and
12 distribution main costs to the LVTS Firm and Basic Transportation classes. The
13 Stand Alone method utilized by the Staff to derive the customer component generates
14 results similar to the use of the customer component by MIEC and in a very general
15 sense, both are intended to account for costs that are incurred to serve customers,
16 notwithstanding peak capacity requirements.

17 Staff and MIEC main allocators use somewhat similar demand allocation
18 factors before MIEC's adjustment for main pressures. Therefore, the single biggest
19 problem in the Staff's method is the failure to account for the fact that lower pressure
20 facilities are not used in providing service to large customers. When modified to
21 incorporate the use of only certain mains by the large volume classes, the Staff study
22 would better reflect the use and cost of the transmission and distribution mains used
23 to provide service to the classes. I also disagree with the capacity utilization method
24 because, as the name implies, the method focuses on usage instead of cost
25 causations.

1 However, even though I disagree with Staff's method of allocation of mains,
2 the results of Staff's COSS indicate that the basic class and the large volume class
3 both generate revenues above their cost of service and the general service class, as
4 a whole, does not generate sufficient revenues to cover its allocated cost of service.
5 However, again I have to point out that the Staff has not recommended that the
6 results of its COSS be implemented and that the classes be moved to cost of service.

7 **Q PLEASE ADDRESS THE OPC'S METHODS OF ALLOCATION OF MAINS.**

8 **A**The OPC's RSUM method does not allocate the proper main costs to the classes in
9 part because it is based on monthly NCP and not on the annual NCP. Like the Staff
10 capacity utilization method, it fails to focus on cost causation. Since maximum usage
11 is what drives the capacity component of the cost of mains, the cost allocation should
12 be based on the annual NCP, as adjusted for the use or non-use of the different
13 pressure system mains by the various classes. This would reflect the costs that are
14 incurred in order to meet the maximum daily gas demand imposed by customers.
15 The capacity component of the distribution system and the related investment for the
16 system is primarily a function of the peak demand of each rate class. Peak demand
17 therefore better reflects the cost responsibility of the classes. This calculation
18 combined with a customer-related factor and adjusted as described above for the
19 non-use of mains reflects the appropriate allocation of the cost of transmission and
20 distribution mains to the classes.

21 OPC has not allocated the cost of 2" and smaller mains to classes other than
22 the general service class. However, this 2" threshold is arbitrary and does not reflect
23 actual use of system facilities. Main costs should be allocated based on the pressure
24 system, as described more fully in my Direct Testimony. An allocator using the
25 annual NCP demands on each pressure system reflects the investment in mains and

1 the cost basis for mains, while the monthly NCPs in the OPC's RSUM method do not
2 reflect the reality of system usage.

3 Q HOW DOES THE MIEC PROPOSAL COMPARE TO THE OTHER PROPOSALS
4 FOR ALLOCATION OF MAINS?

5 A A comparison of the allocators for distribution mains for the LVTS Firm and Basic
6 Transportation classes is shown in the Table below.

<u>MAINS ALLOCATION - AS FILED</u>			
<u>Mains</u>	<u>LVTS Firm</u>	<u>LVTS Basic</u>	<u>Reflects Usage by Pressure System</u>
Staff	4.96%	3.05%	No
OPC	4.33%	7.70%	Arbitrary
MIEC	1.20%	1.77%	Yes

7 Q IS IT POSSIBLE TO CORRECT THE MAIN ALLOCATORS OF STAFF AND OPC
8 TO REFLECT ACTUAL USAGE OF THE VARIOUS PRESSURE SYSTEMS?

9 A Yes. Both the Staff and OPC's COSS could be adjusted by revising the demand
10 allocators for mains to account for the usage of mains. This would better reflect the
11 principle of cost causation and provide the required essential equity and non-
12 discrimination that should be reflected by a COSS.

1 Q HAVE YOU ADJUSTED THE STAFF AND OPC MAIN ALLOCATORS TO MORE
2 ACCURATELY MEASURE THE COSTS OF THE MAINS USED IN PROVIDING
3 SERVICE TO THE CUSTOMER CLASSES?

4 A Yes. The distinctly important aspect of my approach is based on the fundamental
5 principle that customers should only share in the costs of those facilities that are used
6 in providing service to them.

7 There is a large investment by Laclede in low-pressure mains that are
8 necessary to provide gas service to General Service customers. However, these low-
9 pressure mains are only capable of delivering relatively small volumes of gas and are
10 of no use in providing service to large volume customers. Therefore, I made
11 adjustments to the allocation approaches of Staff and OPC to reflect this fundamental
12 principal of equity. The other elements of the Staff and OPC allocation of mains were
13 left intact, although various additional deficiencies were explained.

14 Q IS THERE A SIGNIFICANT IMPACT ON THE STUDIES OF THE STAFF AND
15 OPC?

16 A Yes. As would be expected, the amount of main cost that is allocated to large volume
17 customers is significantly reduced. Summaries of the modified Staff and OPC studies
18 are attached to this Rebuttal Testimony, as Rebuttal Schedules 3 and 4, respectively.

Allocation of Meters, Regulators and Services

Q WHAT HAS THE STAFF PROPOSED WITH RESPECT TO ALLOCATION OF METERS?

A Mr. Beck used an allocation of meters that reflects the relative costs of the meters and the numbers of meters. Mr. Beck allocated meters by allocating approximately 70% of costs using a customer allocator and approximately 30% of meter costs using a demand allocator. An allocation factor for each customer class was, as developed in the last case, based on the percentage of customers in the class for the customer allocator and on the percentage of total demand in each class for the demand allocator. This resulted in an overall allocation of meter costs to the LVTS Firm Transportation class of 2.03% and to the LVTS Basic Transportation class of 1.23%.

Q DO YOU FIND MR. BECK'S APPROACH APPROPRIATE?

A No. While it accounts for variations in costs by use of a weighted per unit cost, the demand component does not capture any element of cost causations not already addressed by directly accounting for variations in the costs of the meters.

Q WHAT HAS THE OPC PROPOSED WITH RESPECT TO ALLOCATION OF METERS?

A The OPC in the Testimony of Mr. James A. Busch allocated meters based on the current cost for the meters and regulators used by each class. The current meter, regulator, and installation costs of the Company were utilized to derive the average meter, regulator, and installation cost for each customer class. This cost by class was compared to the cost for the residential class and a weight was developed from this. The estimated number of meters was developed from the number of customers in each class multiplied by a meter/customer ratio. The estimated number of meters

1 was multiplied by the cost weighting to develop the weighted meter count that was
2 used to calculate the meter allocation factor. The final meter and regulator allocators
3 for the LVTS Firm Transportation and Basic Transportation classes are 1.52% and
4 2.40%, respectively.

5 **Q DO YOU FIND MR. BUSCH'S APPROACH REASONABLE?**

6 **A** Yes. It accounts for variations in costs based on costs by use of a weighted per unit
7 cost. I have revised the MIEC study to incorporate Mr. Busch's approach.

8 **Q WHAT HAS THE STAFF PROPOSED WITH RESPECT TO ALLOCATION OF**
9 **REGULATORS?**

10 **A** Staff witness Beck allocated regulators by determining the customer and demand
11 components in the same manner as done for meters, except the cost was split
12 approximately 54% to customer and approximately 46% to demand. This resulted in
13 an allocation of regulator costs to the LVTS Firm Transportation class of 3.09% and
14 to the LVTS Basic Transportation class of 1.87%.

15 **Q WHAT HAS THE OPC PROPOSED WITH RESPECT TO ALLOCATION OF**
16 **REGULATORS?**

17 **A** As discussed above, the OPC in the Testimony of Mr. Busch allocated regulators
18 based on the meter allocators. This results in regulator allocators for the LVTS Firm
19 and Basic Transportation classes that are the same as the meter allocators.

1 Q WHAT METHOD DID STAFF AND OPC UTILIZE FOR THE ALLOCATION OF
2 SERVICE LINES?

3 A Mr. Beck for the Staff based his allocation of services on weighted customer
4 numbers. The weights were based on the average cost of services for each class.
5 These weights were applied to the customer numbers to derive weighted customer
6 numbers. The OPC in the Direct Testimony of Mr. Busch also allocated services
7 based on an estimate of the cost of services for each class. He developed
8 weightings relative to the residential class for each class that was multiplied by the
9 number of customers in each class to develop a weighted service count for each
10 class. This count was used to derive the service allocation factor.

11 The Staff's method of allocation of services resulted in an allocation of service
12 costs to the LVTS Firm and Basic Transportation classes of 0.06% and 0.10%,
13 respectively. The OPC's results in Mr. Busch's Direct Testimony allocated service
14 costs to the LVTS Firm and Basic Transportation classes of 0.06% and 0.10%,
15 respectively.

16 Q PLEASE COMMENT ON THE APPROPRIATENESS OF OPC'S METHODS AND
17 STAFF'S METHODS OF ALLOCATION OF SERVICES.

18 A The OPC and Staff methods are acceptable because they use the cost of services for
19 each class to develop a weighting that is used to derive a cost weighted service
20 count. It is more appropriate to base the cost allocation on the actual cost of services
21 than on the customer, demand, and commodity-related components of cost, which
22 would only at best approximate the cost.

1 **Q WHAT APPROACH DID MIEC USE FOR THE ALLOCATION OF SERVICES?**

2 A The MIEC COSS developed an allocator based 70% on NCP demand and 30% on
3 customer-related functions. The Staff and OPC methods better reflect cost and
4 produce essentially identical results. I revised the MIEC study to incorporate the
5 OPC approach.

6 **Q PLEASE SUMMARIZE THE MAIN POINTS OF YOUR TESTIMONY ON**
7 **ALLOCATION OF MAINS, SERVICES AND M&R COSTS.**

8 A The main points of my Testimony are as follows: (1) Staff and OPC methods of
9 allocation of mains should be rejected because they do not account for the fact that
10 many large customers do not receive any service from medium and low pressure
11 mains; (2) Mains should be allocated on an NCP demand/customer allocation with an
12 approximately 70/30 percent split between the two and with the NCP demand
13 allocator adjusted for customers not served by low pressure and medium pressures
14 mains; (3) Meters and regulators should be allocated using the method proposed by
15 OPC, which is quite similar in effect to the Staff method; (4) Services could be
16 allocated as proposed by OPC (these results are equivalent to Staff's); and (5) MIEC
17 endorses these methods for service, meters and regulators, and incorporates the
18 recommendation into the MIEC Recommended Cost of Service Study.

19 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY AT THIS TIME?**

20 A Yes, it does.

LACLEDE GAS COMPANY
MIEC REBUTTAL COST OF SERVICE SUMMARY
(Dollars in Thousands)

Line	Description	General Service	A/C	UMGL	Vehicular Fuel	Large Volume	Inter- ruptible	Firm Trans- portation	Basic Trans- portation	L.P. Gas	Total	Total Transportation
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<u>NON GAS COST OF SERVICE</u>												
1	Peaking Expense - Excluding Cost of Gas	\$ 2,573	\$ -	\$ 0	\$ 0	\$ 54	\$ 3	\$ 117	\$ -	\$ 0	\$ 2,748	\$ 117
2	Distribution Operation Expense	31,560	6	3	4	333	34	294	449	7	32,690	743
3	Customer Accounts Expense	37,212	15	6	7	407	54	242	221	9	38,173	463
4	Sales Expense	3,558	6	1	0	104	17	27	7	0	3,720	34
5	Administrative & General Expense - Net	43,799	9	7	9	392	42	464	686	11	45,419	1,150
6	Maintenance Expense	19,482	3	3	3	208	17	299	332	4	20,352	632
7	Deer Rev Req Due to Inventory Carrying Cost Tariff	(5,097)	-	(0)	(0)	(107)	(6)	(232)	-	(1)	(5,443)	(232)
8	Depreciation and Amortization	29,090	5	4	6	277	25	346	429	7	30,187	774
9	Taxes Other than Income Taxes - Excl GRT	19,423	3	3	4	193	18	258	369	4	20,275	627
10	Income Taxes	8,324	2	1	0	116	11	107	98	2	8,661	205
11	Total Utility Operating Income	51,929	11	4	3	726	68	666	611	11	54,029	1,277
12	Deduct Other Income	-	-	-	-	-	-	-	-	-	-	-
13	Deduct Forfeited Disc and Misc Revenue	25,445	28	3	0	348	44	397	608	5	26,879	1,005
14	NonGas Cost of Service	216,408	32	28	36	2,355	239	2,191	2,594	50	223,932	4,785
15	NonGas Revenue Excluding GRT	210,598	156	25	3	2,926	354	3,843	5,989	39	223,932	9,832
16	NonGas Revenue above (below) Cost of Service	\$ (5,810)	\$ 124	\$ (3)	\$ (33)	\$ 571	\$ 115	\$ 1,652	\$ 3,395	\$ (11)	\$ -	\$ 5,047
17	Percent of Present Revenue	-2.8%	79.5%	-11.2%	-1300.9%	19.5%	32.6%	43.0%	56.7%	-28.5%	0.0%	51.3%
18	Revenue per therm	\$ (0.0073)	\$ 0.0976	\$ (0.0219)	\$ (0.6629)	\$ 0.0246	\$ 0.0301	\$ 0.0254	\$ 0.0286	\$ (0.1026)	\$ -	\$ 0.0275

Rebuttal Schedule 1

LACLEDE GAS COMPANY

MIEC Revised Cost of Service Adjustments to NonGas Revenue to Achieve Cost of Service for All Classes (Dollars in Thousands)

<u>Line</u>	<u>Customer Class</u>	<u>Present NonGas Revenues (1)</u>	<u>Cost of Service Adjustment (2)</u>	<u>Percent of NonGas Revenues (3)</u>	<u>Recom- mended NonGas Revenues (4)</u>
1	General Service	\$ 210,598	\$ 5,810	2.8%	\$ 216,408
2	Air Conditioning	156	(124)	-79.5%	32
3	Large Volume	2,926	(571)	-19.5%	2,355
4	Interruptible	354	(115)	-32.5%	239
	Transportation:				
5	Firm	3,843	(1,652)	-43.0%	2,191
6	Basic	<u>5,989</u>	<u>(3,395)</u>	-56.7%	<u>2,594</u>
7	Total Transportation	9,832	(5,047)	-51.3%	4,785
8	Vehicular Fuel	3	33	1100.0%	36
9	L.P. Gas	39	11	28.2%	50
10	Unmetered Gas Light	25	3	12.0%	28
11	Total	\$ 223,933	\$ -	0.0%	\$ 223,933

STAFF ANALYSIS AS MODIFIED BY MIEC
LACLEDE GAS COMPANY
CASE NO. GR-2002-356
TEST YEAR ENDED NOVEMBER 30, 2001, UPDATED THROUGH MARCH 31, 2002

	TOTAL	RESIDENTIAL	GENERAL SERVICE C & I	LIQUID PROPANE	LARGE VOLUME	INTERRUPT	FIRM TRANSPORT	BASIC TRANSPORT	UNMETERED GAS LIGHTS
RATE BASE	\$622,897,000	\$485,110,860	\$111,276,532	\$26,664	\$6,620,984	\$1,007,275	\$9,859,052	\$8,984,706	\$10,927
REQUESTED RETURN	7.5800%	7.5800%	7.5800%	7.5800%	7.5800%	7.5800%	7.5800%	7.5800%	7.5800%
RETURN ON RATE BASE	\$47,215,593	\$36,771,403	\$8,434,761	\$2,021	\$501,871	\$76,351	\$747,316	\$681,041	\$828
O & M EXPENSES	\$128,954,000	\$105,038,528	\$18,846,534	\$28,420	\$1,069,611	\$161,617	\$1,937,588	\$1,870,353	\$1,347
DEPRECIATION EXPENSE	\$20,853,000	\$16,620,292	\$3,345,062	\$4,655	\$178,071	\$27,507	\$344,795	\$332,427	\$192
AMORTIZATION EXPENSE	\$4,290,000	\$3,412,822	\$666,289	\$718	\$37,821	\$5,772	\$89,692	\$76,854	\$33
EXPLORATION/DEVELOPMENT	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
LACLEDE PIPELINE/OTHER	-\$282,000	-\$174,430	-\$70,938	\$0	-\$5,302	-\$874	-\$18,984	-\$11,464	-\$9
TAXES OTHER THAN INCOME	\$18,303,000	\$14,461,562	\$3,106,150	\$4,668	\$171,953	\$26,548	\$275,275	\$256,608	\$235
INCOME TAXES	\$13,554,000	\$10,555,826	\$2,421,335	\$580	\$144,070	\$21,918	\$214,529	\$195,504	\$238
TOTAL EXPENSES	\$185,672,000	\$149,914,601	\$28,314,432	\$39,041	\$1,596,224	\$242,488	\$2,842,895	\$2,720,282	\$2,036
TOTAL C-O-S	\$232,887,593	\$186,686,004	\$36,749,193	\$41,062	\$2,098,095	\$318,840	\$3,590,211	\$3,401,322	\$2,865
ESTIMATED TRUE-UP AMOUNT	\$3,772,000	\$3,023,689	\$595,214	\$665	\$33,982	\$5,164	\$58,149	\$55,090	\$46
C-O-S INCLUDING TRUE-UP	\$236,659,593	\$189,709,693	\$37,344,407	\$41,728	\$2,132,077	\$324,004	\$3,648,361	\$3,456,412	\$2,911
OTHER REVENUES	\$13,922,000	\$11,075,364	\$2,162,256	\$2,329	\$122,736	\$18,730	\$291,070	\$249,407	\$107
REQUIRED MARGIN REVENUE	\$222,737,593	\$178,634,329	\$35,182,151	\$39,398	\$2,009,341	\$305,274	\$3,357,290	\$3,207,006	\$2,804
CURRENT MARGIN REVENUES	\$226,412,900	\$174,164,563	\$37,824,483	\$39,286	\$2,837,390	\$721,000	\$4,062,723	\$6,738,408	\$25,047
AVERAGE GAS REVENUES	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ZERO REVENUE INCREASE PLUG	\$3,675,307	\$2,947,576	\$580,527	\$650	\$33,155	\$5,037	\$55,397	\$52,918	\$46
C-O-S MARGIN REVENUES @ 0%	\$226,412,900	\$181,581,905	\$35,762,678	\$40,048	\$2,042,496	\$310,311	\$3,412,688	\$3,259,923	\$2,850
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	-\$7,417,342	\$2,061,805	-\$762	\$794,894	\$410,689	\$650,035	\$3,478,485	\$22,197
% INCREASE WITHOUT GAS COSTS	0.00%	4.26%	-5.45%	1.94%	-28.01%	-56.96%	-16.00%	-51.62%	-88.62%
% INCREASE WITH GAS COSTS & REVENUE INCREASE	0.00%	4.26%	-5.45%	1.94%	-28.01%	-56.96%	-16.00%	-51.62%	-88.62%

Note: MIEC has adjusted the allocation of the costs of mains to eliminate the allocations to large volume customers of the costs of facilities not used in service to large volume customers. MIEC continues to disagree with the Staff method of allocating the cost of mains.

LACLEDE GAS COMPANY
 OPC Analysis as Modified by MIEC

TOTAL COST OF SERVICE SUMMARY (000)		TOTAL	GS RESIDENTIAL	GS COM. & INDUSTRIAL	LARGE VOLUME	INTER- RUPTIBLE	FIRM	BASIC	LP	UMGL
1	O & M Expenses	128,674	98,608	24,218	1,743	244	1,454	2,380	23	5
2	Depreciation Expenses	25,143	18,947	4,807	420	60	340	563	4	1
3	Taxes	34,790	25,905	6,911	601	88	485	795	5	1
4										
5	TOTAL - Expenses and Taxes	188,607	143,459	35,936	2,764	392	2,279	3,738	32	7
6										
7	Current Revenue (non-gas)									
8	Rate Revenue (non-gas)	226,071	174,165	37,825	2,837	379	4,063	6,738	39	25
9	Late Payment Charges	5,001	3,754	986	80	11	65	105	1	0
10	Other Revenue	8,921	6,695	1,759	142	20	115	188	1	0
11										
12	TOTAL - Current Revenues	239,993	184,614	40,570	3,059	411	4,243	7,031	41	25
13	Current Revenue Percentage	100.00%	76.92%	16.90%	1.27%	0.17%	1.77%	2.93%	0.02%	0.01%
14										
15	OPERATING INCOME	51,386	41,155	4,634	294	19	1,964	3,293	9	19
16		51,386								
17	TOTAL RATE BASE	622,897	460,014	126,986	11,262	1,664	8,817	14,050	81	23
18										
19	Implicit Rate of Return (ROR)	8.25%	8.95%	3.65%	2.61%	1.13%	22.28%	23.44%	11.30%	80.88%
20										
21	OPC Recommended Rate of Return	7.97%	7.97%	7.97%	7.97%	7.97%	7.97%	7.97%	7.97%	7.97%
22										
23	Recommended Operating Income With									
24	Equalized (OPC) Rates of Return	49,645	36,663	10,121	898	133	703	1,120	6	2
25		49,645								
26	Class COS at OPC's Recommended Rate of Return	238,252	180,122	46,057	3,662	525	2,982	4,858	38	9
27	Revenue Percentage	100.00%	75.60%	19.33%	1.54%	0.22%	1.25%	2.04%	0.02%	0.00%
28										
29	Allocation of Difference Between Current									
30	Revenue and Recommended Revenue	(1,741)	(1,307)	(343)	(28)	(4)	(23)	(37)	(0)	(0)
31		(1,741)								
32	Margin Revenue Required to Equalize									
33	Class ROR - Revenue Neutral	239,993	181,429	46,400	3,689	529	3,004	4,894	39	9
34	Revenue Percentage	100.00%	75.60%	19.33%	1.54%	0.22%	1.25%	2.04%	0.02%	0.00%
35		239,993								
36	Rev. Neutral Shift to Equalize Class ROR	0	(3,185)	5,830	631	118	(1,239)	(2,136)	(2)	(17)
37	Rev. Neutral Shift Percentage to Equalize Class ROR		-1.83%	15.41%	22.24%	31.07%	-30.49%	-31.71%	-6.24%	-66.81%
38										
39	Recommended Revenue Neutral Shift = 1/2 indicated shift	0	(1,592)	2,915	315	59	(619)	(1,068)	(1)	(8)
40	OPC Recommended Revenue Neutral Shift Percentage		-0.91%	7.71%	11.12%	15.53%	-15.25%	-15.85%	-3.12%	-33.40%
41	Class Revenue Percentages After Rec. Rev. Neutral Shift	100.00%	76.26%	18.12%	1.41%	0.20%	1.51%	2.48%	0.02%	0.01%

Note: MIEC has adjusted the allocation of the costs of mains to eliminate the allocations to large volume customers of the costs of facilities not used in service to large volume customers.
 MIEC continues to disagree with RSUM method which remains a part of the OPC study.