Exhibit No.:

Issue(s):

Class Cost of Service

& Rate Design
Witness/Type of Exhibit: Meisenheimer/Direct

Sponsoring Party: Public Counsel GR-2006-0422

### **DIRECT TESTIMONY**

### **OF**

### BARBARA A. MEISENHEIMER

Submitted on Behalf of the Office of the Public Counsel

MISSOURI GAS ENERGY (RATE DESIGN)

CASE NO. GR-2006-0422

October 20, 2006

# BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the matter of Missouri Gas Energy's	)	
Tariff Sheets Designed to Increase Rates for	)	Case No. GR-2006-0422
Gas Service in the Company's Missouri	)	
Service Area	)	

### **AFFIDAVIT OF BARBARA A. MEISENHEIMER**

STATE OF MISSOURI	)	
	)	SS
COUNTY OF COLE	)	

Barbara A. Meisenheimer, of lawful age and being first duly sworn, deposes and states:

- 1. My name is Barbara A. Meisenheimer. I am Chief Utility Economist for the Office of the Public Counsel.
- 2. Attached hereto and made a part hereof for all purposes is my direct testimony consisting of pages 1 through 12 and schedule BAM DIR 1.
- 3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Barbara A. Meisenheimer

Subscribed and sworn to me this 20th day of October 2006.

KATHLEEN HARRISON Notary Public - Notary Seal State of Missouri - County of Cole My Commission Expires Jan. 31, 2010 Commission #06399239

Kathleen Harrison Notary Public

My Commission expires January 31, 2010.

## DIRECT TESTIMONY

### **OF**

### BARBARA A. MEISENHEIMER

### MISSOURI GAS ENERGY

(RATE DESIGN)

### **CASE NO. GR-2006-0422**

### **Introduction and Summary**

- Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.
- A. Barbara A. Meisenheimer, Chief Utility Economist, Office of the Public Counsel (OPC or Public Counsel), P. O. Box 2230, Jefferson City, Missouri 65102. I am also employed as an adjunct Economics and Statistics Instructor for William Woods University.
- Q. HAVE YOU TESTIFIED PREVIOUSLY IN THIS CASE?
- A. No.

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- Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?
- A. In this testimony I will present Public Counsel's recommendations regarding rate design and class cost of service.

### Class Cost of Service Study Results and Rate Design Recommendations

#### O. WHAT IS THE REGULATORY PURPOSE OF A CLASS COST OF SERVICE STUDY?

A. A Class COS Study is a tool used by regulators to aid in determining an appropriate rate structure. A class cost of service study can be used as a guide in identifying, on a cost causative basis, the cost of serving a particular group of customers. A Class COS Study can also be used to evaluate the relative cost of service among classes. This comparison of relative cost is the focus of Public Counsel's study and is reflected in the study assumption that the company's revenue requirement is equal to the level of current revenue.

### Q. WHAT IS THE RELATIVE IMPORTANCE OF CCOS STUDY RESULTS IN RATE DESIGN?

- A. A CCOS study provides the Commission with a general guide for a service based on costs to determine the just and reasonable rate. Other relevant factors must also be considerated when setting rates, such as the value of a service, the affordability of service, the rate impact, and rate continuity, to highlight a few. The Commission must on a case by case basis balance the results of a cost of service study with other relevant factors that go into the rate making decision process.
- Q. IF THE COMMISSION DECIDES TO IMPLEMENT CLASS COST OF SERVICE ADJUSTMENTS IN THIS CASE, DO YOU HAVE A CLASS COST OF SERVICE STUDY AND A RATE DESIGN RECOMMENDATION FOR THE COMMISSION TO CONSIDER?

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Yes, I have prepared a CCOS study that should be used as a guide in setting rates. A. The study results should be weighed against considerations of customer rate impact and affordability.

### Q. WHAT CONCLUSIONS ARE SUGGESTED BY PUBLIC COUNSEL'S COST OF SERVICE STUDY?

A. Based on the results of my class cost of service studies, (Schedule BAM DIR-1), the following conclusions can be drawn, to equalize the classes' rates of return, the Residential class revenues would need to be reduced by 4.65%, the Small General Service Class revenues would need to be reduced by 1.36%, the Large General Service Class revenues would need to increase by 2.21% and Large Volume revenue would need to increase by about 44.96%. The percent above or below cost of service is shown for each class, by district on Line 4, Schedule BAM DIR-1.

### Q. WHAT RATE DESIGN WOULD YOU PROPOSE BASED ON YOU CCOS STUDY **RESULTS?**

A. If the overall change in revenue requirement in this case is negative, a reduction in residential rates would be appropriate. Likewise, since the Residential Class is already paying 4.65% above costs on a revenue neutral basis, if the overall revenue requirement increases, the Residential class revenues should increase by less than the system average, consistent with the rate impact considerations described below.

More generally, OPC's rate design recommendation is that where the existing revenue structure departures greatly from the class cost of service, the Direct Testimony of Barbara A. Meisenheimer Case No. GR-2006-0422

Commission should impose, at a maximum, class revenue shifts equal to one half of the "revenue neutral shifts" indicated by Public Counsel's class cost of service study. Revenue neutral shifts are shifts that hold overall company revenue at the existing level but allow for the share attributed to each class to be adjusted to reflect the cost responsibility of the class. In addition to moving half way to the revenue neutral shifts, I recommend that if the Commission determines that an overall increase in revenue requirement is necessary, then no customer class should receive a net decrease as the combined result of: (1) the revenue neutral shift that is applied to that class, and (2) the share of the total revenue increase that is applied to that class. Likewise, if the Commission determines that an overall decrease in revenue requirement is necessary, then no customer class should receive a net increase as the combined result of: (1) the revenue neutral shift that is applied to that class, and (2) the share of the total revenue neutral shift that is applied to that class, and (2) the share of the total revenue decrease that is applied to that class.

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 Q. HAVE YOU PREPARED EXAMPLES OF THIS RATE DESIGN METHOD APPLIED TO DIFFERENT REVENUE REQUIREMENTS?

- A. Yes. Line 10 of Schedule BAM DIR-1 illustrates one half of the revenue neutral shift indicated by my CCOS study. Lines 16-17 illustrate an equal percentage increase needed for a \$2 million dollar increase or decrease in total revenue. Lines 22-23 illustrate the combined effect of one half of the revenue neutral shift indicated by my CCOS study and a \$2 million dollar increase or decrease in the total revenue requirement. Lines 28-29 illustrate adjustments that ensure that no customer class receives a net increase as the combined result of: (1) the revenue neutral shift that is applied to that class, and (2) the share of the total revenue decrease that is applied to that class.
- Q. IF THE COMMISSION DETERMINES IT REASONABLE IN THIS CASE, CAN YOUR RATE DESIGN METHOD BE APPLIED TO DIFFERENT REVENUE REQUIREMENTS?
- A. Yes, it can. This method could be utilized to calculate class revenue requirements for any practical level of overall revenue requirement.
- Q. DO YOU RECOMMEND ANY CHANGE IN THE RESIDENTIAL CUSTOMER CHARGE AT THIS TIME?
- A. No. My cost of service study results indicate that the current level of the customer charge exceeds the customer specific cost.

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### Class Cost of Service Study Method

# Q. WHAT ARE THE REPRESENTATIVE CLASSES INCLUDED IN PUBLIC COUNSEL'S CLASS COS STUDY?

A. In performing a Class COS Study, customers are grouped into "classes" based on type of customer and utilization patterns. Public Counsel's Class COS Study identifies four distinct classes of customers: Residential, Small General Services, Large General Services and Large Volume.

### Q. PLEASE DESCRIBE THE ASSIGNMENT OF COST TO THE CUSTOMER CLASSES.

A. The assignment of costs to customer classes is a three-step process in which costs are first functionalized, then classified, and finally allocated. Public Counsel's Class COS Study primarily reflects the booked cost incurred through the test year.

### Q. PLEASE DESCRIBE THE FUNCTIONALIZATION OF COSTS.

A. Functionalization is achieved by categorizing cost accounts by associated function. Functional categories include; Production, Storage, Transmission, Distribution, Customer Accounts and Administrative and General (A&G). Some functional categories contain accounts that are identifiable as being directly or jointly caused by particular customer classes. Other functional categories contain costs associated with common facilities or common overheads.

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#### Q. PLEASE DESCRIBE THE CLASSIFICATION OF COSTS.

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A. Classification is achieved by further categorizing costs into customer related, commodity related, demand related or "other related" costs.

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### Q. PLEASE DESCRIBE CUSTOMER RELATED COSTS.

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A. Customer related costs vary directly with the number of customers served.

Examples of customer related costs include: expenses associated with metering, reading, billing, and the costs associated with metering equipment and service

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### Q. PLEASE DESCRIBE COMMODITY RELATED COSTS.

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A. Commodity related costs vary with the quantity of gas purchased. Historically, commodity related costs primarily have included purchased gas cost. Today local distribution companies recover purchased gas cost through the PGA but other plant accounts may still be categorized as commodity related.

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### Q. PLEASE DESCRIBE DEMAND RELATED COSTS.

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A. Demand related costs vary with the capacity requirement of plant or equipment.

They are related to the maximum system requirements that reflect the capacity

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necessary to serve demand during peak periods. Demand related costs include:

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types of plant. In addition, some distribution plant and related expenses are

production, transmission and storage costs and expenses associated with these

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demand related costs.

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### Q. PLEASE DESCRIBE THE ALLOCATION PROCESS.

A. Following functionalization and classification, allocation factors are applied to distribute a reasonable share of jurisdictional costs to each customer class. Some allocation factors are based on a simple ratio of a particular class' share of total costs. Other allocation factors are based on usage, sales, or weighted share of customers. Allocation factors are designed to reflect the appropriate classification in allocating costs.

### Q. ARE PURCHASED GAS COSTS TREATED DIFFERENTLY THAN OTHER COSTS?

A. Yes. The Company's base tariff rates recover only its non-gas or margin costs. A purchased gas adjustment cost factor is used to recover gas costs. The cost of service study will develop the non-gas or margin costs incurred by the LDC in delivering gas from the city-gate to its customers.

### Q. ON WHAT DATA IS YOUR CLASS COS STUDY BASED?

A. The data is associated with a test year ending December, 31, 2005. The Accounting Schedules filed with the Staff's non-rate design testimony were the source of most of the financial data that I utilized in preparing my studies. I utilized annual and winter usage data provided by the Company. I have also utilized peak day volumes received from the Staff. My use of this information should not be viewed as an endorsement of either Staff's or the Company's methods for calculating accounting costs, billing determinants or peak demands. I have used this information because it contained the best level of detail available to perform my studies.

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Q. IS THERE IS POSSIBILITY THAT SOME INFORMATION USED IN YOUR STUDY WILL BE UPDATED AND REVISED AS THIS CASE PROGRESSES?

A. Yes. Normally, I rely primarily on Staff data in preparing my studies but in this case I had some concerns with the significant differences in reported revenues and normalized volumes for the Large Volume Class. I will update my studies to reflect the use of the final class revenues and volumes presented in Staff's direct testimony.

#### Q. HOW ARE INTANGIBLE PLANT ACCOUNTS ALLOCATED?

A. Intangible plant accounts include expenses related to organizing the enterprise, obtaining franchise and consent and other miscellaneous items. These costs are not attributable to a particular subset of customer classes, instead they are considered to be common costs and are allocated on the basis of the portion of total non-general plant cost assigned to each customer class.

#### Q. HOW ARE GAS STORAGE COSTS ALLOCATED?

A. Gas storage costs are allocated on the basis of weather normalized winter sales volumes.

#### Q. HOW ARE TRANSMISSION PLANT ACCOUNTS ALLOCATED?

Transmission plant is allocated on the basis of the RSUM allocation factor A. discussed in this testimony.

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Q. HOW ARE DISTRIBUTION PLANT ACCOUNTS ALLOCATED?

Land and Land Rights, Structures and Improvements, and Mains Plant (Accounts A. 374, 375, and 376) are allocated on the basis of a distribution mains allocator.

Measuring and Regulating Station Equipment (Accounts 378 and 379) are classified as commodity related and allocated on the basis of annual volumes. Accounts 380 through 386 are customer related. The following summary identifies the allocation factor for each account.

Table 1.

Account	<b>Description</b>	<b>Allocator</b>					
380	Services	Services Allocator					
381	Meters	Meter Allocator					
382	Meter Installations	Meter Installation Allocator					
383	House Regulators	Regulator Allocator					
384	House Regulators Installation	Regulator Allocator					
385	Meas. and Reg. Station Equip Industrial	Commercial and Industrial Customers					

#### HOW ARE GENERAL PLANT ACCOUNTS ALLOCATED? Q.

General plant accounts are allocated on the basis of the overall class cost of A. service.

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Q. PLEASE DESCRIBE HOW OPERATION AND MAINTENANCE EXPENSES ARE ALLOCATED?

- A. For allocating most of the accounts in this category, I used the "expenses follow plant principle".
- Q. HOW ARE CUSTOMER ACCOUNTS, CUSTOMER SERVICE, AND SALES PROMOTION EXPENSES ALLOCATED?
- A. Customer service expenses are customer related and are allocated on the basis of number of customer bills. Sales promotion expenses are allocated on the basis of the overall class cost of service and the following summary outlines the allocation of customer accounts expenses.

Table 2.

Account	<b>Description</b>	<u>Allocator</u>					
901	Supervision	Meter Weighted Customers Allocator					
902	Meter Reading Expenses	Meter Reading Weighted Customers					
903	Customer Records and Collections	Meter Weighted Customers Allocator					
904	Uncollectible Accounts	Class Cost of Service					
905	Misc. Customer Accounts	Customer Accounts Allocator					

Q. HOW ARE ADMINISTRATIVE AND GENERAL (A & G) EXPENSES ALLOCATED?

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A. Property insurance (Account 924) is allocated on the basis of net non-general plant. Injuries and damages and employee pensions and benefits (Accounts 921, 922, 923, 925 and 926) are allocated on the basis of payroll. The remainder of A

& G expenses are allocated on the basis of the overall class cost of service.

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A. Property taxes are allocated on the basis of the net plant previously allocated to

each class. Franchise taxes are allocated on the basis of rate base. Payroll taxes

are allocated as a function of payroll expense. Income taxes are allocated

according to the rate base attributable to each class.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

HOW ARE TAXES ALLOCATED?

A. Yes.

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Line	_	Total	Residential	Small GS	Large GS	I	Large Volume
1 2	Revenue Neutral Shifts (RNS) to Equalize Class Rates of Return (ROR)	\$ 0	\$ (5,203,269)	\$ (453,128)	\$ 52,609	\$	5,603,787
3 4 5	Percentage Revenue Change to Equalize Class ROR	0.00%	-4.65%	-1.36%	2.21%		44.96%
6 7	Current Class Revenue Percentages	100.00%	69.87%	20.86%	1.48%		7.79%
8 9	COS Indicated Class Revenue Percentages	100.00%	66.62%	20.58%	1.52%		11.29%
10 11	OPC's Recommended Revenue Neutral Shifts		\$ (2,601,634)	\$ (226,564)	\$ 26,305	\$	2,801,894
12 13	OPC's Recommended Revenue Percentages	0.00%	68.24%	20.72%	1.50%		9.54%
14	Spread of Proposed Revenue Requirement Increases						
16	\$2 Million Reduction	\$ (2,000,000)	\$ (1,364,822)	\$ (414,342)	\$ (30,021)	\$	(190,815)
17	\$2 Million Increase	\$ 2,000,000	\$ 1,364,822	\$ 414,342	\$ 30,021	\$	190,815
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19	Combined Impact of Revenue Increase						
20	and OPC's RNS						
22	\$2 Million Reduction	\$ (2,000,000)	\$ (3,966,457)	\$ (640,906)	\$ (3,716)	\$	2,611,079
23	\$2 Million Increase	\$ 2,000,000	\$ (1,236,812)	\$ 187,779	\$ 56,326	\$	2,992,708
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25	Combined Impact of Revenue Increase						
27	and OPC's RNS Adjusted For No Decreases						
28	\$2 Million Reduction	\$ (2,000,000)	\$ (1,721,790)	\$ (278,210)	\$ -	\$	-
29 30	\$2 Million Increase	\$ 2,000,000	\$ -	\$ 116,027	\$ 34,803	\$	1,849,170
31	Percentage Change in Class Rate Revenue						
32	\$2 Million Reduction	-1.29%	-1.59%	-0.86%	0.00%		0.00%
33	\$2 Million Increase	1.29%	0.00%	0.36%	1.51%		15.28%