Exhibit No.:
Issues: Cost of Service
Rate Design
Witness: Philip B. Difani, Jr.
Type of Exhibit: Direct Testimony
Sponsoring Party: Union Electric Company
d/b/a AmerenUE
Case No.: GR-99-315

MISSOURI PUBLIC SERVICE COMMISSION

LACLEDE GAS COMPANY

CASE NO. GR-99-315

DIRECT TESTIMONY

OF

PHILIP B. DIFANI, JR.

St. Louis, Missouri
July 6, 1999

MISSOURI PUBLIC SERVICE COMMISSION

STATE OF MISSOURI

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

AFFIDAVIT OF PHILIP B. DIFANI, JR.

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

Philip B. Difani, being first duly sworn on his oath, states:

1. My name is Philip B. Difani, Jr. I work in the City of St. Louis, Missouri, and I am an Engineer in the Rates Engineering Department of Ameren Services Company.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony consisting of pages 1 through 9, including Schedules 1 through 4, all of which testimony has been prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. GR-99-315 on behalf of Union Electric Company.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

Philip B. Difani Jr.

Subscribed and sworn to before me this 2nd day of July, 1999.

Debby Anzalone
Notary Public

DEBBY ANZALONE
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: April 18, 2002

DIRECT TESTIMONY

OF

PHILIP B. DIFANI, JR.

LACLEDE GAS COMPANY

CASE NO. GR-99-315

Q. Please state your name and business address.

A. My name is Philip B. Difani, Jr. My business address is 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. Please state your occupation and by whom you are employed.

A. I am employed by Ameren Services Company as a Rate Engineer in the Rate Engineering Department of the Corporate Planning Function. Ameren Services provides various administrative and technical services for its utility affiliate, Union Electric Company, which is doing business as AmerenUE.

Q. Please summarize your education and business experience.

A. This information is summarized in Schedule 1 of my testimony.

Q. Have you previously testified before any regulatory commissions?

A. Yes, I have previously testified before the Missouri Public Service Commission and the Illinois Commerce Commission.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my Direct Testimony in this proceeding is to present the results of AmerenUE's analyses of Laclede Gas Company's (Laclede) proposed rate design and allocation of cost for its General Service (GS) and Seasonal Air Conditioning (SAC) Rates. These results provide and support the seasonal differentials for the rates which the Direct Testimony of AmerenUE witness Richard J. Kovach states are appropriate for Laclede's applicable summer (May – October) and winter (November – April) billing seasons. These analyses address both Laclede's non-gas costs and its gas supply costs, a portion of which are in Laclede's base rates.

Q. Mr. Difani, please define how you use the term "non-gas costs" and "gas supply costs."

A. "Non-gas costs" are Laclede's own operating and maintenance expenses and the return on investment in its distribution and storage facilities and other components of its rate base. According to Laclede's cost of service data in this proceeding, approximately 40 percent of its total cost of providing service to its retail customers are "non-gas costs." "Gas supply costs" are Laclede's cost of purchased gas, wellhead reservation fees, costs of leased storage services, and pipeline transportation charges, which are subject to an annual audit by this Commission under the Purchased Gas Adjustment (PGA) process. Laclede recovers gas supply costs in part though its base rates and in part through its (PGA) clause.

Q. Before specifically addressing AmerenUE's quantitative analyses, please define how you use the term "seasonal rates."

A. Seasonal rates are rates or charges that are differentiated due to the time or period of the year during which service is provided. The peak period is generally described as the period during which a utility system experiences its maximum demands which, for the gas business, is primarily during the winter heating season. The off-peak season would then be the summer season.

NON-GAS (DISTRIBUTION) COSTS

Q. In the design of its existing rates, does Laclede seasonally allocate its non-gas costs for any of its customer classes.

A. Yes, it does. Since at least 1992, Laclede has seasonally differentiated its non-gas costs in its GS Rate class.

Q. Is Laclede proposing to discontinue such seasonal rate design in this proceeding?

A. While Laclede has continued some seasonality in its proposed GS rate, its new demand charge feature fails to continue the level of Laclede's existing seasonal differential with respect to non-gas costs and, does not reflect any differential in Laclede's gas supply costs.

Q. In your analyses, how did you determine the appropriate value of non-gas demand costs for the General Service Class?

A. AmerenUE has been an active participant in several of Laclede's previous rate cases. In those cases, it was determined that a seasonal cost differential was appropriate in Laclede's GS non-gas rate structure. Currently this differential is 2.585¢ per therm for the first block and 2.584¢ per therm for the second block. In the GS rate Laclede is proposing in this case, this seasonal difference has been decreased. As available resources did not permit a thorough examination of Laclede's cost of service study and Laclede submitted no seasonal studies in this case, AmerenUE's position is that the same seasonal rate differential currently in Laclede's GS rates should be retained.

Q. With respect to non-gas costs, are Laclede's costs of providing natural gas service higher during the peak season than during the off-peak season?

A. Yes, they are. Laclede's gas distribution system must be constructed and maintained to supply a significantly higher volume on peak days in the winter months than on any days in the summer months. Laclede's higher winter costs are also evidenced by the additional cost of gas storage plant and manufacturing facilities which are owned and operated by Laclede primarily for the purpose of meeting the winter peaking requirements of its customers. Due to these additional winter season peaking capacity requirements, Laclede's cost of providing service during its peak season are greater than other periods and its winter rates should reflect this.

Q. Have you prepared a Schedule with the results of such analysis which revises Laclede's new GS rate proposal to reflect the retention of Laclede's existing seasonal differential?

A. Yes. Schedule 2 attached to my testimony represents the results of this analysis.

Q. How did you maintain the existing differential in Laclede's new GS rate proposal?

A. I accepted Laclede's values for Revenue Requirements, customer charge revenues, and the overall level of demand recovery and commodity recovery for the General Service class. However, I then redesigned the seasonal split of the demand portion and the commodity portion to maintain an equivalent seasonal differential of 2.585¢ per therm. A portion of this is included in the demand charge rate design and the remainder is recovered in the commodity rate design. As shown in Schedule 2, there is not a significant variation in any of the values proposed by Laclede although the differential in demand and commodity charges has been increased slightly. The adoption of AmerenUE's rate design is necessary to maintain the existing seasonal differentials, including the demand charges in the new rate design proposed by Laclede.

GAS SUPPLY COSTS

Q. What is AmerenUE's position with respect to Laclede's demand related gas supply costs?

A. As Mr. Kovach testifies, Laclede's demand related gas supply costs, whether recovered in its base rates or through its PGA, should also be seasonally differentiated.

Q. Will you be presenting any schedules supporting your proposal for seasonally allocated gas supply costs?

A. Yes, I will. Schedules 3 and 4 attached to my testimony will be presented later in this section of testimony. Schedule 3 supports the allocation of gas supply demand costs to each season and Schedule 4 will present rates based on gas supply costs allocated to the seasons by the ratios in Schedule 3.

Q. What has Laclede identified as demand related (non-commodity) gas supply costs?

A. In its cost of service study, Laclede identified capacity reservation costs of $62,044,801, gas supply demand costs of $3,693,828 and "Other" non-commodity gas costs of $685,759 for a total of $66,424,388. This total is what I will generally refer to as "gas supply costs".

Q. With respect to gas supply costs, are Laclede's costs of providing natural gas service higher during the peak season than during the off-peak season.

A. Yes, they are. Laclede must purchase sufficient storage services and pipeline transmission capacity service to meet the requirements of its winter peak design day. The need for such services is either unnecessary or severely lessened during the off-peak summer period, as the ratio of Laclede's maximum peak demand to its minimum summer demand is more than 10:1.

Q. Why should Laclede's demand related gas supply costs be allocated more to winter than to summer?

A. As explained by Laclede's witness Mr. Sherwin:

> "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. **The principal demand-related cost results from fixed monthly gas supply demand and capacity reservation charges.**" (Sherwin Direct pp. 4 and 5, bold text for emphasis added)

Q. How did you allocate these gas supply costs to the seasons?

A. I allocated 90 percent of these costs to the winter season and 10 percent to the summer season.

Q. Why did you allocate 90 percent of these costs to winter and 10 percent to summer?

A. Inasmuch as the maximum gas demand is imposed by Laclede's customers during the winter months, a persuasive argument can be made from Mr. Sherwin's explanation that 100 percent of Laclede's "demand-related" costs should be allocated to winter sales. However, while I agree that Mr. Sherwin's explanation can be used to support such an all-winter allocation, I am proposing a more conservative 90-10% allocation split to take into consideration that there are certain base capacity requirements in the off-peak season. This analysis is provided in Schedule 3 of my testimony. Schedule 3 calculates a rate for Laclede's peak pipeline contract demand requirements and determines the summer's allocation of such demand related gas supply dollars based upon the average of the peak summer month's consumption. This analysis makes the very

conservative assumption that summer gas transportation volumes have as much market value as winter transportation volumes.

Q. You state that you used the same gas supply demand related costs identified in Laclede's cost of service study. Did you also assign a portion of these demand related costs as commodity in your analysis as Laclede did in its study?

A. No. While I kept the demand-related gas supply costs equal to the dollars identified by Laclede, I did not adopt Laclede's arbitrary splitting of demand costs into demand and commodity costs. These costs are defined as demand by Laclede's own testimony quoted above and to allocate a portion of these costs on the basis of commodity usage is improper.

Q. How did you determine the amount of gas supply demand costs to allocate to the the GS and SAC classes?

A. Since the SAC class was included with the rest of the GS class during the winter season in Laclede's study, I used the same winter demand to commodity relationship for the SAC class as was used for the GS class. By allocating gas supply costs based on winter demand responsibility and adding commodity costs, rates for each season were determined.

Q. What are the results of your analysis of Laclede's gas supply costs?

A. Referring to Schedule 4, for the line identified as "gas cost (¢ per therm)", the winter rates are 37.97¢ and 37.67¢ per therm for GS and SAC classes, respectively. The GS rate during the summer season is 34.16¢ per therm resulting in a seasonally differentiated gas cost of 3.81¢ per therm for this rate. The summer SAC gas rate is 30.07¢ per therm, a seasonally

differentiated 7.60¢ per therm for the SAC rate class. This large differential is due to the fact that this class' demand costs are fixed based on winter usage but as a percent of total use, the SAC class uses more gas during the summer than does the GS class. Schedule 4 indicates the overall weighted average demand rate for each of the GS and SAC classes would be $1.95 for winter gas supply demand and $0.2119 for a summer gas supply demand rate. The schedule also indicates the seasonally differentiated demand rate for each class separately. Correcting these rates for the higher units suggested in Mr. Kovach's testimony would reduce these charges to $1.2999 in the winter and $0.1412 in the summer.

Q. What are the advantages of AmerenUE's rate proposals?

A. Under AmerenUE's proposal, the SAC class will pay for its proportional share of demand related gas supply costs based upon its usage during the winter season, but not upon the usage of gas air conditioners during the summer. This rate design proposal avoids the subsidy that this class currently receives from Laclede's current SAC rate design. Laclede's current SAC Rate forgives all demand related gas supply costs on water heating, cooking, and other incidental usage for SAC customers, while charging GS customers for these costs on their identical gas usage. Under Laclede's current rate design all other firm customers make up this shortfall, and as such, all other firm customers are providing a subsidy of demand gas supply costs to the Seasonal Air Conditioning class.

Q. Does this conclude your testimony?

A. Yes, it does.

QUALIFICATIONS OF PHILIP B. DIFANI JR.

My name is Philip B. Difani, Jr., and I reside in St. Louis County, Missouri. I am a licensed Professional Engineer in the State of Missouri.

My educational background consists of a Bachelor of Science Degree in Mechanical Engineering from Washington University in May, 1983 and a Master of Business Administration from Southern Illinois University in March, 1993.

I began my engineering career at Union Electric in the Nuclear Function as a Mechanical Engineer in May, 1983. I was responsible for various modifications to the Callaway Plant including preparing specifications, drawings, and other design related matters.

I transferred to the Rate Engineering Department in February, 1991. My duties and responsibilities include assignments related to the Company's gas and electric rates, including participation in regulatory proceedings, rate analyses, conducting property evaluation studies, the development and interpretation of UE's gas and electric tariffs, including rules and regulations, and other rate or regulatory projects as assigned. With the 1997 merger of Union Electric and Central Illinois Public Service Company, my position in the Rate Engineering Department was transferred to Ameren Services Company.

I have testified before the Missouri Public Service Commission (MPSC) and the Illinois Commerce Commission (ICC).

LACLEDE GAS RATE CASE
GENERAL SERVICE CLASS RATE DESIGN
LACLEDE AND AMEREN COMPARISON

	SUMMER	WINTER
CUSTOMER CHARGE		
Residential		
LACLEDE	$12.50	$12.50
AMEREN	$12.50	$12.50
Commercial and Industrial		
LACLEDE	$13.80	$13.80
AMEREN	$13.80	$13.80
DEMAND CHARGE		
LACLEDE	$0.4087	$2.4249
AMEREN	$0.4008	$2.4328
COMMODITY CHARGE		
1st 65 Therms per month		
LACLEDE	33.390¢	35.089¢
AMEREN	33.307¢	35.110¢
Therms above 65 per month		
LACLEDE	30.780¢	32.477¢
AMEREN	30.705¢	32.490¢

Schedule No. 2

Seasonal Demand Calculation for Laclede Case

Demand Related Costs (From Laclede's COSS)

Gas Supply Demand Charges	$3,693,828
Capacity Reservation Charges	$62,044,801
Other Non-commodity Costs	$685,759
Total	$66,424,388

Design Winter Peak 7,534,180 Therms Response from Laclede via a Data Request.

Calculated Pipeline Demand Rate:

Rate = $0.7347 /Therm

Summer: Peak Therms/Day

1,467,938 Therms
Total Therms in October (peak summer month - Interruptibles) divided by 31 days.
Bill Frequency Analysis file from Laclede - bfafy98.

Summer Demand Cost Is Equal To:

= $6,470,968.67 9.742%

Winter Demand Cost is Equal To:

= $59,953,419 90.258%

Check Totals: $66,424,388.00 100.000%

Schedule 3

LACLEDE GAS COMPANY
GAS COST OF SERVICE SUMMARY
(000) except per therm amounts

	General Service			A/C		
NET ORIGINAL COST RATE BASE	$462,254			$259		
COST OF SERVICE	Total	Summer	Winter	Total	Summer	Winter
Cost of Gas	289,227			1,523		
Commodity	227,115	37,474	189,641	1,320	710	610
Demand and "Other"	62,112	6,087	56,025	203	20	183
GAS COSTS						
Total gas cost *	289,227	$43,561	$245,666	1,523	$730	$793
Gas cost (¢/therm)		34.1645	37.9726		30.0676	37.6702
Sales *		127,503	646,956		2,428	2,105

* Includes A/C winter sales in A/C winter class.

		Summer	Winter	Summer	Winter
GS Demand Volumes (Laclede Method)					
General Service Winter		28,825	28,825		
GS Demand Volumes (Ameren Adjustment)					
Volumes after adjustment		28,733	28,733	92	92
GS Demand Dollars (Adjusted from COS)		$6,087	$56,025	$20	$183
Demand Rate (per therm)		$0.2119	$1.9499	$0.2163	$1.9907
Total combined					
Dollars	62,315	$6,107	$56,209		
Volumes		28,825	28,825		
Demand Rate (per therm)		$0.2119	$1.9500		