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)

Glenn W. Buck, of lawful age, being first duly sworn, deposes and states:

1. My name is Glenn W. Buck. My business address is 720 Olive Street, St. Louis, Missouri 63101; and I am Manager, Rate and Financial Planning for Laclede Gas Company.

2. Attached hereto and made a part hereof for all purposes is my direct testimony, consisting of pages 1 to 14, inclusive; and Section A - Schedules 8 and 9, Section B - Schedule 1, and Section E - Schedules 2 and 3.

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 schedules are true and correct to the best of my knowledge and belief.

Glenn W. Buck
Glenn W. Buck

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

PATRICIA P. HICKS
Notary Public — Notary Seal
STATE OF MISSOURI
City of St. Louis
My Commission Expires: June 27, 2002

Patricia P. Hicks

Exhibit No.:	
Issue:	Cash Working Capital, Capital Structure, Fair Value Rate Base
Witness:	Glenn W. Buck
Type of Exhibit:	Direct Testimony
Sponsoring Party:	Laclede Gas Company
Case No.:	GR-99-315

LACLEDE GAS COMPANY

GR-99-315

DIRECT TESTIMONY

OF

GLENN W. BUCK

Direct Testimony of Glenn W. Buck

Table Of Contents

Issue	Page
General Information/Qualifications	1
Cash Working Capital	3
Capital Structure	9
Fair Value Rate Base	10
Rate of Return	14

DIRECT TESTIMONY OF GLENN W. BUCK

Q. Please state your name and business address.

A. My name is Glenn W. Buck and my business address is 720 Olive St., St. Louis, Missouri, 63101.

Q. What is your present position?

A. I am the Manager, Rate and Financial Planning.

Q. Please state how long you have held your position and briefly describe your responsibilities.

A. I was appointed to my present position in January, 1996. In September, 1996, I was asked to lead a project team from the Accounting area to assist the Information Systems Department in implementing a new General Ledger software system. The new system should be going "live" in the near future, so I returned to my current position on March 1 of this year. In this position, I am responsible for the financial aspects of rate matters generally, including financial analysis and planning. I am also responsible for the preparation of various financial forecasts and monitoring regulatory trends and developments.

Q. What is your educational background?

A. I graduated from the University of Missouri - Columbia, in 1984, with a Bachelor of Science degree in Business Administration.

Q. Will you briefly describe your experience with the Company prior to becoming Manager, Rate and Financial Planning Department?

A. I joined Laclede in August, 1986, as a Budget Analyst in the Budget Department. I was promoted to Senior Budget Analyst in June, 1988, and transferred to the Financial Planning Department in December, 1988 as an Analyst. I was promoted to Senior Analyst in February, 1990 and Assistant Manager in February, 1994. I acted in that capacity until being appointed to my current position.

Q. Have you previously filed testimony before this Commission?

A. Yes, I have, in Case Nos. GR-94-220, and GR-96-193.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to present evidence to the Commission covering the following:

1. The Company's calculation of cash working capital for inclusion in the determination of rate base;
2. Capital Structure;
3. The Company's rate base for the setting of rates in this case on a fair value basis;
4. Rate of Return and return on equity as reflected in the proposed tariffs.

Q. Please list the schedules you are sponsoring.

A. The following schedules were prepared by me or under my supervision:

Section A, RATE BASE, Schedules 8 and 9. These schedules support the calculations of the Company's Cash Working Capital.

Section B, COST OF CAPITAL, Schedule 1. This schedule provides information regarding the Company's capital structure and includes calculations of the embedded cost of long-term debt, short-term debt, and preferred stock.

Section E, ADDITIONAL EVIDENCE, Schedules 2 and 3. Schedule 2 of Section E presents the fair value rate base of the Company. Schedule 3 shows the rate of return and the related return on common equity at proposed rate levels based on an original cost rate base.

Cash Working Capital

Q. What is "cash working capital?"

A. Cash working capital is the average amount of capital which must be provided by investors in the Company for the payment of bills, payrolls, and other items before the time corresponding revenues are received from our customers. Cash working capital is included in rate base in order to provide a return allowance for this investment requirement, which is just as essential to the operation of a utility as are the more tangible physical plant components of rate base.

Q. How have you determined the amount of cash working capital for inclusion in rate base?

A. I have directed a lead-lag study of the Company's operating expenses, based largely on samples of our payments, and compared them to the actual lag in revenues based upon an accounts receivable turnover analysis covering the universe of our customer base. A proper lead-lag study is an accurate means of determining the cash working capital requirement for an individual company.

Q. Has a lead-lag study been performed previously by Laclede?

A. Yes. Laclede first used a lead-lag study in Case No. GR-78-148. Similar studies were performed in subsequent rate cases.

Q. Please define for us the terms "lead" and "lag."

A. As I am using the word "lead" today, it refers to an advance payment for goods or services. Although advance payments are rare, they do exist for certain expense items. For example, postage must be paid to the Post Office in advance of mailing with regard to "permit" or "bulk" mailings, in addition to the more familiar postage stamp on an envelope, which is also an advance item.

"Lag," as I use the term here, refers to a payment made or received by Laclede after the rendering or receipt of goods or services by the Company or our vendors. Since our customers pay their gas bills after we render service, I refer to "revenue lag time" in my study. The vast majority of expense items are paid some time after the actual rendering of goods and services to Laclede, so most often I also refer to "expense lag time."

Comparisons of our revenue lag time to the lag time for various items of expense results in "net lead" or "net lag" times, depending on whether the expense lag (i.e. the time between when Laclede receives a good or service and pays for that good or service) is longer or shorter than the revenue lag (i.e. the time between when Laclede provides a good or service and receives payment for that good or service). For the most part, the expense lag is shorter than the revenue lag, resulting in a net lag time for the Company.

Q. Would you please explain how a lead-lag study is performed?

A. The primary goal of a lead-lag study is to determine, on average, the net amount of funds required to pay the expenses incurred by the Company for the day-to-day utility operations before the related revenues are received. This is accomplished by two types of time determinations: (1) the lag time taken by the customers of the Company for the payment of revenues, and, (2) the lag time taken by the Company for the payment of

expenses. Each of these determinations is in reference to the same starting point -- the rendering of service.

An overall revenue lag time is determined by combining data for various items of utility operating revenues. The lag time for each category of operating expenses is subtracted from this overall revenue lag time, and the resultant net lag (or net lead) time, in days, is multiplied times daily expense for the category. In the study, the twelve month period ended December 31, 1998 was used to analyze both revenue and gas cost payment times. The expense lag time used for the various other expense categories was the lag time calculated in Case No. GR-96-193.

Q. Why did Laclede use the expense lag time from the 1996 case?

A. The Company believes that the expense lag times calculated in Case No. GR-96-193 are still representative of the lag time supplied by the Company's vendors and employees. There have been no significant changes in the manner in which the Company makes such payments.

Q. Please explain Schedule 8 of Section A.

A. Schedule 8 shows the derivation of the overall revenue lag time, based on the actual payment history of our universe of customers. This total reflects four distinct lag times for four classes of revenue: (1) customer bills for the distribution of natural gas to traditional sales customers; (2) transportation customer bills; (3) incidental oil sales; and, (4) late payments charges. Each respective lag time is weighted into the overall revenue lag time proportionately, based on revenues. Customer bills to sales customers is the most significant item. This total is comprised of three time periods, as summarized on the lower portion of Schedule 8: one-half of the average service period; the average

time between meter reading and billing; and, the average time between billing and payment.

Q. How are these time periods determined?

A. The average service period was computed by listing the scheduled days in each monthly billing period by cycle and deriving an average period by month. The twelve average periods during the twelve months ended December, 1998 were weighted according to actual revenues over the same months to calculate a weighted average service period, which was in turn divided by two to yield the figure shown on the schedule.

The average time between meter reading and billing was computed in a consistent manner, involving monthly averages weighted according to monthly revenues, based on the customer accounting work schedule in effect during the test period.

The average time between billing and payment was calculated using a turnover ratio analysis. The analysis involved dividing average daily billings into the average receivable balance to yield the number of days of billing included in receivables. Receivables for the twelve months ending December, 1998 were used. Revenues and other billing items are an average of the twelve months ending November, 1998 and December, 1998. The resulting payment time is shown.

Q. Please explain your use of average billing items for the twelve months ending November, 1998 and December, 1998.

A. By averaging the twelve months ended November, 1998 with the twelve months ended December, 1998, I am giving half-weight to billings during December, 1997, full-weight to billings for January, 1998 through November, 1998, and half-weight to billings during December, 1998. This combination of revenues and other billing is more closely related

to the receivables I am using than would be a simple twelve month total. In order to determine properly the length of time certain items (revenue billings) remain unpaid (as receivable balances), it is in many cases inappropriate to divide receivables for a particular period by the billings for the same period in that such a method often does not recognize payment of the latest billings. Such is the case here.

Q. How did you determine revenue lag time for transportation customer bills?

A. The accounts of these customers were individually analyzed to derive daily receivables data. This data was combined to determine the overall lag time for the class. The lag time for incidental oil sales was computed in a similar fashion. The revenue lag time for late payment charges consists solely of the payment time derived for our customers.

Q. Is your determination of a revenue lag based on a sample of customers?

A. No. Unlike the study of expense lags, the revenue lag time is based on the actual history of customer billing and payment activity for the twelve months ended December, 1998 for all of Laclede's customers. As stated earlier in my testimony, it was determined based on an analysis of actual revenue billings and our accounts receivable balances on a daily basis.

Q. The results shown on Schedule 8 indicate that sales customers, on average, are paying 34.8 days after the bill is mailed. Is this reasonable?

A. Yes. Although the tariffs require customers to pay their bills within 15 days (commercial and industrial customers) or 21 days (residential customers), the results of the study are not inconsistent with expectations. Rather, they are perfectly reasonable. Obviously, some customers are paying after the required dates as witnessed by the revenues for late payment charges included in our operating revenues. Far more significant, however, is

the fact that many of our customers are on special payment plans due to Cold Weather Rule requirements mandated by this Commission. Many of these customers maintain significant outstanding balances while repaying the Company over periods as long as 12 to 24 months. Approximately 5% of our customers are on these mandated payment plans.

Q. Are there any other circumstances which would lengthen the lag time beyond tariffed dates?

A. Unfortunately, and inevitably, there are some customers who never pay the amounts owed and these amounts eventually become uncollectible accounts. From the time these amounts are billed until the time they are written off , approximately 7 months later, they sit in the accounts receivable balance and have the effect of seemingly driving up the revenue lag. Laclede has taken this impact into account, however, by including an adjustment in the study giving our ratepayers credit for the six months of advance payment they are supplying prior to the date the accounts are charged off as uncollectible. This method of calculation is consistent with past treatment of uncollectible accounts for ratemaking purposes (based on net write-offs). Given this and the impact of 5% of our customers, who are on the special payment plans previously discussed, paying for gas service over periods which can exceed 365 days, it is easy to understand how the average revenue lag for all sales customers would be 34.8 days.

Q. Has the Commission previously reviewed the use of an accounts receivable turnover analysis as an appropriate methodology for use in a lead-lag study?

A. Yes. In Southwestern Bell Telephone Company Case No. TC-93-224, the Commission determined that a calculation of revenue lag, based on a receivable turnover analysis on

all customer accounts, was more appropriate than the alternative methods submitted in that case, including ones based on sampling.

Q. Please explain Schedule 9.

A. Schedule 9 shows the computation of cash working capital required for payment of operating expenses. Various major expense categories were studied in GR-96-193 to determine the length of lag time that is supplied by the Company's vendors and employees. This expense lag time is subtracted from the overall revenue lag time, and the resultant net lag (or net lead) time is multiplied times daily expense to derive the average cash working capital required from (or available to) the Company's investors for each category. These computations are combined to determine the cash working capital required from the Company's investors, as reflected on Schedule 9.

Q. Does this complete your testimony with respect to working capital?

A. Yes.

Capital Structure

Q. Please explain Schedule 1 of Section B.

A. This schedule details the elements of the Company's capital structure and calculates certain embedded costs. Page 1 of Schedule 1 shows the capital structure of the Company at December 31, 1998, as adjusted for anticipated long-term debt and common equity issuances expected to occur later this year. The capital structure components consist of preferred stock, common equity, short-term debt, and long-term debt. Schedule 1 contains the adjusted four-component capital structure which is used in rate of return computations. Common equity has been adjusted to include the effect of an approximate $25 million equity issuance expected to be placed later this spring. Long-

term debt has similarly been adjusted to include a $25 million issuance. Short-term debt has been adjusted downward to reflect the replacement of this short-term capital with the aforementioned issuances. Page 2 of Schedule 1 calculates the embedded cost of debt, adjusted for the $25 million issuance at an anticipated cost of 6%. Page 2 of Schedule 1 also shows the twelve-month average level of short-term debt outstanding, as adjusted for the $50 million of permanent financing previously described. The rate included on this schedule is based on the twelve month average rates at which the Company has been able to place commercial paper. Page 3 of Schedule 1 shows the embedded cost of preferred stock.

Q. Are you requesting a True-Up of these capital structure components?

A. Yes, unless the Staff and other parties are otherwise willing to accept these anticipated changes to the Company's capital structure, it is appropriate to recognize any such permanent financing issues which occur after December 31, 1998 as they will be known and measurable before the rates determined in this proceeding become effective. Additionally, Laclede issues common stock periodically through its Dividend Reinvestment and Stock Purchase Plan. The Company is requesting a True-Up of all elements of the capital structure as addressed in the testimony of Company witness J. A. Fallert. Additionally, should any significant pro-forma adjustments to seasonal rate base balances be accepted in this proceeding, the short-term debt element of the capital structure should be adjusted proportionately

Fair Value Rate Base

Q. Why have you made a calculation of fair value rate base?

A. I am advised by counsel that under the statutes of Missouri, as interpreted by the Missouri Supreme Court, the Commission is required to find the fair value of the Company's property and to allow a fair rate of return upon such fair value in order to determine the "just and reasonable" rate to be charged by the Company. Schedule 2 of Section E contains a calculation of what I believe to be the fair value of the Company's property.

Q. Please explain how the calculation of the fair value of Laclede's property should be determined.

A. The value of the Company's property was created by investments from bondholders and preferred and common stockholders. Additionally, the Company utilizes short-term financing to support our construction activity as a "bridge" to permanent financing. Fairness to each of these groups of investors should provide such protection to them as they reasonably were entitled to expect at the time the investments in utility plant were made. If this principle is followed, the ratepayer also will be treated fairly. The purchasers of Laclede's commercial paper, bonds, and preferred stock receive a fixed return over the life of the security involved, as long as the Company's income is sufficient to pay such return, and these purchasers also receive an amount in dollars equal to their original dollar investment upon maturity of their bonds or commercial paper, or redemption of their preferred stock. The risk for these purchasers is preferential as to income, but they must assume the complete risk of the inflationary cycle. That is, if prices go up during the period of their investment, the value of their investment decreases, and conversely, the value of their investment increases if prices go down, since their investment is returned in the exact dollar amount in which it was made. The obligations of the Company and the ratepayers to these investors require no consideration

of inflation. That is why the original cost of the property is entitled to substantial weight in the determination of this portion of the Company's fair value rate base. It is logical that the percentage of original cost of the property to be included in a fair value rate base should equal the percentage of debt and preferred stock in the Company's capital structure. For Laclede, this amounts to 44% as can be seen from Page 1 of Schedule 1, Section B.

Q. Would you describe how you would determine the remaining components of fair value rate base?

A. For the reason described above, the Company's investors in debt and preferred stock are not entitled to any protection from inflation nor should they suffer any loss in periods of deflation. The investments made by the Company's common stockholders, however, are not fixed dollar repayment obligations of the Company. The common stockholders purchase their stock with no assurance of fixed income, and, accordingly, assume the risk that the business can generate earnings in excess of its fixed obligations to pay interest on its debts and dividends on its preferred stock. A common stockholder does not expect to assume the risk of the inflationary cycle but expects, and has every right to expect, that if the business remains a viable enterprise and is properly managed, the value of an investment will be maintained. This then means that the common stockholder should receive increased dollar values from an investment in common stock during inflationary periods and then expect to suffer decreased value if deflation occurs. The gross trended cost of the property represents its total value which has been created by all of the Company's investors. The trended cost unrecovered value is developed by deducting the trended value of the depreciation charges and contributions in aid of construction paid for

by our customers from the gross trended cost. This trended cost unrecovered value is a measure of the value of the property financed by the Company's private investors, that is, by its stockholders and debt investors. The common stockholders are entitled to maintain the value of their investment, and this is represented by the percentage of the common stockholders' equity in the Company's capital structure, multiplied by such trended cost unrecovered value.

Q. How then do you determine the fair value of the Company's property?

A. Schedule 2 of Section E shows the projected fair value rate base for Laclede as of March 31, 1999. As can be seen from this exhibit, the fair value rate base is comprised of the debtholders' and preferred stockholders' percentage of the Company's capital structure, multiplied by the net original cost of the Company's properties; and the common stockholders' percentage of the capital structure multiplied by the trended cost unrecovered value of the Company's properties. The trended cost unrecovered value of the Company's properties has been determined in a study conducted by Company witness Richard A. Kotteman, Jr., and is reflected on Schedule 1 of Section E. The Company's total working capital must be added to these amounts to arrive at a total fair value rate base. Total working capital is comprised of the Company's investment in its various inventories, prepayments and deposits, applicable deferred items, and cash working capital; deducted from this is the book value of applicable deferred taxes to arrive at a fair value rate base. The determination of the fair value rate base as of March 31, 1999 is shown on Schedule 2.

Rate of Return

Q. Have you prepared an exhibit showing the calculation of the rate of return the Company is seeking on its original cost rate base?

A. Yes. Schedule 3, Section E, demonstrates the calculation of Laclede's rate of return to be 10.38% at proposed rate levels based on an original cost rate base. This overall rate of return calculation is based, among other things, on a 12.75% return on common equity as addressed by Company witness Kathleen C. McShane.

Q. On this exhibit, you have used capitalization ratios derived from Page 1 of Schedule 1 in Section B. What do these ratios represent?

A. These capitalization ratios represent the ratios found in Laclede Gas Company's capital structure at December 31, 1998, as adjusted for the debt and equity issuances discussed earlier in my testimony.

Q. Does this complete your testimony?

A. Yes.