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Structure
Witness: Zephania Marevangepo
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

REBUTTAL TESTIMONY

OF

ZEPHANIA MAREVANGEPO

LACLEDE GAS COMPANY

CASE NO. GR-2010-0171

Jefferson City, Missouri
June 2010

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1 A. Staff will address issues related to its updated capital structure, ROR and
2 critique Dr. Murry's Discounted Cash Flow (DCF) results.

3 Staff updated its capital structure, which resulted in a new equity ratio of
4 59.06 percent and a debt to capital ratio of 40.94 percent. Staff's ROE recommendation is
5 still 9.00 percent to 10.00 percent but the ROR is now in the range of 7.98 percent to
6 8.57 percent.

7 Staff reviewed Dr. Murry's direct testimony and DCF analyses and Staff does not
8 believe that it is appropriate for Dr. Murry to exclusively rely on high estimates for his
9 recommendation. Dr. Murry's DCF analysis is based on using the highest dividend yield for
10 a 52-week period and then adding these to the maximum projected growth rates to determine
11 his recommended cost of equity.

12 Investors do not pick the highest growth rate and apply it to the highest dividend yield
13 to determine their required rate of return. Instead, investors look at the dividend yield of a
14 company and determine a reasonable estimate of the growth in the price of the stock to
15 determine if they believe that by buying the stock at its current price, they will be able to earn
16 their required return. If investors only focused on the higher growth estimates, then those
17 investors would be doomed to making poor investment decisions.

18 Therefore, Staff does not agree Dr. Murry's recommended ROE in the range of
19 10.75 percent to 11.50 percent and ROR in the range of 8.96 percent to 9.39 percent
20 is reasonable.

21 **STAFF'S UPDATED CAPITAL STRUCTURE**

22 Q. Do you have any updates to make to your ROR recommendation?

A. Yes. Staff did not have information covering the update period at the time it filed the COS report. Staff's updated capital structure is now as follows:

Capital Structure as of March 31, 2010 Laclede Gas Company			
Capital Component	Dollar Amount		Percentage of Capital
Common Stock Equity	\$ 553,526,000	1	59.06%
Long-Term Debt	\$ 383,753,576		40.94%
Short-Term Debt	-		0.00%
Total Capitalization	\$ 937,279,576		100.00%
Note: 1. Long-term Debt at March 31, 2010 is based on the net balance of long-term debt, including current maturities (total principal amount of long-term debt outstanding less unamortized expenses and discounts) Ref: Response to Data Request No. 0107.			
Source: Laclede Group SEC 10-Q filing and Laclede's response to Staff Data Request No. 107.			

Q. What ROE and ROR did Staff recommend in its direct testimony?

A. Staff recommended an ROE in the range of 9.00 percent to 10.00 percent and ROR in the range of 7.98 percent to 8.57 percent.

Q. What is Staff's updated ROE and ROR?

A. After updating Laclede's capital structure, Staff's ROE is still in the range of 9.00 percent to 10.00 percent and the recommended ROR is now in the range of 7.98 percent to 8.57 percent.

Q. Is it still Staff's position that short-term debt should not be included in the rate making capital structure?

A. Yes. Although Staff's recommended capital structure contains a high percentage of common equity because of the exclusion of short-term debt, it is important to note that Laclede collects its various gas costs through its Purchased Gas Adjustment (PGA)

1 mechanism. Because the allowance for carrying costs on these gas balances is based on the
2 assumption that they are financed with short-term debt, it is appropriate to exclude from the
3 capital structure an amount of short-term debt consistent with these balances for purposes of
4 the general rate case. Otherwise, including the short-term debt costs that are already captured
5 through the PGA process would be double counted for such costs in the same rate case.

6 Q. Does Dr. Murry exclude short-term debt for the same reason?

7 A. No. Dr. Murry excludes short-term debt from his capital structure because he
8 claims that it is not part of the LDC's permanent capital. Staff believes that this position is
9 acceptable if the specific circumstances of the company support it. For example, if short-
10 term assets are not included in rate base, then this position would be logical. However, if the
11 average short-term debt balance exceeds construction work in progress (CWIP) and other gas
12 costs, the difference should be included in the capital structure. It would be Staff's
13 assumption that the short-term debt differential supports rate base and should therefore be
14 incorporated in the capital structure. Staff eliminated short-term debt due to its specific
15 consideration of this issue, not based on a simplified general position such as Dr. Murry's.

16 **DR. MURRY'S RECOMMENDED COST OF COMMON EQUITY FOR LACLEDE**

17 Q. Please summarize Dr. Murry's recommended cost of common equity
18 for Laclede.

19 A. Dr. Murry utilized both the DCF model and the Capital Asset Pricing
20 Model (CAPM) to estimate the cost of common equity for Laclede. Dr. Murry applied these
21 models to Laclede and a group of "comparable" companies in order to compare results
22 between Laclede and the other companies. Dr. Murry made several calculations of Laclede's
23 cost of common equity and the comparable companies' cost of common equity with both

1 models on Schedules DAM-14 through DAM-22. These calculations resulted in a wide
2 range of results. On pages 21, line 19, through page 25, line 22 of his direct testimony,
3 Dr. Murry went on to discuss a variety of additional issues that he felt were important to
4 consider in his recommendation for the cost of common equity. He discussed current market
5 conditions, general financial information, and business risk factors before making his final
6 recommended return on common equity in the range of 10.75 percent to 11.50 percent.

7 Q. What methodology did Dr. Murry primarily rely on to determine his
8 recommended cost of equity range of 10.75 percent to 11.5 percent?

9 A. Dr. Murry performed six DCF variations using several factors as his inputs
10 (See Schedule DAM-14 through DAM-19).

11 Q. Does Staff have any comments on Dr. Murry's recommendation and the
12 six variations used?

13 A. Yes. Staff noticed that Dr. Murry performed variations of the DCF model and
14 came up with a cost of equity in the range of 10.5 percent to 11.0 percent (see page 38,
15 line 38 of Dr. Murry's direct). After making adjustments for what he classified as
16 "uncertainties of the current environment and volatile financial markets", he recommended
17 an ROE in the range of 10.75 percent to 11.50 percent and a ROR of 8.96 percent to
18 9.39 percent.

19 Q. Did Dr. Murry put any weight on the DCF variations shown in his schedules?

20 A. Yes. Dr. Murry mentioned on page 38, line 2 through line 4 of his
21 direct testimony, that the most relevant DCF calculations were 10.67 percent and
22 11.23 percent and these results are clearly supported by the information provided in
23 Schedules DAM-16 and DAM-18, respectively. The 10.67 percent is the higher end of the

1 DCF analysis performed in Schedule DAM-16 and the 11.23 percent is the higher end of the
2 DCF analysis performed in schedule DAM-18.

3 Q. Are Dr. Murry's high estimates consistent with investors' investment
4 decision making?

5 A. No. Dr. Murry's exclusive reliance on the high estimates for his
6 recommendation is not appropriate or reasonable. Dr. Murry calculated high dividend yields
7 and added them to the maximum projected growth rates to determine his recommended cost
8 of equity and Staff does not give any merit to this approach.

9 Investors do not pick the highest growth rate and apply this to the highest dividend
10 yield to determine their required rate of return. Instead, investors look at the dividend yield
11 of a company and determine a reasonable estimate of the growth in the price of the stock to
12 determine if he believes that by buying the stock at its current price, he will be able to earn
13 his required return. If an investor only focused on the higher growth estimates, then that
14 investor would be doomed to making poor investment decisions.

15 Q. Do Dr. Murry's DCF results above present a fair and reasonable cost of equity
16 range?

17 A. No.

18 Q. What factors make these results unreliable or unreasonable?

19 A. Staff does not agree with the method Dr. Murry used for selecting stock prices
20 for purposes of estimating the dividend yield shown in Schedules DAM-16 and DAM-18.

21 Dr. Murry selected high and low stock prices from a 52-week period as shown in
22 Schedule DAM-16 and Schedule DAM-18. This is too long a time frame to use to reliably
23 estimate the current cost of common equity. Staff believes a cost of common equity estimate

1 based on more recent stock prices which reflect current economic environment and market
2 conditions is more realistic.

3 In his approach, Dr. Murry was able to select extreme stock prices based on a
4 52-week period. Dr. Murry magnifies this problem by using the lowest stock prices during
5 this 52-week period to estimate the cost of equity for his proxy group. This method does not
6 accurately reflect current market conditions. Instead, it results in an inflated dividend yield.
7 Likewise, if a very low common denominator is applied to any equation, the outcome would
8 be obviously high. When this inflated yield is added to a given growth rate, an unrealistically
9 higher cost of common equity will be produced. For instance, New Jersey Resources' stock
10 price of \$29.26 used in Schedule DAM-16 and Schedule DAM-18 is a one day low stock
11 price that Dr. Murry obtained from a period when the stock market had hit a historical low in
12 March 2009. Based on these lows, the stock market had wiped out all capital gains that had
13 been achieved since September 1996. Dr. Murry's use of spot stock prices during this
14 unprecedented stock market contraction to estimate the current cost of common equity for
15 Laclede should be dismissed because it in no way reflects the current economic and capital
16 market environment.

17 Q. What calculation did Staff perform in order to come up with a stock price that
18 reflects the current market conditions?

19 A. Staff used a 3-month average (January through March) stock price which
20 accurately reflects the current market conditions.

21 Q. Please explain further the upward bias inherent in Dr. Murry's cost of equity
22 estimates.

1 A. As indicated previously, Dr. Murry uses the high ends of each of his DCF cost
2 of equity estimates, which were derived from inappropriate inputs to allow for these high-end
3 estimates. One DCF variation, Schedule DAM-16, produced a range of 9.07 percent to
4 10.67 percent and the other, Schedule DAM-18, produced range of 8.15 percent to
5 11.23 percent. Instead of considering the mid-point of the high and low estimates shown in
6 his schedules for purposes of determining a fair and more reliable cost of equity
7 recommendation, he apparently decided that Laclede's ratepayers should pay a cost of equity
8 commensurate with the high end extremes based on stock prices from an unprecedented
9 market downturn that occurred in March 2009. Dr. Murry estimated an initial cost of equity
10 range of 10.5 percent to 11.0 percent based on his already upwardly-biased methodology.
11 Although this range was already based on extreme 52-week low stock prices, Dr. Murry
12 decided these higher results needed to be bumped up even higher to a range of 10.75 percent
13 to 11.50 percent.

14 Q. Are the two DCF cost of equity variations shown on Schedules DAM-16 and
15 DAM-18 really that different to the point where they should be characterized as two different
16 methodologies, as Dr. Murry portrays them to be?

17 A. No. In his Schedule DAM-16, Dr. Murry uses a projected growth rate that he
18 characterized as a combination of historical and projected growth factors and calls this
19 variation an "Earnings Growth Rate" DCF. The growth rate used in this DCF variation is
20 nothing but a projected growth rate using Value Line data.

21 In his Schedule DAM-18, Dr. Murry used different projected growth rates (published
22 by Value Line and Yahoo Finance), which have a different base period from the one used in
23 Schedule DAM-16, and he calls this DCF variation a "Projected Growth Rate" DCF.

1 The title alone communicates that this projected growth rate does not include any
2 consideration of historical growth rates. This is not true. Although equity analysts tend to be
3 overly optimistic when projecting growth rates, these growth rates are in part based on
4 consideration of historical information.

5 It is therefore important to note that Dr. Murry's growth rate inputs in both variations
6 are based on analysts' forward looking estimates. The only difference is one uses a more
7 recent base period and the other looks back 5 years for another base period of which
8 Dr. Murry doesn't provide any explanation as to why the base period for projected growth
9 rate should be based on 5-year old EPS data. This appears to be an attempt to confuse the
10 Commission and to produce a desired outcome.

11 Q. Can Staff explain further how these growth rates were characterized so as to
12 make them appear to be different?

13 A. Yes. In his "Earnings Growth Rate" DCF analysis (Schedule DAM-16),
14 Dr. Murry computed a growth rate of 5.53 percent. Although Dr. Murry characterizes his
15 growth rate of 5.53 percent as a combined historical and projected growth rate, the growth
16 rate he uses is, in fact, a projected growth rate. Dr. Murry uses a three-year (2003-2005)
17 average historical earnings per share (EPS) figure as his present value and Value Line's
18 estimated EPS for 2012 through 2014 as the future value. A historical growth rate would be
19 based on actual results for a given time period, such as a ten-year compound growth rate
20 from 1999 through 2009, which is the historical growth rate that I calculated in the ROR
21 Section of the COS Report on Schedule 12-1.

22 If Dr. Murry had averaged the ten-year historical growth rate that I calculated with his
23 projected compound growth rate, then I would agree with his characterization that the

1 growth rate is a “combined historical and projected earnings per share growth rate,” as he
2 indicates on page 29, lines 20 through 23 of his direct testimony. Anytime an analyst uses an
3 estimated future figure to calculate a compound growth rate, this compound growth rate is a
4 projected growth rate because it is based on an estimate in the future. Notwithstanding the
5 above, Dr. Murry’s calculations using a projected growth rate of 5.53 percent is 28 basis
6 points higher than the mid-point of my growth range of 5.25 percent.

7 Q. Is it Staff’s position that Schedule DAM-16 used projected growth rates?

8 A. Yes.

9 Q. Is it also Staff’s position that Schedule DAM-18 used projected growth rates?

10 A. Yes.

11 Q. What then is the difference between these two schedules?

12 A. As Staff mentioned before, Dr. Murry used projected growth rates in both
13 schedules but tries to differentiate the two by characterizing the growth rate used in
14 Schedule DAM-16 as a combination of historical and projected growth and the other as
15 simply projected growth when in actuality both growth rates were formulated from the
16 same premise.

17 The main reason why the rates are different is that in Schedule DAM-16, Dr. Murry
18 uses a projected growth rate that was computed by using years 2003 to 2005 as the beginning
19 value (base period) and years 2012 to 2014 as the ending value. In Schedule DAM-18,
20 Dr. Murry used projected growth rates published by Value Line and Yahoo Finance.
21 Schedule DAM-16 also uses Value Line projected data, but does not include projected data
22 from Yahoo Finance. Value Line’s data is based on estimates from an individual analyst,
23 whereas the data provided by Yahoo Finance may be an average of several analysts.

1 Q. Did Dr. Murry give any weight to the lower end results of his DCF analyses?

2 A. No. It appears Dr. Murry observed the lower results of his DCF analyses but
3 did not give any weight to them. Dr. Murry even stated in his direct testimony on page 30,
4 line 17, that higher returns may be more representative of the costs of common equity.

5 Q. Do the DCF results from Dr. Murry's comparable group analyses, using
6 projected earnings growth rates (Schedules DAM-16 through DAM-19) support your
7 recommendation for a cost of common equity of 9.0 percent to 10.0 percent?

8 A. Yes. Unlike Dr. Murry, if the Commission considers both the lower and
9 upper ends of Dr. Murry's DCF analyses in Schedules DAM-16 through DAM-19, the
10 mid-points from those schedules will be 9.87 percent, 9.70 percent, 9.69 percent and
11 9.54 percent respectively. These mid-points fall within Staff's proposed range of 9.0 percent
12 to 10.0 percent.

13 Q. Do you have any concerns with Dr. Murry's application of the CAPM on
14 Schedule DAM-22?

15 A. Yes. Dr. Murry chose to use the yield on corporate bonds as the risk-free rate
16 in his application of the CAPM. The generally recognized CAPM equation is as follows:
17 $[k = R_f + \beta (R_m - R_f)]$, where k = the cost of common equity, R_f = the risk-free
18 rate, β = beta coefficient and $R_m - R_f$ = the market risk premium. Therefore, it is clear that
19 the model generally contemplates the use of a risk-free rate.

20 Q. What is the definition of a risk-free rate?

21 A. According to Eugene F. Brigham and Joel F. Houston's textbook,
22 *Fundamentals of Financial Management*, 1998, page 128, the definition of the nominal
23 risk-free rate, which contemplates inflation is "The rate of interest on a security that is free of

1 all risk; k_{RF} is proxied by the T-bill rate or the T-bond rate. k_{RF} includes an inflation
2 premium.” Therefore, it is quite clear that the interest rate on corporate bonds, which
3 includes the risk of default, is not a risk-free rate.

4 Q. Does Dr. Murry perform a different calculation of the CAPM on
5 Schedule DAM-21?

6 A. Yes. On Schedule DAM-21, Dr. Murry performs a calculation of the CAPM
7 where he eventually uses the U.S. Treasury yield as the risk-free rate.

8 Q. What is the effect on Dr. Murry’s CAPM results when he uses a corporate bond
9 yield versus a U.S. Treasury yield as the risk-free rate?

10 A. A comparison of the results of the application of the CAPM on
11 Schedule DAM-22 with the results on Schedule DAM-21 indicates that the use of the
12 corporate bond yield causes the results to increase.

13 **SUMMARY AND CONCLUSIONS**

14 Q. Please summarize the conclusions of your rebuttal testimony.

15 A. My conclusions regarding the cost of common equity are listed below.

16 Dr. Murry’s recommended cost of equity range is dependent on two variations
17 (Schedule DAM-16 and DAM-18) of a DCF methodology that uses stock prices that do not
18 reflect the current economic and capital market conditions. In his first variation
19 (Schedule DAM-16), Dr. Murry uses a projected growth rate that he falsely characterized as
20 a combination of historical and projected growth factors. Dr. Murry calls this DCF variation
21 an “Earnings Growth Rate” DCF. The growth rate used with this variation is nothing but a
22 projected growth rate. Again, in Schedule DAM-18 Dr. Murry used different projected

1 growth rates (published by Value Line and Yahoo Finance), which have a different base
2 period, and refers to this DCF variation as a “Projected Growth Rate” DCF.

3 It is therefore important to note that Dr. Murry used projections for both
4 DCF variations, but different historical base periods, to produce a range that attempts to give
5 the appearance that they are based on different premises, i.e. projected growth and a true
6 combination of historical and projected growth. It would be surprising to Staff if Dr. Murry
7 can demonstrate in his surrebuttal testimony that his projected growth rate is not computed
8 based on some more recent historical data compared to his so called combination historical
9 and projected methodology. Otherwise, Staff believes that there is no reason why any analyst
10 would try to compute such a combination when the historical data is already factored into the
11 projected growth rates provided by analysts on Value Line, Yahoo Finance or any other
12 source that provides analysts’ projected growth rates.

13 Based on the foregoing discussion, Dr. Murry’s DCF results should be rejected
14 because he manipulated the DCF model to arrive at a desired outcome.

15 Q. Does this conclude your rebuttal testimony?

16 A. Yes, it does.

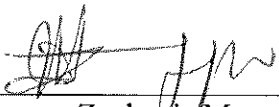
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff)
to Increase Its Annual Revenues for Natural) Case No. GR-2010-0171
Gas Service)

AFFIDAVIT OF ZEPHANIA MAREVANGEPO

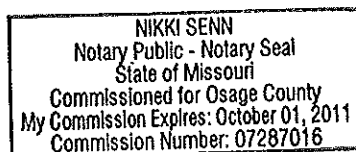
STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Zephania Marevangepo, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Rebuttal Testimony in question and answer form, consisting of 13 pages to be presented in the above case; that the answers in the foregoing Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.



Zephania Marevangepo

Subscribed and sworn to before me this 24th day of June, 2010.





Notary Public