

Exhibit No.:

Issue:

Witness:

Type of Exhibit:

Sponsoring Party:

Case No.:

PSP Analysis

George E. Godat

Direct Testimony

Laclede Gas Company

GO-2000-394

FILED

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Missouri Public
Service Commission

LACLEDE GAS COMPANY

DIRECT TESTIMONY

OF

GEORGE E. GODAT

July 2001

NP

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Laclede Gas Company's)
Experimental Price Stabilization Fund.) Case No. GO-2000-394

AFFIDAVIT

STATE OF MISSOURI)
)
CITY OF ST. LOUIS)

George E. Godat, of lawful age, being first duly sworn, deposes and states:

1. My name is George E. Godat. My business address is 720 Olive Street, St. Louis, Missouri 63101; and I am Senior Gas Supply Administrator of Laclede Gas Company.
2. Attached hereto and made a part hereof for all purposes is my direct testimony, consisting of pages 1 to 7, and Schedule Nos. 1 to 6, inclusive.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.



George E. Godat

Subscribed and sworn to before me this 10 day of July, 2001.

PATRICIA P. HICKS
Notary Public — Notary Seal
STATE OF MISSOURI
City of St. Louis
My Commission Expires: June 27, 2003



Notary Public

1 **DIRECT TESTIMONY OF GEORGE E. GODAT**

2 Q. What is your name and address?

3 A. My name is George E. Godat, and my business address is 720 Olive Street, St.
4 Louis, Missouri 63101.

5 Q. By whom are you employed and in what capacity?

6 A. I am employed by Laclede Gas Company ("Laclede" or "Company") in the
7 position of Senior Gas Supply Administrator.

8 Q. Please state your qualifications and experience.

9 A. I graduated from the University of Missouri Rolla in 1991, where I received a
10 Bachelor of Science degree in Mechanical Engineering. I joined Laclede in
11 January of 1992 as an Engineer in the Distribution/Design department. I was
12 promoted to Distribution Engineer in 1994 where I was responsible for the
13 Engineering Department of Laclede's Missouri Natural Division. I was promoted
14 to the position of Gas Supply Administrator in the Gas Supply Department in
15 1996 and to my current position in 1998. In my current position, I am responsible
16 for the daily and monthly planning of Laclede's Gas Supply Portfolio and for all
17 electronic nominations that are used to schedule the gas supplies on the pipelines
18 where Laclede holds capacity. I also assist in the implementation of our Price
19 Stabilization Program.

20 **PURPOSE OF TESTIMONY**

21 Q. What is the purpose of your testimony?

22 A. The purpose of my testimony is to explain the changes that the Company is
23 proposing to make to the Price Stabilization Program "PSP" that was approved by

1 the Commission in Case No. GO-98-484. I will also provide details and analysis
2 showing how the various elements of the Company's gas purchasing strategy
3 work together to produce a result that supports continuation of Laclede's Price
4 Stabilization Program ("PSP" or "Program") beyond the third year.

5 Q. Are the Company's recommendations being addressed by any other witness?

6 A. Yes. My analysis supports the direct testimony of Kenneth J. Neises in this case.

7 **CHANGES TO INCENTIVE PRICE STABILIZATION PROGRAM**

8 Q. Please explain the changes that the Company is proposing to make to the PSP.

9 A. I have reproduced in Schedule 1 to my direct testimony the description of the
10 Program that was approved by the Commission in Case No. GO-98-484. I have
11 also attached a red-lined version of the Program description as Schedule 2 to my
12 direct testimony which highlights the changes that the Company is proposing to
13 make to the PSP in this case. As explained more fully in the direct testimony of
14 Kenneth J. Neises, these include three proposed changes. The first is to reduce
15 the required price protection under the Program from 70% to 40% of normal
16 winter gas supply purchase requirements as the Company did with the
17 Commission's approval for the third year of the existing program. This represents
18 a reduction from approximately 37 BCF to 21 BCF.

19 Q. What is the second change?

20 A. The second change involves the Company's proposal to adopt a sliding scale
21 based on current prices on the New York Mercantile Exchange ("NYMEX") for
22 purposes of establishing the Maximum Recovery Amount ("MRA") under the
23 Program.

1 Q. What is the MRA?

2 A. The MRA is the amount that the Company is authorized to spend and recover to
3 procure call options under the PSP and is also used to set the Target Strike Price
4 ("TSP") and Catastrophic Price Level ("CPL").

5 Q. How has the MRA been established previously?

6 A. The MRA was initially established under the PSP at \$4 million annually plus
7 transaction costs. However, as a result of the radical change in market conditions
8 that occurred during 2000 and the associated increase in costs for call options, the
9 Company proposed and the Commission approved an increase in the MRA from
10 \$4 to \$8 million for the 2002 winter season.

11 Q. Why is it necessary to adopt a sliding scale to establish the MRA?

12 A. A sliding scale is necessary because the cost of call options are volatile and can
13 increase or decrease significantly depending on overall market conditions.
14 During periods of high prices, the cost for next year's option purchases will be
15 significantly greater than the cost for similar option purchases during periods of
16 low prices. Adjusting the MRA to reflect overall market conditions helps ensure
17 that adequate funding for call options is being provided in a timely manner.

18 Q. Could you please explain the sliding scale that establishes the MRA?

19 A. Yes. The sliding scale is based on the average of the strip prices on the days the
20 TSP is established for NYMEX natural gas futures contracts for the immediately
21 following months of November through March. If this average strip price is less
22 than or equal to \$3.00 per MMBtu, the MRA is set at \$4 million. If the average
23 strip price is greater than \$3.00 per MMBtu but is less than or equal to \$4.00 per

1 MMBtu, the MRA is set at \$5 million. If the average strip price is greater than
2 \$4.00 per MMBtu but is less than or equal to \$5.00 per MMBtu, the MRA is set at
3 \$7 million. If the average strip price is greater than \$5.00 per MMBtu, the MRA
4 is set at \$10 million.

5 Q. How did you arrive at the appropriate MRA levels for the various average strip
6 prices?

7 A. In order to arrive at the appropriate MRA levels, I performed several analyses
8 which I have included as Schedule 3 and Schedule 4 to my direct testimony. In
9 these analyses, theoretical call option costs were calculated in order to obtain the
10 level of funding that would be required under various average strip pricing
11 scenarios in both a high and low volatility scenario to cover 40% of the
12 Company's normal winter purchase requirements. Schedule 3 of my direct
13 testimony contains the results of the low volatility scenario and Schedule 4
14 contains the results of the high volatility scenario. Based on these analyses, the
15 Company believes its sliding scale for establishing the MRA is appropriate.

16 Q. Could you please explain how to interpret the results of your analyses?

17 A. Yes. As illustrated in Schedule 3, the figures under the Column labeled "Winter
18 Strip" represent the average strip price on the days the TSP is established for
19 NYMEX natural gas futures contracts for the immediately following months of
20 November through March. The figures under the Column labeled "Strike"
21 represent the strike price of the call option that is being purchased, also commonly
22 referred to as the ceiling price for such purchases. The figures under the Column
23 labeled "Volatility" represent the implied volatility of the market on the days in

1 which the TSP is established. The figures in the table labeled "Unit Option
2 Costs" represent the theoretical unit price of a NYMEX call option for a particular
3 strike price and month based on a given average strip price. The figures in the
4 table labeled "Program Costs" represent the unit option cost multiplied by the
5 program volumes for a particular strike price and month based on a given average
6 strip price. Finally, the Column labeled "Total Costs" represent the total costs,
7 excluding transaction costs, to purchase NYMEX call options for the entire
8 program volumes for a particular strike price and month based on a given average
9 strip price. For example, if the Winter Strip is \$4.00 per MMBtu, the unit cost of
10 a call option for the month of January with a \$5.00 strike price would be
11 approximately \$0.34 per MMBtu. Furthermore, the cost of acquiring the January
12 program volumes, which is 40% of normal January purchases, would be
13 approximately \$1,804,720. Finally, the total costs of covering the entire program
14 volumes under a low volatility scenario with \$5.00 call options for the November
15 through March period would be approximately \$6,570,830. In contrast as shown
16 in Schedule 4 to my direct testimony, the cost of providing identical coverage in a
17 high volatility scenario could cost as much as \$9,472,400.

18 Q. Would you please explain the final change the Company has proposed to make to
19 the Program?

20 A. Yes. The Company is also proposing to lengthen the window period for the Price
21 Protection Incentive component of the Program from 60 days to 120 days as
22 shown in section 2.B.ii of the red-lined program description attached as Schedule
23 2 to my direct testimony. Experience under the Program this year indicates that

1 the additional flexibility provided by a longer window can be useful in obtaining
2 financial instruments on more favorable terms.

3 **RESULTS OF THE COMPANY'S ANALYSIS**

4 Q. Has the company prepared an analysis showing how the various elements of its
5 strategy work together to produce a reasonable, overall balance of price and
6 stability?

7 A. Yes. I have prepared Schedule 5 and Schedule 6 to my direct testimony to show
8 that the Company's strategy would provide substantial price protection given
9 various weather and pricing scenarios.

10 Q. Would you please explain Schedule 5 of your testimony?

11 A. Yes. Schedule 5 shows that 76% to 96% of the Company's normal winter
12 requirements would have some type of price protection if the Commission were to
13 approve continuation of the PSP as modified by the Company's proposal and the
14 Company's fixed price proposal in Case No. GT-2001-329. In the event the
15 Company decides that market conditions warrant the purchase of the minimum 10
16 Bcf outlined in its proposed fixed price proposal, 76% of the Company's normal
17 winter requirements would be protected with some type of hedge. If the
18 Company decides to purchase 25 Bcf of fixed prices, 96% of normal winter
19 requirements would be protected from wholesale price increases.

20 Q. Has the Company performed any analysis to demonstrate the results of its
21 proposed strategy in the event we have a repeat of last winter?

22 A. Yes. The results of this analysis are shown as Scenario 1 on Schedule 6 to my
23 direct testimony. My analysis duplicates the purchases, storage utilization, and

1 prices experienced last winter. In this analysis I have assumed that the Company
2 would use its current call option portfolio along with 25 Bcf of fixed prices at the
3 current winter price and storage and propane based on the current summer re-fill
4 schedule and price. This analysis shows that the average realized winter
5 commodity price would be \$4.69 per MMBtu which is significantly below the
6 \$5.88 commodity price that was experienced last winter.

7 Q. Have you performed an analysis to show what level of price the customers would
8 experience in the event that normal weather and current prices continue for this
9 winter?

10 A. Yes. The results of my analysis are shown as Scenario 2 on Schedule 6 to my
11 direct testimony. As in Scenario 1, I have built in the Company's current call
12 option portfolio along with 25 Bcf of fixed prices at the current winter price and
13 storage and propane prices based on the current summer re-fill schedule. This
14 scenario differs from Scenario 1 in that I assume there will be normal weather and
15 current prices for next winter as opposed to a repeat of last winter. This analysis
16 shows an average realized winter commodity price of \$3.81 per MMBtu. In my
17 view, these Scenarios provide a good illustration of how the use of call options
18 under a program like the PSP can provide upward price protection while still
19 allowing consumers to benefit significantly if market prices decline.

20 Q. Does this conclude your direct testimony?

21 A. Yes.

NON-PROPRIETARY

SCHEDULE 1

Laclede Gas Company Description of Incentive Price Stabilization Program

Required Price Protection: Laclede is obligated to hold call options on 70% of its gas supply purchase requirements, assuming normal weather, for the months of December and January, and 70% of its aggregate gas supply purchase requirements, assuming normal weather, for the months of November through March. Laclede must have these levels of coverage at some point during the last three business days on which options for the applicable period can be traded on the New York Mercantile Exchange ("NYMEX").

Subject to the terms herein, Laclede guarantees absolute price protection on these predefined volumes at a price to be determined annually.

The following table sets out 70% of Laclede's gas supply purchase requirements, assuming normal weather, as required under this program:

<u>Month</u>	<u>70% of Gas Supply Purchase Requirements (MMBtu)</u>
November	** _____ **
December	** _____ **
January	** _____ **
February	** _____ **
March	** _____ **
Aggregate	** _____ **

Authorized Financial Instruments: Laclede shall only be authorized under this program to purchase or sell call options applicable to the months of November through March.

Maximum Recovery Amount ("MRA") for the Program: \$4 million annually, plus transaction costs.

Term of the Program: Effective for 3 years. The Commission has the right, but not the obligation, to review the program annually and revise it to correct major deficiencies on or before February 15.

SCHEDULE 1

Incentive Mechanism:

1. Establishing Price Parameters

A Target Strike Price ("TSP") and Catastrophic Price Level ("CPL") will be determined each year and will be used to 1) set Laclede's minimum price guarantee on the program's pre-defined volumes for the immediately following November through March period; and 2) determine the magnitude and allocations of any gains realized during that year of the program through the liquidation of any options held during the last three business days on which options for the applicable period can be traded on the NYMEX.

A. Determination of TSP and CPL

The TSP shall equal the average strike price of call options available on the NYMEX on the **_____

_____ * of each year or, in year one of the program, which occur immediately following the issuance date of the Commission order approving Laclede's compliance filing in Case No. GO-98-484, that would provide price protection for 70% of Laclede's normal monthly purchase requirements for the immediately following months of November through March, at a cost not to exceed \$4 million, exclusive of transaction costs. The CPL shall equal the TSP plus **_____**.

Laclede shall provide written notification to the Commission on or before the first day of the month immediately following the **_____** applicable to the determination of the TSP, specifying the TSP and CPL.

Specifics of Calculating the TSP

- i. If there is any NYMEX settlement price for the specific option in questions during the **_____** applicable to the determination of the TSP, Laclede will use the average of those settlement prices for that option to calculate the TSP.

NON-PROPRIETARY

SCHEDULE 1

- ii. If there is no NYMEX settlement price for the specific option in questions on the **_____**applicable to the determination of the TSP, but there are NYMEX settlement prices on any of those days for options for the same month with both higher and lower strike prices, Laclede will interpolate settlement prices for the specific option in question on those days that options for the same month with both higher and lower strike prices exist by using the options having the closet higher and lower strike price. Laclede will then use the average of those interpolated settlement prices to calculate the TSP.
- iii. If neither i. Or ii. apply, Laclede will calculate the settlement price of the option by obtaining a bid and offer from the NYMEX for the option during each of the **_____**applicable to the determination of the TSP, and averaging those prices.

2. Price Protection Incentive

- A. Realized gains from call options which are liquidated "in the money" during the last three business days of NYMEX options trading.
 - i. For realized gains associated with that portion of price protection at or above the CPL, 100% of such gains shall be retained by ratepayers. (Type I Gain)
 - ii. For realized gains associated with that portion of price protection between (and including) the TSP and the CPL, 75% of such gains shall be retained by ratepayers and 25% of such gains shall be retained by the Company. (Type II Gain)
 - iii. For realized gains associated with that portion of price protection below the TSP, 40% of such gains shall be retained by ratepayers and 60% of such gains shall be retained by the Company. (Type III Gain)

NON-PROPRIETARY

SCHEDULE 1

- B. Unprotected cost increases which occur when the strike price of the option exceeds the CPL.
- i. Laclede shall credit ratepayers 100% of the difference between the lower of the strike price of the option or the average of the last 3 days of NYMEX futures settlement prices for the month in which the option expires and the CPL. (Type I Cost).
 - ii. However, in no event shall the Company be required to provide a credit if during the 90 days immediately following the establishment of the TSP, market conditions change radically and Laclede determines it is necessary to purchase the options at strike prices above the CPL.

3. Overall Cost Reduction Incentive

Savings achieved through reductions in the cost of the program below the MRA as a result of favorable option purchases or intermediate trading activity (prior to the last three business days of NYMEX option trading) shall be shared by the Company and its customers according to the following schedule.

<u>Cost Saving Increment</u>	<u>Share of Savings</u>	
	<u>Customers</u>	<u>Company</u>
Up to \$6,666,666.66	60%	40%
Additional Savings	40%	60%

NON-PROPRIETARY

SCHEDULE 2

Laclede Gas Company Description of Incentive Price Stabilization Program

Required Price Protection: Laclede is obligated to hold call options on ~~70%~~ 40% of its gas supply purchase requirements, assuming normal weather, for the months of December and January, and ~~70%~~ 40% of its aggregate gas supply purchase requirements, assuming normal weather, for the months of November through March. Laclede must have these levels of coverage at some point during the last three business days on which options for the applicable period can be traded on the New York Mercantile Exchange ("NYMEX").

Subject to the terms herein, Laclede guarantees absolute price protection on these predefined volumes at a price to be determined annually.

The following table sets out ~~70%~~ 40% of Laclede's gas supply purchase requirements, assuming normal weather, as required under this program:

<u>Month</u>	<u>70% <u>40%</u> of Gas Supply Purchase Requirements (MMBtu)</u>
November	** _____ **
December	** _____ **
January	** _____ **
February	** _____ **
March	** _____ **
Aggregate	** _____ **

Authorized Financial Instruments: Laclede shall only be authorized under this program to purchase or sell call options applicable to the months of November through March.

Maximum Recovery Amount ("MRA") for the Program: ~~\$4 million annually, plus transaction costs.~~ The MRA shall be established annually based on the average of the strip prices for NYMEX Natural Gas Futures Contracts for the immediately following months of November through March **

** of each year as set forth in the following table, plus transaction costs.

NON-PROPRIETARY

SCHEDULE 2

<u>Winter NYMEX</u> <u>Average Strip Price</u> <u>(\$ per MMBtu)</u>	<u>MRA</u> <u>(Millions)</u>
<u>Up to and including \$3.00</u>	<u>\$4.0</u>
<u>Greater than \$3.00 and</u> <u>up to and including \$4.00</u>	<u>\$5.0</u>
<u>Greater than \$4.00 and</u> <u>up to and including \$5.00</u>	<u>\$7.0</u>
<u>Greater than \$5.00</u>	<u>\$10.0</u>

Term of the Program: Effective for 3 years. The Commission has the right, but not the obligation, to review the program annually and revise it to correct major deficiencies on or before February 15.

Incentive Mechanism:

1. Establishing Price Parameters

A Target Strike Price ("TSP") and Catastrophic Price Level ("CPL") will be determined each year and will be used to 1) set Laclede's minimum price guarantee on the program's pre-defined volumes for the immediately following November through March period; and 2) determine the magnitude and allocations of any gains realized during that year of the program through the liquidation of any options held during the last three business days on which options for the applicable period can be traded on the NYMEX.

A. Determination of TSP and CPL

The TSP shall equal the average strike price of call options available on the NYMEX on the **_____

~~year or, in year one of the program, which occur immediately following the issuance date of the Commission order approving Laclede's compliance filing in Case No. GO 98-484, that would provide price protection for 70% 40% of Laclede's normal monthly purchase requirements for the immediately following months of November through March, at a cost not to exceed \$4 million the MRA, exclusive of~~ ^{**of each}

NON-PROPRIETARY

SCHEDULE 2

transaction costs. The CPL shall equal the TSP plus
** _____ **.

Laclede shall provide written notification to the Commission on or before the first day of the month immediately following the ** _____ ** applicable to the determination of the TSP, specifying the TSP and CPL.

Specifics of Calculating the TSP

- i. If there is any NYMEX settlement price for the specific option in questions during the ** _____ ** applicable to the determination of the TSP, Laclede will use the average of those settlement prices for that option to calculate the TSP.
- ii. If there is no NYMEX settlement price for the specific option in questions on the first, third and fifth business days applicable to the determination of the TSP, but there are NYMEX settlement prices on any of those days for options for the same month with both higher and lower strike prices, Laclede will interpolate settlement prices for the specific option in question on those days that options for the same month with both higher and lower strike prices exist by using the options having the closet higher and lower strike price. Laclede will then use the average of those interpolated settlement prices to calculate the TSP.
- iii. If neither i. or ii. apply, Laclede will calculate the settlement price of the option by obtaining a bid and offer from the NYMEX for the option during each of the ** _____ ** applicable to the determination of the TSP, and averaging those prices.

2. Price Protection Incentive

- A. Realized gains from call options which are liquidated "in the money" during the last three business days of NYMEX options trading.

NON-PROPRIETARY

SCHEDULE 2

- i. For realized gains associated with that portion of price protection at or above the CPL, 100% of such gains shall be retained by ratepayers. (Type I Gain)
 - ii. For realized gains associated with that portion of price protection between (and including) the TSP and the CPL, 75% of such gains shall be retained by ratepayers and 25% of such gains shall be retained by the Company. (Type II Gain)
 - iii. For realized gains associated with that portion of price protection below the TSP, 40% of such gains shall be retained by ratepayers and 60% of such gains shall be retained by the Company. (Type III Gain)
- B. Unprotected cost increases which occur when the strike price of the option exceeds the CPL.
- i. Laclede shall credit ratepayers 100% of the difference between the lower of the strike price of the option or the average of the last 3 days of NYMEX futures settlement prices for the month in which the option expires and the CPL. (Type I Cost).
 - ii. However, in no event shall the Company be required to provide a credit if during the ~~90~~ 120 days immediately following the establishment of the TSP, market conditions change radically and Laclede determines it is necessary to purchase the options at strike prices above the CPL.
3. Overall Cost Reduction Incentive

Savings achieved through reductions in the cost of the program below the MRA as a result of favorable option purchases or intermediate trading activity (prior to the last three business days of NYMEX option trading) shall be shared by the Company and its customers according to the following schedule.

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SCHEDULE 2

<u>Cost Saving Increment</u>	<u>Share of Savings</u>	
	<u>Customers</u>	<u>Company</u>
Up to \$6,666,666.66	60%	40%
Additional Savings	40%	60%

SCHEDULE 3

This Entire Schedule is Highly Confidential

SCHEDULE 4

This Entire Schedule is Highly Confidential

SCHEDULE 5

This Entire Schedule is Highly Confidential

SCHEDULE 6

This Entire Schedule is Highly Confidential