

BEFORE THE CORPORATION COMMISSION OF THE STATE OF OKLAHOMA
CORPORATION COMMISSION
OF OKLAHOMA

APPLICATION OF PUBLIC SERVICE)
COMPANY OF OKLAHOMA FOR A)
DETERMINATION THAT ADDITIONAL) CAUSE NO. PUD 200500516
ELECTRIC GENERATING)
CAPACITY WILL BE USED AND USEFUL)

APPLICATION OF PUBLIC SERVICE)
COMPANY OF OKLAHOMA FOR A) CAUSE NO. PUD 200600030
DETERMINATION THAT ADDITIONAL)
BASELOAD ELECTRIC GENERATING)
CAPACITY WILL BE USED AND USEFUL)

IN THE MATTER OF THE APPLICATION OF)
OKLAHOMA GAS AND ELECTRIC COMPANY)
FOR AN ORDER OF THE COMMISSION) CAUSE NO. PUD 200700012
GRANTING PRE-APPROVAL TO CONSTRUCT)
RED ROCK GENERATING FACILITY AND)
AUTHORIZING A RECOVERY RIDER)

**BRIEF OF OKLAHOMA GAS AND ELECTRIC COMPANY
RELATED TO HEDGING OF
NATURAL GAS PRICES**

COMES NOW Oklahoma Gas and Electric Company ("OG&E") and submits the following for the Commission's consideration in response to the request for briefs by the Administrative Law Judge related to hedging the cost of natural gas used as a boiler fuel.

I. OVERVIEW

During the hearing on the merits for these proceedings it was suggested in public comment that OG&E could hedge the long term cost of natural gas used as a boiler fuel and avoid the gas price volatility that has been experienced in the marketplace during the past several years.

This brief addresses three questions raised by the suggested gas price hedging: 1) does the current statutory authority permit recovery of hedging costs related to fuels purchased and utilized to produce electricity?; 2) can the price of natural gas be fully hedged?; and 3) what are the costs associated with hedging the future purchases of natural gas?

II. DISCUSSION

A. **QUESTION: Is There Statutory Authority for the Recovery of Costs Associated With Hedging Through a Fuel Adjustment Clause?**

Oklahoma law specifically provides that “[f]or the purpose of determining fuel or gas costs, the cost of fuel or gas shall be the price paid at the point of delivery into the utility system.” 17 O.S. §251.C.2. As discussed in more detail below, this statutory language makes the recovery of hedging costs related to fuel and gas purchases highly questionable. Under the plain language of the statute, hedging costs are not a component of the price of gas paid at the point of delivery into the utility’s system.

On September 4, 2001, the Commission initiated a Notice of Inquiry (“NOI”), Cause No. PUD 200100439, in which it sought comments from Reliant Energy–Arkla, Oklahoma Gas and Electric Company, Public Service Company of Oklahoma and Oklahoma Natural Gas Company concerning hedging. Hedging was defined by the Commission in the NOI as “the use of financial instruments and/or physical purchases of a commodity in order to reduce future price volatility of the commodity.”

OG&E filed with the Commission its Response to the NOI on September 21, 2001 (“the OG&E NOI Response”); on November 12, 2001, OG&E filed its Second Round of Comments (“OG&E’s Second Comments”); and on December 14, 2001, OG&E filed its Third Comments

("OG&E's Third Comments"). OG&E incorporates its Response and its comments as a part of this brief.

In the OG&E NOI Response, OG&E advised the Commission that legislative changes would be necessary in order to permit recovery of hedging costs by the utilities through their respective fuel adjustment clause tariffs. In Paragraph 5, at page 2 of the OG&E Response, OG&E stated:

OG&E believes a strong argument can be made that many of the costs associated with these [hedging] activities are not recoverable under the statute as written. The point is that no utility should be asked to 'gamble' on what is intended by the law. If the Commission determines it is appropriate to encourage such activities, **it is imperative that there be clear statutory guidance as to what may be processed through a fuel adjustment clause.** (Emphasis added).

In OG&E's Second Comments, Paragraph M., at page 13, OG&E suggested statutory language changes to Title 17, Section 250 *et seq.*, that would specifically permit the recovery of costs related to hedging by adding a definition for "hedging mechanisms" in 17 O.S. §250 and by amending the first sentence of 17 O.S. §251.C.2. such that the costs related to hedging mechanisms would be specifically recoverable through fuel adjustment clause tariffs approved by the Commission.

OG&E's Third Comments were filed at the direction of the Commission to comment on certain Policy Principles for Gas Procurement Plans of Utilities ("Policy Principles") as adopted by the Arkansas Public Service Commission and to respond to issues raised during a hearing held by the Commission on December 6, 2001. In OG&E's Third Comments, OG&E advised the Commission that Arkansas law does not contain an impediment to recovery of hedging costs, as is the case in Oklahoma.

Title 17 O.S. § 251C provides, in relevant part:

1. For the purpose of determining fuel or gas costs, the price paid for the fuel or gas shall be computed at the actual cost of fuel or gas purchased from nonaffiliated persons, firms and corporations; and the actual cost of the production of fuel owned by the public utility or received from affiliated persons, firms and corporations, and in the case of gas, the fair field price for gas owned by the public utility or received from affiliated persons, firms or corporations.

2. The cost of fuel or gas shall be the **price paid at the point of delivery** into the utility system. . . . (Emphasis added.)

This language, as plainly written, does not allow for the recovery of hedging costs through a fuel adjustment clause. As the Oklahoma Supreme Court has stated:

The determination of legislative intent controls statutory interpretation. The intent is ascertained from the whole act based on its general purpose and objective. . . . To ascertain intent, we look to the language of the pertinent statute. . . . Except when a contrary intention plainly appears, terms are given their plain and ordinary meaning from the whole act based on its general purpose and objective.

Oklahoma Association For Equitable Taxation et al. v. City Of Oklahoma City, 1995 OK 62, ¶5 , 901 P.2d 800, 803 (citing, *inter alia*, *McSorley v. Hertz Corp.*, 1994 OK 120, 885 P.2d 1343; *Smicklas v. Spitz*, 1992 OK 145, 846 P.2d 362; *Oglesby v. Liberty Mut. Ins. Co.*, 832 P.2d 834, 839; *Anson Corp. v. Hill*, 1992 OK 138, 841 P.2d 583).

A "clear and unambiguous" statutory provision or term is one having a meaning not contradicted by other language in the same act. *See, e.g., Foley Bros. v. Filardo*, 336 U.S. 281, 69 S.Ct. 575 (U.S. 1949) (Held: "There is no language in the Eight Hour Law, here in question, that gives any indication of a congressional purpose to extend its coverage beyond places over which the United States has sovereignty or has some measure of legislative control."); and *Ciampa v. Secretary of Health and Human Services*, 687 F.2d 518 (2nd Cir. 1982) ("Where a statute's scope is narrow, its language precise, and its application foreseeably mechanical, it would take a strong

showing of “rare and exceptional circumstances” to convince us that it should not be applied as written.”).

The Oklahoma fuel adjustment provisions are devoid of any language that could be logically construed as contradictory to the express language contained in Sections 251.C.1 and C.2. Nothing in Oklahoma law permits specific recovery of any costs associated with the procurement of fuel or gas by a utility **other than** the recovery of the cost of fuel or gas delivered into the utility’s system.

B. Question: Can the Price of Natural Gas be Fully Hedged Over the Term of a Long-Term Fixed Price Supply Contract?

No, not fully, because OG&E, as buyer, would have a requirement to “margin” (*i.e.*, post collateral) to secure its contingent obligation to pay the seller damages in the event that OG&E were to breach the contract.

Damages for breach of a fixed price contract are determined by comparing the market price for natural gas to the contract price. *See, Uniform Commercial Code, §2-706 and §2-712; Base Contract for Sale and Purchase of Natural Gas, §3.2* (North American Energy Standards Board, Inc. 2006). Upon a termination occasioned by a breach by a buyer, the seller is damaged if the then-current market price for natural gas (at which the seller will resell the gas not purchased at the time of breach) is lower than the contract price. In addition, the seller is also damaged if the expected future market price for natural gas (at which the seller will resell the gas not purchased over the remaining term of the contract) is lower than the contract price. Generally, the seller’s damages in such a scenario are a function of the product of the price differential and the quantity of gas remaining to be purchased under the contract. This amount is sometimes characterized as the amount necessary to maintain the benefit of seller’s bargain.

It is customary in long-term gas contracts for there to be a requirement for the buyer (unless it has a significantly high credit rating) to deposit with the seller cash collateral to secure the buyer's contingent obligation to pay market-based damages at all times when the market price (over the remaining term of the contract, as determined by the seller) is less than the contract price. This obligation to post cash collateral exposes the buyer to two risks--interest rate risk and gas price risk.

The buyer has interest rate risk to the extent it borrows cash to post as collateral. Generally, the necessary credit facility is a revolver, as the amount of collateral required to be posted may change frequently. The interest rate paid by the borrower for such credit facilities are typically variable and adjusts to future fluctuations in interest rates. As more fully described below, interest is paid by the borrower on both the maximum amount of the credit line established and on the amounts actually drawn under the credit line.

The buyer has gas price risk because it is the market price of gas (over the remaining term of the contract) that determines the amount of the cash collateral to be posted. Fluctuations in the expected forward market price for natural gas below the contract price (as determined by the seller) will vary the posting requirement for collateral and the amount drawn under the credit line for which interest must be paid.

Thus, even a fixed rate gas purchase contract is not one in which the total delivered cost of gas is fixed. Given the interest rate risk and gas price risk inherent in the buyer's obligation to post cash collateral, the price of natural gas cannot be fully hedged over the term of a long-term fixed price supply contract. This fluctuating cost would need to be factored into the overall price of hedging.

C. Question: What Costs Would be Incurred by a Utility Engaged in Hedging for its Gas Requirements?

In its NOI the Commission identified issues for comment. Issue Number 3 identified some of the financial aspects of a hedging program, each of which would have an associated cost. The Commission's list of potential hedging program aspects included, but were not limited to:

- a. Options
- b. Call Options
- c. Put Options
- d. Collars
- e. Derivatives
- f. Futures Contracts
- g. Swaps

(NOI, Issue #3, page 1). In OG&E's Response, OG&E expressed its qualified agreement with the Commission's list.

To provide the Commission with a sense of the potential magnitude of costs associated with hedging, OG&E has calculated the potential hedging costs (Hedge Funding Costs) attributable to the execution of a forward contract to purchase natural gas beginning in 2012 for a period of 15 years at a fixed price in real dollars of \$8.09 per MMBtu. In these circumstances, Hedge Funding Costs would primarily consist of a Facility Charge and a Net Drawing Charge. The Facility Charge is the cost a bank would charge to establish the credit line necessary to support a forward gas purchase contract. For OG&E to remain revenue neutral as it engaged in hedging, the level for the credit line would need to be set to cover a 99% probability that margin calls would not exceed the credit line. The Net Drawing Charge is the difference between (a) the cost charged by a bank for amounts drawn on the credit line to post collateral with the seller minus (b) interest earned on the posted collateral held by the seller.

OG&E assumed the forward contract would supply the full gas requirements, assuming a 100% capacity factor, of a new 400MW base load gas fired power plant having a heat rate of 7800 Btu/kWh. This would result in a daily gas burn of 75,000 MMBtu per day. In calculating the Hedge Funding Costs for a forward contract with deliveries beginning in 2012 for a 15-year period, OG&E assumed a 5% discount rate for margin calls, a bank facility charge of 20 basis points, and a 7% net drawing rate. The analysis revealed a 25% probability that these costs would exceed \$453 million over the life of the contract and a 1% probability that these costs would exceed \$1.02 billion. As calculated on a per MMBtu basis, there would be a 25% probability that the \$8.09 fixed gas price would amount to \$9.32 and a 1% probability that it would amount to \$10.99 if the Hedge Funding Costs were included in the total cost.

Attachment 1 to this Brief provides the detail for these calculations.

It is possible to apply this same analysis to the procurement of gas for OG&E's existing fleet. Each year in May, OG&E submits to the Commission its Fuel Supply Portfolio and Risk Management Plan ("OG&E's Fuel Plan") for the coming year. In OG&E's Fuel Plan submitted to the Commission in May 2007, OG&E advised the Commission it would be purchasing 57% of its total burn of gas to satisfy its base load gas requirements. This number includes larger base amounts during the summer operating months, but also includes a consistent amount of gas that flows all 12 months of approximately 80,000 MMBtu per day or 29 BCF per year. OG&E further advised the Commission that gas requirements above that level are unpredictable for various reasons; thus, acquiring gas volumes above OG&E's base load requirements for multiple years could expose OG&E and its customers to an unacceptable risk of firm fixed price purchase obligations. If OG&E were to purchase its 12 month base load gas requirements (or 80,000 MMBtu/D) from 2012 through 2026 at \$8.09 using the hedging tools that would be available and

the assumptions outlined above, OG&E's Hedge Funding Cost exposure would be such that there would be a 25% probability that the hedging costs would exceed \$483 million and a 1% probability that these costs would exceed \$1.1 billion over the life of the fixed price purchase contract. **Attachment 1** also provides the detail for these calculations.

Finally, if OG&E were to hedge the natural gas for both a new plant and the current base load requirements, there is a 25% probability that the combined hedging costs would exceed \$900 million and a 1% probability that the hedging costs would exceed \$2 billion.

Hedge Funding Costs are costs attributable to a hedging program and paid over the life of the contract (in these cases, from the date the forward contract is entered into until the last date gas is actually received, or from August 2007 through December 2026); those costs are not a part of the "price paid at the point of delivery into the utility system". Therefore, there is an extremely high probability that Hedge Funding Costs could not be recovered through a utility's fuel cost adjustment tariff under current law. As OG&E advised the Commission in its Response and comments submitted in response to the NOI and previously in this brief, Oklahoma law would require amendment to provide the utilities with assurance that the costs of hedging could be recovered through the utilities' fuel adjustment clauses.¹

III. CONCLUSION

Even a gas purchase contract at a fixed price is not one in which the total delivered cost of gas is fixed. The interest rate risk and gas price risk inherent in the Hedge Funding Cost

¹ In addition, as pointed out by OG&E in its Second Comments addressing Commission Question "L," certain types of hedging costs are in the form of prepayments and other forms of credit support well in advance of ultimate delivery or performance. At page 12 of OG&E's Second Comments, OG&E characterized these costs as "insurance" designed to protect the counterparty for failure to perform. This "insurance" sometimes requires the purchaser to pay liquidated damages in the event of non-performance or "policy cancellation". An effective hedging program would necessarily need to address the manner in which the utility is reimbursed for these prepayment costs.

would need to be factored into the overall gas price. And given the potential fluctuations in future interest rates and the price of gas, the Hedge Funding Costs that would be incurred by a utility to engage in hedging for future gas acquisitions are potentially substantial.

Further, absent a change in Oklahoma's statutory fuel adjustment provisions, the ability of a utility to recover Hedge Funding Costs is in serious doubt. Given the potential magnitude of these costs, OG&E has grave misgivings concerning its ability to recover Hedge Funding Costs as well as the prudence of incurring such costs at the expense of its customers.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that on the 13th day of August, 2007, a true and correct copy of the foregoing instrument was provided to the following:

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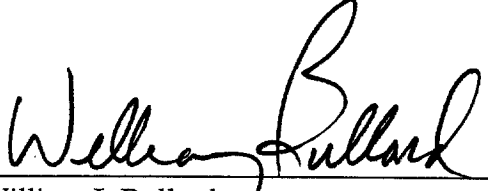
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HEDGE FUNDING COST

Hedge Funding Cost:

Hedge Funding Cost is the cost charged by a bank for OG&E to enable it to provide collateral to Hedge Counterparty under a Natural Gas Hedge. It consists of the Facility Charge and Net Net Drawing Charge.

Facility Charge

Cost charged by bank for OG&E to maintain credit facility for Natural Gas Hedge.

Net Drawing Charge

Cost representing the difference between (a) cost charged by bank for amounts drawn on credit facility by OG&E to post collateral with Hedge Counterparty minus (b) interest that OG&E would receive from Hedge Counterparty on the posted collateral.

Assumed Facility Charge Rate

0.2% (*actual rate will be variable and adjust for then-current interest rates*)

Assumed Net Drawing Charge Rate

7.0% (*actual rate will be variable and adjust for then-current interest rates and amount of interest negotiated with Hedge Counterparty on posted collateral*)

Natural Gas Hedge:

Set forth below are the assumptions on the Natural Gas Hedge used to determine the Facility Charge and Net Drawing Charge:

Hedge Contract

Forward contract for purchase of natural gas (or equivalent financial swap) with hedge counterparty ("Hedge Counterparty").

Contract Term

15-year term (January 1, 2012 through December 31, 2026)

Contract Price

\$8.09/MMBtu

Contract Price is quote obtained from financial institution ("Quoting Financial Institution") for proposed Hedge Contract for Contract Term.

Gas Quantity

75,000 MMBtu/day

Gas requirement is based on 400 MW combined cycle gas plant with a 7800 Btu/KWh heat rate at a 100% capacity factor.

Discount Rate

5.0% (*actual rate will be variable and adjust for then-current interest rates*)

Discount rate is applied to determine the value of collateral that OG&E would be required to provide to Hedge Counterparty.

*Collateral from
Hedge Counterparty*

Assumes that no or limited collateral would be posted by Hedge Counterparty to OG&E due to credit rating of Hedge Counterparty and that OG&E would transfer all interest amounts earned on posted collateral to Hedge Counterparty.

Credit Facility Amount:

Credit Facility Amount is based on potential maximum amount of collateral that OG&E could required to post with Hedge Counterparty ("Margining Potential"). Such Margining Potential is based on potential

price outcomes for the market price of natural gas during the Contract Term ("Price Outcomes").

**Price Outcomes for
Potential Collateral Exposure:**

See "P99 Chart" attached hereto as Schedule 1 and "P75 Chart" attached hereto as Schedule 2 (together, the "Price Charts").

The red line in each Price Chart reflects the forward price curve for the annual average price of natural gas for each year of the Contract Term as obtained from the Quoting Financial Institution as of a specified date ("Specified Forward Price Curve").

Each annual price for natural gas on the pink line in the P99 Chart ("P99 Price") represents a 1% or less probability of occurring in any year ("1% Probability"). Hedge Counterparty's assumed request for collateral from OG&E would be based on the difference between the Contract Price of \$8.09 minus the P99 Price for the applicable year as adjusted by the Discount Rate ("P99 Collateral Exposure").

Each annual price for natural gas on the pink line in the P75 Chart ("P75 Price") represents a 25% or less probability of occurring in any year ("25% Probability"). Hedge Counterparty's assumed request for collateral from OG&E would be based on the difference between the Contract Price of \$8.09 minus the P75 Price for the applicable year as adjusted by the Discount Rate ("P75 Collateral Exposure", and together with the P99 Exposure, the "Potential Collateral Exposure").

Each of the pink lines in the P99 Chart and the P75 Chart is generated using Monte Carlo simulation based on the Specified Forward Price Curve.

Actual Collateral Exposure

The actual amount of collateral that Hedge Counterparty would request from OG&E would be based on the difference between the Contract Price of \$8.09 minus the then-current forward price curve utilized by Hedge Counterparty (*which will fluctuate based on the fluctuations in the then-current price of natural gas*) as adjusted by the then-current discount rate.

Margining Potential:

See "Margining Potential Chart" attached hereto as Schedule 3.

Margining Potential for each year of the Contract Term at a 1% Probability represents the maximum amount of collateral that OG&E would be required to post with Hedge Counterparty on any day of such year at a 1% Probability.

The amount of Margining Potential at a 1% Probability (a) is set forth in the box on the upper right hand corner of the Margining Potential Chart and (b) is determined by calculating the following:

1 MMBtu/day x 365 days/year x 15 years x P99 Collateral Exposure

Margining Potential for each year of the Contract Term at a 25% Probability represents the maximum amount of collateral that OG&E would be required to post with Hedge Counterparty on any day of such year at a 25% Probability.

The amount of Margining Potential at a 25% Probability (a) is set forth in

the box on the upper right hand corner of the Margining Potential Chart and (b) is determined by calculating the following:

1 MMBtu/day x 365 days/year x 15 years x P75 Collateral Exposure

**Facility Charge
for 1 MMBtu/day for 15 years:**

\$318/MMBtu

See "Hedge Funding Costs Chart" attached hereto as Schedule 4.

The Facility Charge for 1 MMBtu at 1% Probability and 25% Probability (a) is the cost charged by bank for OG&E to maintain credit facility for Natural Gas Hedge on 1 MMBtu of natural gas and (b) is determined by calculating the following:

Sum of the P99 Collateral Exposures x 0.2%

The Facility Charge is based on the Margining Potential at a 1% Probability to represent the highest amount of collateral that OG&E could provide to Hedge Counterparty in any year in order to determine the appropriate Credit Facility Amount on a conservative basis.

**Net Drawing Charge
for 1 MMBtu/day for 15 years
at 1% Probability:**

\$13,272/MMBtu

See "Hedge Funding Costs Chart" attached hereto as Schedule 4.

The Net Drawing Charge for 1 MMBtu at a 1% Probability (a) is the cost charged by bank for OG&E to draw on credit facility to provide collateral to Hedge Counterparty in respect of 1 MMBtu of natural gas and (b) is determined by calculating the following:

Sum of the P99 Collateral Exposures x 7.0%

The Net Drawing Charge assumes that the Margining Potential, which represents the highest amount of collateral that OG&E must provide to Hedge Counterparty in any year, will remain drawn each day of the year in order to conservatively assess OG&E's potential Net Drawing Charge.

**Net Drawing Charge
for 1 MMBtu/day for 15 years
at 25% Probability:**

\$5,652/MMBtu

See "Hedge Funding Costs Chart" attached hereto as Schedule 4.

The Net Drawing Charge for 1 MMBtu at a 25% Probability (a) is the cost charged by bank for OG&E to draw on credit facility to provide collateral to Hedge Counterparty in respect of 1 MMBtu of natural gas and (b) is determined by calculating the following:

Sum of the P75 Collateral Exposures x 7.0%

The Net Drawing Charge assumes that the Margining Potential, which represents the highest amount of collateral that OG&E must provide to Hedge Counterparty in any year, will remain drawn each day of the year in order to conservatively assess OG&E's potential Net Drawing Charge.

**Hedge Funding Cost
for 1 MMBtu/day for 15 years**

\$13,652/MMBtu

at 1% Probability:

The Hedge Funding Cost for 1 MMBtus at a 1% Probability (a) is the cost charged by a bank for OG&E to enable it to provide collateral to Hedge Counterparty under a Natural Gas Hedge for 1 MMBtu at a 1% Probability and (b) is determined by calculating the following:

$\$388/\text{MMBtu} + \$13,272 \text{ MMBtu}$

**Hedge Funding Cost
for 1 MMBtu/day for 15 years
at 25% Probability:**

$\$6,040/\text{MMBtu}$

The Hedge Funding Cost for 1 MMBtu at a 25% Probability (a) is the cost charged by a bank for OG&E to enable it to provide collateral to Hedge Counterparty under a Natural Gas Hedge for 1 MMBtu at a 25% Probability and (b) is determined by calculating the following:

$\$388/\text{MMBtu} + \$5,652 \text{ MMBtu}$

**Hedge Funding Cost
for 75,000 MMBtu/day for 15 years
at 1% Probability:**

$\$1,023,900,000$

The Hedge Funding Cost for 75,000 MMBtu at a 1% Probability (a) is the cost charged by a bank for OG&E to enable it to provide collateral to Hedge Counterparty under a Natural Gas Hedge for 75,000 MMBtu at a 1% Probability and (b) is determined by calculating the following:

$75,000 \text{ MMBtu} * \$13,652/\text{MMBtu}$

**Hedge Funding Cost
for 75,000 MMBtu/day for 15 years
at 25% Probability:**

$\$453,000,000$

The Hedge Funding Cost for 75,000 MMBtu at a 25% Probability (a) is the cost charged by a bank for OG&E to enable it to provide collateral to Hedge Counterparty under a Natural Gas Hedge for 75,000 MMBtu at a 25% Probability and (b) is determined by calculating the following:

$75,000 \text{ MMBtu} * \$6,040/\text{MMBtu}$

**Natural Gas Price
including Hedge Funding Cost
at 1% Probability:**

$\$10.99/\text{MMBtu}$

The actual price of natural gas is the sum of (a) the "fixed" Contract Price of $\$8.09/\text{MMBtu}$ and (b) the Hedge Funding Cost at a 1% Probability on a per MMBtu basis of $\$2.90/\text{MMBtu}$.

The Hedge Funding Cost at a 1% Probability on a per MMBtu basis is determined by calculating the net present value of such aggregate Hedge Funding Cost at the Discount Rate of 5.0%.

**Natural Gas Price
including Hedge Funding Cost
at 25% Probability:**

$\$9.32/\text{MMBtu}$

The actual price of natural gas is the sum of (a) the "fixed" Contract Price of $\$8.09/\text{MMBtu}$ and (b) the Hedge Funding Cost at a 25% Probability on a per MMBtu basis of $\$1.23/\text{MMBtu}$.

The Hedge Funding Cost at a 25% Probability on a per MMBtu basis is determined by calculating the net present value of such aggregate Hedge Funding Cost at the Discount Rate of 5.0%.

**Hedge Funding Cost
for 80,000 MMBtu/day for 15 years
at 1% Probability:**

\$1,092,160,000

The Hedge Funding Cost for 80,000 MMBtu at a 1% Probability (a) is the cost charged by a bank for OG&E to enable it to provide collateral to Hedge Counterparty under a Natural Gas Hedge for 80,000 MMBtu at a 1% Probability and (b) is determined by calculating the following:

$80,000 \text{ MMBtu} * \$13,652/\text{MMBtu}$

**Hedge Funding Cost
for 80,000 MMBtu/day for 15 years
at 25% Probability:**

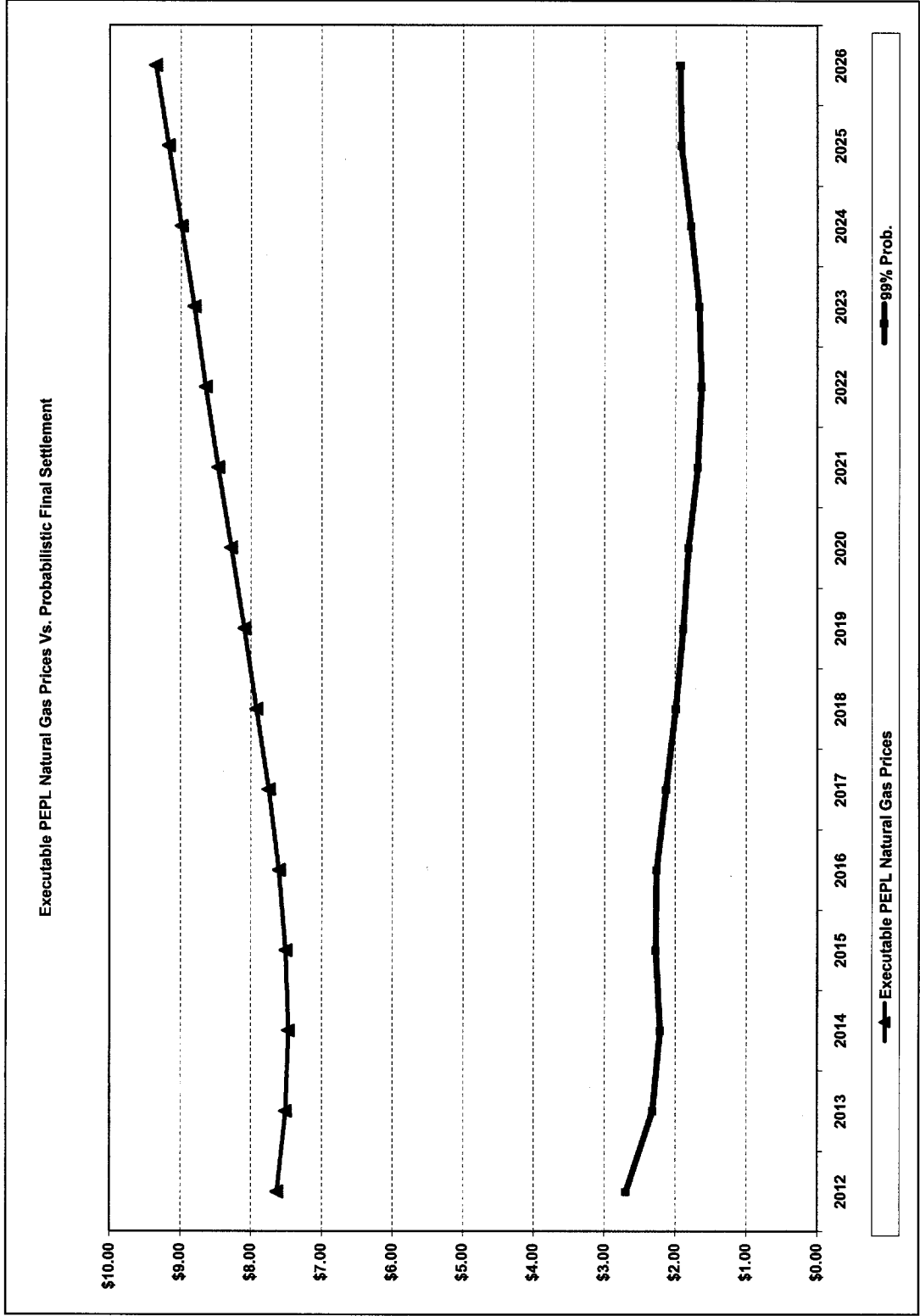
\$483,200,000

The Hedge Funding Cost for 80,000 MMBtu at a 25% Probability (a) is the cost charged by a bank for OG&E to enable it to provide collateral to Hedge Counterparty under a Natural Gas Hedge for 80,000 MMBtu at a 25% Probability and (b) is determined by calculating the following:

$80,000 \text{ MMBtu} * \$6,040/\text{MMBtu}$

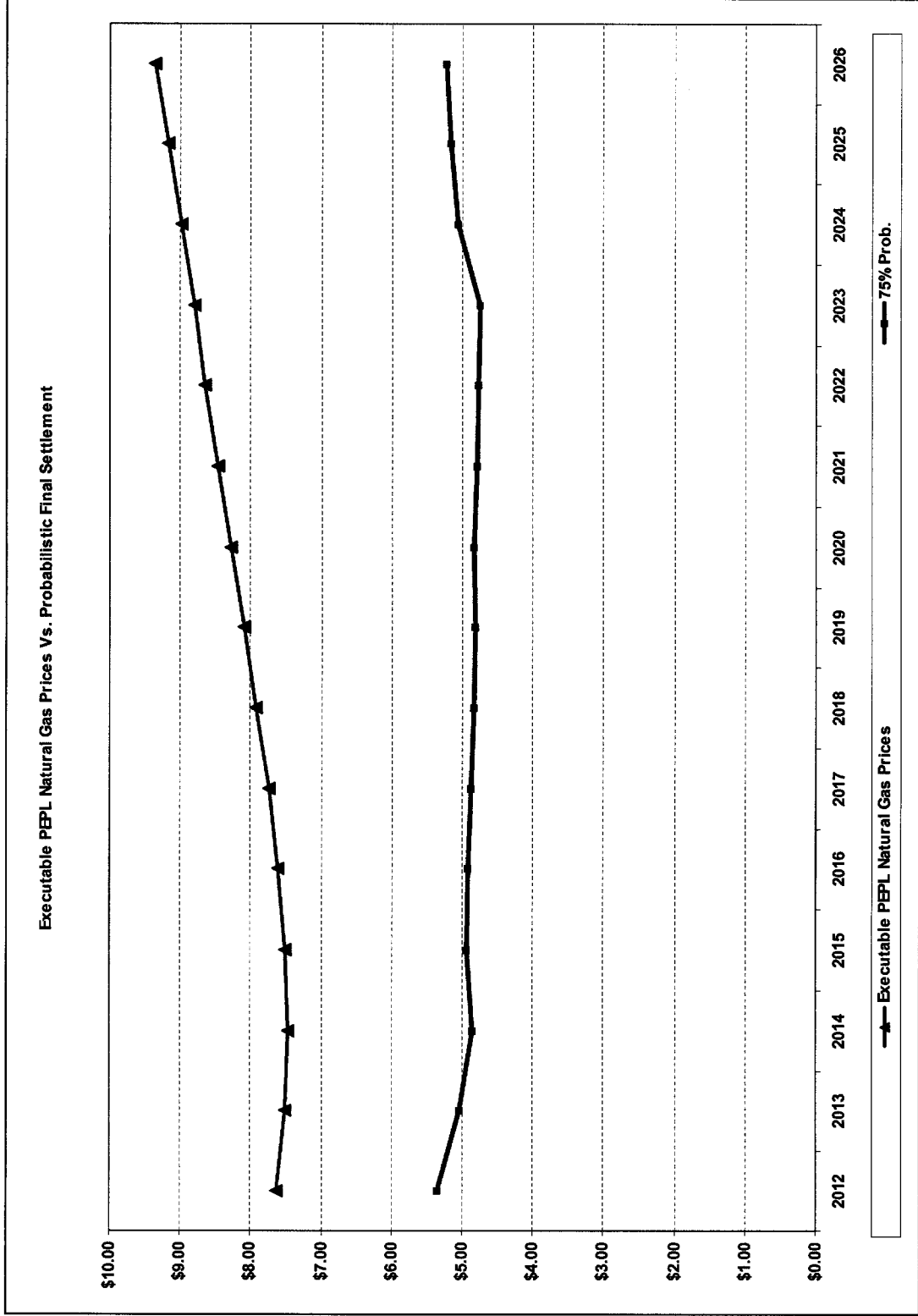
Schedule 1

P99 Price Outcomes



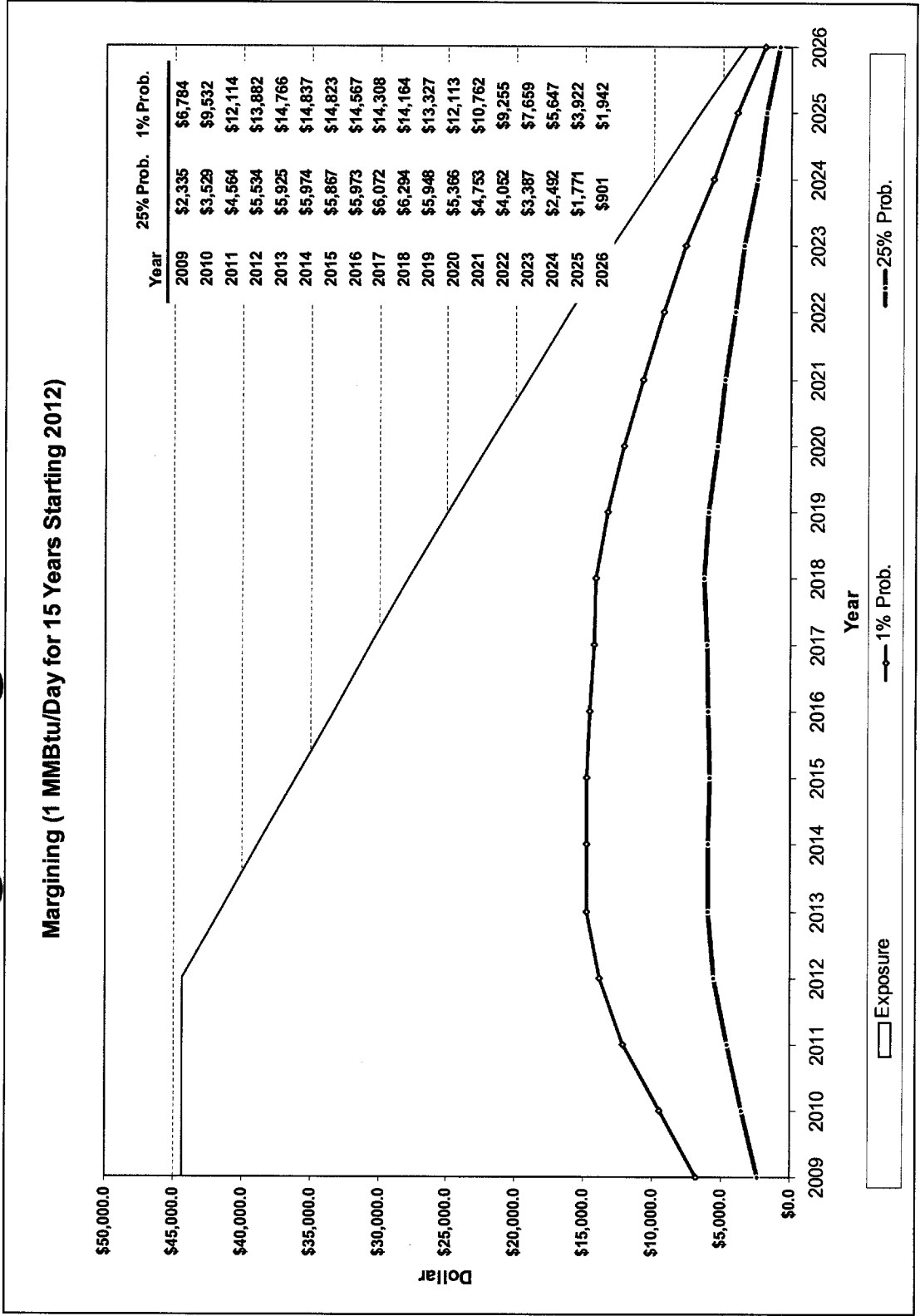
Schedule 2

P75 Price Outcomes



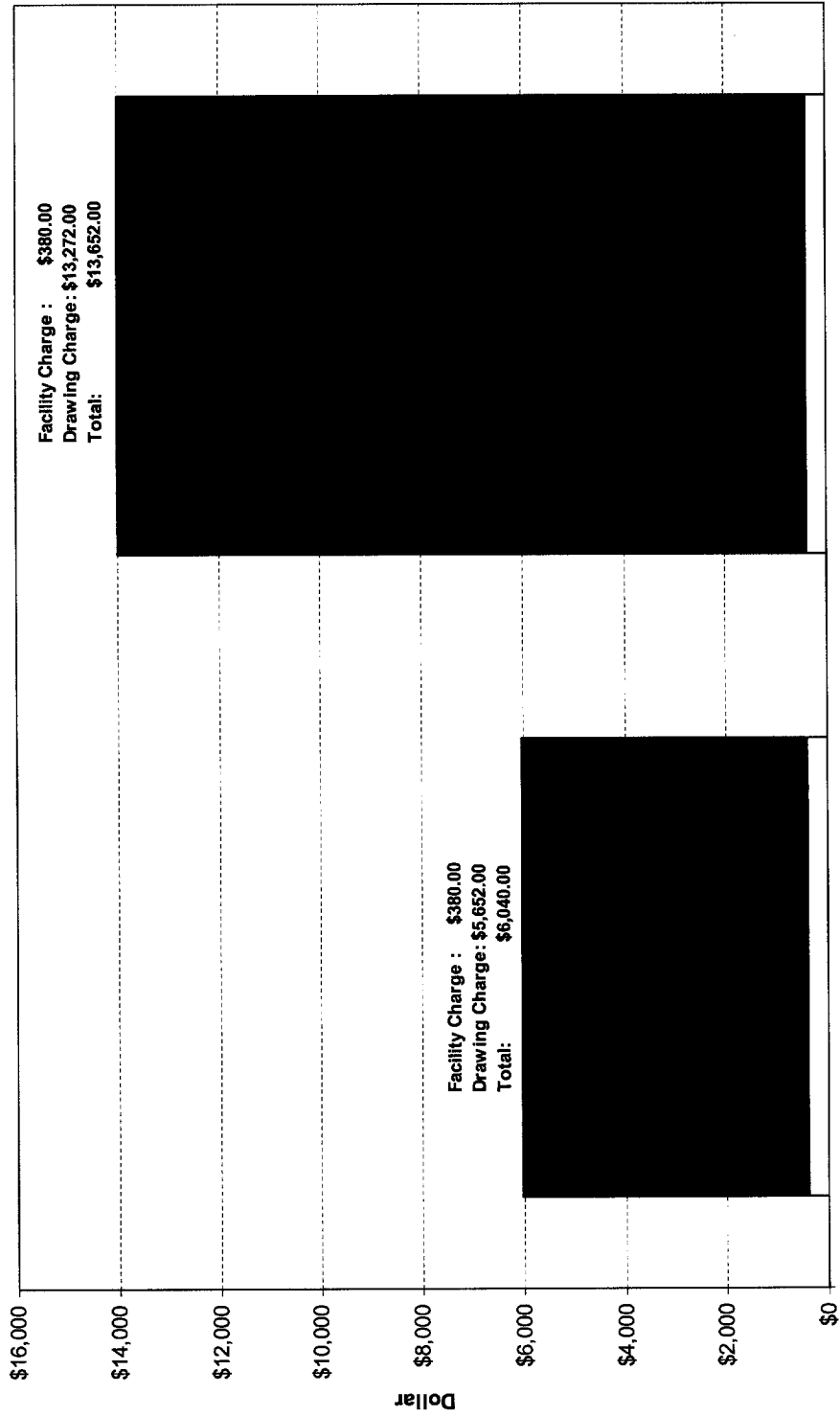
Schedule 3

Margining Potential



Hedge Funding Costs

Hedge Funding Cost (1 MMBtu/Day for 15 Years Starting 2012)



■ Drawing Charge @ 1% Prob.

■ Drawing Charge @ 25% Prob.

□ Facility Charge