IN THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE

IN RE:	)	DOCKET NO. 01-00704
	)	
UNITED CITIES GAS COMPANY, a	)	
Division of ATMOS ENERGY	)	
CORPORATION INCENTIVE PLAN	)	
ACCOUNT (IPA) AUDIT	)	

AFFADAVIT OF FRANK H. CREAMER

I, Frank H. Creamer, being duly sworn, depose and say:

1. I am a management consultant specializing in business performance, and utility regulatory matters for gas and electric utilities through my own company, Barrington Associates Inc., located at 730 Walnut Road, Barrington, Illinois, 60010. I am Director of the company.

2. I received a Bachelor of Science degree as a Getty Oil Scholar in Petroleum Engineering at the University of Oklahoma in 1973. I also received a Masters of Business Administration with honors specializing in Finance, International Business Economics and Statistics from the University of Chicago in 1989.

3. I have thirty years of energy experience worldwide, with the last thirteen years focused exclusively in the natural gas and electric utility business sectors. I have directed or advised on projects to utilities involving commission mandated audits, rate-design, affiliated interests reviews, gas supply planning and procurement, privatization preparation, M&A, shared services assessments, and regulatory compliance.

4. As a consultant to the Tennessee Regulatory Authority (TRA), I directed the Gas Purchase Prudency Audit for United Cities Gas (UCG), Nashville Gas, and Chattanooga Gas in 1993-1994; prepared an analysis of UCG's 1st year experimental Performance Based Ratemaking ("PBR") program in 1995-1996; prepared an analysis of UCG's 2nd year

experimental PBR program in 1996-1997; in 1998, served as the TRA's witness in the remand of the 1996 Phase One proceeding wherein the TRA considered continuing the PBR mechanism; and also in 1998, served as the TRA's witness for the Phase Two proceeding to determine whether to continue the PBR mechanism beyond its second year on a permanent basis.

5. From 1995 to 2002, as an Associate Partner with Accenture in the North America Utility Business Unit, I participated in projects that included business restructuring, energy marketing, gas supply planning, regulatory strategy, rate design, operational improvements, transformation outsourcing and shared services. From 1994-1995, as a Principle with Computer Science Corp (CSC), I participated in projects that included supply chain reengineering, and T&D reengineering. From 1989-1995, as Principle and head of the Natural Gas Practice for Theodore Barry & Associates (now PA Consulting), I participated in nuclear retrospective prudency audits, cost-of-service audits, general management audits, gas procurement audits, business redesign projects, gas supply designs, and gas marketing development. From 1981-1989, as Chief Engineer with Craddock Engineering, I was responsible for the engineering design and operations of the exploration and production activities of AGIP's (ENI) oil and gas operations. From 1978-1981, as V.P. of the Northern Trust Bank, I was responsible for the valuation of the energy-based portfolio of loans. From 1973-1978, as Senior Engineer with Amoco Production and Amoco International Oil Company, I was responsible for certain exploration and production activities in the US and Middle East.

6. I am providing this affidavit on the behalf of UCG in regard to the TRA's staff compliance audit of UCG's PBR mechanism for the plan year April 1, 2000 – March 31, 2001, dated April 10, 2002. The objective of the audit was to determine whether the balance in the Incentive Plan Account (IPA) as of March 31, 2001 was calculated in conformance with the terms of the PBR mechanism and to verify that the factors utilized in the calculations were supported by appropriate source documentation. I am also providing this affidavit in response to both the CAD's Memorandum in Support of Motion for Partial Summary Judgment ("CAD's Memorandum") and which included the affidavit of Stephen N. Brown, Ph.D., both

dated July 17, 2002 and the TRA Staff's Brief in Support of the Motion for Summary Judgment ("Staff's Brief") dated July 31, 2002, which included the affidavits of Pat Murphy dated July 31, 2002 and Stephen N. Brown dated July 26, 2002.

7. Specifically, I am giving my opinion on the treatment of transportation costs as one of UCG's city-gate cost components in the commodity portion of the PBR mechanism. I am also giving my opinion on the inclusion of the Nora contract and its treatment of transportation costs under the commodity portion of the PBR mechanism.

In reaching these findings, I relied on the UCG's application, final orders, testimony, Directors' Conference excerpts, UCG annual report, my report dated February 28, 1997, and notes from my March 13, 2002 meeting with TRA staff.

8. I respectfully disagree with the CAD's Memorandum's conclusion that:

> " UCG's sudden inclusion of negotiated transportation discount contracts in their IPA is a significant departure from the terms of their original IPA and violates the final order." [1]

I also respectfully disagree with the conclusion in the Staff's Brief that:

> " Neither the Phase Two Order nor United Cities' PBR Tariff provides, directly, ***or by implication***, for sharing of "savings" from discounted transportation contracts." [2] (emphasis added)

With discounted transportation costs included in the PBR as envisioned, transportation discounts qualified for distribution under the PBR plan. As I will show, the existing methodology provides the mechanism for calculation these benefits

As I will show, and as the CAD's Memorandum concludes, transportation costs were envisioned to be included in the PBR program and that to exclude them now would be a material defect in the program. [3]

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1 CAD's Memorandum in Support of Motion for Partial Summary Judgment, 7/17/02, p. 10

2 TRA Staff's Brief in Support of Motion for Summary Judgment, 7/31/02, p. 17

3 I understand that UCG has various legal arguments, which supports the content of its annual report that is the subject of the pending IPA audit. My testimony does not impact those arguments and

9. With regards to the Nora contract, I find that UCG was entitled to Nora benefits under the PBR program. As I will show, the intent of the PBR plan in accounting for Nora benefits and the recommended approach with regards to calculating benefits is well documented by the plan.

10. By way of background, the TRA, in approving the experimental PBR mechanism in 1995, noted that the agency should begin to look to incentive programs and more streamlined regulation to improve efficiency and hold down costs to consumers [4]. Consistent with the TRA objective, the TRA adopted a PBR program that was intended to span the entire spectrum of gas procurement, storage, and capacity activities. The CAD's Memorandum [5] and my testimony during the 1998 proceeding [6] confirms this intent, and notes that these gas cost related activities, which directly impact the ultimate price paid by the consumer, were initially captured through five separate and distinct PBR mechanisms [7], namely:

a) Gas Procurement

b) Seasonal Pricing Differential

c) Storage Gas Commodity

d) Transportation Capacity Cost

e) Storage Capacity Cost

In making the PBR plan permanent in 1999, the Authority did not revise either the intent nor the scope of the plan, but did simplify the PBR mechanism by collapsing the above five

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it is my understanding that it is offered in the alternative should the TRA not accept UCG's position thereon.

4 United Cities Gas Company, Second-Year Review of Experimental Performance-Based Ratemaking Mechanism: April 1, 1995 - November 30, 1996, 2/28/97, p. 7

5 CAD's Memorandum in Support of Motion for Partial Summary Judgment, 7/17/02, p. 3

6 Vol. 1 p 61, lines 6-9

7 Order of the Tennessee Public Service Commission dated May 12, 1995

mechanisms into two, as follows[8]:

a) Gas Commodity Cost

b) Capacity Release Sales

As the CAD's Memorandum notes [9], my testimony as the TRA witness recommended collapsing the five mechanisms into two, and concluded that the sharing formulas would not have to be changed. Therefore, I agree in part with the CAD's Memorandum that the intent of the PBR plan was clearly broad enough to account for the entire associated commodity cost of purchasing, delivering, and storing of gas to the end consumer and in doing so, accounted for the:

a) Costs of the commodity portion of gas

b) Costs of transporting the commodity to the city gate

c) Costs of gas storage

11. During the experimental PBR timeframe, UCG's actual transportation costs for moving the gas from the pipeline receipt point to UCG's city-gate was at the applicable undiscounted, published FERC Tariffed rate. These rates included both the pipeline demand and volumetric costs associated with natural gas pipeline transportation services. [10] Subsequent to the experimental PBR timeframe, UCG began extensive negotiations with pipeline companies seeking to obtain discounted transportation contracts for moving gas from the respective pipeline receipt points to UCG's city gate. The prospects of sharing the realized

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8 Final Order Phase II, TRA Docket 97-01464, 8/16/99, p. 28

9 CAD's Memorandum in Support of Motion for Partial Summary Judgment, 7/17/02, p. 9

10 FERC rates were comprised of three components: 1) Tariffed Transportation Demand Rate: the applicable, undiscounted, published FERC tariffed Transportation Demand Rate (TDR) was multiplied by the Demand Quantities (DQ) contracted for by UCG from its applicable pipeline transportation provider to determine the fixed cost portion of the transportation service; 2) Tariffed Transportation Commodity Rate: the applicable, undiscounted, published FERC tariffed Transportation Commodity Rate (TCR) is to be multiplied by the Actual Volumes (AV) delivered at the UCG's City Gate by its applicable transportation provider for the month to determine the variable cost portion of the transportation service; and 3) Surcharges and Direct Bills: Surcharges and Direct Bills, and other applicable amounts (S&DB) approved by FERC would include surcharges, direct bills, cashouts, take-or-pay amounts, Gas Supply Realignment and other Order 636 transition costs

transportation savings with the consumer through the PBR plan was clearly a positive incentive for UCG to actively and aggressively pursue these opportunities.

12. I respectfully disagree with the CAD's Memorandum, which implied that the transportation costs of delivering the commodity to the city-gate is captured in the second PBR mechanism, Capacity Release Sales [11]. Instead, as the Staff's Brief and Pat Murphy's affidavit found, "The negotiated discount transportation contacts are distinct from United Cities' release of transportation capacity under the Capacity Release Mechanism of the PBR Tariff." [12] [13]

I will demonstrate later in an example that the transportation cost of delivering the commodity to the city-gate was not intended to be captured in the Capacity Release Sales mechanism, but instead was intended to be captured in the commodity mechanism of the PBR plan. The Capacity Release Sales component of the PBR plan was comprised of the release of UCG's firm capacity on a short-term or long-term basis. Firm capacities were and are fixed assets that are made up of firm transportation capacity that the company maintained on upstream pipelines and/or storage. UCG released this capacity through marketing to 3rd parties the unused capacity and generated revenues, which were shared between the company and its ratepayers. Therefore, actual transportation costs, either discounted or not, were irrelevant to Capacity Release Sales mechanism.

13. The CAD's Memorandum and the CAD's response to UCG's data request[14] mischaracterizes my testimony in the Original Docket, and the testimony of James R. Harrington that "***all*** transportation prices were included in the indices" [15] (emphasis added). As discussed in the following, the indices in themselves represented only the transportation costs up to the pipeline receipt point and ***not*** UCG's costs of transporting the gas from the receipt point to the city-gate. Additionally, the testimony of Mr. Harrington referenced by the CAD clearly notes that the indices were chosen to capture the market prices at the ***various points of***

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11 CAD's Memorandum in Support of Motion for Partial Summary Judgment, 7/17/02, p. 9

12 TRA Staff's Brief in Support of Motion for Summary Judgment, 7/31/02, p. 25, footnote 74

13 Pat Murphy's affidavit, 7/31/2002, p. 3

14 CAD's Revised and Supplemental Responses to First Data Requests From United Cities Gas Company, 10/14/2002, p. 2

15 *id*, p. 14

purchase (emphasis added).[16] Hence, the indices do indeed serve as a proxy for the market place, but only with regards to commodity purchases at pipeline receipt points.

As noted in Dr. Brown's CAD affidavit [17] and as documented in the tariff [18], a basket of widely published indices was used in order to measure the commodity cost effectiveness of UCG's gas purchasing decisions:

a) Inside FERC -- First day of the month for one month or longer purchases

b) NYMEX – Monthly close price for one month or longer purchases

c) Natural Gas Intelligence - Bid week average published index price for one month or longer purchases

d) Gas Daily – First day of the transaction price for mid month or incremental purchases only

The above indices included only the upstream transportation cost to get the gas from the well head to pipeline receipt point and does not include UCG's cost of transporting the gas from the pipeline receipt point to the city-gate. For example, Inside FERC tracts first-of-the-month bidweek price reports for monthly spot gas delivered to 46 locations on 25 pipelines. Reported for each pipeline receipt point is a price range and an index price. The index price is an assessment of the price at which the majority of dealmaking occurred for the pipeline ***delivery location***. [19]

14. Dr. Brown stated in his CAD affidavit that the tariff directed UCG to compare its actual prices to an average of prices derived from all three price indices, which in turn are "accepted as representing all pipelines in the market". [20] As noted above, these price indices, in themselves, are commodity only based indices, and do not contain downstream transportation costs, i.e. the transportation cost from the pipeline receipt point to the company's city gate,

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16 Prepared Direct Testimony of James R. Harrington, 8/13/1997, p. 23, line 3

17 CAD affidavit of Dr. Stephen N. Brown, ¶ 6, p 2

18 Tariff of United Cities Gas Company, A Division of Atmos Energy Corporation, TRA No. 1, 1st Revised Sheet No. 45.1, Canceling Original Sheet No. 45.1, Issued by Thomas R. Blose, JR., President, Dated issued March 16, 1999, Effective Date: April 1, 1999 at Original Sheet No. 45.6, p. 1

19 McGraw-Hill's U.S. Natural Gas Methodology

20 CAD affidavit of Dr. Stephen N. Brown, ¶ 6, p 2

without the appropriate transportation cost adjustors [21]. Consequently, I respectfully disagree with Dr. Brown's conclusion and find that the actual prices paid by UCG for both commodity and transportation cannot and should not be compared to the average of prices derived from all three price indices, in absence of the application of the transportation cost adjustments.

15. Dr. Brown concluded that UCG's comparison of actual transportation cost to a single pipeline's maximum price of transport does not allow comparison to actual transportation prices achieved throughout the entire market [22]. I respectfully disagree with Dr. Brown's conclusion that the maximum FERC rate cannot serve as indicator of prices achieved in the market [23]. For instance:

a) UCG negotiates discounts off of FERC approved rates, not off commodity-based indices

b) The approved, maximum FERC rate has been accepted elsewhere in the industry as true market indicator of a long-term, firm transportation costs [24]

c) The maximum FERC rate would serve as the benchmark for any PGA audit or prudence review. If, for example, the downstream, firm transportation costs were excluded in the PBR, the TRA would be required to establish the basis for comparing actual firm transportation costs to a standard of prudence, e.g. approved, maximum FERC rates

d) A review of all of the transportation contracts negotiated by UCG reveals that the majority of contracts were priced at the maximum approved FERC rate

e) The approved Nora arrangement, per the existing PBR plan, relied on the maximum FERC rate in calculating the transportation cost adjustor to the commodity market indexes

16. The intent of any PBR program is to incent the company to aggressively pursue and exploit any and all cost saving opportunities and by doing so, share the benefits (or losses) with the consumers under an equitable sharing formula based on actual performance. Transportation discounts, as a feature of the marketplace, is an example of cost saving

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21 Transportation cost adjustors

22 *id*

23 CAD affidavit of Dr. Stephen N. Brown, ¶ 6, p 3

24 PBR plans for LG&E, and Western Kentucky Gas

opportunities. The discounts must be aggressively pursued, and are not routinely available just for the asking. For example, Atmos as a whole holds transportation contracts with 28 interstate pipelines, but has only two pipelines which offer discounts on all of their contracts. Ten of the pipelines have agreed to discounts on some, but not all of the contracts. Therefore, Atmos has, in fact, been unsuccessful in obtaining discounts from the majority of the available pipelines. Similarly, UCG's Tennessee service territory is served by six pipelines, none of which have discounts on ***all*** of UCG's contracts. Only three pipelines serving UCG's territory have some contracts that are discounted. Therefore, half of UCG's pipelines serving UCG's territory have no discounted contracts[25]. Additionally, UCG held a total of 16 contracts on the six pipelines servicing its Tennessee territory, of which 11 contracts were undiscounted and priced at the maximum FERC rate.[26] This magnitude of undiscounted contracts demonstrates that discounts were not routinely and easily granted, and required UCG to actively seek and negotiate discounts. Furthermore, the maximum FERC rate is the market indicator for transportation costs during the applicable time period.

17. The best measure of UCG's success in seeking lower cost, firm transportation arrangements that would impact the ultimate total cost of gas to the ratepayer would be its ability in:

a) Obtaining discounts off of FERC maximum approved price;

b) Ability to sustain these discounts upon renewal or renegotiation;

c) Maximize the discount off the approved price that UCG receives from its pipeline transportation provider for the specific and unique pipeline transportation paths, e.g. receipt point to city gate.

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[25] East Tennessee, Columbia Gulf, and Tennessee Gas have some discounted contracts; Texas Gas, Southern Natural, and Texas Eastern have no discounted contracts

[26] UCG held two contracts on Tennessee Gas. One of these contracts was a partially discounted contract. This partially discounted contract provided a transportation rate that moves the commodity from Zone 0-1 at the maximum FERC rate, whereas the transportation rate that then moves the gas through Zone 1-1 to UCG's city gate is at a discount off maximum FERC rate. The other Tennessee Gas contract is priced at the maximum FERC rate. UCG also holds three contracts on Columbia Gulf, only one of which is discounted. UCG also holds four contracts on East Tennessee, three of which are partially or fully discounted.

18. I respectfully disagree with Dr. Brown's conclusion in his CAD affidavit that transportation costs vary widely and therefore, the maximum price is not a market index or a benchmark [27]. Each pipeline seeks and receives an approved FERC rate, the maximum the pipeline transportation provider is allowed to charge. These maximum-approved rates are for firm, long-term transportation arrangements, not for short-term, interruptible service. As noted above, following the experimental PBR plan period, discounted firm transportation contracts began to be a feature of the marketplace and accordingly, have been aggressively pursued by UCG. As noted above, UCG currently holds ***some*** discounted firm transportation contracts on ½ of its pipelines serving the Tennessee territory, which are a result of successfully negotiating discounts off the maximum approved FERC rates. The remaining ½ of UCG's pipelines provide no discounted firm transportation contracts and are priced at the FERC approved transportation rate. Therefore, the benchmark was indeed the FERC approved transportation rates, which were the market-clearing price for the majority of the firm transportation contracts and the basis for the negotiations for any discounts. The approved FERC rate is unique to a pipeline, and to a pipeline's receipt point and delivery point. These prices do not in fact vary widely, but instead are specific to the contract type (e.g. delivery/receipt points, volumes, seasonality, and duration). Therefore, the approved FERC transportation rates serve as the most objective benchmark for the transportation component of total gas costs.

19. A published index for transportation costs does not currently exist. Although FERC, in 1996, required pipelines to file Discount Transportation Reports, which provided particular information regarding discounted rates, either firm or interruptible, the report is not a reliable source of information regarding firm transportation arrangements. My review of the reports indicated that certain transportation transactions that were reported were found to be capacity release, even though a pipeline was not required to file this information if the discount was related to the release of capacity. Nonetheless, the reported discounted transportation arrangements were not differentiated between firm, forward haul, backhaul, interruptible and/or winter only service. Consequently, prices would have been found to vary widely when making

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27 CAD affidavit of Dr. Stephen N. Brown, ¶ 6, p 3

an apples-to-oranges comparison between firm, interruptible, and capacity release arrangements.

20. As noted in my report [28], the above referenced indices were used in order to measure the commodity cost effectiveness of UCG's gas purchasing decisions (e.g. Inside FERC, NYMEX, Natural Gas Intelligence, and Gas Daily). These indices would be adjusted depending on whether the purchases were long-term and if so, if they were upstream or ***at the city-gate*** (emphasis added). The two adjustments were:

a) Competitive Bid Adjustment for long-term upstream (spot or swing) purchases, using the three-year rolling average of long-term contract premium over spot

b) Avoided Cost Adjustment for long-term city-gate (spot or swing) purchases, using the ***appropriate pipeline transportation cost*** (emphasis added).

The table below summarizes the formulas for each of the procurement-related transaction possibilities:

Category	Monthly	Long-term Upstream	Long-term @ City Gate
Spot Gas Purchases	Average of the three market indexes (FERC, NYMEX, NGI)	Average of the three market indexes + Competitive Bid Adjustment	Average of the three market indexes + Competitive Bid Adjustment + Avoided Cost Adjustment
Swing Purchases	Gas Daily Index	Gas Daily Index + Competitive Bid Adjustment	Gas Daily Index + Competitive Bid Adjustment + Avoided Cost Adjustment

Using the above table, each purchasing decision was mapped to the appropriate category in order to determine the relevant index and ***adjustors for transportation costs***. During the experimental period, if gas purchases were less than 98% of the benchmarks, savings were

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28 United Cities Gas Company, Second-Year Review of Experimental Performance-Based Ratemaking Mechanism: April 1, 1995 - November 30, 1996, 2/28/97, p. 8

earned and shared equally by the ratepayer and the company. If purchases exceeded 102% of the benchmarks, penalties were calculated and also shared equally between the ratepayer and the company. When gas purchases fell between 98% - 102%, no gains or penalties were calculated. Following the experimental period, the PBR plan was made permanent in 1999 with the changes, among others, in the deadband to 97.7% - 102% [29]. Furthermore, at the end of each three-year period beginning in 2002, the deadband will be readjusted to 1% below the most recent annual audited results of the incentive plan. Consequently, the commodity mechanism was intended to include a transportation cost component through the above referenced transportation cost adjustor.

21. An example of the use of how the transportation costs are used in calculating gains or losses was the Nora arrangement, which supplied gas to UCG's Tennessee and Virginia service territory and dealt with special purchases at UCG's distribution system. Purchases made under the Nora contract avoid or reduces transportation costs on UCG's pipelines. This transportation cost savings was calculated based on the approved FERC maximum rate for the purposes of calculating the benchmarked cost. It was labeled as Avoided Costs and is a key element of the benchmark formula. The approved FERC maximum rate included both the pipeline demand and volumetric costs as follows:

a) Tariffed Transportation Demand Rate

b) Tariffed Transportation Commodity Rate

c) Surcharges and Direct Bills

Although the Nora contract was initially excluded from the permanent PBR program, the Authority, on November 8, 2001, entered an order granting permission to include the newly renegotiated NORA contract in the PBR [30]. The Authority held:

> Upon a careful review of the petition, and of the entire record in this matter, the Authority approved United Cities' request to include transactions under the new NORA contract in its Incentive Plan.

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29 Final Order Phase II, TRA Docket 97-01464, 8/16/99, p. 22

30 Order, Docket No. 00-00844

The Nora contract is a long-term contract. The Avoided Costs are added to the average of the three indexes (FERC, NGI, and NYMEX) to arrive at an "Average Index" price. This Average Index price is a bundled index with both commodity and transportation components. Gains/penalties are then calculated if the invoiced price is 97.7% or less than the Average Index price (Gains) or 102% or more than the Average Index price (Penalties).

The table below demonstrates these calculations:

Category	Index ($/MMBTU)	Cost ($/MMBTU)	Gains/losses ($/MMBTU)
Supplier Invoice Price (commodity) [31]		N/A	
Pipeline Invoice Price (transportation) [32]		N/A	
Total Bundled Invoice Price (commodity and transportation)		$6.3050	
Average of Commodity Only Indexes	$6.1893		
Plus Transportation Cost Adjuster from the Benchmark FERC Approved Max. Demand Rate	$0.3522		
Bundled Index (commodity and transportation)	$6.5415		
97.7% of Bundled Index (Gains)		$6.3910	$0.086
102% of Bundled Index (Losses)		$6.6723	

Note: Above values are hypothetical but are representative of actuals during the audit year.

The above methodology correctly outlines the manner in which the PBR plan envisioned the

31 Invoiced volumes -- MMBTU

32 Demand rate based on MDQ, not actual throughput

treatment of the Nora benefits, and notes that:

d) The Nora arrangement compares the total bundled cost at the city gate, e.g. commodity and transportation, to a market index that includes both commodity and transportation costs

e) The FERC maximum approved rate is used as the benchmark to adjust the commodity indices and therefore, bundle both the commodity and transportation cost into a single market index

f) Benefits are calculated subject to the 97.7% - 102% deadband

22. By analogy, the city gate cost of other, non-Nora gas purchases would include both a commodity and transportation cost component. Therefore, UCG's actual transportation cost to deliver the gas from the pipeline receipt point to UCG's city gate would be bundled with the relevant commodity purchase to determine the actual city gate cost. As with Nora, this bundled, city gate cost would be compared to the market index, which includes a both commodity and transportation benchmark component. Also as with Nora, gains available to UCG would only occur if UCG's actual costs were better than 97.7% of the benchmark. Losses would occur if UCG's actual costs were more than 102% of the benchmark. Benefits or losses would be shared between UCG's customers and UCG on a 50% / 50% basis and subject to the earnings cap.

The following table demonstrates the above for a specific supplier and transportation delivery path:

Category	Index ($/MMBTU)	Cost ($/MMBTU)	Gains/losses ($/MMBTU)
Supplier Invoice Price (commodity) [33]		$6.0928	
Pipeline Invoice Price (transportation) [34]		$0.2339	
Total Bundled Invoice Price (commodity and transportation)		$6.3267	
Average of Commodity Only Indexes	$6.1893		
Plus Transportation Cost Adjuster from the Benchmark FERC Approved Max. Demand Rate	$0.2355		
Bundled Index (commodity and transportation)	$6.3545		
97.7% of Bundled Index (Gains)		$6.2083	$0
102% of Bundled Index (Losses)		$6.4815	$0

Note: Above values are hypothetical but are representative of actuals during the audit year.

As demonstrated in the above table, and again, similar to Nora, the bundled cost of commodity with its associated transportation cost is compared to single index, which includes a commodity and transportation component. The transportation component of the index relies on the approved FERC rate for the various unique pipeline delivery paths for the commodity.

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33 Invoiced volumes -- MMBTU

34 Since none of UCG's pipelines offer discounts on all their transport contracts, the Pipeline Invoice Price would reflect, therefore, both discounted and undiscounted transportation arrangements for each of the unique transporting delivery paths for the commodity. Assume that no commodity transportation charges or fuel charges, for illustrative purposes. Demand rate based on MDQ, and divided by 30.4 days/month to yield the rate associated with the delivery of the commodity.

Also of note in the above example, although both the commodity portion and the transportation portion of the city-gate cost were below the Bundled Index, the benefits, in this example, would accrue 100% to the consumer due to the deadband calculation

23. The previous section demonstrates, in concept, how the calculation of benefits would be performed. The calculation would rely on determining the specific transportation costs, both discounted and undiscounted, for a unique delivery path and in some instances, multiple delivery paths for a particular commodity. A FERC published rate for each delivery path would be determined and then applied as the transportation component in the bundled market index. However, rather than track both discounted and undiscounted transportation costs associated with each gas commodity purchase and map these purchases to a unique, and sometimes multiple delivery paths, a simpler reporting and tracking format is recommended, as follows:

a) Calculate the total actual monthly transportation cost paid by UCG under each of its discounted and undiscounted transporting pipeline contracts for the state of Tennessee[35]

b) Allocate the total actual monthly transportation costs to each of UCG's supplier commodity purchases in order to calculate a total bundled price for that purchased commodity. The resulting total price for that commodity purchase would then reflect both commodity and transportation costs[36]

c) Determine the Transportation Cost Adjuster utilizing the FERC Approved maximum transportation rates, both fixed and variable[37]. As in Nora, add

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[35] Sum the actual invoiced transportation costs, both fixed and variable, for each of UCG's transporting pipeline contracts, associated with delivery of the commodity from the pipeline receipt point to UCG's delivery point(s) in the state of Tennessee

[36] Divide UCG's total transportation costs for the state of Tennessee be by the total commodity supplier purchases for the month in order to determine a transportation cost per MMBTU allocation factor. Each of the supplier's commodity purchases would be multiplied by the transportation allocation factor to determine the actual transportation cost allocated to that specific supplier's commodity purchase and therefore, reflect the allocated transportation cost to move the commodity from the pipeline receipt point to UCG's city gate

[37] As in Nora, for each transporting pipeline contract, use the maximum FERC rate to determine the benchmark cost for the transportation component of the market index. Undiscounted contracts would, of course, have the same actual transportation costs as the benchmark for that contract. The discounted contracts would show some amount of avoided transportation costs. As in Nora, these benchmark transportation costs, based of maximum FERC rates, include both the pipeline demand and volumetric

this Transportation Cost Adjuster to the Commodity Index so as to determine a bundled market index, that includes both commodity and transportation components, against which performance would be determined

d) Calculate the average of the three Commodity only indexes, in the same manner used for all commodity purchases as laid out in the PBR plan

e) Add the Transportation Cost Adjuster calculated in step c) above to the Commodity only index from step d) above in order to determine the bundled index, as in Nora. This Market index serves as the standard of performance against which UCG's commodity purchases, and the transportation costs of delivering that commodity to UCG's city gate would be compared

f) Compare actual bundled costs (both commodity and transportation) against the Market index to determine gains/losses. Apply the deadband to determine the amount of gains /losses that would be shared between the ratepayer and UCG under the 50/50 sharing formula.

The following table illustrates the above methodology for a single month and for a single

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costs and would be based on the Tariffed Transportation Demand Rate, Tariffed Transportation Commodity Rate and Surcharges and Direct Bills

supplier commodity purchase contract:

Category	Cost ($)	Volumes (MMBTU)	Index ($/MMBTU)	Cost ($/MMBTU)	Gains/losses ($/MMBTU)
Supplier Invoice Contract Price (commodity) [38]	$1,696,509	387,393		$4.3793	
Total Purchased Volumes[39]		1,270,798			
Actual Pipeline Invoice Cost (transportation) for entire state of Tenn.[40]	$1,957,357				
Actual Transportation Cost Allocation Factor [41]				$1.5403	
Totaled Bundled Actual Cost[42]				$5.9196	
Benchmark FERC Approved Max Rate (all transportation contracts)	$2,199,570				
Transportation Cost Adjuster			$1.7309		
Average of Commodity Only Indexes			$4.4670		
Bundled Index (commodity and transportation)			$6.1979		
97.7% of Bundled Index (Gains)				$6.0553	$0.1357
102% of Bundled Index (Losses)				$6.3219	

38 Invoiced volumes -- MMBTU

39 Excluding Nora, so as to not double count

40 Invoiced actual costs

41 Actual, total transportation costs for Tenn. divided by the purchased volumes for Tenn.

42 Sum of actual commodity cost and allocated actual transportation cost

Note: Above values are representative of actuals for a single month for a single supplier during the audit year. A similar calculation, using the above methodology for the remaining supplier contracts would be conducted, as well for the remaining months of the plan year.

24. In summary, the cost to deliver the gas from the pipeline receipt point to the city-gate can be captured by the PBR mechanism:

a) The total bundled cost at the city gate, e.g. commodity and transportation, is compared to a market index that includes both commodity and transportation costs

b) FERC approved rate is used as the benchmark to adjust the commodity indices and therefore, bundle both the commodity and transportation cost into a single market index

c) The 97.7% - 102% bandwidth is applied to calculate gains and losses. Benefits are shared 50/50 between the ratepayer and UCG

25. To now exclude transportation costs, as a component of the PBR program would be a material defect in the plan. A fundamental requirement of any PBR program is to incent proper business decisions and not reward the company at the ratepayer's expense. In order to satisfy this design principle, the PBR program must include transportation costs in order to satisfy the intent of the TRA. For example, if transportation costs were excluded from any PBR performance calculations, a utility could pass on to the ratepayer relative high transportation costs arrangements that were obtained in order to secure relatively lower commodity costs and thereby earn benefits under a PBR formula that relied on pure commodity costs alone. This clearly was not the intent of the PBR program as envisioned by the TRA in their final order.

26. In summary, I believe the intent of the PBR plan was to be all-inclusive of any and all associated costs of gas to the ratepayer, and include without limitation transportation expenses. Therefore, the discounted and avoided transportation costs from the pipeline receipt point to UCG's city-gate would:

a) Not require a modification of the formula

b) Be captured in the Gas Commodity Cost component of PBR plan

c) Be bundled with actual commodity purchase costs and compared to the bundled market index, as in the Nora arrangement

d) Rely on the maximum approved FERC rate for the transportation component benchmark in the bundled market index, as in the Nora arrangement

e) Be subject to the 97.7% -102% benefits sharing formula and the $1.25 million earnings cap.

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Dated: 10/19/02

"OFFICIAL SEAL"
JESSICA A. ROEDL-BAUER
Notary Public, State of Illinois
My Commission Exp. 05/30/2004

Sworn and subscribed before
me this 19th day of October, 2002

NOTARY PUBLIC

My commission expires: 5/30/04

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served via facsimile and/or hand delivery on October 21, 2002.

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