BEFORE THE

PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Consolidate Rates and Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of The Company.	))))))	Case No. GR-2006-0387

Affidavit of Donald Johnstone

State of Missouri)
) ss
County of Miller)

Donald Johnstone, of lawful age, on his oath states: that he has reviewed the attached written testimony in question and answer form, all to be presented in the above case, that the answers in the attached written testimony were given by him; that he has knowledge of the matters set forth in such answers; that such matters are true to the best of his knowledge, information and belief.

Donald Johnstone

Subscribed and sworn before me this 26th day of September, 2006

Notary Public

SEAL]

DENISE BAKER
Notary Public - Notary Seal
STATE OF MISSOURI
Miller County
My Commission Expires: June 17, 2007

My Commission expires: 6-17-07

Noranda 400
Date 11-30-06 Case No. GR-2006-0387
Reporter PF

Madrid, Missouri, to recommend that the Gas Transportation Agreement between Atmos and Noranda (the "Agreement") be honored, and to recommend the Agreement be adopted as a rate schedule.

The Noranda facility that receives service from Atmos is described in the testimony of Mr. George Swogger that is also being filed on the date. Like Mr. Swogger, I will refer to the facility as the "Smelter."

Q WHAT SERVICE DOES ATMOS PROVIDE TO THE SMELTER?

A Atmos provides interruptible transportation service. This service consists of accepting delivery of natural gas owned by Noranda from an interstate pipeline and delivering the natural gas to Noranda. However, Atmos does not have sufficient capacity to enable it to deliver natural gas to the Smelter during periods of high system demand. Consequently, the transportation service is interruptible. Noranda maintains a propane system to use when natural gas is unavailable. But natural gas is the preferred fuel and it is used when it is available.

Q DOES THE SMELTER USE LARGE QUANTITIES OF NATURAL GAS?

A Yes. Historically the Smelter has been the largest customer of Atmos and its predecessor, Associated Natural Gas Company ("ANG"). Prior to the Agreement Noranda was the only customer receiving service under the large volume rate schedule.

investigate the possibility that the service to Noranda utilized only transmission facilities and did not utilize distribution facilities such as distribution lines, regulators and service lines. In fact, that was the finding and it was confirmed by ANG.

Q IS IT IMPORTANT TO DETERMINE WHICH FACILITIES ARE USED TO PROVIDE SERVICE?

A Yes. In order to correctly determine the cost of providing any service the first step is to define the service and to identify the facilities used to provide the service. For a large customer like the Smelter it is not unusual to find that the myriad facilities that are needed to provide service to the multitude of smaller customers are simply unneeded and not used in providing the large volume service.

For example, the Smelter is connected to an 8 inch transmission line. It is probably obvious, but to illustrate the point I will discuss service lines in contrast to the transmission line. The many service lines, that are typically less than 1 inch in diameter for the smaller customers, could not possibly be used in providing service to Noranda. There is no physical proximity, no physical path for the gas, and no way to move the quantities of gas needed by the Smelter though such small pipes. This same situation extends to the distribution lines that are not used in providing service to the Smelter.

transmission facilities the depreciation rate is 2.43%. Unfortunately, over the years Noranda has provided revenues far in excess of cost and it has been very difficult to resolve the problem.

Q DO THESE FIGURES ILLUSTRATE WHY NORANDA WOULD CONSIDER A BYPASS OF ANG OR ATMOS?

A At a very rough level these figures illustrate the low cost of the facilities necessary to move natural gas from a pipeline to Noranda. They also illustrate on the same very rough level how easy it would be for Atmos to compete with a bypass in an economic sense. I must point out, however, that I was not the consultant used by Noranda in the context of the bypass and the negotiation of the current contract. Consequently, I have no knowledge of the costs actually considered by Atmos or Noranda.

Instead, what I am here to address is the work that went into properly identifying the ANG/Atmos costs incurred to serve the Smelter. The lack of any progress towards an equitable cost-based rate before the Commission was a cause of serious concern for Noranda that gave rise to the appeals of the Commission decision and later the Agreement between Noranda and Atmos. The Agreement allowed the case to finally be dismissed as moot in January of 2003, six years after it started.

development of a rate, I am advised by my client, Mr. Swogger, that Noranda fully intends to honor its commitments under the Agreement between Noranda and Atmos. Noranda expects the same from Atmos and is hopeful that the possibilities of relitigating the Noranda rate/Agreement will be minimized. The contract has a ten year term that began January 1, 2003. Thus the parties are in the fourth year of the Agreement and six years remain.

Q SHOULD THE COMMISSION TAKE ANY ACTION WITH RESPECT TO THE CONTRACT?

A I recommend that it be adopted as a confidential rate schedule and made a part of the Atmos tariff.

Q WOULD THAT MAKE IT SUBJECT TO CHANGE BY THE COMMISSION?

A While I am not an attorney, it is my understanding that rates for regulated service are subject to review and change pursuant to a proper order of the Commission.

On the other hand, the contract prices for the remaining six years of the agreement are defined and set at a level that is substantially above the current 6.1 cent per MCF estimated cost to serve the Smelter. Inasmuch as Noranda and Atmos are both satisfied with the Agreement I believe it is appropriate to allow it to stand and be made a rate schedule. All of the other customers will

1 Q **DOES THIS CONCLUDE YOUR TESTIMONY?**

2 A Yes it does.

demand and net output forecasts and load behavior studies which included such factors as weather, conservation and seasonality. I also analyzed the cost of replacement energy associated with forced outages of generation facilities. In the Corporate Planning Function, my assignments included developmental work on a generation expansion planning program and work on the peak demand and sales forecasts. From 1977 through 1981, I was Supervisor of the Load Forecasting Group where my responsibilities included the Company's sales and peak demand forecasts and the weather normalization of sales.

In 1981, I began consulting, and in 2000, I created the firm Competitive Energy Dynamics, L.L.C. As a part of my twenty-four years of consulting practice, I have participated in the analysis of various electric, gas, water, and sewer utility matters, including the analysis and preparation of cost-of-service studies and rate analyses. In addition to general rate cases, I have participated in electric fuel and gas cost reviews and planning proceedings, policy proceedings, market price surveys, generation capacity evaluations, and assorted matters related to the restructuring of the electric and gas industries. I have also assisted companies in the negotiation of power contracts representing over $1 billion of electricity.

I have testified before the state regulatory commissions of Delaware, Hawaii, Illinois, Iowa, Kansas, Massachusetts, Missouri, Montana, New Hampshire, Ohio, Pennsylvania, Tennessee, Virginia and West Virginia, and the Rate Commission of the Metropolitan St. Louis Sewer District.

Exhibit No.: _____
Issues: Class Cost of Service/Rate Design
Witness: John W. Mallinckrodt
Type of Exhibit: Direct Testimony
Sponsoring Party: Noranda Aluminum, Inc.
Company: Associated Natural Gas Company
Case No.: GR-97-272

Before the
Missouri Public Service Commission

In the Matter of Associated Natural Gas Company's Tariff Revised Designed to Increase Rates for Gas Service to Customers in the Missouri Service Area of the Company	)	Case No. GR-97-272

Testimony and Schedules of

John W. Mallinckrodt

On Behalf of

Noranda Aluminum, Inc.

July 1997
Project 6707

Brubaker & Associates, Inc.
St. Louis, MO 63141-2000

Before the
Missouri Public Service Commission

In the Matter of Associated Natural Gas Company's Tariff Revised Designed to Increase Rates for Gas Service to Customers in the Missouri Service Area of the Company	)	**Case No. GR-97-272**

Direct Testimony of John W. Mallinckrodt

1 Q **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A John W. Mallinckrodt, 1215 Fern Ridge Parkway, Suite 208; St. Louis, Missouri 63141-

3 2000.

4 Q **PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE.**

5 A This is set forth in Schedule A to my testimony.

6 Q **ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

7 A I am appearing on behalf of Noranda Aluminum, Inc.

8 Q **ON WHAT SUBJECTS HAVE YOU BEEN ASKED TO TESTIFY?**

9 A I have been asked to testify in regard to cost as the appropriate basis for establishing

10 class revenue requirements and the design of the large industrial interruptible rates.

customers receive a balanced price signal against which to make their consumption decisions. If rates are not based on costs, then the choices can be distorted.

In terms of engineering efficiency, when rates are designed so that demand, customer and commodity costs are properly reflected in the rate structure, customers are provided with the proper incentive to minimize their costs, which will in turn minimize the costs to the utility.

With respect to equity, when rates are based on costs, each customer pays what it costs the utility to serve him, no more and no less. To the extent rates are not based on costs, some customers are required to pay part of the costs associated with service supplied to other customers, which clearly violates the principle of equity.

Also, to the extent that rates do not reflect costs, multi-plant firms will be encouraged to shift production from high energy cost plants to lower energy cost plants in order to remain competitive. Such a shifting of production would reduce employment and the overall contribution of the manufacturing concern to the state and local economies. This would require that the rates to the remaining customers be increased if ANG's fixed cost coverage were to be maintained, which, in turn, would be self-defeating to the presumed beneficiaries of below-cost rates. To the extent that industrial customers are intentionally overcharged in an attempt to extract from them a higher contribution to fixed costs, the potential for load loss is greatly increased.

Customer Class Characteristics

Q DO THE CUSTOMER CLASSES HAVE DIFFERENT CHARACTERISTICS WHICH LEAD TO DIFFERENT COST RESPONSIBILITIES?

A Yes, they do. Two class characteristics that I have examined for the Southeast Missouri Division (SEMO) of ANG are load factor and average monthly use per customer.

Q **DO THESE CUSTOMER CLASS CHARACTERISTICS HAVE AN IMPACT ON THE AVERAGE COST TO SERVE THE CUSTOMER CLASSES?**

A Yes. A high load factor indicates that the customer's use of utility facilities is quite efficient. The result is that the fixed cost associated with the facilities to serve a high load factor customer is spread over a relatively large amount of consumption, and therefore the per unit cost is significantly less than for low load factor customers. Of course, when a customer not only has a high load factor but is also interruptible, efficiency is further increased as the utility is not required to make investments that would be needed to serve the interruptible customer at the time of the system peak.

A high average use per customer also is an indication of a lower average cost. This occurs because customer-related costs, such as meters, services and billing, are spread over many more units of consumption with the result being a much lower unit cost.

ANG Class Cost of Service

Q **HAS ANG PREPARED A CLASS COST OF SERVICE STUDY?**

A Yes. ANG has prepared a study based on the test year ended July 31, 1996. The study develops the cost to serve customers under the Company's existing rate schedules.

Q **HAS ANG ALSO PREPARED AN ADJUSTED CLASS COST OF SERVICE STUDY?**

A Yes. ANG in response to Noranda's First and Second Set of Data Requests has provided corrections and changes in its class cost of service study. ANG submitted in response to Data Request No. 7 of Noranda's Second Set of Requests, revised Schedules H-1-a, H-1-b and H-1-c for SEMO. These revised schedules were utilized to prepare the comparisons shown in the following schedules and to prepare the Noranda recommended cost of service study.

Company Proposed Increase

Q WHAT INCREASE HAS BEEN PROPOSED BY THE COMPANY IN THE ADJUSTED STUDY AND HOW HAS THE INCREASE IN REVENUES BEEN SPREAD AMONG THE CUSTOMER CLASSES?

A ANG has proposed an overall increase of approximately $3.1 million for the SEMO Division. In partial recognition of the current variation from cost as shown by its class cost of service study, ANG has proposed a rate reduction for the interruptible customers and the industrial firm customers. The increase is spread among the other rate schedules as set forth on Schedule 4. The rate reduction for the interruptible customers and the industrial firm customers is also set forth on Schedule 4.

Q WHAT IMPACT DOES THE PROPOSED RATE INCREASE HAVE ON THE ANG'S SEMO DIVISION CLASS COST OF SERVICE RESULTS?

A Since there is a proposed decrease in the industrial firm, the commercial interruptible and the small and large industrial interruptible revenues to cost of service, the rate of return is 8.69% under the Company's study for all classes. Since the total SEMO average return also increases to 8.69% according to the ANG proposal, the index of return for all classes is 100. The results of the adjusted ANG study under proposed rates are summarized on Schedule 5.

Under the Company study and the proposed rate level, the revenues collected from Noranda annually are at the cost of service as defined in the study submitted with ANG's direct testimony. It is very appropriate for Associated to propose rates that recover the cost of service. However, ANG's study overstates the cost to serve Noranda since the study does not properly reflect interruptibility, includes the allocation of distribution costs to the industrial large interruptible class (Noranda) and an allocation of take or pay

Q **HAVE YOU MADE ADJUSTMENTS TO THE CLASS COST OF SERVICE STUDY THAT FULLY REFLECT THE REMOVAL OF DISTRIBUTION COST AND TAKE OR PAY COST?**

A Yes. From the stand point of cost-causation, it is necessary to recognize that ANG provides only transportation service to the industrial large interruptible class utilizing only its transmission system (the distribution system is not used to serve Noranda) and that take or pay cost which relate to providing of sales gas should not be allocated to transportation customers. Hence, from an appropriate cost-causation point of view, these costs should not be allocated to the industrial large interruptible customer.

Q **HAVE YOU PREPARED A CLASS COST OF SERVICE STUDY WHICH FULLY RECOGNIZES THE REMOVAL OF DISTRIBUTION COST AND OF TAKE OR PAY IN REGARD TO COST-CAUSATION?**

A Yes, I have. As compared to the Company's studies, this study also removes the distribution costs and the take or pay costs allocated to the industrial large interruptible service.

Q **WHAT IS THE RELATIVE RATE OF RETURN FOR CUSTOMERS UNDER PRESENT RATES WHEN THE FULL EFFECT OF REMOVAL OF DISTRIBUTION COST AND OF TAKE OR PAY IS RECOGNIZED IN THE CLASS COST OF SERVICE STUDY?**

A Under present rates industrial interruptible customers provide relative rates of return that range from 3375 to 6750. The rates of return for the customer classes and the variation from cost under present rates are summarized on Schedules 8-1 and 8-2.

Q **WHY DO YOU RECOMMEND THESE CHARGES BE REMOVED?**

A These charges appear to be in the nature of gathering which has been deregulated by the Federal Energy Regulatory Commission (FERC) or transmission that would more appropriately be a part of the delivered gas cost. I find no testimony from the Company that would support the proposition that this is an appropriate service to be regulated by the Missouri Commission.

Q **HAVE YOU MADE ADJUSTMENTS TO THE CLASS COST OF SERVICE STUDY THAT FULLY REFLECT THE INTERRUPTIBLE NATURE OF INTERRUPTIBLE CLASS LOADS?**

A No. From the stand point of cost-causation, it is necessary to recognize that ANG incurs production and transmission costs to provide firm service and that no additional costs are incurred to provide interruptible service. Hence, from a strict cost-causation point of view, the allocation of these costs to the interruptible customers should be zero. As compared to the Company's study, the transmission cost allocation factor for interruptible customers normally should be reduced to zero to reflect the fact that no peak capacity costs are incurred for these customers. In addition, the production cost allocation factor for Noranda has been reduced to zero by ANG in its studies as Noranda only purchases transportation service from ANG.

However, in this particular proceeding, the adjustment to fully reflect the interruptible nature of the interruptible class was not done. The impact is partially recognized by the Company's use of Average and Peak. Noranda does not object to this allocation factor for allocating cost in this particular case.

Q DOES THIS CONCLUDE YOUR TESTIMONY?

A Yes, it does.

I joined the firm of Drazen-Brubaker & Associates, Inc. (DBA) in June of 1991. In April 1995 the firm of Brubaker & Associates, Inc. was formed. It includes most of the former DBA principals and staff. Since 1991 I have been engaged in the preparation of studies relating to utility rate matters and have participated in interstate pipeline, intrastate pipeline, oil pipeline, gas distribution and electric rate cases.

Q **HAVE YOU PREVIOUSLY APPEARED BEFORE A REGULATORY COMMISSION OR A PUBLIC AUTHORITY?**

A I have submitted testimony and appeared before the Federal Energy Regulatory Commission, the Delaware Public Service Commission, the Iowa Utilities Board and the Public Utility Commission of Texas. In addition, I have submitted testimony in cases before the Illinois Commerce Commission, the Louisiana Public Service Commission, and the Missouri Public Service Commission.

Q **ARE YOU A REGISTERED PROFESSIONAL ENGINEER?**

A I am a registered professional engineer in the State of Illinois.

ASSOCIATED NATURAL GAS COMPANY
SOUTHEAST MISSOURI DIVISION

Average Monthly Usage per Customer
Test Year Ended July 31, 1996

Line	Customer Class	Annual Sales (Mcf) (1)	Average Number of Customers (2)	Average Monthly Use per Customer (Mcf) (3)
1	Residential	2,577,761	32,929	7
2	Commercial Firm	1,054,353	4,283	21
3	Industrial Firm	24,843	4	518
4	Commercial Interruptible	114,665	25	387
5	Industrial Small Interruptible	1,112,389	48	1,952
6	Industrial Large Interruptible	1,263,580	1	105,298
7	Total	6,147,591	37,289	108,182

Schedule 2

ASSOCIATED NATURAL GAS COMPANY
SOUTHEAST MISSOURI DIVISION

Results of Adjusted Company Class Cost-of-Service Study
Variation from Cost of Service
Under Present Rates
Compared to Current Revenue
Test Year Ended July 31, 1996

Line	Customer Class	Current Rate Revenue (1)	Variation From Cost (2)	Percent Variation From Cost (3)
1	Residential	$17,000,609	($1,649,646)	-9.70%
2	Commercial Firm	6,498,418	149,320	2.30%
3	Industrial Firm	139,183	10,510	7.55%
4	Commercial Interruptible	540,082	89,848	16.64%
5	Industrial Small Interruptible	2,569,776	943,745	36.72%
6	Industrial Large Interruptible	576,458	456,223	79.14%
7	Total	$27,324,526	($0)	0.00%

Schedule 3-2

ASSOCIATED NATURAL GAS COMPANY
SOUTHEAST MISSOURI DIVISION

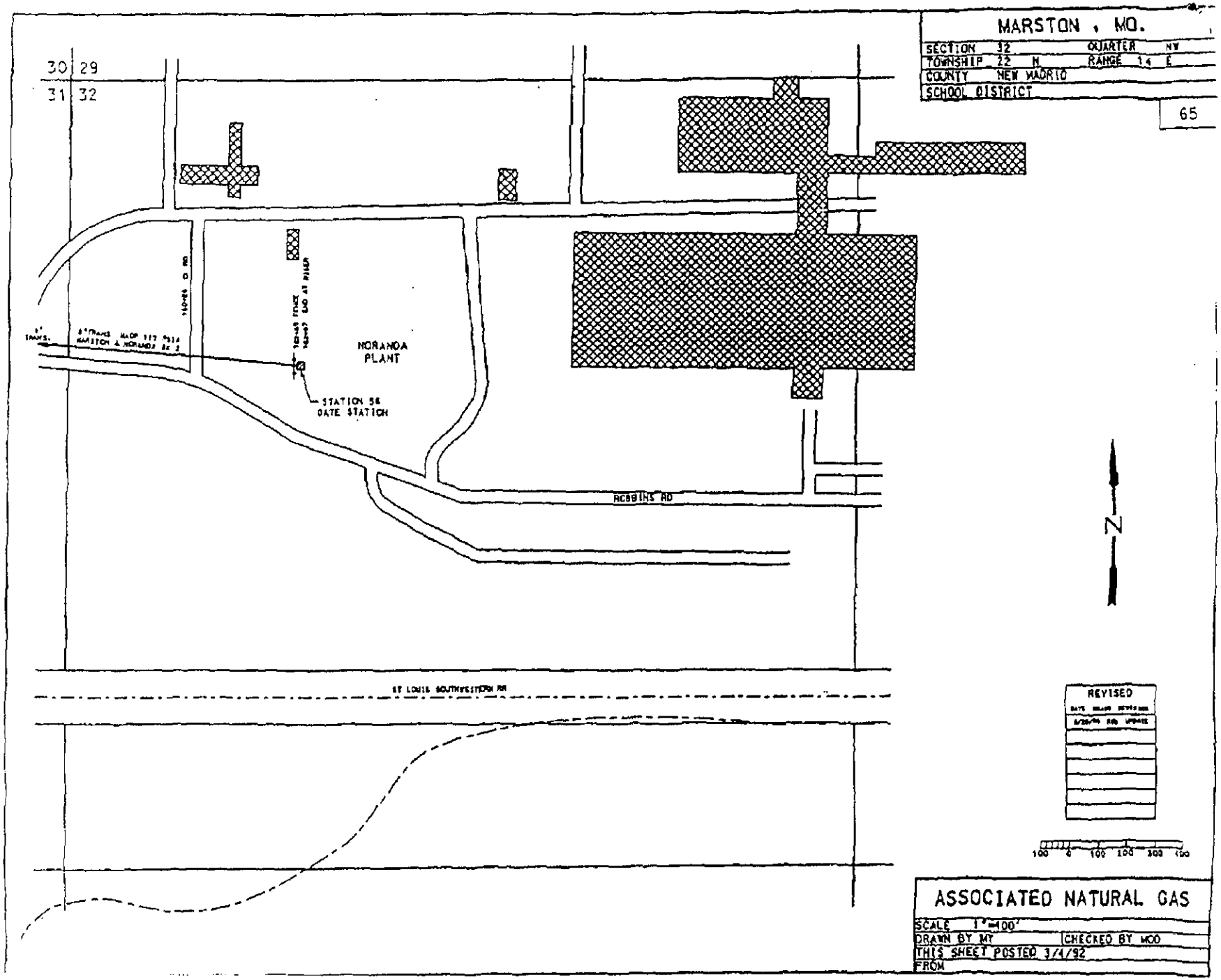
Results of Adjusted Company Class Cost-of-Service Study
Rate Base, Operating Income, Rate of Return
and Index of Return Under Proposed Rates
Test Year Ended July 31, 1996

Line	Customer Class	Rate Base (1)	Operating Income (2)	Rate of Return (3)	Index of Return (4)
1	Residential	$19,606,493	$1,703,804	8.69%	100
2	Commercial Firm	5,193,621	451,326	8.69%	100
3	Industrial Firm	63,143	5,487	8.69%	100
4	Commercial Interruptible	191,983	16,683	8.69%	100
5	Industrial Small Interruptible	1,142,195	99,257	8.69%	100
6	Industrial Large Interruptible	774,868	67,336	8.69%	100
7	Total	$26,972,303	$2,343,893	8.69%	100

Schedule 5

of 4 CSR 240.030, it is stated:

> Distribution line means a pipeline other than a gathering or transmission line.


MARSTON , MO.
SECTION 32 QUARTER NW
TOWNSHIP 22 N RANGE 14 E
COUNTY NEW MADRID
SCHOOL DISTRICT
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NORANDA PLANT
STATION 56
GATE STATION
ROBBINS RD
N
REVISED
ASSOCIATED NATURAL GAS
SCALE 1"=400'
DRAWN BY MY
CHECKED BY MOD
THIS SHEET POSTED 3/1/92
FROM

Schedule 6-4

ASSOCIATED NATURAL GAS COMPANY
SOUTHEAST MISSOURI DIVISION

Noranda Recommended Class Cost-of-Service Study
under Present Rates
Rate Base, Operating Income, Rate of Return
and Index of Return
Test Year Ended July 31, 1996

Line	Customer Class	Rate Base (1)	Operating Income (2)	Rate of Return (3)	Index of Return (4)
1	Residential	$20,112,199	($668,889)	-3.33%	(184)
2	Commercial Firm	5,370,230	183,604	3.42%	189
3	Industrial Firm	65,040	7,581	11.66%	644
4	Commercial Interruptible	193,835	58,466	30.16%	1,667
5	Industrial Small Interruptible	976,455	596,393	61.08%	3,375
6	Industrial Large Interruptible	254,544	310,947	122.16%	6,750
7	Total	$26,972,303	$488,103	1.81%	100

Note: As compared to the Company proposed study, this study removes distribution costs and Take-or-Pay cost from the Industrial Large Interruptible Class.