

123472  
97480

BY THE U.S. GENERAL ACCOUNTING OFFICE

**Report To The Honorable Thomas F. Eagleton  
And The Honorable Nancy L. Kassebaum  
United States Senate**

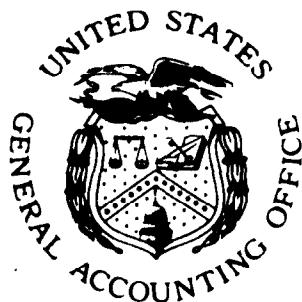
**Natural Gas Price Increases In Kansas City**

Substantial recent increases in natural gas prices have focused considerable congressional and public attention on natural gas issues.

To determine which factors contributed to an almost double-price increase in the Kansas City metropolitan area between January 1981 and January 1983, GAO obtained and analyzed information from the distribution company which sells gas to retail customers in Kansas City, and from that company's principal supplier. GAO found that about three quarters of the increase was due to the supplier's higher gas purchase costs; the remaining increase stemmed from operation and maintenance, taxes, depreciation, interest, return on equity, and other expenses.

In April 1983, the supplier reduced its rates to the distributor, which in turn reduced its rates to retail customers. The result was a decrease of about 20 percent in the per-unit cost of gas to a residential customer.

RELEASED



123492

GAO/RCED-84-77  
FEBRUARY 10, 1984

528078

**Request for copies of GAO reports should be sent to:**

**U.S. General Accounting Office  
Document Handling and Information  
Services Facility  
P.O. Box 6015  
Gaithersburg, Md. 20760**

**Telephone (202) 275-6241**

**The first five copies of individual reports are free of charge. Additional copies of bound audit reports are \$3.25 each. Additional copies of unbound report (i.e., letter reports) and most other publications are \$1.00 each. There will be a 25% discount on all orders for 100 or more copies mailed to a single address. Sales orders must be prepaid on a cash, check, or money order basis. Check should be made out to the "Superintendent of Documents".**



UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY,  
AND ECONOMIC DEVELOPMENT  
DIVISION

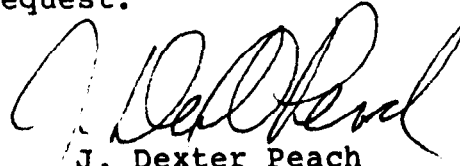
B-213545

The Honorable Thomas F. Eagleton  
United States Senate

The Honorable Nancy L. Kassebaum  
United States Senate

This report responds to your requests for information explaining recent natural gas price increases in Kansas City, Kansas, and Kansas City, Missouri.

As arranged with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this report. At that time, we will send copies of this report to the Secretary of Energy; the Chairman, Federal Energy Regulatory Commission; and officials of The Gas Service Company, Northwest Central Pipeline Corporation, and Panhandle Eastern Pipe Line Company. We will also make copies available to others upon request.



J. Dexter Peach  
Director



D I G E S T

Natural gas prices in the Kansas City metropolitan area almost doubled between January 1981 and January 1983. GAO determined the factors responsible for these increases, at the request of Senators Thomas F. Eagleton and Nancy L. Kassebaum. (See p. 4.) The report contains no conclusions about the appropriateness of actions by any government or private organization, nor does it include any recommendations. (See p. 5.)

The Gas Service Company is the distributor that sells gas to retail customers in the Kansas City metropolitan area. Its major supplier is Northwest Central Pipeline Corporation, an interstate transmission, or pipeline, company which purchases gas from producers, other transmission companies, and other sources. Gas Service also obtains gas from Panhandle Eastern Pipe Line Company and other sources. GAO obtained and analyzed information primarily from the named companies. Because Northwest Central accounted for 96 percent of Gas Service's supplies in 1982, GAO focused its analysis on Northwest Central. (See pp. 1 through 5.)

Gas Service is regulated by the Kansas State Corporation Commission and the Missouri Public Service Commission. The pipeline companies are regulated by the Federal Energy Regulatory Commission. (See pp. 2 through 4.)

AN OVERVIEW OF PRICE INCREASES

Retail prices in Kansas City consist of three major components: (1) the cost of gas purchased by Northwest Central, (2) Northwest Central's costs to transport gas from producing areas to Gas Service's area, and (3) Gas Service's costs to distribute gas within Kansas City.

Northwest Central's rates to Gas Service are designed to permit recovery of its gas purchase

costs and transmission costs. Similarly, Gas Service's rates to its customers permit recovery of its gas purchase costs and its distribution costs. (See pp. 2 and 3.)

GAO found that the cost per thousand cubic feet to a representative Kansas City customer increased from \$2.59 to \$5.15 in Kansas and \$2.65 to \$5.25 in Missouri. The increases in Kansas were due to Northwest Central's gas purchase costs (74 percent), Northwest Central's transmission costs (17 percent), and Gas Service's distribution costs (8 percent). The increases in Missouri were due to Northwest Central's gas purchase costs (75 percent), Northwest Central's transmission costs (18 percent), and Gas Service's distribution costs (7 percent). (See pp. 32 through 35.)

#### INCREASES IN GAS PURCHASE COSTS

All domestic natural gas production is subject to federal regulation. The Natural Gas Policy Act of 1978 established a series of maximum lawful prices for numerous categories of gas, depending on when and where the gas was found, when it was contracted for, and other factors.

Northwest Central's cost of gas per thousand cubic feet increased from \$1.80 to \$3.73 in both Kansas and Missouri. The increases were due to (1) higher prices for gas bought in each price category under the act, (2) a higher proportion of purchases from more expensive categories, and (3) higher prices charged by other pipeline companies.

Northwest Central had certain discretion in determining the pricing category of its gas purchases, according to a company representative. He reported that the decrease in the volume of lower priced gas purchased was attributable in part to declining consumption. Industrial consumption of natural gas in the company's market area weakened due in large part to the economic recession, substantial increases in natural gas wellhead prices, conservation, and the availability of competing fuels. Reduced purchases of lower priced gas were also due in part to the provisions of the company's contracts with producers. These contracts obligated the company to pay for more gas than it needed to meet its customers' requirements. The company representative

explained that, to minimize its payments for gas that was not received, the company reduced its deliveries of lower priced gas in favor of higher priced gas. (See pp. 22 through 26.)

#### INCREASES IN TRANSMISSION COSTS

Northwest Central's transmission costs per thousand cubic feet increased \$0.45 from \$0.34 to \$0.79 in both Kansas and Missouri. The reasons in both states were (1) higher operation and maintenance costs (increasing \$0.25), (2) higher return on equity (increasing \$0.08), (3) higher income taxes (increasing \$0.07), and (4) other factors (increasing \$0.05).

The transmission cost increases per unit of gas were due in part to lower sales. Although sales may expand or contract, many transmission costs remain relatively unchanged. Because sales decreased during the period, transmission costs had to be borne by fewer units. According to GAO's calculations, the average add-on per unit would have increased only \$0.21 if sales had remained level, instead of rising \$0.45. (See pp. 26 through 30.)

#### INCREASES IN DISTRIBUTION COSTS

Gas Service's distribution costs per thousand cubic feet increased \$0.22, from \$0.51 to \$0.73 in Kansas and \$0.18, from \$0.45 to \$0.63 in Missouri. These differences were due to varying practices by the companies and the respective state regulatory agencies.

The distribution cost increases per unit were due to (1) operation and maintenance costs (\$0.15 in Kansas and \$0.12 in Missouri) and (2) other factors, including depreciation, return on equity, and taxes (\$0.07 in Kansas and \$0.06 in Missouri).

The distribution cost increases per unit of gas were due in part to lower sales volumes. As with transmission costs, the relatively unchanged distribution costs were spread over fewer units. According to GAO's calculations, the average per unit add-on in Kansas would have increased only \$0.10 if sales volumes had remained level, instead of \$0.22, and in Missouri, only \$0.06, instead of \$0.18. (See pp. 13 through 20.)

### LATER DEVELOPMENTS

In April 1983, Northwest Central reduced its rates to Gas Service. Gas Service, in turn, reduced its rates to retail customers. The result was a decrease of about 20 percent in the per-unit cost to a residential customer. (See p. 36.)

### COMPANY COMMENTS

GAO obtained written comments from Gas Service, Northwest Central, and Panhandle Eastern. (See apps. I, II, and III, respectively). The companies offered no substantive criticism of the report. GAO did not obtain written comments from any federal agency.



C o n t e n t s

		<u>Page</u>
DIGEST		i
CHAPTER		
1	INTRODUCTION	1
	Structure of the natural gas industry	1
	Federal and state regulation	2
	Objectives, scope, and methodology	4
	Company comments	5
2	NATURAL GAS SALES AND PRICES IN KANSAS CITY	7
	Gas sales	7
	End-user prices	9
	Earnings and properties	12
	Summary	12
3	DISTRIBUTION OF NATURAL GAS IN KANSAS CITY	13
	Gas supply costs	13
	Distribution costs	16
	Summary	19
4	TRANSMISSION OF NATURAL GAS TO KANSAS CITY	21
	Purchased gas costs	22
	Transmission costs	26
	Producer cost increases	30
	Summary	31
5	OVERVIEW OF PRICE CHANGES IN KANSAS CITY	32
	Later developments	36
APPENDIX		
I	Letter dated December 1, 1983, from the Chairman of the Board, The Gas Service Company	38
II	Letter dated December 2, 1983, from the President, Northwest Central Pipeline Corporation	41
III	Letter dated November 29, 1983, from the President, Panhandle Eastern Pipe Line Company	44

TABLES

		<u>Page</u>
1	Number of customers, sales and revenues for each class of customers for 1982 and 1981	9
2	Kansas City, Missouri, and Kansas City, Kansas, gas prices for January 1981 and January 1983	10
3	Increase in the Kansas City prices for the 2-year period ending January 1983	11
4	Gas purchases by source for 1982 and 1981	14
5	Pipeline company rates to Gas Service Company as of January 1981 and January 1983	15
6	Source of gas cost increases for 2-year period ending January 1983	16
7	Test year data used to determine systemwide distribution cost factors in effect during January 1981 and January 1983	17
8	Distribution cost factors per Mcf for January 1981 and January 1983	18
9	Comparison of systemwide distribution cost increases per Mcf for January 1981 and January 1983	19
10	Details of the increase in prices to general service end-users for the 2-year period ended January 1983	20
11	Details of price increases to the distributor during the 2-year period ending January 1983 for gas ultimately resold to general service end-users	22
12	Gas purchases by type, January 1981 and January 1983	25
13	Test year data used to determine an average transmission cost for January 1981 and January 1983	27
14	Transmission costs per Mcf for January 1981 and January 1983	28

		<u>Page</u>
15	Components of the average transmission cost per Mcf for January 1981 and January 1983	29
16	Selected cost indexes for natural gas production, 1976, 1981, and 1982	31
17	Summary of price changes to Kansas City consumers for 2-year period ending January 1983	33
18	Summary of changes in representative prices to Kansas City end-users for the 2-year period ending January 1983	35
19	Northwest Central estimates of cost components, for selected months	37

#### ABBREVIATIONS

Bcf	billion cubic feet
FERC	Federal Energy Regulatory Commission
GAO	General Accounting Office
Mcf	thousand cubic feet
NGPA	Natural Gas Policy Act of 1978
PGA	purchased gas adjustment



## CHAPTER 1

### INTRODUCTION

Substantial recent increases in natural gas prices and uncertainty about future prices have focused considerable congressional and public attention on natural gas issues. There has been continuing debate involving the Congress, the administration, and the industry generally over what the national policy toward natural gas should be. The Congress is currently considering proposals to change federal regulation of natural gas pricing.

Increases in natural gas prices have significantly affected the consumers of gas, the companies that supply them, and the government agencies that regulate such sales. Consumers seek relief from higher fuel bills. The companies face declining consumption because of higher prices. The regulatory agencies try to balance the interests of gas suppliers and users.

### STRUCTURE OF THE NATURAL GAS INDUSTRY

Natural gas accounted for nearly 26 percent of the energy consumed in the United States in 1982. Overall, about 95 percent of this gas was produced domestically, but some gas was imported from Algeria, Canada, and Mexico.

Gas is used throughout the economy. Nationwide, industry accounted for about 38 percent of all gas use in 1982, more than any other sector. Residences accounted for about 26 percent, where gas is the fuel used most often for home heating. The others are electric utilities (18 percent), commercial establishments (14 percent), and miscellaneous uses (3 percent).

The natural gas industry is comprised of three sectors--distribution, transmission, and production--which are physically interconnected by a network of pipes throughout the Nation. Companies in the various sectors may also be related through corporate affiliations.

End-users typically buy their natural gas from the almost 1,600 distribution companies throughout the Nation. They are usually local public utilities, serving a specific market area and under the jurisdiction of a state or local regulatory body. The Gas Service Company (Gas Service) serves the Kansas City metropolitan area and other communities in Kansas, Missouri, Nebraska, and Oklahoma. Gas Service's operations in Kansas are regulated by the Kansas State Corporation Commission; its operations in Missouri are regulated by the Missouri Public Service Commission.

Distributors buy most of their natural gas from transmission, or pipeline, companies which transport gas from producing areas to consuming areas. Gas Service buys from Northwest Central Pipeline

Corporation (Northwest Central) and Panhandle Eastern Pipe Line Company (Panhandle Eastern), 2 of the 129 interstate pipeline companies which are regulated by the Federal Energy Regulatory Commission (FERC). Intrastate pipeline companies in the producing states are generally subject to state regulation.

Pipeline companies obtain gas they transport from producers, other pipelines, and their own production. Thousands of large, medium, and small companies explore for, drill for, and produce gas. All domestic production is subject to federal price regulation.<sup>1</sup> Texas, Louisiana, Oklahoma, New Mexico, and Kansas--in descending order--accounted for about 87 percent of domestic production in 1982. Northwest Central obtains gas primarily from producers in the Midwest and Rocky Mountains.

#### FEDERAL AND STATE REGULATION

Rates charged retail customers in Kansas City reflect regulation of producers and pipeline companies by FERC and regulation of the distribution company by the Kansas and Missouri commissions. This section summarizes pertinent elements of these regulatory processes.

FERC regulates the setting of rates that interstate pipeline companies may charge their distribution company customers. Pipeline companies are generally allowed to charge rates that enable them to recover (1) purchased gas costs and (2) transmission costs, including operation and maintenance expenses, interest, depreciation, taxes, and a just and reasonable return on their pipelines and other investments used to provide natural gas service.

Pipeline companies must get FERC's approval periodically for all of their charges. In addition, FERC allows pipeline companies to adjust their rates semi-annually to reflect changes in the cost of purchased gas. A pipeline company's request to change its base rates to reflect purchased gas costs is known as a purchased gas adjustment (PGA) filing. PGA filings are subject to FERC's review and approval.

Northwest Central makes semi-annual PGA filings to take effect on April 23 and October 23 of each year. The filing includes a projection of gas purchase costs for the next 6 months. The filings permit Northwest Central to establish rates that will enable it to recover its purchased gas costs on a current basis. For example, Northwest Central made a PGA filing in September 1982. This filing represented the company's estimate of purchased

---

<sup>1</sup>Federal ceilings limit the prices that may be paid for almost all domestic production, but prices for a small proportion are not controlled. Production may also be subject to regulation at the state level, with respect to prices and levels of production.

gas costs for the 6-month period starting October 1982. The rate changes became effective October 23, 1982, and were reflected in the January 1983 rates.

Also, Northwest Central periodically files a general rate case with FERC seeking approval of rates that will provide for the recovery of its transmission costs. The company filed three general rate cases in the 4-year period ending in 1982. A rate case filed in June 1982 was reflected in Northwest Central's rates effective December 23, 1982. These rate changes were reflected in the January 1983 rates.

Gas Service buys its gas at the FERC rates in effect and, in turn, makes application to the Missouri and Kansas commissions for recovery of its purchased gas costs. Gas Service is permitted to recover the cost of purchased gas through a provision in its tariff called a PGA clause, which is similar to provisions under FERC regulation. The PGA clause allows the distributor a dollar-for-dollar recovery of costs on a periodic basis. The clause is intended to prevent cash-flow problems for the company and reduce the number of full-scale rate proceedings which consider all of a company's expenses.

Changes in the wholesale price of gas trigger a PGA filing by Gas Service. The higher rates to end-users in Kansas City usually occur on or near the date when Gas Service starts paying the higher rates to its pipeline suppliers. The January 1983 rates charged to end-users in Kansas City reflected PGA filings made by Gas Service in December 1982 in both Missouri and Kansas. These filings were made to pass on higher prices posted by Northwest Central which became effective on December 23, 1982.

Also, both state commissions determine the revenues that the distributor needs to generate to provide for its distribution costs, including operation and maintenance expenses, interest, taxes, and a just and reasonable return on equity. The commissions approve a rate structure that is expected to generate the required revenues. The company's revenue requirements depend on the commissions' estimates and judgments as to sales volumes, costs, investment in facilities, and rate of return.

In Kansas, Gas Service filed one general rate case each year with the Kansas commission from 1979 through 1982. On April 7, 1982, Gas Service filed with the commission an application for a permanent rate increase of \$20.3 million. The distributor prepared its testimony and exhibits on the basis of a historical test year ending December 31, 1981. Adjustments are made to the test year data as deemed necessary by the commission. The commission ultimately approved revised rates that would generate additional revenues in the amount of \$7.7 million. These rate changes became effective December 6, 1982, and were reflected in the January 1983 rates.

In Missouri, Gas Service had one general rate case settled each year from 1978 through 1982. On November 25, 1981, Gas Service filed with the Missouri commission a revised rate structure designed to increase revenues by \$17.9 million on an annual basis for service rendered to its Missouri customers. The distributor prepared its testimony and exhibits on the basis of a historical test year ending November 30, 1981. The commission ultimately approved a revised rate structure designed to increase revenues in the amount of \$10.6 million. These rates became effective August 10, 1982, and were reflected in the January 1983 rates.

#### OBJECTIVES, SCOPE, AND METHODOLOGY

This report was prepared in response to separate, but similar, requests from Senators Thomas F. Eagleton and Nancy L. Kassebaum. Senator Eagleton's letter of October 12, 1982, asked us to report to him on various aspects of natural gas pricing, supplies, and regulation. Based on that letter and subsequent agreements with his office, we

- issued a report, Natural Gas Price Increases: A Preliminary Analysis (GAO/RCED-83-76, Dec. 9, 1982), during the 97th Congress;
- briefed the Senator's office on allegations of natural gas being produced wastefully;
- prepared this report; and
- are evaluating how effectively the Federal Energy Regulatory Commission reviews certain natural gas pipeline company rate filings.

Likewise, Senator Kassebaum's letter of December 30, 1982, asked us to review various aspects of natural gas pricing, supplies, and regulation. Based on that letter and subsequent agreements with her office, we

- provided copies of two reports upon their issuance: Information on Natural Gas Producer-Pipeline Contracts (GAO/RCED-83-5, Feb. 22, 1983) and An Analysis of Natural Gas Pricing Policy Alternatives (GAO/RCED-83-13, Feb. 3, 1983);
- briefed the Senator's office on pricing of natural gas in areas of Kansas outside Kansas City; and
- prepared this report.

This report is one of a series of case studies of why natural gas prices increased in five cities around the country. Our objective was to identify the factors which contributed to increases in the prices paid by consumers for natural gas service



between January 1981 and January 1983. Because end-user prices are not the same in Kansas and Missouri, we developed information for both Kansas City, Kansas, and Kansas City, Missouri. Because Northwest Central provided nearly all of Gas Service's supplies in 1981 and 1982, we focused more on Northwest Central than on the other suppliers.

We relied largely on information furnished us by the distributor and pipeline companies and the staffs of the state commissions. We did not independently verify the accuracy of any of these data. The financial data in this report are not adjusted for inflation. We did not evaluate the appropriateness or effectiveness of actions by any government agency or private party, nor do we make recommendations.

This report is based in part on previous GAO work in the natural gas area. In addition to the reports cited above, we used State and Local Responses to Natural Gas Price Increases (GAO/RCED-83-142, Apr. 25, 1983).

Quantities of natural gas are often measured on the basis of volume. Frequently used measures include thousand cubic feet (Mcf) and billion cubic feet (Bcf). Alternatively, gas may be measured on the basis of heat content, in terms of British thermal units. A million British thermal units are approximately equivalent to 1 Mcf. For ease of presentation, we used only volume measures of natural gas in this report.

The information in the ensuing chapters of this report is organized to follow the natural gas consumer's dollar through the distributor and the pipeline to the producer. However, we did not attempt to obtain information on expenses incurred by producers which sell gas to Northwest Central.

- Chapter 2 discusses natural gas sales and prices in Kansas City.
- Chapter 3 discusses the distribution of natural gas in Kansas City.
- Chapter 4 discusses the transmission of natural gas to Kansas City.
- Chapter 5 presents an overview of price changes in Kansas City.

Except as noted, this review was conducted in accordance with generally accepted government auditing standards. It was performed between January 1983 and November 1983.

#### COMPANY COMMENTS

The entire draft report was sent to representatives of Gas Service and Northwest Central for comment, and relevant portions

were sent to representatives of Panhandle Eastern for comment. Their comments are included as appendixes I, II, and III, respectively. Because the report does not relate directly to the activities of any federal agency, we did not seek comments from any federal agency.

None of the three companies noted any substantive disagreements with our analysis. Gas Service and Panhandle Eastern recommended small changes in a few numbers. We incorporated these changes where appropriate. In addition, Northwest Central and Gas Service suggested that we devote increased attention to cost reductions which became effective in 1983 because of Northwest Central's actions. These actions are discussed on page 36.

## CHAPTER 2

### NATURAL GAS SALES AND PRICES IN KANSAS CITY

The Gas Service Company is an operating public utility engaged in the distribution of natural gas at retail to approximately 849,000 residential, commercial, and industrial customers in the states of Kansas, Missouri, Nebraska, and Oklahoma. The company's service area includes approximately 400 communities with an estimated population of 2,500,000. Its principal market area is the seven-county Kansas City metropolitan area. This metropolitan area accounted for 47.5 percent of the company's total customers at December 31, 1982, and 56.8 percent of its gas sales.

The company had 2,473 employees as of December 31, 1982. Salaries and wages paid to employees in 1982 totalled \$51.2 million, or about 40.6 percent of the company's operating expenses exclusive of natural gas purchases.

This chapter presents information on (1) the company's customers and sales, (2) end-user prices in Kansas City, and (3) the company's earnings and properties.

#### GAS SALES

The company provides three major classes of service to its Kansas City, Missouri, and Kansas City, Kansas, customers--general, large commercial, and large industrial. General service rates are applicable both to residential customers and to small businesses that elect to receive firm service. Firm service provides assured availability, even during periods of peak demand. The requirements of the general service customer may not exceed 3,000 Mcf in any month.

Other customers receive service on an interruptible basis. Interruptible service is made available under agreements that permit curtailment of deliveries. This reduced service occurs when gas is needed for firm service, usually during peak use in winter. Such customers include some small commercial and industrial businesses, as well as large commercial and industrial businesses. Large customers are those whose requirements exceed 3,000 Mcf in any month during the year. Interruptible service is offered to large-volume users at a lower rate than firm service. Most large interruptible customers are equipped to use more than one type of fuel.

The company experienced a decline in the volume of natural gas sold between 1978 and 1982. During that period, general service volume declined from 161.6 Bcf to 130.8 Bcf--a decrease of 19 percent. Similarly, interruptible service provided to large commercial and industrial customers declined from 92.8 Bcf to 57 Bcf--a decrease of 39 percent.

According to the company, the decline in general service sales was attributable primarily to conservation efforts by its customers as end-user rates increased. Customers buying gas under the general service rate used an average of 205.6 Mcf in 1972. In 1982, however, such customers used an average of only 155.1 Mcf.

The company reported that the decline in sales to large commercial and industrial customers was due primarily to depressed economic conditions and competition from alternative fuels. Certain large customers closed facilities entirely. During 1982, two refineries were closed in the Kansas City area which had accounted for approximately 4.6 percent of the company's gross revenue in 1981. Several powerplants converted to lower cost coal. Other large-volume customers switched, either wholly or partially, to the use of fuel oil. When the price of oil drops below the energy-equivalent price of natural gas, changes to oil use are easily and quickly made in the industrial plants which already have installed oil burning equipment.

General service customers accounted for more than 99 percent of the company's customers as of December 31, 1982. These customers accounted for approximately 70 percent of the company's gas sales and approximately 73 percent of its revenues during 1982. Table 1 provides information on customers, sales of gas, and gross revenue from gas sales by customer classification for 1982 and 1981.

Table 1

Number of Customers, Sales, and Revenues for  
Each Class of Customers for 1982 and 1981

Customer class	Customers at December 31		Sales (in Bcf)		Revenue (in thousands)	
	<u>1982</u>	<u>1981</u>	<u>1982</u>	<u>1981</u>	<u>1982</u>	<u>1981</u>
General service	848,438	850,313	130.8	123.4	\$589,489	\$399,865
Large commercial <sup>a</sup>	733	745	14.7	14.3	59,735	41,160
Large industrial	<u>224</u>	<u>237</u>	<u>42.3</u>	<u>55.4</u>	<u>160,236</u>	<u>158,581</u>
Total	<u>849,395</u>	<u>851,295</u>	<u>187.8</u>	<u>193.1</u>	<u>\$809,460</u>	<u>\$599,606</u>

<sup>a</sup>Includes small commercial and industrial customers, which receive interruptible service. Because rates to these customers are essentially the same as rates to general service customers, we did not further analyze rates and rate increases to these customers.

Source: Gas Service Company.

END-USER PRICES

As noted, the company provides three major classes of service to its customers--general, large commercial, and large industrial. End-user rates consisted of a monthly customer charge--regardless of the volume of gas consumed--and a commodity charge--which applies to each unit of gas consumed. Rates to customers in Kansas City, Missouri, and Kansas City, Kansas, for January 1981 and January 1983 are shown in table 2.

Table 2

Kansas City, Missouri and Kansas City, Kansas,  
Gas Prices for January 1981 and January 1983

<u>Type of service</u>	<u>January 1981</u>		<u>January 1983</u>	
	<u>Monthly customer charge</u>	<u>Commodity charge per Mcf</u>	<u>Monthly customer charge</u>	<u>Commodity charge per Mcf</u>
Kansas City, MO:				
General service	\$ 2.61	\$2.59	\$ 5.07 <sup>a</sup>	\$4.87
Large commercial	165.00	2.34 <sup>b</sup>	200.00	4.62
Large industrial	165.00	2.27 <sup>c</sup>	200.00	4.52
Kansas City, KS:				
General service	2.55	2.61	3.50	5.15
Large commercial	25.00	2.50	25.00	4.96
Large industrial	25.00	2.44	25.00	4.78

<sup>a</sup>The monthly customer charge is based on peak month requirements. The rate shown is for customers with up to 50 Mcf per month usage in the peak month. This group would include most residential users. Monthly charges are \$8.50 for customers with peak requirements between 51 and 300 Mcf; \$15.00, between 301 and 1,000 Mcf; and \$35.00, between 1,000 and 3,000 Mcf.

<sup>b</sup>The commodity charge was \$2.34 per Mcf for the first 2,000 Mcf each month and \$2.28 per Mcf for additional quantities.

<sup>c</sup>The commodity charge was \$2.27 per Mcf for the first 20,000 Mcf each month and \$2.25 per Mcf for additional quantities.

Source: Gas Service Company.

To facilitate our analysis of gas rates, we converted the monthly customer charge into an equivalent commodity rate per Mcf. This conversion is performed after consideration of the

typical consumption pattern for each class of service.<sup>1</sup> Thus, the conversion enabled us to track price changes over time, to analyze the various costs that go into the retail price of gas, and to make comparisons of prices in Kansas City, Missouri, and Kansas City, Kansas.

Our analysis shows that gas prices increased substantially in the Kansas City area during the 2-year period, as presented in table 3. Price increases ranged from \$2.26 to \$2.61 per Mcf for the different classes of service, or about 90 to 100 percent above the January 1981 levels. The analysis also shows that prices in Kansas City, Kansas, were from \$0.02 to \$0.17 per Mcf higher than the equivalent price in Kansas City, Missouri, in January 1981 and \$0.13 to \$0.30 per Mcf higher in January 1983. Reasons for differences between Kansas and Missouri are discussed in chapter 3.

Table 3  
Increase in the Kansas City Prices for the  
2-Year Period Ended January 1983

<u>City/type of service</u>	<u>Price per Mcf</u>		<u>Increase in price</u>	
	<u>January 1981</u>	<u>January 1983</u>	<u>Per Mcf</u>	<u>Percent</u>
Kansas City, MO:				
General service	\$2.79	\$5.29	\$2.50	90
Large commercial	2.34	4.66	2.32	99
Large industrial	2.27	4.53	2.26	100
Kansas City, KS:				
General service	2.81	5.42	2.61	93
Large commercial	2.50	4.96	2.46	98
Large industrial	2.44	4.78	2.34	96

Source: Derived by GAO based on information from records of Gas Service Company.

<sup>1</sup>We obtained information from Gas Service on the average consumption by end-user class. Based on the rate schedules in effect in January 1981 and January 1983, we computed the total bill (including the monthly customer charge and the commodity charge) for the average consumption level and then divided the total bill by the number of units used. For example, the average general service customer in Kansas City, Missouri, used about 13 Mcf in January 1981. The charge for that amount of gas would have been computed as follows:

$$\$2.61 + (13 \text{ Mcf} \times \$2.59) = \$36.28$$

Then we divided the total bill of \$36.28 by 13 to yield an average cost of \$2.79 per Mcf.

## EARNINGS AND PROPERTIES

For the year ending December 31, 1982, the company's earnings applicable to common stock declined significantly to \$3,083,000, or \$0.73 per share on the average number of common shares outstanding, compared with \$7,704,000, or \$1.84 per share, for the year ended December 31, 1981. The company's management attributed the \$4,621,000 decrease in earnings in 1982 to declining sales to industrial customers, substantial increases in the provision for bad debts and interest charges, and a decrease in other income. The management also stated that rate increases approved by the state commissions were inadequate to offset the above factors as well as the inflationary increases in operating expenses.

The company's properties consist chiefly of gas distribution mains, service lines, meters, warehouses, and equipment. The company's gas plant at cost was valued at \$284.7 million on December 31, 1982, exclusive of accumulated depreciation. The value of annual gas plant additions ranged from \$20.7 million to \$26.4 million from 1978 through 1982.

As of December 31, 1982, the company's distribution systems in the approximately 400 communities served by it consisted of 13,038 miles of steel, cast iron, and plastic mains ranging from less than 2 inches to 30 inches in diameter. Most of these systems are connected to the gas transmission lines of Northwest Central. Two of the larger systems are Kansas City, Missouri (1,797 miles), and Kansas City, Kansas (517 miles). The company also owns 905,975 gas meters. The company leases its executive offices which are located in Kansas City, Missouri.

### SUMMARY

Gas Service serves approximately 400 communities in four states, selling gas to about 849,000 customers as of December 31, 1982. The number of customers and gas sales declined from 1981 to 1982, but revenues increased. Gas prices in Kansas City increased about 90 to 100 percent between January 1981 and January 1983, depending on the type of customer and the state. The company's earnings applicable to common stock declined from about \$7.7 million in 1981 to about \$3.1 million in 1982.



## CHAPTER 3

### DISTRIBUTION OF NATURAL GAS IN KANSAS CITY

Natural gas prices in Kansas City almost doubled during the 2-year period ending January 1983. The higher prices reflected both increases in the cost to Gas Service of gas bought from its pipeline suppliers and increases in Gas Service's costs to distribute gas within Kansas City. This chapter provides information on (1) costs paid by Gas Service for gas and (2) Gas Service's distribution costs.

#### GAS SUPPLY COSTS

Gas Service obtains about 99 percent of its gas supply from two interstate transmission companies--Northwest Central and Panhandle Eastern. Its principal supplier is Northwest Central. Northwest Central is the former Cities Service Gas Company which was acquired by Northwest Energy Corporation during 1982 and renamed. In 1982, purchases from Northwest Central represented approximately 96 percent of the natural gas sold by Gas Service. The major part of the gas purchased from Northwest Central is purchased under a contract dated June 9, 1947, which has been successively renewed for 5-year periods. The current renewal period expires May 22, 1987. The company has entered into 47 additional contracts with varying expiration dates with Northwest Central to serve areas not covered by the basic contract.

Approximately 3 percent of the company's gas supply during 1982 was purchased from Panhandle Eastern Pipe Line Company. The company's two contracts with Panhandle Eastern extend to October 31, 1988, with automatic renewal for unlimited additional periods of 1 year in the absence of written notice of cancellation by either party. The company's remaining gas supplies in 1982--representing less than 1 percent of its gas supplies--were purchased from other pipeline suppliers, local producers, and the company's wholly owned subsidiary. Gas Service's total purchases cost an average of \$2.42 per Mcf in 1981 and \$3.52 per Mcf in 1982. Table 4 presents information on Gas Service's purchases in 1981 and 1982.

Table 4

Gas Purchases by Source for 1982 and 1981

<u>Source</u>	<u>1982</u>			<u>1981</u>		
	<u>Quantity</u>		<u>Cost per Mcf</u>	<u>Quantity</u>		<u>Cost per Mcf</u>
	<u>in Bcf</u>	<u>Percent</u>		<u>in Bcf</u>	<u>Percent</u>	
Northwest Central	184.0	96.1	\$3.54	186.7	95.7	\$2.42
Panhandle Eastern	5.9	3.1	3.05	6.9	3.5	2.45
Other suppliers	1.5	0.8	2.42	1.5	0.8	2.10
Total	<u>191.4</u>	<u>100.0</u>	3.52 <sup>a</sup>	<u>195.1</u>	<u>100.0</u>	2.42 <sup>a</sup>

<sup>a</sup>Weighted average.

Source: Data for Panhandle Eastern, from Panhandle Eastern. Data for Northwest Central and other suppliers, from records of Gas Service Company.

Northwest Central's rates to Gas Service varied depending on the type of end-user to whom Gas Service resold the gas. Rates for general service customers--who receive firm service--were the highest (\$4.54 per Mcf in January 1983). Rates for interruptible service provided to large commercial and industrial customers were lower (\$4.32 per Mcf and \$4.21 per Mcf, respectively). This rate structure was partially attributable to the fact that Gas Service does not have the capacity to manufacture synthetic natural gas or withdraw gas from storage to supplement deliveries from the pipeline suppliers on extremely cold days when gas use is greater. Thus, the additional capacity needed to provide firm service as opposed to interruptible service was incurred at the pipeline level rather than the distributor level. These added costs were reflected in the rates that Northwest Central charged Gas Service.

Panhandle Eastern's rates to Gas Service did not vary by end-user. Instead, in January 1983, but not in January 1981, the rates varied slightly according to the location where Gas Service received the gas from Panhandle Eastern. Rates charged Gas Service by both pipeline companies for January 1981 and January 1983 are shown in table 5.

Table 5

Pipeline Company Rates to Gas Service Company  
as of January 1981 and January 1983

<u>Pipeline/rate schedule</u>	<u>Charge per Mcf</u>	
	<u>January 1981</u>	<u>January 1983</u>
Northwest Central:		
General service <sup>a</sup>	\$2.12	\$4.54
Large commercial	2.09	4.32
Large industrial	2.07	4.21
Panhandle Eastern: <sup>b</sup>		
Central zone	2.27	4.08
Western zone	2.28	4.07

<sup>a</sup>About 30 percent of the purchases for general service customers were made at the rate shown. There was a \$0.10 per Mcf premium on additional purchases.

<sup>b</sup>Panhandle Eastern's rates varied based on the geographic area to which gas was delivered. Such an area is called a zone. Rates actually paid by Gas Service to Panhandle Eastern depended in part on the volume of gas purchased. Because Gas Service bought less gas than it was expected to buy, the rates were higher--for the western zone, \$2.39 per Mcf in 1981 and \$4.38 per Mcf in 1983--according to Gas Service. Rates for the central zone were not materially affected by the volume of gas purchased.

Source: Gas Service Company and Panhandle Eastern.

The distributor's retail rates reflected the estimated gas costs that were expected to be incurred for each class of customer. The retail rates also reflected adjustments made to correct for past under-collection or over-collection of gas costs. Gas costs for Kansas City, Missouri, and Kansas City, Kansas, varied somewhat due to Gas Service's differing purchase patterns for each city and the impact of any adjustments.

We analyzed the PGA filings initiated by Gas Service to recover higher gas costs it incurred during the 2-year period ended January 1983. We found that 97 percent or more of the higher costs were attributable to rate hikes by Northwest Central. Increases attributable to Panhandle Eastern and sundry adjustments were relatively minor, as shown in table 6.

Table 6

Source of Gas Cost Increases for  
2-Year Period Ending January 1983

<u>City/type of service</u>	<u>Cost per Mcf</u>			<u>Net Increase</u>	<u>Percentage of net increase attributable to Northwest Central</u>
	<u>Pipeline purchases</u>		<u>Other increases (decreases)</u>		
	<u>Northwest Central</u>	<u>Panhandle Eastern</u>			
<b>Kansas City, MO:</b>					
General service	\$2.24	\$0.13	(\$0.05)	\$2.32	97
Large commercial	2.18	0.04	(0.03)	2.19	100
Large industrial	2.14	-	(0.03)	2.11	101
<b>Kansas City, KS:</b>					
General service	2.38	0.05	(0.03)	2.40	99
Large commercial	2.23	-	0.03	2.26	99
Large industrial	2.11	0.02	0.02	2.15	98

Source: Derived by GAO based on information from records of Gas Service Company.

DISTRIBUTION COSTS

Distribution costs incurred by Gas Service were incorporated into the rates charged its Kansas City customers. These costs included a provision for its operation and maintenance expenses, depreciation, interest, taxes, and return on equity. The state commissions review these items during rate proceedings and provide for their recovery. The distribution cost factor increased significantly during the 2-year period ending January 1983. This occurred due to the distributor's increased costs in providing the service combined with the lower level of gas sales. Thus, the distributor's costs had to be spread over fewer units. Table 7 shows the distribution costs and related sales used in determining a system average cost per unit for January 1981 and January 1983 rates.

Table 7

Test Year Data Used to Determine  
Systemwide Distribution Cost Factors in Effect  
for January 1981 and January 1983

<u>Item</u>	<u>Kansas City, MO</u>		<u>Kansas City, KS</u>	
	<u>January 1981</u>	<u>January 1983</u>	<u>January 1981</u>	<u>January 1983</u>
Test year data used: <sup>a</sup>				
Distribution costs (millions)	\$ 55.4	\$ 63.0	\$50.4	\$60.1
Gas sales (in Bcf)	123.0	100.0	99.3	82.8
Average distribution cost factor per Mcf sold	\$ 0.45	\$ 0.63	\$ 0.51	\$ 0.73

<sup>a</sup>Test year data are submitted to the state commissions as part of a general rate case. The data represent the distributor's operations in that state for the year used as a basis for ratemaking.

Source: Derived by GAO based on information from records of Gas Service Company.

During general rate cases, Gas Service submitted testimony and exhibits in support of the rate design it had proposed. Other parties to these cases--such as industry intervenors, consumer interest groups, and the commissions' own staffs--submitted cost studies or other data in support of their positions. The Kansas and Missouri commissions approved the final rate designs that allocated the cost burden among the customer classes.

In both states, distribution costs differed between the customer classes, with general service customers having the highest per unit cost, large commercial the next highest, and large industrial the lowest. In recent years, the increase in distribution costs was typically allocated among the customer classes by an across-the-board percentage increase or by a flat increase per Mcf added to the rate for each class.<sup>1</sup> Table 8 shows the factors as approved by the state commissions that were reflected in the rates that were in effect in January 1981 and January 1983.

---

<sup>1</sup>For example, the Kansas commission's decision in December 1982 would have increased per unit distribution costs by about \$0.09 per Mcf for all three classes; because of other adjustments, the net increases were \$0.07 per Mcf to general service customers and \$0.15 per Mcf to large commercial and large industrial customers. The Missouri commission's decision in August 1982 increased rates by about \$0.10 per Mcf to all end-users.

Table 8

Distribution Cost Factors per Mcf  
for January 1981 and January 1983

<u>City/date</u>	<u>Systemwide average</u>	<u>General service</u>	<u>Large commercial</u>	<u>Large industrial</u>
Kansas City, MO:				
January 1981	\$0.45	\$0.59	\$0.26	\$0.20
January 1983	0.63	0.77	0.39	0.35
Kansas City, KS:				
January 1981	0.51	0.59	0.38	0.34
January 1983	0.73	0.80	0.58	0.54

Source: Derived by GAO based on information from records of Gas Service Company.

We analyzed the changes in the various cost categories that occurred during the 2-year period ended January 1983. These are shown in table 9. The biggest increase occurred in operation and maintenance costs. This category includes labor, materials, and supply costs. These costs increased \$0.12 and \$0.15 per Mcf in Missouri and Kansas, respectively. Other cost categories increased \$0.03 per Mcf or less. Return on equity, which represents the targeted profit for Gas Service, increased \$0.03 per Mcf in Missouri and \$0.01 per Mcf in Kansas.

A return on equity is considered a part of the distributor's costs. During a general rate case, the commissions usually deliberate on the rate of return to be allowed on equity. The decisions of the state commissions do not guarantee the company a specific rate of return; they merely provide the distributor the opportunity to earn an equitable return on its invested capital. If the commissions' assumptions and judgments regarding sales and costs prove to be inaccurate, the company would earn more or less than the targeted profit.

The state commissions allowed Gas Service a return on equity of about 14 to 15 percent for 1981 and 1982. However, Gas Service was not successful in earning its authorized rate of return on equity in either 1982 or 1981. The company did not have available the actual rate of return information on a state-by-state basis. Thus, we compared the authorized returns to the actual returns achieved for the entire company. In 1982, the company earned 3.8 percent on equity, as compared to the 14.8 and 15.3 percent authorized by Missouri and Kansas, respectively. Similarly, the company earned 9.2 percent in 1981, compared to the 14 percent authorized by both states.

Table 9

Comparison of Systemwide Distribution Cost  
Increases per Mcf for January 1981 and January 1983

<u>Cost category</u>	<u>Kansas City, MO</u>			<u>Kansas City, KS</u>		
	<u>Jan. 1981</u>	<u>Jan. 1983</u>	<u>Increase</u>	<u>Jan. 1981</u>	<u>Jan. 1983</u>	<u>Increase</u>
Operation and maintenance	\$0.25	\$0.37	\$0.12	\$0.26	\$0.41	\$0.15
Depreciation	0.05	0.07	0.02	0.05	0.07	0.02
Interest	0.04	0.04	-	0.04	0.05	0.01
Income taxes	0.05	0.05	-	0.05	0.06	0.01
Other taxes	0.02	0.03	0.01	0.04	0.06	0.02
Dividends on preferred stock	0.01	0.01	-	0.01	0.01	-
Return on equity	<u>0.03</u>	<u>0.06</u>	<u>0.03</u>	<u>0.06</u>	<u>0.07</u>	<u>0.01</u>
Total	<u>\$0.45</u>	<u>\$0.63</u>	<u>\$0.18</u>	<u>\$0.51</u>	<u>\$0.73</u>	<u>\$0.22</u>

Source: Derived by GAO based on information from records of Gas Service Company.

Lower sales were a significant factor contributing to higher distribution costs per unit. Although sales may expand or contract, many distribution costs remain relatively unchanged. Because sales decreased significantly during our review period, there were fewer units over which the company was able to recover its distribution costs. In Missouri, the increase in the systemwide add-on would have been \$0.06 per Mcf had gas sales remained constant. The additional \$0.12 per Mcf was the result of lower sales in the state. Similarly, in Kansas, the increase would have been \$0.10 per Mcf instead of the \$0.22 per Mcf that was actually experienced.

SUMMARY

The distributor for Kansas City acquired nearly all of its gas supply from two pipeline companies. A doubling of gas costs was the principal factor in the escalation of gas prices in Kansas City during the 2-year period ending January 1983. The distributor was allowed to pass increases of its gas costs on to the end-users as they occurred. The pass-through of gas costs caused price increases to general service customers of \$2.32 per Mcf in

Missouri and \$2.40 per Mcf in Kansas. These pass-throughs accounted for 92 to 93 percent of the price increase that occurred during that period.

In addition, the distributor was permitted by the state commissions to increase its rates in recognition of the higher costs incurred for the distribution of gas. The decisions of the state authorities permitted price increases to general service customers of \$0.18 per Mcf in Missouri and \$0.21 per Mcf in Kansas. Thus, increases in the distributor's add-on accounted for the remaining 7 to 8 percent of the price increase.

Details of the price increases to general service end-users in Kansas City are shown in table 10. Changes in prices for large commercial and large industrial customers followed a similar pattern. A comprehensive schedule showing all changes is provided in chapter 5.

Table 10

Details of the Increase in Prices to  
General Service End-Users for the  
2-Year Period Ending January 1983

<u>City</u>	<u>Cost per Mcf</u>		<u>Increase</u>	<u>Percentage of increase</u>
	<u>January 1981</u>	<u>January 1983</u>		
Kansas City, MO:				
Payments to pipelines and other suppliers	\$2.20	\$4.52	\$2.32	93
Distribution costs	<u>0.59</u>	<u>0.77</u>	<u>0.18</u>	<u>7</u>
Price to end-user	<u>\$2.79</u>	<u>\$5.29</u>	<u>\$2.50</u>	<u>100</u>
Kansas City, KS:				
Payments to pipelines and other suppliers	\$2.22	\$4.62	\$2.40	92
Distribution costs	<u>0.59</u>	<u>0.80</u>	<u>0.21</u>	<u>8</u>
Price to end-user	<u>\$2.81</u>	<u>\$5.42</u>	<u>\$2.61</u>	<u>100</u>

Source: Derived by GAO based on information from records of Gas Service Company.



## CHAPTER 4

### TRANSMISSION OF NATURAL GAS TO KANSAS CITY

Northwest Central supplied approximately 96 percent of Gas Service's requirements for 1981 and 1982. Thus, we focused our analysis on the operations and related costs of that transmission company. The operations and costs of Panhandle Eastern and other sources would not significantly affect our analysis.

Northwest Central is an interstate natural gas transmission company which supplies natural gas to customers principally in five midwestern states. In 1982, Northwest Central sold gas to 86 distribution companies and municipalities for resale to users in approximately 530 cities and towns. It also sold gas directly to over 500 industrial customers. Gas Service--Northwest Central's largest utility customer--accounted for approximately 63 percent of the total 1982 volume. No other customer accounted for more than 5 percent of total sales.

Rates charged by Northwest Central provide for the recovery of both its purchased gas costs and its transmission costs. Purchased gas costs represent payments to producers and other transmission companies for its natural gas supplies. Transmission costs include a provision for operation and maintenance expenses, depreciation, interest, taxes, and a return on equity.

Costs incurred by Northwest Central in purchasing gas from producers and other transmission companies increased significantly during the 2-year period ended January 1983. Transmission costs also increased during the period. The pass-through of these costs caused price increases to Gas Service of 105 percent in Missouri (\$2.20 to \$4.52 per Mcf) and 108 percent in Kansas (\$2.22 to \$4.62 per Mcf) for gas that was ultimately resold to general service end-users, as shown in table 11. Changes in prices for gas resold to large commercial and large industrial customers followed a similar pattern. A comprehensive schedule showing all changes is provided in chapter 5.

Table 11

Details of Price Increases to the Distributor During  
the 2-Year Period Ending January 1983 for Gas  
Ultimately Resold to General Service End-Users

<u>City</u>	<u>Cost per Mcf</u>		<u>Increase</u>	<u>Percentage of increase</u>
	<u>January 1981</u>	<u>January 1983</u>		
Kansas City, MO:				
Gas purchases	\$1.82	\$3.64	\$1.82	78
Transmission costs	<u>0.38</u>	<u>0.88</u>	<u>0.50</u>	<u>22</u>
Price to distributor	<u>\$2.20</u>	<u>\$4.52</u>	<u>\$2.32</u>	<u>100</u>
Kansas City, KS:				
Gas purchases	\$1.84	\$3.74	\$1.90	79
Transmission costs	<u>0.38</u>	<u>0.88</u>	<u>0.50</u>	<u>21</u>
Price to distributor	<u>\$2.22</u>	<u>\$4.62</u>	<u>\$2.40</u>	<u>100</u>

Source: Derived by GAO based on information from records of Gas Service Company and Northwest Central Pipeline Corporation.

This chapter provides information on (1) Northwest Central's natural gas sources and costs and (2) its transmission costs.

PURCHASED GAS COSTS

In December 1982, Northwest Central's gas supplies were based on about 1,450 gas purchase contracts with producers and on four contracts with three other natural gas transmission companies. The producers provide about two-thirds of Northwest Central's daily average supplies and the transmission companies provide the balance.

The major source of gas supplies of Northwest Central has historically been from the producing areas of Kansas, Oklahoma, and Texas. Commencing in 1974, however, Northwest Central entered into a series of contracts with a major oil company providing for commitment of additional gas to its system which might result from exploratory drilling and development activities by the oil company in southern Wyoming. The Wyoming gas, known as tight sands gas because of the geological formations in which it is found, qualifies for premium prices under the Natural Gas Policy Act of 1978 (NGPA) (15 U.S.C. 3301 *et seq.*). The higher cost gas purchased by Northwest Central in Wyoming is transmitted to its market areas by a 612-mile pipeline completed by Northwest Central in 1979.

Northwest Central's purchases from producers are governed by the NGPA. The act established eight major price categories, covered by sections 102 through 109,<sup>1</sup> and additional subcategories depending on when a well is drilled, how deep the well is, when and where the gas was contracted for, and other criteria. Allowable prices for these categories vary widely. On the other hand, Northwest Central's purchases from other interstate transmission companies are governed by rates allowed by FERC for each respective transmission company.

Northwest Central makes a semi-annual filing with FERC on its projected gas costs for the succeeding 6-month period. These projections are adjusted to correct for past over-collection or under-collection of gas purchase costs. Upon FERC's approval, the new rates reflecting current gas purchase costs are made effective on April 23 and October 23 of each year.

We could not obtain data on the section-by-section composition of the projected gas purchases covered by the Northwest Central PGA filings in effect in January 1981 and January 1983; a company representative told us that such data were not readily available. However, we did obtain from the company data on its actual gas purchases for the months of January 1981 and January 1983. Our analysis showed that the cost of purchased gas increased from \$1.66 per Mcf to \$2.86 per Mcf, or an increase of \$1.20 per Mcf during the period. The cost of gas increased in all categories. The NGPA established a schedule for monthly increases in the maximum lawful selling price of all natural gas subject to federal price ceilings. Most maximum lawful prices increase at

---

<sup>1</sup>The NGPA's definitions of the major price categories are complicated. The following definitions are general descriptions only. Section 102 covers gas from new onshore reservoirs, new wells at a minimum distance or depth from an existing well, and certain Outer Continental Shelf reservoirs. Section 103 covers gas from new wells less than a minimum distance or depth from an existing well. Section 104 covers gas from wells dedicated to interstate commerce as of the date of enactment of NGPA. Section 105 covers gas under existing intrastate contracts as of the date of enactment. Section 106 covers gas under "rollover contracts," both inter- and intrastate; such a contract is entered into on or after the date of enactment for gas that was subject to an earlier contract that expired at the end of a fixed term. Section 107 covers high-cost natural gas from wells at a depth of 15,000 or more feet and three other sources specified in the act or from other sources determined by FERC to present extraordinary costs or risks. Section 108 covers gas from "stripper" wells producing less than 60 Mcf per day under normal conditions or more than 60 Mcf per day due to enhanced recovery techniques. Section 109 covers gas not covered by any other price provision.

the rate of inflation; section 102 and certain other subcategories increase at a set rate above the rate of inflation.<sup>2</sup>

Also, the proportionate quantities of gas purchased from each category changed. Although the total quantity purchased decreased by 25 percent (from 39.6 Bcf to 29.6 Bcf), the quantity of old gas (sections 104 and 106) purchased declined 55 percent (from 21.2 Bcf to 9.6 Bcf), while the combined quantities of new gas and high-cost gas increased 8 percent (from 9.6 Bcf to 10.4 Bcf). Table 12 illustrates the actual purchases by category during the 2 months.

---

<sup>2</sup>For more information on such price increases, see Natural Gas Price Increases: A Preliminary Analysis (GAO/RCED-83-76, Dec. 9, 1982), pp. 13-16.

Table 12

Gas Purchases by Type, January 1981 and January 1983

<u>Type</u>	<u>January 1981</u>		<u>January 1983</u>	
	<u>Volume in Bcf</u>	<u>Cost per Mcf</u>	<u>Volume in Bcf</u>	<u>Cost per Mcf</u>
Old gas (sections 104 and 106):				
Contract date 1972 or earlier	15.7	\$0.44	6.5	\$0.63
Contract date 1973 or later	4.5	1.94	2.4	2.35
Contract date unknown	<u>1.0</u>	0.93	<u>0.7</u>	1.08
Total	<u>21.2</u>	0.78 <sup>a</sup>	<u>9.6</u>	1.09 <sup>a</sup>
New gas				
section 102	3.9	3.05	2.9	3.57
section 103	3.9	2.75	4.4	3.24
sections 108 and 109	<u>1.8</u>	2.48	<u>1.4</u>	3.34
Total	<u>9.6</u>	2.82 <sup>a</sup>	<u>8.7</u>	3.37 <sup>a</sup>
High-cost gas (section 107)	-	-	1.7	6.63
Purchases from trans- mission companies	8.5	2.54	8.8	3.66
Other	<u>0.3</u>	1.70	<u>0.8</u>	1.95
Total	<u>39.6</u>	\$1.66 <sup>a</sup>	<u>29.6</u>	\$2.86 <sup>a</sup>

<sup>a</sup>Weighted average.

Source: Northwest Central Pipeline Corporation.

The increase in the average cost, from \$1.66 to \$2.86 per Mcf, reflects both changes in proportionate quantities and changes in prices. Our analysis showed that the changes in the proportionate quantities of old gas, new gas, and high-cost gas purchased from the producers accounted for 45 percent of the increase. Higher prices paid to the producers for gas from the various NGPA categories accounted for 19 percent of the increase in the cost. Similarly, higher prices paid to the three transmission companies accounted for another 28 percent of the increase. The remaining 8 percent was caused by other factors.

A Northwest Central representative told us that the company had certain discretion in determining the NGPA category of its gas purchases. He reported that the decrease in the volume of old gas

purchased was attributable to the combined impact of declining consumption and certain provisions in contracts with producers. Industrial consumption of natural gas in Northwest Central's market area weakened due in large part to the economic recession, substantial increases in natural gas wellhead prices, conservation, and the availability of competing fuels.

On the supply side, the company's purchasing patterns were affected by the provisions of contracts it had made with producers. These contracts obligated the company to pay for more gas than it needed to meet its customers' requirements. (These provisions, called take-or-pay clauses, required the company to pay for the gas even if it did not receive the gas.)<sup>3</sup> A company official explained that, to minimize its payments for gas that was not received, the company reduced its deliveries of lower priced gas in favor of higher priced gas. Thus, a higher proportion of its gas deliveries came from higher priced sources, including tight sands gas from Wyoming.

In January 1983, Northwest Central's rates to Gas Service reflected \$3.73 per Mcf for gas purchase costs as compared to the \$2.86 per Mcf actually incurred by the pipeline during that month. The rates charged the distributor in January 1983, however, included a surcharge of \$0.51 per Mcf to correct for past under-recovery of gas purchase costs. The remaining difference can be partially attributed to variances that normally exist between projections and actuals. Also, a company official said that there would normally be a difference in average actual costs during a 6-month period as the weather, and thus consumption of gas, changed and that the company would normally purchase increased volumes of the cheaper old gas in a cold weather month such as January.

In April 1983, Northwest Central took certain actions which substantially reduced its purchased gas costs and its rates to Gas Service. These developments, which took place after the period covered in this report, are discussed on page 36.

#### TRANSMISSION COSTS

Transmission costs incurred by Northwest Central are incorporated into the rates charged to Gas Service. Transmission costs include operation and maintenance expenses, depreciation, interest, taxes, and return on equity. FERC reviews these costs during rate proceedings and provides for their recovery. The transmission cost add-on increased significantly during the 2-year period

---

<sup>3</sup>For information on the origins of take-or-pay clauses and ways in which they can influence a pipeline company's purchases, see Natural Gas Price Increases: A Preliminary Analysis (GAO/RCED-83-76, Dec. 9, 1982), pp. 16-20.

ending January 1983. This occurred due to the company's increased costs in providing the service combined with the lower level of gas sales to Gas Service and other customers. Thus, the pipeline's costs had to be spread over fewer units. Table 13 shows the cost of service allocated to Gas Service and the related sales volumes used in determining the average add-on for the January 1981 and January 1983 rates.

Table 13

Test Year Data Used to Determine an Average  
Transmission Cost for January 1981 and January 1983

<u>Item</u>	<u>January 1981</u>	<u>January 1983</u>
Test year data used: <sup>a</sup>		
Transmission costs (millions)	\$ 83.6	\$134.8
Gas sales (in Bcf)	247.1	171.6
Average add-on required per Mcf sold	\$ 0.34	\$ 0.79

<sup>a</sup>Test year data are submitted to FERC as part of a general rate case. The transmission costs shown here represent only the portion of costs that is allocated against sales to Gas Service Company.

Source: Derived by GAO based on information from records of Northwest Central Pipeline Corporation.

Northwest Central's rates to Gas Service varied depending on the ultimate end-user of the gas. The company determined the cost of providing service to each customer class when submitting a new rate case to FERC. In the settlement process, however, the parties gave some weight to previous rates. Table 14 shows the add-ons that were reflected in the rates that were in effect in January 1981 and January 1983.

Table 14

Transmission Costs Per Mcf for  
January 1981 and January 1983

<u>Month</u>	<u>Average</u>	<u>General service</u>	<u>Large commercial</u>	<u>Large industrial</u>
January 1981	\$0.34	\$0.38	\$0.29	\$0.26
January 1983	0.79	0.88	0.59	0.48

Source: Derived by GAO based on information from records of Northwest Central Pipeline Corporation.

We analyzed the changes that occurred in the various cost categories during the 2-year period ended January 1983. The largest increase occurred in operation and maintenance costs. This category includes expenses incurred for the gathering, storage, and transmission functions. These costs increased \$0.25 per Mcf during the 2-year period. A primary reason for this increase was the increase in the cost of gas that is used internally for compressor station fuel. Also, the increase in labor costs was a significant factor.

Return on equity, as allowed by FERC, increased \$0.08 per Mcf. Other cost categories increased \$0.07 per Mcf or less. Table 15 shows the transmission cost add-ons for January 1981 and January 1983.



Table 15

Components of the Average Transmission Cost  
Per Mcf for January 1981 and January 1983

<u>Cost category</u>	<u>January 1981</u>	<u>January 1983</u>	<u>Increase (decrease)</u>	<u>Percentage of increase</u>
Operation and maintenance	\$0.12	\$0.37	\$0.25	56
Depreciation	0.05	0.08	0.03	7
Interest	0.04	0.06	0.02	4
Income taxes	0.07	0.14	0.07	16
Other taxes	0.03	0.04	0.01	2
Return on equity	0.05	0.13	0.08	18
Sundry gas revenues	<u>(0.02)</u>	<u>(0.03)</u>	<u>(0.01)</u>	<u>(2)</u>
Total	<u>\$0.34</u>	<u>\$0.79</u>	<u>\$0.45</u>	<u>100<sup>a</sup></u>

<sup>a</sup>Components do not add to 100 percent because of rounding.

Source: Derived by GAO based on information from records of Northwest Central Pipeline Corporation.

A lower volume of sales was the major factor contributing to the higher transmission cost per unit. Although sales may expand or contract, many transmission costs remain relatively unchanged. Because sales decreased significantly during our review period, there were fewer units over which the company was able to recover its transmission costs. The average cost per unit would have increased from \$0.34 to \$0.55 per Mcf had gas sales remained constant, an increase of \$0.21. The additional \$0.24 per Mcf was the result of a reduced level of gas sales to Gas Service.

A return on equity is considered a part of the transmission company's costs. For 1982 and 1981, FERC allowed Northwest Central a return on equity of 14 and 12.3 percent, respectively. FERC's decisions did not guarantee Northwest Central a specific rate of return, but instead provided the company an opportunity to earn a just and reasonable return on its invested capital. If certain assumptions and judgments regarding sales volumes and costs proved to be inaccurate, the company would earn more or less than the allowed rate of return.

Northwest Central was successful in earning its authorized rate of return on equity in both 1982 and 1981. The company did not have available the actual rate of return on the portion of its business subject to FERC regulation. However, direct sales and other miscellaneous revenues not subject to FERC regulation represent less than 20 percent of the company's sales volumes. Thus, we compared the authorized returns to the actual returns achieved for the entire company. In 1982, the company earned 16.3 percent on equity, as compared to the 14 percent allowed by FERC. Similarly, the company earned 13.3 percent in 1981 compared to the 12.3 percent allowed by FERC.

#### PRODUCER COST INCREASES

Although average revenues per Mcf to producers increased substantially during the period, we did not attempt to obtain information on producers' expenses. This would have been difficult because of (1) the number of Northwest Central's contracts--about 1,450--and (2) the problems of obtaining comparable financial information from all producers, or even a representative sample of them.

However, we noted that producers' costs increased substantially on a national basis in recent years, according to the Department of Energy's Energy Information Administration. It derived estimates for the costs of (1) drilling gas wells, (2) equipping a new well for production, and (3) operating a well. Table 16 presents selected estimates for 1976, 1981, and 1982 (the latest year for which data are available in all categories). The results are presented as index numbers, or proportions of the 1976 cost levels. In each category, the costs were at least 68 percent higher in 1982 than in 1976.

Table 16

Selected Cost Indexes for Natural Gas Production,  
1976, 1981, and 1982

<u>Cost Category</u>	<u>1976</u>	<u>1981</u>	<u>1982</u>
Drilling a well <sup>a</sup>	100	205	168
Equipping a well for production <sup>b</sup>	100	177	183
Operating a well <sup>b</sup>	100	182	192

<sup>a</sup>Cost of drilling a 5,000-foot-deep well (the most active depth for onshore drilling in 1981).

<sup>b</sup>Average cost for all depths, geographic areas, and rates of production.

Source: For drilling costs, Energy Information Administration, Indexes and Estimates of Domestic Well Drilling Costs, 1982 and 1983, DOE/EIA-0347(82-83), Sept. 1983, pp. 33 and 34. For equipping and operating costs, Energy Information Administration, Costs and Indexes for Domestic Oil and Gas Field Equipment and Production Operations, DOE/EIA-0185(82), Dec. 1982, pp. 11 and 16.

SUMMARY

Natural gas delivered to Kansas City consumers by Gas Service was provided primarily by Northwest Central, which in turn bought gas from producers and other transmission companies. Northwest Central's higher gas costs between January 1981 and January 1983 reflected (1) higher prices per Mcf for gas bought from producers in all NGPA categories, (2) a higher proportion of purchases of new gas and high-cost gas, and a lower proportion of old gas due, according to a Northwest Central representative, to reduced consumption and the company's purchasing practices, and (3) higher prices charged by other pipeline companies.

In addition, Northwest Central's transmission cost per Mcf increased due to (1) higher costs for operation and maintenance and other costs and (2) lower sales which resulted in the higher costs being allocated over few units of sales.

## CHAPTER 5

### OVERVIEW OF PRICE CHANGES IN KANSAS CITY

An overall analysis of the changes in natural gas prices to Kansas City consumers for the 2-year period ending January 1983 shows that the principal cause of the higher prices was the rapid escalation of purchased gas costs incurred by Northwest Central. Purchased gas costs accounted for 73 to 84 percent of the price increase for the various classes of service. Increased transmission costs accounted for 9 to 20 percent of the increase. Distribution costs incurred by Gas Service Company were responsible for about 6 to 8 percent of the increase.

Table 17 shows the results of this analysis. In the table, gas purchase costs vary slightly between city and class of service. An underlying cause of this variance is that the proportionate quantity of gas purchased from each supplier is different for Missouri and Kansas. Also, various minor cost adjustments made by Gas Service affect each class of service differently.

Table 17

Summary of Price Changes to Kansas City  
Consumers for 2-Year Period Ending January 1983

<u>City/service</u>	<u>January 1981</u>		<u>January 1983</u>		<u>Increase</u>	<u>Percentage of increase</u>
	<u>Price</u>	<u>Percent</u>	<u>Price</u>	<u>Percent</u>		
<u>Kansas City, MO</u>						
<u>General service:</u>						
Gas purchases <sup>a</sup>	\$1.82	65	\$3.64	69	\$1.82	73
Transmission costs	0.38	14	0.88	17	0.50	20
Distribution costs	<u>0.59</u>	<u>21</u>	<u>0.77</u>	<u>14</u>	<u>0.18</u>	<u>7</u>
Price to consumer	<u>\$2.79</u>	<u>100</u>	<u>\$5.29</u>	<u>100</u>	<u>\$2.50</u>	<u>100</u>
<u>Large commercial:</u>						
Gas purchases <sup>a</sup>	\$1.79	77	\$3.68	79	\$1.89	81
Transmission costs	0.29	12	0.59	13	0.30	13
Distribution costs	<u>0.26</u>	<u>11</u>	<u>0.39</u>	<u>8</u>	<u>0.13</u>	<u>6</u>
Price to consumer	<u>\$2.34</u>	<u>100</u>	<u>\$4.66</u>	<u>100</u>	<u>\$2.32</u>	<u>100</u>
<u>Large industrial:</u>						
Gas purchases <sup>a</sup>	\$1.81	80	\$3.70	82	\$1.89	84
Transmission costs	0.26	11	0.48	10	0.22	10
Distribution costs	<u>0.20</u>	<u>9</u>	<u>0.35</u>	<u>8</u>	<u>0.15</u>	<u>7</u>
Price to consumer	<u>\$2.27</u>	<u>100</u>	<u>\$4.53</u>	<u>100</u>	<u>\$2.26</u>	<u>100<sup>b</sup></u>
<u>Kansas City, KS</u>						
<u>General service:</u>						
Gas purchases <sup>a</sup>	\$1.84	65	\$3.74	69	\$1.90	73
Transmission costs	0.38	14	0.88	16	0.50	19
Distribution costs	<u>0.59</u>	<u>21</u>	<u>0.80</u>	<u>15</u>	<u>0.21</u>	<u>8</u>
Price to consumer	<u>\$2.81</u>	<u>100</u>	<u>\$5.42</u>	<u>100</u>	<u>\$2.61</u>	<u>100</u>
<u>Large commercial:</u>						
Gas purchases <sup>a</sup>	\$1.83	73	\$3.79	76	\$1.96	80
Transmission costs	0.29	12	0.59	12	0.30	12
Distribution costs	<u>0.38</u>	<u>15</u>	<u>0.58</u>	<u>12</u>	<u>0.20</u>	<u>8</u>
Price to consumer	<u>\$2.50</u>	<u>100</u>	<u>\$4.96</u>	<u>100</u>	<u>\$2.46</u>	<u>100</u>
<u>Large industrial:</u>						
Gas purchases <sup>a</sup>	\$1.83	75	\$3.76	79	\$1.93	82
Transmission costs	0.26	11	0.48	10	0.22	9
Distribution costs	<u>0.35</u>	<u>14</u>	<u>0.54</u>	<u>11</u>	<u>0.19</u>	<u>8</u>
Price to consumer	<u>\$2.44</u>	<u>100</u>	<u>\$4.78</u>	<u>100</u>	<u>\$2.34</u>	<u>100<sup>b</sup></u>

<sup>a</sup>Includes purchases from producers and other transmission companies.

<sup>b</sup>Components do not add to 100 percent because of rounding.

Source: Derived by GAO based on information from records of Gas Service Company and Northwest Central Pipeline Corporation.

We also analyzed the relative magnitude of cost changes that occurred during the 2-year period for the acquisition, transmission, and distribution of natural gas in Kansas City. Because the federal and state regulatory authorities approved different add-ons for each customer class for the recovery of transmission and distribution costs, we used an average add-on in our analysis. Thus, the price we computed does not coincide with the actual price for any particular customer class but is representative of the prices for all classes.

Table 18 shows that increased gas purchase costs accounted for 74 percent of the increase in Kansas and 75 percent in Missouri. The remaining 25 or 26 percent increase is accounted for by increases in transmission and distribution costs. These latter increases, however, would have been less than one-half as large if Gas Service's sales had remained level during the period. The regulatory authorities' provisions for return on equity to Northwest Central and Gas Service accounted for 3 percent of the increase in Kansas and 4 percent in Missouri.

Table 18

Summary of Changes in Representative Prices  
to Kansas City End-Users for the 2-Year  
Period Ending January 1983

Cost category	Cost per Mcf				Increase (decrease)		Percentage of increase	
	January 1981		January 1983		MO	KS	MO	KS
	MO	KS	MO	KS				
Gas purchases <sup>a</sup>	\$1.80	\$1.80	\$3.73	\$3.73	\$1.93	\$1.93	75	74
Transmission:								
Operation and maintenance	\$0.12	\$0.12	\$0.37	\$0.37	\$0.25	\$0.25	10	10
Depreciation	0.05	0.05	0.08	0.08	0.03	0.03	1	1
Interest	0.04	0.04	0.06	0.06	0.02	0.02	1	1
Income taxes	0.07	0.07	0.14	0.14	0.07	0.07	3	3
Other taxes	0.03	0.03	0.04	0.04	0.01	0.01	(b)	(b)
Return on equity	0.05	0.05	0.13	0.13	0.08	0.08	3	3
Sundry revenues	(0.02)	(0.02)	(0.03)	(0.03)	(0.01)	(0.01)	(b)	(b)
Total	<u>\$0.34</u>	<u>\$0.34</u>	<u>\$0.79</u>	<u>\$0.79</u>	<u>\$0.45</u>	<u>\$0.45</u>	<u>18</u>	<u>17<sup>c</sup></u>
Distribution:								
Operation and maintenance	\$0.25	\$0.26	\$0.37	\$0.41	\$0.12	\$0.15	5	6
Depreciation	0.05	0.05	0.07	0.07	0.02	0.02	1	1
Interest	0.04	0.04	0.04	0.05	-	0.01	-	(b)
Income taxes	0.05	0.05	0.05	0.06	-	0.01	-	(b)
Other taxes	0.02	0.04	0.03	0.06	0.01	0.02	(b)	1
Dividends on preferred stock	0.01	0.01	0.01	0.01	-	-		
Return on equity	<u>0.03</u>	<u>0.06</u>	<u>0.06</u>	<u>0.07</u>	<u>0.03</u>	<u>0.01</u>	<u>1</u>	<u>(b)</u>
Total	<u>\$0.45</u>	<u>\$0.51</u>	<u>\$0.63</u>	<u>\$0.73</u>	<u>\$0.18</u>	<u>\$0.22</u>	<u>7</u>	<u>8</u>
Representative price to Kansas City end-user	<u>\$2.59</u>	<u>\$2.65</u>	<u>\$5.15</u>	<u>\$5.25</u>	<u>\$2.56</u>	<u>\$2.60</u>	<u>100</u>	<u>100<sup>c</sup></u>

<sup>a</sup>Represents cost of purchases by Northwest Central from producers and three other pipelines.

<sup>b</sup>Less than 0.5 percent.

<sup>c</sup>Components do not equal total because of rounding.

Source: Derived by GAO based on information from records of Gas Service Company and Northwest Central Pipeline Corporation.

## LATER DEVELOPMENTS

In April 1983, Northwest Central reduced its rates to customers by \$1.07 per Mcf, about a 24 percent cut. According to a company representative, the objective of the rate reduction was to permit gas to be competitive with residual fuel oil. About \$0.72 of the reduction related to routine surcharge adjustments for past over- or under-collection of gas purchase costs. The remaining \$0.35 reduction was achieved by a decrease in the company's projected gas purchase costs.

In order to achieve this reduction, according to information from Northwest Central, the company initiated a pattern of gas purchases under its existing producer and pipeline supplier contracts designed to produce an annual system average purchased gas cost of \$2.70 per Mcf. This targeted cost of purchased gas was to be achieved through contract renegotiations, increased purchases of lower cost gas, and reductions in the level of some purchases below contract minimums.

According to a Gas Service representative, the company began reducing its rates to retail customers in April 1983. Because Gas Service buys some gas from sources other than Northwest Central, the \$1.07 per Mcf reduction in Northwest Central's rates resulted in commodity-charge reductions to residential customers of \$0.99 in Missouri and \$1.05 in Kansas. These changes amounted to about a 20-percent decrease per Mcf in both states: from about \$4.99 to \$4.00 in Missouri and from about \$5.15 to \$4.10 in Kansas.

Finally, Northwest Central recently compiled estimates of its overall costs for (1) purchased gas costs, (2) transmission add-on, and (3) price to distribution company customers.<sup>1</sup> It compiled these estimates for late April 1983, late October 1983, and late April 1984. The company estimated that its purchased gas costs per Mcf would decrease \$0.05 between April 1983 and April 1984; its transmission costs per Mcf would increase by \$0.14; and prices to its distribution company customers would increase \$0.09 per Mcf. Details are shown in table 19.

---

<sup>1</sup>Northwest Central and 27 other pipeline companies submitted this information at the request of the Chairman, Subcommittee on Fossil and Synthetic Fuels, House Committee on Energy and Commerce. The results were published in a memorandum, dated Sept. 22, 1983, from the Fossil and Synthetic Fuels Subcommittee Staff to Members, Committee on Energy and Commerce, on the subject of "Natural Gas: Price Projections from Major Pipeline Companies."



Table 19

Northwest Central Estimates of Cost  
Components, for Selected Months

<u>Component</u>	<u>Cost per Mcf as of</u>		
	<u>April 1983</u>	<u>October 1983</u>	<u>April 1984</u>
Purchased gas costs	\$2.56	\$2.67	\$2.51
Transmission add-on	0.83	0.92	0.97
Price to distribution company customers <sup>a</sup>	3.50	3.70	3.59

<sup>a</sup>Figures for purchased gas costs and transmission add-ons do not sum to prices to distribution company customers because of differences in expected sales volumes, cost allocations, and other factors.

Source: Memorandum, dated Sept. 22, 1983, from Fossil and Synthetic Fuels Subcommittee Staff to Members, Committee on Energy and Commerce, on the subject of "Natural Gas: Price Projections from Major Pipeline Companies."



December 1, 1983

Mr. James Duffus III  
Senior Group Director  
Resources, Community and Economic Development  
United States General Accounting Office  
Washington, D. C. 20548

Dear Mr. Duffus:

The attached comments from The Gas Service Company, in two parts, are in response to your letter of November 10, 1983 ... "Natural Gas Price Increases in Kansas City, Kansas-Missouri".

The first part contains general comments. The second, an inter-office memo by Mr. Steenbergen, ties comments back to specific sections of your draft report.

Please note, the main thrust of your report is for the period January 1, 1981 through January 1, 1983. Since that time, significant reductions in wholesale costs of gas have been realized. Those savings have been passed on by Gas Service to its customers.

Sincerely,

William E. Wall  
Chairman of the Board & CEO

WEW:ldn

Attach.

[GAO Note: The inter-office memo referred to above is available on request from GAO. It is not included in this report because it did not, by itself, result in any material change to the report.]

*Distributor of Natural Gas in the Heart of the Nation.*

COMMENTS FROM THE GAS SERVICE COMPANY

Re: Draft of GAO Report of Natural Gas Price Increases  
in Kansas City, Kansas & Missouri

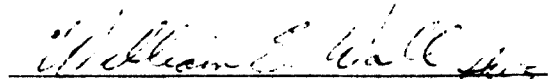
The above-referenced report has been reviewed for general content, but no attempt has been made to verify all of the calculations or conclusions contained therein. Minor modifications have been recommended in informal discussions with General Accounting staff.

Gas Service notes the main thrust of the report is the sharp rise in the field cost of gas as the major contributor to retail gas price increases which occurred during 1981 and 1982.

Table 17 shows in excess of 73% of the total retail increases during this period were due to the rise in the price of gas purchased by the wholesale supplier. This table further indicates that only 7% to 8% of the General Service increase was attributable to The Gas Service Company.

Although increases in wholesale costs occurred in 1981 and 1982, it is equally important to note the price decrease in 1983, shown in this report. Gas Service and its State Regulatory Commissions have urged Northwest Central to renegotiate its contracts and have supported Northwest Central in its efforts to reduce wholesale prices through a targeted cost purchase program. However, these purchase practices are resulting in large prepayment (take-or-pay) obligations for Northwest Central, which ultimately will be reflected in the pipeline's rates. The Company urges legislators to concentrate on a solution to this difficult contract problem. If this take-or-pay problem

can be solved and if price control is maintained over old gas supplies, Gas Service believes gas prices in its territory will stabilize, increasing generally at the rate of inflation. The Gas Service Company commends Senators Eagleton and Kassebaum for their continued interest in this very controversial issue.



William E. Wall  
Chairman of the Board and CEO  
The Gas Service Company

**NORTHWEST CENTRAL PIPELINE CORPORATION**

P. O. BOX 25128

FIRST NATIONAL CENTER EAST • OKLAHOMA CITY 73125

E. S. HANSON  
PRESIDENT

December 2, 1983

Mr. James Duffus III  
Senior Group Director  
United States General Accounting Office  
Washington, D. C. 20548

Dear Mr. Duffus:

Transmitted herewith are comments of Northwest Central Pipeline Corporation on the GAO report on price increases for natural gas service in the Kansas City metropolitan area. We commend the GAO and its personnel on the objective analysis of the elements that were involved in the price increase.

If you need any additional information or assistance, please do not hesitate to call on us.

Yours very truly,



E. S. Hanson

bdr  
Encl.

**Natural Gas Price Increase  
In Kansas City, Kansas-Missouri**

**Comments of  
Northwest Central Pipeline Corporation**

The Report of the General Accounting Office on price increases for natural gas service in the Kansas City Metropolitan area between January 1981 and January 1983 is a fair and accurate evaluation of the contributory factors involved. Northwest Central Pipeline Corporation compliments the GAO and its personnel on the professional manner in which the Report was researched and presented.


In a February 1983 press release, Northwest Central indicated that any study of natural gas costs in the Kansas City area would be most welcome. Northwest Central indicated in that press release that the vast majority of price increases for natural gas in the Kansas City area are attributable to the increased cost of gas purchased from producer and pipeline suppliers.

The Report reaches that same conclusion and in the chapter "Overview of Price Changes in Kansas City" states that purchased gas cost accounted for 73 to 84 percent of the two-year price increase for the various classes of service. Northwest Central merely passes the dollars associated with these increased purchase gas costs on to its customers. The Report further concludes that Northwest Central's transmission costs accounted for only 9 to 20 percent of the price increase over the two-year period. Furthermore, the majority of this

transmission cost increase is attributable to loss of load due to conservation, the recessionary economy, and fuel switching.

Since the time period analyzed by the Report, Northwest Central has made significant efforts to reduce its purchased gas cost. In April, 1983, Northwest Central reduced its rates by \$1.07 per Mcf, or about 24%. In order to maintain that reduction, Northwest Central is making every possible effort to further reduce the cost of its purchased gas and has risked substantial take-or-pay liability in order to assure reasonable retail natural gas prices which will permit its gas to compete with alternate fuels in the Kansas City market area.

Northwest Central is committed to the maintenance of reasonable gas prices in its market area. The success of its efforts to date are evidenced by the fact that the Bureau of Labor Statistics bulletin Consumer Prices: Energy and Food-September 1983 lists the Kansas City, Missouri-Kansas metropolitan area as the lowest cost area for the purchase of 100 therms of residential natural gas among 26 major metropolitan areas in the lower-48 states.

  
\_\_\_\_\_  
E. S. Hanson, President  
Northwest Central Pipeline Corporation

## PANHANDLE EASTERN PIPE LINE COMPANY

3444 BROADWAY

P.O. BOX 1348

KANSAS CITY, MISSOURI 64141

K. E. KALEN  
PRESIDENT

November 29, 1983

Mr. James Duffus, III  
 Senior Group Director  
 Resources, Community & Economic  
 Development Division  
 U.S. General Accounting Office  
 Washington, D.C. 20548

Re: Your letter of November 15, 1983

Dear Mr. Duffus:

You had requested in the above-referenced letter that Panhandle Eastern Pipe Line Company (Panhandle Eastern) review and comment upon information contained in a draft report being prepared for Senators Eagleton and Kassebaum which is entitled "Natural Gas Price Increases in Kansas City, Kansas-Missouri." We have completed our review of the excerpts which were provided to us and would offer the following comments.

Panhandle Eastern data concerning quantities of gas sold to Gas Service Company for 1981 and 1982 and the cost of such gas per Mcf during those years varies slightly from the figures quoted in TABLE 4 on page 14 of the draft. Our data indicates that the Panhandle Eastern line in TABLE 4 should be presented as follows:

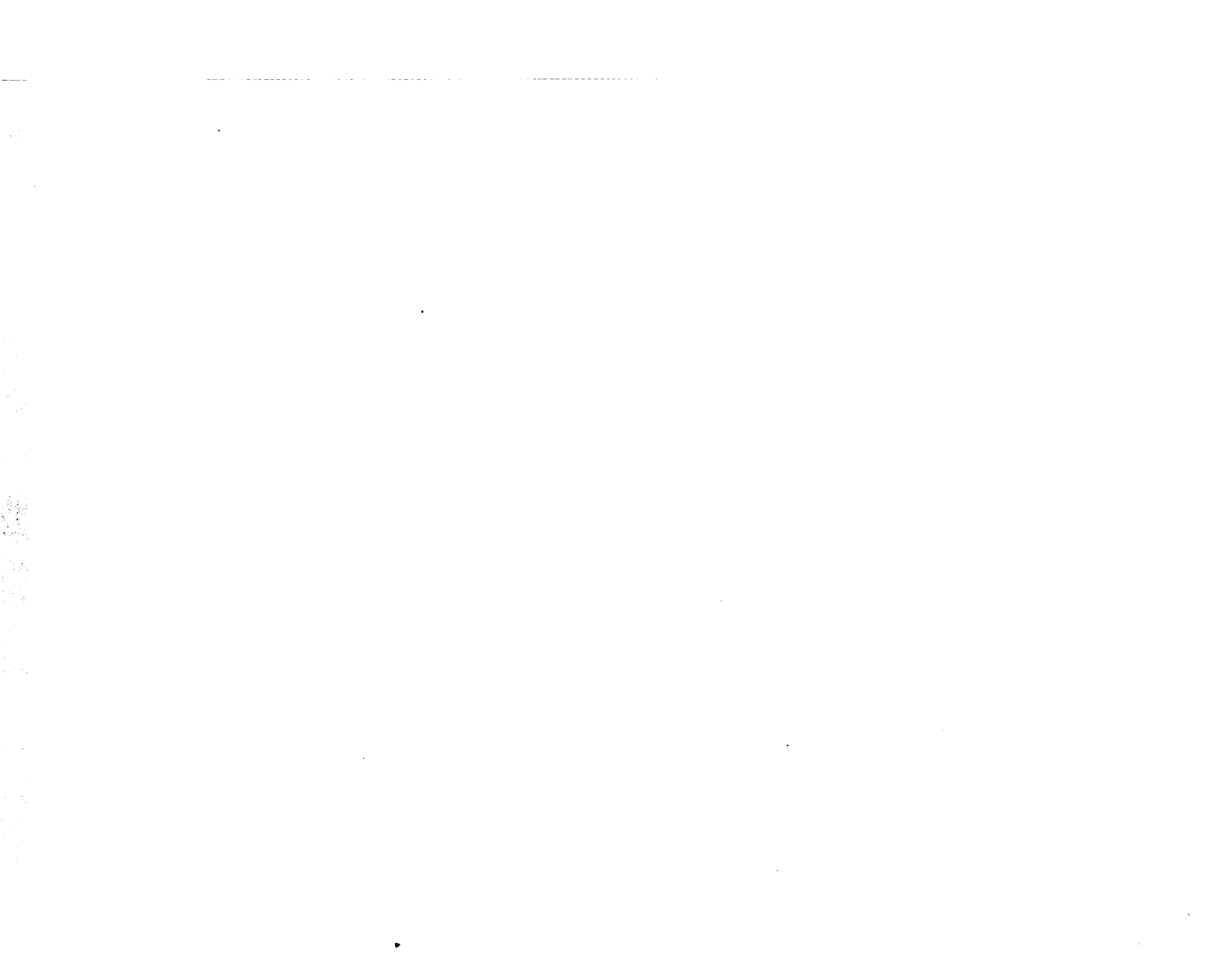
Panhandle Eastern	5.9	3.1	3.05	6.9	3.5	2.45
-------------------	-----	-----	------	-----	-----	------

A corresponding change must be made to the text in the first line of the last paragraph on page 13 to reflect the percentage change made in TABLE 4. A similar change must be made in line 6 of the last paragraph on page 11 for the same reason. These minor changes, of course, will necessitate other changes in the table and the text relating to quantity and percentage totals.

[GAO Note: Page and table numbers have been changed to conform to the final report. The information on page 11 of the draft report, which is referred to above, is no longer included in the report.]









J7480

**AN EQUAL OPPORTUNITY EMPLOYER**

**UNITED STATES  
GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548**

**OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300**

**POSTAGE AND FEES PAID  
U. S. GENERAL ACCOUNTING OFFICE**



**THIRD CLASS**