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ENERGY DEREGULATION

Status of Natural Gas Customer Choice Programs



**Resources, Community, and
Economic Development Division**

B-281423

December 15, 1998

The Honorable Jeff Bingaman
United States SenateThe Honorable Dale L. Bumpers
United States Senate

In 1996, U.S. residential and commercial natural gas users spent \$45 billion on the fuel to heat and cool homes and offices, cook food, and provide power to other household and business appliances. Prior to 1978, gas producers sold gas to interstate pipeline companies, which, in turn, sold it to local gas utilities,¹ which then sold the gas to end users such as residential customers and small businesses. The price at which producers could sell their gas to interstate pipelines and the price at which interstate pipelines could sell their gas to local gas utilities were regulated by the federal government. State authorities regulated the price that gas utilities charged to their end users. Gas utilities held long-term contracts with interstate pipeline companies, while the latter held long-term contracts with producers. Both types of contracts were typically for 20 years or longer and were based on regulated prices.

Under the Natural Gas Policy Act of 1978, the Congress began a process that ended federal control over the price of gas at the wellhead.² This process also set in motion a series of public policy changes by the Federal Energy Regulatory Commission (FERC) and state regulators that has culminated in “customer choice” programs³ for residential and small commercial natural gas users.⁴ Under these programs, homes and small businesses can choose their supplier of natural gas, much as they now choose their long-distance telephone provider. Under a customer choice program, nonutility gas suppliers, called gas marketers, purchase gas and

¹Natural gas utilities are referred to as local distribution companies in industry publications.

²For a more complete discussion of the federal laws and regulatory orders since 1978 that have restructured the natural gas industry, see Natural Gas: Costs, Benefits, and Concerns Related to FERC’s Order 636 (GAO/RCED-94-11, Nov. 8, 1993).

³Customer choice programs are also referred to as unbundling programs. Gas service consists of several separate services—contracting for gas supplies and for interstate transportation and storage and providing for local gas distribution to homes and businesses—that were traditionally bundled into one service provided by local gas utilities. Under customer choice programs, customers contract for their own gas supply, thereby “unbundling” a part of the gas service historically provided by local gas utilities.

⁴Large industrial customers and electric utilities were given access to competitively priced natural gas from nonutility gas suppliers, or gas marketers, by state regulators beginning in the early 1980s. They are not a topic of this report.

arrange for its transportation to the local gas utility. Local gas utilities, while no longer purchasing gas directly for their customers, continue to deliver it to homes and businesses. Proponents of customer choice programs believe that allowing choice will mean competition, thus leading to lower gas prices and greater service options for consumers. Others are concerned about the reliability of service and the possible market power of gas suppliers if regulated gas utilities are no longer responsible for purchasing gas on behalf of their customers.

As requested, we are providing you with information on (1) initial participation in customer choice programs and (2) the effect of these recent customer choice initiatives on residential and small commercial consumers.⁵ In order to respond to these requests, we conducted a survey of gas utilities that had customer choice programs under way as of July 31, 1998. In addition, we interviewed and gathered information from state regulators, gas utility representatives, and gas marketers.

Results in Brief

Forty-three gas utilities in 16 states currently have customer choice programs for either, or both, residential and small commercial natural gas customers.⁶ In addition, gas utilities in 11 other states and the District of Columbia are beginning or considering customer choice programs. According to the results of our survey of gas utilities with residential customer choice programs under way as of July 31, 1998, roughly 553,000 residential gas users were participating in customer choice programs in the United States. This total represents only about 4 percent of the residential customers eligible to participate in these programs. National figures for participation in the small commercial programs could not be determined because data were unavailable. While overall participation in residential customer choice programs is generally low, participation rates vary dramatically among programs. For example, in Nebraska, the local gas utility sponsoring the state's single program estimated that 70 percent of eligible residential customers had selected a gas marketer, while in New York, a local gas utility sponsoring one program reported that no residential customers had selected a gas marketer in its program. Customer participation rates are determined by a variety of factors, such as the customers' potential to save money by purchasing gas from a gas

⁵Residential and small commercial customers are also referred to as small-volume customers. When they choose to buy their gas from a marketer (either a marketer affiliated with the gas utility or an independent third-party marketer), they are recorded as having participated in a customer choice program.

⁶The states are California, Colorado, Illinois, Indiana, Maryland, Massachusetts, Michigan, Nebraska, New Jersey, New Mexico, New York, Ohio, Pennsylvania, Virginia, West Virginia, and Wisconsin.

marketer rather than a gas utility. Other factors reported to us by gas utilities, gas marketers, and state regulators include efforts to make customers aware of programs, and program rules, such as limits on participation. Gas marketers told us their participation in customer choice programs is influenced by their potential to earn a profit on their gas sales. The potential for gas marketers to earn profits can be affected by program rules, such as whether gas marketers can contract for their own transportation services to transport gas to a gas utility for local distribution or whether they must use transportation services previously contracted for by a gas utility.

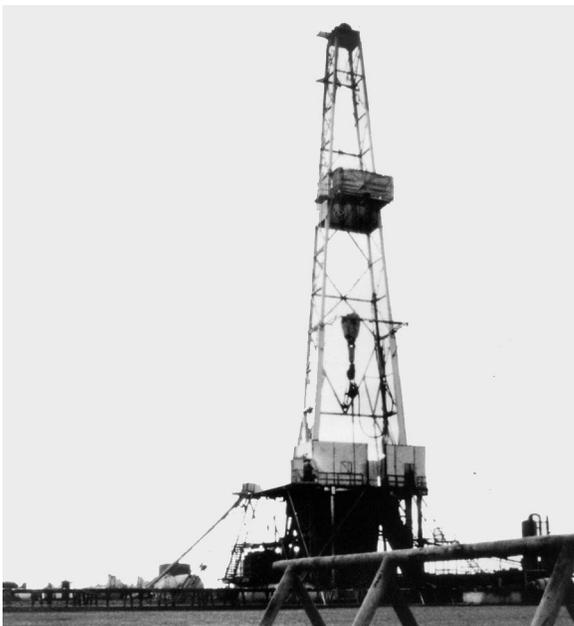
Customer choice programs for residential and small commercial customers are relatively new, with most being less than 3 years old and several less than 1 year old. As a result, information on these programs' impacts on customers is limited. Several gas utilities that responded to our survey provided information on how these programs are affecting cost savings, service reliability, and service options. These gas utilities reported that customers achieved savings and greater service options with no apparent reduction in reliability. While gas utilities reported few problems with the reliability of gas marketers' deliveries, some noted that since customer choice programs are less than 3 years old, the reliability of gas marketers' deliveries has yet to be tested. Most gas utilities in our survey did not provide an estimate of customer savings, in part because their programs were in their initial stages of operation and information on savings was unavailable from gas marketers. Savings estimates we did receive ranged from 1 to 15 percent on total gas bills and were said to come from lower transportation and storage costs, lower gas costs, and savings on state and local taxes. Most gas utilities in our survey have set up independent gas marketers, called marketing affiliates, to sell gas as a separate service to residential and small commercial gas users. In several customer choice programs we surveyed, these marketing affiliates have large market shares, raising concerns among some state regulators about how competitive these programs can be and, thus, their potential to reduce prices.

Background

The costs of natural gas, its transportation and storage, and subsequent local delivery are incorporated into monthly gas bills. According to the Department of Energy (DOE), residential customers in 1997 were billed \$34.6 billion for natural gas deliveries, or \$617 per customer. Figure 1 shows the separate components of the natural gas delivery system from

the wellhead, where natural gas is extracted, to the burner tip, where the fuel is used in a home or business.

Figure 1: Natural Gas Delivery System From the Wellhead to the Burner Tip



(1) Natural gas is produced by drilling into the earth's crust where pockets of gas are trapped. Natural gas resources in the United States are heavily concentrated in the Gulf of Mexico, while a large share of demand comes from the upper Midwest and Northeast.



(2) From production wells, gathering lines deliver natural gas to processing plants. Here, natural gas is refined to remove impurities, like water, other gases, and sand.



(3) An interstate system of pipelines transports natural gas to local markets in the United States. This system is composed of over 300,000 miles of piping, not including local distribution lines. Many pipelines intersect at market centers that provide numerous routes to move gas to local markets, in addition to providing related services such as short-term gas storage and gas loaning.



(4) When natural gas reaches its local destination from a pipeline, it is sometimes stored prior to distribution. Most existing gas storage in the United States is in depleted natural gas or oil fields located close to "city gate" consumption centers. There are more than 400 underground storage sites in 27 states across the United States and Canada.



(5) Local gas utilities control local distribution of most natural gas. However, many industrial and large commercial gas users buy gas and other services directly from gas marketers or pipeline companies. Unless participating in a customer choice program, small commercial and residential users generally buy gas and related services from their local gas utility.



(6) Local gas utilities generally bill their customers for bundled services that include natural gas and transportation costs, the use of utility local distribution lines and gas storage facilities, and additional costs such as those for metering, system maintenance, and billing.

Source for all pictures: American Gas Association (AGA).

Before customer choice programs, the services shown in figure 1 were arranged for or directly provided by local gas utilities.⁷ Historically, gas utilities contracted with interstate and/or intrastate pipeline companies for the natural gas and transportation services (called upstream capacity) necessary to transport gas from the producer's field to the start of the gas utilities' local distribution system, called the city gate.⁸ To guarantee the availability of upstream pipeline and storage space, gas utilities contracted with pipeline companies for priority upstream capacity, called firm capacity, to meet the peak day requirements of their customers.⁹ The purchasing of firm capacity by gas utilities was often done at the behest of state regulators, who wanted to ensure that gas flowed to homes, schools, and businesses on the coldest days of the year, regardless of additional demands placed on the gas delivery system.

Once gas reached the city gate, gas utilities provided for the local distribution of gas through their network of local pipelines. Local gas utilities also provided other gas-related services, such as billing and metering.

Customer choice programs allow residential and small commercial customers to choose their own provider of gas within this delivery system. Under a customer choice program, nonutility gas suppliers, called gas marketers, purchase gas and arrange for its transportation to the local gas utility. Customers then purchase, from a gas marketer, gas that is shipped along the local gas utility's network of distribution pipes to their home or business. The gas utility still charges customers regulated rates for the costs of local gas distribution and the related services it provides, such as billing and metering.

Until recently, customer choice opportunities were limited to large industrial and large commercial customers, such as factories and electric utilities that use gas for power generation. These opportunities allow these gas users to contract competitively for gas, either directly with gas

⁷Natural gas utilities are regulated entities franchised by state regulators to serve customers in a specific service area.

⁸Transportation services include transportation and storage space on interstate and/or intrastate pipeline systems. These transportation services are termed upstream capacity because they occur between the source of gas supply and the beginning of a gas utility's local distribution system. In industry terminology, the gas utility is often used as a reference point that is between the source of gas supply and end users such as homes and businesses. Activities occurring between supply sources and the gas utility are considered upstream activities, while activities occurring between the gas utility and end users are considered downstream activities.

⁹Gas utilities maintain portfolios of the gas supply and transportation contracts necessary to bring gas to customers.

producers or with gas marketers, as well as with interstate pipelines for upstream capacity. According to DOE, average gas prices paid by electric utilities and industrial gas customers have fallen 36 and 24 percent, respectively, between 1990 and 1995, adjusted for inflation.¹⁰ DOE noted that these customers may have the option of multiple servers as well as the capability of using fuels other than natural gas, which allows them to be more aggressive in negotiating contracts and services.

While natural gas deregulation has resulted in lower prices for natural gas, it has also at times been associated with greater price uncertainty. According to DOE analysts, prior to deregulation, many gas utilities' supply contracts were long-term—often for 20 years or more—with little variability in price.¹¹ With deregulation, gas utilities began to purchase gas on the spot market, which can sometimes be highly volatile. For example, in our report on natural gas price volatility during the winter of 1996-97, we found that residential gas prices in New Mexico were 68 percent higher in January 1997 than in December 1996.¹² For some gas utilities we spoke with, price spikes have sometimes resulted in discontented customers and drawn the attention of state regulatory authorities. While state regulators allow gas utilities to recover their upstream costs, including those for interstate transportation and storage and the cost of gas, without profit or loss, regulators in some states can disallow the recovery of costs when they believe gas utilities have made imprudent gas-purchasing decisions.

For some gas utilities, extending customer choice programs to their residential and small commercial customers has given them an opportunity to reduce their regulatory risk and improve their public image with their customer base. Other gas utilities view gas marketers' participation in customer choice programs as a way to increase the demand for gas and therefore help expand their distribution system. Still other gas utilities view customer choice programs as part of a process of change that will result in the increasing importance of nonutility energy companies that market natural gas, electricity, and even oil-based products in an increasingly competitive environment. Some observers believe that mergers, acquisitions, and alliances are bringing diverse energy companies together across energy markets. Several gas utilities have established marketing affiliates that are already active in both gas and electricity markets.

¹⁰Natural Gas 1996 Issues and Trends, Energy Information Agency (DOE/EIA-0560(96), Dec. 1996).

¹¹Mary E. Carlson, Joan Heinkel, and John H. Herbert, "Contracting for Natural Gas Supplies," Energy Information Agency, *Natural Gas Monthly* (Feb. 1994).

¹²Natural Gas Prices During the Winter of 1996-97 (GAO/RCED-98-105R, Mar. 11, 1998).

Overall Participation Remains Low for Small-Volume Customer Choice Programs

As of July 31, 1998, 43 gas utilities in 16 states had customer choice programs under way for residential and/or small commercial natural gas users.¹³ In addition, gas utilities in 11 other states and the District of Columbia were beginning or considering customer choice programs for residential or small commercial gas users. In general, the customer choice programs under way are relatively new, as most of these programs are less than 3 years old and several are less than 1 year old. Despite the likelihood of future growth, participation in current programs is generally low. According to our survey of gas utilities, roughly 553,000 residential gas users, about 4 percent of the customers eligible to participate in customer choice programs, are participating in them. The figures for national participation in small commercial programs could not be determined because data were unavailable. Participation rates in customer choice programs vary dramatically; in some programs, over half of all eligible customers participated, while other programs are still awaiting their first participant.

Customer participation rates are determined by a variety of factors, such as the potential to save money through the purchase of gas from a gas marketer rather than through a gas utility. Other factors reported to us by gas utilities, gas marketers, and state regulators as influencing customers' participation include efforts by these parties to make customers aware of the program, and program rules, such as caps on participation, that can limit overall customer participation. Gas marketers told us their participation in customer choice programs is influenced by the potential for them to earn a profit on their gas sales. Their potential to earn profits can be affected by program rules, such as whether gas marketers can contract for their own transportation services to transport gas to a local gas utility.

Sixteen States Have Small-Volume Customer Choice Programs Under Way, and More Will Start Soon

As shown in figure 2, small-volume customer choice programs—allowing choice for residential and/or small commercial customers—are concentrated in midwestern and eastern states. As of July 31, 1998, New York had 10 active customer choice programs, followed by Michigan, which had 5. New Jersey and Pennsylvania each had four customer choice programs under way, and Ohio, Illinois, and Maryland each had three active programs.

¹³Through interviews with industry experts at DOE, the American Gas Association, and local gas utilities, we determined that 43 gas utilities offered customer choice programs for residential and/or small commercial gas users. The American Gas Association represents natural gas utilities. We mailed questionnaires to all 43 gas utilities and received responses from 38 of them. Information used in this report on customers' and gas marketers' participation is based on these responses.

Figure 2: Small-Volume Natural Gas Customer Choice Programs in the United States

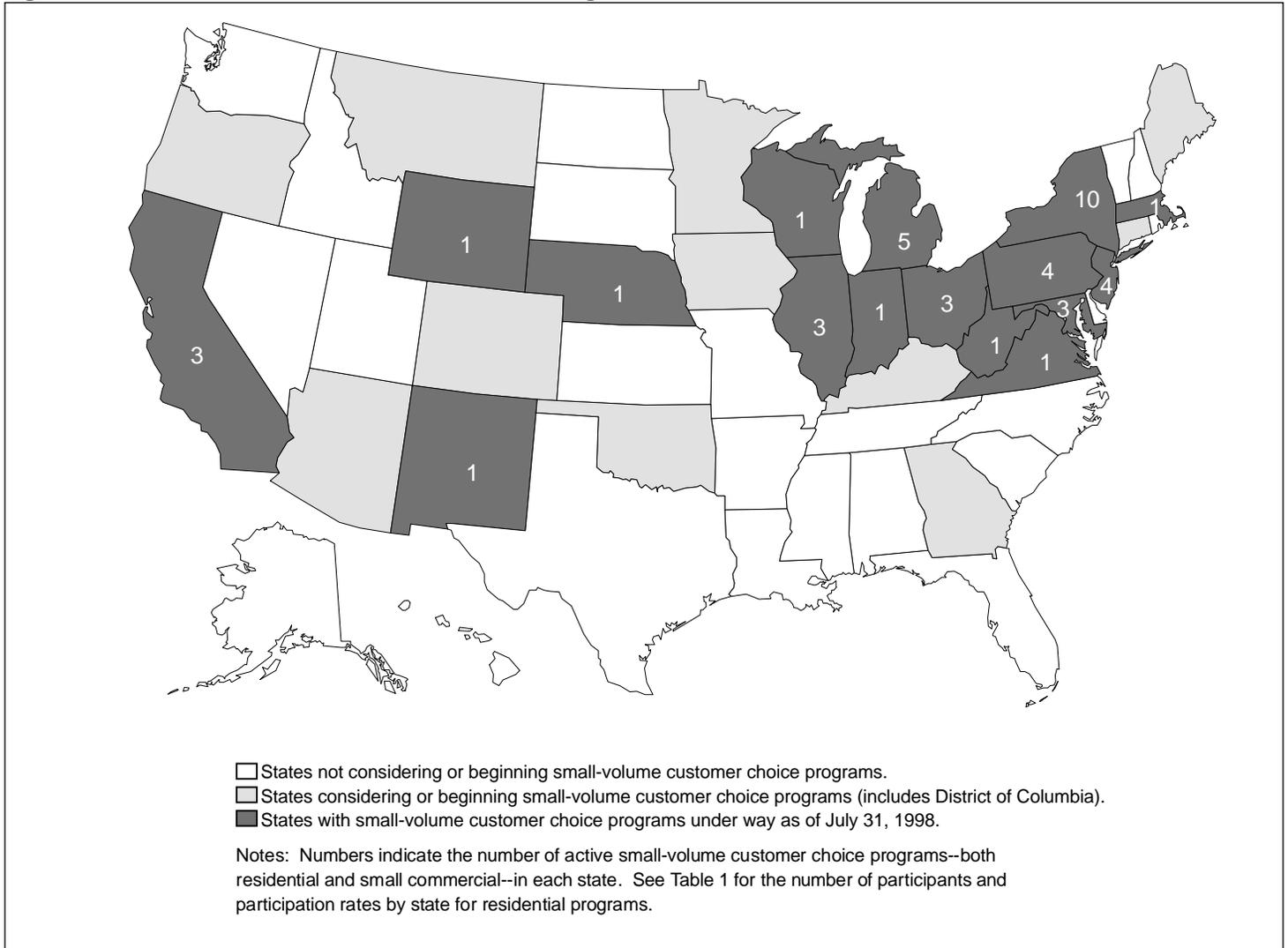


Figure 2 also shows that 11 additional states and the District of Columbia are considering or beginning small-volume customer choice programs. Among these initiatives, a recent Georgia law allows Atlanta Gas Light to begin a customer choice program for the 1.4 million residential and commercial customers in its service area in November 1998. Iowa will allow a statewide choice of gas suppliers in February 1999. In addition, in 1999, gas utilities in Montana will begin customer choice programs that

will offer a choice of gas suppliers to most of their residential and commercial gas users. The other states that are considering or beginning programs are likely to begin customer choice programs in 1999 or 2000.

In addition, gas utilities and state regulators in Ohio, Illinois, Massachusetts, Michigan, New Jersey, Virginia, and Wyoming are expanding existing customer choice programs. The American Gas Association (AGA) reported that once all these programs are under way, 33 percent, or 18.1 million, of the 54 million households in the United States with natural gas service will be able to choose their gas supplier. AGA also estimated that more than 40 percent of the country's commercial customers can now, or soon will be able to, buy gas from a nonutility supplier.¹⁴

Status of Residential Customer Choice Programs

Thirty-four of the 43 local gas utilities we surveyed reported that they had residential customer choice programs under way as of July 31, 1998.¹⁵ Thirty-one of these utilities reported that they began their customer choice programs in 1996 or later. In California, three residential customer choice programs began in 1991. Of the 34 residential customer choice programs, 14 had specific ending dates and may be considered pilot programs. Pilot programs may be limited to one town or county within a gas utility's service area and can restrict the number of customers eligible to participate in the program. State regulators may direct gas utilities to limit eligibility to less than all customers in their service area so they can gain experience in administering a choice program before broadening it.

Status of Small Commercial Customer Choice Programs

Thirty-five gas utilities also reported that they had small commercial choice programs under way as of July 31, 1998. Twenty-eight of these programs began in 1996 or later, while 7 began in 1988 through 1995. Of the 35 small commercial customer choice programs, 15 had specific ending dates and may be considered pilot programs. Thirty-two gas utilities reported that they had both residential and small commercial customer choice programs under way as of July 31, 1998.

¹⁴Providing New Services to Residential Natural Gas Customers: A Summary of Customer Choice Pilot Programs and Initiatives 1998 Update, AGA Issue Brief 1998-03 (July 31, 1998).

¹⁵Four gas utilities reported that they did not have residential programs under way as of July 31, 1998. We did not receive responses from the other five gas utilities.

Residential Participation Rates Are Low Nationally and Vary Greatly Among Programs

The 34 gas utilities that reported residential customer choice programs under way as of July 31, 1998, provide over 21 million residential customers with gas service. Of these customers, over 15 million were eligible to participate. However, only about 553,000, or roughly 4 percent, of those eligible to participate had actually selected a gas marketer as their new supplier of natural gas. Table 1 provides information, by state, on the 34 residential customer choice programs.

Table 1: Overview of Residential Customer Choice Programs in the United States

State	Number of programs	Eligible participants	Participants	Percent of participation ^a
California	3	8,494,185	44,088	0.5
Illinois	1	10,081	1,705	16.9
Indiana	1	83,000	3,258	3.9
Maryland	3	640,000	44,900	7.0
Massachusetts	1	83,000	23,100	27.8
Michigan	3	145,000	33,903	23.4
Nebraska	1	82,000	57,400	70.0
New Jersey	1	350,000	22,000	6.3
New Mexico	1	380,000	0	0
New York	9	3,336,762	17,888	0.5
Ohio	3	656,000	98,485	15.0
Pennsylvania	4	847,001	194,439	23.0
Virginia	1	23,500	4,243	18.1
Wisconsin	1	10,996	1,500	13.6
Wyoming	1	10,000	6,000	60.0
Total	34	15,151,525	552,909	3.6

Note: Estimates of the number of participants in residential customer choice programs are based on information we received from 38 gas utilities. Most utilities provided us with estimates based on information that was current as of July 31, 1998. Reporting dates for other utilities varied between Mar. 31, 1998, and Oct. 1, 1998. (See table I.1 in app. I for the reporting dates of utilities included in this table.)

^aThe percent of participation was calculated by dividing the number of residential customers that have chosen gas marketers by the number of eligible participants in a customer choice program.

Table 1 shows that, by state, the number of eligible participants and the participation rate vary widely among residential customer choice programs. For example, residential customer choice programs in California and New York have by far the largest number of eligible participants, but their programs, collectively, have relatively low participation rates. Eleven of the 12 residential programs in these states

had participation rates of under 1 percent. The four residential customer choice programs in Pennsylvania account for about one-third of all such participants nationwide. Residential customer choice programs in Ohio, Michigan, and Maryland also account for a large percentage of the total participation nationwide.

Across individual programs, participation rates varied greatly. For instance, as of September 9, 1998, 70 percent of the 82,000 residential customers eligible to participate in Nebraska's KN Energy choice program were participating. In contrast, as of August 31, 1998, none of the 380,000 eligible residential customers were participating in the Public Service Company of New Mexico's program because of the unavailability of gas marketers. (See table I.1, in app. I, for the number of participants and participation rates for each of the 34 residential customer choice programs in our survey.)

National figures for participation in small commercial programs could not be determined. Several gas utilities that responded to our survey kept information for commercial customers but did not keep separate information for small commercial customers. Also, several programs had different gas usage requirements for small commercial participation, making comparisons among programs unreliable. For instance, some programs were open to all commercial customers regardless of annual gas usage, while others set annual limits on gas usage for participation. To the extent that information was available, table I.2, in appendix I, identifies small commercial customer choice programs by state, the number of eligible participants, participants, and participation rates.

Residential Participation Rates Are Determined by a Number of Factors

According to state regulators, gas utility representatives, and gas marketers we spoke with, residential participation rates in customer choice programs are determined by many factors. An important factor is the potential of residential customers to save money by purchasing gas from a gas marketer rather than from a gas utility. Savings are defined as the difference between what the gas utility would charge and what the gas marketer charges for gas delivered to a utility's city gate. As discussed in the next section, gas utilities told us that customers' savings come from a combination of gas marketers' savings on upstream transportation and storage costs and on the cost of gas. In some states, customers are also achieving savings because natural gas sold by marketers is subject to fewer state and local taxes than gas sold by local gas utilities. To the extent gas marketers pay lower taxes, they can charge lower prices.

State regulators, gas utilities, and gas marketers told us that other factors influencing customers' participation include efforts to make customers aware of choice programs through education and outreach activities. In Massachusetts, Bay State Gas Company was able to achieve a relatively high rate of customer participation partially through public education efforts coordinated through a collaborative process with state regulators, consumer representatives, and gas marketers. Bay State Gas Company offered customer choice to all its residential customers in Springfield, Massachusetts, in the summer of 1997. The collaborative promotion campaign that followed involved direct mail and billing statement inserts from the gas utility, media advertising in 10 newspapers, four television stations, and nine radio stations, and individual campaigns by gas marketers. As of July 31, 1998, almost 28 percent of the residential customers in the Springfield area had selected a gas marketer under the program.

Another collaborative effort took place under Columbia Gas of Ohio's program. In this program, Columbia Gas of Ohio offered customer choice to about 160,000 residential and 11,500 small business customers in its Toledo, Ohio, service area beginning in April 1997. The gas utility also collaborated with state regulators, consumer representatives, and gas marketers to find the best way to continue, improve, and expand the choice program. Public education efforts for this program began with a 14-day advertising moratorium, during which gas marketers voluntarily refrained from contacting or enrolling customers. During this moratorium, only Columbia Gas of Ohio, the Public Utility Commission of Ohio (PUCO), and the Ohio Consumers' Council could contact customers and inform them of the choice program.¹⁶ The moratorium and subsequent educational campaigns included print, television, radio, billboard and mail advertising, news releases, and community events. As of July 31, 1998, 53,985 residential customers, or 34 percent of all eligible customers, had chosen a gas marketer under the program.

Other programs may have encouraged participation by making it easier for customers to participate. For example, in Nebraska and Wyoming, KN Energy allowed customers to select gas suppliers through mail-in balloting. For these programs, KN Energy sent ballots to all eligible

¹⁶Because of customers' initial confusion over pricing and marketers' offers, PUCO later extended the moratorium's time frame for the first 45 days of the Cincinnati Gas and Electric Company program and for the first 90 days of the East Ohio Gas program. In addition, PUCO developed and distributed a price comparison chart to help customers understand the pricing options available to them.

residential and commercial customers in order for them to select a gas marketer. Balloting took place during 2-week open seasons.¹⁷

While potential savings and customer education and outreach efforts can increase customers' participation, program rules, such as caps on participation, can limit overall participation. For instance, some programs limit eligibility to less than all the customers in their service area so that gas utilities can gain experience in administering a program prior to broadening it. Thirteen gas utilities in our survey reported that eligibility was limited to fewer than half of all the residential customers in their service area. For example, under the SEMCO Energy Gas Company's Battle Creek Division program in Michigan, participation is capped at 1,000 residential customers, which is only 3 percent of the 32,400 residential customers in the utility's service area. Under the Baltimore Gas and Electric Company's customer choice program, while all residential customers were eligible, participation was capped at 50,000 residential customers, which was only 9 percent of the 530,000 residential customers in the utility's service area.¹⁸

Many Factors Affect Gas Marketers' Participation

State regulators, gas utilities, and gas marketers told us that gas marketers' participation in customer choice programs is influenced by the potential for the gas marketers to earn a profit on their gas sales. They also said that limits on customers' participation in some areas may be such that a marketer cannot expect to make a profit. For instance, some programs limit customers' eligibility, and gas marketers may not offer service in these programs because they may be unable to recover administrative and marketing costs. One marketer told us that it will not participate in a choice program that has fewer than 100,000 eligible customers if the service area is remote and the marketer cannot combine its marketing effort for a remote area with its efforts to sell gas to other customers in adjacent programs. Generally, residential customer choice programs that had fewer eligible customers had fewer marketers offering gas services. For example, the Central Illinois Light Company's choice program limits participation to 10,081 customers, which is 6 percent of the 183,058

¹⁷Aside from the two KN Energy programs, only five other gas utilities in our survey—The Peoples Gas Light and Coke Company and Nicor Gas of Illinois, Michigan Consolidated Gas, Wisconsin Gas Company, and National Fuel Gas of Pennsylvania—required customer choice participants to choose gas marketers during open seasons. Other gas utilities in our survey allowed participants to choose gas marketers through rolling enrollment.

¹⁸The utility reached this cap in Oct. 1998. Data used in this report for Baltimore Gas and Electric are current as of July 31, 1998.

customers in its service territory. This choice program is served by only one marketer.

Geographical factors can also discourage marketers' participation. For example, in the New Mexico customer choice program, no gas marketers are currently active for residential customers. The New Mexico Public Utility Commission and gas utility representatives in the state reported that marketers did not see the potential for financial benefit in the program, given the relatively low cost of gas in the state. One gas marketer that left the residential choice program in New Mexico told us the administrative and advertising costs it incurred in attracting residential customers exceeded the profits it could make in selling gas to these customers.

The potential for gas marketers to earn profits may also be affected by program rules, such as whether gas marketers can contract for their own transportation services to transport gas to the gas utility. Under two residential customer choice programs in New York—New York State Electric and Gas and Rochester Gas and Electric—only one gas marketer was participating in each program, and the marketers were required to assume existing pipeline contracts. The New York Public Services Commission reported that gas marketers may not be participating in some state customer choice programs because their profit margins are too thin. The commission issued an order on November 3, 1998, that would allow, by April 1, 1999, gas marketers participating in any customer choice program in the state to contract for their own transportation services.¹⁹

Other program rules and fees may also limit gas marketers' participation. For instance, several customer choice programs require gas marketers to sign up a minimum number of customers, called aggregation requirements, in order to participate as marketers. If these aggregation requirements are set at a high enough level, they can limit gas marketers' participation. For example, in California, gas marketers must meet a 250,000-therm²⁰ aggregation minimum in order to be able to offer services in the state's customer choice programs. In a January 1998 report, the California Public

¹⁹Policy Statement Concerning the Future of the Natural Gas Industry in New York State and Order Terminating Capacity Assignment, State of New York Public Service Commission (Case 93-G-0932 and Case 97-G-1380, Nov. 3, 1998).

²⁰A therm is a heat measurement for natural gas that is equivalent to 100,000 British thermal units. Each California residential customer consumed about 532 therms annually in 1996.

Utility Commission recommended eliminating this aggregation requirement because it hindered marketers' participation.²¹

Under the Central Illinois Gas Company program, gas marketers are required to post a \$300 bond per customer served. According to the utility, a gas marketer complained that the bond is a barrier to marketers' participation. This program is currently served by only one gas marketer—the utility's marketing affiliate. Gas marketers have told us that other utilities require that marketers post performance bonds or security deposits per customer served and that these costs can constitute a financial barrier to entry for them. One gas marketer told us that a \$10 per customer security deposit requirement constituted a \$200,000 "entry fee" if the marketer wanted to supply gas to 20,000 customers in a customer choice program.

Table I.3 in appendix I lists the number of gas marketers participating in current small-volume customer choice programs.

Some Customer Savings and New Service Options Reported for Customer Choice Programs

Although customer choice programs are relatively new, some information on the impacts of these programs exists. Several gas utilities in our survey reported that program participants achieved savings and greater service options with no apparent reduction in service reliability. While gas utilities reported few reliability problems with gas marketers' deliveries, some noted that customer choice programs are less than 3 years old and the reliability of gas marketers' deliveries has yet to be tested. Most gas utilities in our survey did not provide an estimate of customer savings, in part because their programs were in their initial stages of operation and information on savings were unavailable from gas marketers. Savings estimates ranged from 1 to 15 percent on total gas bills and were estimated to come from lower transportation and storage costs, the lower cost of gas, and savings on state and local taxes. Most gas utilities in our survey have set up independent marketing arms, called affiliates, to sell gas as a separate service to residential and small commercial gas users. For several of the customer choice programs that we surveyed, these marketing affiliates have large market shares, raising concerns about how competitive these programs are and thus their potential to reduce prices to customers.

²¹Strategies for Natural Gas Reform: Exploring Options for Converging Energy Markets, Division of Strategic Planning, California Public Utilities Commission (Jan. 21, 1998).

Estimates of Savings Vary

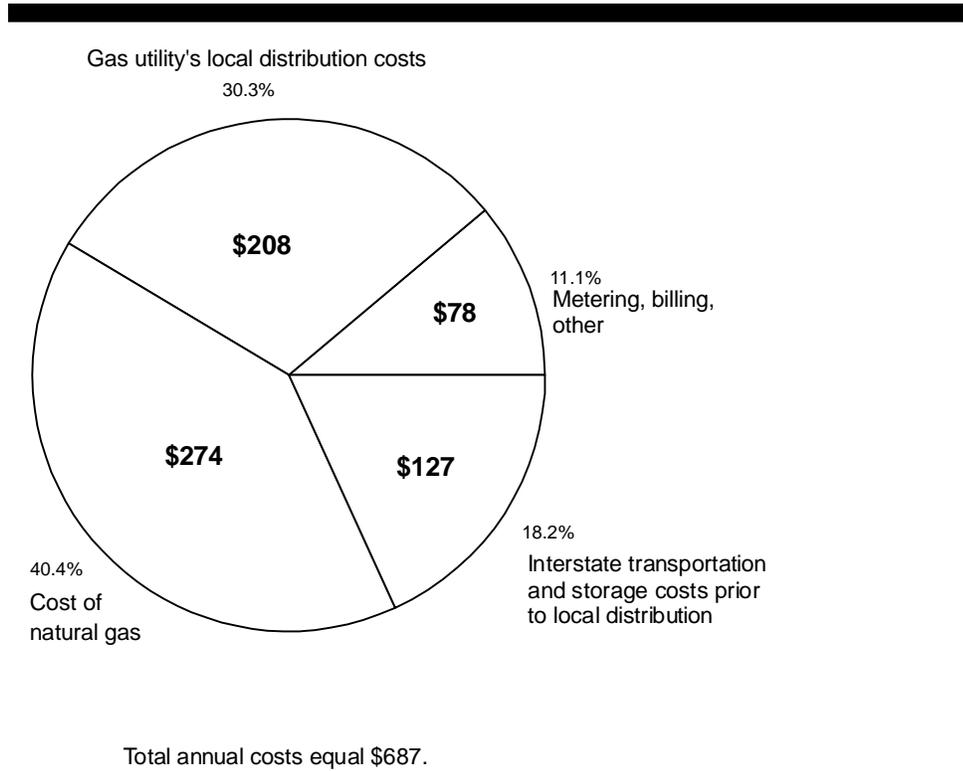
Twelve of the 38 gas utilities that responded to our questionnaire estimated savings for residential and small commercial customers participating in their customer choice programs. These estimates ranged from savings of 1 to 15 percent on total gas bills compared with the amounts that would have been paid under the prior regulated rates. Eleven of these utilities estimated savings of at least 5 percent on monthly gas bills. Gas utilities in our survey responded that these results likely came from a combination of marketers' savings on interstate transportation and storage costs, savings on the cost of gas itself, and savings that the marketers experience because state and local taxes are levied on utilities' gas sales but not on marketers' gas sales.

Savings Potential May Depend
on Components of Gas Bill
Open to Competition

All customer choice programs allow gas marketers to attract customers through price competition on the cost of gas. However, not all programs allow gas marketers to attract customers through price competition on the cost of transportation services, called upstream capacity.²² Customer choice programs that allow for price competition on both the cost of gas and upstream capacity open a larger percentage of a gas bill to potential price savings than customer choice programs that allow for price competition only on the cost of gas. Figure 3 illustrates this point by identifying the service components and their estimated costs in an average annualized residential gas bill in the Midwest.

²²As noted earlier, these costs include ones for pipeline transportation and storage that occur between the source of gas supply and the beginning of a gas utility's local distribution system.

Figure 3: Annualized Costs in a Residential Gas Bill—Columbia Gas of Ohio



Note: Average annualized costs for residential customers were estimated for May 1997 to May 1998.

Source: Columbia Gas of Ohio.

In this example, an average residential customer in the Columbia Gas of Ohio service area pays about \$687 annually for natural gas service.²³ As shown in the figure, the cost of gas amounts to 40.4 percent of the annualized bill, while interstate transportation and storage costs (the upstream capacity costs) account for another 18.2 percent. These costs,

²³Average residential costs vary regionally on the basis of gas usage and transportation costs. Bay State Gas Company in Massachusetts estimated annual residential costs for gas service to be \$1,024 for Nov. 1997 through Oct. 1998. These costs exceed estimated residential costs in the Columbia Gas of Ohio service area because of greater gas usage and additional gas transportation costs, given the greater distance from gas-producing areas in the Southwest.

almost 59 percent of the annualized bill, are pass-through costs²⁴ from the local gas utility to the customer. It is generally in these service components—the cost of the gas and its delivery to the local gas utility—that price competition in customer choice programs takes place. Customer choice typically means a choice in the gas supply to the local gas utility, called the city gate. The remaining 41 percent of the annualized bill includes costs that occur after the gas utility receives the gas, such as costs for local gas distribution through utility-owned pipelines, local gas storage costs, the salaries of utility employees, return on investment, billing, metering, and customer service.²⁵

Some gas marketers and gas utilities told us that savings on the cost of gas are likely to be small. They told us that the national market for natural gas is competitive and that the commodity can be bought by gas utilities and gas marketers at similar prices.

However, several gas utilities and gas marketers told us that savings on upstream capacity can be significant. As noted earlier, to guarantee the availability of pipeline and storage space necessary for the delivery of their gas, gas utilities reserve upstream capacity through negotiated contracts with pipeline companies. These contracts are often long-term—up to 20 years—for priority pipeline and storage space (called firm capacity²⁶). Gas utilities were often required to purchase firm long-term transportation contracts by state regulators to ensure that gas would be delivered to residential and small commercial customers regardless of demand.

In practice, firm capacity contracts have often meant that gas utilities had unused capacity during off-peak periods, such as the summer months, when the demand for gas heating is low. In other words, gas utilities reserved sufficient capacity to meet their maximum loads, although this meant that for the rest of the year they were paying for unused capacity and passing these costs to their customers.

²⁴Pass-through costs mean that regulators generally allow the utility to fully recover such costs, with no opportunity for profit or loss, unless regulators determine some portion of upstream costs to be excessively high or not prudent. Depending on state law, the utility may be faced with some cost disallowances. Gas utilities generally earn profits through a regulated rate of return based on their costs of providing local transportation for the gas and related services.

²⁵On the basis of this example, a customer choice program that resulted in a 10-percent annual savings for a residential customer on the cost of gas, as well as on transportation and storage costs before local distribution, would amount to about \$40, or about \$3.35 a month, for the customer.

²⁶Firm service is defined as gas sold or transported with an obligation for delivery.

In contrast to gas utilities, gas marketers have more flexibility to serve their customers through a mix of firm and interruptible²⁷ capacity contracts. In addition, gas marketers can buy capacity released from gas utilities through a secondary market,²⁸ at rates lower than those paid by the gas utilities. Several gas marketers told us they believe that they can deliver gas reliably and at less cost than gas utilities through these contracting methods. Some gas utility representatives and state regulators question, however, whether gas marketers have contracted for sufficient capacity to ensure the reliable delivery of gas during periods of peak demand. Because of gas utilities' obligation to serve, they may not have the flexibility to contract for short-term capacity that gas marketers have.

Figure 3 also highlights the fact that the relative size of these cost components can limit the amount of potential customer savings. The cost structure shown in figure 3 varies regionally, depending upon the need for interstate transportation and gas storage. Small-volume gas users in southwestern states pay low interstate transportation and storage costs because of the proximity of gas-producing fields. In these states, any significant price competition is likely to be limited to the pricing of gas among gas marketers. However, in midwestern and eastern states, interstate transportation and storage costs can amount to a significant portion of a gas bill, making competition on this portion of a gas bill a larger source of potential savings. For example, Bay State Gas Company in Massachusetts estimates that its residential customers pay about \$293 annually for the natural gas itself and nearly \$271 annually for the interstate transportation and storage of the gas prior to its local distribution and consumption.

Utilities Report Savings on Upstream Capacity

Eleven gas utilities in our survey responded that customer choice programs achieved some savings for customers because gas marketers have lower upstream transportation and storage costs than do gas utilities. However, gas utilities were unsure of the amount of savings resulting from these lower costs, given the unavailability of information on gas

²⁷Interruptible service is defined as a low-priority service subject to interruption when necessary to serve the needs of firm customers or higher-priority interruptible customers.

²⁸In 1992, FERC Order 636 allowed, among other things, the holders of firm capacity contracts to release capacity back to pipeline companies for resale to others. At that time, the price of resales of pipeline capacity contracts in the secondary market were capped at regulated tariff rates, which meant that the price paid in the secondary market would not exceed what the gas utility had paid for the capacity, even during peak-use periods. In an Aug. 1998 notice of proposed rulemaking, FERC proposed to remove this price cap for the resales of short-term (less than 1-year) capacity contracts. FERC concluded that the price cap on released capacity had given gas utilities a disincentive to release capacity in this market. Several gas marketers, gas utilities, and state regulators told us that federal action to release the cap will enhance the efficiency of the secondary market, thereby leading to potentially greater cost savings and possible gains in reliability.

marketers' sources of savings. Of the 38 gas utilities in our survey, 26 allow for savings on upstream capacity because they allow gas marketers to contract, at least in part, for their own transportation services. Eleven other gas utilities in our survey do not allow gas marketers to contract for their own transportation services. These utilities require gas marketers to use transportation services previously contracted for by the utilities.²⁹ In these instances, the gas marketer is required to take this capacity at full regulated rates and use it to deliver the gas to the gas utility.³⁰ (See table I.4 in app. I for a listing of customer choice programs' rules regarding the treatment of upstream capacity.)

As noted earlier, requiring gas marketers to use upstream capacity previously contracted for by gas utilities is likely to mean lower potential savings for customer choice participants. Gas marketers told us that requiring them to use the gas utility's existing upstream transportation services at full regulated rates forces them to copy the utility's gas service and limits their ability to offer savings to customers. Gas marketers told us that when they arrange for their own upstream capacity, they can use a diverse portfolio of upstream capacity contracts, including firm, interruptible, and secondary market contracts. As a result, they told us, they can transport gas to customers at lower costs than gas utilities.

Several gas utilities and state regulators told us that if they allow gas marketers to contract for their own transportation services, gas utilities may be unable to recover part of the cost of existing upstream capacity contracts. Gas utilities negotiated many of these contracts on the basis of estimated volumes and use patterns for existing and future customers prior to the beginning of customer choice programs. Customer choice programs that allow marketers to contract for their own transportation services can result in gas utilities' having smaller customer bases to recover their upstream capacity contracts. In other words, gas utilities must still pay for the upstream capacity contracts they were required to purchase to serve gas customers that no longer buy their gas and transportation services from them. This can result in inequities if gas utilities recover the costs of capacity contracts from only those customers

²⁹Also referred to as mandatory capacity assignment.

³⁰Gas utilities are tied to long-term contracts with interstate pipeline companies at the cost-of-service regulated rates. These contracts can limit flexibility in bringing the lowest-cost gas to the city gate with the lowest upstream capacity costs. Even if a choice program does not require mandatory assignment, it may limit marketers' options by specifying limited receipt and delivery points for bringing gas to the city gate.

currently using upstream transportation services contracted for by the utilities.³¹

In many cases, gas utilities charge their customers a surcharge in order to recover costs associated with their customer choice programs. These costs may include program implementation costs, such as advertising and customer education expenses, and unused upstream capacity. Nineteen gas utilities in our survey charge their customers a surcharge in order to recover these costs. Table I.5 in appendix I identifies whether gas utilities charge customers to recover transition costs resulting from customer choice programs. Importantly, such charges are often applied to all customers that use the gas utility's local distribution service, whether they participate in a customer choice program or not. This can result in an increased cost for gas service for those customers not participating in customer choice programs.

Utilities Report Savings on the Cost of Gas

Nine gas utilities in our survey responded that customer choice programs achieve some cost savings because gas marketers may be able to buy gas more cheaply than gas utilities can. One respondent noted that gas marketers are also more likely to purchase futures contracts³² for gas, which can minimize swings in the price of the fuel. Many gas utilities do not use these contracts when purchasing natural gas supplies partly because of concerns that state regulators will not allow them to recover futures trading costs. As noted earlier, other gas utility representatives and gas marketers have told us that savings on the cost of gas itself are likely to be small because gas utilities, like marketers and other major gas purchasers, can buy gas at competitive prices.

Savings Due to Tax Avoidance

Sales taxes and other business taxes differ from state to state and may even vary by locality. The amount of tax savings would also vary considerably. Gas utilities in seven states—Illinois, Maryland, Michigan, New Jersey, New Mexico, New York, and Pennsylvania—reported to us that sales of natural gas by gas marketers were subject to fewer state taxes than gas sales by local gas utilities. Thus, to the extent they paid lower taxes, gas marketers were able to offer residential and small commercial customers natural gas at a lower price than the local gas utility in these states.

³¹Inequities can be mitigated in the short run by selling unused capacity via the secondary market. In the long run, upstream capacity can be "turned back" to pipeline companies when capacity contracts expire.

³²Futures contracts allow the purchasers of a commodity (natural gas) to lock in a purchase price at some point in the future. These contracts can be used to guard against unforeseen price increases in the commodity.

In Pennsylvania, local gas utilities pay a 5-percent gross receipts tax on both the cost of gas and their local delivery charge. Gas utilities and other businesses pass this tax on to consumers and often itemize it on their monthly bills. According to gas utility representatives in Pennsylvania, if customers purchase gas from gas marketers that do not do business in Pennsylvania or that are not regulated by the state's Public Utility Commission, they avoid the tax on both the cost of gas and the delivery charge. We were told this tax is avoided even though the local gas utility charges for local gas delivery whether customers buy the gas from a gas marketer or the utility. A state regulatory official told us that gas marketers are passing this tax savings along to program customers, and this tax savings may amount to more than half of the savings in some of the Pennsylvania programs.

In Maryland, gas companies pay a 2-percent gross receipts tax on both the cost of gas and the utilities' delivery charge. However, according to gas utility representatives in Maryland, when customers purchase gas from a gas marketer not subject to the Maryland gross receipts tax, they avoid the tax on the cost of gas but still pay the tax on the utility's local delivery charge. In Michigan, the reverse was reported by a gas utility.

In New York, local sales taxes can affect the amount of savings that participants can expect in a customer choice program. Residential participants in Brooklyn Union Gas's two programs pay different sales taxes because of local sales tax differences between counties. These differences can range from 1 to 4 percent on the cost of gas and the local delivery charge. In Illinois, a gas utility representative reported that gas marketers' sales are exempt from the state sales tax.

Until a 1998 tax change, New Jersey residential customers avoided the state's 13.5-percent gross receipts and franchise tax by purchasing gas from a gas marketer rather than a gas utility. Beginning in January 1998, New Jersey replaced this tax with separate taxes that applied equally to gas sales from nonutilities and utilities.

As happened in New Jersey, other states may close gaps in tax treatment between utilities' and gas marketers' gas sales in order to preclude the loss of tax revenues. According to state regulators we spoke with, it is unlikely that differential tax treatment will continue to be a significant source of savings in customer choice programs. For the Columbia Gas of Ohio program, the gas utility itself structured its local distribution charges to

customers to effectively equalize the tax burden for all customers, whether they purchased gas from the utility or a gas marketer.

Many Marketing Affiliates Have Large Market Shares

In many states, state regulators permit gas utilities to create their own gas marketers, called marketing affiliates, to compete with other nonutility gas marketers for customers in customer choice programs.³³ These marketing affiliates are wholly or partly owned by the gas utility or its parent company. For several customer choice programs that we surveyed, these marketing affiliates had large market shares, raising concerns among state regulators about how competitive these programs are and thus their potential to reduce prices. Of the 38 utilities that responded to our survey, 33 had marketing affiliates that offer gas services, while 5 did not have marketing affiliates. Of the 33 gas utilities with marketing affiliates, several had substantial customer participation, largely because of the customer sign-ups initiated by the marketing affiliates.

For instance, the concentration of the affiliates' market share has been relatively high in three of the four Pennsylvania residential customer choice programs. The affiliate for the Equitable Gas residential choice program served all 42,000 residential customers participating in the gas utility's choice program as of August 31, 1998. As of July 31, 1998, the Peoples Natural Gas affiliate served 79 percent of all residential customers participating in the utility's program. As of September 10, 1998, the National Fuel Gas affiliate served 63 percent of all residential customers participating in the utility's program. These choice programs account for a significant portion of residential customers' participation nationwide—159,000, or 27 percent, of residential participants in customer choice programs. Only the affiliate for the Pennsylvania Columbia Gas program did not have the largest market share.

Another large customer choice program with a relatively high affiliate market share is the East Ohio Gas choice program. For this program, the East Ohio Gas marketing affiliate served 83 percent of the 32,000 participating residential customers as of March 31, 1998. All the programs mentioned above that have high market concentrations also require that gas marketers use the gas utility's existing upstream transportation and storage. The marketing affiliate in the fourth Pennsylvania program—the Columbia Gas of Pennsylvania program—had only the third largest market share among marketers in the program, and the program allows marketers

³³FERC also prescribes standards of conduct applicable to transactions between interstate pipeline companies and their marketing affiliates.

the option of using the gas utility's existing upstream transportation and storage or contracting for their own.

In our review of the three Ohio customer choice programs, we found the only program that required gas marketers to use the gas utility's existing upstream transportation and storage—the East Ohio Gas program—also had the highest market concentration by its affiliate. The two other Ohio programs—the Cincinnati Gas and Electric program and the Columbia Gas of Ohio program—gave gas marketers the option to use the gas utility's existing upstream transportation and storage or to contract for their own.

Anticompetitive factors are a concern among state regulators we interviewed. Gas marketers and regulators have raised concerns about the marketing affiliates of gas utilities operating in their parent company's service area. Concerns include the potential for a gas utility to subsidize its affiliate with rate-payer funds or to extend to its affiliate preferential treatment over other marketers for any services or information. In many states, regulators have instituted affiliate rules or codes of conduct aimed at preventing and penalizing abuses in relationships between gas utilities and their affiliates.

Gas Utilities Report Some Problems With Marketers' Reliability and Behavior

Three gas utilities in our survey reported reliability problems with marketers, and 11 gas utilities reported problems with marketers' conduct. In one case, the problem reported was a failure by a gas marketer to deliver gas to the gas utility for local distribution when required.

While some gas utilities reported few reliability problems with gas marketers' deliveries, some utilities and state regulators noted that customer choice programs are less than 3 years old and the reliability of gas marketers' deliveries has yet to be tested. A study by the staff of the Public Utility Commission of Ohio (PUCO) found that while marketers demonstrated their ability to deliver directed quantities of gas to city gates during the 1997-98 winter, that winter was unseasonably warm, and marketers' ability to supply quantities of gas at or above peak conditions was not tested. The report concluded that because of limited information, the PUCO staff could not state with any certainty that marketers' ability to deliver daily quantities under severe weather conditions would mirror their performance during the 1997-98 winter.³⁴

³⁴Staff Evaluation of Ohio's Natural Gas Customer Choice Programs: Columbia Gas of Ohio, East Ohio Gas, and Cincinnati Gas and Electric Companies, submitted by the staff of PUCO (May 1998).

While some gas utilities have concerns about gas marketers' reliability, particularly if gas marketers are allowed to arrange for their own transportation of gas to a utility's city gate, gas utilities can use enforcement mechanisms to ensure the reliability of service. All of the gas utilities responding to our survey reported that they have the authority to either suspend marketers from programs or levy penalties on marketers for failing to deliver gas according to set delivery schedules.

In addition to the mechanisms available to gas utilities to ensure gas marketers' reliability, the emergence of a secondary market for released capacity gives gas marketers access to pipeline transportation. As noted earlier, in 1992, FERC issued Order 636, which, among other things, allowed holders of firm capacity reservations to release unused capacity back to pipeline companies for resale to others. While this market has been somewhat limited because of a FERC-required price cap on the resales of pipeline contracts, FERC has recently proposed to remove this price cap. In a May 1998 report, DOE concluded that "the unused capability of the interstate pipeline system for transportation service appears to be substantial."³⁵ DOE reported that during the 1996-97 heating year, 37 percent of the nation's gas pipeline system capacity went unused.

Gas Marketers Offer Customers Additional Service Options

Thirty-one gas utilities in our survey responded that gas marketers were offering residential and small commercial customers additional service choices. Most of these choices provide residential and small commercial gas users with an opportunity to reduce their exposure to wide swings in the price of gas. Among the service choices, gas marketers most often offered customer choice participants the option of buying their gas at a fixed price—30 of the 31 utilities responding to our survey. Six gas utilities responded that gas marketers were offering customers the option of a fixed monthly bill. Gas utilities also noted that gas marketers were offering customers nongas services, such as free carbon monoxide detectors and the option to buy electricity and other fuels, such as propane and fuel oil. For 27 of the programs we surveyed, gas marketers were allowed to bill the customer directly for marketer-provided services.

Observations

Competition for residential and small commercial natural gas users is gradually emerging in the United States. Regulators, gas utilities, and gas marketers are currently experimenting with ways to create small-volume customer choice programs that attract gas marketers, offer savings to

³⁵Deliverability on the Interstate Natural Gas Pipeline System, (DOE/EIA-0618(98), May 1998).

customers, and ensure the reliability of service. While efficient, competitive programs that fully tap the potential for customer savings and ensure reliable service are taking time to develop, the speed of this development may be sensitive to certain key features of program design. Key program design features include customer education efforts, the removal of barriers to entry for gas marketers, and the arrangement of the upstream transportation of gas that increases the potential for customer savings while ensuring reliability. Given geographical limitations and the savings already achieved through past deregulation efforts, some gas utilities, state regulators, and state legislatures may struggle with ways to find additional savings for customers. However, in other states, opportunities for savings exist, and collaborative efforts among regulators, utilities, and marketers in a few programs have shown that key design features can be successfully addressed. Competition for residential and small commercial gas users may also provide an incentive for those utilities wishing to continue selling natural gas to find ways to reduce the prices they charge and offer additional services. In this way, even those customers choosing not to switch to marketers may benefit.

Customer choice programs provide gas utilities with the opportunity to position themselves for a more competitive environment. Some observers believe that the changing regulatory environment and competition across energy markets will favor utility companies that are creating energy marketing affiliates or forging alliances with other complementary energy companies.

Agency Comments

We provided the Department of Energy with a copy of a draft of this report for review and comment. We met with the Director and staff of the Natural Gas Division, Energy Information Agency, as well as staff of the Policy Office, to obtain the Department's comments. The Department agreed with the facts presented and provided some technical clarifications where appropriate. The Department's comments are presented in appendix III.

Scope and Methodology

Through interviews with industry experts at DOE, AGA, and local gas utilities, we determined there were 43 gas utilities that offered customer choice programs for residential and/or small commercial gas users. To identify the initial experiences of competition in retail gas markets and to identify the impacts of these initiatives on small-volume customers, we surveyed all natural gas utilities in the United States that had customer choice programs under way as of July 31, 1998, for residential or small

commercial customers. We designed and mailed a questionnaire to all 43 utilities that covered areas of customers' and gas marketers' participation, the regulation of gas marketers, customer savings, and quality of service. We surveyed gas utilities because they were the most available source of information for the rules of customer choice programs and the levels of customer's and gas marketers' participation.

We received responses from 38 of the 43 gas utilities. Information presented in the report on customers' and gas marketers' participation, program rules, and projected customer savings are based on these 38 responses. The results of the survey are shown in appendix II. In addition, we conducted follow-up telephone interviews with questionnaire respondents to clarify and add to the information gathered in the questionnaires.³⁶

In addition to the questionnaire, we conducted case studies on individual programs in Ohio, Massachusetts, and New Mexico. We reviewed customer choice programs in Ohio because industry observers noted that the state had among the most developed programs in the country. We selected programs in New Mexico and Massachusetts for review because of their proximity to, and long distance from, natural gas production areas, respectively. We interviewed natural gas utility officials, gas marketers, state regulators, and industry experts in these states. We also reviewed existing evaluations of gas utility customer choice programs from state regulators, DOE's Energy Information Agency, and AGA.

We performed our review from March through November 1998 in accordance with generally accepted government auditing standards.

As arranged with your offices, we will send copies of this report to the appropriate Senate and House committees. We will also make copies available to others on request.

³⁶Thirty-four of the 38 gas utilities responding reported they had residential customer choice programs under way as of July 31, 1998.

Please call me at (202) 512-3841 if you have any questions about this report. Major contributors to this report are listed in appendix IV.

A handwritten signature in black ink that reads "Susan D. Kladiva". The signature is written in a cursive style with a large initial 'S' and a distinct 'K'.

Susan D. Kladiva
Associate Director, Energy,
Resources, and Science Issues

Contents

Letter	1
Appendix I Selected Results From Survey Questionnaire	34
Appendix II Customer Choice Survey and Results	45
Appendix II Customer Choice Survey and Results	46
Appendix III Comments From the Department of Energy	61
Appendix IV Major Contributors to This Report	63
Tables	
Table 1: Overview of Residential Customer Choice Programs in the United States	12
Table I.1: Participation in Residential Customer Choice Programs	34
Table I.2: Participation in Small Commercial Customer Choice Programs	37
Table I.3: Gas Marketers' Participation in Customer Choice Programs	39
Table I.4: Natural Gas Utility Treatment of Upstream Capacity in Customer Choice Programs	41
Table I.5: Natural Gas Utility Treatment of Transitional Costs Resulting From Customer Choice Programs	43

Figures

Figure 1: Natural Gas Delivery System From the Wellhead to the Burner Tip	5
Figure 2: Small-Volume Natural Gas Customer Choice Programs in the United States	10
Figure 3: Annualized Costs in a Residential Gas Bill—Columbia Gas of Ohio	19

Abbreviations

AGA	American Gas Association
DOE	Department of Energy
EIA	Energy Information Agency
FERC	Federal Energy Regulatory Commission
GAO	General Accounting Office
mcf	1,000 cubic feet of gas
PUCO	Public Utility Commission of Ohio

Selected Results From Survey Questionnaire

The tables in this appendix list selected results from our survey of 43 gas utilities that had small-volume customer choice programs under way as of July 31, 1998. Table I.1 identifies participating customers and participation rates for residential customer choice programs. Table I.2 identifies participating customers and participation rates for small commercial customer choice programs. Table I.3 identifies the number of gas marketers selling gas to small-volume customers in these customer choice programs. Table I.4 identifies customer choice programs' rules on the treatment of upstream capacity. The table identifies whether gas marketers are allowed to arrange, at least in part, for their own upstream transportation and storage of gas or whether they are required to use transportation services previously contracted for by the gas utility. Finally, table I.5 identifies whether gas utilities with small-volume customer choice programs charge fees to recover costs associated with their programs. These costs may include program implementation costs, such as advertising and customer education expenses and unused upstream capacity.

Table I.1: Participation in Residential Customer Choice Programs

State and gas utility	Information current as of	Date program began	Customers in service area	Eligible customers	Participating customers	Participation percentage
California						
Pacific Gas and Electric Co.	July 31, 1998	Sept. 1, 1991	3,000,000	3,000,000	2,000	0.1
San Diego Gas and Electric Co.	Sept. 1, 1998	Aug. 1, 1991	694,185	694,185	288	0
Southern California Gas Co.	Sept. 1, 1998	Aug. 1, 1991	4,800,000	4,800,000	41,800	0.9
Illinois						
Central Illinois Light Co.	Sept. 11, 1998	Sept. 1, 1996	183,058	10,081	1,705	16.9
Indiana						
Northern Indiana Public Service Co.	July 31, 1998	Nov. 1, 1997	602,269	83,000	3,258	3.9
Maryland						
Baltimore Gas and Electric	July 31, 1998	Nov. 1, 1997	530,000	530,000	25,000	4.7
Columbia Gas of Maryland	July 31, 1998	Nov. 1, 1996	27,600	10,000	2,500	25.0
Washington Gas of Maryland	June 30, 1998	Nov. 1, 1996	300,000	100,000	17,400	17.4
Massachusetts						
Bay State Gas Co.	July 31, 1998	Nov. 1, 1996	180,000	83,000	23,100	27.8

(continued)

**Appendix I
Selected Results From Survey Questionnaire**

State and gas utility	Information current as of	Date program began	Customers in service area	Eligible customers	Participating customers	Participation percentage
Michigan						
SEMCO Energy Gas Co.-Battle Creek Div.	July 31, 1998	Apr. 1, 1997	32,400	1,000	1,003 ^a	100.3
Consumers Energy	Sept. 1, 1998	Apr. 1, 1998	1,400,000	100,000	30,000	30.0
Michigan Consolidated Gas Co.	July 31, 1998	Apr. 1, 1997	1,100,000	44,000	2,900	6.6
Nebraska						
KN Energy	Sept. 9, 1998	June 1, 1998	92,000	82,000	57,400	70.0
New Jersey						
New Jersey Natural Gas Co.	July 31, 1998	Apr. 1, 1997	350,000	350,000	22,000	6.3
New Mexico						
Public Service Company of New Mexico	Aug. 31, 1998	Dec. 1, 1997	380,000	380,000	0	0
New York						
Brooklyn Union-Long Island	Sept. 1, 1998	Apr. 1, 1996	410,922	410,922	608	0.2
Brooklyn Union-Brooklyn, Queens, Staten Island	July 31, 1998	May 1, 1996	1,090,800	1,090,800	11,614	1.1
Central Hudson Gas and Electric Corp.	July 31, 1998	May 1, 1996	55,000	55,000	0	0
Consolidated Edison Co. of New York, Inc.	July 31, 1998	May 1, 1996	935,301	935,301	4,619	0.5
Corning Natural Gas Corp.	July 31, 1998	May 1, 1996	12,891	12,891	3	0
New York State Electric and Gas Corp.	July 31, 1998	May 1, 1996	213,180	213,180	81	0
Niagara Mohawk Power Corp.	July 31, 1998	Nov. 1, 1996	488,168	488,168	393	0.1
Orange and Rockland Utilities, Inc.	Oct. 1, 1998	Nov. 1, 1996	104,500	104,500	570	0.6
Rochester Gas and Electric Corp.	Aug. 20, 1998	Nov. 1, 1996	260,000	26,000	0	0
Ohio						
Cincinnati Gas and Electric Co.	June 30, 1998	Nov. 1, 1997	337,500	337,500	12,500	3.7
Columbia Gas of Ohio	July 31, 1998	Apr. 1, 1997	1,200,000	158,500	53,985	34.1
East Ohio Gas	Mar. 31, 1998	Dec. 1, 1997	1,100,000	160,000	32,000	20.0
Pennsylvania						
Columbia Gas of Pennsylvania	July 31, 1998	Nov. 1, 1996	380,000	278,000	35,489	12.8

(continued)

Appendix I
Selected Results From Survey Questionnaire

State and gas utility	Information current as of	Date program began	Customers in service area	Eligible customers	Participating customers	Participation percentage
Equitable Gas	Aug. 31, 1998	Apr. 1, 1998	233,500	233,500	42,000	18.0
National Fuel Gas Co.	Sept. 10, 1998	Sept. 1, 1997	176,010	18,501	18,501	100.0
Peoples Natural Gas Co.	July 31, 1998	Apr. 1, 1997	317,000	317,000	98,449	31.1
Virginia						
Columbia Gas of Virginia	July 31, 1998	Oct. 1, 1998	^b	23,500	4,243	18.1
Wisconsin						
Wisconsin Gas Co.	Sept. 22, 1998	Nov. 1, 1996	450,000	10,996	1,500	13.6
Wyoming						
KN Energy	July 31, 1998	July 1, 1996	10,000	10,000	6,000	60.0
Total			21,446,284	15,151,525	552,909	3.6

^aProgram slightly exceeded its participation cap.

^bInformation unavailable.

**Appendix I
Selected Results From Survey Questionnaire**

Table I.2: Participation in Small Commercial Customer Choice Programs

State and gas utility	Information current as of	Date program began	Customers in service area	Eligible customers	Participating customers	Participation percentage
California						
Pacific Gas and Electric Co.	July 31, 1998	Sept 1, 1991	270,000	270,000	9,000	3.3
San Diego Gas and Electric Co.	Sept. 1, 1998	Aug. 1, 1991	27,540	27,540	657	2.4
Southern California Gas Co.	Sept. 1, 1998	Aug. 1, 1991	200,000	200,000	8,000	4.0
Illinois						
Nicor Gas	July 31, 1998	May 1, 1998	162,000	162,000	32,617	20.1
The Peoples Gas Light and Coke Co.	July 31, 1998	Nov. 1, 1997	86,170	72,616	13,585	18.7
Indiana						
Northern Indiana Public Service Co.	July 31, 1998	Nov. 1, 1997	a	a	a	a
Maryland						
Columbia Gas of Maryland	July 31, 1998	June 1, 1996	3,500	1,000	388	38.8
Washington Gas of Maryland	June 30, 1998	June 1, 1996	23,000	23,000	4,300	18.7
Massachusetts						
Bay State Gas Co.	July 31, 1998	Nov. 1, 1997	18,000	16,000	3,450	21.6
Michigan						
SEMCO Energy Gas Co.-Battle Creek Div.	July 31, 1998	Apr. 1, 1997	2,100	2,100	411	19.6
Consumers Energy	Sept. 1, 1998	Apr. 1, 1998	100,000	100,000	4,000	4.0
Michigan Consolidated Gas Co.	July 31, 1998	Apr. 1, 1997	90,000	3,000	400	13.3
SEMCO Energy Gas Co.	July 31, 1998	Mar. 1, 1998	22,000	22,000	3,850	17.5
Nebraska						
KN Energy	Sept. 9, 1998	June 1, 1998	a	a	a	a
New Jersey						
New Jersey Natural Gas Co.	July 31, 1998	Nov. 1, 1994	a	a	a	a
Public Service Electric and Gas Co.	July 31, 1998	Feb. 1, 1995	176,000	176,000	17,294	9.8
New Mexico						
Public Service Company of New Mexico	Aug. 31, 1998	Dec. 1, 1997	30,000	27,000	113	0.4

(continued)

**Appendix I
Selected Results From Survey Questionnaire**

State and gas utility	Information current as of	Date program began	Customers in service area	Eligible customers	Participating customers	Participation percentage
New York						
Brooklyn Union-Long Island	Sept. 1, 1998	Apr. 1, 1996	45,987	45,987	3,629	7.9
Brooklyn Union-Brooklyn, Queens, Staten Island	July 31, 1998	May 1, 1996	38,500	38,500	5,036	13.1
Central Hudson Gas and Electric Corp.	July 31, 1998	May 1, 1996	a	a	a	a
Consolidated Edison Company of New York, Inc.	July 31, 1998	May 1, 1996	98,146	98,146	6,657	6.8
Corning Natural Gas Corp.	July 31, 1998	May 1, 1996	901	901	56	6.2
New York State Electric and Gas Corp.	July 31, 1998	May 1, 1996	25,132	25,132	620	2.5
Niagara Mohawk Power Corp.	July 31, 1998	Nov. 1, 1996	39,525	39,525	2,508	6.3
Orange and Rockland Utilities, Inc.	Oct. 1, 1998	Nov. 1, 1996	9,563	9,563	604	6.3
Rochester Gas and Electric Corp.	Aug. 20, 1998	Nov. 1, 1996	20,000	2,000	584	29.2
Ohio						
Cincinnati Gas and Electric Co.	June 30, 1998	Sept. 1, 1994	a	a	a	a
Columbia Gas of Ohio	July 31, 1998	Apr. 1, 1997	94,000	11,500	5,226	45.4
East Ohio Gas	Mar. 31, 1998	Dec. 1, 1997	80,000	12,500	2,300	18.4
Pennsylvania						
Columbia Gas of Pennsylvania	July 31, 1998	Nov. 1, 1996	1,514	a	a	a
National Fuel Gas Co.	Sept. 10, 1998	Sept. 1, 1997	7,469	1,271	1,271	100.0
Peoples Natural Gas Co.	July 31, 1998	June 1, 1988	a	a	a	a
Virginia						
Columbia Gas of Virginia	July 31, 1998	Oct. 1, 1997	a	3,017	480	15.9
Wisconsin						
Wisconsin Gas Co.	Sept. 22, 1998	Nov. 1, 1996	30,000	1,018	730	71.7
Wyoming						
KN Energy	July 31, 1998	July 1, 1996	a	a	a	a

^aInformation on small commercial customers was unavailable from the gas utility.

Appendix I
Selected Results From Survey Questionnaire

Table I.3: Gas Marketers' Participation in Customer Choice Programs

State and gas utility	Gas marketers selling gas to residential customer choice participants	Gas marketers selling gas to small commercial customer choice participants
California		
Pacific Gas and Electric Co.	2	16
San Diego Gas and Electric Co.	4	8
Southern California Gas Co.	7	12
Illinois		
Central Illinois Light Co.	1	^a
Nicor Gas	^b	11
The Peoples Gas Light and Coke Co.	^b	8
Indiana		
Northern Indiana Public Service Co.	3	4
Maryland		
Baltimore Gas and Electric	10	^a
Columbia Gas of Maryland	4	2
Washington Gas of Maryland	4	8
Massachusetts		
Bay State Gas Co.	9	10
Michigan		
SEMCO Energy Gas Co.-Battle Creek Div.	2	2
Consumers Energy	3	9
Michigan Consolidated Gas Co.	3	3
SEMCO Energy Gas Co.	^b	3
Nebraska		
KN Energy	4	^c
New Jersey		
New Jersey Natural Gas Co.	8	32
Public Service Electric and Gas Co.	^b	46
New Mexico		
Public Service Company of New Mexico	0	1
New York		
Brooklyn Union-Long Island	8	21

(continued)

Appendix I
Selected Results From Survey Questionnaire

State and gas utility	Gas marketers selling gas to residential customer choice participants	Gas marketers selling gas to small commercial customer choice participants
Brooklyn Union-Brooklyn, Queens, Staten Island	23	33
Central Hudson Gas and Electric Corp.	0	^c
Consolidated Edison Company of New York, Inc.	12	21
Corning Natural Gas Corp.	1	1
New York State Electric and Gas Corp.	1	8
Niagara Mohawk Power Corp.	8	18
Orange and Rockland Utilities, Inc.	2	13
Rochester Gas and Electric Corp.	1	4
Ohio		
Cincinnati Gas and Electric Co.	9	^c
Columbia Gas of Ohio	10	10
East Ohio Gas	11	12
Pennsylvania		
Columbia Gas of Pennsylvania	7	7
Equitable Gas	2	^a
National Fuel Gas Co.	4	4
Peoples Natural Gas Co.	4	20
Virginia		
Columbia Gas of Virginia	5	7
Wisconsin		
Wisconsin Gas Co.	2	6
Wyoming		
KN Energy	3	^c

^aGas utility not offering small commercial customer choice program, as of July 31, 1998.

^bGas utility not offering residential customer choice program, as of July 31, 1998.

^cInformation unavailable from gas utility.

Appendix I
Selected Results From Survey Questionnaire

Table I.4: Natural Gas Utility Treatment of Upstream Capacity in Customer Choice Programs

State and gas utility	Marketers assume utility upstream transportation and storage costs	Marketers arrange some or all of their upstream transportation and storage
California		
Pacific Gas and Electric Co.		X
San Diego Gas and Electric Co.		X ^a
Southern California Gas Co.		X
Illinois		
Central Illinois Light Co.		X
Nicor Gas		X ^b
The Peoples Gas Light and Coke Co.		X
Indiana		
Northern Indiana Public Service Co.		X ^c
Maryland		
Baltimore Gas and Electric		X
Columbia Gas of Maryland	X	
Washington Gas of Maryland		X
Massachusetts		
Bay State Gas Company		X
Michigan		
SEMCO Energy Gas Co.-Battle Creek Div.		X
Consumers Energy		X ^d
Michigan Consolidated Gas Co.		X ^e
SEMCO Energy Gas Co.		X
Nebraska		
KN Energy	X	
New Jersey		
New Jersey Natural Gas Co.		X
Public Service Electric and Gas Co.		X
New Mexico		
Public Service Company of New Mexico		f
New York		
Brooklyn Union-Long Island		X
Brooklyn Union-Brooklyn, Queens, Staten Island		X

(continued)

Appendix I
Selected Results From Survey Questionnaire

State and gas utility	Marketers assume utility upstream transportation and storage costs	Marketers arrange some or all of their upstream transportation and storage
Central Hudson Gas and Electric Corp.	X	
Consolidated Edison Company of New York, Inc.		X
Corning Natural Gas Corp.		X
New York State Electric and Gas Corp.	X	
Niagara Mohawk Power Corp.	X	
Orange and Rockland Utilities, Inc.		X
Rochester Gas and Electric Corp.	X	
Ohio		
Cincinnati Gas and Electric Co.		X
Columbia Gas of Ohio		X
East Ohio Gas	X	
Pennsylvania		
Columbia Gas of Pennsylvania		X
Equitable Gas	X	
National Fuel Gas Co.	X	
Peoples Natural Gas Co.	X ^g	
Virginia		
Columbia Gas of Virginia		X
Wisconsin		
Wisconsin Gas Co.		X ^h
Wyoming		
KN Energy	X	

^aMarketers are required to use pro-rata storage assignment for reliability.

^bMarketers obtain their own upstream capacity, and they are provided with gas utility storage.

^cMarketers can choose from two different delivery options.

^dMarketers are required to deliver gas to the utility's system according to a prescribed schedule.

^eMarketers have access to utility-owned storage capacity.

^fCapacity assignment is not an issue in New Mexico, given the location of gas fields in the state.

^gMandatory assignment of capacity is for residential customers only.

^hAssignment of capacity is part mandatory and part voluntary.

Appendix I
Selected Results From Survey Questionnaire

Table I.5: Natural Gas Utility Treatment of Transitional Costs Resulting From Customer Choice Programs

State and gas utility	Customer charges to recover transitional costs	No charges for transitional costs
California		
Pacific Gas and Electric Co.	X ^a	
San Diego Gas and Electric Co.	X	
Southern California Gas Co.	X	
Illinois		
Central Illinois Light Co.		X
Nicor Gas		X
The Peoples Gas Light and Coke Co.		X
Indiana		
Northern Indiana Public Service Co.		X
Maryland		
Baltimore Gas and Electric		X ^b
Columbia Gas of Maryland		X
Washington Gas of Maryland	X ^c	
Massachusetts		
Bay State Gas Co.		X
Michigan		
SEMCO Energy Gas Co.-Battle Creek Div.	X ^d	
Consumers Energy		X
Michigan Consolidated Gas Co.		X
SEMCO Energy Gas Co.	X ^d	
Nebraska		
KN Energy	X	
New Jersey		
New Jersey Natural Gas Co.		X
Public Service Electric and Gas Co.	X	
New Mexico		
Public Service Company of New Mexico	X	
New York		
Brooklyn Union-Long Island		X
Brooklyn Union-Brooklyn, Queens, Staten Island	X ^e	

(continued)

Appendix I
Selected Results From Survey Questionnaire

State and gas utility	Customer charges to recover transitional costs	No charges for transitional costs
Central Hudson Gas and Electric Corp.	X	
Consolidated Edison Company of New York, Inc.		X
Corning Natural Gas Corp.	X	
New York State Electric and Gas Corp.		X
Niagara Mohawk Power Corp.		X
Orange and Rockland Utilities, Inc.	X	
Rochester Gas and Electric Corp.	X	
Ohio		
Cincinnati Gas and Electric	X	
Columbia Gas of Ohio	X	
East Ohio Gas		X
Pennsylvania		
Columbia Gas of Pennsylvania	X ^f	
Equitable Gas		X
National Fuel Gas Co.		X
Peoples Natural Gas Co.		X
Virginia		
Columbia Gas of Virginia		⁹
Wisconsin		
Wisconsin Gas Co.	X	
Wyoming		
KN Energy	X	

Note: These costs may include program implementation costs, such as advertising and customer education expenses, and unused upstream capacity.

^aTransition costs are shared between customers and shareholders.

^bBeginning November 1, 1998, there will be a charge for all commercial and residential customers.

^cCharge based on level of terms that have gone to transportation service.

^dSurcharge applicable to customer choice participants.

^eDual fuel customers (those that can switch between fuels) pay less than firm customers (residential).

^fSurcharge applied to all customers using less than 6,000 mcf (1,000 cubic feet of gas) a year.

⁹Information not provided.

Customer Choice Survey and Results

We mailed a questionnaire to 43 gas utilities that had either, or both, residential or small commercial customer choice programs under way as of July 31, 1998. The questionnaire, reprinted below, contained 41 questions covering customers' and marketers' participation, marketers' certification and regulation, customer savings, and quality of service. We received responses from 38 gas utilities.

For most of the questions in the reprinted survey, we identified the number of gas utilities that marked each box in each question. For the questions on customers' and marketers' participation, we included the results in the tables in appendix I and referred the reader to these tables. For some questions on marketers' participation and the estimates of customer savings, we identified the range of responses. Also, several gas utilities did not respond to all of the questions, so some questions have fewer total respondents than others.

Customer Choice Survey and Results

United States General Accounting Office

GAO Survey of Local Distribution Companies' Unbundling ("Customer Choice") Programs for Small-Volume Consumers of Natural Gas

Introduction

The U.S. General Accounting Office (GAO), a congressional audit and evaluation agency, is conducting a review of natural gas unbundling programs for small-volume (residential and small-commercial) consumers.

The GAO is surveying all natural gas local distribution companies (LDCs) that have active programs for unbundling natural gas service to small-volume consumers. Your company was identified by the American Gas Association as having such a program. As a result, we are requesting that you complete the enclosed questionnaire that asks for information on your program.

Because your company is one of a limited number of LDCs that have an active unbundling programs for small-volume consumers, your cooperation is critical in providing balanced and complete information to the Congress. Results of the survey will be used in our report.

Please fax the completed questionnaire to Philip Farah at (202) 512-6171 or to Tim Minelli at (202) 512-7477 by August 28, 1998. If you prefer, you may send the completed questionnaire via an overnight mail service to:

Philip Farah
U.S. General Accounting Office
441 G Street, NW, Room 1826
Washington, DC 20548

If you have any questions, please call Philip Farah at (202) 512-5858 or Tim Minelli at (202) 512-8443.

Thank you for your cooperation.

**Appendix II
Customer Choice Survey and Results**

Instructions

The following definitions should be used when completing this questionnaire:

Your program means your company's program to allow small volume (both residential and small commercial) gas customers to choose third-party natural gas suppliers (i.e., your small-volume unbundling program).

Eligible customers means residential and small commercial customers that are eligible to participate in your small-volume unbundling program.

Marketer refers to a third-party gas supplier.

Date for Information Provided

Please provide data through July 31, 1998. If that is not possible, please provide data through the most recent date possible. One date should be used to answer all questions. Please indicate the date used for these questions:

(Check one.)

Answers provided in this questionnaire are based on data that is current as of July 31, 1998.

Answers provided in this questionnaire

are based on data that is current as of:
(Please specify date.)

_____/_____/19____month
/day /year

**[Current dates used by respondents
ranged from 03/31/98 to 10/01/98.]**

**Appendix II
Customer Choice Survey and Results**

1. Did your company work to initiate the legislation or regulatory approval necessary for your small-volume unbundling program? (Check one.)

N = 11 No

N = 27 Yes Please explain.

2. What was the legal basis for the establishment of your program? (Check one.)

N = 7 It was established as a result of new state legislation.

N = 31 There was existing state authority that allowed regulators to approve the program.

3. Is there an end date for your program (after which it will be either expanded or terminated)? (Check one.)

N = 22 No

N = 16 Yes Please specify end

date -->

_____/_____/19_____
month /day /year

4. Who provides certification for the marketers in your program? (Check

one.)

N = 4 State regulators.

N = 30 The LDC.

N = 4 [both]

5. Are marketers required to make payments or any financial commitments for the right to participate in your program? (Check one.)

N = 12 No

N = 26 Yes Please specify.

Appendix II
Customer Choice Survey and Results

6. Under your program, are marketers required to pay customer sign-up fees? (Check one.)

N = 32 No

N = 6 Yes Please specify.

7. Does your program serve residential customers? (Check one.)

N = 3 No

N = 35 Yes -> Please specify the date the residential program began:

_____/_____/19_____
month /day /year

8. Does program serve small commercial customers? (Check one.)

N = 3 No

N = 35 Yes -> Please specify the date the commercial program began:

_____/_____/19_____
month /day /year

9. Does your company have requirements for marketers for aggregation of

residential and small commercial customers? (Check one.)

N = 12 No

N = 26 Yes -> Please describe.

Residential aggregation requirements for marketers:

Small commercial aggregation requirements for marketers:

**Appendix II
Customer Choice Survey and Results**

10. Does your company have minimum consumption requirements per customer for residential and small commercial customer participation in your program? (Check one.)

N = 32 No

N = 6 Yes -> Please specify
number of therms and time
period below.

Residential requirements:

_____ therms per _____ (period)

Small commercial requirements:

_____ therms per _____ (period)

11. Which of the following best describes customer enrollment in your program? (Check one.)

N = 7 Customers can enroll by choosing marketers only during a limited open-season period.

N = 31 Customers can enroll any time (rolling enrollment).

12. Once a customer has agreed on a marketer, does the customer (or marketer) need to pay a fee in order for the customer to switch marketers? (Check one.)

N = 20 No

N = 18 Yes -> Please specify amount

of fee. \$ _____

13. How many residential customers are in your service area?

[See appendix I.]

14. How many of the residential customers in your service area are eligible to participate in your program?

[See appendix I.]

15. How many residential customers in your service territory are actually buying their gas from marketers?

[See appendix I.]

Note: If you do not collect data separately for small commercial customers, please leave questions 16, 17, and 18, blank.

**Appendix II
Customer Choice Survey and Results**

16. How many small commercial customers are in your service area?

[See appendix I.]

17. How many of the small commercial customers in your service area are eligible to participate in your program?

[See appendix I.]

18. How many small commercial customers in your service territory are actually buying their gas from a marketer?

[See appendix I.]

19. How many marketers are currently certified or otherwise eligible to participate in your program?

[Range is from 1 to 56, based on 37 responses.]

20. How many marketers are actually selling gas under your program?

[Range is from 1 to 46, based on 37 responses.]

21. How many marketers are selling to residential customers?

[See appendix I.]

22. How many marketers are selling to small commercial customers? *(If you do not keep separate data for small commercial customers, please leave this question blank.)*

[See appendix I.]

23. How many marketers are selling to both residential and small commercial customers?

[Range is from 0 to 33, based on 33 responses.]

24. Is there a marketer affiliated with your company that is currently selling gas under your program? (By affiliated we mean as a wholly- or partly- owned subsidiary of your company or your

**Appendix II
Customer Choice Survey and Results**

parent company.) (Check one.)

N = 33 Yes, there is an LDC gas marketing affiliate.

N = 5 No, there is no LDC gas marketing affiliate.

25. In your program, how many residential customers are served by each marketer? (Rank marketers in terms of the number of customers from your program. Enter number of customers for each of the five largest marketers. Do not give names of marketers.)

Number of residential customers served by largest marketer: _____

Number of residential customers served by next largest marketer: _____

Number of residential customers served by next largest marketer: _____

Number of residential customers served by next largest marketer: _____

Number of residential customers served by next largest marketer: _____

[Responses varied.]

26. How many small commercial customers are served by each marketer? (Rank marketers in terms

of the number of customers from your program. Enter number of customers for each of the five largest marketers. Do not give names of marketers.)

Check here if you do not have data on small commercial customers, then proceed to question 27.

Number of small commercial customers served by largest marketer: _____

Number of small commercial customers served by next largest marketer: _____

Number of small commercial customers served by next largest marketer: _____

Number of small commercial customers served by next largest marketer: _____

Number of small commercial customers served by next largest marketer: _____

[Responses varied.]

27. Which of the following best describes your small-volume unbundling program? (Check one.)

N = 11 Marketers are required to use

**Appendix II
Customer Choice Survey and Results**

the LDC's upstream pipeline and storage capacity at maximum tariff rates (mandatory capacity assignment).

N = 16 Marketers have the option to use the LDC's upstream pipeline and storage or to bundle the gas with their own upstream resources (voluntary capacity assignment).

N = 6 Marketers are required to bundle the gas with their own upstream resources and are not given access to the LDC's upstream resources.

N = 6 Other. *Please describe.* _____

28. Which of the following best describes your recovery of transitional/stranded capacity costs? (*Check one.*)

N = 10 All customers, whether sales or transportation customers, pay an equal volumetric charge on their bills to recover transitional/stranded costs. This charge is _____/mcf.

N = 6 All customers pay a volumetric charge on their bills to recover transitional/stranded costs, but the charge varies by type of customer. *Please describe briefly.*

N = 6 Other. *Please describe briefly.*

N = 15 There is no specific provision for the recovery of transitional/stranded costs.

**Appendix II
Customer Choice Survey and Results**

29. Are your rates unbundled so that the charges for upstream commodity and capacity costs and the charges for distribution are separate? (*Check one.*)

N = 10 No

N = 27 Yes

30. Does your company charge residential sales customers the same distribution charge as residential transportation customers? (*Check one.*)

N = 6 No. *Please describe.* _____

N = 28 Yes

31. Which of the following best describes billing options available to marketers? (*Check all that apply.*)

N = 18 Your company bills customers for all charges including the cost of gas provided by marketers and your company's own transportation/distribution charges.

N = 27 Marketers bill transportation customers directly for the cost of gas that they provide while your company bills the same

customers for transportation/distribution charges.

N = 10 Marketers bill transportation customers for both the cost of gas that they provide and for the LDC's transportation/distribution charges.

N = 4 Other. *Please describe.* _____

32. Which of the following best describes the way that your company determines required daily gas deliveries by marketers? (*Check all that apply.*)

N = 18 Daily volume determined by LDC to match estimated daily usage prior to delivery (algorithm method/volume based on current weather forecast).

N = 4 Actual daily usage determined by metering devices.

N = 8 Fixed daily volume per customer depending on month (daily contract quantity).

N = 1 Fixed daily volume per

Appendix II
Customer Choice Survey and Results

customer depending on
quarter.

N = 6 Fixed daily amount per
customer per other period.
Please specify period.

N = 12 The LDC levies a daily
imbalance penalty
independent of applicable
pipeline penalties.

N = 3 Other. *Please*
describe. _____

33. How does your company deal with
failure of marketers to deliver the
required quantity of gas? (*Check all*
that apply.)

N = 24 The marketer may be
suspended from the program.

N = 9 The LDC levies a flat charge
per dekatherm for failure to
deliver required amount
irrespective of month or
season.

N = 18 The LDC levies a charge that
is based on the difference
between required and actual
deliveries and that varies
based on time of year and/or
current city-gate gas price.

N = 10 The LDC levies a charge
based on any applicable
pipeline penalties imposed on
the LDC caused by the
marketer's imbalance.

Appendix II
Customer Choice Survey and Results

34. How does your company deal with variations between required deliveries by marketers and actual/estimated gas consumption by transportation customers during a month? (Check all that apply.)

N = 13 The marketer is allowed to supply the shortfall at a subsequent date or is given a credit for excess delivery against future requirements.

N = 8 The LDC permits imbalance trading among gas marketers.

N = 21 The LDC "cashes out" imbalances on a regular schedule. (Please answer questions 1 and 2 below.)

1. How often are imbalances cashed out? _____

2. Which reference price is used? (Check one.)

- A fixed fee.
- A weighted average cost of gas.
- A pre-specified gas price index.
- LDC's highest marginal cost for under-delivery or lowest marginal cost for over-delivery.

N = 8 Other. Please specify: _____

**Appendix II
Customer Choice Survey and Results**

35. What have been the savings on gas bills for participating residential customers in your program compared to nonparticipating or ineligible residential customers? *(Enter percent and/or dollar amount. Also, enter period covered, i.e., month, day and year.)*

The savings have been _____ % of the total gas bill for the period:

from: _____ / _____ /19 _____
month /day /year

to: _____ / _____ /19 _____
month /day /year

The savings have been \$ _____ for the period:

from: _____ / _____ /19 _____
month /day /year

to: _____ / _____ /19 _____
month /day /year

[Range is from 1 to 13 percent, based on 12 responses.]

36. What have been the savings on gas bills for small participating commercial customers in your program compared to nonparticipating or ineligible small commercial customers? *(Enter percent and/or dollar amount. Also, enter period covered, i.e., month, day*

and year.)

Check here if you do not have data on small commercial customers, then proceed to question 37.

The savings have been _____ % of the total gas bill for the period:

from: _____ / _____ /19 _____
month /day /year

to: _____ / _____ /19 _____
month /day /year

The savings have been \$ _____ for the period:

from: _____ / _____ /19 _____
month /day /year

to: _____ / _____ /19 _____
month /day /year

[Range is from 2 to 15 percent, based on 4 responses.]

Appendix II
Customer Choice Survey and Results

37. Are the sources for savings, indicated in Questions 35 and 36, due in part to differences in tax treatment of bundled gas from the LDC versus gas sold by the marketer?

N = 13 No

N = 15 Yes

N = 15 Other. *Please*

describe: _____

38. Please indicate which of the following contribute to the savings indicated in Questions 35 and 36? (*Check all that apply.*)

N = 11 Marketers' upstream capacity and storage costs are lower.

N = 9 Marketers' costs for gas are lower.

N = 10 Other. *Please describe:* _____

40. Has your company experienced problems with supply reliability from marketers? (*Check one*)

N = 33 No

N = 3 Yes

41. Have any of your gas marketers violated rules/codes of conduct? (*Check one.*)

N = 24 No

N = 11 Yes

39. Which of the following are new options offered by gas marketers participating in your program? (*Check all that apply.*)

N = 30 Fixed gas price.

N = 6 Fixed monthly bill.

N = 6 Other household services in addition to gas.

**Appendix II
Customer Choice Survey and Results**

Please briefly describe any concerns you have about the future of unbundling of natural gas service to small-volume consumers.

[We received written comments from 23 gas utilities.]

Please provide the following information in the event we need to contact you for clarification of your responses.

Name: _____

Title: _____

Company Name: _____

Telephone Number: _____

Thank you for your time and your cooperation.

Appendix II
Customer Choice Survey and Results

Comments From the Department of Energy



Department of Energy

Washington, DC 20585

November 30, 1998

Ms. Susan D. Kladiva
Associate Director
Energy Resources & Science Issues
General Accounting Office
Washington, DC 20548

Dear Ms. Kladiva:

We appreciate the opportunity to review the report "Energy Deregulation: Status of Natural Gas Customer Choice Programs" (General Accounting Office Report RCED-99-30), that was distributed for our review on November 16, 1998. The GAO report will be useful to energy consumers, policy makers and members of the natural gas industry interested in the status of customer choice programs and how these programs have affected residential and small commercial consumers.

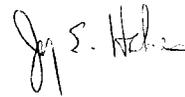
The Energy Information Administration (EIA) expects that there will be a continuing interest in evaluation of these programs and their impacts on consumers over the longer term. Accurate evaluation will require accurate and reliable information, and in this regard these programs present a growing challenge to EIA. This is because EIA currently obtains information on prices paid for gas by residential and small commercial customers from local distribution companies (LDCs). As more and more customers of LDCs opt for these "retail choice" programs, purchasing gas from marketers and relying on LDCs only for distribution services, the LDCs will no longer know how much their customers are paying for natural gas. Thus, EIA's current data collection methodologies will be less and less able to accurately measure prices paid for gas in the residential and commercial sectors. It is virtually certain that accurate, reliable prices for natural gas service in some States will be unavailable from current EIA data surveys.

As both the natural gas and electric power industries move toward customer choice, EIA is addressing alternative ways to obtain comprehensive and accurate price information for services provided to all classes of customers. We believe that our efforts to revise our data collection methodologies to accommodate changing industry and market structures are critical in order for policy makers to make informed decisions. Likewise, it is important that policy makers be aware of the difficulties that EIA is currently facing in obtaining and providing the kind of information that we were able to collect more easily when the natural gas industry was more closely regulated. Moreover, EIA's job of designing alternative data collection strategies to monitor these programs

Appendix III
Comments From the Department of Energy

is made more complicated by the fact that there are different approaches to these programs being used in different States. EIA will be devoting significant resources over the next several years to solve these problems so as to continue providing accurate, unbiased, relevant, and timely information regarding these critical industries.

Sincerely,



Jay E. Hakes
Administrator
Energy Information Administration

Major Contributors to This Report

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