DOE/EIA-0130(99/04)

Natural Gas Monthly
April 1999

Energy Information Administration
Office of Oil and Gas
U.S. Department of Energy
Washington, DC 20585

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Preface

The *Natural Gas Monthly (NGM)* is prepared in the Natural Gas Division, Office of Oil and Gas, Energy Information Administration (EIA), U.S. Department of Energy (DOE), under the direction of Joan E. Heinkel.

General questions and comments regarding the *NGM* may be referred to Ann M. Ducca (202) 586-6137. Specific technical questions may be referred to the appropriate persons listed in Appendix E.

The *NGM* highlights activities, events, and analyses of interest to public and private sector organizations associated with the natural gas industry. Volume and price data are presented each month for natural gas production, distribution, consumption, and interstate pipeline activities. Producer-related activities and underground storage data are also reported. From time to time, the *NGM* features articles designed to assist readers in using and interpreting natural gas information.

The data in this publication are collected on surveys conducted by the EIA to fulfill its responsibilities for gathering and reporting energy data. Some of the data are collected under the authority of the Federal Energy Regulatory Commission (FERC), an independent commission within the DOE, which has jurisdiction primarily in the regulation of electric utilities and the interstate natural gas industry. Geographic coverage is the 50 States and the District of Columbia.

Explanatory Notes supplement the information found in tables of the report. A description of the data collection surveys that support the *NGM* is provided in the Data Sources section. A glossary of the terms used in this report is also provided to assist readers in understanding the data presented in this publication.

All natural gas volumes are reported at a pressure base of 14.73 pounds per square inch absolute (psia) and at 60 degrees Fahrenheit. Cubic feet are converted to cubic meters by applying a factor of 0.02831685.

The Energy Information Administration (EIA) Solicits Comments Concerning its Natural Gas Surveys:

EIA issued a Federal Register Notice on March 29, 1999, soliciting public comments on proposed revisions and the extension of its natural gas surveys. This notice is available online at http://www.eia.doe.gov/oss/ngconsul.html or by request to Margaret Natof at EIA. Ms. Natof may be contacted by telephone at (202) 586-6303 or by email at margaret.natof@eia.doe.gov. Comments must be submitted by May 28, 1999.

The Energy Information Administration Solicits Comments Concerning its Natural Gas Information Program:

EIA issued a second Federal Register Notice on April 6, 1999 concerning its *Next Generation * Natural Gas* project. The project will design and implement a new, comprehensive information program for natural gas. This notice is available online at http://www.eia.doe.gov. Questions concerning the *Next Generation * Natural Gas* project may be directed to Ann Ducca by telephone at (202) 586-6137 or by email at ann.ducca@eia.doe.gov. Comments must be submitted by June 7, 1999.

Common Abbreviations Used in the Natural Gas Monthly

AGA	American Gas Association
Bbl	Barrels
BLS	Bureau of Labor Statistics, U.S. Department of Labor
Bcf	Billion Cubic Feet
BOM	Bureau of Mines, U.S. Department of the Interior
Btu	British Thermal Unit
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
EIA	Energy Information Administration, U.S. Department of Energy
FERC	Federal Energy Regulatory Commission
IOGCC	Interstate Oil and Gas Compact Commission
LNG	Liquefied Natural Gas
Mcf	Thousand Cubic Feet
MMBtu	Million British Thermal Units
MMcf	Million Cubic Feet
MMS	United States Minerals Management Service, U.S. Department of the Interior
NGL	Natural Gas Liquids
OCS	Outer Continental Shelf
STIFS	Short-Term Integrated Forecasting System
STEO	Short Term Energy Outlook
Tcf	Trillion Cubic Feet

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Natural Gas 1998: Issues and Trends
Executive Summary

The following article is the Executive Summary from the report *Natural Gas 1998: Issues and Trends*, prepared by the Office of Oil and Gas of the Energy Information Administration (EIA). The report may be accessed electronically from EIA's World Wide Web Site at http://www.eia.doe.gov.

Natural Gas 1998: Issues and Trends examines the current natural gas marketplace from a series of vantage points, providing insight into continuing and developing trends and a look at market and regulatory issues that have emerged as the industry has had to adapt to a growing and changing economy. A major issue that has emerged over the past several decades, and which is becoming closely integrated with natural gas growth, is its role in meeting future environmental concerns.

From 1990 through 1998, natural gas consumption in the United States increased by 14 percent. Its greater use as an industrial and electricity generating fuel can be attributed, in part, to its relatively clean-burning qualities in comparison with other fossil fuels. Lower costs resulting from greater competition and deregulation in the gas industry and an expanding transmission and distribution network have also helped expand its acceptance and use.

Several trends cited in this study indicate a substantial expansion of the natural gas market. Transmission deliverability on the national network has grown significantly since 1990 and greater investment for expansion is expected over the next several years. A steady growth in upstream supply, especially in the Gulf of Mexico and from Canada, and increased levels of consumption in all regions of the country, primarily in the industrial and electricity generation sectors, have motivated these expansions.

Use of Natural Gas To Address Electricity Growth Is Key to Gas Industry Expansion After 2000

In 1998, the parties to the Kyoto Protocol to the U.N. Climate Change Convention recommended measures aimed at decreasing the global level of greenhouse gases. Implementation of the Kyoto Protocol, or its recommendations as working parts of an accepted global effort, remains uncertain. However, it seems certain that natural gas will be a key factor in efforts to improve overall global environmental conditions.

While environmental concerns could drive expansion of the use of natural gas, the direction of the natural gas marketplace in the near term generally will be determined more by traditional economic forces. Evolution of a restructured and more competitive natural gas industry during the past 10 years has been partly responsible for lower overall prices for natural gas. This trend of low prices could continue as long as demand does not outpace supply, the delivery system for natural gas grows, and enough capital investment is forthcoming to support expected growth.

Industrial consumption of natural gas reached an historic peak of 8.9 trillion cubic feet (Tcf) in 1996 but has declined somewhat since then. In 1998, the industrial sector consumed an estimated 8.5 Tcf, accounting for 44 percent of all end-use consumption, the largest share of any sector. Roughly one-quarter of the natural gas used by the industrial sector is consumed by companies that have been classified as nonutility generators (NUGs). Most NUGs are cogenerators, although this classification also includes independent power producers whose consumption of natural gas is solely for generation of electricity. By contrast, cogenerators typically use the heat from natural gas combustion both in manufacturing processes and to generate electricity. From 1992 through 1997, nonutility natural gas consumption accounted for 25 to 28 percent of total industrial consumption. Nonutility consumption grew at an annual rate of 4 percent from 1992 through 1997, while total industrial consumption increased at a 3-percent annual rate.

Electric utilities are expected to be the only end-use sector that increased its consumption of natural gas from 1997 to 1998, according to preliminary estimates. Data for the first 11 months of 1998 show that electric utility consumption of natural gas was 11 percent above that of 1997 for the same period. The average price paid for natural gas by electric utilities in 1998, available through October, was 13 percent below that in 1997. Annual natural gas consumption by electric utilities during the 1990s has been in the range of 2.7 to 3.2 Tcf.

A major contributor to the increasing use of natural gas in the electric utility sector is the lower capital costs and shorter construction lead times of advanced combined-cycle plants in comparison with conventional coal-fired plants. Part of the push for lower-cost generation and shorter construction lead times can be attributed to the impact of the restructuring of the electric generation and transmission industry, particularly in light of growing electricity demand and the continued retirement of nuclear plants.

Natural gas use by electric utilities and NUGs to generate electricity is projected to reach 9.2 Tcf by 2020, a little more than three times the 1998 level (Figure ES1). A principal factor in this is that nearly all future electric utility capacity additions in the United States are expected to be fueled by natural gas (Figure ES2). A growing trend in the development of gas-fired electric generation is the evolving independent ("merchant") power plant sector of the electric industry. These enterprises, which are expected to be primarily gas-fired facilities, are built without prior long-term sales commitments and therefore are very dependent upon fuel efficiencies and energy market economics.

Gas Resources Are Substantial But Continued Supply Growth Is Unlikely Without Price Recovery

While domestic natural gas production generally increased from 1994 through 1997, reserve additions replaced nearly 107 percent of production, arresting a long-term decline in total proved reserves. The majority of proved gas reserves in the Lower 48 States are located in the onshore and offshore Gulf Coast region, an area that is characterized by expanding development of the Outer Continental Shelf. Natural gas reserves in the Gulf region now represent 51.6 percent, or 80.9 Tcf, of proved reserves in the Lower 48 States.

Natural gas production in 1998 is estimated to be 19.0 Tcf, essentially the same as in 1997, despite lower overall demand. In 1997, natural gas from onshore conventional sources accounted for the largest share of U.S. production, about 39 percent, while production from onshore unconventional sources, such as coalbeds, Devonian shale, and tight sands, accounted for 19 percent. Production from unconventional sources became the largest contributor to increased natural gas production during the 1990s, growing at an annual rate of 4 percent between 1990 and 1997.

Natural gas well completions increased to nearly 12,000 in 1997. Generally higher wellhead prices in 1997, averaging $2.34 per thousand cubic feet compared with $1.62 in 1995 (prices in constant 1998 dollars), served as an incentive for increased drilling. Completions increased 8.9 percent in 1998 to 11,907; however, monthly completions declined during the year as wellhead prices fell to near or below $2.00 per thousand cubic feet in most months. The even greater fall in oil prices during 1998 helped redirect resources toward gas, thus supporting the higher gas well count for the year.

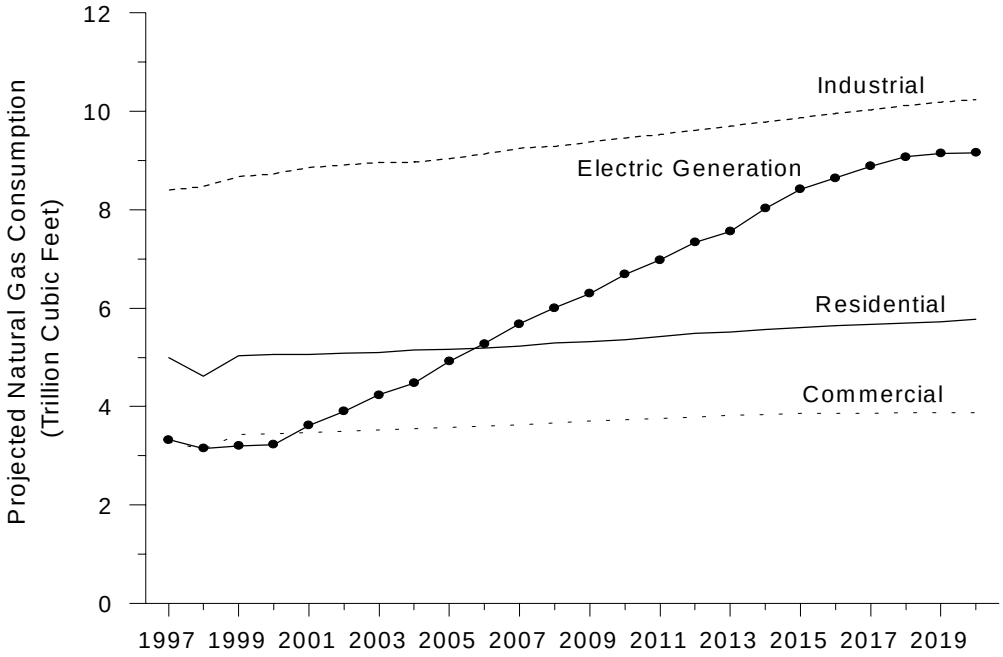
End-use natural gas consumption reached a record high of 20.0 Tcf in 1996 and 1997, then declined 4 percent in 1998 to 19.3 Tcf. After 7 years of sustained growth, natural gas consumption in 1998 fell below its previous year level for the first time this decade. Relatively mild weather throughout the year across most of the Lower 48 States can be cited as the primary cause for the reduced demand in the residential and commercial sectors. The net consumption falloff, along with abundant foreign supplies to the United States and competition driven by the overall slump in petroleum prices, resulted in a significant drop in natural gas prices.

The weather situation also resulted in lower withdrawals from storage during the 1997–98 heating season, and by its close, the remaining working gas storage level was 1.2 Tcf, the highest end-of-season level in 3 years. Reduced demand for storage replenishment created an additional downward pressure on prices since the lower market demand increased gas-on-gas competition (between supplies normally flowing into storage and normal seasonal base-load supplies). Wellhead prices fell about 15 percent in 1998 compared with 1997 levels, contributing to price drops of 1 and 5 percent in the residential and commercial sectors, respectively, and 12 and 13 percent (estimated) in the industrial and electric utility sectors.

The current low levels for natural gas prices could have a longer-term impact on natural gas exploration, development, production, and even anticipated pipeline expansions. Lower oil prices have dampened oil drilling activities and thus have affected the future production levels of natural gas associated with oil production. Lower natural gas prices and demand could create similar fallout in the gas industry. If natural gas demand growth levels off, then it is likely that some proposed pipeline expansions, especially those into highly competitive markets, might be postponed or even canceled.

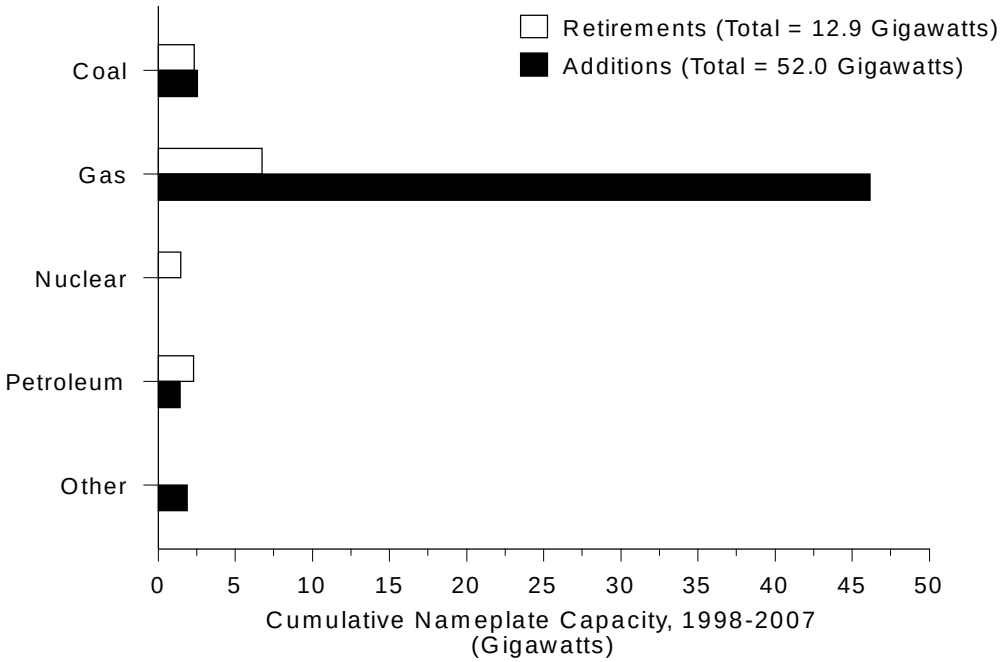
The potential for bountiful long-term natural gas supplies is strong in light of the expected remaining recoverable U.S. gas resources. These include 167 Tcf in proved natural gas reserves at the end of 1997 and roughly 1,300 Tcf as technically recoverable natural gas

Figure ES1. Strong Growth in Natural Gas Usage Is Projected in Electricity Generation



Source: Energy Information Administration, *Annual Energy Outlook 1999*, National Energy Modeling System run AEO99B.D100198A.

Figure ES2. Most Electric Generation Capacity Additions Will Be Gas-Fired



Notes: "Gas" is natural gas; refinery, blast-furnace, and coke-oven gases; and propane. Other consists mostly of waste heat and includes renewables, most of which is hydroelectric power.

Source: Energy Information Administration, *Inventory of Power Plants in the United States As of January 1, 1998*.

resources. In addition, Earth's vast deposits of natural gas hydrates would provide a very significant new source of natural gas if future technology should enable the commercial recovery of the methane in these deposits. Natural gas hydrates are solid, crystalline, ice-like substances composed of water, methane, and usually smaller amount of other gases. The naturally occurring version is primarily found in ocean-bottom sediments at water depths that exceed 450 meters (approximately 1,476 feet) and in permafrost regions onshore. The U.S. Geological Survey's 1995 mean (expected value) estimate is that in aggregate these deposits contain 320,222 Tcf of methane-in-place. Even if only a small percentage of the large in-place volume could be commercially produced, the impact would be dramatic. Recovery of only 1 percent of the hydrate resource would more than double the domestic gas resource base.

Significant Pipeline Expansion and Investment Will Be Needed To Support a Projected 32 Tcf Market

Interstate pipeline capacity has increased by more than 16 percent (on an interregional basis) during the past decade. Average daily use of the network was 72 percent in 1997, compared with 68 percent in 1990. More than 17 new interstate pipelines were constructed, as well as numerous expansion projects, between 1990 and the end of 1998. In 1998, at least 47 projects were completed adding approximately 10 billion cubic feet (Bcf) per day of overall capacity to the national grid.

For 1999 and 2000, more than 75 pipeline projects (20.1 Bcf per day) have been proposed for development in the Lower 48 States. While some of these projects are only in the initial planning stage with no firm cost estimates available, based upon preliminary estimates, as much as $10.0 billion could be spent on natural gas pipeline expansions in the next 2 years (1999–2000) (Figure ES3). The largest expenditures, about $6.0 billion, would include several large projects now scheduled for completion in 2000, such as the Alliance Pipeline ($2.9 billion), the Independence Pipeline ($680 million), and the Columbia Gas System's Millennium project ($678 million). In all likelihood, however, some of the 75 proposed projects may be canceled or postponed until the next decade, because of competition, changed market conditions, and / or regulatory actions.

A major factor underlying the network expansion is the growing availability of new production from Canada. U.S. access to Canadian supplies, as measured by crossborder pipeline capacity, increased by 75 percent (from 6.5 to 11.4 Bcf per day) between 1990 and 1997 and by another 9 percent, or 997 million cubic feet per day, in 1998. An additional 3.7 Bcf per day of capacity could be in place by 2000 if all currently planned projects are completed. This would amount to a 132-percent increase in import capacity between 1990 and 2000. Put another way, capacity to import gas from Canada in 1990 was only 19 percent as large as capacity to export gas from the U.S. Southwest, the major producing region in the United States. But by the end of 2000, import capacity from Canada could be as much as 42 percent of the Southwest's export capacity.

Regulatory Reform Has Altered Markets at Both the Interstate and State Levels

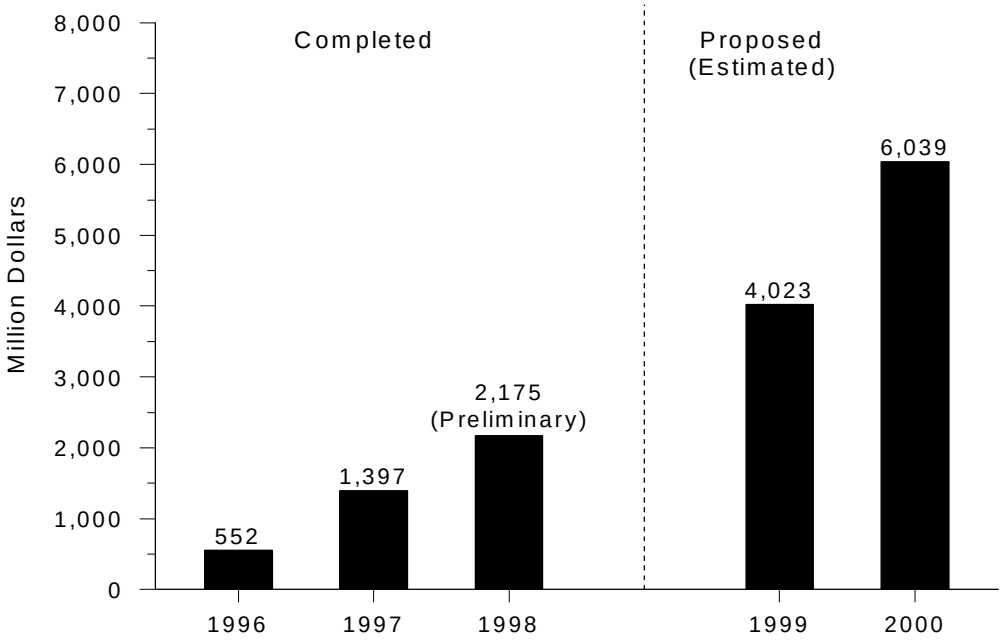
Numerous transportation service contracts written prior to market regulatory reform contain terms and conditions that are no longer deemed economic by shippers. Consequently, some of the contracts are not being renewed or the terms are being revised upon renewal. Some firm capacity is being "turned back" to the pipeline company. It is estimated that 20 percent of firm service capacity under these older contracts has not been renewed. Some of this capacity has been resold, but a significant amount remains uncommitted or has been resold at discounted rates, which could impede the pipeline companies' cost recovery. Costs not recovered from new customers then fall on either the remaining pipeline customers or the shareholders. Potential capacity turnback actions between 1998 and 2003 represent about 8.0 trillion Btu per day, or 8 percent of currently committed capacity. If the capacity is not remarketed at maximum rates, pipeline company revenues could be reduced.

State unbundling of services continued in 1998 although at a relatively slow pace. As of July 31, 1998, only five States had implemented complete unbundling programs for core customers (Figure ES4) or passed legislation to give customers the right to choose their own gas supplier, only two more than at the end of 1996. The approximately 14 million residential customers covered in these States represent about 20 percent of the Nation's natural gas customers. Another 13 States and the District of Columbia have pilot programs underway, 12 States are considering action, and 18 States have yet to take any significant action.

Corporate Combinations Are Reaching All-Time Highs as Companies Look for Opportunities in Both Gas and Electricity

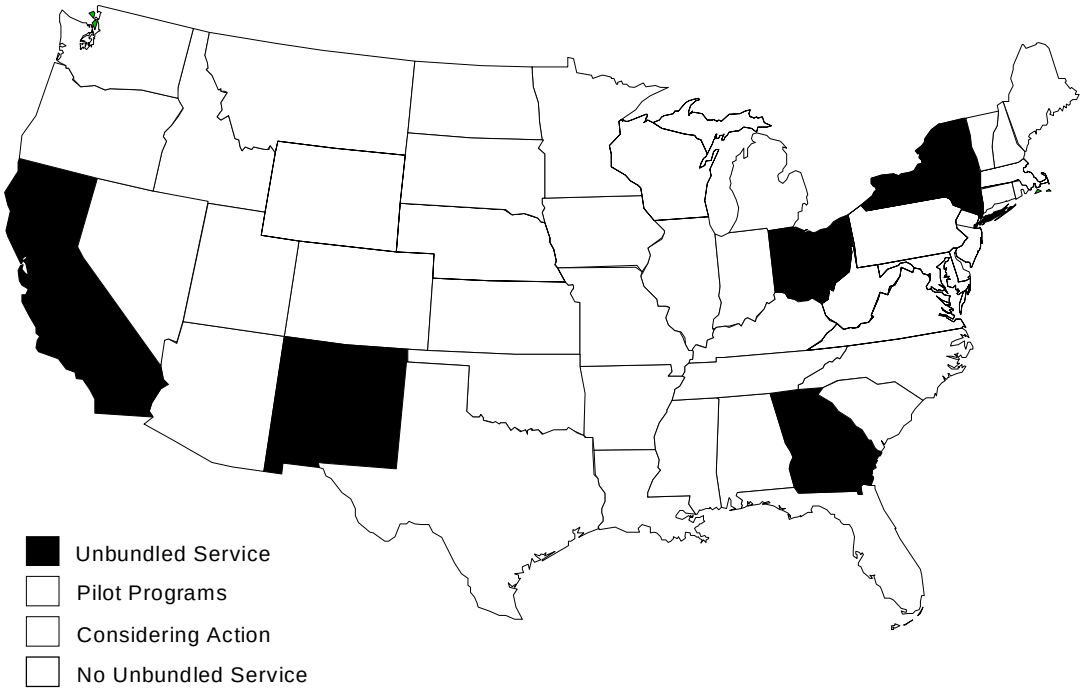
A number of major market participants are engaging in various forms of corporate combinations, such as mergers, acquisitions, and strategic alliances. The value of mergers and acquisitions within the natural gas

Figure ES3. Annual Pipeline Investment Could Reach $6 Billion in 2000



Source: Energy Information Administration, Office of Oil and Gas, Natural Gas Pipeline Construction Database through December 1998.

Figure ES4. Eighteen States and the District of Columbia Have Some Form of Residential Choice Program



Source: Energy Information Administration (EIA), Office of Oil and Gas, derived from General Accounting Office, *Energy Deregulation: Status of Natural Gas Customer Choice Programs* (December 1998) and information gathered by EIA analysts.

industry has risen nearly fourfold in this decade, from $10.4 billion in 1990 to $39 billion in 1997. This increase parallels an enormous surge in corporate combinations (mergers, acquisitions, joint ventures and strategic alliances) across the energy sector, from $21.4 billion in 1990 to $106.4 billion in 1997. In 1998, the value of energy sector combinations more than doubled, to $220 billion, with the announcement of such blockbuster mergers as British Petroleum with Amoco and Exxon with Mobil.

The growth in natural gas industry combinations does not indicate a decrease in competition, however. For example, between 1992 and 1997, the share of sales by the top four marketers declined by one-third to 21 percent, while their sales volumes more than doubled. Sales by the top 20 slipped only from 69 to 66 percent, but yearly sales volumes more than tripled to 40 Tcf.

The current wave of corporate combinations appears set to continue as companies throughout the energy sector jockey for position not only in North America but worldwide with both the number and size of combinations increasing. Nevertheless, combinations in the energy sector remained a relatively small part of corporate combinations for the United States in general, representing only about 11 percent of the total value of all combinations in 1997.

Corporate combinations in the natural gas industry have become an integral part of the strategies developed to address changing conditions in the industry. Specific objectives behind the combinations vary, but many combinations share the goal of expanding beyond a single commodity or a single function to encompass a broad spectrum of energy sources, products, and services, thus becoming a "one-stop energy center."

Outlook

U.S. reliance on fossil hydrocarbon fuels (mainly coal, natural gas, and petroleum products) is projected to increase during the next two decades. In 1997, 85.3 percent of the domestic energy was produced by fossil fuels. By 2020, fossil fuel usage is expected to account for 89.7 percent of domestic energy production with 28 percent attributable to natural gas. Concurrent projections also are that natural gas consumption will move above the historical peak of 22 trillion cubic feet (Tcf) (reached in 1972) in 1999, increase another 6 Tcf by 2010, and reach 32 Tcf by 2020. This growth is expected to come about largely as a result of increased use of natural gas for electricity generation by both electric utilities and nonutility generators.

The expected use of natural gas could become higher than current projections if the United States were to adopt the Kyoto Protocol. The agreement would specify a greenhouse gas target during the commitment period 2008 to 2012 that, on average, would be 7 percent below 1990 levels, or about 1,250 million metric tons. Natural gas use would likely expand while coal and oil consumption and production would decrease, primarily because the carbon content per Btu of natural gas is only 55 percent of that for coal and 70 percent of that for oil. Under the protocol, natural gas consumption would be 0.6 to 3.5 Tcf higher by 2010 under a number of alternative scenarios.

A major amount of new pipeline capacity is expected to be built over the next several years to accommodate projected growth. In addition, complementary facilities, such as market centers and storage facilities, are also expected to expand to support it. Although only a few new market centers are likely to become operational during the next few years, the services and flexibility offered at many existing sites can be expected to be expanded and improved, especially those located in the Midwest and Northeast that could support the expanded growth of Canadian supplies. Underground storage operations, which facilitate both market center services and efficient pipeline operations, will also be selectively expanding over the next several years although not at the scale seen earlier in the decade. A number of the major proposed pipelines slated to carry additional gas from Canada and the Midwest are associated with already scheduled storage expansions.

Not only have the capabilities of the natural gas production, transmission, and distribution network grown significantly since 1990, but the quality and flexibility of service have improved as well. Additional substantial growth and improvement are expected over the next several years. Expanding interconnectivity within the pipeline grid, accompanied by improved services, will further integrate the natural gas production and delivery system, thereby helping to accommodate anticipated future demand.

Natural Gas 1998: A Preliminary Summary

This Special Report provides preliminary natural gas data for 1998 which were reported on monthly surveys of the industry through December. These data will be revised and become final with the release of the *Natural Gas Annual 1998* in the fall of 1999. That report will include data from an annual survey of the industry.

Production and Wellhead Prices

Preliminary data for 1998 show that dry production remained even with that of 1997 despite a 16-percent drop in the annual average wellhead price. Dry natural gas production is estimated to have been 18,906 billion cubic feet in 1998, essentially the same as in 1997. Even on a monthly basis, natural gas production during 1998 followed a pattern similar to that of 1997, starting at 52.7 billion cubic feet per day in January and falling to just over 51 billion cubic feet per day by the summer. Patterns in the fall were also similar, but daily production rates rose from November to December in 1998, while they had dropped in 1997. The net result was that dry natural gas production in December 1998 was 2 percent higher than in December 1997.

Dry natural gas production is gas from which liquids that are originally associated with the produced gas have been removed. Marketed production occurs earlier in the production process. Dry natural gas is what is used at the burner tip by end users. State-level data on dry production will not be available until the fall of 1999 in the Energy Information Administration's *Natural Gas Annual 1998*. However, State-level data on marketed production are available to examine production patterns in different parts of the country.

Marketed natural gas production is estimated to have been 19,870 billion cubic feet in 1998, compared with 19,865 billion cubic feet in 1997. Despite the similarity of the national levels, there were some notable changes at the State level. The largest increase occurred in New Mexico where marketed production rose by an estimated 114 billion cubic feet (7 percent) to 1,673 billion cubic feet in 1998. The second largest increase, roughly 31 billion cubic feet was experienced by three States—California, Colorado, and Louisiana.[1] This change was equivalent to an 11-percent increase for California, 5 percent for Colorado, but less than 1 percent for Louisiana.

The largest decline in marketed production at the State level occurred in Kansas where production fell 106 billion cubic feet, or 15 percent, to 581 billion cubic feet in 1998. The next largest declines were 61 billion cubic feet (4 percent) in Oklahoma and 56 billion cubic feet (1 percent) in Texas.

Texas and Louisiana remained the largest producing States in 1998, accounting for 32 and 27 percent, respectively, of the Nation's marketed natural gas production. The next largest producers were New Mexico and Oklahoma, with 8 percent each. In all, 32 States reported measurable production in 1998.

The estimated natural gas wellhead price was $1.96 per thousand cubic feet in 1998, compared with $2.32 in 1997. Not only was the annual average wellhead price lower in 1998 than in 1997, monthly average prices were also more stable. During 1998, the well-

1 The estimate of marketed production in Louisiana for 1998 includes the total of Federal offshore production for Lousiana and Alabama. This estimate cannot be allocated to the States until publication of the Energy Information Administration's *Natural Gas Annual* 1998, which is expected in the fall of 1999. Data for 1997 were adjusted to allow for consistent State-level comparisons in this analysis. Federal offshore production in Alabama in 1997 was 195 billion cubic feet.

head price varied from a low of $1.73 per thousand cubic feet (December) to a high of $2.22 (April), a difference of only $0.49. During 1997, however, the wellhead price varied from a low of $1.79 per thousand cubic feet (March) to a high of $3.40 (January), a difference of $1.61. Also during 1997, there was a second strong peak in the price at $2.92 per thousand cubic feet in November.

Underground Storage

Injections of natural gas into underground storage facilities were 104 billion cubic feet, or 4 percent, higher in 1998 than in 1997. However, withdrawals were 438 billion cubic feet, or 16 percent lower, reflecting both the adequate amount of gas in storage at the beginning of 1998 and the generally warmer temperatures seen in the heating season months (January, February, October, November, and December) compared with 1997.[2] For example, according to heating degree days, January and February 1998 were 18 and 10 percent warmer than in 1997, respectively. Warmer temperatures prevailed from the Midwest to the East where natural gas consumption is greatly affected by space-heating needs during the winter.

The largest change in both injections and withdrawals occurred in Michigan, the State with the largest amount of underground storage capacity, 993 billion cubic feet. In Michigan in 1998, injections of natural gas were down by 33 billion cubic feet, or 8 percent, compared with 1997, while withdrawals were down by 107 billion cubic feet, or 25 percent.

As in 1997, the top four States in terms of underground storage capacity in 1998 were all in market areas: Michigan, Illinois, West Virginia, and Pennsylvania. These four States combined accounted for 41 percent of U.S. underground natural gas storage capacity. The producing area State with the largest amount of capacity in both 1997 and 1998 was Texas, which, like Pennsylvania, accounted for 8 percent of the Nation's storage capacity.

Imports

Natural gas imports continued to climb for the 12th consecutive year, reaching a record 3.1 trillion cubic feet in 1998. They rose by 5 percent, showing a faster growth rate than in 1997 (2 percent) and 1996 (3 percent). Most of the increase occurred in pipeline imports from Canada. Additional capacity from Canada became available in the last quarter of the year. Canadian imports represented 97 percent of total imports, while imports from Mexico represented less than 1 percent of the total.

Net imports for the year totaled 3.0 trillion cubic feet and represented an estimated 14 percent of natural gas consumption in the United States. Net imports were higher in each month of 1998 than in the corresponding month of 1997, except in November. During 1998, they ranged from 7.7 billion cubic feet per day in May to 8.6 billion cubic feet per day in January and December.

Imports of liquefied natural gas (LNG) also increased, reaching 85 billion cubic feet, the highest level since 1983. They represented 3 percent of total imports. Most of the LNG (69 billion cubic feet) was imported under contract from Algeria. LNG spot market purchases continued to grow as imports from Australia rose 20 percent to 12 billion cubic feet and imports from the United Arab Emirates more than doubled to reach 5 billion cubic feet. LNG was imported into terminals at Everett, Massachusetts, and Lake Charles, Louisiana.

Reflecting the decline in wellhead prices, the price of pipeline imports from Canada also fell. It dropped 9 percent from 1997 to $1.95 per thousand cubic feet in 1998, only $0.01 less than the 1996 price. The average price of LNG imports also decreased from 1997 to 1998, but by a lesser amount, 4 percent.

Exports

Exports of natural gas increased by 5 percent between 1997 and 1998 to 165 billion cubic feet. Pipeline exports to Mexico rose by 40 percent to 54 billion cubic feet, while exports to Canada fell by 20 percent to 45 billion cubic feet. LNG exports to Japan totaled 66

2 Energy Information Administration, Natural Gas Monthly, DOE/EIA-130(98/04) (Washington, DC, May 1998), Table 26 and Table 26 of the current issue.

billion cubic feet in 1998. During the past 5 years, they have ranged from 62 to 68 billion cubic feet and have represented about 40 percent of all U.S. exports.

The average price of total exports declined by 20 percent from 1997 to 1998. The price to each country of export decreased, but the largest drop occurred in the price for LNG exports to Japan, which fell by 24 percent to $2.90 per thousand cubic feet.

End-Use Consumption

End-use consumption of natural gas in 1998 was estimated at 19.4 trillion cubic feet, 3 percent below the levels in 1997 and 1996. Declines in residential, commercial, and industrial consumption between 1997 and 1998 were only partially offset by an increase in natural gas consumption by electric utilities.

The largest decline in natural gas consumption during 1998 occurred in the residential sector. Residential natural gas consumption in 1998 was estimated at 4.5 trillion cubic feet, down 10 percent from that in 1997 and down more than 14 percent from 1996. Moderate temperatures in 1997 and 1998 explain most of the declines in residential consumption following the historical peak of 5.2 trillion cubic feet in 1996. Temperatures during the heating season months were generally warmer in 1998 than in 1997, reducing demand for natural gas to meet space-heating needs. Residential demand in 1998 was lower than in 1997 for all months except March and July.

Commercial consumption of natural gas in 1998 was estimated at 3.1 trillion cubic feet, a decline from the record high of 3.2 trillion cubic feet the previous year. As in the residential sector, the decrease in commercial consumption can be explained in part by generally warmer temperatures that reduced space-heating demand. During the year, demand fell for all months except March and July through September.

Natural gas consumption by the industrial sector in 1998 was estimated at 8.6 trillion cubic feet. This estimate was only slightly less than the 1995 level of industrial consumption, although it was 3 percent less than the level in both 1996 and 1997. In contrast with the other consuming sectors, electric utilities' consumption of natural gas grew in 1998 to an estimated 3.3 trillion cubic feet, exceeding the 1997 level by 10 percent. The volume increase from 1997 to 1998 is estimated to be 289 billion cubic feet. The rise in 1998 continues a trend of increased demand that began in 1996. Demand for natural gas to fuel electric utilities showed increases in all months of 1998 except February, April, November, and December.

Extremely high temperatures that lingered in the Southwest during the summer, particularly in Texas, contributed to the increased demand for gas by electric utilities. As a result, this sector's use of gas in July and August was driven by peak air-conditioning demand. Electric utilities in Texas accounted for more than 60 percent of the 1998 total national increase in gas consumption for this sector. They consumed 1,243 billion cubic feet of natural gas during the year, 38 percent of all electric utility gas consumption in the United States in that year.

City Gate and End-Use Prices

The average wellhead price of natural gas fell $0.36 per thousand cubic feet in 1998. This 16-percent decrease was echoed by an identical 16-percent decrease in the city gate price, which fell $0.59 from $3.61 per thousand cubic feet in 1997 to $3.02 in 1998. Accordingly, the average annual prices paid by end users fell for all sectors.

The 1997-1998 heating season was dominated by one of the largest "El Nino" weather patterns of this century, and November 1997 was the only month that recorded colder-than-normal weather. Temperatures gradually moderated in succeeding months. Some of the coldest temperatures of the season occurred in early March 1998, contributing to a rise in wellhead prices during that month. Wellhead prices fell in June owing to the effects of low demand during the generally moderate summer temperatures that were prevalent throughout most parts of the country at that time. The one exception was in the Southwest, specifically Texas, where triple-digit temperatures prevailed. In July 1998, wellhead prices increased an estimated 6 percent because the severely high temperatures in the Southwest spread to most areas east of the Rockies during the month.

In the residential sector, the average price paid for natural gas declined $0.12 in 1998 to an estimated $6.82 per thousand cubic feet, the smallest decrease of any of the consuming sectors. The decline in the average price paid by commercial consumers for natural gas in 1998 was $0.32 per thousand cubic feet. This decrease brought the average price paid for natural gas by commercial users in 1998 to an estimated $5.47 per thousand cubic feet.

Price decreases were approximately 14 percent in 1998 for both the industrial and electric utility sectors. In the industrial sector, the average price paid for natural gas fell sharply to $3.07 per thousand cubic feet, a decrease of $0.52. Even with peak demand owing to extremely high temperatures that lingered in the Southwest during the summer of 1998, particularly in Texas, electric utilities paid $0.37 per thousand cubic feet less for natural gas than in 1997. The estimated electric utility price in 1998 is $2.37 per thousand cubic feet.

SR1. Summary Statistics for Natural Gas in the United States, 1994-1998

	1994	1995	1996	1997	1998
Production (million cubic feet)					
Gross Withdrawals					
From Gas Wells	17,351,060	17,282,032	17,680,777	17,844,046	17,791,033
From Oil Wells	6,229,645	6,461,596	6,370,888	6,368,631	6,693,626
Total	**23,580,706**	**23,743,628**	**24,051,665**	**24,212,677**	**24,484,660**
Repressuring	-3,230,667	-3,565,023	-3,510,330	-3,491,542	-3,816,832
Nonhydrocarbon Gases Removed	-412,178	-388,392	-518,425	-592,134	-533,241
Wet After Lease Separation	19,937,861	19,790,213	20,022,909	20,129,001	20,134,586
Vented and Flared	-228,336	-283,739	-272,117	-263,819	-264,382
Marketed Production	19,709,525	19,506,474	19,750,793	19,865,182	19,870,204
Extraction Loss	-888,500	-907,795	-958,178	-963,759	-963,705
Total Dry Production	**18,821,025**	**18,598,679**	**18,792,615**	**18,901,423**	**18,906,500**
Supply (million cubic feet)					
Dry Production	18,821,025	18,598,679	18,792,615	18,901,423	18,906,500
Receipts at U.S. Borders					
Imports	2,623,839	2,841,048	2,937,413	2,994,173	3,141,386
Intransit Receipts	487,760	492,481	536,333	548,000	NA
Withdrawals from Storage					
Underground Storage	2,508,151	2,974,102	2,911,327	2,824,245	2,386,419
LNG Storage	70,689	50,446	69,287	69,517	NA
Supplemental Gas Supplies	110,826	110,290	109,455	103,153	117,455
Balancing Item	-415,579	-230,002	278,937	76,044	NA
Total Supply	**24,206,711**	**24,837,044**	**25,635,365**	**25,516,554**	**24,396,377**
Disposition (million cubic feet)					
Consumption	20,707,717	21,580,665	21,966,991	21,972,770	21,326,952
Deliveries at U.S. Borders					
Exports	161,739	154,119	153,393	157,006	164,828
Intransit Deliveries	472,499	492,481	536,333	516,620	NA
Additions to Storage					
Underground Storage	2,796,279	2,565,882	2,905,592	2,800,294	2,904,597
LNG Storage	68,478	43,897	73,057	69,865	NA
Total Disposition	**24,206,711**	**24,837,044**	**25,635,365**	**25,516,554**	**24,396,377**
Consumption (million cubic feet)					
Lease and Plant Fuel	1,123,720	1,220,168	1,250,037	1,202,492	1,243,875
Pipeline Fuel	685,362	700,335	711,446	751,595	729,528
Delivered to Consumers					
Residential	4,847,702	4,850,318	5,241,414	4,983,772	4,481,500
Commercial	2,895,013	3,031,077	3,158,244	3,218,606	3,052,880
Industrial	8,167,033	8,579,585	8,870,422	8,842,896	8,561,122
Vehicle Fuel	1,741	2,674	2,932	4,424	NA
Electric Utilities	2,987,146	3,196,507	2,732,496	2,968,984	3,258,054
Total Delivered to Consumers	**18,898,635**	**19,660,161**	**20,005,508**	**20,018,683**	**19,353,555**
Total Consumption	**20,707,717**	**21,580,665**	**21,966,991**	**21,972,770**	**21,326,952**
Average Prices for Natural Gas (dollars per thousand cubic feet)					
Wellhead (Marketed Production)	1.85	1.55	2.17	2.32	1.96
Imports	1.87	1.49	1.97	2.17	1.97
Exports	2.50	2.39	2.97	3.02	2.43
City Gate	3.07	2.78	3.27	3.61	3.02
Delivered to Consumers					
Residential	6.41	6.06	6.34	6.94	6.82
Commercial	5.44	5.05	5.40	5.79	5.47
Industrial	3.05	2.71	3.42	3.59	3.07
Electric Utilities	2.28	2.02	2.69	2.74	2.37

NA = Not available.

Notes: Beginning in 1987, prices for gas delivered to consumers are calculated using only on-system sales data. No imputations are made for prices of gas delivered for the account of others. In previous years, prices were calculated using reported values and values imputed for gas delivered for the account of others. The United States includes the 50 states and the District of Columbia. Totals may not equal sum of components due to independent rounding. Beginning in 1996, consumption of natural gas for agricultural use was classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use.

Sources: Energy Information Administration (EIA), Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"; Form EIA-627, "Annual Quantity and Value of Natural Gas Report" (1994 and 1995); Form EIA-895, "Monthly Quantity and Value of Natural Gas Report" (1996 through 1998); Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"; Form EIA-816, "Monthly Natural Gas Liquids Report"; Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production"; Form EIA-759, "Monthly Power Plant Report"; Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"; Form EIA-191, "Underground Gas Storage Report"; Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas" (1994); Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports (1995 through 1998); *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, Annual Reports*, DOE/EIA-0216; and the U.S. Minerals Management Service.

Table SR2

SR2. Gross Withdrawals and Marketed Production of Natural Gas by State, 1998
(Million Cubic Feet)

State	Gross Withdrawals			Repressuring	Nonhydro-carbon Gases Removed	Vented and Flared	Marketed Production
	From Gas Wells	From Oil Wells	Total				
Alabama	424,588	8,392	432,980	13,980	26,604	1,526	390,870
Alaska	190,404	3,340,040	3,530,444	3,037,763	0	9,461	483,221
Arizona	429	28	457	0	0	0	457
Arkansas	180,129	35,562	215,691	1,907	0	159	213,625
California	81,445	316,415	397,860	79,278	1,863	907	315,813
Colorado	582,583	94,010	676,592	7,244	0	1,334	668,014
Florida	0	6,547	6,547	0	751	0	5,796
Illinois	188	6	193	0	0	0	193
Indiana	878	0	878	0	0	0	878
Kansas	536,425	46,646	583,070	991	0	583	581,496
Kentucky	62,915	0	62,915	0	0	0	62,915
Louisiana	4,769,930	755,367	5,525,297	46,576	0	22,671	5,456,050
Maryland	178	0	178	0	0	0	178
Michigan	246,992	56,748	303,740	2,140	0	3,040	298,560
Mississippi	120,588	8,628	129,216	9,830	8,520	2,798	108,069
Montana	48,713	8,535	57,249	69	0	2,120	55,059
Nebraska	1,094	604	1,698	0	0	0	1,698
Nevada	0	9	9	0	0	0	9
New Mexico	1,579,057	273,723	1,852,779	11,279	165,641	3,005	1,672,854
New York	14,924	586	15,510	0	0	5	15,506
North Dakota	17,807	39,551	57,357	0	57	4,466	52,834
Ohio	111,335	0	111,335	0	0	0	111,335
Oklahoma	1,430,463	212,879	1,643,342	0	0	0	1,643,342
Oregon	1,263	0	1,263	44	152	0	1,067
Pennsylvania	71,253	0	71,253	0	0	0	71,253
South Dakota	664	8,580	9,244	0	6,178	1,544	1,522
Tennessee	0	1,451	1,451	0	0	0	1,451
Texas	5,672,953	1,372,687	7,045,640	455,953	161,933	29,644	6,398,110
Utah	253,761	43,504	297,265	559	0	19,365	277,340
Virginia	52,960	0	52,960	0	0	0	52,960
West Virginia	168,662	0	168,662	0	0	0	168,662
Wyoming	1,168,453	63,129	1,231,582	149,218	161,543	161,754	759,069
Total	**17,791,033**	**6,693,626**	**24,484,660**	**3,816,832**	**533,241**	**264,382**	**19,870,204**

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA), Form EIA-895, "Monthly Quantity and Value of Natural Gas Report."

SR3. Summary of U.S. Natural Gas Imports and Exports, 1994-1998

	1994	1995	1996	1997	1998
Imports					
Volume (million cubic feet)					
Pipeline					
Canada	2,566,049	2,816,408	2,883,277	2,899,152	3,040,775
Mexico	7,013	6,722	13,862	17,243	15,179
Total Pipeline Imports	**2,573,061**	**2,823,130**	**2,897,138**	**2,916,394**	**3,055,954**
LNG					
Algeria	50,778	17,918	35,325	65,675	68,546
Australia	0	0	0	9,686	11,634
United Arab Emirates	0	0	4,949	2,417	5,252
Total LNG Imports	**50,778**	**17,918**	**40,274**	**77,778**	**85,432**
Total Imports	**2,623,839**	**2,841,048**	**2,937,413**	**2,994,173**	**3,141,386**
Average Price (dollars per thousand cubic feet)					
Pipeline					
Canada	1.86	1.48	1.96	2.15	1.95
Mexico	1.99	1.53	2.25	2.31	2.02
Total Pipeline Imports	**1.86**	**1.48**	**1.96**	**2.15**	**1.95**
LNG					
Algeria	2.28	2.30	2.70	2.67	2.52
Australia	—	—	—	2.92	3.24
United Arab Emirates	—	—	3.46	3.74	2.58
Total LNG Imports	**2.28**	**2.30**	**2.80**	**2.74**	**2.62**
Total Imports	**1.87**	**1.49**	**1.97**	**2.17**	**1.97**
Exports					
Volume (million cubic feet)					
Pipeline					
Canada	52,556	27,554	51,905	56,447	45,240
Mexico	46,500	61,283	33,840	38,372	53,601
Total Pipeline Exports	**99,057**	**88,836**	**85,745**	**94,818**	**98,841**
LNG					
Japan	62,682	65,283	67,648	62,187	65,953
Mexico	0	0	0	0	34
Total LNG Exports	**62,682**	**65,283**	**67,648**	**62,187**	**65,987**
Total Exports	**161,738**	**154,119**	**153,393**	**157,006**	**164,828**
Average Price (dollars per thousand cubic feet)					
Pipeline					
Canada	2.42	1.96	2.67	2.52	2.20
Mexico	1.68	1.50	2.11	2.46	2.03
Total Pipeline Exports	**2.08**	**1.64**	**2.45**	**2.49**	**2.11**
LNG					
Japan	3.18	3.41	3.65	3.83	2.90
Mexico	—	—	—	—	6.22
Total LNG Exports	**3.18**	**3.41**	**3.65**	**3.83**	**2.90**
Total Exports	**2.50**	**2.39**	**2.97**	**3.02**	**2.43**

— = Not applicable.
Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas" (1994), and Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports (1995 through 1998).

Table SR4

SR4. Additions to and Withdrawals from Gas Storage by State, 1998
(Million Cubic Feet)

State	Underground Storage			Total		
	Injections	Withdrawals	Net	Number of Active Fields	Capacity (billion cubic feet)	Percent of U.S. Capacity
Alabama	2,220	1,774	-447	1	3	0.04
Arkansas	6,951	5,178	-1,774	2	24	0.30
California	172,540	128,534	-44,006	10	396	4.88
Colorado	39,901	35,016	-4,885	9	100	1.23
Illinois	231,429	219,884	-11,545	30	899	11.06
Indiana	19,257	20,681	1,424	28	113	1.39
Iowa	69,370	66,239	-3,131	7	271	3.34
Kansas	120,762	100,322	-20,440	20	304	3.74
Kentucky	65,724	53,582	-12,142	25	220	2.71
Louisiana	311,384	240,824	-70,560	13	559	6.88
Maryland	14,569	14,805	237	1	62	0.76
Michigan	391,469	314,425	-77,044	48	993	12.22
Minnesota	1,291	1,732	442	1	7	0.09
Mississippi	65,369	56,588	-8,781	7	134	1.65
Missouri	2,670	2,843	174	1	31	0.38
Montana	23,877	23,476	-401	5	343	4.22
Nebraska	5,799	6,097	298	1	39	0.49
New Mexico	16,456	10,209	-6,247	3	97	1.19
New York	62,791	52,216	-10,575	22	175	2.16
Ohio	190,718	164,176	-26,542	23	573	7.06
Oklahoma	161,781	127,777	-34,004	14	396	4.87
Oregon	4,138	4,967	829	3	12	0.14
Pennsylvania	319,310	288,395	-30,915	59	685	8.43
Tennessee	451	391	-60	1	1	0.01
Texas	342,716	233,979	-108,737	34	684	8.42
Utah	49,304	32,909	-16,395	3	122	1.50
Virginia	2,422	1,713	-709	2	5	0.06
Washington	23,106	22,597	-509	1	37	0.46
West Virginia	171,643	142,749	-28,894	36	734	9.03
Wyoming	15,180	12,343	-2,837	7	106	1.30
Total	**2,904,597**	**2,386,419**	**-518,177**	**417**	**8,126**	**100.00**

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-191, "Underground Gas Storage Report."

SR5. Natural Gas Delivered to Consumers by State, 1998
(Million Cubic Feet)

State	Residential	Commercial	Industrial	Electric Utilities	Delivered to Consumers
Alabama	46,655	27,983	200,231	25,546	300,415
Alaska	15,617	23,455	NA	28,784	NA
Arizona	35,815	31,754	28,209	38,674	134,452
Arkansas	35,756	NA	142,774	40,576	NA
California	549,885	319,553	729,514	271,154	1,870,106
Colorado	NA	NA	NA	10,627	NA
Connecticut	35,704	42,471	32,455	10,719	121,350
Delaware	7,810	5,624	16,137	11,135	40,707
District of Columbia	13,189	17,184	0	0	30,373
Florida	15,252	38,240	138,914	281,346	473,751
Georgia	106,238	55,578	151,146	22,371	335,333
Hawaii	550	2,119	0	0	2,669
Idaho	15,975	11,718	34,263	0	61,955
Illinois	405,461	176,571	306,290	56,337	944,659
Indiana	NA	NA	NA	9,096	NA
Iowa	68,912	44,299	110,576	5,947	229,735
Kansas	84,208	50,545	NA	36,896	NA
Kentucky	55,894	33,883	91,604	5,760	187,141
Louisiana	NA	NA	NA	318,395	NA
Maine	928	NA	NA	0	NA
Maryland	NA	56,238	37,610	12,303	NA
Massachusetts	NA	NA	NA	18,427	NA
Michigan	317,329	164,836	301,398	48,321	831,885
Minnesota	110,578	84,104	99,663	7,738	302,084
Mississippi	NA	23,170	NA	76,362	NA
Missouri	110,375	61,869	67,138	16,035	255,416
Montana	NA	NA	17,548	522	NA
Nebraska	40,703	28,214	35,684	5,044	109,646
Nevada	30,023	23,049	28,532	60,937	142,541
New Hampshire	NA	NA	NA	149	NA
New Jersey	NA	NA	NA	30,996	NA
New Mexico	35,614	30,824	40,139	39,034	145,612
New York	NA	NA	NA	208,348	NA
North Carolina	50,318	37,774	115,082	12,418	215,593
North Dakota	10,290	10,290	20,912	0	41,491
Ohio	NA	NA	NA	7,663	NA
Oklahoma	65,403	45,044	191,012	174,577	476,035
Oregon	NA	NA	NA	28,883	NA
Pennsylvania	NA	NA	231,500	6,890	NA
Rhode Island	NA	NA	NA	15,589	NA
South Carolina	25,316	19,887	104,878	5,893	155,973
South Dakota	11,649	9,274	5,510	2,865	29,298
Tennessee	NA	NA	NA	6,213	NA
Texas	200,728	215,604	NA	1,242,574	NA
Utah	56,731	30,853	45,366	5,945	138,895
Vermont	2,454	2,979	2,105	188	7,726
Virginia	63,029	59,729	94,436	20,386	NA
Washington	NA	NA	NA	13,352	NA
West Virginia	NA	NA	NA	417	NA
Wisconsin	116,373	81,410	140,446	16,348	354,578
Wyoming	NA	NA	NA	271	NA
Total	**4,481,500**	**3,052,880**	**8,561,122**	**3,258,054**	**19,353,555**

NA = Not available.
Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table SR6

SR6. Average Prices of Natural Gas by State, 1998
(Dollars per Thousand Cubic Feet)

State	City Gate	Residential	Commercial	Industrial	Electric Utilities
Alabama	3.26	8.15	6.65	3.24	2.55
Alaska	NA	3.67	2.41	NA	1.80
Arizona	2.55	8.56	5.95	3.39	2.43
Arkansas	2.94	7.31	NA	3.44	2.28
California	2.38	6.93	6.26	3.59	2.79
Colorado	NA	NA	NA	NA	2.91
Connecticut	5.06	10.59	6.85	4.32	2.42
Delaware	3.01	8.86	7.07	4.13	2.89
District of Columbia	—	8.97	7.37	—	—
Florida	3.36	11.54	6.59	4.30	2.27
Georgia	3.51	6.74	5.93	4.75	3.19
Hawaii	5.33	19.33	13.18	—	—
Idaho	1.96	5.34	4.62	3.09	—
Illinois	2.75	5.46	4.92	3.93	2.25
Indiana	NA	NA	NA	NA	2.88
Iowa	3.48	5.91	4.56	2.15	3.00
Kansas	3.05	6.08	5.14	NA	2.13
Kentucky	3.22	5.94	5.41	3.78	3.11
Louisiana	NA	NA	NA	NA	2.38
Maine	NA	7.93	NA	NA	—
Maryland	NA	NA	6.63	5.31	2.77
Massachusetts	NA	NA	NA	NA	2.78
Michigan	2.80	5.12	4.84	3.99	1.23
Minnesota	3.02	5.47	4.40	2.85	2.42
Mississippi	NA	NA	4.47	NA	2.32
Missouri	3.32	6.56	5.66	4.44	2.23
Montana	2.40	NA	NA	5.07	3.65
Nebraska	3.23	5.19	NA	3.20	2.38
Nevada	3.02	7.11	5.94	4.74	2.37
New Hampshire	NA	NA	NA	NA	—
New Jersey	NA	NA	NA	NA	2.74
New Mexico	2.07	5.20	3.95	3.15	2.22
New York	NA	NA	NA	NA	2.56
North Carolina	3.49	8.71	6.62	3.95	2.73
North Dakota	2.80	5.19	4.33	2.88	—
Ohio	4.66	NA	NA	NA	3.51
Oklahoma	2.55	6.10	5.23	3.71	2.47
Oregon	NA	NA	NA	NA	1.55
Pennsylvania	NA	NA	NA	4.27	3.30
Rhode Island	NA	NA	NA	NA	3.38
South Carolina	0.82	8.50	6.45	3.24	3.60
South Dakota	3.23	5.59	4.42	3.27	1.77
Tennessee	NA	NA	NA	NA	—
Texas	2.92	6.31	4.52	NA	2.30
Utah	3.22	5.61	4.35	3.09	2.11
Vermont	2.58	6.54	5.08	2.80	2.90
Virginia	3.69	8.66	6.08	4.10	3.04
Washington	NA	NA	NA	NA	2.79
West Virginia	NA	NA	NA	NA	3.53
Wisconsin	3.36	6.08	4.89	3.92	2.68
Wyoming	NA	NA	NA	NA	8.61
Total	**3.02**	**6.82**	**5.47**	**3.07**	**2.37**

NA = Not available.
— = Not applicable.

Source: Energy Information Administration (EIA), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Highlights

Overview

This issue of the *Natural Gas Monthly* contains estimates through April 1999 for many natural gas data series at the national level. Also, state-level data are now available through December 1998. The special report, "Natural Gas 1998: A Preliminary Summary" provides an analysis of these preliminary data for 1998. Final 1998 data will be published in EIA's *Natural Gas Annual 1998* in the fall of 1999.

Highlights of the most recent data contained in this issue are:

Dry natural gas production in early 1999 is keeping pace with that of the past 2 years. Cumulatively through April 1999, estimated production is within 1 percent of levels for the same period in 1998 and 1997.

The degree to which working gas in underground storage in 1999 exceeds that of 1998 has been reduced. Estimated levels at the end of March 1999 exceeded those of 1998 by 26 percent, but this was down to 14 percent by the end of April 1999.

Cumulative end-use natural gas consumption through April 1999 is estimated to be 4 percent higher than for the same period in 1998.

Average natural gas wellhead prices remain relatively low at an estimated $1.73 per thousand cubic feet in December 1998 and $1.80 in January 1999.

Supply

Cumulative dry natural gas production through April 1999 is within 1 percent of the levels in 1998 and 1997 for the same period (Figure HI1) and matches that of 1996. Production is being maintained thus far in 1999 despite the recent general decline in the national average wellhead price. During 1998, the highest monthly wellhead price was seen in April, at $2.22 per thousand cubic feet. By December 1998, the price had declined to $1.73 per thousand cubic feet and averaged $1.96 for the year. The estimated wellhead price for January 1999 is $1.80 per thousand cubic feet. Natural gas production in April 1999 is estimated to be 1,546 billion cubic feet, just one-half percent lower than in April 1998 (Table 1).

Net imports of natural gas are running higher than last year. Net imports in April 1999 are estimated to be 250 billion cubic feet, 6 percent higher than in April 1998 (Table 2). In each month, from January through April 1999, net imports have been from 6 to 8 percent higher than for the same month in 1998.

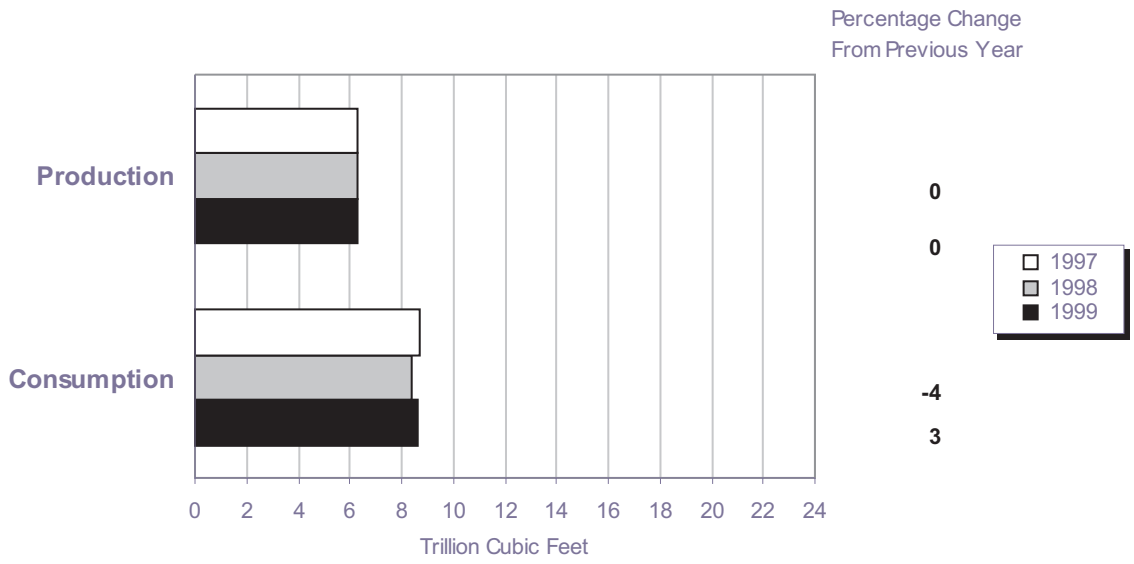
The natural gas industry began the 1999 storage refill season (April through October) with 26 percent more working gas in underground storage than last year.[1] However, net injections during April 1999 (shown as negative net withdrawals in Tables 9 and 10), at 80 billion cubic feet, were less than half that of April 1998. Thus working gas at the end of April 1999 is estimated to be 1,572 billion cubic feet, about 14 percent above the level of a year ago (Figure HI2).

End-Use Consumption

Cumulative end-use consumption of natural gas through April 1999 is estimated to be 4 percent higher than during the same period last year. Consumption in both the residential and commercial sectors is 7 percent higher than last year, while industrial consumption is 3 percent lower (Figure HI3). Data on natural gas consumption by electric utilities in 1999 are available only for January, but the estimated level of 179 billion cubic feet is 5 percent above that of January 1998 (Table 3).

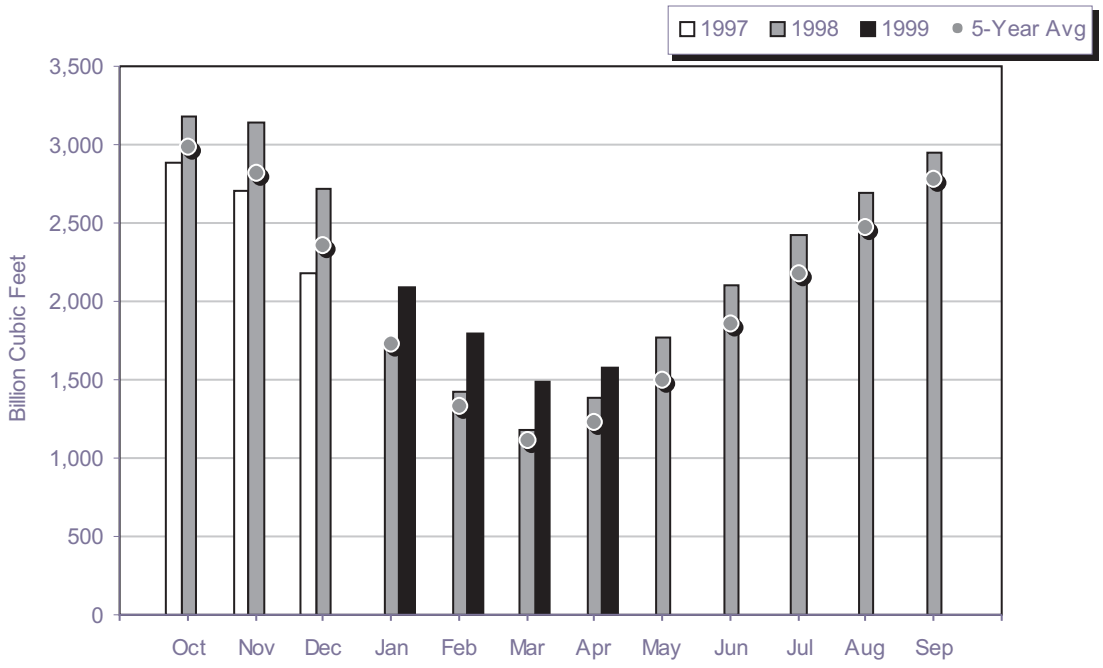
1 The Energy Information Administration reports storage levels as of the end of each month. Thus. Data for March 31 represent both the end of the heating season and the beginning of the nonheating or refill season. See table 10.

Figure HI1. Natural Gas Production and Consumption, January-April, 1997-1999



Source: Table 2.

Figure HI2. Working Gas in Underground Storage in the United States, 1997-1999



Note: The 5-year average is calculated using the latest available monthly data. For example, the December average is calculated from December storage levels for 1994 to 1998 while the January average is calculated from January levels for 1995 to 1999. Data are reported as of the end of the month, thus October data represent the beginning of the heating season.

Source: Form EIA-191, "Underground Natural Gas Storage Report," Form EIA-176, "Annual Report of Natural

Patterns of natural gas use during the early months of the year are strongly influenced by the weather because much of the gas used in the residential and commercial sectors is for space heating. The period January through March in both 1999 and 1998 was generally warmer than normal, as measured by heating degree days (Table 26), but the early months of 1999 were colder than in 1998, helping to boost natural gas consumption relative to last year. For April 1999, residential natural gas consumption is estimated to be 428 billion cubic feet, 5 percent above that of April 1998, while commercial consumption is 281 billion cubic feet, 9 percent above that of last year.

Natural gas use in the industrial sector is estimated be 702 billion cubic feet in April 1999, matching the level of April 1998. In each month from January through March, industrial consumption has been from 2 to 5 percent lower in 1999 than in 1998. The industrial sector continues to consume far more natural gas than the other sectors, accounting for 43 percent of total end-use consumption according to the estimates for April 1999.

Prices

The most recent natural gas price estimates are for January 1999. Supply and end-use prices are mixed relative to December 1998, but are lower than the levels in January 1998. Both the average wellhead and city gate prices in January 1999 are above their December 1998 levels. The average wellhead price estimate is $1.80 per thousand cubic feet, 4 percent higher than the prior month (Figure HI4 and Table 4) and the city gate price estimate is $2.88, 18 percent above the December 1998 level. These prices are 10 and 12 percent lower than a year ago, however.

The average prices paid for natural gas in the residential and commercial sectors[2] in January 1999 are estimated to be $6.18 and $5.12 per thousand cubic, respectively, 3 and 2 percent lower than in December 1998. The January 1999 prices are 4 and 8 percent lower, respectively, than those paid in January 1998. In the industrial sector, the estimated price paid for natural gas in January 1999 is $2.97 per thousand cubic feet, 5 percent above that of December 1998, but 19 percent below the $3.68 of a year ago. The industrial price in January 1997 had been even higher. At that time, the wellhead price had peaked at $3.40 per thousand cubic feet and the average industrial price was $4.65 per thousand cubic feet.

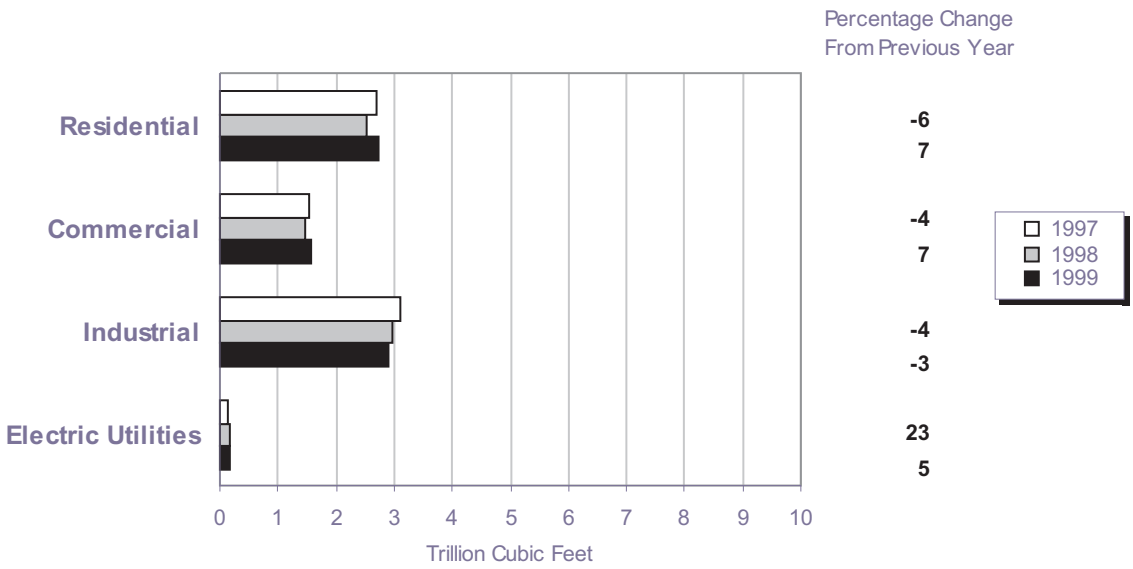
Data on the average prices paid by electric utilities lag data for the other sectors by 1 month and thus are available only through December 1998. The estimated price paid for natural gas by electric utilities in December 1998 was $2.22 per thousand feet and the estimated price for the year 1998 was $2.37. This is $0.37 per thousand cubic feet or 14 percent lower than the average price in 1997. Only the industrial sector saw a larger decline in prices from 1997 to 1998. In the industrial sector, the average price declined $0.52 per thousand cubic feet or 14 percent, reaching $3.07 in 1998.

Daily futures and spot prices are running higher in April 1999 than they did in March, the last month of the heating season. The nearby month futures price (for the May contract) settled above $2.00 per million Btu on March 31, 1999, and has remained above $2.00, closing at $2.348 per million Btu on April 28, 1999. The futures price has only settled above $2.00 one other day in 1999—January 4. The daily average spot prices at the Henry Hub have also been above $2.00 nearly every day since March 31, and averaged $2.31 per million Btu on April 28, 1999. Several factors have contributed to the price increase including some colder-than-normal temperatures during April, a partial recovery in crude oil prices (the West Texas Intermediate selling price was $18.50 per barrel on April 28, 1999, roughly $6.00 higher than prices in February), and the news that several nuclear plants in the Northeast may not be operating for extended periods this summer, potentially increasing the use of gas-fired electricity generation during periods of peak demand.[3]

2 End-use prices in the residential, commercial, and industrial sectors are for onsystem gas sales only. While monthly onsystem sales are nearly 100 percent of residential deliveries, in 1998 there were 64 percent of commercial deliveries and only 15 percent of industrial deliveries (Table 4).

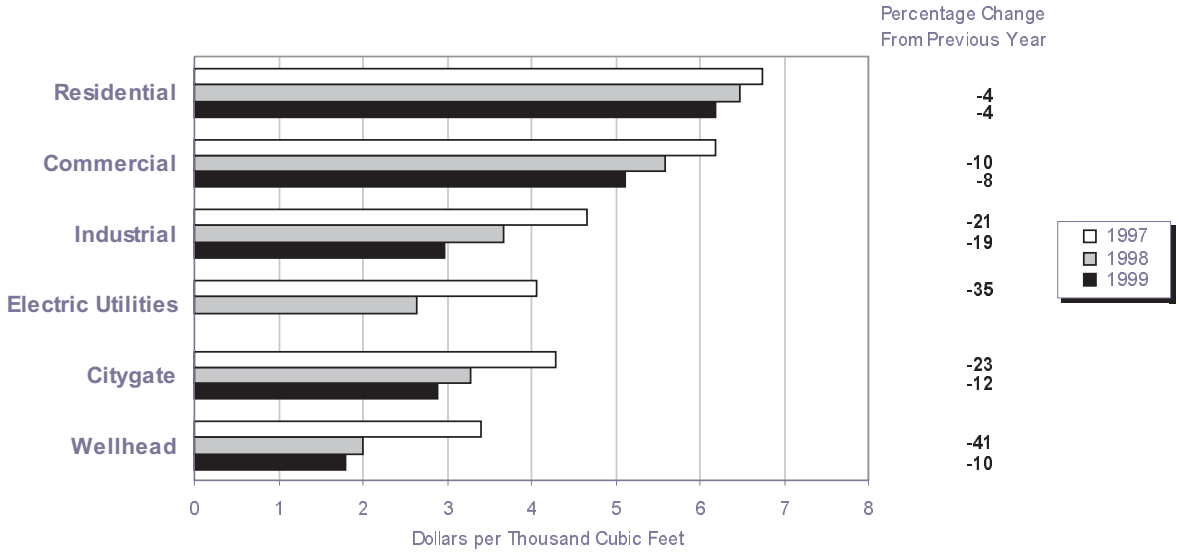
3 Energy Information Administration. *Natural Gas Weekly Market Update*, April 26, 1999. http//www.eia.doe.gov.

Figure HI3. Natural Gas Delivered to Consumers, January-April, 1997-1999



Note: Electric utilities reflect January deliveries.
Source: Table 3.

Figure HI4. Average Delivered and Wellhead Natural Gas Prices, January, 1997-1999



Note: Commercial and industrial average prices reflect onsystem sales only. The reporting of electric utility prices is 1 month behind the reporting of other prices.
Source: Table 4.

Figure HI5. Daily Futures Settlement Prices at the Henry Hub

Note: The future price is for the nearby month contract, that is, for the next contract to terminate trading. Contracts are traded on the New York Mercantile Exchange. April 1is the beginning of the natural gas storage refill season. November 1 is the beginning of the heating season.

Source: Commodity Futures Trading Commission, Division of Economic Analysis.

Table 1. Summary of Natural Gas Production in the United States, 1993-1999

(Billion Cubic Feet)

Year and Month	Gross Withdrawals	Repressuring	Nonhydrocarbon Gases Removed[a]	Vented and Flared	Marketed Production (Wet)	Extraction Loss[b]	Dry Gas Production[c]
1993 Total	**22,726**	**3,103**	**414**	**227**	**18,982**	**886**	**18,095**
1994 Total	**23,581**	**3,231**	**412**	**228**	**19,710**	**889**	**18,821**
1995 Total	**23,744**	**3,565**	**388**	**284**	**19,506**	**908**	**18,599**
1996 Total	**24,052**	**3,510**	**518**	**272**	**19,751**	**958**	**18,793**
1997							
January	2,089	305	50	25	1,709	83	1,626
February	1,905	289	46	22	1,549	75	1,474
March	2,103	311	51	23	1,720	83	1,636
April	1,993	285	48	22	1,639	80	1,559
May	2,041	268	50	22	1,702	83	1,619
June	1,952	275	47	18	1,612	78	1,534
July	2,020	272	51	23	1,674	81	1,593
August	2,022	279	52	21	1,671	81	1,590
September	1,988	285	50	21	1,632	79	1,553
October	2,057	307	51	20	1,678	81	1,597
November	1,999	302	52	19	1,626	79	1,547
December	2,044	314	52	22	1,655	80	1,575
Total	**24,213**	**3,492**	**599**	**256**	**19,866**	**964**	**18,902**
1998							
January	[E]2,115	[E]332	[E]46	[E]22	[E]1,716	[E]83	[E]1,633
February	[E]1,901	[E]294	[E]42	[E]18	[E]1,547	[E]75	[E]1,472
March	[E]2,083	[E]321	[E]45	[E]21	[E]1,696	[E]82	[E]1,613
April	[E]2,004	[E]306	[E]44	[E]21	[E]1,633	[E]79	[E]1,554
May	[E]2,067	[E]318	[E]43	[E]20	[E]1,686	[E]82	[E]1,604
June	[E]1,998	[E]294	[E]44	[E]22	[E]1,637	[E]79	[E]1,558
July	[E]2,028	[E]295	[E]45	[E]24	[E]1,665	[E]81	[E]1,584
August	[E]2,042	[E]292	[E]46	[E]24	[E]1,681	[E]82	[E]1,600
September	[E]2,013	[E]314	[E]44	[E]23	[E]1,633	[E]79	[E]1,554
October	[E]2,092	[E]351	[E]44	[E]23	[E]1,675	[E]81	[E]1,593
November	[RE]2,023	[E]339	[E]45	[E]24	[RE]1,616	[RE]78	[RE]1,537
December	[RE]2,118	[RE]362	[E]46	[E]24	[RE]1,686	[RE]82	[RE]1,604
Total	**[RE]24,485**	**[RE]3,817**	**[RE]533**	**[E]264**	**[RE]19,870**	**[RE]964**	**[RE]18,906**
1999							
January	[RE]2,131	[RE]359	[E]46	[E]24	[E]1,701	[E]82	[E]1,619
February	[E]1,958	[E]330	[E]42	[E]22	[E]1,563	[E]76	[E]1,487
March(STIFS)	NA	NA	NA	NA	[E]1,687	[E]82	[E]1,605
April(STIFS)	NA	NA	NA	NA	[E]1,625	[E]79	[E]1,546
1999 YTD	NA	NA	NA	NA	**[E]6,576**	**[E]319**	**[E]6,257**
1998 YTD	**[E]8,103**	**[E]1,253**	**[E]177**	**[E]82**	**[E]6,591**	**[E]320**	**[E]6,272**
1997 YTD	**8,091**	**1,189**	**195**	**91**	**6,617**	**321**	**6,296**

[a] See Appendix A, Explanatory Note 1, for a discussion of data on Nonhydrocarbon Gases Removed.

[b] Extraction loss is only collected on an annual basis. Annually it is between 4 and 5 percent of marketed production. Monthly extraction loss is estimated from monthly marketed production by assuming that the preceding annual percentage remains constant for the next twelve months.

[c] Equal to marketed production (wet) minus extraction loss.

[E] Estimated Data.

[RE] Revised Estimated Data.

NA Not Available.

Notes: Data for 1993 through 1997 are final. All other data are preliminary unless otherwise indicated and contain estimates for selected States (see Table 7). Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). Geographic coverage is the 50 States and the District of Columbia. Totals may not equal sum of components because of independent rounding.

Sources: 1993-1997: Energy Information Administration (EIA), *Natural Gas Annual 1997*. January 1998 through current month: Form EIA-895, "Monthly Quantity of Natural Gas Report," STIFS, and EIA estimates. See Appendix A, Explanatory Notes 1, 3, and 6, for discussion of computation and estimation procedures and revision policies.

Table 2

Table 2. Supply and Disposition of Dry Natural Gas in the United States, 1993-1999

(Billion Cubic Feet)

Year and Month	Dry Gas Production	Supplemental Gaseous Fuels[a]	Net Imports	Net Storage Withdrawals[b]	Balancing Item[c]	Consumption[d]
1993 Total	**18,095**	**119**	**2,210**	**-36**	**-110**	**20,279**
1994 Total	**18,821**	**111**	**2,462**	**-286**	**-400**	**20,708**
1995 Total	**18,599**	**110**	**2,687**	**415**	**-230**	**21,581**
1996 Total	**18,793**	**109**	**2,784**	**2**	**279**	**21,967**
1997						
January	1,626	12	266	709	-90	2,523
February	1,474	10	228	371	170	2,253
March	1,636	9	241	160	69	2,115
April	1,559	8	224	-61	64	1,795
May	1,619	8	232	-333	62	1,588
June	1,534	6	223	-379	67	1,451
July	1,593	7	225	-293	5	1,537
August	1,590	8	227	-334	28	1,518
September	1,553	6	226	-349	3	1,440
October	1,597	8	239	-218	-92	1,534
November	1,547	10	259	196	-116	1,895
December	1,575	11	246	553	-68	2,317
Total	**18,902**	**103**	**2,837**	**24**	**106**	**21,972**
1998						
January	[E]1,633	[E]12	267	466	[R]33	2,410
February	[E]1,472	[E]10	237	300	91	2,109
March	[E]1,613	[E]11	244	242	[R]22	2,131
April	[E]1,554	[E]9	235	-199	[R]118	[R]1,718
May	[E]1,604	[E]8	240	-393	[R]57	[R]1,517
June	[E]1,558	[E]7	236	-323	-1	1,477
July	[E]1,584	[E]9	251	-314	[R]53	[R]1,583
August	[E]1,600	[E]9	244	-283	[R]9	[R]1,577
September	[E]1,554	[E]9	255	-227	[R]-124	[R]1,467
October	[E]1,593	[E]10	[R]257	-255	[R]-121	[R]1,484
November	[RE]1,537	[E]11	[R]243	34	[R]-115	[R]1,711
December	[RE]1,604	[E]12	[R]267	435	[R]-177	[R]2,142
Total	**[RE]18,906**	**[E]117**	**[R]2,977**	**-518**	**[R]-155**	**[R]21,327**
1999						
January	[E]1,619	[E]13	[RE]289	623	[R]-16	2,527
February	[E]1,487	[E]11	[E]252	333	[E]89	[RE]2,171
March(STIFS)	[E]1,605	[E]12	[RE]258	[RE]300	[RE]-32	[E]2,143
April(STIFS)	[E]1,546	[E]10	[E]250	[E]-80	[E]65	[E]1,791
1999 YTD	**[E]6,257**	**[E]45**	**[E]1,048**	**[E]1,176**	**[E]106**	**[E]8,632**
1998 YTD	**[E]6,272**	**[E]42**	**983**	**809**	**263**	**8,369**
1997 YTD	**6,296**	**39**	**959**	**1,180**	**213**	**8,687**

[a] Supplemental gaseous fuels data are only collected on an annual basis except for the Dakota Gasification Inc. coal gasification facility which provides data each month. The ratio of annual supplemental fuels (excluding Dakota Gasification Inc.) to the sum of dry gas production, net imports, and net withdrawals from storage is calculated. This ratio, which varies between .0025 and .0037, is applied to the monthly sum of these three elements. The Dakota Gasification Inc. monthly value is added to the result to produce the monthly supplemental fuels estimate.

[b] Monthly and annual data for 1992 through 1997 include underground storage and liquefied natural gas storage. Data for January 1998 forward include underground storage only. See Appendix A, Explanatory Note 7 for discussion of computation procedures.

[c] Represents quantities lost and imbalances in data due to differences among data sources. See Appendix A, Explanatory Note 9, for full discussion.

[d] Consists of pipeline fuel use, lease and plant fuel use, vehicle fuel, and deliveries to consuming sectors as shown in Table 3.

[R] Revised Data.

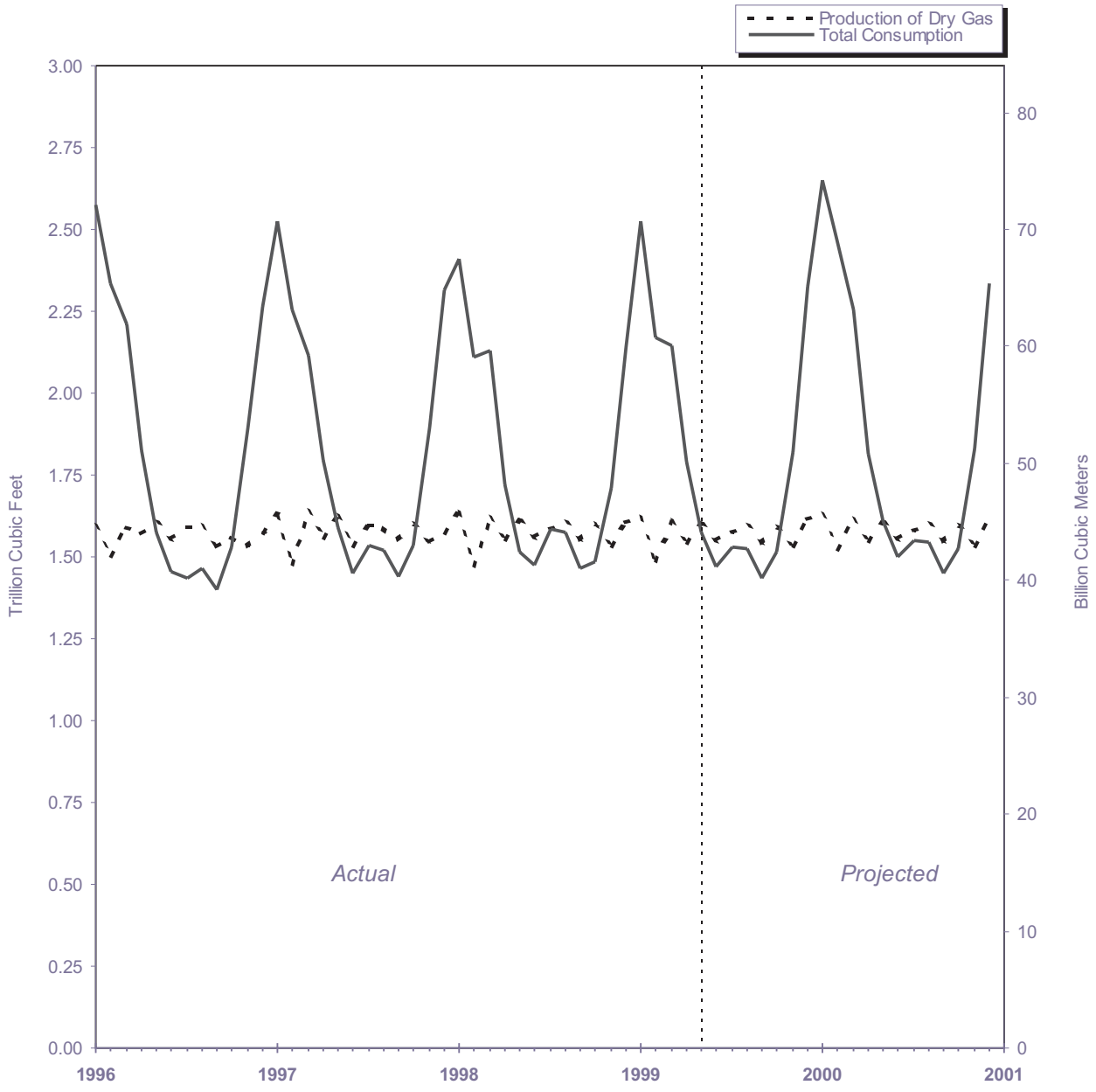
[E] Estimated Data.

[RE] Revised Estimated Data.

Notes: Data for 1993 through 1997 are final. All other data are preliminary unless otherwise indicated. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). Geographic coverage is the 50 States and the District of Columbia. Totals may not equal sum of components because of independent rounding.

Sources: 1993-1997: Energy Information Administration (EIA), *Natural Gas Annual 1997*. 1997: EIA-895, "Monthly Quantity of Natural Gas Report," Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form EIA-191, " Monthly Underground Gas Storage Report," and Office of Fossil Energy, U.S. Department of Energy, Natural Gas Imports and Exports and EIA computations. January 1998 through current month: EIA, Form EIA-895, Form EIA-857, Form EIA-191, EIA computations, and estimates, Short-Term Integrated Forecasting System (STIFS) computations, and Office of Fossil Energy, Natural Gas Imports and Exports. See Appendix A for discussion of computation and estimation procedures and revision policies.

Figure 1. Production and Consumption of Natural Gas in the United States, 1996-2000



Sources: 1996 through the current month: Table 2. Projected data: Energy Information Administration, *Short-Term Energy Outlook (January 1999)*

Table 3

Table 3. Natural Gas Consumption in the United States, 1993-1999

(Billion Cubic Feet)

Year and Month	Lease and Plant Fuel[a]	Pipeline Fuel[b]	Delivered to Consumers					Total Consumption
			Residential	Commercial	Industrial	Electric Utilities	Total	
1993 Total	**1,172**	**624**	**4,956**	**[c]2,863**	**7,981**	**2,682**	**18,483**	**20,279**
1994 Total	**1,124**	**685**	**4,848**	**[c]2,897**	**8,167**	**2,987**	**18,899**	**20,708**
1995 Total	**1,220**	**700**	**4,850**	**[c]3,034**	**8,580**	**3,197**	**19,660**	**21,581**
1996 Total	**1,250**	**711**	**5,241**	**[c]3,161**	**8,870**	**2,732**	**20,006**	**21,967**
1997								
January	104	88	902	475	816	139	2,332	2,523
February	94	78	757	421	759	143	2,081	2,253
March	104	73	606	360	782	190	1,938	2,115
April	99	61	433	270	739	193	1,635	1,795
May	102	54	284	204	713	232	1,432	1,588
June	97	49	164	154	690	297	1,305	1,451
July	101	52	128	144	683	429	1,385	1,537
August	101	51	118	140	717	391	1,366	1,518
September	99	49	129	142	689	333	1,293	1,440
October	102	52	234	190	711	244	1,380	1,534
November	99	65	497	306	748	180	1,731	1,895
December	101	81	731	411	796	197	2,135	2,317
Total	**1,202**	**752**	**4,984**	**3,223**	**8,843**	**2,968**	**20,018**	**21,972**
1998								
January	[E]107	82	806	449	794	171	2,220	2,410
February	[E]97	72	685	392	730	134	1,940	2,109
March	[E]106	73	641	371	746	194	1,952	2,131
April	[E]102	59	408	[R]257	702	190	[R]1,557	[R]1,718
May	[E]106	52	221	177	672	[R]290	[R]1,359	[R]1,517
June	[E]103	51	153	144	[R]649	379	1,324	1,477
July	[E]104	54	130	154	[R]691	449	[R]1,424	[R]1,583
August	[E]105	54	115	152	[R]694	[R]457	[R]1,418	[R]1,577
September	[E]102	50	120	148	[R]666	[R]381	1,314	[R]1,467
October	[E]105	51	200	178	[R]704	246	[R]1,328	[R]1,484
November	[E]101	[R]59	[R]390	263	[R]722	178	[R]1,551	[R]1,711
December	[RE]106	73	613	370	792	189	[R]1,963	[R]2,142
Total	**[RE]1,244**	**[R]730**	**[R]4,482**	**[R]3,053**	**[R]8,561**	**[R]3,258**	**[R]19,354**	**[R]21,327**
1999								
January	[E]106	86	908	481	767	179	2,334	2,527
February(STIFS)	[E]97	[E]68	[E]727	[E]425	[E]697	NA	[RE]2,007	[RE]2,171
March(STIFS)	[E]105	[E]70	[E]650	[E]382	[E]731	NA	[E]1,968	[E]2,143
April(STIFS)	[E]101	[E]55	[E]428	[E]281	[E]702	NA	[E]1,635	[E]1,791
1999 YTD[d]	**[E]410**	**[E]279**	**[E]2,714**	**[E]1,569**	**[E]2,897**	**179**	**[E]7,944**	**[E]8,632**
1998 YTD[d]	**[E]413**	**286**	**2,539**	**1,469**	**2,972**	**171**	**7,670**	**8,369**
1997 YTD[d]	**401**	**300**	**2,699**	**1,526**	**3,096**	**139**	**7,986**	**8,687**

[a] Plant fuel data are only collected on an annual basis and monthly lease fuel data are only collected annually. Lease and plant fuel estimates have been between 6 and 7 percent of marketed production annually. Monthly lease and plant fuel use is estimated from monthly marketed production by assuming that the preceding annual percentage remains constant for the next twelve months.

[b] Pipeline fuel use is only collected on an annual basis. Annually it is between 3 and 4 percent of total consumption. Monthly pipeline fuel data are estimated from monthly total consumption(excluding pipeline fuel) by assuming that the preceding annual percentage remains constant for the next twelve months.

[c] Vehicle fuel deliveries, in billion cubic feet, were 0.4 in 1991, 0.5 in 1992, 1.0 in 1993, 1.7 in 1994, 2.7 in 1995, 2.9 in 1996 and 4.4 in 1997.

[d] Year-to-date volume represents months for which volume information is available in the current year.

[R] Revised Data.

[E] Estimated Data.

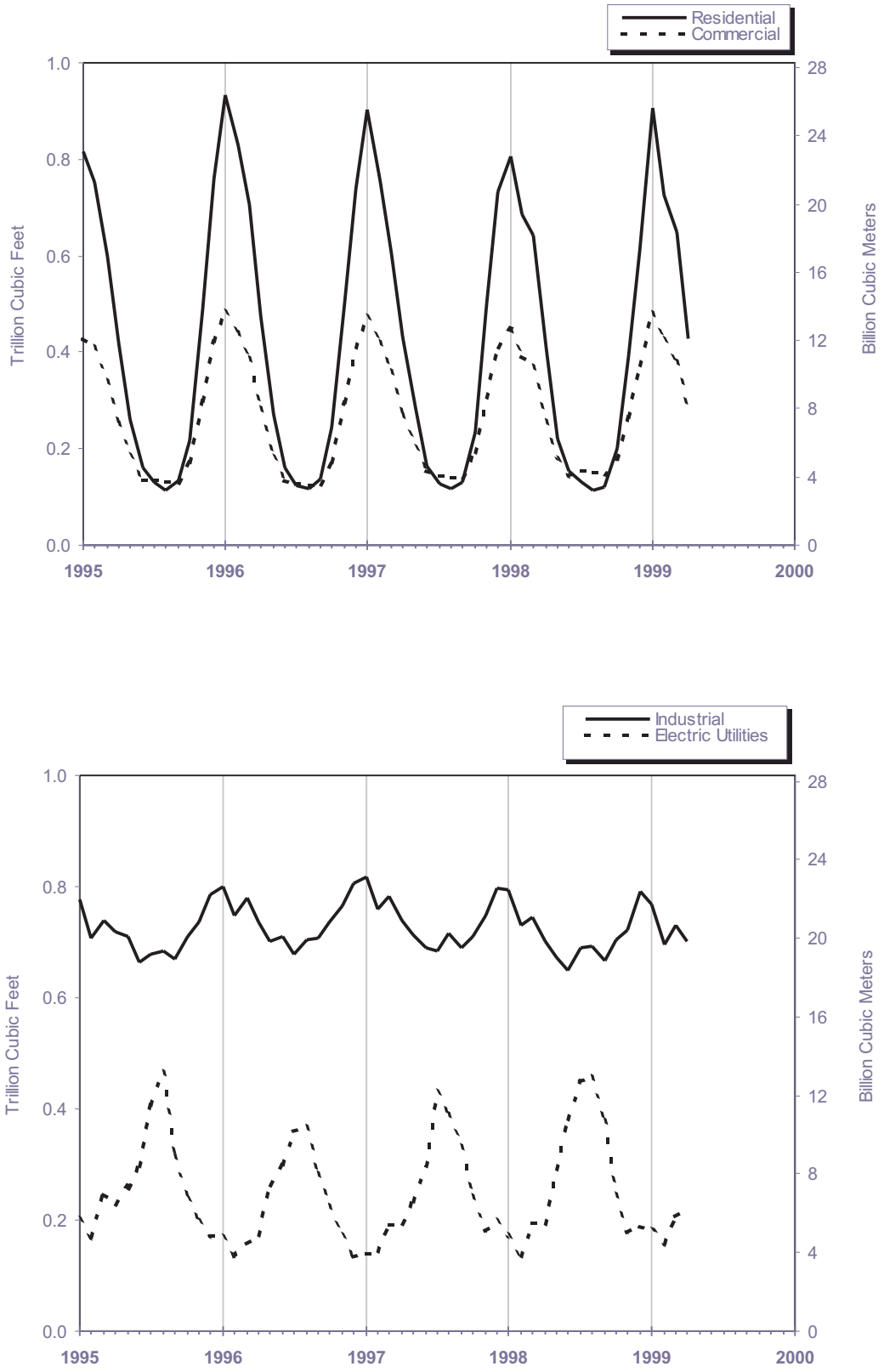
[RE] Revised Estimated Data.

[NA] Not Available.

Notes: Data for 1993 through 1997 are final. All other data are preliminary unless otherwise indicated. Estimates for the most recent three months are derived from the Short-Term Integrated Forecasting System (STIFS). Geographic coverage is the 50 States and the District of Columbia. Totals may not equal sum of components because of independent rounding. In 1996, consumption of natural gas for agricultural use is classified' as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Sources: 1993-1997: Energy Information Administration (EIA): Form EIA-627, "Annual Quantity and Value of Natural Gas Report," (thru 1994), Form EIA-895 "Monthly Quantity of Natural Gas Report," (1995 forward), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form EIA-759, "Monthly Power Plant Report," EIA computations, and *Natural Gas Annual 1997*. January 1998 through the current month: EIA: Form EIA-895, Form EIA-857, Form EIA-759, and STIFS computations. See Appendix A, Explanatory Note 5, for computation procedures and revision policy.

Figure 2. Natural Gas Deliveries to Consumers in the United States, 1995-1999



Sources: Table 3.

Table 4

Table 4. Selected National Average Natural Gas Prices, 1993-1999

(Dollars per Thousand Cubic Feet)

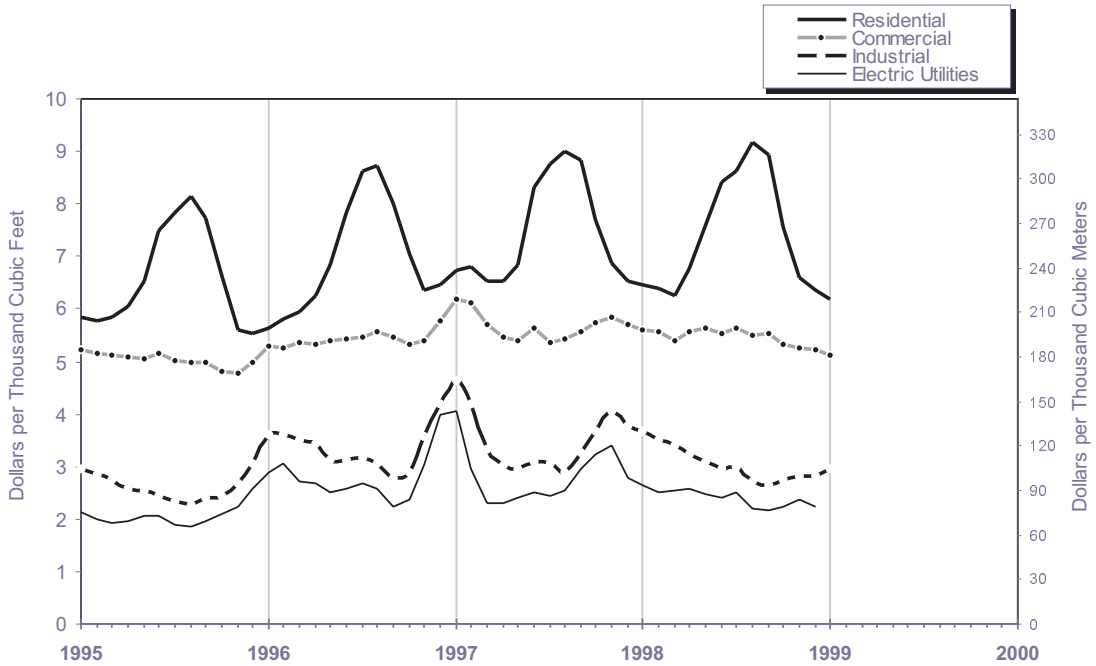
Year and Month	Wellhead Price[a]	City Gate Price	Delivered to Consumers					
			Residential Price	Commercial		Industrial		Electric Utilities Price
				Price	% of Total[b]	Price	% of Total[b]	
1993 Annual Average	**2.04**	**3.21**	**6.16**	**5.22**	**83.9**	**3.07**	**29.7**	**2.61**
1994 Annual Average	**1.85**	**3.07**	**6.41**	**5.44**	**79.3**	**3.05**	**25.5**	**2.28**
1995 Annual Average	**1.55**	**2.78**	**6.06**	**5.05**	**76.7**	**2.71**	**24.5**	**2.02**
1996 Annual Average	**2.17**	**3.34**	**6.34**	**5.40**	**77.6**	**3.42**	**19.4**	**2.69**
1997								
January	3.40	4.28	6.74	6.18	78.8	4.65	21.6	4.06
February	2.49	3.76	6.79	6.13	78.4	4.20	19.7	2.97
March	1.79	3.04	6.52	5.72	74.0	3.35	18.8	2.29
April	1.81	2.92	6.53	5.46	71.8	3.02	18.4	2.30
May	2.00	3.11	6.83	5.39	65.5	2.96	18.1	2.41
June	2.08	3.41	8.30	5.64	61.7	3.10	17.4	2.52
July	2.00	3.44	8.78	5.35	59.5	3.06	15.3	2.44
August	2.08	3.34	8.99	5.43	57.9	2.90	15.6	2.53
September	2.33	3.50	8.84	5.57	59.5	3.25	15.1	2.96
October	2.68	3.86	7.69	5.73	62.9	3.69	16.8	3.24
November	2.92	3.91	6.86	5.85	70.4	4.07	18.0	3.41
December	2.28	3.42	6.54	5.70	72.8	3.79	17.2	2.77
Annual Average	**2.32**	**3.61**	**6.94**	**5.79**	**70.8**	**3.59**	**17.7**	**2.74**
1998								
January	[E]1.99	3.28	6.47	5.59	72.0	3.68	15.1	2.64
February	[E]2.00	3.08	6.40	5.56	70.9	3.52	15.3	2.51
March	[E]2.08	3.22	6.27	5.39	71.5	3.41	16.6	[R]2.53
April	[E]2.22	3.21	6.78	5.58	[R]66.8	3.22	14.9	2.59
May	[E]2.03	3.11	7.59	5.62	60.0	3.10	13.8	[R]2.47
June	[E]1.97	2.99	8.41	5.53	59.6	2.96	13.9	2.40
July	[E]2.08	3.39	8.62	5.62	51.0	[R]3.00	12.7	2.50
August	[E]1.84	3.13	9.19	5.50	49.5	2.73	[R]13.5	2.21
September	[E]1.83	2.76	8.94	5.52	52.9	2.64	14.4	[R]2.15
October	[E]1.84	3.02	7.55	[R]5.32	55.0	[R]2.76	14.1	2.22
November	[E]1.94	3.01	[R]6.60	[R]5.26	[R]62.1	2.83	[R]15.4	2.37
December	[E]1.73	2.44	6.36	5.22	65.5	2.83	16.9	2.22
Annual Average	**[E]1.96**	**3.02**	**6.82**	**[R]5.47**	**64.3**	**3.07**	**14.8**	**2.37**
1999								
January	[E]1.80	2.88	6.18	5.12	71.6	2.97	16.4	NA

[a] See Appendix A, Explanatory Note 8, of the *Natural Gas Monthly (NGM)* for discussion of wellhead prices.
[b] Percentage of total deliveries represented by onsystem sales, see Figure 6. See Table 25 for breakdown by State.
[R] Revised Data.
[E] Estimated Data.
NA Not Available.

Notes: Data for 1992 through 1997 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

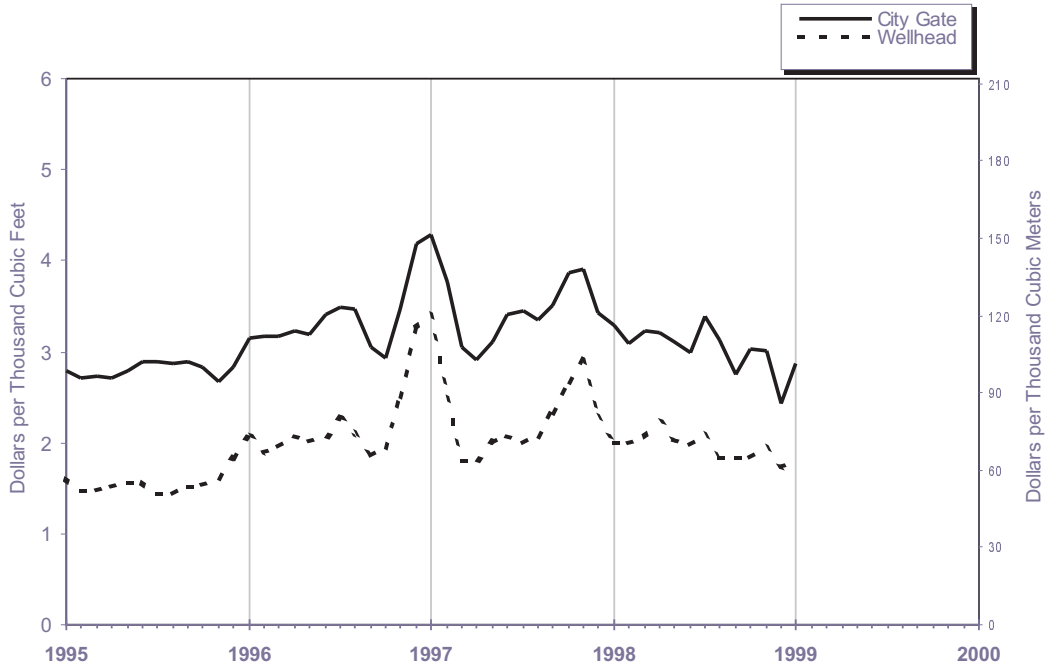
Sources: 1992-1997: Energy Information Administration (EIA) *Natural Gas Annual 1997.* 1998 forward: EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and EIA estimates. January 1998 through current month: See Appendix A, Explanatory Note 8 for estimation procedures and revision policy.

Figure 3. Average Price of Natural Gas Delivered to Consumers in the U.S., 1995-1999



Source: Table 4

Figure 4. Average Price of Natural Gas in the United States, 1995-1999



Source: Table 4

Table 5

Table 5. U.S. Natural Gas Imports, by Country, 1993-1999

(Volumes in Million Cubic Feet, Prices in Dollars per Thousand Cubic Feet)

Year and Month	Pipeline				LNG		Other		Total	
	Canada		Mexico		Algeria					
	Volume	Average Price	Volume	Average Price	Volume	Average Price	Volume	Average Price	Volume	Average Price
1993 Total	**2,266,751**	**2.02**	**1,678**	**1.94**	**81,685**	**2.20**	–	–	**2,350,115**	**2.03**
1994 Total	**2,566,049**	**1.86**	**7,013**	**1.99**	**50,778**	**2.28**	–	–	**2,623,839**	**1.87**
1995 Total	**2,816,408**	**1.48**	**6,722**	**1.53**	**17,918**	**2.30**	–	–	**2,841,048**	**1.49**
1996 Total	**2,883,277**	**1.96**	**13,862**	**2.25**	**35,325**	**2.70**	**4,949**	**3.45**	**2,937,413**	**1.97**
1997										
January	266,756	3.27	1,555	3.09	7,560	2.78	[a]2,417	3.68	278,288	3.26
February	230,352	2.50	2,526	2.49	7,667	3.00	—	—	240,545	2.52
March	251,328	1.70	3,127	1.83	2,530	2.98	—	—	256,985	1.72
April	235,431	1.66	189	1.92	2,557	2.23	—	—	238,178	1.67
May	234,345	1.81	2,380	2.03	2,552	2.20	[b]2,455	2.68	241,732	1.83
June	225,366	1.87	1,692	2.20	5,059	2.49	—	—	232,118	1.88
July	229,479	1.82	1,088	1.98	5,026	2.48	—	—	235,593	1.84
August	237,142	1.81	6	2.35	7,535	2.43	—	—	244,684	1.83
September	232,090	2.00	29	2.47	5,030	2.41	[b]2,337	2.88	239,486	2.01
October	245,742	2.32	965	2.92	5,050	2.70	—	—	251,758	2.33
November	257,782	2.71	1,874	2.82	7,542	2.89	[b]4,893	3.07	272,091	2.72
December	253,338	2.17	1,810	2.12	7,567	2.88	—	—	262,716	2.19
Total	**2,899,152**	**2.15**	**17,243**	**2.32**	**65,675**	**2.67**	**12,103**	**3.08**	**2,994,173**	**2.17**
1998										
January	273,189	2.02	56	2.11	10,105	2.89	—	—	283,351	2.05
February	235,288	[R]1.94	2,824	1.97	7,607	2.83	[b]2,171	3.84	247,890	[R]1.98
March	258,067	[R]1.98	382	2.20	5,166	3.12	—	—	263,615	[R]2.00
April	242,191	2.00	3,251	2.37	2,549	2.20	—	—	247,991	2.01
May	242,041	[R]1.97	846	2.15	7,596	2.52	—	—	250,483	[R]1.99
June	243,259	[R]1.92	5	2.21	5,125	2.39	[b]2,441	2.79	250,830	[R]1.94
July	256,506	[R]1.87	1,821	2.13	5,086	2.20	—	—	263,414	[R]1.88
August	249,717	[R]1.79	1,414	1.78	2,540	2.20	[b]2,321	2.80	255,993	[R]1.80
September	260,599	1.75	2,256	1.86	5,133	1.73	—	—	267,988	1.75
October	263,823	[R]1.98	[R]906	[R]1.64	5,025	[R]2.56	—	—	[R]269,753	[R]1.99
November	246,409	[R]2.10	—	—	5,042	[R]2.30	[ab]5,020	[R]3.05	[R]256,470	[R]2.13
December	[R]269,687	[R]2.11	1,418	[R]1.77	7,572	[R]2.49	[ab]4,933	[R]3.10	[R]283,609	[R]2.14
Total	**[R]3,040,775**	**[R]1.95**	**[R]15,179**	**[R]2.02**	**68,546**	**[R]2.52**	**[R]16,885**	**[R]3.09**	**[R]3,141,386**	**[R]1.97**
1999										
January	[R]290,266	NA	[RE]1,036	NA	12,612	NA	—	—	[RE]303,914	NA
February	[E]251,466	NA	[E]2,016	NA	7,423	NA	[ac]5,038	NA	[E]265,942	NA
1999 YTD	**[E]541,732**	NA	**[E]3,052**	NA	**20,034**	NA	**5,038**	NA	**569,856**	NA
1998 YTD	**508,477**	**1.98**	**2,880**	**1.97**	**17,712**	**2.86**	**2,171**	**3.84**	**531,240**	**2.02**
1997 YTD	**497,108**	**2.91**	**4,081**	**2.72**	**15,227**	**2.89**	**2,417**	**3.68**	**518,832**	**2.92**

[a] Received from the United Arab Emirates.
[b] Received from Australia.
[ab] Received from Australia and the United Arab Emirates: November 1998 - Australia 2,353; United Arab Emirates 2,667. December 1998 - Australia 2,348; United Arab Emirates 2,585.
[ac] Received 2,557 from Australia and 2,481 from Qatar.
[R] Revised Data.
[E] Estimated Data.
[RE] Revised Estimated Data.
NA Not Available.
— Not Applicable.
– Data not available.

Sources: 1992-1994: Energy Information Administration, Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." January 1995 through the current month (except estimates): Office of Fossil Energy, U.S. Department of Energy, *Natural Gas Imports and Exports.* Estimated pipeline data (shown with an "E") are taken from data from the National Energy Board of Canada plus EIA estimates. LNG data: Industry reports.

Table 6. U.S. Natural Gas Exports, by Country, 1993-1999

(Volumes in Million Cubic Feet, Prices in Dollars per Thousand Cubic Feet)

Year and Month	Pipeline				LNG				Total	
	Canada		Mexico		Japan		Mexico			
	Volume	Average Price	Volume	Average Price	Volume	Average Price	Volume	Average Price	Volume	Average Price
1993 Total	**44,518**	**2.14**	**39,676**	**2.02**	**55,989**	**3.34**	—	—	**140,183**	**2.59**
1994 Total	**52,556**	**2.42**	**46,500**	**1.68**	**62,682**	**3.18**	—	—	**161,738**	**2.50**
1995 Total	**27,554**	**1.96**	**61,283**	**1.50**	**65,283**	**3.41**	—	—	**154,119**	**2.39**
1996 Total	**51,905**	**2.67**	**33,840**	**2.11**	**67,648**	**3.65**	—	—	**153,393**	**2.97**
1997										
January	4,193	4.08	2,231	4.08	5,604	4.25	—	—	12,028	4.16
February	5,169	3.02	1,677	2.32	5,596	4.20	—	—	12,443	3.46
March	9,115	2.05	1,486	1.55	5,675	4.16	—	—	16,276	2.74
April	5,168	1.78	3,044	1.83	5,660	4.06	—	—	13,872	2.72
May	4,107	2.08	2,177	1.96	3,812	3.83	—	—	10,097	2.72
June	3,162	2.28	2,579	2.14	3,786	3.72	—	—	9,527	2.81
July	3,257	2.14	3,122	2.17	3,756	3.66	—	—	10,136	2.71
August	3,820	2.15	6,282	2.37	7,532	3.62	—	—	17,633	2.86
September	3,129	2.37	6,159	2.59	3,767	3.58	—	—	13,055	2.83
October	2,432	2.85	4,182	2.87	5,676	3.58	—	—	12,289	3.19
November	5,579	3.10	1,782	3.16	5,691	3.66	—	—	13,051	3.35
December	7,318	2.58	3,650	2.30	5,631	3.58	—	—	16,600	2.86
Total	**56,447**	**2.52**	**38,372**	**2.46**	**62,187**	**3.83**	—	—	**157,006**	**3.02**
1998										
January	5,056	2.53	4,257	2.11	7,446	3.67	—	—	16,759	2.93
February	4,474	2.14	3,119	2.06	3,726	3.42	—	—	11,319	2.54
March	7,818	2.25	4,204	2.14	7,435	3.09	—	—	19,457	2.55
April	4,409	2.47	2,676	2.22	5,702	2.81	—	—	12,787	2.57
May	2,083	2.28	6,123	2.12	1,891	2.70	—	—	10,097	2.26
June	3,404	1.73	5,618	1.98	5,695	2.69	—	—	14,717	2.20
July	2,533	2.05	3,853	2.20	5,681	2.70	—	—	12,067	2.40
August	1,241	1.92	5,292	[R]1.95	5,676	2.70	[R]1	[R]6.44	[R]12,210	[R]2.30
September	2,250	1.94	2,892	1.81	7,584	[R]2.68	—	—	12,726	[R]2.35
October	[R]2,305	[R]2.02	[R]5,169	[R]1.90	5,679	[R]2.72	[R]3	[R]6.28	[R]13,156	[R]2.27
November	[R]4,291	[R]2.21	[R]5,076	[R]2.00	3,776	[R]2.75	[R]10	[R]6.23	[R]13,153	[R]2.29
December	[R]5,376	[R]2.24	[R]5,322	[R]1.99	5,662	[R]2.68	[R]20	[R]6.22	[R]16,380	[R]2.31
Total	**[R]45,240**	**[R]2.20**	**[R]53,601**	**[R]2.03**	**65,953**	**[R]2.90**	**[R]34**	**[R]6.22**	**[R]164,828**	**[R]2.43**
1999										
January	[RE]4,625	NA	[RE]4,900	NA	5,587	NA	NA	NA	[RE]15,112	NA
February	4,950	NA	[E]3,843	NA	5,563	NA	NA	NA	14,356	NA
1999 YTD	**[E]9,575**	NA	**[E]8,743**	NA	**11,150**	NA	NA	NA	**29,468**	NA
1998 YTD	**9,530**	**2.35**	**7,376**	**2.09**	**11,172**	**3.59**	—	—	**28,078**	**2.77**
1997 YTD	**9,362**	**3.49**	**3,909**	**3.32**	**11,201**	**4.23**	—	—	**24,471**	**3.80**

[R] Revised Data.
[E] Estimated Data.
[RE] Revised Estimated Data.
NA Not Available.
— Not Applicable.

Sources: 1992-1994: Energy Information Administration, Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." January 1995 through the current month (except estimates): Office of Fossil Energy, U.S. Department of Energy, *Natural Gas Imports and Exports.* Estimated pipeline data (shown with an "E") are taken from data from the National Energy Board of Canada plus EIA estimates. LNG data: Industry reports.

Table 7

Table 7. Marketed Production of Natural Gas, by State, 1992-1998

(Million Cubic Feet)

Year and Month	Alabama[b]	Alaska	Arizona	California	Colorado	Florida	Kansas
1992 Total	**355,099**	**443,597**	**771**	**365,632**	**323,041**	**6,657**	**658,007**
1993 Total	**388,024**	**430,350**	**597**	**315,851**	**400,985**	**7,085**	**686,347**
1994 Total	**515,272**	**555,402**	**752**	**309,427**	**453,207**	**7,486**	**712,730**
1995 Total	**519,661**	**469,550**	**558**	**279,555**	**523,084**	**6,463**	**721,436**
1996							
January	45,653	44,655	41	20,714	48,619	518	62,976
February	42,668	40,433	42	22,910	45,504	493	62,683
March	45,334	43,738	45	24,686	47,843	460	63,027
April	43,868	39,694	36	23,988	45,293	456	60,858
May	45,160	36,348	39	24,091	46,893	483	62,194
June	43,319	37,334	45	23,281	45,212	503	56,318
July	43,257	37,272	30	24,495	45,570	500	57,095
August	43,873	37,239	43	24,547	51,269	540	55,144
September	42,834	38,039	31	23,826	45,437	537	55,563
October	42,200	41,204	34	24,261	50,245	468	57,589
November	45,395	40,706	37	24,493	49,824	517	58,460
December	47,278	44,166	40	25,203	50,363	531	60,890
Total	**530,841**	**480,828**	**463**	**286,494**	**572,071**	**6,006**	**712,796**
1997							
January	48,213	43,497	46	24,430	52,755	527	60,198
February	46,024	39,391	41	21,876	48,424	512	55,275
March	51,313	42,625	42	23,910	53,954	610	60,099
April	51,246	38,687	39	23,248	52,529	554	58,357
May	48,802	35,427	36	23,590	52,376	541	61,661
June	47,342	36,344	28	22,928	50,715	450	59,996
July	46,370	36,284	31	23,981	52,964	514	58,234
August	46,314	36,270	30	23,841	54,041	505	61,937
September	48,911	37,041	30	23,760	52,742	519	49,658
October	50,634	40,095	34	24,437	54,260	452	53,815
November	49,734	39,631	57	24,792	55,549	439	54,152
December	48,368	43,020	39	24,896	57,064	491	53,834
Total	**583,272**	**468,311**	**452**	**285,690**	**637,375**	**6,114**	**687,215**
1998							
January	32,739	43,715	43	24,810	53,025	479	[E]51,399
February	29,230	38,016	42	21,719	51,770	436	[E]48,969
March	33,505	41,026	53	22,869	56,834	466	[E]50,055
April	32,406	38,188	43	21,952	55,760	480	[E]49,045
May	33,656	35,200	38	23,889	56,151	512	[E]50,901
June	33,257	36,116	34	24,837	54,493	428	[E]48,050
July	33,696	36,501	42	27,152	56,370	504	[E]48,048
August	33,719	36,331	36	29,717	56,841	529	[E]48,172
September	30,466	[E]40,036	32	29,096	55,501	445	[E]43,509
October	33,344	[E]46,034	31	29,858	58,862	470	[E]46,595
November	[R]31,876	[E]44,298	33	29,462	51,627	533	[E]47,395
December	32,976	[E]47,760	33	[E]30,452	60,780	515	[E]49,359
Total	**390,870**	**[E]483,221**	**457**	**[E]315,813**	**668,014**	**5,796**	**[E]581,496**

See footnotes at end of table.

Table 7. Marketed Production of Natural Gas, by State, 1992-1998

(Million Cubic Feet) — Continued

Year and Month	Louisiana[b]	Michigan	Mississippi	Montana	New Mexico	North Dakota	Oklahoma
1992 Total	**4,914,300**	**194,815**	**91,697**	**53,867**	**1,268,863**	**54,883**	**2,017,356**
1993 Total	**4,991,138**	**204,635**	**80,695**	**54,528**	**1,409,429**	**59,851**	**2,049,942**
1994 Total	**5,169,705**	**222,657**	**63,448**	**50,416**	**1,557,689**	**57,805**	**1,934,864**
1995 Total	**5,108,366**	**238,203**	**95,533**	**50,264**	**1,625,837**	**49,468**	**1,811,734**
1996							
January	437,274	21,912	8,089	4,503	135,594	4,276	143,693
February	412,611	18,686	7,386	4,266	126,370	3,880	139,115
March	446,371	11,208	8,385	4,443	138,091	4,164	131,701
April	436,014	32,072	8,225	4,098	132,572	4,122	147,949
May	451,148	18,021	9,026	4,244	138,946	4,273	149,425
June	434,668	23,572	8,983	3,496	131,778	3,990	143,675
July	449,052	27,119	9,335	3,603	125,193	4,047	146,451
August	449,461	23,261	9,193	4,050	126,967	4,096	148,463
September	431,768	20,208	8,641	4,172	122,040	4,185	143,302
October	421,252	20,374	8,996	4,668	123,570	4,246	150,322
November	427,566	16,081	8,487	4,521	124,377	4,216	146,828
December	443,563	13,227	8,518	4,933	128,590	4,178	143,965
Total	**5,240,747**	**245,740**	**103,263**	**50,996**	**1,554,087**	**49,674**	**1,734,887**
1997							
January	445,257	34,940	8,253	4,654	135,263	3,952	144,608
February	405,366	16,875	7,807	4,451	122,656	3,899	134,455
March	447,802	24,790	8,470	4,836	137,830	4,453	147,098
April	431,010	12,944	8,120	4,654	132,438	4,364	136,246
May	443,269	39,819	8,611	4,561	136,553	4,539	142,336
June	425,934	19,314	8,893	3,808	125,256	4,348	138,038
July	434,326	40,026	8,636	4,114	131,806	4,427	144,769
August	438,965	18,597	9,626	4,213	134,140	4,486	147,528
September	430,599	22,451	9,162	4,199	128,915	4,381	150,488
October	445,702	20,297	10,084	3,150	134,623	4,508	145,054
November	434,908	26,013	9,683	4,706	120,856	4,416	135,537
December	446,682	29,885	9,955	5,091	118,298	4,629	137,731
Total	**5,229,821**	**305,950**	**107,300**	**52,437**	**1,558,633**	**52,401**	**1,703,888**
1998							
January	467,734	28,439	9,639	[E]5,058	142,312	4,623	159,422
February	418,165	28,259	8,574	[E]4,668	142,383	4,020	125,953
March	470,930	30,719	9,781	[E]5,018	141,671	4,337	136,396
April	456,246	17,983	8,957	[E]4,714	140,963	4,284	134,017
May	473,557	29,164	9,121	[E]4,672	140,258	4,488	136,703
June	[E]454,466	26,962	8,586	[E]3,805	139,557	4,210	130,734
July	[E]454,506	26,188	9,258	[E]3,990	138,859	4,384	133,099
August	[E]457,471	19,037	8,835	[E]4,242	138,165	4,499	135,122
September	[E]438,628	28,469	8,664	[E]4,332	137,474	4,427	[E]142,267
October	[E]462,358	21,908	8,868	[E]4,346	136,786	4,600	[E]140,146
November	[E]440,854	12,272	8,602	[E]4,934	136,102	4,428	[E]133,360
December	[E]461,135	29,159	9,184	[E]5,280	[E]138,325	4,536	[E]136,123
Total	**[E]5,456,050**	**298,560**	**108,069**	**[E]55,059**	**[E]1,672,854**	**52,834**	**[E]1,643,342**

See footnotes at end of table.

Table 7. Marketed Production of Natural Gas, by State, 1992-1998

(Million Cubic Feet) — Continued

Year and Month	Oregon	Texas[c]	Utah	Wyoming	Other[a] States	U.S. Total
1992 Total	**2,580**	**6,145,862**	**171,293**	**842,576**	**800,913**	**18,711,808**
1993 Total	**4,003**	**6,249,624**	**225,401**	**634,957**	**788,472**	**18,981,915**
1994 Total	**3,221**	**6,353,844**	**270,858**	**696,018**	**774,724**	**19,709,525**
1995 Total	**1,923**	**6,330,048**	**241,290**	**673,775**	**759,728**	**19,506,474**
1996						
January	120	545,658	19,998	58,691	69,638	1,672,623
February	75	512,557	18,027	56,037	66,726	1,580,472
March	105	552,700	21,650	57,270	72,373	1,673,596
April	121	529,015	20,864	54,662	65,643	1,649,552
May	140	547,843	21,035	52,805	67,061	1,679,176
June	132	533,168	20,759	59,346	64,752	1,634,329
July	146	557,986	20,573	55,519	64,500	1,671,743
August	117	550,499	21,137	54,567	66,523	1,670,989
September	132	529,524	21,589	51,949	65,361	1,609,140
October	133	543,264	22,152	53,649	69,163	1,637,792
November	113	517,147	21,606	53,990	70,997	1,615,362
December	102	529,659	21,376	57,551	71,875	1,656,019
Total	**1,439**	**6,449,022**	**250,767**	**666,036**	**814,612**	**19,750,793**
1997						
January	105	554,934	21,782	59,016	66,837	1,709,269
February	98	506,768	19,115	55,848	59,897	1,548,774
March	101	564,269	21,912	61,159	64,286	1,719,559
April	102	539,499	19,570	64,278	61,118	1,639,002
May	102	552,230	22,053	62,726	62,301	1,701,532
June	97	529,765	19,815	59,667	59,069	1,611,809
July	98	546,610	21,711	60,324	58,493	1,673,719
August	99	548,267	21,024	61,091	59,686	1,670,660
September	86	525,836	22,007	64,678	56,803	1,632,265
October	97	540,150	23,006	64,992	62,912	1,678,302
November	91	519,274	22,840	62,181	60,863	1,625,720
December	96	526,271	22,307	62,410	64,414	1,655,481
Total	**1,173**	**6,453,873**	**257,139**	**738,368**	**736,679**	**19,866,093**
1998						
January	90	542,462	21,826	66,074	[E]61,837	[E]1,715,726
February	79	491,530	21,758	53,970	[E]57,200	[E]1,546,742
March	96	541,311	23,656	65,704	[E]61,188	[E]1,695,615
April	92	525,602	23,513	61,974	[E]57,188	[E]1,633,408
May	92	550,442	24,967	54,304	[E]58,146	[E]1,686,261
June	90	527,613	23,968	63,574	[E]56,699	[E]1,637,477
July	95	547,880	23,036	64,917	[E]55,998	[E]1,664,522
August	94	561,133	23,681	66,273	[E]57,217	[E]1,681,113
September	90	529,321	21,554	63,370	[E]55,348	[E]1,633,028
October	83	534,431	23,830	62,709	[E]59,433	[E]1,674,693
November	85	520,580	[R]23,045	66,979	[E]59,256	[RE]1,615,721
December	80	525,805	22,507	[E]69,220	[E]62,674	[E]1,685,901
Total	**1,067**	**6,398,110**	**277,340**	**[E]759,069**	**[E]702,185**	**[E]19,870,204**

[a] Includes Arkansas, Illinois, Indiana, Kentucky, Maryland, Missouri, Nebraska, Nevada, New York, Ohio, Pennsylvania, South Dakota, Tennessee, Virginia and West Virginia. The 1998 monthly values for these States are estimated.

[b] All data for 1991 through 1996 include Federal Offshore production. For 1997 and 1998, data for Alabama exclude Federal Offshore production and data for Louisiana include both the Louisana and Alabama portions of Federal Offshore production.

[c] Federal offshore production volumes are included.

[R] Revised Data.

[E] Estimated Data.

[RE] Revised Estimated Data.

Notes: Data for 1992 through 1997 are final. All other data are preliminary unless otherwise indicated. Totals may not equal sum of components because of independent rounding. See Appendix A, Explanatory Notes 1 and 3 for discussion of computation procedures and revision policy.

Sources: 1992-1997: Energy Information Administration (EIA), *Natural Gas Annual 1997*.1998 through current month: Form EIA-895, "Monthly Quantity of Natural Gas Report," Minerals Management Service reports, and EIA computations.

Table 8. Gross Withdrawals and Marketed Production of Natural Gas by State, December 1998

(Million Cubic Feet)

State	Gross Withdrawals			Repressuring	Nonhydrocarbon Gases Removed[a]	Vented and Flared	Marketed Production
	From Gas Wells	From Oil Wells	Total				
Alabama	35,888	674	36,562	1,166	2,310	111	32,976
Alaska	[E]19,133	[E]329,143	[E]348,276	[E]299,462	0	[E]1,054	[E]47,760
Arizona	32	1	33	0	0	0	33
California	[E]7,389	[E]27,356	[E]34,746	[E]4,052	[E]163	[E]79	[E]30,452
Colorado	53,206	7,980	61,185	306	0	100	60,780
Florida	0	582	582	0	67	0	515
Kansas	[E]45,533	[E]3,959	[E]49,492	[E]84	0	[E]49	[E]49,359
Louisiana	[E]405,796	[E]61,003	[E]466,799	[E]3,661	[E]0	[E]2,003	[E]461,135
Michigan	23,732	5,933	29,665	209	0	297	29,159
Mississippi	10,273	624	10,897	766	711	236	9,184
Montana	[E]4,672	[E]819	[E]5,490	[E]7	0	[E]203	[E]5,280
New Mexico	[E]130,569	[E]22,634	[E]153,203	[E]933	[E]13,697	[E]249	[E]138,325
North Dakota	1,444	3,362	4,805	0	5	264	4,536
Oklahoma	[E]123,081	[E]13,042	[E]136,123	[E]0	[E]0	[E]0	[E]136,123
Oregon	96	0	96	4	12	0	80
Texas	466,211	112,809	579,020	37,471	13,308	2,436	525,805
Utah	21,608	3,340	24,949	69	0	2,373	22,507
Wyoming	[E]106,718	[E]5,590	[E]112,308	[E]13,607	[E]14,731	[E]14,750	[E]69,220
Other States	[E]59,380	[E]4,196	[E]63,575	[E]169	[E]574	[E]158	[E]62,674
Total	**[E]1,514,760**	**[E]603,045**	**[E]2,117,805**	**[E]361,965**	**[E]45,577**	**[E]24,363**	**[E]1,685,901**

[a] See Appendix A, Explanatory Note 1, for a discussion of data on Nonhydrocarbon Gases Removed.

[E] Estimated Data.

Notes: All monthly data are considered preliminary until publication of the *Natural Gas Annual* for that year. Totals may not equal sum of components because of independent rounding. See Appendix A, Explanatory Notes 1 and 3 for discussion of computation procedures and revision policy.

Sources: Form EIA-895, "Monthly Quantity of Natural Gas Report."

Table 9

Table 9. Underground Natural Gas Storage - All Operators, 1993-1999

(Volumes in Billion Cubic Feet)

Year and Month	Natural Gas in Underground Storage at End of Period			Change In Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total[b]	Volume	Percent	Injections	Withdrawals	Net Withdrawals[c]
1993 Total[a]	**4,327**	**2,322**	**6,649**	**-275**	**-10.6**	**2,760**	**2,717**	**-43**
1994 Total[a]	**4,360**	**2,606**	**6,966**	**284**	**12.2**	**2,796**	**2,508**	**-288**
1995 Total[a]	**4,349**	**2,153**	**6,503**	**-453**	**3.1**	**2,566**	**2,974**	**408**
1996 Total[a]	**4,341**	**2,173**	**6,513**	**19**	**0.9**	**2,906**	**2,911**	**6**
1997								
January	4,347	1,496	5,843	32	2.3	68	753	684
February	4,342	1,139	5,481	118	11.6	55	413	358
March	4,345	990	5,336	232	30.7	131	285	155
April	4,342	1,051	5,393	196	23.1	205	146	-59
May	4,340	1,365	5,704	202	17.5	362	41	-321
June	4,357	1,731	6,088	202	13.2	407	42	-365
July	4,356	2,017	6,372	119	6.3	361	78	-282
August	4,357	2,338	6,695	93	4.2	378	56	-322
September	4,360	2,672	7,033	67	2.6	380	44	-336
October	4,358	2,886	7,244	75	2.7	294	84	-210
November	4,359	2,699	7,058	150	5.9	113	302	189
December	4,350	2,175	6,525	2	0.1	45	579	533
Total	—	—	—	—	—	**2,800**	**2,824**	**24**
1998								
January	4,347	1,713	6,060	218	14.5	68	535	466
February	4,341	1,419	5,760	280	24.6	74	373	300
March	4,342	1,185	5,527	194	19.6	136	378	242
April	4,339	1,382	5,721	331	31.5	277	78	-199
May	4,340	1,775	6,115	410	30.0	435	42	-393
June	4,346	2,103	6,448	372	21.5	375	52	-323
July	4,340	2,417	6,757	401	19.9	366	52	-314
August	4,336	2,697	7,033	359	15.4	342	58	-283
September	4,340	2,949	7,289	277	10.4	305	78	-227
October	4,342	3,176	7,517	290	10.0	301	46	-255
November	4,340	3,143	7,483	444	16.5	131	165	34
December	4,326	2,718	7,044	543	25.0	94	530	435
Total	—	—	—	—	—	**2,905**	**2,386**	**-518**
1999								
January	4,327	2,094	6,421	381	22.2	55	678	623
February	4,312	1,792	6,104	372	26.2	62	395	333
March(STIFS)	[RE]4,312	[RE]1,492	[R]5,804	[RE]307	[RE]25.9	NA	NA	[RE]300
April(STIFS)	[E]4,312	[E]1,572	[E]5,884	[E]190	[E]13.7	NA	NA	[E]-80

[a] Total as of December 31.

[b] Total underground storage capacity at the end of each calendar year (in billion cubic feet): 1991 - 7,993; 1992 - 7,932; 1993 - 7,989; 1994 - 8,043; 1995 - 7,927; 1996 - 8,159; and 1997 - 8,128.

[c] Negative numbers indicate the volume of injections in excess of withdrawals. Positive numbers indicate the volume of withdrawals in excess of injections.

[R] Revised Data.

[E] Estimated Data.

[RE] Revised Estimated Data.

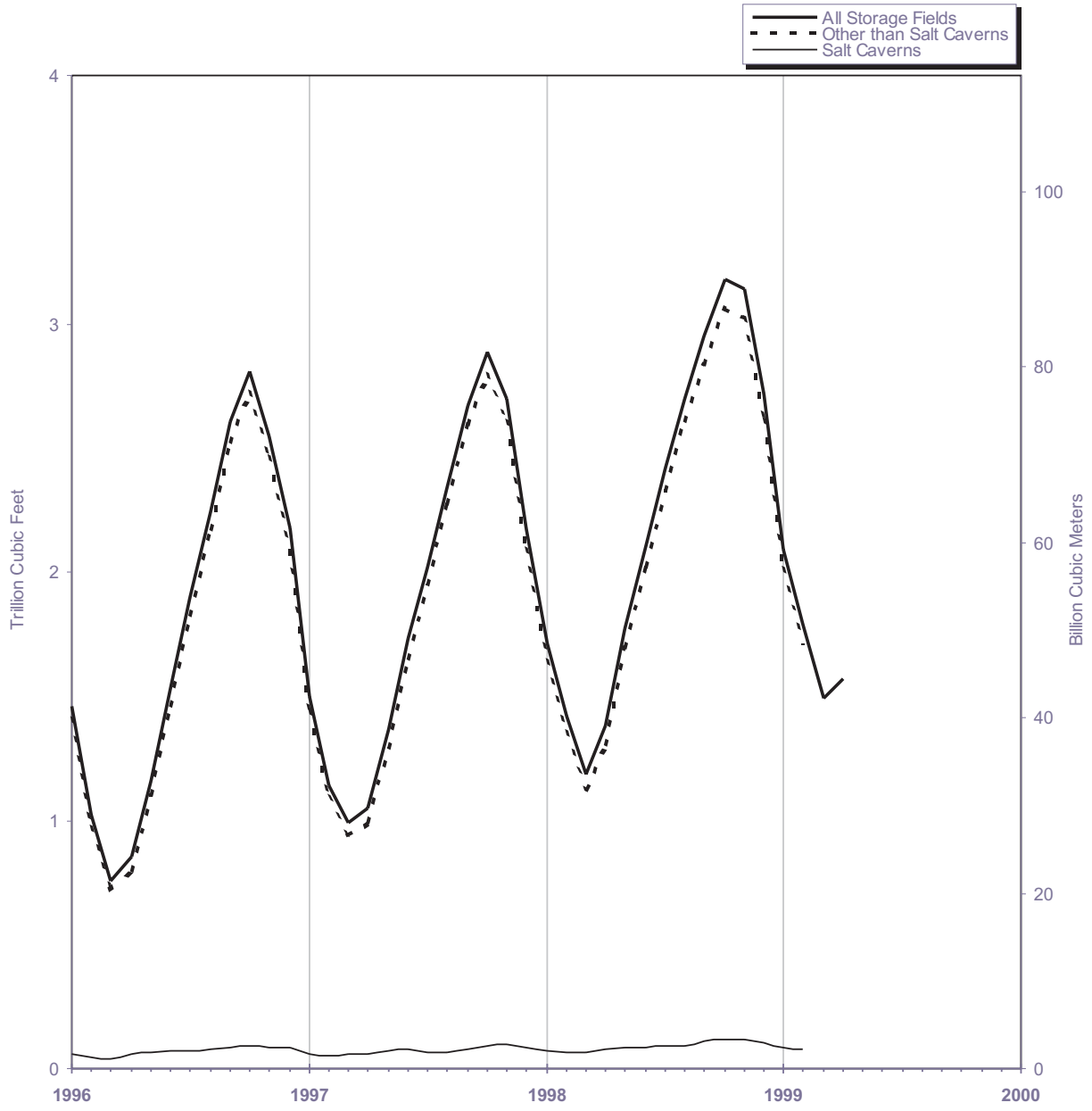
NA Not Available.

— Not Applicable.

Notes: Data for 1993 through 1997 are final. All other data are preliminary unless otherwise noted. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of revision policy. Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. New storage operations with total base gas of 3 billion cubic feet are included beginning January 1998.

Sources: Form EIA-191, "Monthly Underground Gas Storage Report, "Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," and STIFS.

Figure 5. Working Gas in Underground Natural Gas Storage in the U.S., 1996-1999



Sources: Energy Information Administration, Form EIA-191, "Monthly Underground Gas Storage Report," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 10

Table 10. Underground Natural Gas Storage - by Season, 1996-1999

(Volumes in Billion Cubic Feet)

Year, Season and Month	Natural Gas in Underground Storage at End of Period			Change In Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total	Volume	Percent	Injections	Withdrawals	Net Withdrawals[a]
October 1996	4,335	2,810	7,145	--	--	--	--	--
1996-1997 Heating Season								
November	4,339	2,549	6,889	-179	-6.6	90	354	264
December	4,341	2,173	6,513	19	0.9	86	461	374
January	4,347	1,496	5,843	32	2.3	68	753	684
February	4,342	1,139	5,481	118	11.6	55	413	358
March	4,345	990	5,336	232	30.7	131	285	155
Total	—	—	—	—	—	**430**	**2,266**	**1,835**
1997 Refill Season								
April	4,342	1,051	5,393	196	23.1	205	146	-59
May	4,340	1,365	5,704	202	17.5	362	41	-321
June	4,357	1,731	6,088	202	13.2	407	42	-365
July	4,356	2,017	6,372	119	6.3	361	78	-282
August	4,357	2,338	6,695	93	4.2	378	56	-322
September	4,360	2,672	7,033	67	2.6	380	44	-336
October	4,358	2,886	7,244	75	2.7	294	84	-210
Total	—	—	—	—	—	**2,388**	**492**	**-1,896**
1997-1998 Heating Season								
November	4,359	2,699	7,058	150	5.9	113	302	189
December	4,350	2,175	6,525	2	0.1	45	579	533
January	4,347	1,713	6,060	218	14.5	68	535	466
February	4,341	1,419	5,760	280	24.6	74	373	300
March	4,342	1,185	5,527	194	19.6	136	378	242
Total	—	—	—	—	—	**436**	**2,167**	**1,730**
1998 Refill Season								
April	4,339	1,382	5,721	331	31.5	277	78	-199
May	4,340	1,775	6,115	410	30.0	435	42	-393
June	4,346	2,103	6,448	372	21.5	375	52	-323
July	4,340	2,417	6,757	401	19.9	366	52	-314
August	4,336	2,697	7,033	359	15.4	342	58	-283
September	4,340	2,949	7,289	277	10.4	305	78	-227
October	4,342	3,176	7,517	290	10.0	301	46	-255
Total	—	—	—	—	—	**2,402**	**407**	**-1,995**
1998-1999 Heating Season								
November	4,340	3,143	7,483	444	16.5	131	165	34
December	4,326	2,718	7,044	543	25.0	94	530	435
January	4,327	2,094	6,421	381	22.2	55	678	623
February	4,312	1,792	6,104	372	26.2	62	395	333
March(STIFS)	[RE]4,312	[RE]1,492	[R]5,804	[RE]307	[RE]25.9	NA	NA	[RE]300
Total	—	—	—	—	—	NA	NA	[R]**1,725**
1999 Refill Season								
April(STIFS)	[E]4,312	[E]1,572	[E]5,884	[E]190	[E]13.7	NA	NA	[E]-80

[a] Negative numbers indicate the volume of injections in excess of withdrawals. Positive numbers indicate the volume of withdrawals in excess of injections.

[R] Revised Data.

[E] Estimated Data.

[RE] Revised Estimated Data.

NA Not Available.

— Not Applicable.

Notes: Data for 1996 and 1997 are final. All other data are preliminary unless otherwise noted. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System (STIFS). See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of revision policy. Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. In January 1998, 3 billion cubic feet were added to base gas for three new respondents. Positive net withdrawals indicate the volume of withdrawals in excess of injections. Negative net withdrawals indicate the volume of injections in excess of withdrawals.

Sources: Form EIA-191, "Underground Natural Gas Storage Report," Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," and STIFS.

Table 11. Underground Natural Gas Storage - Salt Cavern Storage Fields, 1994 - 1999

(Volumes in Billion Cubic Feet)

Year and Month	Natural Gas in Salt Cavern Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total	Volume	Percent	Injections	Withdrawals	Net Withdrawals
1994 Total[c]	**44**	**70**	**113**	—	—	**142**	**123**	**-19**
1995 Total[c]	**60**	**72**	**131**	**2**	**2.9**	**194**	**200**	**5**
1996 Total[c]	**64**	**85**	**149**	**14**	**18.8**	**258**	**246**	**-13**
1997								
January	65	57	122	-2	-3.1	21	51	30
February	59	49	109	2	4.0	15	23	8
March	65	56	121	18	47.3	22	16	-6
April	65	58	123	1	1.8	22	19	-2
May	65	73	138	10	17.3	27	13	-14
June	66	80	145	8	11.7	22	16	-7
July	65	66	131	-6	-7.5	15	30	15
August	65	67	132	-11	-12.4	23	22	0
September	65	78	143	-9	-8.7	27	14	-12
October	66	93	159	4	5.6	30	14	-16
November	67	95	162	7	9.4	25	24	-2
December	67	83	150	-4	-3.0	19	31	12
Total	—	—	—	—	—	**267**	**274**	**6**
1998								
January	66	70	136	13	23.0	17	31	14
February	65	68	133	18	36.4	17	21	3
March	68	64	132	8	14.6	23	29	6
April	68	80	148	22	38.1	29	11	-17
May	68	83	151	10	13.0	26	22	-3
June	66	83	149	3	4.3	21	23	2
July	66	92	158	26	39.6	26	18	-8
August	66	93	159	27	40.0	24	21	-3
September	67	112	180	35	44.9	22	30	8
October	67	116	183	23	24.4	44	12	-32
November	67	119	187	24	25.5	22	17	-5
December	67	104	171	22	26.4	17	32	14
Total	—	—	—	—	—	**288**	**267**	**-21**
1999								
January	69	84	153	14	19.6	19	41	22
February	67	77	144	10	14.3	15	20	5

[c] Total as of December 31.
— Not Applicable.

Notes: Data for 1996 and 1997 are final. All other data are preliminary unless otherwise noted. See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of the reporting of underground storage information. Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. Positive net withdrawals indicate the volume of withdrawals in excess of injections. Negative net withrawals indicate the volume of injections in excess of withdrawals.

Sources: Form EIA-191, "Monthly Underground Gas Storage Report," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 12

Table 12. Underground Natural Gas Storage - Storage Fields Other than Salt Caverns, 1994-1999

(Volumes in Billion Cubic Feet)

Year and Month	Natural Gas in Non-Salt Cavern Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total	Volume	Percent	Injections	Withdrawals	Net Withdrawals
1994 Total[c]	**4,317**	**2,536**	**6,853**	—	—	**2,654**	**2,385**	**-269**
1995 Total[c]	**4,290**	**2,082**	**6,371**	**-455**	**-17.9**	**2,372**	**2,774**	**403**
1996 Total[c]	**4,277**	**2,087**	**6,364**	**6**	**0.3**	**2,647**	**2,665**	**18**
1997								
January	4,282	1,439	5,721	34	2.5	47	702	654
February	4,283	1,090	5,372	116	12.0	40	390	350
March	4,280	935	5,215	214	29.8	109	269	160
April	4,277	993	5,270	195	24.6	184	127	-56
May	4,275	1,292	5,566	191	17.6	335	28	-307
June	4,291	1,651	5,942	194	13.3	385	26	-358
July	4,290	1,951	6,241	124	6.8	346	49	-297
August	4,291	2,271	6,563	103	4.7	356	34	-322
September	4,295	2,595	6,890	75	3.0	353	29	-324
October	4,292	2,793	7,085	70	2.6	265	70	-195
November	4,292	2,604	6,896	142	5.8	88	278	191
December	4,283	2,092	6,375	4	0.2	27	548	521
Total	—	—	—	—	—	**2,533**	**2,551**	**18**
1998								
January	4,281	1,643	5,923	204	14.2	51	504	453
February	4,275	1,352	5,627	262	24.0	56	353	296
March	4,274	1,121	5,394	186	19.9	113	349	236
April	4,271	1,302	5,573	309	31.1	248	67	-181
May	4,272	1,692	5,964	400	31.0	410	20	-390
June	4,279	2,020	6,299	368	22.3	354	29	-325
July	4,274	2,326	6,600	375	19.2	340	34	-306
August	4,270	2,604	6,875	333	14.7	318	37	-281
September	4,273	2,837	7,109	242	9.3	284	48	-236
October	4,274	3,060	7,334	267	9.6	257	34	-223
November	4,272	3,024	7,296	420	16.1	108	147	39
December	4,259	2,614	6,873	522	24.9	77	498	421
Total	—	—	—	—	—	**2,617**	**2,120**	**-497**
1999								
January	4,257	2,010	6,268	367	22.4	37	638	601
February	4,245	1,714	5,960	363	26.8	47	375	328

[c] Total as of December 31.
— Not Applicable.

Notes: Data for 1996 and 1997 are final. All other data are preliminary unless otherwise noted. See Explanatory Note 7 of the *Natural Gas Monthly* for discussion of the reporting of underground storage information. Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. Positive net withdrawals indicate the volume of withdrawals in excess of injections. Negative net withdrawals indicate the volume of injections in excess of withdrawals.

Sources: Form EIA-191, "Monthly Underground Gas Storage Report," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 13. Net Withdrawals from Underground Storage, by State, 1997-1999

(Volumes in Million Cubic Feet)

State	1999		1998				
	February	January	Total	December	November	October	September
Alabama	114	813	-447	139	-1	-613	401
Arkansas	1,049	2,066	-1,774	1,245	63	-580	-817
California	18,491	23,789	-44,006	29,749	-10,022	-23,926	-9,990
Colorado	3,684	3,990	-4,885	7,416	-1,764	-2,043	-5,919
Illinois	41,907	56,407	-11,545	26,858	9,641	-27,923	-28,122
Indiana	2,942	5,558	1,424	4,038	-618	-2,904	-4,534
Iowa	11,814	20,553	-3,131	20,547	-68	-7,108	-12,149
Kansas	9,273	22,470	-20,440	14,055	3,658	-8,737	-9,284
Kentucky	7,825	12,241	-12,142	10,397	1,776	-5,237	-8,821
Louisiana	15,966	43,591	-70,560	38,892	1,326	-30,831	-9,708
Maryland	1,982	3,399	237	2,068	124	-1,267	-783
Michigan	57,189	112,276	-77,044	60,725	18,548	-27,089	-31,023
Minnesota	238	287	442	438	-84	-187	-275
Mississippi	3,303	9,981	-8,781	5,256	701	-9,800	156
Missouri	343	170	174	573	-204	-208	-414
Montana	3,375	4,860	-401	3,962	2,606	-1,532	-4,239
Nebraska	442	698	298	1,215	536	-363	-864
New Mexico	83	1,364	-6,247	-619	-1,243	-1,903	-1,185
New York	10,057	15,534	-10,575	6,448	1,054	-4,464	-5,640
Ohio	33,362	53,448	-26,542	35,311	7,921	-12,746	-19,259
Oklahoma	-881	31,284	-34,004	40,863	-473	-19,520	-12,146
Oregon	1,717	1,979	829	1,888	28	4	-818
Pennsylvania	50,445	83,851	-30,915	46,400	30	-20,091	-27,252
Tennessee	131	130	-60	131	0	-103	-102
Texas	9,654	43,297	-108,737	36,143	-3,908	-34,137	-5,040
Utah	6,185	10,569	-16,395	8,751	2,231	-3,879	-8,260
Virginia	449	317	-709	359	0	-229	-272
Washington	3,144	603	-509	3,226	-730	719	-1,822
West Virginia	36,278	53,983	-28,894	26,188	3,337	-7,094	-16,425
Wyoming	2,050	3,464	-2,837	2,621	-614	-1,425	-2,602
AGA Regions							
Producing	38,447	154,055	-250,543	135,835	124	-105,507	-38,023
Eastern Consuming	255,282	419,379	-199,871	241,397	42,077	-117,437	-155,259
Western Consuming	38,885	49,540	-67,763	58,052	-8,349	-32,268	-33,925
Total	**332,615**	**622,974**	**-518,177**	**435,284**	**33,852**	**-255,212**	**-227,207**

See footnotes at end of table.

Table 13

Table 13. Net Withdrawals from Underground Storage, by State, 1997-1999

(Volumes in Million Cubic Feet) — Continued

State	1998					
	August	July	June	May	April	March
Alabama	-200	9	-623	-144	-245	248
Arkansas	-1,005	-1,034	-1,100	-1,046	-471	1,039
California	-7,283	-9,435	-27,493	-29,210	-10,710	-2,257
Colorado	-5,877	-4,060	-3,907	-6,040	3,534	3,928
Illinois	-31,634	-25,062	-31,348	-25,967	-293	28,186
Indiana	-3,695	-2,476	-575	-446	917	4,249
Iowa	-12,102	-11,525	-8,405	-3,600	348	6,692
Kansas	-12,200	-13,108	-6,267	-19,324	-6,954	14,438
Kentucky	-4,533	-10,622	-8,137	-11,793	-2,480	7,768
Louisiana	-20,159	-25,597	-14,635	-22,794	-21,191	7,400
Maryland	-1,407	-2,924	-1,251	-808	-1,127	1,631
Michigan	-52,128	-60,857	-69,589	-69,296	-31,779	55,388
Minnesota	-214	-289	-169	0	159	416
Mississippi	-4,139	-5,961	-2,887	-3,438	-2,757	2,405
Missouri	-203	8	143	-460	48	423
Montana	-4,524	-2,295	-2,024	-2,571	224	3,017
Nebraska	-616	-796	-528	-860	754	1,090
New Mexico	-208	-191	-180	-1,120	287	658
New York	-5,247	-8,108	-8,786	-11,267	-3,673	7,977
Ohio	-27,246	-31,220	-25,882	-35,968	-14,906	28,619
Oklahoma	-7,189	-7,554	-12,460	-23,277	-21,343	7,159
Oregon	-819	-852	-1,411	0	81	934
Pennsylvania	-19,657	-31,998	-34,236	-57,800	-32,842	38,957
Tennessee	-112	-134	0	0	0	83
Texas	-18,629	-18,872	-20,145	-27,286	-40,395	-9,062
Utah	-7,385	-7,265	-8,225	-7,364	-596	1,199
Virginia	-341	-190	-309	-313	-209	312
Washington	-3,640	-312	-2,963	-3,932	1,544	3,329
West Virginia	-29,075	-28,560	-26,404	-26,003	-14,607	22,818
Wyoming	-2,008	-2,807	-3,406	-1,344	89	2,611
AGA Regions						
Producing	-63,530	-72,318	-57,675	-98,285	-92,824	24,038
Eastern Consuming	-188,197	-214,455	-215,931	-244,724	-100,092	204,441
Western Consuming	-31,751	-27,316	-49,599	-50,461	-5,674	13,177
Total	**-283,478**	**-314,088**	**-323,205**	**-393,470**	**-198,591**	**241,655**

See footnotes at end of table.

Table 13. Net Withdrawals from Underground Storage, by State, 1997-1999

(Volumes in Million Cubic Feet) — Continued

State	1998		1997				
	February	January	Total	December	November	October	September
Alabama	187	396	-162	243	243	-251	-262
Arkansas	875	1,057	250	1,526	651	271	-1,048
California	26,766	29,805	16,340	58,418	2,846	-11,717	-6,637
Colorado	6,337	3,510	-525	5,026	2,503	359	-5,203
Illinois	36,082	58,036	-10,153	44,906	2,805	-28,399	-35,655
Indiana	3,322	4,144	984	4,193	-879	-3,088	-4,559
Iowa	5,335	18,905	-6,255	17,041	505	-8,412	-12,825
Kansas	8,180	15,103	-11,372	12,277	8,384	-7,782	-13,351
Kentucky	9,981	9,559	3,013	10,773	4,035	-2,926	-7,983
Louisiana	5,164	21,574	-9,248	43,644	20,997	-24,035	-29,291
Maryland	2,745	3,236	-544	1,298	33	-2,346	-2,838
Michigan	45,886	84,170	-3,388	78,027	53,016	-32,466	-65,209
Minnesota	203	444	-373	4	4	0	-130
Mississippi	4,251	7,431	3,763	8,484	1,089	-2,126	-5,224
Missouri	10	458	-453	228	-207	-215	-240
Montana	2,554	4,421	11,962	3,169	2,760	1,015	-1,490
Nebraska	355	376	-1,590	944	124	-69	-1,099
New Mexico	-130	-412	2,065	2,500	25	-1,305	-853
New York	9,548	11,582	304	10,735	4,857	-2,211	-6,455
Ohio	34,023	34,810	-7,336	40,530	15,502	-8,809	-23,499
Oklahoma	737	21,199	-9,482	25,362	13,995	-19,663	-14,556
Oregon	1,253	540	-1,316	1,036	-262	-97	-410
Pennsylvania	49,786	57,788	28,381	53,825	26,061	-15,914	-48,745
Tennessee	60	116	0	0	0	0	0
Texas	-3,341	35,935	10,035	53,619	18,531	-30,600	-21,731
Utah	6,783	7,613	-7,571	13,169	2,721	-1,301	-3,235
Virginia	437	46	0	0	0	0	0
Washington	4,131	-58	-1,003	3,159	83	702	-2,268
West Virginia	36,285	30,647	16,716	36,318	6,615	-8,145	-19,091
Wyoming	2,059	3,990	908	3,019	1,906	-591	-2,454
AGA Regions							
Producing	15,735	101,887	-13,990	147,412	63,672	-85,240	-86,054
Eastern Consuming	234,042	314,267	19,518	299,061	112,710	-113,251	-228,461
Western Consuming	50,086	50,266	18,423	87,001	12,560	-11,630	-21,826
Total	**299,863**	**466,420**	**23,950**	**533,474**	**188,941**	**-210,121**	**-336,341**

See footnotes at end of table.

Table 13. Net Withdrawals from Underground Storage, by State, 1997-1999

(Volumes in Million Cubic Feet) — Continued

State	1997						
	August	July	June	May	April	March	February
Alabama	-286	-43	-93	-271	-130	-25	184
Arkansas	-1,234	-1,472	-1,340	-608	178	342	1,006
California	-7,805	-11,213	-22,886	-23,687	-18,968	-289	19,814
Colorado	-4,559	-5,592	-5,293	-5,375	5,441	2,020	4,766
Illinois	-35,387	-32,161	-27,571	-23,526	-636	22,821	39,383
Indiana	-3,722	-3,299	-1,913	-110	1,444	2,537	2,954
Iowa	-11,001	-8,818	-8,375	-3,470	1,634	2,966	8,497
Kansas	-11,129	-3,488	-11,777	-9,463	-1,497	4,053	8,989
Kentucky	-6,520	-7,430	-8,997	-7,828	-363	4,141	8,048
Louisiana	-15,446	-11,847	-19,809	-19,573	-3,990	-18,885	20,943
Maryland	-2,353	-1,536	-1,700	-1,632	114	1,896	2,653
Michigan	-73,230	-75,558	-73,547	-46,757	-14,032	53,634	71,586
Minnesota	-142	-321	-312	-273	-40	177	109
Mississippi	-3,109	741	-3,797	-5,573	449	-2,294	2,905
Missouri	-379	-433	-112	-1,200	56	1,174	-252
Montana	-2,339	-2,710	-1,633	-846	1,810	2,591	3,983
Nebraska	-971	-76	-803	-714	-47	-245	502
New Mexico	-328	587	-534	-1,228	583	501	1,527
New York	-11,606	-11,663	-11,184	-7,589	-1,623	9,239	10,141
Ohio	-32,174	-34,224	-37,483	-34,205	-1,447	21,559	28,161
Oklahoma	-8,393	-811	-7,984	-18,407	-7,180	-8,168	8,115
Oregon	-1,178	-1,301	-1,681	-1,300	543	919	1,076
Pennsylvania	-44,878	-42,074	-50,051	-43,897	-3,188	50,395	52,423
Tennessee	0	0	0	0	0	0	0
Texas	-12,881	10,561	-20,379	-28,071	-17,396	-21,279	24,835
Utah	-5,284	-8,117	-7,950	-4,255	-2,150	-2,620	2,520
Virginia	0	0	0	0	0	0	0
Washington	982	-495	-3,766	-5,881	-71	3,200	1,784
West Virginia	-24,119	-26,183	-31,856	-24,165	1,674	23,270	28,818
Wyoming	-2,727	-3,411	-2,304	-1,127	137	1,090	2,995
AGA Regions							
Producing	-52,520	-5,729	-65,620	-82,922	-28,852	-45,732	68,321
Eastern Consuming	-246,626	-243,499	-253,685	-195,364	-16,545	193,362	253,097
Western Consuming	-23,050	-33,161	-45,825	-42,743	-13,297	7,088	37,049
Total	**-322,196**	**-282,389**	**-365,130**	**-321,030**	**-58,694**	**154,718**	**358,466**

Notes: This table contains total net withdrawals for each State with natural gas storage facilities. Positive numbers indicate the volume of withdrawals in excess of injections. Negative values indicate the volume of injections in excess of withdrawals. Data through 1997 are final.All other data are preliminary at this time and are not considered final until publication of the *Natural Gas Annual* for that year. The American Gas Association (AGA) publishes weekly estimates of working gas levels in underground storage by region. AGA defines the Producing Region as Texas, Oklahoma, Kansas, New Mexico, Louisiana, Arkansas, and Mississippi; the Eastern Consuming Region as all States east of the Mississippi River less Mississippi, plus Iowa, Nebraska and Missouri; the Western Consuming Region as all States west of the Mississippi River less the Producing Region and Iowa, Nebraska and Missouri.

Source: Form EIA-191, "Monthly Underground Gas Storage Report."

Table 14. Activities of Underground Natural Gas Storage Operators, by State, February 1999

(Volumes in Million Cubic Feet)

State	Total Storage Capacity	Natural Gas in Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity	
		Base Gas	Working Gas	Total	Volume	Percent	Injections	Withdrawals
Alabama	3,280	1,190	688	1,878	103	17.6	0	114
Arkansas	24,191	7,460	4,380	11,840	720	19.7	31	1,080
California	396,430	247,982	127,650	375,632	58,670	85.1	6,249	24,740
Colorado	99,600	48,229	27,191	75,420	6,945	34.3	800	4,484
Illinois	898,565	651,403	124,095	775,498	3,234	2.7	938	42,845
Indiana	113,210	73,877	23,036	96,913	-3	0.0	416	3,358
Iowa	271,200	200,700	12,850	213,550	-5,005	-28.0	0	11,814
Kansas	304,066	190,102	61,850	251,952	12,459	25.2	4,564	13,836
Kentucky	219,908	109,121	73,026	182,146	10,980	17.7	494	8,319
Louisiana	559,013	265,855	162,820	428,675	42,384	35.2	14,545	30,511
Maryland	62,000	46,677	7,459	54,136	364	5.1	498	2,480
Michigan	992,934	413,922	349,375	763,297	36,016	11.5	422	57,611
Minnesota	7,000	4,623	1,405	6,028	-320	-18.6	0	238
Mississippi	134,012	77,596	38,109	115,705	7,527	24.6	2,309	5,613
Missouri	31,274	21,600	8,758	30,358	-220	-2.4	0	343
Montana	371,510	167,362	38,247	205,609	-845	-2.2	431	3,806
Nebraska	39,469	31,507	2,079	33,586	-684	-24.8	170	612
New Mexico	96,600	27,690	7,428	35,118	1,337	22.0	1,203	1,285
New York	175,479	103,063	58,917	161,980	23,807	67.8	529	10,586
Ohio	573,434	352,004	67,564	419,568	9,282	15.9	335	33,697
Oklahoma	396,087	217,663	98,242	315,904	41,257	72.4	8,071	7,190
Oregon	11,623	6,834	3,461	10,295	-732	-17.5	0	1,717
Pennsylvania	684,842	354,171	175,062	529,233	6,251	3.7	3,570	54,014
Tennessee	1,200	340	532	872	189	55.3	0	131
Texas	683,891	251,501	209,756	461,257	93,800	80.9	15,761	25,415
Utah	121,980	64,601	21,389	85,991	11,315	112.3	367	6,552
Virginia	4,669	2,478	1,070	3,548	227	26.9	60	509
Washington	37,300	21,200	8,348	29,548	1,737	26.3	65	3,209
West Virginia	734,158	290,727	61,094	351,821	7,948	15.0	406	36,684
Wyoming	105,869	60,750	15,792	76,542	3,629	29.8	0	2,050
AGA Regions								
Producing	2,197,859	1,037,865	582,585	1,620,450	199,484	52.1	46,483	84,930
Eastern Consuming	4,805,622	2,652,780	965,605	3,618,385	93,675	10.7	7,837	263,119
Western Consuming	1,151,311	621,581	243,483	865,064	80,399	49.3	7,912	46,797
Total	**8,154,792**	**4,312,227**	**1,791,673**	**6,103,900**	**372,372**	**26.2**	**62,232**	**394,846**

Notes: Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. Totals may not equal sum of components because of independent rounding. Geographic coverage is the 50 States and the District of Columbia. The American Gas Association (AGA) publishes weekly estimates of working gas levels in underground storage by region. AGA defines the Producing Region as Texas, Oklahoma, Kansas, New Mexico, Louisiana, Arkansas, and Mississippi; the Eastern Consuming Region as all States east of the Mississippi River less Mississippi, plus Iowa, Nebraska and Missouri; the Western Consuming Region as all States west of the Mississippi River less the Producing Region and Iowa, Nebraska and Missouri.

Source: Form EIA-191, "Monthly Underground Gas Storage Report."

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1997-1999

(Million Cubic Feet)

State	1999	1998				
	January	Total	December	November	October	September
Alabama	9,316	46,655	4,534	2,493	1,324	1,196
Alaska	2,668	15,617	2,183	1,858	1,346	818
Arizona	6,355	35,815	4,624	1,990	1,122	932
Arkansas	9,087	35,756	4,917	2,957	1,366	1,067
California	88,370	549,885	68,820	40,193	26,155	22,034
Colorado	22,196	NA	14,198	8,454	4,185	2,690
Connecticut	7,104	35,704	4,490	3,259	1,532	937
Delaware	1,560	7,810	901	575	232	177
District of Columbia	2,915	13,189	1,541	1,084	457	338
Florida	2,163	15,252	1,397	935	718	626
Georgia	16,692	106,238	14,775	9,306	4,268	2,851
Hawaii	49	550	44	40	40	41
Idaho	3,090	15,975	2,434	1,507	656	316
Illinois	93,786	405,461	64,039	43,854	21,530	10,513
Indiana	NA	NA	NA	13,244	6,355	NA
Iowa	16,128	68,912	10,511	6,343	3,029	1,435
Kansas	NA	84,208	10,495	6,968	2,780	1,771
Kentucky	12,050	55,894	9,366	6,142	2,239	1,167
Louisiana	10,171	NA	4,941	2,678	NA	1,703
Maine	165	R928	132	R95	62	27
Maryland	13,320	NA	9,252	6,554	NA	NA
Massachusetts	NA	NA	NA	NA	4,257	NA
Michigan	68,737	317,329	42,050	29,476	15,851	7,533
Minnesota	25,424	110,578	18,670	12,214	5,328	2,683
Mississippi	NA	NA	2,509	R1,545	R815	711
Missouri	26,201	110,375	13,831	8,075	3,345	2,619
Montana	3,479	NA	2,942	2,079	1,272	484
Nebraska	8,568	R40,703	4,223	R3,404	1,632	885
Nevada	4,962	30,023	4,335	2,526	1,367	824
New Hampshire	1,246	NA	739	597	294	159
New Jersey	NA	NA	NA	NA	8,124	NA
New Mexico	9,799	35,614	7,289	3,545	1,169	840
New York	NA	NA	NA	NA	NA	NA
North Carolina	11,230	50,318	5,679	4,022	1,205	963
North Dakota	2,320	10,290	1,455	1,036	484	202
Ohio	59,162	NA	42,817	29,741	16,127	5,905
Oklahoma	14,989	65,403	7,678	4,327	1,780	1,494
Oregon	6,336	NA	5,504	3,150	1,431	760
Pennsylvania	43,687	NA	27,675	19,152	10,155	NA
Rhode Island	3,083	NA	1,883	1,408	645	436
South Carolina	5,693	25,316	2,858	1,754	606	491
South Dakota	2,516	11,649	1,669	1,157	533	248
Tennessee	15,186	NA	8,358	4,525	1,492	1,172
Texas	43,138	200,728	28,481	13,025	7,370	5,930
Utah	8,220	56,731	9,826	5,808	4,463	1,913
Vermont	496	2,454	289	213	102	114
Virginia	12,891	63,029	8,989	5,980	2,478	1,443
Washington	NA	NA	NA	NA	NA	NA
West Virginia	6,204	NA	3,895	NA	1,302	NA
Wisconsin	26,556	116,373	18,698	11,803	6,382	2,723
Wyoming	1,929	NA	1,578	NA	745	388
Total	**907,748**	**R4,481,500**	**613,452**	**R389,640**	**R200,270**	**119,590**

See footnotes at end of table.

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1998					
	August	July	June	May	April	March
Alabama	1,183	1,202	1,386	2,335	4,610	7,480
Alaska	648	479	628	933	1,239	1,529
Arizona	894	1,062	1,375	2,092	3,694	5,323
Arkansas	1,058	1,146	1,171	1,731	2,270	6,069
California	21,621	25,147	33,207	38,118	54,072	62,006
Colorado	2,480	NA	1,592	7,546	11,118	15,570
Connecticut	848	1,028	1,195	1,878	3,638	5,051
Delaware	165	197	252	450	846	1,248
District of Columbia	327	371	435	636	1,195	2,032
Florida	639	707	817	1,017	1,631	2,044
Georgia	2,814	2,956	3,186	3,558	8,015	16,312
Hawaii	41	45	47	47	49	49
Idaho	292	402	666	904	1,560	2,032
Illinois	10,437	9,497	11,529	14,790	33,014	54,697
Indiana	NA	NA	3,291	5,270	NA	23,358
Iowa	1,453	1,622	1,435	2,807	5,821	10,634
Kansas	1,851	2,090	2,512	4,451	8,389	13,482
Kentucky	1,104	1,321	1,360	1,961	3,937	8,164
Louisiana	1,574	1,774	1,814	2,310	3,736	7,184
Maine	25	22	31	45	92	120
Maryland	1,854	1,828	2,087	2,992	5,696	9,577
Massachusetts	2,347	2,842	NA	NA	10,697	14,514
Michigan	6,740	7,275	9,771	13,888	31,736	47,397
Minnesota	2,465	2,537	2,735	3,836	7,148	16,337
Mississippi	705	714	796	1,231	2,243	NA
Missouri	2,185	2,670	3,128	4,980	10,435	17,763
Montana	488	481	1,086	NA	1,676	2,429
Nebraska	1,036	1,014	1,199	1,961	4,324	6,482
Nevada	813	977	1,487	1,884	2,826	3,809
New Hampshire	NA	169	238	378	697	845
New Jersey	4,528	4,845	5,736	11,735	17,514	26,429
New Mexico	845	822	284	1,270	2,589	4,740
New York	7,468	15,038	NA	NA	30,102	42,752
North Carolina	905	1,044	1,192	2,243	5,018	7,535
North Dakota	208	235	292	490	953	1,464
Ohio	7,246	NA	8,509	11,550	24,861	44,211
Oklahoma	1,430	1,633	1,855	3,094	5,854	10,832
Oregon	679	944	1,641	2,135	NA	NA
Pennsylvania	NA	5,283	6,505	9,880	NA	32,526
Rhode Island	438	462	622	1,001	NA	2,402
South Carolina	463	474	562	1,071	2,421	4,006
South Dakota	227	274	302	512	1,127	1,738
Tennessee	1,111	1,186	1,410	2,674	5,170	9,938
Texas	5,810	6,077	6,125	9,148	15,463	28,005
Utah	1,332	1,264	1,958	2,243	4,853	6,482
Vermont	57	56	77	118	266	340
Virginia	1,064	1,425	1,737	2,509	5,172	9,618
Washington	NA	NA	NA	NA	NA	NA
West Virginia	NA	NA	NA	NA	2,785	4,553
Wisconsin	2,768	2,415	3,470	4,080	9,198	17,130
Wyoming	298	NA	503	704	1,182	1,566
Total	**115,277**	**130,370**	**152,827**	**220,677**	**407,761**	**640,684**

See footnotes at end of table.

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1998		1997			
	February	January	Total	December	November	October
Alabama	9,222	9,689	48,496	7,942	3,977	1,440
Alaska	1,716	2,240	15,146	2,162	1,684	1,569
Arizona	5,604	7,103	31,057	4,764	1,973	1,053
Arkansas	6,668	5,336	42,428	6,369	4,013	1,345
California	76,210	82,302	478,904	68,486	39,940	24,538
Colorado	16,176	18,860	115,583	17,463	10,147	4,290
Connecticut	5,585	6,263	40,562	5,977	3,672	1,629
Delaware	1,360	1,408	8,972	1,213	671	252
District of Columbia	2,365	2,409	15,807	2,421	1,414	553
Florida	2,251	2,470	13,117	1,837	1,074	681
Georgia	18,031	20,167	114,383	19,892	16,495	6,693
Hawaii	52	55	517	45	42	39
Idaho	2,232	2,975	15,239	2,371	1,427	638
Illinois	53,146	78,417	497,230	69,718	56,299	29,455
Indiana	20,668	26,868	169,140	25,914	17,338	7,954
Iowa	10,261	13,560	81,696	12,051	8,606	4,048
Kansas	13,593	15,826	69,415	10,323	8,236	2,153
Kentucky	8,515	10,618	66,033	11,175	8,091	3,063
Louisiana	7,953	9,311	52,709	7,960	4,176	2,016
Maine	124	153	1,009	142	107	66
Maryland	11,052	12,609	77,500	11,130	7,894	3,543
Massachusetts	15,644	16,948	112,308	15,677	10,149	4,784
Michigan	48,977	56,636	379,838	50,037	37,942	17,853
Minnesota	15,023	21,603	128,873	17,435	15,098	6,504
Mississippi	4,564	NA	27,626	4,355	2,561	902
Missouri	18,966	22,378	127,625	19,041	12,090	3,656
Montana	2,404	3,418	21,002	3,207	2,038	1,234
Nebraska	6,642	7,902	47,105	5,787	4,399	1,382
Nevada	4,149	5,025	25,243	3,884	1,925	1,024
New Hampshire	1,010	1,140	6,939	933	616	327
New Jersey	29,313	30,800	216,925	31,134	20,208	9,250
New Mexico	4,337	7,884	36,623	8,217	4,095	1,217
New York	46,717	53,322	375,641	48,074	34,936	17,385
North Carolina	9,710	10,803	52,894	9,202	4,875	1,438
North Dakota	1,561	1,910	11,370	1,423	1,133	434
Ohio	43,910	50,527	354,543	50,352	36,474	19,056
Oklahoma	11,652	13,774	71,762	11,025	6,186	1,968
Oregon	4,581	6,117	32,522	4,684	2,713	1,536
Pennsylvania	34,714	31,526	262,494	37,709	26,561	12,927
Rhode Island	2,720	2,781	18,162	2,509	1,464	659
South Carolina	5,177	5,432	25,741	4,683	2,424	637
South Dakota	1,666	2,196	13,203	1,734	1,339	537
Tennessee	9,546	NA	64,130	11,511	6,602	1,829
Texas	34,096	41,199	234,988	37,410	21,561	9,175
Utah	8,193	8,396	58,108	10,376	6,018	4,299
Vermont	397	427	2,631	345	214	118
Virginia	11,067	11,546	73,905	12,127	7,452	2,989
Washington	NA	NA	61,813	11,405	7,594	3,623
West Virginia	4,906	5,039	35,996	6,017	4,061	1,737
Wisconsin	15,618	22,087	135,819	19,045	16,127	8,106
Wyoming	1,560	NA	12,999	2,337	1,179	617
Total	**685,125**	**805,828**	**4,983,772**	**731,030**	**497,310**	**234,223**

See footnotes at end of table.

Table 15. Natural Gas Deliveries to Residential Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1997					
	September	August	July	June	May	April
Alabama	1,254	1,242	1,397	1,609	2,648	3,191
Alaska	743	418	463	508	789	1,177
Arizona	1,124	907	1,015	1,150	1,566	2,251
Arkansas	948	917	1,027	1,239	2,322	3,290
California	21,448	20,643	26,444	23,226	28,268	38,704
Colorado	2,714	2,590	2,965	4,130	8,492	10,975
Connecticut	1,014	914	961	1,398	2,362	4,435
Delaware	184	179	195	320	560	948
District of Columbia	393	372	419	562	944	1,316
Florida	631	670	709	773	852	914
Georgia	3,158	2,930	3,180	3,341	3,816	8,183
Hawaii	40	41	43	41	42	41
Idaho	320	294	345	433	938	1,463
Illinois	11,690	10,102	10,370	11,606	26,059	41,167
Indiana	3,467	2,968	2,832	4,924	9,417	15,114
Iowa	1,646	1,479	1,599	2,107	3,939	7,015
Kansas	1,485	1,469	1,688	1,506	3,266	5,839
Kentucky	1,451	1,073	1,499	1,575	2,959	4,893
Louisiana	1,710	1,716	1,746	2,108	2,866	3,648
Maine	30	26	21	34	56	85
Maryland	2,067	1,799	1,906	2,677	4,215	6,912
Massachusetts	2,557	2,484	2,834	4,374	6,937	12,131
Michigan	8,775	7,269	4,751	12,017	26,982	38,297
Minnesota	2,542	2,234	2,385	3,180	6,467	11,143
Mississippi	778	761	815	926	1,472	1,916
Missouri	2,623	2,401	2,714	3,660	6,460	10,993
Montana	510	449	413	634	1,147	2,003
Nebraska	936	939	1,015	1,376	3,176	4,353
Nevada	805	781	891	985	1,401	2,027
New Hampshire	165	155	160	263	465	744
New Jersey	5,397	4,726	5,214	6,599	11,505	20,284
New Mexico	836	849	820	239	1,965	1,513
New York	9,878	10,267	9,719	14,469	24,082	37,597
North Carolina	934	898	1,072	1,596	2,986	4,080
North Dakota	191	168	190	295	688	1,133
Ohio	7,124	6,112	7,425	14,630	21,260	32,544
Oklahoma	1,549	1,521	1,680	2,107	3,860	6,164
Oregon	829	758	881	1,069	1,883	3,130
Pennsylvania	6,214	5,236	5,254	7,510	15,416	25,082
Rhode Island	473	443	480	727	1,171	1,994
South Carolina	471	449	517	709	1,243	1,794
South Dakota	261	233	248	368	784	1,250
Tennessee	1,182	1,075	1,115	1,652	3,007	4,776
Texas	7,140	6,789	7,599	8,451	11,595	15,606
Utah	1,957	1,466	1,502	1,602	1,821	4,876
Vermont	59	52	57	97	189	283
Virginia	1,630	1,467	1,589	2,042	4,201	6,622
Washington	2,002	1,791	1,995	2,451	4,487	3,680
West Virginia	776	598	492	952	2,223	3,386
Wisconsin	2,957	2,535	2,862	2,948	7,413	11,047
Wyoming	320	245	295	397	1,080	1,062
Total	**129,388**	**117,900**	**127,805**	**163,591**	**283,739**	**433,073**

R Revised Data.
NA Not Available.
Notes: Geographic coverage is the 50 States and the District of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.
Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1997-1999

(Million Cubic Feet)

State	1999	1998				
	January	Total	December	November	October	September
Alabama	3,884	27,983	2,355	1,676	1,228	1,053
Alaska	3,122	23,455	2,974	2,331	2,012	1,396
Arizona	3,880	31,754	3,376	2,343	1,902	1,730
Arkansas	5,531	NA	4,272	3,070	2,435	2,129
California	36,358	319,553	35,388	30,954	26,720	26,660
Colorado	11,048	NA	7,986	5,059	3,413	2,714
Connecticut	6,594	42,471	4,991	3,256	2,686	2,039
Delaware	1,038	5,624	626	446	243	179
District of Columbia	2,486	17,184	1,752	1,209	883	837
Florida	4,328	38,240	3,369	2,852	2,656	2,501
Georgia	7,155	55,578	5,541	4,110	3,073	2,612
Hawaii	185	2,119	185	173	162	171
Idaho	2,076	11,718	1,642	1,047	581	388
Illinois	35,165	176,571	24,720	17,234	10,112	7,349
Indiana	NA	NA	NA	7,162	4,358	NA
Iowa	8,883	44,299	5,999	4,257	2,406	1,194
Kansas	NA	50,545	5,585	3,672	1,929	1,626
Kentucky	6,354	33,883	4,924	3,368	1,705	1,143
Louisiana	3,584	NA	2,697	2,174	NA	1,829
Maine	454	NA	337	NA	165	78
Maryland	9,129	56,238	6,716	3,487	3,296	2,827
Massachusetts	NA	NA	NA	NA	5,288	NA
Michigan	31,019	164,836	20,702	15,353	8,819	5,790
Minnesota	16,345	84,104	12,694	8,931	5,382	2,747
Mississippi	NA	R23,170	2,318	R1,624	R1,242	1,445
Missouri	12,474	61,869	7,156	4,410	2,395	2,195
Montana	2,115	NA	1,819	1,262	789	407
Nebraska	5,798	28,214	3,910	1,935	1,018	935
Nevada	2,903	23,049	2,528	1,822	1,288	1,090
New Hampshire	1,312	NA	810	323	371	222
New Jersey	NA	NA	NA	NA	NA	NA
New Mexico	5,827	30,824	4,613	2,533	1,410	1,242
New York	NA	NA	NA	NA	NA	NA
North Carolina	6,380	37,774	4,006	2,870	1,867	1,678
North Dakota	2,083	10,290	1,390	1,042	558	329
Ohio	28,299	NA	21,958	14,908	NA	4,919
Oklahoma	8,077	45,044	5,604	2,911	1,813	1,756
Oregon	4,554	NA	3,630	2,689	1,296	1,028
Pennsylvania	21,058	NA	15,512	11,849	6,876	4,436
Rhode Island	1,892	NA	1,308	996	613	472
South Carolina	2,952	19,887	1,940	1,531	1,148	1,055
South Dakota	1,873	9,274	1,306	914	363	269
Tennessee	9,606	NA	6,190	4,239	2,688	2,527
Texas	27,433	215,604	26,376	18,725	14,888	16,529
Utah	4,580	30,853	4,903	3,182	2,078	1,026
Vermont	462	2,979	401	276	165	125
Virginia	8,962	59,729	7,141	5,371	3,304	2,561
Washington	NA	NA	NA	NA	NA	NA
West Virginia	3,882	NA	2,880	2,667	1,933	1,622
Wisconsin	16,941	81,410	11,696	8,101	4,339	3,346
Wyoming	1,356	NA	1,708	NA	461	324
Total	**480,584**	**R3,052,880**	**369,647**	**R262,549**	**R177,646**	**147,861**

See footnotes at end of table.

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1998					
	August	July	June	May	April	March
Alabama	981	1,030	1,118	3,768	2,713	3,522
Alaska	1,208	1,190	1,274	1,684	1,911	2,251
Arizona	1,721	1,890	2,073	2,495	3,013	3,548
Arkansas	2,218	2,253	NA	1,432	1,728	3,843
California	30,322	27,131	18,132	22,410	23,269	19,321
Colorado	2,329	NA	3,415	4,768	6,738	9,008
Connecticut	2,178	2,456	2,151	2,124	4,294	4,999
Delaware	176	190	226	320	556	829
District of Columbia	847	871	913	1,085	1,830	2,032
Florida	2,575	2,630	2,748	3,112	3,701	3,961
Georgia	2,649	2,757	2,725	3,248	4,882	7,391
Hawaii	187	169	181	169	174	172
Idaho	381	407	537	689	1,077	1,423
Illinois	6,672	5,951	6,702	6,961	15,326	22,556
Indiana	2,446	NA	NA	3,258	R8,420	11,063
Iowa	1,199	1,353	1,237	1,566	3,605	7,584
Kansas	2,077	2,201	1,980	2,493	3,888	9,214
Kentucky	1,134	1,061	1,195	1,505	2,490	4,636
Louisiana	1,913	1,799	NA	1,629	2,048	5,056
Maine	74	75	90	122	255	332
Maryland	3,079	2,927	3,155	3,514	4,885	7,125
Massachusetts	3,407	4,054	5,209	5,789	8,771	11,570
Michigan	5,841	5,301	6,297	8,530	15,784	22,837
Minnesota	2,311	2,026	3,003	3,208	5,685	11,726
Mississippi	1,304	1,371	1,298	1,339	1,789	2,866
Missouri	3,039	2,210	2,352	2,978	5,545	8,978
Montana	405	400	839	NA	1,029	1,527
Nebraska	848	1,070	856	1,690	2,786	4,027
Nevada	1,052	1,304	1,587	1,876	2,207	2,642
New Hampshire	NA	228	NA	375	710	869
New Jersey	6,079	6,385	6,873	10,233	11,748	19,826
New Mexico	1,214	1,174	1,096	1,832	2,727	3,814
New York	15,604	12,007	13,919	NA	20,716	NA
North Carolina	1,650	1,502	1,658	2,053	3,326	4,879
North Dakota	354	285	312	507	953	1,372
Ohio	4,070	NA	5,165	7,134	13,211	21,443
Oklahoma	1,812	1,837	1,826	2,291	4,018	6,347
Oregon	905	1,047	1,428	1,618	NA	NA
Pennsylvania	NA	4,607	4,906	6,114	NA	17,790
Rhode Island	195	484	495	680	NA	1,492
South Carolina	1,019	1,013	1,063	1,209	1,732	2,440
South Dakota	263	283	285	539	806	1,335
Tennessee	2,366	2,507	2,646	2,993	4,714	7,027
Texas	16,063	18,195	11,161	13,616	14,839	20,104
Utah	840	845	1,154	1,510	2,749	3,787
Vermont	100	102	110	116	281	381
Virginia	1,971	2,739	2,682	3,672	5,338	7,878
Washington	NA	NA	NA	NA	NA	NA
West Virginia	1,575	5,166	NA	1,709	2,235	3,146
Wisconsin	3,410	3,063	3,471	3,801	6,632	11,019
Wyoming	232	NA	409	545	861	1,128
Total	**151,844**	**153,782**	**144,003**	**176,612**	**R257,019**	**371,006**

See footnotes at end of table.

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1998		1997			
	February	January	Total	December	November	October
Alabama	4,010	4,529	32,362	3,743	2,437	1,903
Alaska	2,340	2,883	26,908	3,147	2,658	2,574
Arizona	3,534	4,129	30,284	3,381	2,269	1,751
Arkansas	4,075	4,781	29,443	3,989	2,713	1,347
California	28,787	30,457	256,044	26,978	21,157	19,602
Colorado	9,159	10,507	69,088	9,717	6,177	2,558
Connecticut	5,540	5,757	42,680	5,801	3,854	2,512
Delaware	899	935	6,610	845	513	286
District of Columbia	2,382	2,542	18,018	2,374	1,354	899
Florida	3,984	4,152	36,765	3,719	3,112	2,621
Georgia	8,120	8,471	57,227	8,027	6,140	3,554
Hawaii	179	196	1,751	165	37	152
Idaho	1,570	1,977	11,469	1,657	982	585
Illinois	22,455	30,533	202,871	27,076	22,863	12,292
Indiana	10,460	12,876	81,813	10,689	8,637	4,518
Iowa	5,962	7,938	50,194	7,208	5,707	3,037
Kansas	7,252	8,630	41,238	5,532	3,673	1,936
Kentucky	5,053	5,668	38,632	6,154	4,176	2,417
Louisiana	4,998	4,511	25,629	3,073	2,048	1,414
Maine	342	422	2,713	375	289	176
Maryland	7,365	7,862	49,859	6,536	4,962	2,839
Massachusetts	12,943	13,716	105,818	11,523	8,546	6,898
Michigan	23,664	25,919	192,300	25,857	19,047	9,791
Minnesota	11,133	15,257	92,263	12,318	10,721	5,179
Mississippi	3,310	3,264	22,073	2,934	2,028	1,224
Missouri	9,467	11,144	69,869	9,547	6,192	2,741
Montana	1,459	2,178	13,926	2,014	1,306	797
Nebraska	4,237	4,903	33,853	3,454	2,812	1,855
Nevada	2,575	3,078	22,024	2,580	1,806	1,276
New Hampshire	1,051	1,167	7,489	1,010	703	411
New Jersey	18,713	20,200	168,761	23,161	16,022	8,454
New Mexico	3,839	5,330	31,501	4,831	2,949	1,384
New York	NA	NA	321,447	34,705	27,141	21,151
North Carolina	5,791	6,495	38,021	5,508	3,434	1,908
North Dakota	1,434	1,753	10,875	1,339	1,129	559
Ohio	23,991	27,046	184,103	25,092	17,752	9,727
Oklahoma	6,859	7,969	45,195	6,049	3,675	2,064
Oregon	3,308	3,889	25,500	3,352	2,023	1,367
Pennsylvania	19,674	21,571	144,134	19,731	14,064	9,348
Rhode Island	1,620	1,786	12,306	1,413	1,212	637
South Carolina	2,781	2,955	19,561	2,638	1,757	1,167
South Dakota	1,292	1,621	10,426	1,311	1,021	549
Tennessee	6,063	NA	55,130	7,939	5,015	2,653
Texas	20,826	24,280	216,347	24,323	19,327	14,189
Utah	4,235	4,544	31,257	5,152	3,187	2,020
Vermont	436	487	3,051	403	282	184
Virginia	8,398	8,673	61,932	9,233	5,543	3,397
Washington	NA	NA	46,802	6,666	7,903	2,660
West Virginia	3,310	3,564	25,918	3,386	2,809	1,500
Wisconsin	9,845	12,688	88,783	12,473	10,180	5,408
Wyoming	1,288	NA	10,767	1,077	967	555
Total	**391,793**	**449,117**	**3,223,030**	**411,204**	**306,311**	**190,027**

See footnotes at end of table.

Table 16. Natural Gas Deliveries to Commercial Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1997					
	September	August	July	June	May	April
Alabama	2,075	2,622	2,947	1,642	1,901	2,089
Alaska	1,594	1,340	1,404	1,428	1,813	2,225
Arizona	1,836	1,767	1,936	1,973	2,138	2,559
Arkansas	1,129	1,128	1,127	1,214	1,647	2,166
California	18,459	18,696	17,911	16,438	18,750	20,672
Colorado	2,372	2,118	2,354	2,955	4,847	6,434
Connecticut	1,566	1,762	2,145	2,237	2,658	4,075
Delaware	245	186	209	285	427	638
District of Columbia	852	853	783	951	1,373	1,739
Florida	2,495	2,589	2,516	2,851	2,837	2,950
Georgia	2,719	2,597	2,677	2,776	3,192	4,136
Hawaii	148	143	156	152	148	155
Idaho	411	356	373	399	686	1,041
Illinois	6,426	5,809	5,970	6,052	10,472	16,533
Indiana	2,175	2,070	1,943	3,992	6,203	6,471
Iowa	1,359	1,114	1,305	1,238	2,382	3,878
Kansas	1,567	1,999	2,452	1,549	2,113	3,188
Kentucky	1,249	948	1,157	1,166	1,863	2,878
Louisiana	1,353	1,307	1,474	1,530	1,616	1,933
Maine	91	78	72	92	152	231
Maryland	2,283	2,070	2,237	2,315	2,744	4,240
Massachusetts	5,365	5,635	5,442	7,023	6,215	9,133
Michigan	5,997	5,688	2,213	7,417	12,843	18,737
Minnesota	2,408	2,369	2,343	2,801	4,949	8,161
Mississippi	924	1,309	1,206	1,174	1,306	1,533
Missouri	2,195	2,063	2,169	2,459	3,556	5,761
Montana	425	385	365	453	718	1,349
Nebraska	1,477	2,295	4,067	1,309	2,093	2,520
Nevada	1,198	1,151	1,103	1,416	1,700	1,906
New Hampshire	249	217	216	286	472	739
New Jersey	7,142	6,699	7,213	8,127	11,571	16,399
New Mexico	1,206	1,185	1,166	1,093	2,065	2,170
New York	17,307	18,574	21,119	20,942	21,767	28,346
North Carolina	1,713	1,592	1,513	1,741	2,260	2,909
North Dakota	317	264	141	315	590	1,062
Ohio	4,948	4,355	4,100	8,641	11,246	15,105
Oklahoma	1,764	1,733	1,732	1,570	2,622	3,668
Oregon	1,026	915	1,011	1,071	1,579	2,312
Pennsylvania	5,000	4,248	4,661	5,408	9,952	12,750
Rhode Island	460	399	431	537	892	1,144
South Carolina	1,884	1,004	990	1,096	1,268	1,202
South Dakota	334	249	246	283	603	940
Tennessee	2,078	1,921	1,944	2,350	3,155	4,177
Texas	14,479	14,856	16,420	13,384	14,126	15,195
Utah	1,124	943	927	945	1,268	2,675
Vermont	108	80	80	108	160	296
Virginia	2,334	2,476	2,395	2,700	4,304	5,671
Washington	2,041	1,625	1,831	2,240	3,161	3,196
West Virginia	1,106	1,137	927	1,093	1,599	2,116
Wisconsin	2,738	2,806	2,631	2,712	5,242	6,917
Wyoming	316	287	624	491	959	1,190
Total	**142,068**	**140,017**	**144,372**	**154,422**	**204,203**	**269,510**

[R] Revised Data.
[NA] Not Available.

Notes: Geographic coverage is the 50 States and the District of Columbia. Gas volumes delivered for use as vehicle fuel are included in the annual total but not in the monthly components. See Appendix A,Explanatory Note 5 for discussion of computations and revision policy. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1997-1999

(Million Cubic Feet)

State	1999	1998				
	January	Total	December	November	October	September
Alabama	17,209	200,231	15,857	15,118	16,251	15,399
Alaska	6,304	NA	NA	NA	NA	NA
Arizona	2,360	28,209	2,609	2,384	2,522	2,078
Arkansas	13,070	142,774	11,580	10,647	11,070	11,836
California	62,625	729,514	64,279	60,200	61,870	65,490
Colorado	4,603	NA	6,739	5,399	4,683	4,230
Connecticut	2,985	32,455	2,815	2,641	2,571	2,417
Delaware	1,887	16,137	1,522	1,415	1,412	1,182
District of Columbia	0	0	0	0	0	0
Florida	11,107	138,914	11,116	11,473	10,774	11,553
Georgia	12,054	151,146	12,615	13,015	11,895	8,274
Hawaii	0	0	0	0	0	0
Idaho [a]	2,802	34,263	2,632	2,799	2,712	2,701
Illinois	34,159	306,290	29,103	28,080	25,507	21,840
Indiana	NA	NA	28,078	NA	NA	NA
Iowa	11,884	110,576	9,466	9,960	9,295	7,469
Kansas	NA	NA	NA	13,258	12,280	9,502
Kentucky	NA	91,604	8,188	7,950	7,705	6,695
Louisiana	83,920	NA	95,190	71,246	NA	84,209
Maine	293	NA	201	NA	224	190
Maryland	4,310	R37,610	3,483	2,959	R3,650	3,040
Massachusetts	NA	NA	NA	8,152	8,006	NA
Michigan	29,100	301,398	26,840	25,540	22,636	18,483
Minnesota	10,867	99,663	9,222	9,226	8,990	4,187
Mississippi	NA	NA	6,841	6,278	R6,419	7,663
Missouri	6,624	R67,138	5,897	4,744	5,194	4,581
Montana	1,790	17,548	1,771	1,563	1,400	1,206
Nebraska	3,432	35,684	2,255	2,361	2,673	786
Nevada	3,016	28,532	2,986	2,730	2,836	1,793
New Hampshire	526	NA	484	NA	555	476
New Jersey	NA	NA	NA	NA	NA	NA
New Mexico	NA	40,139	3,636	3,439	3,627	3,805
New York	NA	NA	NA	NA	NA	NA
North Carolina	9,967	115,082	9,524	9,456	9,423	8,986
North Dakota	1,434	20,912	1,840	1,712	1,110	1,655
Ohio	33,472	NA	31,615	28,292	27,630	24,368
Oklahoma	14,670	191,012	12,040	12,518	17,337	19,543
Oregon	9,403	NA	9,024	8,625	8,988	8,452
Pennsylvania	21,860	231,500	21,066	18,945	18,082	17,892
Rhode Island	2,033	NA	2,179	2,165	2,196	1,963
South Carolina	8,877	104,878	9,241	9,092	8,837	8,475
South Dakota	545	R5,510	R573	R554	294	411
Tennessee	13,193	NA	12,892	12,705	13,618	12,499
Texas	169,095	NA	210,615	187,889	NA	151,722
Utah	3,703	45,366	3,830	3,533	3,432	3,192
Vermont	220	2,105	202	181	179	154
Virginia	5,632	R94,436	7,488	R7,847	R8,947	8,135
Washington	NA	NA	NA	NA	NA	NA
West Virginia	4,141	NA	4,262	NA	2,618	NA
Wisconsin	17,907	R140,446	14,588	12,952	11,284	R9,610
Wyoming	4,359	NA	4,641	4,510	4,318	3,897
Total	**766,893**	**R8,561,122**	**R791,597**	**R721,590**	**R704,247**	**R665,728**

See footnotes at end of table.

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1998					
	August	July	June	May	April	March
Alabama	17,248	16,167	16,737	17,308	17,013	18,208
Alaska	NA	6,542	6,251	5,854	6,455	6,878
Arizona	2,508	2,307	2,034	2,313	2,281	2,413
Arkansas	11,799	11,321	11,102	11,839	12,765	13,363
California	64,310	59,188	53,880	66,080	55,492	47,185
Colorado	R5,294	NA	NA	5,649	6,278	6,323
Connecticut	2,455	2,271	2,225	2,546	2,782	3,183
Delaware	1,221	1,097	1,160	1,256	1,348	1,477
District of Columbia	0	0	0	0	0	0
Florida	10,827	11,384	11,469	11,765	11,608	12,960
Georgia	13,484	12,768	13,149	12,501	12,866	13,434
Hawaii	0	0	0	0	0	0
Idaho [a]	2,530	2,620	2,672	2,593	3,047	3,130
Illinois	20,413	20,256	20,738	22,462	26,752	29,211
Indiana	NA	NA	23,465	23,136	25,124	27,772
Iowa	7,741	7,647	7,613	8,097	10,660	11,792
Kansas	13,725	15,481	12,763	11,091	10,661	11,559
Kentucky	6,702	6,738	6,787	7,022	7,543	8,884
Louisiana	85,378	80,693	73,666	75,577	77,970	81,959
Maine	179	153	184	168	122	159
Maryland	3,017	2,988	2,935	3,002	3,094	3,607
Massachusetts	8,134	7,812	NA	7,635	8,209	8,759
Michigan	17,707	18,191	22,705	25,012	26,873	32,052
Minnesota	8,677	7,803	7,855	6,901	8,548	9,039
Mississippi	NA	NA	NA	NA	NA	NA
Missouri	R5,185	R5,697	R5,341	4,830	5,473	6,788
Montana	1,126	1,215	1,687	1,244	1,521	1,481
Nebraska	4,050	5,853	3,076	2,662	2,543	3,043
Nevada	2,739	2,458	2,337	2,455	2,453	2,174
New Hampshire	NA	438	431	473	457	468
New Jersey	15,840	15,601	14,727	15,723	16,455	17,152
New Mexico	3,556	3,536	3,179	3,131	3,190	2,891
New York	NA	NA	21,404	NA	22,542	26,423
North Carolina	9,283	8,561	9,042	9,439	9,366	10,846
North Dakota	1,625	1,522	1,794	1,961	1,853	1,924
Ohio	23,492	NA	24,008	25,977	29,362	32,257
Oklahoma	18,236	16,672	16,280	13,793	14,388	16,578
Oregon	R8,883	R8,185	6,767	7,015	NA	NA
Pennsylvania	17,882	17,111	17,926	18,161	19,808	21,699
Rhode Island	2,126	2,121	2,042	NA	2,078	2,117
South Carolina	8,389	7,613	8,464	8,713	8,159	9,121
South Dakota	440	416	307	697	279	474
Tennessee	12,815	11,939	11,714	11,710	12,020	14,188
Texas	164,970	181,812	150,210	154,540	153,724	159,503
Utah	3,040	3,424	3,678	3,668	4,480	4,273
Vermont	135	153	152	164	164	194
Virginia	9,453	9,466	8,290	6,375	7,746	6,497
Washington	NA	NA	NA	NA	NA	NA
West Virginia	NA	232	2,734	2,753	4,584	5,091
Wisconsin	R9,221	7,967	9,204	9,508	11,658	14,819
Wyoming	NA	NA	4,119	4,293	3,344	NA
Total	**R694,166**	**R690,962**	**R648,951**	**671,804**	**701,817**	**746,491**

See footnotes at end of table.

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1998		1997			
	February	January	Total	December	November	October
Alabama	16,441	18,483	201,240	19,049	17,956	16,677
Alaska	6,152	6,454	73,599	6,851	5,551	6,290
Arizona	2,226	2,533	27,864	2,678	2,352	2,329
Arkansas	12,114	13,339	147,969	13,294	12,753	12,551
California	67,501	64,039	737,354	64,122	63,615	58,363
Colorado	6,388	6,949	73,781	7,037	6,542	5,174
Connecticut	3,149	3,402	34,554	3,438	2,840	2,627
Delaware	1,443	1,604	14,805	1,599	1,331	1,193
District of Columbia	0	0	0	0	0	0
Florida	11,053	12,931	130,816	11,157	10,619	10,628
Georgia	13,335	13,808	174,747	13,568	12,922	13,369
Hawaii	0	0	342	342	0	0
Idaho [a]	3,482	3,344	34,999	3,158	3,109	3,226
Illinois	28,719	33,208	317,755	30,894	27,921	24,667
Indiana	25,847	28,857	290,723	27,648	28,003	24,659
Iowa	9,516	11,321	107,463	10,549	9,896	9,571
Kansas	10,398	12,908	112,089	11,682	8,483	8,107
Kentucky	7,550	9,839	95,724	9,220	8,729	8,508
Louisiana	74,500	82,928	1,004,383	84,522	82,180	87,977
Maine	164	202	2,525	218	299	246
Maryland	2,764	3,069	65,954	13,535	4,361	4,427
Massachusetts	8,443	9,923	108,295	8,984	8,165	7,916
Michigan	31,380	33,980	338,456	33,117	28,965	25,006
Minnesota	10,044	9,171	107,338	10,132	10,200	9,130
Mississippi	6,814	NA	83,967	7,562	7,751	7,063
Missouri	6,360	7,047	71,164	6,842	6,397	5,161
Montana	1,449	1,884	18,766	2,120	1,900	1,656
Nebraska	2,902	3,481	44,418	5,064	2,736	3,638
Nevada	1,979	1,593	28,925	2,330	2,316	2,512
New Hampshire	498	481	5,830	468	442	499
New Jersey	17,655	18,980	202,418	18,335	15,921	15,505
New Mexico	2,895	3,254	40,854	3,528	3,319	3,092
New York	NA	NA	305,521	26,822	26,731	20,891
North Carolina	10,404	10,752	111,513	9,830	10,055	9,948
North Dakota	1,844	2,072	20,580	1,975	1,525	1,556
Ohio	31,779	35,912	335,993	31,923	29,457	26,118
Oklahoma	17,131	16,497	206,677	16,693	15,943	15,546
Oregon	8,744	9,760	90,403	9,751	8,789	8,242
Pennsylvania	20,811	22,115	238,220	21,967	21,958	17,472
Rhode Island	2,011	2,173	24,472	2,179	2,148	1,509
South Carolina	9,129	9,645	102,929	9,226	8,685	8,238
South Dakota	500	565	6,928	606	618	424
Tennessee	12,628	NA	138,877	12,776	11,768	11,228
Texas	148,544	169,452	2,058,755	169,958	167,175	167,787
Utah	4,080	4,735	44,162	4,492	4,116	4,216
Vermont	205	223	2,334	235	226	223
Virginia	7,444	6,747	85,264	8,128	7,094	5,989
Washington	NA	NA	111,159	12,255	10,247	9,459
West Virginia	4,659	5,054	57,380	5,201	4,824	4,640
Wisconsin	13,298	16,337	155,677	15,154	14,492	12,184
Wyoming	NA	5,156	46,936	4,066	4,296	3,889
Total	**729,765**	**794,004**	**8,842,896**	**796,281**	**747,720**	**711,325**

See footnotes at end of table.

Table 17. Natural Gas Deliveries to Industrial Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1997					
	September	August	July	June	May	April
Alabama	15,298	15,537	14,984	15,862	17,051	17,881
Alaska	4,218	6,373	5,948	5,893	5,598	6,420
Arizona	2,576	2,369	2,240	2,174	2,336	2,091
Arkansas	11,111	12,082	11,872	11,684	11,991	12,097
California	68,290	68,738	66,660	59,353	57,369	57,182
Colorado	4,717	6,458	4,912	6,073	6,278	5,736
Connecticut	2,378	2,549	2,444	2,444	2,878	3,318
Delaware	1,114	1,009	1,096	1,147	1,301	1,352
District of Columbia	0	0	0	0	0	0
Florida	10,448	10,872	10,607	10,621	11,537	11,506
Georgia	12,457	13,862	13,233	12,135	16,473	17,034
Hawaii	0	0	0	0	0	0
Idaho [a]	2,756	2,371	2,635	2,724	2,673	3,180
Illinois	22,090	20,598	22,236	22,534	25,392	26,558
Indiana	21,620	20,894	20,324	17,709	20,338	24,261
Iowa	8,083	8,285	7,409	7,489	8,159	8,785
Kansas	7,599	8,302	12,164	8,674	8,540	9,183
Kentucky	6,879	6,862	6,341	6,457	7,556	7,603
Louisiana	83,556	86,060	81,897	83,336	84,944	83,486
Maine	211	193	157	199	228	249
Maryland	4,406	5,041	4,765	5,178	4,872	4,468
Massachusetts	7,449	8,618	8,696	10,308	7,856	10,239
Michigan	23,949	24,022	15,926	25,902	28,281	29,068
Minnesota	7,261	8,379	8,154	7,724	7,623	8,561
Mississippi	5,976	6,650	6,989	6,559	6,150	6,990
Missouri	4,392	4,336	4,611	4,784	5,083	7,278
Montana	1,325	1,287	1,122	1,208	1,402	1,210
Nebraska	2,797	3,505	1,717	3,334	3,514	4,583
Nevada	2,528	2,521	2,353	2,335	2,625	2,208
New Hampshire	463	451	428	451	559	638
New Jersey	14,356	18,611	14,648	14,516	15,097	17,337
New Mexico	3,258	3,217	3,447	3,355	3,490	3,181
New York	25,050	22,613	24,246	23,418	24,289	26,049
North Carolina	8,313	8,157	8,382	8,873	9,043	9,764
North Dakota	1,518	1,593	1,362	1,621	1,599	1,806
Ohio	23,913	23,310	21,999	28,629	25,952	26,354
Oklahoma	16,738	17,677	16,664	17,580	17,354	17,384
Oregon	8,019	8,218	7,240	5,515	6,070	6,402
Pennsylvania	16,814	17,511	16,838	16,471	18,876	21,649
Rhode Island	1,440	1,491	2,159	2,265	2,401	2,514
South Carolina	8,832	8,184	7,967	8,568	9,111	9,069
South Dakota	470	499	322	460	531	624
Tennessee	10,408	12,556	10,581	10,591	9,665	12,484
Texas	165,238	174,495	168,624	168,087	170,594	167,379
Utah	2,488	3,361	3,473	3,398	3,623	3,746
Vermont	176	157	144	146	218	199
Virginia	6,911	9,236	8,535	6,165	7,401	6,362
Washington	10,909	10,178	7,788	7,709	8,184	7,891
West Virginia	4,515	4,616	4,480	4,393	4,990	7,557
Wisconsin	10,289	9,734	9,244	9,672	11,545	13,885
Wyoming	3,285	3,833	3,218	3,837	4,101	3,843
Total	**688,885**	**717,470**	**683,279**	**689,559**	**712,740**	**738,645**

[a] Small volumes of natural gas representing onsystem sales to industrial consumers in Idaho are included in the annual total but not in monthly components.

[R] Revised Data.

[NA] Not Available.

Notes: Geographic coverage is the 50 States and the District of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 18. Natural Gas Deliveries to Electric Utility[a] Consumers, by State, 1997-1999

(Million Cubic Feet)

State	1999	1998				
	January	Total	December	November	October	September
Alabama	561	[R]25,546	789	568	[R]973	[R]4,213
Alaska	2,733	[R]28,784	[R]2,957	[R]2,669	[R]2,190	[R]2,402
Arizona	2,424	[R]38,674	[R]3,738	2,716	[R]4,777	[R]6,200
Arkansas	564	[R]40,576	[R]367	[R]122	[R]1,753	[R]6,764
California	20,060	[R]271,154	[R]17,740	[R]20,126	[R]25,310	[R]31,816
Colorado	438	[R]10,627	[R]918	[R]1,046	[R]684	[R]1,378
Connecticut	29	[R]10,719	123	9	[R]209	[R]1,605
Delaware	1,131	[R]11,135	[R]911	1,152	[R]985	1,319
District of Columbia	0	0	0	0	0	0
Florida	15,422	[R]281,346	[R]17,667	[R]18,413	[R]28,024	[R]27,465
Georgia	16	[R]22,371	259	337	741	3,350
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	2,470	[R]56,337	[R]1,469	[R]1,465	[R]1,426	[R]6,084
Indiana	517	[R]9,096	[R]237	[R]172	[R]389	[R]957
Iowa	145	[R]5,947	[R]144	[R]147	[R]177	[R]1,099
Kansas	1,184	[R]36,896	[R]1,679	[R]2,097	[R]1,602	[R]6,109
Kentucky	438	[R]5,760	136	151	206	978
Louisiana	21,493	[R]318,395	[R]18,345	[R]20,877	[R]24,381	[R]36,591
Maine	0	0	0	0	0	0
Maryland	444	[R]12,303	499	188	[R]232	[R]2,565
Massachusetts	122	[R]18,427	[R]725	[R]777	[R]918	[R]1,127
Michigan	3,649	[R]48,321	[R]3,449	[R]3,163	[R]3,934	[R]5,415
Minnesota	294	[R]7,738	[R]120	[R]268	[R]504	[R]1,538
Mississippi	5,748	[R]76,362	[R]4,126	[R]3,553	[R]4,004	[R]9,141
Missouri	533	[R]16,035	[R]515	[R]521	[R]228	[R]3,067
Montana	53	522	36	33	48	69
Nebraska	40	[R]5,044	[R]106	35	[R]154	[R]955
Nevada	4,578	[R]60,937	[R]5,362	4,649	[R]5,732	6,460
New Hampshire	32	149	0	25	0	0
New Jersey	1,022	[R]30,996	792	804	376	[R]3,446
New Mexico	2,563	[R]39,034	[R]2,876	2,246	[R]2,708	[R]3,782
New York	8,041	[R]208,348	[R]10,911	[R]8,116	[R]15,872	[R]20,464
North Carolina	34	[R]12,418	36	29	136	2,132
North Dakota	0	0	0	0	0	0
Ohio	312	[R]7,663	[R]351	170	272	[R]1,333
Oklahoma	10,588	[R]174,577	[R]13,066	[R]11,482	[R]11,983	[R]21,106
Oregon	1,532	[R]28,883	[R]3,009	[R]4,188	[R]3,701	[R]4,014
Pennsylvania	261	[R]6,890	357	98	[R]220	[R]561
Rhode Island	0	[R]15,589	0	0	0	0
South Carolina	14	[R]5,893	42	97	[R]72	919
South Dakota	125	[R]2,865	189	190	61	366
Tennessee	0	[R]6,213	0	0	190	1,860
Texas	66,368	[R]1,242,574	[R]71,865	[R]61,712	[R]95,036	[R]143,064
Utah	331	[R]5,945	[R]493	[R]165	[R]648	[R]1,206
Vermont	5	188	4	3	7	11
Virginia	1,666	[R]20,386	757	[R]625	[R]1,435	[R]3,323
Washington	28	[R]13,352	635	1,742	[R]3,318	2,749
West Virginia	27	417	25	56	52	20
Wisconsin	550	[R]16,348	[R]730	[R]589	[R]486	[R]2,044
Wyoming	9	271	5	6	13	9
Total	**178,592**	**[R]3,258,054**	**[R]188,557**	**[R]177,596**	**[R]246,171**	**[R]381,075**

See footnotes at end of table.

Table 18. Natural Gas Deliveries to Electric Utility[a] Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1998					
	August	July	June	May	April	March
Alabama	[R]5,129	[R]5,071	[R]4,763	[R]2,843	296	[R]382
Alaska	[R]2,038	[R]2,163	[R]2,102	[R]2,420	[R]2,274	[R]2,391
Arizona	[R]8,185	[R]6,791	1,986	674	1,127	718
Arkansas	[R]8,176	[R]7,022	[R]6,618	[R]5,431	[R]2,262	[R]1,507
California	[R]34,624	[R]26,020	15,338	[R]13,746	[R]18,053	[R]23,365
Colorado	1,419	[R]1,763	[R]914	[R]690	[R]581	[R]412
Connecticut	[R]2,672	1,582	[R]1,708	[R]1,385	157	23
Delaware	[R]1,672	1,648	1,196	900	548	475
District of Columbia	0	0	0	0	0	0
Florida	[R]29,246	[R]31,965	[R]33,183	[R]26,818	[R]15,852	[R]18,011
Georgia	[R]5,027	[R]5,457	[R]4,959	[R]1,891	[R]41	[R]149
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	[R]7,669	[R]7,640	[R]7,325	[R]7,006	[R]4,790	[R]3,985
Indiana	[R]1,695	[R]1,911	[R]1,732	[R]1,102	[R]231	[R]427
Iowa	[R]1,049	[R]933	[R]749	[R]674	[R]288	[R]237
Kansas	[R]7,062	[R]7,713	[R]5,133	[R]3,088	[R]575	[R]891
Kentucky	1,060	[R]649	950	1,017	107	282
Louisiana	[R]44,636	[R]43,677	[R]38,806	[R]31,804	[R]18,072	[R]16,190
Maine	0	0	0	0	0	0
Maryland	[R]3,146	2,186	1,396	932	373	371
Massachusetts	[R]1,965	[R]1,404	[R]2,164	[R]2,661	[R]1,575	[R]1,561
Michigan	[R]5,520	[R]4,553	[R]5,074	[R]4,196	[R]3,582	[R]3,735
Minnesota	[R]1,461	[R]1,389	[R]979	[R]792	[R]264	[R]202
Mississippi	[R]11,125	[R]10,887	[R]10,629	[R]8,715	[R]4,398	[R]3,920
Missouri	[R]3,997	[R]3,750	[R]2,425	[R]947	[R]208	[R]160
Montana	83	80	26	89	15	39
Nebraska	[R]1,161	[R]1,022	[R]702	[R]621	[R]173	[R]58
Nevada	[R]8,818	8,189	4,036	[R]3,932	[R]3,926	[R]2,925
New Hampshire	26	37	35	0	0	0
New Jersey	[R]6,216	[R]7,105	4,303	[R]3,925	[R]1,248	1,835
New Mexico	4,850	[R]5,283	4,019	[R]3,015	[R]3,446	[R]3,091
New York	[R]34,201	[R]29,277	[R]24,080	[R]18,922	[R]9,089	[R]10,407
North Carolina	3,116	[R]2,041	[R]3,788	1,026	12	91
North Dakota	0	0	0	0	0	0
Ohio	[R]1,426	[R]1,307	[R]1,103	1,005	[R]179	307
Oklahoma	[R]26,807	[R]26,740	[R]20,703	[R]13,832	[R]7,905	[R]9,348
Oregon	3,781	3,008	835	176	[R]2,265	[R]1,334
Pennsylvania	455	[R]1,411	[R]2,017	[R]622	260	406
Rhode Island	2,251	2,238	1,453	1,943	1,606	[R]1,888
South Carolina	[R]1,237	1,239	1,413	687	37	[R]105
South Dakota	608	627	315	366	33	42
Tennessee	1,123	1,407	1,202	432	0	0
Texas	[R]161,408	[R]174,322	[R]153,383	[R]115,390	[R]82,922	[R]80,353
Utah	[R]1,323	[R]1,126	[R]160	[R]157	[R]153	[R]177
Vermont	8	15	7	12	6	3
Virginia	[R]3,645	[R]2,969	[R]2,253	[R]2,157	[R]698	[R]1,196
Washington	3,470	621	33	14	152	121
West Virginia	34	53	46	30	22	29
Wisconsin	[R]2,338	[R]3,059	[R]2,554	[R]2,279	[R]394	[R]1,106
Wyoming	1	5	10	6	8	3
Total	**[R]456,960**	**[R]449,354**	**[R]378,607**	**[R]290,368**	**[R]190,201**	**[R]194,258**

See footnotes at end of table.

Table 18. Natural Gas Deliveries to Electric Utility[a] Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1998		1997			
	February	January	Total	December	November	October
Alabama	157	362	9,997	87	295	846
Alaska	R2,316	R2,862	33,510	3,013	2,668	2,680
Arizona	R803	R961	23,385	752	399	1,542
Arkansas	R269	R286	24,805	294	375	2,293
California	R18,272	R26,743	377,946	26,274	22,422	35,151
Colorado	R446	R377	5,536	450	385	641
Connecticut	109	R1,135	16,761	554	1,446	2,234
Delaware	74	R255	16,092	699	681	356
District of Columbia	0	0	0	0	0	0
Florida	R15,630	R19,071	296,903	21,491	14,278	21,229
Georgia	57	102	7,342	49	124	308
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	R3,502	R3,977	44,607	5,018	3,906	3,795
Indiana	R129	R115	4,661	137	211	281
Iowa	R195	R255	4,124	208	252	459
Kansas	R426	R521	25,822	1,991	2,478	2,643
Kentucky	138	86	2,194	158	190	200
Louisiana	R9,854	R15,161	277,438	16,781	14,535	22,047
Maine	0	0	0	0	0	0
Maryland	R222	191	11,007	209	364	749
Massachusetts	R1,316	R2,235	51,490	2,411	3,176	3,245
Michigan	R2,480	R3,218	33,287	3,028	3,135	3,242
Minnesota	R104	R118	6,098	112	139	382
Mississippi	R2,774	R3,090	73,083	4,573	4,060	5,428
Missouri	80	R137	7,465	310	340	557
Montana	0	1	420	21	30	40
Nebraska	21	R36	2,656	34	77	354
Nevada	R3,377	R3,532	51,777	3,648	1,803	4,364
New Hampshire	26	0	564	34	26	0
New Jersey	419	528	29,534	552	1,340	2,085
New Mexico	R1,801	R1,917	33,375	1,998	2,224	3,224
New York	R10,285	16,724	217,504	14,287	12,326	16,084
North Carolina	1	11	4,512	3	25	507
North Dakota	0	0	1	0	0	0
Ohio	96	114	3,486	122	245	396
Oklahoma	R5,179	R6,427	128,818	11,401	8,233	10,061
Oregon	R1,101	R1,470	10,680	1,917	1,075	990
Pennsylvania	257	225	7,370	365	212	301
Rhode Island	1,599	R2,612	27,160	2,602	2,488	2,503
South Carolina	11	33	2,731	35	112	240
South Dakota	6	63	1,731	83	90	45
Tennessee	0	0	1,636	0	0	209
Texas	R48,953	R54,167	1,056,550	69,566	72,391	90,883
Utah	R164	R174	4,078	177	173	134
Vermont	47	65	36	4	2	4
Virginia	476	R852	11,572	851	353	732
Washington	5	492	2,618	187	220	164
West Virginia	29	21	219	11	2	17
Wisconsin	R352	418	15,776	467	400	743
Wyoming	200	7	95	15	15	5
Total	**R133,757**	**R171,149**	**2,968,453**	**196,980**	**179,723**	**244,394**

See footnotes at end of table.

Table 18. Natural Gas Deliveries to Electric Utility[a] Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1997					
	September	August	July	June	May	April
Alabama	1,247	2,373	2,901	931	483	386
Alaska	2,289	2,432	2,729	2,574	2,897	2,917
Arizona	5,103	4,808	4,117	1,932	2,742	723
Arkansas	3,376	5,269	7,491	3,445	576	606
California	56,539	48,248	43,993	26,550	37,246	25,416
Colorado	667	716	704	337	394	265
Connecticut	1,722	2,300	2,412	1,364	1,139	1,227
Delaware	667	1,592	2,002	1,097	1,064	1,841
District of Columbia	0	0	0	0	0	0
Florida	27,022	33,982	33,658	31,546	29,444	27,857
Georgia	1,159	2,199	2,595	440	204	177
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	2,375	3,807	7,989	4,591	2,901	4,925
Indiana	242	478	1,683	718	210	199
Iowa	235	373	843	395	272	256
Kansas	2,111	3,489	6,353	3,143	1,238	847
Kentucky	181	311	525	170	21	117
Louisiana	30,516	34,790	39,934	29,946	25,567	19,111
Maine	0	0	0	0	0	0
Maryland	623	1,051	3,382	1,857	726	1,478
Massachusetts	4,785	5,579	6,021	6,210	3,814	6,615
Michigan	2,922	2,852	3,680	2,756	2,752	2,265
Minnesota	289	669	1,136	685	595	620
Mississippi	8,115	11,934	14,013	8,386	4,689	3,034
Missouri	749	1,211	2,792	1,022	95	174
Montana	27	46	116	8	7	15
Nebraska	263	364	879	218	108	172
Nevada	6,209	7,830	7,264	5,272	5,219	3,518
New Hampshire	60	77	12	353	0	0
New Jersey	1,349	4,238	8,150	4,613	1,479	1,868
New Mexico	2,834	4,337	4,025	2,923	2,445	2,548
New York	19,134	28,915	36,082	29,210	17,438	12,102
North Carolina	433	747	1,888	811	61	26
North Dakota	0	0	1	0	0	0
Ohio	268	303	1,073	596	106	107
Oklahoma	14,023	20,503	20,874	12,256	6,716	7,026
Oregon	2,765	2,957	358	147	3	0
Pennsylvania	417	923	2,725	886	295	326
Rhode Island	2,364	2,423	2,005	2,185	2,447	1,854
South Carolina	212	422	922	621	67	72
South Dakota	88	228	582	360	85	85
Tennessee	0	328	844	255	0	0
Texas	126,044	141,896	144,621	103,332	73,259	59,315
Utah	906	1,080	819	25	146	142
Vermont	2	4	4	3	3	3
Virginia	541	1,369	2,863	1,508	622	1,389
Washington	1,191	731	25	1	86	5
West Virginia	15	9	23	40	33	9
Wisconsin	697	895	2,171	1,688	1,854	1,770
Wyoming	5	3	4	13	6	6
Total	**332,781**	**391,090**	**429,286**	**297,424**	**231,548**	**193,416**

[a] Includes all steam electric utility generating plants with a combined capacity of 50 megawatts or greater.
[R] Revised Data.
Notes: Geographic coverage is the 50 States and the District of Columbia.

See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.
Source: Form EIA-759, "Monthly Power Plant Report."

Table 19. Natural Gas Deliveries to All Consumers, by State, 1997-1999

(Million Cubic Feet)

State	1999	1998				
	January	Total	December	November	October	September
Alabama	30,970	R300,415	R23,534	19,856	R19,776	R21,860
Alaska	14,826	R144,759	R14,578	R12,713	R12,089	R11,054
Arizona	15,019	R134,452	R14,346	R9,433	R10,323	10,941
Arkansas	28,252	R253,574	R21,135	R16,795	R16,623	R21,795
California	207,412	R1,870,106	R186,227	R151,474	R140,054	R146,001
Colorado	38,285	R244,184	R29,840	R19,959	R12,965	R11,011
Connecticut	16,712	R121,350	12,418	9,164	6,999	6,999
Delaware	5,616	R40,707	R3,961	3,589	R2,871	2,857
District of Columbia	5,400	30,373	3,293	2,293	1,340	1,176
Florida	33,020	R473,751	R33,549	R33,673	R42,172	R42,145
Georgia	35,916	R335,333	33,189	26,768	19,977	17,087
Hawaii	233	2,669	229	214	202	212
Idaho	7,967	61,955	6,707	5,353	3,948	3,405
Illinois	165,581	R944,659	R119,331	R90,632	R58,574	R45,786
Indiana	NA	R529,824	R58,929	R46,192	R35,382	R28,681
Iowa	37,039	R229,735	R26,120	R20,707	R14,907	R11,196
Kansas	NA	R316,796	R29,281	R25,994	R18,590	R19,008
Kentucky	NA	R187,141	R22,614	17,611	11,855	9,983
Louisiana	119,168	R1,360,383	R121,173	R96,974	R107,300	R124,332
Maine	913	R5,642	670	R571	452	295
Maryland	27,203	R174,100	19,949	13,189	R9,779	R10,281
Massachusetts	NA	R310,267	R33,199	R24,026	R18,469	R14,978
Michigan	132,504	R831,885	R93,042	R73,532	R51,240	R37,220
Minnesota	52,930	R302,084	R40,705	R30,638	R20,204	R11,155
Mississippi	NA	R204,035	R15,794	R13,000	R12,479	R18,959
Missouri	45,831	R255,416	R27,398	R17,749	R11,162	R12,462
Montana	7,437	50,446	6,569	4,937	3,509	2,167
Nebraska	17,838	R109,646	R10,494	R7,735	R5,476	R3,561
Nevada	15,458	R142,541	R15,210	11,727	R11,223	10,166
New Hampshire	3,115	19,026	2,033	R1,483	1,219	857
New Jersey	NA	R549,285	R57,762	R42,681	30,689	R29,488
New Mexico	NA	R145,612	R18,414	11,763	R8,914	9,670
New York	NA	R1,011,122	R90,549	R68,246	R57,767	R59,063
North Carolina	27,610	R215,593	19,245	16,376	R12,630	13,759
North Dakota	5,837	41,491	4,685	3,789	2,153	2,186
Ohio	121,245	R794,465	96,741	73,111	50,005	R36,525
Oklahoma	48,324	R476,035	R38,388	R31,239	R32,913	R43,899
Oregon	21,825	R190,894	R21,167	18,653	R15,418	R14,253
Pennsylvania	86,866	R574,486	64,611	50,045	35,333	R28,203
Rhode Island	7,008	R68,041	5,371	4,569	3,454	2,871
South Carolina	17,536	R155,973	14,080	12,475	10,663	10,940
South Dakota	5,058	R29,298	R3,736	R2,814	1,250	1,294
Tennessee	37,984	NA	27,441	21,469	17,987	18,058
Texas	306,033	R3,661,557	R337,337	R281,351	R286,962	R317,245
Utah	16,835	R138,895	R19,052	R12,689	R10,621	R7,336
Vermont	1,184	7,726	895	673	453	403
Virginia	29,151	R237,580	R24,374	R19,824	R16,165	R15,462
Washington	NA	R268,573	R29,184	R23,663	R19,859	R18,751
West Virginia	14,254	100,490	11,062	R7,872	5,905	R4,877
Wisconsin	61,954	R354,578	R45,711	R33,445	R22,491	R17,723
Wyoming	7,653	NA	7,931	NA	5,537	4,617
Total	**2,333,816**	**R19,353,555**	**R1,963,254**	**R1,551,376**	**R1,328,333**	**R1,314,254**

See footnotes at end of table.

Table 19. Natural Gas Deliveries to All Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1998					
	August	July	June	May	April	March
Alabama	R24,542	R23,471	R24,004	R26,255	24,632	29,592
Alaska	R10,915	R10,373	R10,255	R10,891	R11,880	R13,049
Arizona	R13,309	R12,050	7,467	7,574	10,115	R12,000
Arkansas	R23,251	R21,741	R21,124	R20,432	R19,025	R24,783
California	R150,877	R137,487	120,557	R140,354	R150,887	R151,877
Colorado	R11,521	R7,880	R7,466	R18,653	R24,714	R31,312
Connecticut	8,154	7,337	7,280	7,933	10,871	13,255
Delaware	3,234	3,131	2,833	R2,924	3,298	R4,029
District of Columbia	1,174	1,242	1,348	1,720	3,025	4,064
Florida	R43,287	R46,686	R48,216	R42,712	R32,793	R36,977
Georgia	R23,974	R23,938	R24,020	R21,199	R25,805	R37,286
Hawaii	228	214	228	216	223	221
Idaho	3,203	3,429	3,876	4,186	5,684	6,585
Illinois	R45,191	R43,345	R46,294	R51,218	R79,882	R110,448
Indiana	R29,836	R29,435	R31,362	R32,766	R48,801	R62,621
Iowa	R11,442	R11,556	R11,035	R13,144	R20,373	R30,248
Kansas	R24,716	R27,485	R22,388	R21,123	R23,512	R35,146
Kentucky	10,000	9,770	10,292	11,505	14,076	21,967
Louisiana	R133,502	R127,943	R116,408	R111,320	R101,827	R110,389
Maine	278	251	305	335	470	610
Maryland	11,097	R9,929	9,573	10,440	14,048	20,680
Massachusetts	R15,853	R16,112	R18,966	R21,841	R29,252	R36,404
Michigan	R35,808	R35,320	R43,847	R51,625	R77,976	R106,021
Minnesota	R14,914	R13,755	R14,572	R14,737	R21,645	R37,304
Mississippi	R19,308	R18,766	18,596	R17,370	R15,117	R18,464
Missouri	R14,406	R14,327	R13,247	R13,736	R21,662	R33,689
Montana	2,102	2,176	3,638	2,838	4,240	5,477
Nebraska	R7,095	R8,959	R5,832	R6,933	R9,827	R13,611
Nevada	R13,421	12,929	9,447	R10,147	R11,412	R11,550
New Hampshire	R918	871	999	1,226	1,864	2,183
New Jersey	R32,663	R33,936	31,639	R41,615	R46,964	65,242
New Mexico	R10,465	R10,814	8,579	R9,248	R11,952	R14,536
New York	R76,887	R79,563	R71,084	R72,028	R82,450	R107,979
North Carolina	R14,953	R13,148	15,680	14,761	17,721	23,352
North Dakota	2,187	2,043	2,397	2,958	3,759	4,760
Ohio	R36,235	R38,192	R38,784	R45,666	67,612	R98,219
Oklahoma	R48,285	R46,883	R40,664	R33,009	R32,165	R43,105
Oregon	R14,248	R13,185	10,671	10,944	R15,872	R17,512
Pennsylvania	R28,183	R28,412	R31,355	R34,777	R50,253	R72,422
Rhode Island	5,009	5,305	4,612	5,733	R5,917	R7,899
South Carolina	11,109	R10,338	11,503	11,680	12,349	15,673
South Dakota	R1,538	1,600	1,209	2,114	2,244	3,588
Tennessee	17,415	17,040	16,972	17,809	21,904	31,153
Texas	R348,252	R380,407	R320,879	R292,694	R266,948	R287,964
Utah	R6,535	R6,659	R6,949	R7,578	R12,236	R14,719
Vermont	301	325	347	409	716	918
Virginia	R16,133	R16,599	R14,962	R14,714	R18,955	R25,190
Washington	R13,187	R10,985	R11,751	R13,342	R24,945	R32,401
West Virginia	R4,795	5,999	5,138	5,815	9,625	12,819
Wisconsin	R17,737	R16,504	R18,699	R19,667	R27,883	R44,074
Wyoming	4,575	NA	5,041	5,547	5,396	R7,074
Total	**R1,418,248**	**R1,424,467**	**R1,324,388**	**R1,359,461**	**R1,556,798**	**R1,952,439**

See footnotes at end of table.

Table 19. Natural Gas Deliveries to All Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1998		1997			
	February	January	Total	December	November	October
Alabama	29,830	33,062	292,094	30,822	24,666	20,865
Alaska	R12,525	R14,438	149,164	15,172	12,560	13,113
Arizona	12,168	R14,725	112,590	11,575	6,994	6,675
Arkansas	R23,126	R23,742	244,644	23,947	19,854	17,536
California	R190,770	R203,541	1,850,248	185,860	147,134	137,655
Colorado	R32,169	R36,693	263,988	34,668	23,250	12,664
Connecticut	14,383	R16,557	134,557	15,769	11,812	9,002
Delaware	3,776	4,203	46,480	4,356	3,196	2,086
District of Columbia	4,747	4,951	33,824	4,795	2,768	1,452
Florida	R32,918	R38,623	477,601	38,205	29,083	35,159
Georgia	39,542	42,548	353,700	41,536	35,681	23,924
Hawaii	232	252	2,611	552	78	191
Idaho	7,284	8,295	61,707	7,186	5,519	4,449
Illinois	R107,822	R146,135	1,062,463	132,707	110,989	70,209
Indiana	R57,103	R68,716	546,337	64,388	54,190	37,412
Iowa	R25,934	R33,073	243,476	30,016	24,461	17,115
Kansas	R31,669	R37,884	248,563	29,528	22,869	14,839
Kentucky	21,257	26,211	202,583	26,707	21,185	14,189
Louisiana	R97,305	R111,911	1,360,160	112,335	102,939	113,454
Maine	629	777	6,247	735	694	488
Maryland	R21,403	23,731	204,319	31,410	17,582	11,557
Massachusetts	R38,346	R42,821	377,911	38,594	30,037	22,843
Michigan	R106,501	R119,753	943,881	112,039	89,089	55,893
Minnesota	R36,305	R46,150	334,572	39,996	36,158	21,195
Mississippi	R17,461	R18,720	206,749	19,424	16,400	14,616
Missouri	R34,873	R40,706	276,124	35,740	25,019	12,114
Montana	5,313	7,480	54,114	7,361	5,273	3,728
Nebraska	13,802	R16,321	128,031	14,339	10,024	7,229
Nevada	R12,082	R13,229	127,969	12,443	7,850	9,176
New Hampshire	2,585	2,788	20,822	2,445	1,788	1,237
New Jersey	66,099	70,507	617,638	73,183	53,491	35,294
New Mexico	12,873	R18,385	142,353	18,573	12,587	8,917
New York	R115,170	130,336	1,220,113	123,888	101,134	75,512
North Carolina	25,906	28,061	206,940	24,543	18,390	13,802
North Dakota	4,840	5,735	42,826	4,737	3,787	2,549
Ohio	R99,777	113,599	878,124	107,489	83,928	55,298
Oklahoma	R40,820	R44,667	452,453	45,168	34,038	29,638
Oregon	R17,735	21,237	159,105	19,704	14,600	12,135
Pennsylvania	75,456	R75,438	652,219	79,772	62,794	40,047
Rhode Island	7,949	R9,351	82,100	8,703	7,312	5,308
South Carolina	17,097	18,065	150,962	16,582	12,978	10,282
South Dakota	3,464	4,445	32,289	3,735	3,069	1,556
Tennessee	28,238	NA	259,773	32,226	23,385	15,919
Texas	R252,419	R289,099	3,566,640	301,259	280,454	282,035
Utah	R16,672	R17,848	137,605	20,196	13,494	10,669
Vermont	1,085	1,202	8,052	988	723	529
Virginia	27,386	R27,818	232,674	30,339	20,442	13,107
Washington	R32,753	R37,754	222,391	30,513	25,964	15,906
West Virginia	12,904	13,678	119,512	14,615	11,696	7,894
Wisconsin	R39,113	R51,530	396,055	47,139	41,199	26,442
Wyoming	R8,825	8,805	70,797	7,494	6,457	5,066
Total	**R1,940,440**	**R2,220,097**	**20,018,151**	**2,135,495**	**1,731,064**	**1,379,970**

See footnotes at end of table.

Table 19. Natural Gas Deliveries to All Consumers, by State, 1997-1999

(Million Cubic Feet) — Continued

State	1997					
	September	August	July	June	May	April
Alabama	19,874	21,774	22,227	20,045	22,082	23,547
Alaska	8,844	10,563	10,544	10,403	11,097	12,740
Arizona	10,639	9,851	9,309	7,229	8,782	7,625
Arkansas	16,564	19,396	21,517	17,581	16,536	18,160
California	164,736	156,325	155,009	125,567	141,632	141,973
Colorado	10,469	11,882	10,936	13,495	20,011	23,411
Connecticut	6,681	7,525	7,962	7,442	9,037	13,055
Delaware	2,211	2,965	3,502	2,849	3,351	4,779
District of Columbia	1,245	1,226	1,202	1,513	2,317	3,054
Florida	40,597	48,113	47,490	45,791	44,670	43,228
Georgia	19,492	21,587	21,684	18,692	23,684	29,529
Hawaii	188	184	199	192	189	196
Idaho	3,487	3,021	3,353	3,555	4,297	5,683
Illinois	42,581	40,316	46,565	44,784	64,825	89,183
Indiana	27,504	26,411	26,781	27,343	36,167	46,045
Iowa	11,323	11,251	11,156	11,230	14,752	19,933
Kansas	12,763	15,259	22,657	14,872	15,156	19,057
Kentucky	9,760	9,195	9,522	9,369	12,400	15,491
Louisiana	117,136	123,872	125,051	116,921	114,992	108,177
Maine	332	296	250	326	436	565
Maryland	9,379	9,962	12,289	12,027	12,557	17,099
Massachusetts	20,155	22,316	22,993	27,915	24,821	38,118
Michigan	41,643	39,832	26,571	48,092	70,858	88,367
Minnesota	12,500	13,651	14,017	14,390	19,634	28,484
Mississippi	15,793	20,654	23,023	17,045	13,616	13,472
Missouri	9,958	10,011	12,287	11,925	15,195	24,205
Montana	2,287	2,167	2,016	2,303	3,275	4,578
Nebraska	5,472	7,103	7,678	6,238	8,891	11,628
Nevada	10,741	12,283	11,610	10,009	10,945	9,659
New Hampshire	937	901	817	1,353	1,496	2,121
New Jersey	28,244	34,275	35,224	33,854	39,652	55,888
New Mexico	8,133	9,587	9,459	7,610	9,965	9,412
New York	71,369	80,369	91,166	88,040	87,576	104,095
North Carolina	11,392	11,394	12,855	13,021	14,350	16,779
North Dakota	2,025	2,025	1,694	2,231	2,876	4,001
Ohio	36,252	34,081	34,596	52,496	58,563	74,110
Oklahoma	34,074	41,433	40,951	33,513	30,552	34,243
Oregon	12,639	12,849	9,489	7,802	9,535	11,844
Pennsylvania	28,446	27,918	29,477	30,274	44,540	59,808
Rhode Island	4,738	4,756	5,074	5,715	6,911	7,507
South Carolina	11,399	10,059	10,397	10,994	11,689	12,137
South Dakota	1,152	1,210	1,397	1,471	2,004	2,899
Tennessee	13,668	15,880	14,483	14,849	15,826	21,437
Texas	312,902	338,035	337,264	293,254	269,575	257,495
Utah	6,475	6,849	6,720	5,971	6,858	11,439
Vermont	345	293	285	354	569	782
Virginia	11,415	14,548	15,383	12,414	16,528	20,044
Washington	16,143	14,325	11,639	12,401	15,918	14,772
West Virginia	6,412	6,360	5,922	6,478	8,845	13,069
Wisconsin	16,682	15,970	16,908	17,020	26,053	33,620
Wyoming	3,926	4,369	4,142	4,738	6,145	6,101
Total	**1,293,122**	**1,366,476**	**1,384,742**	**1,304,996**	**1,432,229**	**1,634,645**

R Revised Data.
NA Not Available.

Notes: Geographic coverage is the 50 States and the District of Columbia. Gas volumes delivered for use as vehicle fuel are included in the annual total for commercial deliveries but not in the monthly components. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers" and Form EIA-759, "Monthly Power Plant Report."

Table 20. Average City Gate Price, by State, 1997-1999

(Dollars per Thousand Cubic Feet)

State	1999	1998						
	January	Total	December	November	October	September	August	July
Alabama	2.62	3.26	3.16	3.26	3.64	3.43	3.82	3.97
Alaska	1.32	NA	1.73	NA	1.73	1.71	1.71	1.64
Arizona	2.17	2.55	2.31	2.67	2.61	2.76	2.84	2.85
Arkansas	2.69	2.94	3.13	3.03	2.93	1.88	2.38	3.23
California	2.23	2.38	2.76	2.49	2.22	1.95	2.46	2.39
Colorado	2.21	NA	2.74	2.18	2.24	NA	2.26	NA
Connecticut	4.44	5.06	5.51	4.54	4.28	4.69	4.87	5.14
Delaware	3.63	3.01	4.10	3.83	3.75	3.76	2.70	2.86
District of Columbia	—	0.00	—	—	—	—	—	—
Florida	3.30	3.36	3.36	3.66	3.48	2.99	3.10	3.14
Georgia	4.61	3.51	4.34	3.24	3.08	3.37	3.45	3.57
Hawaii	5.07	5.33	5.17	5.14	4.95	5.12	5.06	4.77
Idaho	1.76	1.96	1.86	1.99	1.95	2.38	2.14	2.81
Illinois	2.49	2.75	2.74	2.65	2.43	2.24	2.49	3.16
Indiana	NA	NA	2.75	NA	NA	NA	2.53	NA
Iowa	2.62	3.48	2.79	3.05	4.98	4.00	4.29	4.11
Kansas	NA	3.05	2.79	3.20	2.97	2.83	3.03	3.87
Kentucky	3.35	3.22	3.08	3.19	2.94	3.58	2.85	3.57
Louisiana	2.20	NA	2.48	2.20	NA	2.01	2.05	2.45
Maine	3.27	NA	3.10	NA	3.37	2.69	3.21	5.39
Maryland	2.82	NA	3.19	3.42	NA	NA	5.86	7.62
Massachusetts	NA	NA	NA	3.49	3.77	NA	7.10	5.83
Michigan	2.79	2.80	3.05	2.86	2.61	2.69	2.79	2.92
Minnesota	2.60	3.02	3.04	3.04	2.74	2.78	3.06	3.31
Mississippi	NA	NA	3.14	3.16	NA	2.65	NA	3.09
Missouri	2.49	3.32	2.77	3.12	4.06	4.50	4.61	5.12
Montana	2.75	2.40	2.40	2.57	2.29	2.20	1.87	2.27
Nebraska	2.90	3.23	3.10	2.84	3.03	2.90	3.01	3.65
Nevada	2.42	3.02	2.65	2.60	2.48	3.79	4.43	3.75
New Hampshire	3.73	NA	3.63	3.41	NA	3.34	3.80	4.63
New Jersey	NA	NA	NA	NA	4.08	5.83	3.75	3.86
New Mexico	2.13	2.07	2.18	2.16	1.75	1.64	1.86	1.94
New York	NA	NA	NA	NA	NA	NA	NA	3.34
North Carolina	3.11	3.49	3.09	3.16	3.46	3.20	3.43	3.95
North Dakota	2.85	2.80	3.01	3.10	2.74	2.11	2.49	2.57
Ohio	4.22	4.66	4.32	4.23	6.02	3.55	4.70	5.16
Oklahoma	2.41	2.55	2.54	2.52	2.16	2.73	2.61	2.38
Oregon	2.43	NA	2.50	2.61	2.72	2.93	3.60	4.13
Pennsylvania	3.15	NA	3.45	3.48	3.74	5.18	NA	5.50
Rhode Island	3.32	NA	1.25	4.04	4.02	4.23	3.53	3.68
South Carolina	3.14	0.82	0.12	3.34	3.49	3.48	3.57	4.09
South Dakota	3.18	3.23	2.69	3.07	2.76	3.91	4.68	4.27
Tennessee	2.85	NA	3.68	3.57	3.06	2.42	2.77	3.12
Texas	2.95	2.92	3.03	2.85	2.73	2.46	2.70	2.91
Utah	2.86	3.22	3.58	3.07	2.94	3.37	3.48	2.64
Vermont	2.85	2.58	2.52	2.67	1.99	2.26	2.34	2.60
Virginia	3.32	3.69	3.25	3.31	3.80	4.52	5.14	4.51
Washington	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	6.98	NA	3.79	NA	3.48	3.59	NA	NA
Wisconsin	2.52	3.36	2.84	3.35	3.24	4.97	4.38	4.36
Wyoming	3.07	NA	4.14	NA	2.88	2.46	2.93	NA
Total	**2.88**	**3.02**	**2.44**	**3.01**	**3.02**	**2.76**	**3.13**	**3.39**

See footnotes at end of table.

Table 20. Average City Gate Price, by State, 1997-1999

(Dollars per Thousand Cubic Feet) — Continued

State	1998						1997	
	June	May	April	March	February	January	Total	December
Alabama	3.86	3.56	3.20	3.03	2.93	3.18	3.65	2.60
Alaska	1.67	1.68	1.71	1.73	1.72	1.75	1.81	1.82
Arizona	2.60	2.93	2.75	2.55	2.28	2.46	3.15	2.53
Arkansas	2.31	3.00	2.96	3.13	2.85	3.09	3.23	3.19
California	2.34	2.49	2.33	2.38	2.12	2.35	2.98	2.65
Colorado	2.43	2.46	NA	NA	NA	NA	2.92	2.57
Connecticut	4.74	5.08	5.89	4.87	5.24	5.23	5.11	5.55
Delaware	4.35	1.79	2.63	2.73	3.02	2.71	3.53	2.43
District of Columbia	—	—	—	—	—	—	—	—
Florida	2.96	3.15	3.92	3.25	3.20	3.81	3.97	3.85
Georgia	3.01	3.55	3.63	3.85	3.18	3.43	3.98	3.65
Hawaii	4.86	5.21	5.21	6.25	5.75	6.40	6.42	6.23
Idaho	2.18	1.94	1.96	1.81	1.94	1.89	2.12	1.79
Illinois	2.15	3.64	2.90	2.81	2.85	2.78	3.28	2.92
Indiana	1.04	2.80	NA	2.32	2.48	2.49	3.03	2.79
Iowa	1.98	4.17	3.33	3.42	3.33	3.80	4.06	4.45
Kansas	3.66	3.17	2.79	2.86	2.73	3.56	3.47	3.60
Kentucky	3.12	3.33	3.99	3.23	3.09	3.22	3.83	4.07
Louisiana	2.19	2.36	2.29	2.53	2.25	2.81	3.04	2.86
Maine	NA	NA	3.25	3.25	3.25	3.25	3.84	3.10
Maryland	5.94	5.58	4.37	3.44	3.43	2.96	4.02	3.57
Massachusetts	5.52	4.56	3.48	3.30	2.89	3.40	3.85	3.09
Michigan	2.50	2.69	2.78	2.97	2.89	2.94	2.99	3.19
Minnesota	2.88	3.24	2.95	3.00	2.90	3.27	3.67	4.06
Mississippi	2.86	NA	NA	NA	2.99	NA	3.39	3.31
Missouri	4.87	4.47	3.72	2.97	2.99	2.96	3.75	3.13
Montana	2.39	2.22	2.29	2.50	2.41	2.71	3.16	2.51
Nebraska	2.98	3.73	3.29	2.98	2.70	4.71	4.24	5.31
Nevada	3.37	3.25	3.00	3.29	3.00	3.03	3.39	2.84
New Hampshire	NA	3.36	3.37	3.93	3.74	3.77	4.10	3.72
New Jersey	3.57	3.00	3.54	3.53	3.38	4.37	4.19	3.77
New Mexico	1.76	2.04	2.19	2.20	2.02	2.24	2.53	2.31
New York	2.88	NA	3.01	NA	NA	NA	3.51	3.33
North Carolina	3.83	3.66	3.91	3.49	3.47	3.65	3.97	3.72
North Dakota	2.34	2.74	2.86	2.91	2.85	2.93	3.38	3.01
Ohio	4.75	5.04	4.89	4.87	4.27	4.82	5.18	4.35
Oklahoma	2.51	2.46	2.36	2.38	2.61	2.86	3.12	3.33
Oregon	3.22	2.78	NA	NA	2.31	2.53	2.58	2.42
Pennsylvania	4.79	3.94	NA	5.26	3.64	3.68	4.09	3.84
Rhode Island	3.61	3.70	NA	3.38	3.35	3.93	4.49	4.02
South Carolina	3.81	3.90	3.66	3.34	3.05	3.37	3.81	3.72
South Dakota	2.91	4.42	4.37	2.60	3.66	3.22	3.65	3.46
Tennessee	3.39	3.40	6.62	2.42	3.84	NA	3.36	3.66
Texas	2.65	2.97	2.94	2.84	2.87	3.26	3.66	3.97
Utah	2.73	2.62	2.89	3.23	3.68	3.25	2.79	3.46
Vermont	2.69	2.82	2.74	2.92	2.66	2.59	2.33	2.64
Virginia	4.32	4.37	3.64	3.25	3.63	3.97	4.14	3.69
Washington	NA	NA	NA	NA	NA	NA	2.62	2.39
West Virginia	NA	NA	3.61	2.58	3.15	3.34	3.17	3.11
Wisconsin	3.82	3.63	3.54	3.33	2.99	3.21	3.67	3.32
Wyoming	2.53	NA	1.28	3.29	3.31	NA	3.11	2.93
Total	**2.99**	**3.11**	**3.21**	**3.22**	**3.08**	**3.28**	**3.61**	**3.42**

See footnotes at end of table.

Table 20. Average City Gate Price, by State, 1997-1999

(Dollars per Thousand Cubic Feet) — Continued

State	1997							
	November	October	September	August	July	June	May	April
Alabama	3.97	4.17	3.83	3.88	4.10	3.86	3.54	3.16
Alaska	1.82	1.78	1.79	1.73	1.74	1.70	1.78	1.81
Arizona	3.48	3.80	3.74	3.16	2.98	3.32	3.18	2.61
Arkansas	3.44	3.61	2.87	3.28	2.78	2.77	2.59	2.48
California	3.30	3.18	2.74	2.79	3.72	2.67	2.55	2.30
Colorado	3.59	2.71	2.66	2.41	2.67	2.57	2.42	2.52
Connecticut	3.87	4.96	5.29	5.33	4.55	4.76	4.81	4.94
Delaware	5.78	5.23	1.44	3.17	3.35	3.42	3.17	2.88
District of Columbia	—	—	—	—	—	—	—	—
Florida	4.45	4.64	3.82	3.31	3.41	3.50	3.09	3.62
Georgia	4.01	4.05	5.29	3.89	3.95	4.37	3.20	3.08
Hawaii	6.22	6.09	6.11	6.35	6.59	5.46	6.47	7.21
Idaho	2.07	2.01	2.17	2.50	2.16	2.83	2.98	2.08
Illinois	3.72	4.00	3.78	3.37	2.81	3.11	3.06	2.48
Indiana	3.21	3.64	3.15	2.87	2.54	2.35	2.32	2.07
Iowa	4.85	4.98	5.39	5.86	6.62	4.75	3.50	2.83
Kansas	4.28	3.67	3.47	3.09	2.88	3.02	2.85	2.38
Kentucky	4.28	3.83	3.57	3.62	3.68	3.69	3.30	3.62
Louisiana	3.75	3.44	3.02	2.50	2.58	2.64	2.41	2.37
Maine	2.72	4.11	3.79	4.43	4.34	4.53	4.69	3.43
Maryland	4.22	4.69	5.77	6.05	5.81	4.34	4.33	3.21
Massachusetts	4.14	4.52	5.00	4.91	5.29	5.61	2.86	3.26
Michigan	3.51	3.12	2.87	2.63	2.54	2.69	2.60	2.56
Minnesota	4.52	4.26	4.02	2.97	3.92	3.49	2.64	2.41
Mississippi	3.83	3.86	3.25	2.88	2.87	2.95	2.43	2.89
Missouri	3.92	4.66	5.08	4.80	4.62	5.32	3.96	3.12
Montana	3.15	4.47	3.76	3.96	3.63	3.91	2.28	3.09
Nebraska	6.30	5.76	7.03	5.51	4.96	4.09	3.11	2.28
Nevada	3.71	3.46	4.12	3.99	3.87	3.64	2.72	2.81
New Hampshire	4.02	3.95	4.02	4.45	4.28	4.34	3.66	3.15
New Jersey	4.49	4.84	4.34	4.41	4.29	4.21	3.86	3.15
New Mexico	2.85	2.59	2.62	2.18	2.13	2.13	2.04	1.91
New York	4.00	3.68	2.92	2.79	2.59	2.87	2.64	2.69
North Carolina	4.09	3.95	4.13	3.96	3.90	3.84	3.83	3.40
North Dakota	4.01	3.73	3.53	3.36	3.14	3.17	2.95	2.50
Ohio	4.66	5.09	4.91	5.51	7.16	6.45	5.96	5.79
Oklahoma	3.19	3.04	2.58	2.66	3.23	2.66	2.22	2.22
Oregon	2.73	2.48	3.12	4.01	3.45	3.00	3.02	1.95
Pennsylvania	4.20	4.60	4.22	4.95	4.32	4.90	4.30	3.48
Rhode Island	4.46	4.53	5.71	6.64	7.53	6.42	4.81	3.46
South Carolina	4.13	4.15	4.03	3.86	3.74	3.78	3.54	3.25
South Dakota	3.68	3.43	4.03	4.26	4.40	4.58	3.75	3.02
Tennessee	4.37	3.93	2.78	2.51	2.71	2.82	2.96	2.51
Texas	3.86	3.57	3.21	3.11	3.23	3.01	2.50	2.38
Utah	3.07	2.64	2.81	3.02	2.83	2.35	1.93	2.15
Vermont	2.77	2.34	2.29	2.33	2.41	2.58	2.77	2.39
Virginia	4.11	4.71	4.69	4.47	4.27	3.77	5.12	3.28
Washington	2.82	2.27	2.44	2.41	2.53	2.28	2.53	2.70
West Virginia	3.07	3.62	3.53	3.90	1.87	3.90	3.02	2.88
Wisconsin	3.75	3.91	4.63	5.12	3.71	5.09	3.49	3.11
Wyoming	3.61	3.25	3.35	2.90	2.94	2.85	1.64	2.48
Total	**3.91**	**3.86**	**3.50**	**3.34**	**3.44**	**3.41**	**3.11**	**2.92**

NA Not Available.
— Not Applicable.

Notes: Geographic coverage is the 50 States and the District of Columbia. Prices in this table represent the average price of natural gas by State at the point where the gas transferred from a pipeline to a local distribution company within the State. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 21. Average Price of Natural Gas Delivered to Residential Consumers, by State, 1997-1999

(Dollars per Thousand Cubic Feet)

State	1999	1998						
	January	Total	December	November	October	September	August	July
Alabama	7.13	8.15	8.99	9.94	10.92	10.71	10.78	11.13
Alaska	3.53	3.67	3.51	3.70	3.74	3.01	3.75	4.71
Arizona	8.03	8.56	8.39	9.91	12.07	13.01	13.19	12.24
Arkansas	5.66	7.31	6.83	6.79	8.13	8.81	8.99	9.03
California	6.82	6.93	6.89	6.80	6.88	7.01	7.21	7.07
Colorado	4.68	NA	4.86	5.18	5.75	8.36	7.44	NA
Connecticut	9.71	10.59	10.96	10.51	11.13	11.73	11.80	11.62
Delaware	8.05	8.86	8.56	9.38	11.62	12.78	12.61	11.67
District of Columbia	8.61	8.97	8.96	9.29	10.65	11.22	8.59	8.87
Florida	10.29	11.54	10.05	12.19	14.12	13.56	13.59	13.79
Georgia	2.12	6.74	2.41	3.43	7.99	15.53	15.94	16.76
Hawaii	18.79	19.33	18.88	19.41	19.27	19.41	18.31	18.60
Idaho	5.03	5.34	5.16	5.43	5.80	6.55	6.71	6.26
Illinois	5.64	5.46	4.77	5.01	5.97	8.06	8.16	8.69
Indiana	NA	NA	NA	5.77	6.67	NA	NA	NA
Iowa	4.79	5.91	4.91	5.69	7.32	10.97	10.78	11.56
Kansas	NA	6.08	5.60	5.98	7.54	8.07	7.98	7.88
Kentucky	5.08	5.94	5.24	5.67	7.83	9.19	9.75	7.87
Louisiana	5.56	NA	7.00	7.93	NA	8.91	8.84	8.85
Maine	7.00	R7.93	7.59	R7.40	7.61	8.88	9.13	9.11
Maryland	7.81	NA	8.13	7.86	NA	NA	11.52	12.03
Massachusetts	NA	NA	NA	NA	9.55	NA	11.36	10.45
Michigan	4.68	5.12	4.82	4.80	5.38	6.96	7.35	7.12
Minnesota	4.96	5.47	5.21	5.30	6.01	7.04	7.32	7.57
Mississippi	NA	NA	6.22	R4.33	R7.48	7.55	7.59	7.60
Missouri	5.71	6.56	6.19	6.62	8.84	9.86	10.94	9.76
Montana	4.75	NA	5.05	5.27	5.90	7.04	6.89	6.70
Nebraska	4.37	5.19	4.63	R4.77	5.74	6.91	7.12	6.87
Nevada	6.70	7.11	6.74	7.14	8.00	9.25	9.27	8.69
New Hampshire	7.44	NA	8.09	8.27	7.39	9.03	NA	9.15
New Jersey	NA	NA	NA	NA	9.33	NA	9.93	9.63
New Mexico	2.63	5.20	3.21	4.22	7.96	10.19	10.57	10.89
New York	NA	NA	NA	NA	NA	NA	13.55	7.01
North Carolina	7.56	8.71	9.48	8.33	11.73	12.56	13.29	12.05
North Dakota	4.62	5.19	5.04	5.08	5.69	7.69	9.87	7.09
Ohio	5.87	NA	6.08	6.15	7.82	9.30	9.89	NA
Oklahoma	4.45	6.10	5.66	6.31	8.64	9.50	9.33	8.91
Oregon	6.68	NA	6.72	6.88	7.62	8.78	9.04	8.33
Pennsylvania	7.88	NA	7.89	8.18	9.23	NA	NA	11.22
Rhode Island	8.71	NA	9.39	9.79	10.78	12.15	12.14	11.94
South Carolina	8.25	8.50	9.16	8.96	9.57	10.10	10.32	10.18
South Dakota	4.89	5.59	4.99	5.35	6.34	8.38	8.63	8.90
Tennessee	5.97	NA	6.30	6.62	8.09	8.51	9.03	8.68
Texas	4.97	6.31	5.52	6.58	8.16	8.79	8.97	8.86
Utah	5.51	5.61	5.66	5.77	4.78	6.13	7.01	6.70
Vermont	6.64	6.54	6.38	6.64	7.46	5.12	8.77	8.91
Virginia	8.01	8.66	8.18	8.52	10.97	12.22	12.28	12.22
Washington	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	6.89	NA	7.13	NA	7.64	NA	NA	NA
Wisconsin	6.07	6.08	5.97	6.06	5.42	6.49	6.66	7.16
Wyoming	4.98	NA	5.10	NA	5.26	5.20	7.30	NA
Total	**6.18**	**6.82**	**6.36**	**R6.60**	**7.55**	**8.94**	**9.19**	**8.62**

See footnotes at end of table.

Table 21. Average Price of Natural Gas Delivered to Residential Consumers, by State, 1997-1999

(Dollars per Thousand Cubic Feet) — Continued

State	1998						1997	
	June	May	April	March	February	January	Total	December
Alabama	10.91	8.99	7.73	7.00	7.10	7.41	8.35	7.28
Alaska	4.02	3.83	3.66	3.71	3.65	3.56	3.77	3.62
Arizona	11.02	9.58	8.14	7.39	7.40	7.23	7.83	7.61
Arkansas	8.72	5.83	6.86	6.41	6.50	9.42	6.67	6.26
California	7.32	7.01	6.80	6.78	6.49	7.28	6.81	7.20
Colorado	NA	5.24	4.74	4.49	4.57	4.50	4.81	4.73
Connecticut	11.11	11.57	9.78	10.18	10.33	10.36	10.33	10.15
Delaware	10.99	9.44	8.51	8.15	8.08	8.07	8.36	8.04
District of Columbia	8.50	9.70	8.86	8.62	8.44	9.01	9.39	8.97
Florida	13.30	13.08	11.34	10.51	10.47	10.33	11.90	11.78
Georgia	11.73	13.50	7.09	5.78	6.15	6.40	7.41	6.05
Hawaii	18.75	19.37	19.21	19.87	20.46	19.99	21.74	20.43
Idaho	5.86	5.59	5.38	5.18	5.14	5.01	5.12	4.98
Illinois	8.09	7.94	5.79	4.90	4.91	4.88	5.95	5.38
Indiana	9.95	8.81	NA	6.13	6.22	6.12	6.37	5.51
Iowa	8.41	7.80	6.36	4.79	4.97	5.49	6.17	6.02
Kansas	7.49	6.41	5.92	5.76	5.77	5.81	6.42	5.92
Kentucky	8.15	7.15	6.56	5.25	5.47	5.48	6.37	6.39
Louisiana	8.36	8.95	6.46	5.28	5.60	6.10	7.16	6.34
Maine	8.33	8.66	7.90	7.90	7.90	7.90	8.47	8.36
Maryland	10.82	9.82	8.36	7.53	7.36	7.38	8.36	7.38
Massachusetts	NA	NA	9.64	9.37	9.26	9.19	9.43	9.94
Michigan	6.23	5.85	5.11	4.69	4.92	4.85	5.20	4.98
Minnesota	7.15	6.45	5.60	5.18	5.11	5.07	5.76	5.09
Mississippi	7.32	6.44	5.88	NA	5.39	NA	6.35	5.74
Missouri	8.84	7.40	6.14	5.58	5.86	6.30	6.61	6.46
Montana	6.44	NA	5.15	4.97	5.03	4.87	5.05	5.31
Nebraska	6.42	5.99	5.09	4.74	4.93	5.28	5.69	6.01
Nevada	7.74	7.30	6.90	6.80	6.79	6.53	6.27	6.18
New Hampshire	8.20	7.07	6.50	8.50	8.38	8.30	8.48	8.46
New Jersey	9.32	6.80	7.71	7.39	7.23	7.41	7.93	7.62
New Mexico	31.23	9.69	6.26	4.55	5.23	3.72	5.87	3.68
New York	NA	NA	9.26	8.54	8.62	8.75	9.73	9.34
North Carolina	11.81	9.29	7.91	7.77	7.93	8.33	8.98	8.03
North Dakota	7.03	5.96	5.12	4.79	4.68	4.52	4.99	5.67
Ohio	7.35	6.56	6.22	5.97	5.75	6.25	6.75	6.20
Oklahoma	8.37	6.84	5.56	5.43	5.73	5.56	6.23	5.44
Oregon	7.48	7.19	NA	NA	6.44	6.09	6.21	6.01
Pennsylvania	10.51	9.02	NA	8.05	8.03	9.60	8.33	7.75
Rhode Island	10.94	9.67	NA	9.03	8.86	8.83	9.61	8.97
South Carolina	9.76	8.44	7.88	8.02	8.27	8.17	8.37	7.77
South Dakota	6.54	6.88	5.88	5.31	5.07	5.01	5.75	5.94
Tennessee	8.15	6.95	6.42	5.96	6.31	NA	6.91	6.66
Texas	7.94	7.31	6.29	5.14	6.58	5.42	6.32	5.59
Utah	5.39	5.72	4.85	5.51	5.73	5.83	5.13	5.29
Vermont	8.08	7.28	6.45	6.30	6.23	6.19	6.41	6.21
Virginia	11.73	10.14	8.28	7.75	8.05	8.11	8.60	7.90
Washington	NA	NA	NA	NA	NA	NA	5.64	5.68
West Virginia	NA	NA	7.55	6.85	6.78	6.81	6.81	5.87
Wisconsin	6.50	6.29	6.02	6.28	5.98	5.96	6.43	6.28
Wyoming	5.99	5.79	5.25	5.13	5.14	NA	4.58	6.16
Total	**8.41**	**7.59**	**6.78**	**6.27**	**6.40**	**6.47**	**6.94**	**6.54**

See footnotes at end of table.

Table 21. Average Price of Natural Gas Delivered to Residential Consumers, by State, 1997-1999

(Dollars per Thousand Cubic Feet) — Continued

State	1997							
	November	October	September	August	July	June	May	April
Alabama	7.95	11.05	11.56	11.64	11.21	10.40	8.65	9.17
Alaska	3.69	3.75	3.94	4.49	4.43	4.27	3.88	3.75
Arizona	9.20	11.36	9.13	10.57	10.08	9.62	8.71	7.95
Arkansas	6.43	8.70	9.57	9.29	8.68	8.26	6.96	6.43
California	7.48	7.80	7.42	7.56	7.05	7.70	6.38	6.18
Colorado	5.18	5.96	7.16	6.95	6.91	5.94	4.91	4.71
Connecticut	10.30	10.27	11.45	11.35	11.22	10.59	10.59	9.96
Delaware	8.69	10.74	11.79	11.86	11.61	10.06	8.87	8.19
District of Columbia	11.01	11.27	11.34	8.40	8.46	8.28	9.18	8.74
Florida	13.01	13.85	14.01	14.09	13.72	13.25	12.51	12.07
Georgia	5.91	8.08	10.62	11.74	11.85	12.36	10.41	6.22
Hawaii	20.87	21.07	21.36	21.64	21.20	21.54	21.81	21.33
Idaho	5.28	5.66	6.37	6.52	6.16	5.81	5.26	5.10
Illinois	5.65	6.05	8.01	7.88	7.84	7.94	5.43	5.10
Indiana	5.85	6.65	8.81	9.44	10.22	8.89	7.26	6.73
Iowa	6.41	7.69	11.05	10.11	9.41	7.97	6.13	5.16
Kansas	6.42	7.68	8.49	8.21	7.47	7.98	6.20	6.00
Kentucky	6.09	7.41	7.82	9.10	8.52	7.44	6.57	6.74
Louisiana	7.88	9.43	8.96	8.49	8.21	8.21	7.25	5.96
Maine	8.21	7.80	9.46	9.25	9.69	8.39	7.95	9.05
Maryland	8.71	9.91	10.72	11.35	10.88	9.62	8.26	8.14
Massachusetts	9.70	8.51	10.00	10.39	9.78	8.25	7.43	9.82
Michigan	5.13	5.80	6.88	7.33	6.95	6.21	5.15	4.97
Minnesota	6.04	6.67	8.31	7.94	7.76	6.78	5.39	4.63
Mississippi	6.79	8.40	8.06	7.91	7.62	7.45	7.00	6.50
Missouri	6.70	8.86	9.63	9.42	8.81	7.58	5.91	5.35
Montana	5.39	5.81	6.70	6.95	7.42	6.07	4.98	4.71
Nebraska	6.01	7.31	7.67	7.47	7.21	6.48	4.51	4.77
Nevada	6.72	7.64	7.92	7.96	7.55	7.28	6.61	6.14
New Hampshire	8.87	7.47	8.93	9.17	9.01	7.59	6.62	6.62
New Jersey	7.77	8.53	9.91	10.12	9.80	9.55	8.45	7.18
New Mexico	4.56	8.48	11.05	11.33	11.85	41.56	6.66	8.95
New York	9.93	11.38	12.59	11.62	12.70	10.83	9.01	8.51
North Carolina	8.21	11.17	13.08	13.12	12.39	10.28	8.56	8.66
North Dakota	5.81	6.50	7.36	7.39	7.19	6.29	5.33	4.20
Ohio	6.31	7.40	8.29	8.46	8.71	7.42	6.74	6.60
Oklahoma	6.06	8.77	9.11	9.19	8.79	7.99	6.68	5.85
Oregon	6.28	6.59	7.34	7.54	7.31	7.08	6.51	6.18
Pennsylvania	7.87	8.98	10.93	11.68	11.83	10.14	8.87	8.40
Rhode Island	9.74	10.64	12.10	12.53	12.30	10.90	9.70	9.67
South Carolina	7.79	9.28	9.88	9.97	9.47	8.72	7.87	8.14
South Dakota	6.16	7.07	9.10	8.07	8.39	7.83	5.92	4.95
Tennessee	6.68	8.26	8.74	8.93	8.85	8.05	6.44	6.34
Texas	6.40	8.00	8.55	8.78	8.26	7.72	6.33	5.58
Utah	5.70	4.65	5.59	5.98	5.65	5.71	5.84	4.19
Vermont	6.43	7.06	8.41	8.78	8.51	7.35	6.52	6.23
Virginia	8.80	10.85	12.04	12.20	11.99	10.50	8.88	7.97
Washington	5.75	5.83	5.86	5.88	5.90	5.84	5.71	5.70
West Virginia	6.63	6.02	8.96	9.68	10.50	8.53	7.31	6.96
Wisconsin	7.13	5.98	6.82	6.89	6.48	6.58	5.06	6.22
Wyoming	5.26	5.54	6.29	6.59	5.91	5.32	3.27	4.80
Total	**6.86**	**7.69**	**8.84**	**8.99**	**8.78**	**8.30**	**6.83**	**6.53**

R Revised Data.
NA Not Available.

Notes: Data for 1997 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 22. Average Price of Natural Gas Sold to Commercial Consumers, by State, 1997-1999

(Dollars per Thousand Cubic Feet)

State	1999	1998						
	January	Total	December	November	October	September	August	July
Alabama	6.33	6.65	7.18	7.53	7.06	6.92	6.96	7.25
Alaska	2.44	2.41	2.45	2.47	2.32	3.22	2.15	2.08
Arizona	6.15	5.95	6.25	6.38	6.45	5.78	6.30	6.25
Arkansas	4.70	NA	5.27	5.16	4.90	5.02	4.99	5.29
California	5.82	6.26	6.28	5.98	5.64	5.83	5.88	5.50
Colorado	4.16	NA	4.08	3.83	4.01	4.44	4.16	NA
Connecticut	6.63	6.85	7.54	6.74	5.49	5.44	5.53	4.66
Delaware	6.68	7.07	6.93	6.93	8.05	8.72	8.40	8.14
District of Columbia	7.53	7.37	7.43	7.69	7.49	7.35	7.14	6.98
Florida	5.79	6.59	6.39	6.47	6.38	6.27	6.22	6.55
Georgia	2.00	5.93	2.75	3.34	4.90	9.08	8.96	9.40
Hawaii	12.86	13.18	12.83	13.04	13.00	12.68	12.61	12.36
Idaho	4.46	4.62	4.58	4.83	4.91	4.94	4.88	4.90
Illinois	4.47	4.92	4.68	4.84	5.20	5.13	5.99	6.29
Indiana	NA	NA	NA	4.85	5.28	NA	6.92	NA
Iowa	4.12	4.56	3.95	4.41	5.02	6.38	6.27	7.53
Kansas	NA	5.14	5.24	5.84	5.45	5.64	4.42	5.45
Kentucky	5.09	5.41	5.06	5.05	5.58	5.69	5.69	6.14
Louisiana	5.29	NA	6.06	6.19	NA	5.82	5.68	5.85
Maine	6.48	NA	6.96	NA	6.55	6.89	6.89	6.81
Maryland	6.94	6.63	7.03	6.07	7.74	7.27	7.40	7.88
Massachusetts	NA	NA	NA	7.10	6.06	NA	6.45	6.22
Michigan	4.65	4.84	4.72	4.64	5.05	5.35	5.70	5.88
Minnesota	4.33	4.40	4.38	4.27	4.23	3.93	4.44	4.66
Mississippi	NA	[R]4.47	4.69	[R]3.52	[R]4.52	3.64	4.11	4.25
Missouri	5.55	5.66	5.60	5.50	6.17	5.71	6.04	5.93
Montana	4.80	NA	5.05	5.24	5.73	6.23	5.86	6.06
Nebraska	4.14	NA	4.01	NA	3.72	3.52	3.73	3.91
Nevada	5.85	5.94	5.88	6.33	6.61	6.92	6.90	6.08
New Hampshire	6.89	NA	7.38	NA	5.94	6.40	NA	6.59
New Jersey	NA	NA	NA	NA	NA	NA	2.87	3.96
New Mexico	2.45	3.95	3.05	3.34	4.11	4.49	4.71	4.88
New York	NA	NA	NA	NA	NA	NA	4.68	5.67
North Carolina	6.25	6.62	7.15	6.89	6.23	6.26	6.28	6.45
North Dakota	4.19	4.33	4.29	4.31	4.39	4.73	7.28	4.72
Ohio	5.67	NA	5.73	5.74	NA	7.19	7.81	NA
Oklahoma	4.49	5.23	4.23	6.24	5.34	5.39	5.34	5.39
Oregon	5.51	NA	6.01	4.43	5.53	5.55	5.89	5.75
Pennsylvania	7.30	NA	6.75	6.63	7.33	7.92	NA	8.03
Rhode Island	7.74	NA	8.02	8.11	8.65	9.14	9.35	8.98
South Carolina	6.75	6.45	6.73	6.58	5.73	5.89	5.91	5.94
South Dakota	3.92	4.42	3.97	4.24	4.84	5.65	5.60	6.23
Tennessee	5.77	NA	5.94	5.97	6.65	5.79	6.24	5.98
Texas	4.44	4.52	4.43	4.40	4.33	4.33	4.19	4.30
Utah	4.20	4.35	4.54	4.69	4.00	4.43	4.81	4.37
Vermont	5.12	5.08	4.72	4.95	4.81	4.63	5.17	4.91
Virginia	5.90	6.08	6.14	6.19	6.44	6.06	6.21	5.76
Washington	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	6.30	NA	6.18	6.12	6.21	6.22	6.55	6.86
Wisconsin	5.09	4.89	4.94	4.97	4.08	4.64	4.37	4.82
Wyoming	4.55	NA	2.76	NA	4.70	4.69	5.84	NA
Total	**5.12**	**[R]5.47**	**5.22**	**[R]5.26**	**[R]5.32**	**5.52**	**5.50**	**5.62**

See footnotes at end of table.

Table 22. Average Price of Natural Gas Sold to Commercial Consumers, by State, 1997-1999

(Dollars per Thousand Cubic Feet) — Continued

State	1998						1997	
	June	May	April	March	February	January	Total	December
Alabama	7.24	6.18	6.00	6.27	6.47	6.65	6.98	6.56
Alaska	2.05	2.24	2.31	2.39	2.45	2.49	2.44	2.55
Arizona	6.19	6.14	5.79	5.50	5.59	5.65	5.31	5.55
Arkansas	NA	5.31	5.23	5.04	5.19	5.14	5.23	5.13
California	5.91	5.68	6.65	7.06	6.75	6.69	6.41	6.99
Colorado	4.44	4.21	4.05	4.04	4.07	4.18	4.06	4.43
Connecticut	5.88	7.03	6.86	7.42	7.28	7.73	7.23	7.48
Delaware	7.81	7.33	6.85	6.75	6.72	6.70	6.70	6.60
District of Columbia	6.97	6.99	7.09	7.46	7.34	7.65	7.37	3.15
Florida	6.70	6.83	6.71	6.69	6.72	6.83	6.85	7.22
Georgia	7.59	7.99	5.53	5.51	5.86	6.16	6.43	5.73
Hawaii	12.60	13.20	13.32	13.66	14.41	14.35	15.77	13.87
Idaho	4.83	4.77	4.76	4.46	4.40	4.41	4.49	4.35
Illinois	5.72	6.81	5.21	4.70	4.25	4.76	5.43	5.21
Indiana	NA	6.35	R5.74	5.44	5.97	5.52	5.44	5.11
Iowa	4.17	5.48	5.19	3.72	4.08	4.71	5.18	5.16
Kansas	5.65	5.63	6.08	3.85	5.39	5.41	5.38	5.14
Kentucky	5.57	5.33	5.67	5.44	5.63	5.32	5.79	5.92
Louisiana	NA	6.10	5.49	4.94	5.24	5.73	6.22	5.91
Maine	6.70	7.20	7.41	7.41	7.41	7.41	7.70	7.79
Maryland	7.02	7.35	7.06	6.16	6.08	6.43	6.52	5.61
Massachusetts	6.55	6.86	7.65	7.46	7.73	7.39	7.34	8.03
Michigan	5.38	5.21	4.92	4.58	4.76	4.77	5.00	4.87
Minnesota	4.46	4.63	4.53	4.41	4.42	4.50	4.80	4.34
Mississippi	4.23	4.67	4.90	4.69	4.35	5.11	5.26	5.23
Missouri	5.65	5.52	5.37	5.27	5.63	6.08	5.88	6.23
Montana	5.47	NA	5.05	4.91	4.97	4.85	4.83	5.39
Nebraska	3.91	4.25	4.42	6.13	4.44	4.66	4.88	5.35
Nevada	5.91	5.75	5.76	5.69	5.76	5.63	5.08	5.32
New Hampshire	NA	5.98	6.06	7.64	7.57	7.60	7.63	7.77
New Jersey	3.74	3.84	4.17	3.83	4.13	4.85	5.88	4.97
New Mexico	6.66	5.15	4.42	3.91	4.35	3.66	4.01	3.25
New York	5.01	NA	6.20	NA	NA	NA	6.49	6.80
North Carolina	6.16	6.18	6.09	6.45	6.72	7.05	7.00	6.96
North Dakota	4.86	4.54	4.16	4.17	4.13	4.03	4.35	4.94
Ohio	6.30	5.76	5.79	5.62	5.43	5.96	6.23	5.86
Oklahoma	5.24	4.97	4.57	5.27	5.56	5.53	5.34	5.23
Oregon	5.52	5.51	NA	NA	5.17	4.92	4.63	4.66
Pennsylvania	8.25	8.23	NA	7.33	7.36	7.14	7.35	6.89
Rhode Island	8.88	8.37	NA	7.88	7.78	7.75	8.21	7.98
South Carolina	6.00	5.98	6.40	6.55	6.91	6.92	6.74	7.31
South Dakota	4.33	5.07	4.69	4.37	4.10	4.12	4.71	5.06
Tennessee	5.95	5.83	5.68	5.55	6.37	NA	6.11	6.36
Texas	4.12	4.44	4.75	4.32	5.37	4.66	4.91	4.99
Utah	3.93	3.93	3.76	4.36	4.35	4.54	3.92	4.39
Vermont	5.30	5.98	5.14	5.10	5.23	5.21	5.18	5.15
Virginia	6.14	5.44	5.63	5.82	6.33	6.41	6.45	6.37
Washington	NA	NA	NA	NA	NA	NA	4.73	4.78
West Virginia	NA	7.34	6.60	6.32	6.31	6.28	6.34	6.18
Wisconsin	4.44	4.16	4.75	5.24	4.96	5.12	5.35	5.46
Wyoming	NA	4.77	4.62	4.55	4.56	NA	3.93	5.52
Total	**5.53**	**5.62**	**5.58**	**5.39**	**5.56**	**5.59**	**5.79**	**5.70**

See footnotes at end of table.

Table 22. Average Price of Natural Gas Sold to Commercial Consumers, by State, 1997-1999

(Dollars per Thousand Cubic Feet) — Continued

State	1997							
	November	October	September	August	July	June	May	April
Alabama	6.77	7.40	7.53	7.44	7.54	7.16	6.79	7.05
Alaska	2.53	2.52	2.28	2.09	2.24	2.15	2.23	2.37
Arizona	5.82	5.82	5.81	5.33	5.21	5.20	5.18	5.08
Arkansas	5.47	5.77	5.56	5.19	5.33	5.39	5.15	4.91
California	7.04	6.65	5.84	4.96	5.86	6.27	5.29	6.05
Colorado	4.39	4.72	4.01	4.70	4.45	4.23	4.08	3.98
Connecticut	7.59	6.36	6.48	5.14	5.54	5.67	6.69	7.12
Delaware	6.88	7.46	7.15	8.54	7.81	7.30	6.74	6.53
District of Columbia	8.77	8.07	8.10	7.19	6.91	7.02	6.86	10.04
Florida	7.32	7.04	6.85	6.54	6.89	6.84	6.80	6.66
Georgia	5.53	6.22	6.49	7.02	7.63	7.71	6.33	5.60
Hawaii	59.38	14.59	14.46	14.93	14.91	15.21	15.09	15.18
Idaho	4.68	4.75	4.75	4.85	4.78	4.80	4.68	4.64
Illinois	5.26	5.79	6.22	6.08	5.66	5.53	4.91	4.62
Indiana	4.96	4.97	6.10	6.12	6.55	6.33	6.20	6.02
Iowa	5.46	5.91	7.37	6.39	5.64	5.99	4.83	4.30
Kansas	5.72	5.63	5.42	4.65	4.71	4.65	4.98	4.89
Kentucky	6.03	5.42	5.90	5.95	6.20	6.00	5.53	5.85
Louisiana	7.00	7.14	6.03	5.66	5.31	6.00	5.84	5.01
Maine	7.62	6.84	7.61	7.16	7.12	6.94	6.67	8.28
Maryland	7.12	7.19	6.90	6.32	6.09	6.53	6.06	6.11
Massachusetts	7.74	5.63	5.45	5.65	5.34	5.04	5.44	7.94
Michigan	5.03	5.49	6.07	6.06	5.90	5.53	4.90	4.70
Minnesota	5.20	5.11	5.20	4.59	4.63	4.64	4.02	3.86
Mississippi	5.75	5.77	4.93	4.90	4.54	4.93	5.23	5.08
Missouri	6.08	6.16	5.74	5.22	5.13	4.89	4.43	4.60
Montana	3.92	5.54	4.52	5.89	5.78	5.54	4.95	4.65
Nebraska	5.41	5.27	4.34	3.77	3.57	5.90	5.01	3.92
Nevada	5.42	5.43	5.18	5.18	5.07	5.03	5.08	5.14
New Hampshire	7.81	6.14	6.25	6.45	6.47	6.19	5.85	6.50
New Jersey	5.34	4.92	4.30	4.54	4.35	4.41	5.81	5.09
New Mexico	3.52	4.14	4.51	4.67	4.73	6.54	3.79	4.13
New York	6.58	5.62	5.09	4.86	4.40	5.32	5.95	6.15
North Carolina	6.70	6.29	6.46	6.44	6.44	5.99	6.10	6.50
North Dakota	5.14	5.15	5.11	4.58	5.11	4.76	4.38	3.69
Ohio	5.97	6.14	6.45	6.73	6.67	6.91	6.00	6.10
Oklahoma	5.17	5.38	4.87	4.80	4.79	5.00	4.83	4.67
Oregon	4.73	4.65	4.80	4.87	4.75	4.78	4.61	4.60
Pennsylvania	6.83	7.25	7.68	8.04	8.05	8.12	7.98	7.69
Rhode Island	8.02	8.00	8.77	9.12	8.96	8.77	8.07	8.46
South Carolina	7.22	6.52	3.49	6.45	6.31	6.33	6.33	7.05
South Dakota	5.22	5.50	6.51	5.22	5.44	6.09	4.77	4.04
Tennessee	6.27	6.33	6.05	5.99	6.09	6.00	5.38	5.07
Texas	5.27	4.96	4.72	4.54	4.41	4.68	4.48	4.18
Utah	4.65	3.78	3.99	4.02	3.82	3.60	3.37	3.09
Vermont	4.99	4.91	5.01	5.43	5.42	5.41	5.58	5.10
Virginia	6.42	6.55	6.58	6.56	6.66	6.08	6.29	6.27
Washington	4.81	4.87	4.90	5.29	4.93	4.63	4.80	4.19
West Virginia	6.24	6.76	7.54	8.13	8.42	7.68	6.72	6.34
Wisconsin	5.98	4.83	4.80	4.66	4.26	4.69	3.79	5.02
Wyoming	4.62	5.08	4.55	4.43	4.11	3.93	2.65	3.59
Total	**5.85**	**5.73**	**5.57**	**5.43**	**5.35**	**5.64**	**5.39**	**5.46**

R Revised Data.
NA Not Available.

Notes: Data for 1997 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. Average prices for gas delivered to commercial consumers reflect onsystem sales prices only. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy. See Table 25 for data on onsystem sales expressed as a percentage of both total commercial and total industrial deliveries. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 23. Average Price of Natural Gas Sold to Industrial Consumers, by State, 1997-1999

(Dollars per Thousand Cubic Feet)

State	1999	1998						
	January	Total	December	November	October	September	August	July
Alabama	3.24	3.24	3.35	3.26	3.18	2.95	3.06	3.15
Alaska	1.20	NA	NA	NA	NA	NA	NA	1.22
Arizona	3.48	3.39	3.52	3.37	3.11	3.22	3.20	3.36
Arkansas	3.40	3.44	3.76	3.32	3.24	3.04	3.09	3.47
California	4.02	3.59	3.45	3.48	2.77	3.46	3.28	3.48
Colorado	2.20	NA	2.31	2.41	2.12	1.90	R2.27	NA
Connecticut	4.49	4.32	4.55	4.19	3.85	3.46	3.63	3.61
Delaware	4.33	4.13	3.71	3.85	3.75	4.39	5.12	4.32
District of Columbia	—	0.00	—	—	—	—	—	—
Florida	3.81	4.30	3.97	4.18	4.47	4.05	4.02	4.37
Georgia	2.63	4.75	2.61	3.01	3.86	4.51	5.06	3.85
Hawaii	—	0.00	—	—	—	—	—	—
Idaho [a]	3.19	3.09	3.08	3.16	3.02	2.94	3.32	2.97
Illinois	3.81	3.93	3.78	3.61	3.32	3.71	4.38	3.10
Indiana	NA	NA	4.21	NA	NA	NA	NA	NA
Iowa	3.32	2.15	3.28	3.51	3.40	3.31	3.65	4.14
Kansas	NA	NA	NA	NA	2.76	2.35	2.71	2.78
Kentucky	NA	3.78	3.74	3.24	3.71	3.66	3.71	3.61
Louisiana	1.15	NA	1.20	1.26	NA	1.85	1.98	2.30
Maine	5.20	NA	6.07	NA	4.22	3.92	3.80	4.17
Maryland	5.25	5.31	5.31	4.76	R4.21	5.86	4.57	8.24
Massachusetts	NA	NA	NA	NA	4.34	NA	4.36	4.83
Michigan	3.92	3.99	3.96	3.60	4.29	4.67	5.21	4.77
Minnesota	2.86	2.85	3.01	2.82	2.67	2.18	2.51	2.84
Mississippi	NA	NA	3.30	2.84	R3.02	3.24	NA	NA
Missouri	4.74	4.44	4.27	4.46	4.16	4.13	R4.15	R3.72
Montana	3.40	5.07	4.82	5.31	5.54	11.14	7.57	6.88
Nebraska	3.35	3.20	3.30	3.28	2.86	2.56	2.72	3.20
Nevada	4.50	4.74	4.59	4.53	4.39	4.35	4.46	5.86
New Hampshire	6.51	NA	4.95	NA	2.82	3.67	NA	3.58
New Jersey	NA	NA	NA	NA	NA	NA	2.88	3.17
New Mexico	NA	3.15	1.54	2.60	2.95	2.99	3.19	3.13
New York	NA	NA	NA	NA	NA	NA	NA	NA
North Carolina	3.63	3.95	4.12	3.90	3.63	3.55	3.62	3.60
North Dakota	2.66	2.88	3.14	2.64	2.51	2.11	2.53	2.85
Ohio	5.42	NA	5.76	4.69	5.78	5.78	7.46	NA
Oklahoma	3.45	3.71	3.49	3.39	3.64	3.40	3.44	3.41
Oregon	3.87	NA	4.25	3.50	3.96	3.57	R3.74	R3.80
Pennsylvania	4.60	4.27	4.26	4.10	3.98	4.04	3.88	3.94
Rhode Island	5.00	NA	3.85	3.68	3.93	3.08	2.98	3.59
South Carolina	3.00	3.24	3.25	3.17	3.11	2.93	2.47	3.37
South Dakota	3.13	R3.27	R3.10	R3.12	3.27	3.38	3.17	3.21
Tennessee	3.85	NA	3.88	3.79	3.30	3.34	3.38	4.37
Texas	2.10	NA	2.30	2.18	NA	1.87	2.15	2.53
Utah	2.85	3.09	3.29	3.24	3.03	3.08	3.36	3.20
Vermont	3.00	2.80	2.61	2.30	2.84	2.74	2.77	2.78
Virginia	5.31	4.10	5.50	4.62	4.00	3.16	3.33	3.61
Washington	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	2.68	NA	2.86	NA	2.93	NA	NA	3.02
Wisconsin	3.92	R3.92	4.01	4.17	3.40	R3.13	R3.56	3.76
Wyoming	3.74	NA	3.87	3.79	3.79	3.80	NA	NA
Total	**2.97**	**3.07**	**2.83**	**2.83**	**R2.76**	**2.64**	**2.73**	**R3.00**

See footnotes at end of table.

Table 23. Average Price of Natural Gas Sold to Industrial Consumers, by State, 1997-1999

(Dollars per Thousand Cubic Feet) — Continued

State	1998						1997	
	June	May	April	March	February	January	Total	December
Alabama	3.11	3.16	3.44	3.03	3.50	3.47	3.65	3.79
Alaska	1.40	1.43	1.42	1.45	1.52	1.56	1.54	1.56
Arizona	3.51	3.44	3.45	3.33	3.76	3.53	3.60	3.40
Arkansas	3.28	3.28	3.39	3.78	3.62	3.77	3.71	4.01
California	3.38	2.88	3.97	3.31	5.34	4.55	4.18	4.51
Colorado	NA	2.48	2.26	2.62	2.58	2.69	3.66	3.79
Connecticut	3.69	4.13	4.55	4.74	5.13	5.12	4.73	5.10
Delaware	4.35	4.32	4.63	3.79	4.08	4.22	4.40	4.72
District of Columbia	—	—	—	—	—	—	—	—
Florida	4.20	4.46	4.58	4.40	4.29	4.59	4.41	4.70
Georgia	4.90	5.30	5.15	5.18	5.37	5.63	4.56	4.22
Hawaii	—	—	—	—	—	—	10.79	—
Idaho [a]	3.10	3.09	3.10	3.25	3.02	3.06	2.76	2.77
Illinois	4.49	4.18	4.02	4.08	4.12	4.22	3.97	4.17
Indiana	4.53	4.51	4.77	4.56	4.29	4.68	4.33	4.73
Iowa	2.25	3.39	0.73	0.64	2.42	3.43	4.11	4.55
Kansas	3.05	3.53	3.56	3.61	3.65	3.89	3.32	3.61
Kentucky	3.48	3.21	3.85	3.79	4.51	4.59	4.19	4.85
Louisiana	2.43	2.62	2.19	2.89	2.22	2.90	2.87	2.91
Maine	4.10	4.70	6.02	6.02	6.02	6.02	5.55	7.19
Maryland	5.60	4.54	5.10	5.88	5.59	7.46	3.25	3.76
Massachusetts	4.89	4.66	6.64	6.77	6.70	6.79	5.78	6.72
Michigan	4.32	4.01	3.81	3.61	4.11	3.90	4.02	4.02
Minnesota	2.58	3.03	3.06	3.08	3.00	3.25	3.28	3.24
Mississippi	NA	NA	NA	NA	3.22	NA	3.55	3.60
Missouri	[R]4.56	4.25	4.30	4.27	4.69	5.30	4.78	5.48
Montana	3.72	5.89	5.22	5.02	4.85	4.82	4.79	4.85
Nebraska	3.34	3.34	3.35	3.34	3.27	3.30	3.85	4.08
Nevada	5.81	5.94	5.84	6.00	6.06	5.90	7.77	7.98
New Hampshire	3.38	3.90	3.77	5.47	5.84	7.08	4.90	7.36
New Jersey	3.39	3.43	3.42	3.24	3.42	3.71	3.78	3.99
New Mexico	3.45	3.77	4.00	4.09	5.69	2.18	2.99	2.14
New York	3.92	NA	4.49	15.18	NA	NA	5.05	5.56
North Carolina	3.57	3.68	3.63	4.19	4.41	4.95	4.66	5.03
North Dakota	2.60	3.15	3.10	3.22	3.01	3.22	3.05	3.24
Ohio	5.05	4.98	5.21	5.67	5.06	5.62	4.93	4.84
Oklahoma	3.43	3.13	3.32	4.12	4.18	4.10	4.18	4.39
Oregon	3.77	3.75	NA	NA	3.73	3.67	3.03	3.32
Pennsylvania	4.09	4.05	4.40	4.57	4.55	4.80	4.61	4.62
Rhode Island	3.58	NA	3.86	4.06	4.25	4.59	4.33	3.77
South Carolina	3.21	3.31	3.42	3.53	3.38	3.67	3.72	4.00
South Dakota	3.54	3.44	3.37	3.38	3.25	3.30	4.02	3.72
Tennessee	3.50	3.54	3.64	3.59	3.98	NA	4.18	4.81
Texas	2.24	2.44	2.49	2.49	2.44	2.66	2.82	2.76
Utah	2.78	2.90	2.95	3.05	3.19	3.06	2.55	3.02
Vermont	2.78	2.87	2.86	2.94	3.01	3.06	3.07	3.11
Virginia	3.44	3.01	3.45	4.08	4.99	4.81	4.68	5.20
Washington	NA	NA	NA	NA	NA	NA	3.16	3.08
West Virginia	2.88	2.96	2.97	2.90	2.87	2.78	2.91	2.87
Wisconsin	3.44	3.69	4.20	4.17	4.48	3.79	4.13	4.53
Wyoming	3.82	4.19	4.12	NA	NA	3.29	3.49	3.65
Total	**2.96**	**3.10**	**3.22**	**3.41**	**3.52**	**3.68**	**3.59**	**3.79**

See footnotes at end of table.

Table 23. Average Price of Natural Gas Sold to Industrial Consumers, by State, 1997-1999

(Dollars per Thousand Cubic Feet) — Continued

State	1997							
	November	October	September	August	July	June	May	April
Alabama	3.81	3.85	3.38	3.38	3.24	3.37	3.35	3.14
Alaska	1.55	1.54	1.57	1.56	1.56	1.48	1.44	1.53
Arizona	3.23	3.71	3.29	3.13	3.19	3.94	3.94	4.35
Arkansas	4.31	3.90	3.61	3.40	3.35	3.40	3.20	3.22
California	4.58	4.36	3.54	3.43	3.81	4.05	2.57	3.51
Colorado	4.91	4.07	3.31	3.15	3.02	2.99	3.18	2.99
Connecticut	4.94	4.33	4.06	3.85	3.92	4.01	4.21	4.44
Delaware	4.87	4.63	4.13	4.14	4.11	4.06	3.69	3.65
District of Columbia	—	—	—	—	—	—	—	—
Florida	4.96	4.78	4.56	4.41	4.11	4.19	4.13	4.20
Georgia	4.63	4.52	5.57	4.04	4.16	5.30	4.03	3.79
Hawaii	—	—	—	—	—	—	—	—
Idaho [a]	2.74	2.72	2.69	2.68	3.28	2.52	2.73	2.75
Illinois	4.80	3.77	3.23	3.78	3.50	2.67	2.53	3.46
Indiana	3.67	3.59	4.29	4.16	4.12	4.62	4.74	4.92
Iowa	4.53	4.41	3.89	3.51	4.10	3.36	3.95	3.13
Kansas	3.81	3.96	3.14	2.84	2.75	2.77	3.18	2.49
Kentucky	4.91	3.97	3.81	3.75	3.78	3.67	3.61	3.70
Louisiana	3.42	3.27	2.78	2.43	2.69	2.65	2.34	2.27
Maine	5.88	4.68	4.65	4.43	4.40	4.45	4.10	5.77
Maryland	3.64	2.99	3.33	3.07	3.68	3.20	3.22	13.80
Massachusetts	6.34	4.34	4.03	3.85	4.00	3.57	5.01	6.08
Michigan	4.07	4.33	3.99	4.35	4.41	4.23	4.07	3.95
Minnesota	3.87	3.83	3.10	2.77	2.78	2.75	2.72	2.60
Mississippi	4.12	3.93	3.43	3.23	3.15	3.27	3.12	3.04
Missouri	4.23	4.51	4.03	4.03	3.97	3.95	3.56	3.84
Montana	4.80	4.91	4.90	4.90	4.88	4.80	4.77	4.76
Nebraska	4.44	4.28	3.59	3.48	3.19	3.11	2.86	2.74
Nevada	9.55	11.41	9.10	7.31	6.98	7.39	7.66	5.72
New Hampshire	6.48	4.50	3.61	3.43	3.39	3.59	3.56	3.99
New Jersey	4.24	3.79	3.43	2.11	3.06	3.27	3.30	2.88
New Mexico	2.81	3.57	3.10	2.91	2.86	3.87	2.93	7.28
New York	5.29	4.69	3.47	3.69	3.82	3.93	4.27	4.66
North Carolina	4.98	4.07	4.24	4.16	3.95	3.59	3.96	4.08
North Dakota	3.64	3.84	3.16	3.46	2.97	2.85	2.29	2.24
Ohio	4.79	4.31	4.80	4.65	3.82	5.79	3.89	5.15
Oklahoma	4.50	4.22	3.59	3.46	3.44	3.41	2.83	3.17
Oregon	3.10	2.86	2.78	2.69	2.89	2.88	2.95	3.03
Pennsylvania	4.32	4.36	4.13	4.04	4.47	4.58	4.36	4.61
Rhode Island	2.92	2.49	3.08	2.19	2.13	1.64	1.94	1.09
South Carolina	4.31	4.02	3.27	3.29	3.44	3.36	3.30	3.25
South Dakota	4.37	4.65	4.17	3.97	4.50	4.09	3.55	3.12
Tennessee	4.72	4.47	3.95	3.51	3.18	3.77	3.50	3.53
Texas	3.54	3.33	2.69	2.32	2.42	2.49	2.33	2.05
Utah	2.90	2.73	2.54	2.73	2.63	2.21	2.21	2.25
Vermont	3.12	2.97	3.00	2.96	2.97	3.01	3.05	2.98
Virginia	4.73	3.92	4.32	4.32	4.53	4.18	4.47	2.15
Washington	3.38	2.86	2.69	2.71	2.87	2.90	3.03	2.83
West Virginia	2.88	2.97	2.93	2.82	2.91	2.72	2.81	2.49
Wisconsin	5.05	4.23	3.62	3.34	3.32	3.39	3.00	3.92
Wyoming	3.66	3.42	3.42	3.44	3.48	3.45	3.34	3.51
Total	**4.07**	**3.69**	**3.25**	**2.90**	**3.06**	**3.10**	**2.96**	**3.02**

R Revised Data.
NA Not Available.
— Not Applicable.

Notes: Data for 1997 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. Average prices for gas delivered to industrial consumers reflect onsystem sales prices only. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy. See Table 25 for data on onsystem sales expressed as a percentage of both total commercial and total industrial deliveries. In 1996, consumption of natural gas for agricultural use is classified as industrial use. In 1995 and earlier years, agricultural use was classified as commercial use. See Explanatory Note 5 for further explanation.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Table 24

Table 24. Average Price of Natural Gas Delivered to Electric Utility[a] Consumers, by State, 1997-1998

(Dollars per Thousand Cubic Feet)

State	1998							
	Total	December	November	October	September	August	July	June
Alabama	2.55	2.68	2.47	2.62	2.46	2.50	2.63	2.49
Alaska	1.80	1.72	1.74	1.72	1.73	1.76	1.80	1.87
Arizona	2.43	2.38	2.77	2.11	2.33	2.28	2.41	2.79
Arkansas	2.28	2.35	—	2.25	2.15	2.05	2.49	2.33
California	2.79	2.96	2.86	2.56	2.50	2.83	2.92	2.70
Colorado	2.91	3.33	3.15	2.71	2.82	3.31	2.77	2.83
Connecticut	2.42	1.90	2.45	2.07	2.22	2.34	2.46	2.38
Delaware	2.89	3.34	3.24	2.66	2.41	2.66	3.47	3.27
District of Columbia	0.00	—	—	—	—	—	—	—
Florida	2.27	1.39	2.30	2.30	2.18	2.18	2.27	2.31
Georgia	3.19	2.11	2.67	3.80	4.00	2.82	3.18	2.91
Hawaii	0.00	—	—	—	—	—	—	—
Idaho	0.00	—	—	—	—	—	—	—
Illinois	2.25	2.12	2.31	2.20	2.01	1.95	2.27	2.37
Indiana	2.88	3.36	2.86	3.23	2.74	2.58	2.80	2.95
Iowa	3.00	3.38	3.11	2.93	2.91	2.80	3.01	2.86
Kansas	2.13	2.21	2.25	2.03	1.87	1.99	2.28	2.14
Kentucky	3.11	2.90	3.11	2.85	2.42	2.43	2.86	3.68
Louisiana	2.38	2.16	2.32	2.25	2.12	2.17	2.59	2.40
Maine	0.00	—	—	—	—	—	—	—
Maryland	2.77	2.64	3.85	3.13	2.53	2.49	2.84	2.93
Massachusetts	2.78	2.26	2.44	2.28	2.13	2.35	2.62	2.24
Michigan	1.23	1.25	1.10	1.46	1.67	1.38	1.34	1.29
Minnesota	2.42	3.43	2.69	2.32	2.00	2.41	2.48	2.42
Mississippi	2.32	1.97	2.28	2.21	2.16	2.16	2.47	2.36
Missouri	2.23	2.31	2.32	2.14	2.13	1.95	2.39	2.41
Montana	3.65	1.48	1.37	1.30	1.02	4.99	2.47	2.59
Nebraska	2.38	2.92	2.81	2.10	1.93	2.49	2.62	2.37
Nevada	2.37	2.01	2.61	2.33	2.42	2.42	2.34	2.73
New Hampshire	0.00	—	—	—	—	—	—	—
New Jersey	2.74	2.44	3.11	2.74	2.56	2.46	2.92	2.73
New Mexico	2.22	2.14	2.34	2.02	1.90	2.03	2.32	2.20
New York	2.56	2.43	2.80	2.30	2.21	2.29	2.63	2.51
North Carolina	2.73	3.93	3.59	3.00	2.53	2.55	2.92	2.78
North Dakota	0.00	—	—	—	—	—	—	—
Ohio	3.51	3.88	4.36	3.88	4.09	3.93	2.98	2.79
Oklahoma	2.47	2.28	2.50	2.41	2.16	2.07	2.52	2.41
Oregon	1.55	1.92	1.88	1.63	1.48	1.56	1.46	1.31
Pennsylvania	3.30	4.88	6.91	2.50	3.74	2.63	3.18	2.32
Rhode Island	3.38	—	—	—	—	3.40	3.38	3.40
South Carolina	3.60	4.05	3.71	3.21	3.37	3.53	3.58	3.92
South Dakota	1.77	—	—	—	1.77	—	—	—
Tennessee	0.00	—	—	—	—	—	—	—
Texas	2.30	2.24	2.25	2.16	2.05	2.11	2.46	2.34
Utah	2.11	2.45	2.42	2.20	1.95	2.04	2.15	1.94
Vermont	2.90	2.87	2.84	2.86	2.54	2.67	3.09	2.81
Virginia	3.04	4.03	3.72	3.09	2.76	2.60	3.02	2.93
Washington	2.79	—	—	—	—	—	—	—
West Virginia	3.53	3.02	3.25	1.20	2.94	3.85	6.31	2.62
Wisconsin	2.68	2.73	2.63	2.42	2.31	2.49	2.80	2.64
Wyoming	8.61	11.18	14.27	5.33	6.64	67.70	8.23	7.66
Total	**2.37**	**2.22**	**2.37**	**2.22**	**[R]2.15**	**2.21**	**2.50**	**2.40**

See footnotes at end of table.

Table 24. Average Price of Natural Gas Delivered to Electric Utility[a] Consumers, by State, 1997-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1998					1997		
	May	April	March	February	January	Total	December	November
Alabama	2.62	2.69	2.55	2.44	2.86	2.86	2.90	3.70
Alaska	1.84	1.84	1.85	1.88	1.85	1.74	1.84	1.84
Arizona	3.20	2.82	3.07	2.56	2.84	2.99	2.86	4.00
Arkansas	2.33	2.56	2.36	2.16	2.25	2.69	2.24	3.12
California	2.94	2.71	2.85	2.79	2.94	3.08	2.96	3.64
Colorado	2.56	2.53	2.61	2.65	3.01	3.16	2.93	3.90
Connecticut	2.56	2.70	2.79	2.63	2.74	2.47	2.74	3.38
Delaware	1.34	1.41	4.15	3.21	5.34	3.15	4.28	2.58
District of Columbia	—	—	—	—	—	—	—	—
Florida	2.31	2.68	2.64	2.49	2.25	2.51	2.52	3.29
Georgia	3.72	1.94	1.72	2.88	2.35	2.72	4.97	3.33
Hawaii	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—
Illinois	2.37	2.55	2.34	2.28	2.25	2.55	2.48	3.31
Indiana	2.98	3.37	3.25	2.64	3.84	3.23	3.67	4.03
Iowa	3.16	3.14	3.35	3.00	3.36	3.41	2.99	4.16
Kansas	2.20	2.40	2.36	1.97	3.35	2.53	3.33	3.02
Kentucky	3.59	5.25	4.04	3.58	3.46	3.45	3.47	4.24
Louisiana	2.52	2.66	2.51	2.47	2.61	2.79	2.86	3.61
Maine	—	—	—	—	—	—	—	—
Maryland	2.96	3.33	3.18	3.32	3.75	2.97	3.61	4.10
Massachusetts	2.86	3.66	3.64	2.95	3.16	3.11	3.57	4.08
Michigan	1.20	1.35	0.75	0.84	0.51	0.79	0.47	1.08
Minnesota	2.74	2.76	2.83	2.62	2.63	2.44	2.99	3.72
Mississippi	2.41	2.56	2.46	2.46	2.48	2.72	2.80	3.51
Missouri	2.31	2.56	2.52	2.82	2.63	2.81	2.77	3.52
Montana	5.34	1.40	12.33	8.49	4.61	NA	4.18	6.84
Nebraska	2.40	1.98	2.72	4.47	2.72	2.86	4.94	4.29
Nevada	2.44	2.31	2.02	2.37	2.41	2.18	2.16	2.80
New Hampshire	—	—	—	—	—	2.71	—	—
New Jersey	2.77	3.05	2.88	2.83	2.98	3.06	3.20	4.19
New Mexico	2.33	2.41	2.39	2.30	2.43	2.64	2.55	3.02
New York	2.64	2.87	2.96	2.95	3.00	2.88	3.38	3.83
North Carolina	2.89	3.37	4.03	—	3.02	3.22	3.60	4.95
North Dakota	—	—	—	—	—	3.43	—	—
Ohio	3.06	4.01	4.14	3.16	3.32	3.72	4.13	4.12
Oklahoma	2.52	2.88	2.62	2.72	4.47	2.97	2.89	4.05
Oregon	1.50	1.36	1.23	1.03	1.14	1.49	1.48	1.44
Pennsylvania	5.37	5.94	2.69	2.64	2.79	3.02	3.16	3.69
Rhode Island	3.43	3.45	3.19	3.24	3.48	3.35	3.78	4.05
South Carolina	3.41	3.44	3.58	3.53	4.05	4.07	4.46	4.00
South Dakota	—	—	—	—	—	—	—	—
Tennessee	—	—	—	—	—	—	—	—
Texas	2.38	2.52	2.43	2.41	2.49	2.69	2.74	3.33
Utah	—	—	—	—	—	2.09	—	—
Vermont	3.03	3.08	2.81	2.77	3.02	3.16	3.42	4.21
Virginia	2.99	4.46	3.34	3.78	3.05	2.93	2.54	4.09
Washington	—	5.59	3.86	4.11	1.64	NA	5.73	5.16
West Virginia	3.58	—	—	—	5.59	3.35	3.31	3.00
Wisconsin	2.95	3.13	2.75	2.91	2.90	3.17	2.92	4.11
Wyoming	11.70	4.77	10.42	8.72	5.39	NA	1.63	3.43
Total	**[R]2.47**	**2.59**	**[R]2.53**	**2.51**	**2.64**	**2.74**	**2.77**	**3.41**

See footnotes at end of table.

Table 24. Average Price of Natural Gas Delivered to Electric Utility[a] Consumers, by State, 1997-1998

(Dollars per Thousand Cubic Feet) — Continued

State	1997							
	October	September	August	July	June	May	April	March
Alabama	3.75	2.88	2.56	2.51	2.65	2.44	3.21	2.12
Alaska	1.85	1.88	1.69	1.87	1.79	1.64	1.63	1.55
Arizona	3.11	3.37	2.63	2.20	3.03	3.11	4.47	2.85
Arkansas	3.12	2.89	2.64	2.38	2.40	1.92	1.98	1.60
California	3.40	3.14	2.77	2.68	2.77	2.60	2.66	3.04
Colorado	2.37	2.42	2.77	4.07	2.31	6.20	2.47	2.26
Connecticut	2.76	2.37	2.35	2.33	2.26	2.22	2.22	2.45
Delaware	5.69	3.40	3.00	2.83	1.95	3.68	2.53	2.61
District of Columbia	—	—	—	—	—	—	—	—
Florida	3.21	3.03	2.50	2.30	2.33	2.09	2.26	2.05
Georgia	3.94	3.07	2.27	2.75	3.13	2.64	2.64	3.34
Hawaii	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—
Illinois	3.13	2.82	2.39	2.31	2.37	2.29	2.12	2.00
Indiana	5.25	3.67	3.39	2.77	2.99	3.06	2.88	2.74
Iowa	3.81	3.28	3.12	2.70	3.28	2.89	2.79	2.73
Kansas	3.06	2.70	2.13	2.06	2.11	2.14	2.00	1.80
Kentucky	4.00	3.25	2.92	2.87	2.96	2.83	3.13	3.20
Louisiana	3.40	3.03	2.60	2.44	2.65	2.45	2.18	2.10
Maine	—	—	—	—	—	—	—	—
Maryland	3.91	3.42	2.89	2.35	2.69	2.98	3.14	4.18
Massachusetts	4.10	3.21	2.87	2.81	2.92	2.84	2.54	2.64
Michigan	1.58	0.73	0.58	0.96	0.89	0.42	0.61	0.69
Minnesota	3.67	3.56	2.43	2.43	2.34	2.30	2.34	2.17
Mississippi	3.35	3.02	2.61	2.46	2.52	2.37	2.27	2.08
Missouri	3.35	2.94	2.51	2.39	2.44	2.74	2.77	2.26
Montana	2.98	64.31	1.92	1.37	9.35	13.57	2.87	4.08
Nebraska	3.21	2.98	2.49	2.32	2.00	1.89	1.89	2.29
Nevada	2.64	2.39	2.02	1.98	2.09	1.99	2.02	2.05
New Hampshire	—	2.85	2.55	2.74	2.72	2.68	—	—
New Jersey	4.23	3.42	2.87	2.80	2.85	2.76	2.69	2.57
New Mexico	3.05	2.82	2.47	2.46	2.38	2.39	2.07	2.01
New York	3.37	2.89	2.60	2.58	2.65	2.62	2.53	2.56
North Carolina	3.68	3.38	3.09	3.12	2.87	2.64	2.79	—
North Dakota	—	—	—	4.00	—	4.14	3.98	2.93
Ohio	4.00	4.35	4.28	3.10	3.20	4.13	4.06	4.03
Oklahoma	3.46	3.20	2.49	2.37	2.63	2.91	2.57	2.57
Oregon	1.45	1.49	1.49	1.35	1.57	—	—	1.40
Pennsylvania	3.65	2.99	2.81	2.54	3.04	2.57	2.31	2.22
Rhode Island	4.02	3.32	3.04	2.98	3.21	3.09	2.82	2.90
South Carolina	4.10	4.54	4.54	4.35	3.51	3.84	3.87	2.84
South Dakota	—	—	—	—	—	—	—	—
Tennessee	—	—	—	—	—	—	—	—
Texas	3.15	2.85	2.50	2.39	2.46	2.34	2.14	2.12
Utah	2.00	2.66	1.79	1.86	4.82	—	—	—
Vermont	3.96	3.23	2.90	2.95	3.06	2.83	2.27	2.61
Virginia	4.73	3.77	2.95	2.58	2.93	3.05	2.71	2.76
Washington	4.21	8.62	0.67	4.83	3.83	7.21	5.93	NA
West Virginia	3.29	3.41	3.71	3.79	3.23	3.22	3.63	3.82
Wisconsin	3.94	3.09	2.85	3.12	2.81	2.58	2.46	2.33
Wyoming	4.88	7.74	34.13	20.44	4.00	11.82	24.02	22.85
Total	**3.24**	**2.96**	**2.53**	**2.44**	**2.52**	**2.41**	**2.30**	**2.29**

[a] Includes all steam electric utility generating plants with a combined capacity of 50 megawatts or greater.
R Revised Data.
NA Not Available.
— Not Applicable.

Notes: Data for 1997 are final. All other data are preliminary unless otherwise indicated. Geographic coverage is the 50 States and the District of Columbia. See Appendix A, Explanatory Note 5 for discussion of computations and revision policy.

Sources: Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1997-1999

State	1999		1998					
	January		Total		December		November	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	81.0	18.4	69.4	15.5	68.2	16.7	66.0	15.7
Alaska	59.8	99.9	57.2	NA	55.5	NA	58.6	NA
Arizona	86.3	32.3	84.7	33.4	83.7	33.5	82.6	35.2
Arkansas	93.3	11.7	NA	9.5	66.0	10.0	56.0	11.3
California	55.7	11.8	43.1	10.8	43.6	12.0	33.6	10.8
Colorado	97.1	0.1	NA	NA	93.0	—	94.9	0.1
Connecticut	69.6	60.4	68.8	56.6	62.8	63.5	76.2	58.2
Delaware	100.0	18.1	100.0	21.8	100.0	24.4	100.0	22.7
District of Columbia	58.2	—	51.4	—	53.1	—	49.8	—
Florida	92.0	3.6	96.1	4.0	95.0	3.7	94.6	3.3
Georgia	85.4	10.1	81.9	12.5	77.6	10.7	75.3	9.5
Hawaii	100.0	—	100.0	—	100.0	—	100.0	—
Idaho	89.4	3.6	86.1	2.6	85.8	3.6	83.7	2.2
Illinois	46.9	10.9	46.9	8.5	44.0	11.4	44.1	9.1
Indiana	NA	NA	NA	NA	NA	8.7	75.5	NA
Iowa	86.7	9.2	82.1	10.0	88.3	10.4	82.9	10.1
Kansas	NA	NA	67.6	NA	58.9	NA	59.9	NA
Kentucky	90.3	NA	86.6	14.5	88.4	19.6	87.0	17.2
Louisiana	96.2	13.9	NA	NA	78.4	23.9	76.4	15.5
Maine	100.0	93.8	NA	NA	100.0	84.2	NA	NA
Maryland	39.3	5.9	37.6	6.3	36.7	9.8	54.1	8.7
Massachusetts	NA	NA	NA	NA	NA	NA	59.7	NA
Michigan	67.3	16.2	58.2	6.5	63.6	9.6	56.3	8.7
Minnesota	96.6	37.9	95.4	40.7	96.5	38.3	95.6	37.2
Mississippi	NA	NA	R94.1	NA	95.8	34.8	R94.7	34.8
Missouri	85.5	26.3	77.9	R17.6	78.6	21.2	73.7	17.7
Montana	83.5	3.5	NA	2.6	79.9	2.4	78.1	2.3
Nebraska	59.8	23.5	NA	17.9	50.7	26.9	NA	20.9
Nevada	72.6	31.4	71.1	5.5	70.9	35.4	64.6	29.5
New Hampshire	95.5	24.2	NA	NA	95.3	24.4	NA	NA
New Jersey	NA	NA	NA	NA	NA	NA	NA	NA
New Mexico	66.7	NA	62.5	12.6	75.9	4.1	66.6	11.0
New York	NA	NA	NA	NA	NA	NA	NA	NA
North Carolina	97.0	41.1	88.8	25.4	88.4	25.9	85.2	27.1
North Dakota	92.4	18.4	84.2	14.2	87.5	18.9	86.5	19.3
Ohio	57.0	4.1	NA	NA	49.3	3.1	49.7	2.5
Oklahoma	83.2	5.7	73.1	3.5	72.5	5.0	65.2	3.6
Oregon	99.1	16.9	NA	NA	99.1	14.8	99.0	15.6
Pennsylvania	66.5	14.6	NA	13.4	64.1	13.4	61.0	13.5
Rhode Island	59.4	24.4	NA	NA	53.7	38.3	53.4	41.9
South Carolina	97.6	84.8	97.6	86.8	96.7	86.7	96.4	86.6
South Dakota	86.6	51.8	84.1	R34.0	84.6	R46.2	84.4	R45.0
Tennessee	89.7	25.4	NA	NA	85.2	26.0	81.5	25.0
Texas	71.0	13.8	60.3	14.1	61.7	12.8	64.0	13.5
Utah	85.8	12.2	82.5	8.9	85.2	10.0	82.2	10.9
Vermont	100.0	81.4	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	76.4	20.7	70.8	R12.5	74.2	14.8	69.6	R15.7
Washington	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	49.9	5.5	NA	NA	50.9	7.1	38.6	NA
Wisconsin	80.6	25.4	71.1	R19.4	76.7	20.9	69.9	20.5
Wyoming	96.5	4.3	NA	NA	97.7	3.1	NA	2.2
Total	**71.6**	**16.4**	**64.3**	**14.8**	**65.5**	**16.9**	**R62.1**	**R15.4**

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1997-1999 — Continued

State	1998							
	October		September		August		July	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	63.6	14.7	69.1	14.2	72.0	12.9	71.8	14.5
Alaska	56.1	100.0	54.9	NA	57.0	NA	56.0	96.5
Arizona	79.5	36.6	83.4	33.3	82.7	32.6	84.1	32.8
Arkansas	45.5	11.4	44.2	10.4	46.1	8.7	48.8	7.7
California	32.4	11.6	28.4	9.3	24.6	8.2	31.4	9.5
Colorado	85.2	0.2	85.8	—	91.3	R1.1	NA	NA
Connecticut	61.4	54.1	55.3	59.6	58.1	51.5	62.4	57.1
Delaware	100.0	17.8	100.0	17.5	100.0	11.3	100.0	17.8
District of Columbia	37.5	—	36.5	—	35.4	—	40.4	—
Florida	95.1	3.2	96.5	3.9	96.3	6.1	96.0	4.2
Georgia	72.2	9.4	71.1	14.4	68.9	7.0	68.9	5.1
Hawaii	100.0	—	100.0	—	100.0	—	100.0	—
Idaho	74.9	2.6	80.3	2.5	83.1	3.5	83.9	2.7
Illinois	40.5	8.2	43.2	7.0	37.9	6.0	35.4	4.9
Indiana	70.1	NA	NA	NA	60.2	NA	NA	NA
Iowa	76.2	7.2	76.8	6.4	79.7	5.2	69.6	5.3
Kansas	58.5	5.4	55.4	10.9	59.9	11.2	58.8	13.5
Kentucky	82.3	13.0	81.6	12.0	78.9	11.6	76.4	15.2
Louisiana	NA	NA	68.4	8.8	69.5	7.5	69.7	6.9
Maine	100.0	86.8	100.0	87.1	100.0	85.7	100.0	84.1
Maryland	25.6	R8.3	23.1	3.5	22.7	7.2	22.2	2.7
Massachusetts	47.6	26.5	NA	NA	51.3	18.1	48.4	16.8
Michigan	45.9	5.1	41.1	5.0	35.9	3.8	38.1	4.4
Minnesota	97.5	35.5	98.3	78.1	98.1	36.9	97.2	34.8
Mississippi	R94.3	R33.8	93.8	27.1	96.2	NA	94.3	NA
Missouri	65.7	12.3	69.2	12.7	43.6	R12.0	65.6	R16.0
Montana	73.9	1.6	68.2	0.9	73.4	1.2	69.1	0.7
Nebraska	80.1	15.9	75.1	40.8	81.5	10.4	65.6	5.7
Nevada	63.7	27.4	56.6	20.7	56.4	19.1	66.3	4.0
New Hampshire	93.1	21.5	91.9	21.5	NA	NA	89.1	34.9
New Jersey	NA	NA	NA	NA	50.0	33.4	47.4	25.6
New Mexico	52.4	7.9	45.9	12.9	45.9	15.1	46.7	17.9
New York	NA	NA	NA	NA	45.7	NA	49.6	NA
North Carolina	80.3	21.1	82.3	18.0	83.8	21.3	83.3	26.4
North Dakota	81.1	21.5	68.6	13.4	67.7	8.3	80.8	11.0
Ohio	NA	1.5	41.7	1.2	35.3	0.8	NA	NA
Oklahoma	57.4	1.8	57.9	1.8	56.4	1.8	55.4	2.1
Oregon	98.4	12.2	98.7	12.0	98.7	R12.2	98.9	R12.8
Pennsylvania	54.4	11.4	57.4	12.1	NA	11.6	51.4	12.3
Rhode Island	49.2	34.6	49.3	33.7	100.0	34.2	48.5	31.2
South Carolina	96.4	87.5	96.7	88.3	96.8	88.1	97.4	87.5
South Dakota	95.7	33.9	73.5	20.8	74.8	17.1	75.4	22.5
Tennessee	68.2	14.9	66.7	19.9	63.0	21.3	63.7	20.3
Texas	47.7	15.1	57.7	15.8	54.4	14.7	48.8	12.1
Utah	80.2	10.2	77.6	9.2	71.6	8.7	70.7	7.5
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	61.6	R8.7	57.6	8.5	50.8	13.2	69.4	8.4
Washington	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	29.7	8.1	28.9	NA	25.6	NA	7.6	96.9
Wisconsin	67.7	16.5	40.0	R15.5	48.0	R12.8	45.1	12.6
Wyoming	82.5	2.0	83.8	2.5	91.8	NA	NA	NA
Total	**55.0**	**14.1**	**52.9**	**14.4**	**49.5**	**R13.5**	**51.0**	**12.7**

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1997-1999 — Continued

State	1998							
	June		May		April		March	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	74.7	14.5	35.4	13.3	80.2	14.8	77.8	17.4
Alaska	53.6	100.0	55.9	100.0	57.4	100.0	57.6	100.0
Arizona	86.2	33.8	83.3	35.8	84.9	32.7	86.7	34.0
Arkansas	NA	9.0	88.7	9.0	89.5	9.1	93.9	10.2
California	52.9	11.2	48.3	11.7	52.7	10.9	71.1	16.5
Colorado	91.8	NA	95.0	1.0	95.8	0.8	96.0	1.2
Connecticut	61.2	52.9	76.3	55.7	62.3	61.9	71.2	59.4
Delaware	100.0	19.3	100.0	19.5	100.0	23.3	100.0	27.9
District of Columbia	41.9	—	47.7	—	52.5	—	60.1	—
Florida	96.6	4.3	96.7	3.5	96.8	4.5	96.2	4.4
Georgia	79.0	15.1	82.0	15.7	85.5	13.4	87.5	17.2
Hawaii	100.0	—	100.0	—	100.0	—	100.0	—
Idaho	85.3	1.8	85.4	2.2	86.4	2.2	88.1	2.0
Illinois	45.8	5.2	34.8	6.8	44.3	9.1	55.3	10.6
Indiana	NA	4.2	76.7	6.2	R87.9	11.4	88.6	12.3
Iowa	70.3	4.9	87.3	5.4	82.8	19.9	72.1	22.8
Kansas	54.2	10.8	67.5	7.7	69.5	5.6	76.9	5.5
Kentucky	82.6	13.8	84.2	14.7	85.7	14.7	90.0	13.1
Louisiana	NA	7.0	96.5	7.3	98.1	7.2	58.2	9.8
Maine	100.0	87.9	100.0	84.1	100.0	97.9	100.0	97.9
Maryland	25.2	3.8	27.8	6.7	32.2	2.3	45.7	8.3
Massachusetts	46.3	NA	52.8	28.8	60.0	27.5	65.5	29.0
Michigan	40.8	4.8	42.2	5.9	58.3	9.6	64.3	12.1
Minnesota	98.2	41.1	98.5	35.1	96.1	38.9	96.2	48.8
Mississippi	94.9	NA	93.6	NA	93.3	NA	89.6	NA
Missouri	69.4	13.0	75.7	14.0	82.0	17.4	83.3	21.5
Montana	75.3	4.4	NA	1.2	79.4	2.2	83.1	3.5
Nebraska	66.3	13.5	74.0	14.8	71.5	21.3	77.3	24.0
Nevada	70.9	4.6	71.9	4.8	73.2	5.8	75.9	7.1
New Hampshire	NA	32.7	94.3	38.9	96.2	47.0	96.1	39.1
New Jersey	51.5	27.7	46.0	26.4	55.2	29.2	62.4	29.5
New Mexico	39.7	13.9	48.8	10.0	57.3	6.5	66.7	1.5
New York	47.4	6.9	NA	NA	58.1	10.1	NA	10.1
North Carolina	82.5	24.3	86.7	26.9	90.6	31.2	91.1	26.6
North Dakota	82.1	10.4	79.2	6.1	80.0	12.3	87.0	17.0
Ohio	44.7	1.3	41.4	1.5	53.9	2.7	60.1	3.2
Oklahoma	63.6	2.2	70.4	2.9	75.0	4.9	77.7	5.2
Oregon	98.9	14.9	98.8	15.0	NA	NA	NA	NA
Pennsylvania	54.9	12.7	59.4	13.2	NA	13.3	57.7	14.2
Rhode Island	53.3	33.4	58.6	NA	NA	41.2	64.7	49.9
South Carolina	97.4	88.2	98.2	87.7	98.4	86.0	98.2	84.9
South Dakota	72.8	24.9	65.9	15.8	93.7	56.2	85.6	37.9
Tennessee	66.6	23.3	77.4	23.9	75.8	29.3	93.1	28.1
Texas	63.8	15.2	55.9	14.1	59.8	14.5	61.3	15.2
Utah	75.6	9.1	73.7	8.9	82.5	7.9	81.2	8.6
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	66.8	9.3	70.0	13.0	70.9	11.2	73.4	19.2
Washington	NA	NA	NA	NA	NA	NA	NA	NA
West Virginia	NA	8.2	29.0	8.5	50.3	5.8	51.9	6.1
Wisconsin	52.4	15.5	53.8	15.1	72.9	19.3	77.6	23.4
Wyoming	NA	2.3	89.8	1.8	92.1	3.4	87.4	NA
Total	**59.6**	**13.9**	**60.0**	**13.8**	**R66.8**	**14.9**	**71.5**	**16.6**

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1997-1999 — Continued

State	1998				1997			
	February		January		Total		December	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	80.1	17.8	76.7	19.4	64.7	24.6	80.9	27.9
Alaska	60.0	100.0	59.9	100.0	54.5	97.8	54.2	100.0
Arizona	87.2	27.7	86.9	32.3	84.6	25.1	85.2	33.0
Arkansas	95.3	10.9	95.5	10.5	94.2	10.5	95.9	10.4
California	54.3	8.7	58.1	11.0	50.7	8.9	52.9	9.3
Colorado	95.2	1.2	95.4	2.5	92.8	23.6	93.0	23.7
Connecticut	78.2	57.8	78.4	61.0	81.9	66.4	77.0	61.7
Delaware	100.0	28.6	100.0	26.4	100.0	31.0	100.0	28.1
District of Columbia	59.0	—	60.2	—	54.9	100.0	55.9	100.0
Florida	96.3	4.0	96.3	4.5	97.5	10.0	96.0	8.4
Georgia	90.3	16.7	88.7	16.5	89.1	26.7	91.6	32.7
Hawaii	100.0	—	100.0	—	100.0	100.0	100.0	100.0
Idaho	88.7	3.0	90.0	2.5	86.1	2.0	86.6	2.0
Illinois	50.4	9.8	53.7	10.7	54.3	11.5	52.1	11.9
Indiana	84.6	11.1	85.7	11.2	89.8	16.0	94.1	15.4
Iowa	88.7	7.1	87.4	7.4	88.2	8.6	89.3	9.3
Kansas	73.6	5.3	71.9	5.1	70.7	9.5	73.3	7.5
Kentucky	86.5	17.2	90.0	12.3	90.0	19.2	91.3	17.6
Louisiana	60.9	6.0	74.1	5.4	95.9	10.1	96.5	7.9
Maine	100.0	97.9	100.0	97.9	100.0	91.4	100.0	88.7
Maryland	49.5	10.6	47.1	3.4	67.1	7.4	52.7	1.1
Massachusetts	61.4	32.5	64.3	30.3	62.6	20.2	68.5	19.2
Michigan	65.2	12.6	69.5	13.5	63.7	9.0	65.6	11.8
Minnesota	93.3	37.4	91.9	45.0	98.8	40.4	98.5	40.9
Mississippi	94.8	38.5	95.3	NA	94.8	39.6	95.0	41.1
Missouri	85.4	24.0	85.2	23.7	79.9	21.8	82.6	23.3
Montana	83.1	4.3	88.3	4.7	91.4	3.1	92.8	3.7
Nebraska	78.0	23.2	79.9	30.1	74.2	27.0	77.2	25.6
Nevada	79.8	15.3	77.3	7.2	71.4	1.8	72.7	2.1
New Hampshire	96.2	37.2	96.4	30.4	92.4	48.8	93.9	32.4
New Jersey	62.1	34.6	59.4	31.7	56.2	47.0	52.0	49.0
New Mexico	63.8	1.8	71.1	8.2	74.6	5.7	81.5	7.8
New York	NA	NA	NA	NA	64.7	8.5	67.8	10.3
North Carolina	93.1	27.3	93.4	27.6	94.4	45.5	95.7	35.7
North Dakota	84.9	17.1	89.1	17.6	88.9	18.5	84.4	15.3
Ohio	60.2	4.7	60.5	4.5	65.6	5.7	67.1	7.3
Oklahoma	83.2	5.2	81.1	6.3	81.8	4.7	81.8	5.4
Oregon	99.2	15.3	99.3	19.7	98.5	16.3	98.4	16.0
Pennsylvania	57.2	15.2	58.7	16.3	63.6	14.2	63.9	15.3
Rhode Island	71.6	38.5	64.5	39.7	80.5	17.5	64.0	11.4
South Carolina	98.4	85.4	98.1	85.8	98.8	86.9	98.0	84.7
South Dakota	85.7	45.9	86.5	45.2	83.3	24.1	86.0	34.2
Tennessee	87.8	25.5	NA	NA	92.2	38.3	92.9	35.3
Texas	71.6	15.5	68.3	12.3	61.4	17.3	68.3	14.6
Utah	89.1	8.5	85.7	7.8	83.3	8.9	86.1	8.2
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	76.7	14.6	74.4	18.7	77.9	13.0	71.3	19.4
Washington	NA	NA	NA	NA	84.1	23.5	93.4	19.3
West Virginia	55.5	6.1	56.0	6.4	54.6	12.2	58.9	11.7
Wisconsin	80.3	23.8	85.4	26.0	82.1	27.1	83.1	26.6
Wyoming	80.3	NA	NA	1.5	84.2	2.5	96.2	2.7
Total	**70.9**	**15.3**	**72.0**	**15.1**	**70.8**	**17.7**	**72.8**	**17.2**

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1997-1999 — Continued

State	1997							
	November		October		September		August	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	69.1	26.4	51.0	24.5	40.8	24.3	31.8	24.7
Alaska	51.9	100.0	52.2	100.0	49.9	100.0	45.0	92.8
Arizona	83.2	31.2	81.1	30.2	83.9	29.5	78.7	29.3
Arkansas	90.4	11.2	92.6	9.7	91.3	8.3	91.8	7.3
California	49.4	7.4	41.9	6.1	41.0	8.6	41.7	7.2
Colorado	89.8	25.1	86.9	28.3	90.2	24.6	83.1	23.6
Connecticut	71.1	65.9	68.6	65.9	75.0	64.2	80.2	60.8
Delaware	100.0	28.0	100.0	29.9	100.0	27.7	100.0	28.4
District of Columbia	60.4	100.0	44.5	100.0	35.5	100.0	38.8	100.0
Florida	96.4	8.1	97.5	8.8	97.8	8.9	97.9	9.3
Georgia	88.6	27.6	85.6	30.8	82.9	15.5	81.9	26.1
Hawaii	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Idaho	83.2	1.8	76.4	1.5	82.5	1.7	82.9	1.4
Illinois	52.5	9.4	50.4	9.1	47.7	12.1	40.3	6.2
Indiana	96.0	22.6	93.9	16.1	87.2	10.3	86.8	9.5
Iowa	85.0	13.4	80.1	11.5	77.9	6.7	85.1	6.7
Kansas	66.0	9.9	73.6	9.9	57.3	10.9	52.2	11.9
Kentucky	89.9	18.7	89.9	19.5	84.9	16.3	80.3	14.4
Louisiana	95.1	9.3	94.7	9.9	94.3	9.0	95.1	9.9
Maine	100.0	91.4	100.0	88.4	100.0	86.7	100.0	87.6
Maryland	64.7	3.3	51.8	7.0	48.6	2.7	50.4	6.4
Massachusetts	62.9	21.0	48.7	16.8	43.8	16.6	41.3	13.6
Michigan	64.8	9.5	54.2	4.0	39.7	2.7	40.7	3.4
Minnesota	99.1	42.9	98.6	38.7	97.7	42.0	98.2	34.8
Mississippi	94.0	38.0	91.2	40.2	91.0	42.9	93.6	38.6
Missouri	78.3	23.8	68.6	19.7	68.3	22.6	68.4	17.0
Montana	90.5	2.8	88.1	2.3	85.7	1.9	87.5	1.9
Nebraska	72.3	41.2	50.0	22.2	63.2	26.5	69.2	18.6
Nevada	67.9	1.6	65.9	1.2	63.0	1.1	63.2	1.6
New Hampshire	89.1	34.2	85.7	44.2	87.2	49.6	88.1	47.0
New Jersey	48.2	48.3	47.0	42.8	47.2	43.6	47.8	57.0
New Mexico	78.0	6.8	67.0	4.6	63.3	7.0	63.7	8.8
New York	65.7	10.0	59.3	7.6	56.2	7.4	54.7	7.7
North Carolina	99.4	81.7	98.2	73.8	86.9	25.2	85.0	21.1
North Dakota	90.5	17.7	83.2	11.9	72.5	8.4	65.5	12.6
Ohio	67.3	6.1	55.1	2.7	50.5	2.2	49.3	2.9
Oklahoma	71.4	4.3	76.9	3.1	69.9	3.2	68.1	3.0
Oregon	98.4	14.5	97.5	14.1	98.0	12.1	98.3	11.4
Pennsylvania	63.8	14.8	50.1	12.6	57.8	12.1	58.4	12.4
Rhode Island	80.7	13.5	71.1	21.1	68.7	17.1	67.9	20.7
South Carolina	100.0	89.1	99.9	89.8	98.8	87.5	97.0	85.3
South Dakota	84.0	37.4	68.3	17.8	59.9	14.0	72.1	12.6
Tennessee	95.0	39.8	89.9	37.3	85.3	33.1	84.9	29.4
Texas	63.7	14.1	55.0	14.7	52.9	15.2	51.7	15.4
Utah	83.1	9.5	80.2	8.9	74.8	11.7	71.7	7.7
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	90.2	28.8	71.2	18.6	70.8	10.0	65.3	6.4
Washington	54.5	24.0	90.6	25.0	78.9	19.2	87.7	17.8
West Virginia	53.4	12.7	38.7	12.8	32.7	12.0	25.2	11.6
Wisconsin	85.9	27.6	69.3	24.3	62.9	21.3	55.4	19.6
Wyoming	88.2	1.8	87.9	2.7	87.2	3.1	84.9	2.7
Total	**70.4**	**18.0**	**62.9**	**16.8**	**59.5**	**15.1**	**57.9**	**15.6**

See footnotes at end of table.

Table 25. Percentage of Total Deliveries Represented by Onsystem Sales, by State, 1997-1999 — Continued

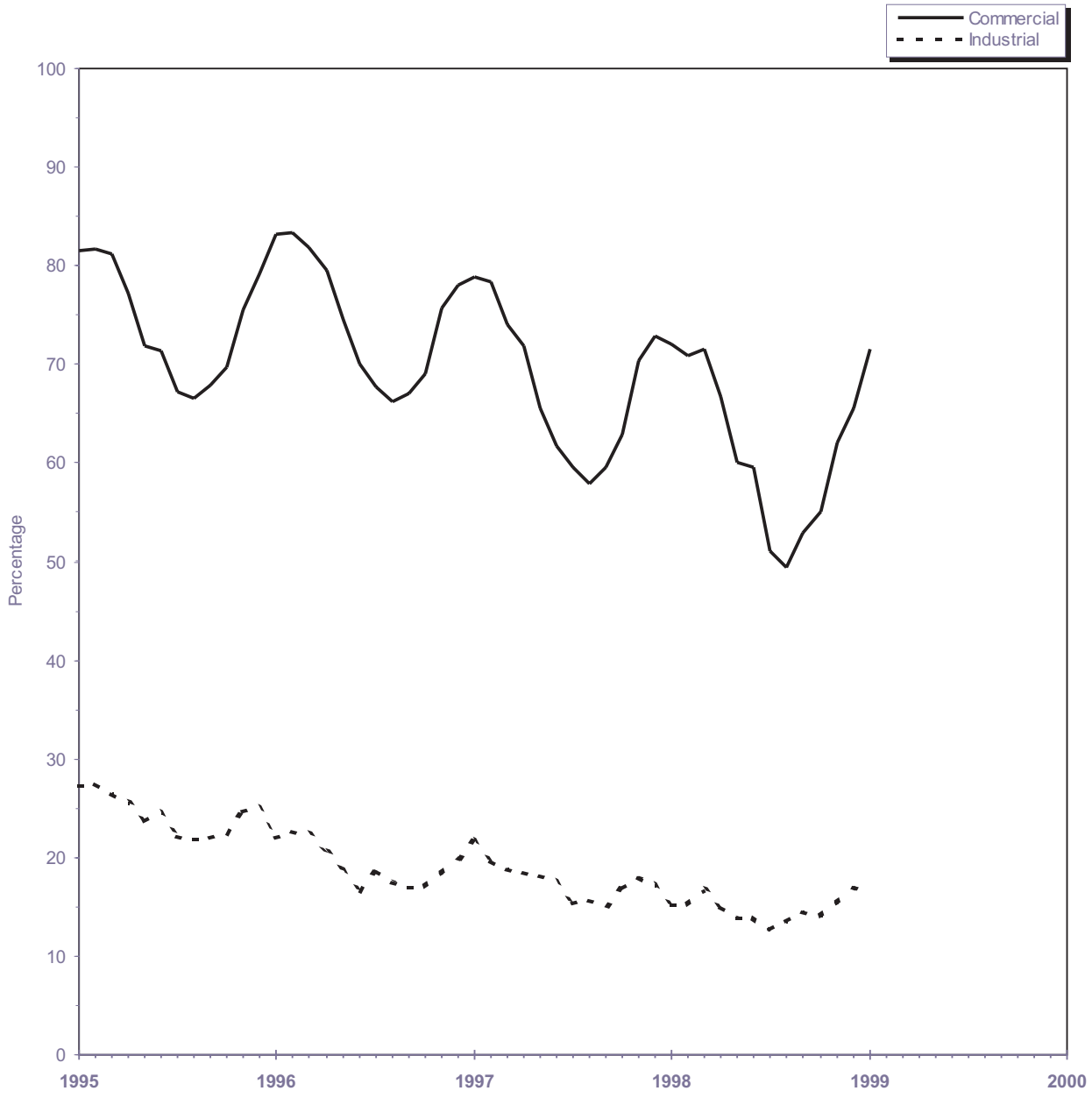
State	1997							
	July		June		May		April	
	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial	Commercial	Industrial
Alabama	29.1	25.5	57.7	23.1	63.4	23.9	66.9	22.8
Alaska	49.9	91.4	50.4	99.0	54.8	99.0	57.1	98.7
Arizona	79.8	30.5	82.7	18.2	86.1	17.5	83.9	19.6
Arkansas	90.3	8.5	91.1	9.8	91.8	11.2	93.8	10.8
California	45.8	7.3	48.7	8.4	50.3	12.4	52.8	10.0
Colorado	86.2	33.3	92.9	25.7	93.7	24.1	93.9	28.5
Connecticut	76.0	62.2	79.7	62.5	80.3	64.4	87.2	67.1
Delaware	100.0	28.4	100.0	29.1	100.0	35.4	100.0	36.8
District of Columbia	43.9	100.0	46.7	100.0	53.7	100.0	48.4	100.0
Florida	97.7	9.5	98.2	10.6	98.3	9.8	98.3	10.7
Georgia	81.0	27.6	84.3	22.5	85.4	21.5	88.5	25.5
Hawaii	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Idaho	83.2	2.0	83.3	2.3	86.5	2.5	86.1	2.1
Illinois	46.7	4.0	55.8	17.0	48.4	15.9	54.1	9.8
Indiana	85.4	11.0	59.4	11.3	58.0	11.7	91.1	12.9
Iowa	75.8	6.1	92.7	5.8	83.8	6.1	93.5	8.1
Kansas	54.0	9.2	65.4	8.2	67.1	9.4	72.6	9.4
Kentucky	84.0	15.4	88.6	16.8	86.3	19.4	89.0	18.5
Louisiana	95.2	9.9	95.2	10.4	95.3	11.2	95.5	9.5
Maine	100.0	100.0	100.0	87.4	100.0	90.3	100.0	90.5
Maryland	51.6	4.4	56.1	8.6	62.0	15.9	71.5	2.2
Massachusetts	46.0	14.4	48.5	21.6	69.9	19.3	74.1	25.0
Michigan	55.7	3.7	45.7	5.1	58.6	7.7	66.2	10.3
Minnesota	98.4	36.2	98.7	37.9	98.9	39.5	98.9	42.2
Mississippi	96.1	35.0	92.5	38.2	92.5	43.3	93.2	38.1
Missouri	68.3	18.4	71.3	19.0	76.9	24.2	80.7	17.0
Montana	90.5	1.7	88.8	2.2	90.3	2.1	91.2	4.5
Nebraska	67.6	41.2	68.6	20.6	67.0	25.8	77.5	21.8
Nevada	73.3	1.8	61.0	1.8	64.8	1.8	69.3	2.1
New Hampshire	87.0	50.6	90.7	53.3	91.6	58.5	92.0	61.7
New Jersey	44.8	42.1	50.1	41.4	45.7	43.3	55.9	49.6
New Mexico	63.9	8.9	54.0	3.9	68.1	5.3	66.9	1.4
New York	53.3	6.0	53.6	5.8	59.1	7.0	67.8	8.5
North Carolina	85.2	24.3	97.6	46.3	89.4	26.5	88.0	26.5
North Dakota	81.5	13.9	79.1	11.0	88.1	18.2	91.7	16.5
Ohio	47.5	2.9	50.2	2.8	58.9	4.6	65.7	4.7
Oklahoma	74.1	3.9	75.5	2.1	80.6	4.2	82.8	3.8
Oregon	98.3	13.3	98.1	16.7	98.5	17.3	98.5	20.4
Pennsylvania	55.8	10.9	56.4	13.1	50.1	13.2	66.2	14.1
Rhode Island	71.1	15.2	72.4	18.6	80.8	18.8	88.5	23.9
South Carolina	99.9	91.1	100.0	90.0	100.0	89.3	96.0	81.4
South Dakota	78.3	12.0	83.7	11.4	80.7	17.3	85.7	22.6
Tennessee	85.2	35.1	81.6	38.7	90.5	50.5	92.6	39.4
Texas	51.2	15.0	55.0	20.4	55.8	19.2	58.2	21.3
Utah	72.8	8.0	77.0	9.1	78.8	8.7	83.7	9.0
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	63.6	7.0	66.2	10.3	75.1	8.8	75.3	16.2
Washington	86.2	21.7	87.0	26.2	87.7	21.6	89.3	27.6
West Virginia	26.8	12.1	31.9	11.5	47.2	11.6	52.9	7.3
Wisconsin	67.9	18.8	60.6	18.4	77.4	26.1	83.3	24.4
Wyoming	43.9	2.8	67.8	2.5	87.1	2.4	76.0	2.6
Total	**59.5**	**15.3**	**61.7**	**17.4**	**65.5**	**18.1**	**71.8**	**18.4**

R Revised Data.
NA Not Available.
— Not Applicable.

Notes: Volumes of natural gas reported for the commercial and industrial sectors in this publication include data for both sales and deliveries for the account of others. This table shows the percent of the total State volume that represents natural gas sales to the commercial and industrial sectors. This information may be helpful in evaluating commercial and industrial price data which are based on sales data only. See Appendix C, Statistical Considerations, for a discussion of the computation of natural gas prices.

Source: Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Figure 6. Percentage of Total Deliveries Represented by Onsystem Sales, 1995-1999



Sources: Energy Information Administration, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers" and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Table 26. Gas Home Customer-Weighted Heating Degree Days

Census Divisions	November 1 through November 30					December 1 through December 31				
	Normal[a]	1997	1998	Percent Change		Normal[a]	1997	1998	Percent Change	
				Normal to 1998	1997 to 1998				Normal to 1998	1997 to 1998
New England										
CT, ME, MA, NH, RI, VT	693	784	711	2.6	-9.3	1,073	1,028	907	-15.5	-11.8
Middle Atlantic										
NJ, NY, PA	646	729	618	-4.3	-15.2	1,010	948	818	-19.0	-13.7
East North Central										
IL, IN, MI, OH, WI	730	829	642	-12.1	-22.6	1,142	1,052	957	-16.2	-9.0
West North Central										
IA, KS, MN, MO, ND, NE, SD	788	892	673	-14.6	-24.6	1,235	1,090	1,084	-12.2	-0.6
South Atlantic										
DE, FL, GA, MD and DC, NC, SC, VA, WV	421	519	391	-7.1	-24.7	696	708	576	-17.2	-18.6
East South Central										
AL, KY, MS, TN	431	546	362	-16.0	-33.7	717	778	617	-13.9	-20.7
West South Central										
AR, LA, OK, TX	280	359	190	-32.1	-47.1	534	590	502	-6.0	-14.9
Mountain										
AZ, CO, ID, MT, NV, NM, UT, WY	715	737	651	-9.0	-11.7	1,006	1,039	1,008	0.2	-3.0
Pacific[b]										
CA, OR, WA	341	276	382	12.0	38.4	519	504	577	11.2	14.5
U.S. Average[b]	559	621	511	-8.6	-17.7	881	845	781	-11.4	-7.6

	January 1 through January 31					February 1 through February				
	Normal[a]	1998	1999	Percent Change		Normal[a]	1998	1999	Percent Change	
				Normal to 1999	1998 to 1999				Normal to 1999	1998 to 1999
New England										
CT, ME, MA, NH, RI, VT	1,222	1,014	1,179	-3.5	16.3	1,053	867	938	-10.9	8.2
Middle Atlantic										
NJ, NY, PA	1,168	894	1,095	-6.3	22.5	999	778	880	-11.9	13.1
East North Central										
IL, IN, MI, OH, WI	1,314	1,037	1,273	-3.1	22.8	1,092	774	876	-19.8	13.2
West North Central										
IA, KS, MN, MO, ND, NE, SD	1,384	1,175	1,332	-3.8	13.4	1,095	796	820	-25.1	3.0
South Atlantic										
DE, FL, GA, MD and DC, NC, SC, VA, WV	809	619	670	-17.2	8.2	652	532	568	-12.9	6.8
East South Central										
AL, KY, MS, TN	843	634	652	-22.7	2.8	656	521	508	-22.6	-2.5
West South Central										
AR, LA, OK, TX	631	440	459	-27.3	4.3	457	377	249	-45.5	-34.0
Mountain										
AZ, CO, ID, MT, NV, NM, UT, WY	1,052	926	913	-13.2	-1.4	820	808	722	-12.0	-10.6
Pacific[b]										
CA, OR, WA	526	472	516	-1.9	9.3	401	426	442	10.2	3.8
U.S. Average[b]	995	797	917	-7.8	15.1	806	641	672	-16.6	4.8

See footnotes at end of table.

Table 26. Gas Home Customer-Weighted Heating Degree Days — Continued

Census Divisions	March 1 through March 31					Cumulative November 1 through March 31				
	Normal[a]	1998	1999	Percent Change		Normal[a]	1998	1999	Percent Change	
				Normal to 1999	1998 to 1999				Normal to 1999	1998 to 1999
New England										
CT, ME, MA, NH, RI, VT	892	809	858	-3.8	6.1	4,933	4,502	4,593	-6.9	2.0
Middle Atlantic										
NJ, NY, PA	818	744	840	2.7	12.9	4,641	4,093	4,251	-8.4	3.9
East North Central										
IL, IN, MI, OH, WI	867	821	927	6.9	12.9	5,145	4,513	4,675	-9.1	3.6
West North Central										
IA, KS, MN, MO, ND, NE, SD	853	926	825	-3.3	-10.9	5,355	4,879	4,734	-11.6	-3.0
South Atlantic										
DE, FL, GA, MD and DC, NC, SC, VA, WV	473	509	558	18.0	9.6	3,051	2,887	2,763	-9.4	-4.3
East South Central										
AL, KY, MS, TN	455	491	537	18.0	9.4	3,102	2,970	2,676	-13.7	-9.9
West South Central										
AR, LA, OK, TX	284	329	249	-12.3	-24.3	2,186	2,095	1,649	-24.6	-21.3
Mountain										
AZ, CO, ID, MT, NV, NM, UT, WY	730	751	630	-13.7	-16.1	4,323	4,261	3,924	-9.2	-7.9
Pacific[b]										
CA, OR, WA	398	397	485	21.9	22.2	2,185	2,075	2,402	9.9	15.8
U.S. Average[b]	647	640	678	4.8	5.9	3,888	3,544	3,559	-8.5	0.4

[a] Normal is based on calculations of data from 1961 through 1990.
[b] Excludes Alaska and Hawaii.

Note: See Appendix A, Explanatory Note 10 for discussion of Heating Degree-Days computations.
Sources: National Oceanic and Atmospheric Administration.

Appendix A

Explanatory Notes

The Energy Information Administration (EIA) publishes monthly data for the supply and disposition of natural gas in the United States in the *Natural Gas Monthly* (NGM). The information in this Appendix is provided to assist users in evaluating the monthly data. There is a brief description of what data are estimated and what data are taken from submitted reports, followed by ten technical notes that provide important information for individual data series.

The monthly data are preliminary when initially published. Data shown in this report for the most current months are taken from the EIA Short-Term Integrated Forecasting System (STIFS) model computations. Each month, EIA staff review the STIFS model estimates and adjust them, if necessary, based on their knowledge of new developments in the natural gas industry. Data for prior months are estimated or taken from submitted reports.

Table A1. Methodology for Reporting Initial Monthly Natural Gas Supply and Disposition Data

Components	Reporting Methodology
Supply and Disposition	
Marketed Production	Reported on Form EIA-895 and Estimated from Historical Data
Extraction Loss	Derived from Marketed Production
Dry Production	Marketed Production minus Extraction Loss
Withdrawals from Storage	Reported on Form EIA-191
Supplemental Gaseous Fuels	Derived from Supply Estimates and Coal Gasification Information
Imports	Estimated from National Energy Board of Canada Information and Liquefied Natural Gas Information
Additions to Storage	Reported on Form EIA-191
Exports	Estimated from Industry Trends and Liquefied Natural Gas Information
Current-Month Consumption	Estimated from Historical Month-to-Month Percent Changes
Consumption by Sector	
Lease and Plant Fuel	Derived from Marketed Production
Pipeline Fuel	Derived from Estimates for Lease and Plant Fuel and Deliveries to Consumers
Residential	Estimated from Reports to the Sample Survey Form EIA-857
Commercial	Estimated from Reports to the Sample Survey Form EIA-857
Industrial	Estimated form Reports to the Sample Survey Form EIA-857
Electric Utilities	Reported of Form EIA-759

For data that are not taken from STIFS computations, Table A1 below lists the methodologies for deriving the monthly data to be published.

The STIFS model contains a series of calculations that produce forecasts for all of the energy industry. It is driven primarily by three sets of inputs or assumptions: estimates of key macroeconomic variables, world oil price assumptions, and assumptions about the severity of weather. The natural gas estimates also reflect other key inputs or assumptions including gas wellhead prices, electric power generation by other energy sources, and U.S. gas import capacity. The macroeconomic variable estimates are produced by DRI/McGraw-Hill but are adjusted by EIA to reflect EIA assumptions about the world price of oil, energy product prices, and other assumptions which may affect the macroeconomic outlook. The EIA publishes forecasts for the energy industry each quarter in the *Short-Term Energy Outlook*.

For production, total supply and disposition, and storage data (Tables l, 2, and 9), the most current two months shown are estimates produced from STIFS computations, and data that are two months or more prior to the date of publication are estimated or taken from submitted reports. For example, in the March issue of the NGM, February and March data are taken from the STIFS model computations while January and prior months data are estimated from available data sources or reported directly on EIA forms. For consumption data by sector (Table 3), the most current three months shown are estimates produced from STIFS computations while data that are three months prior to date of publication are taken from EIA forms.

Note 1. Nonhydrocarbon Gases Removed

Annual Data

Data on nonhydrocarbon gases removed from marketed productioncarbon dioxide, helium, hydrogen sulfide, and nitrogenare reported by State agencies on the voluntary Form EIA-895. For 1995, of the 33 producing States, 22 reported data on nonhydrocarbon gases removed. The 22 States accounted for 60 percent of total 1995 gross withdrawals. Of the 22 States reporting nonhydrocarbon gases removed, 11 reported zero values: Alaska, Arizona, Arkansas, Colorado, Illinois, Maryland, Missouri, Nevada, New York, South Dakota, and Virginia. The ten States reporting volumes greater than zero are Alabama, California, Florida, Kentucky, Mississippi, Nebraska, New Mexico, North Dakota, Texas, and Wyoming. In addition, Kansas, Louisiana, Montana, and Oklahoma, which together accounted for 40 percent of gross withdrawals, did not report nonhydrocarbon gases removed separately. However, their gross withdrawal data excluded all or most of the nonhydrocarbon gases removed on leases. No estimates are made for States not reporting nonhydrocarbon gases removed.

Preliminary Monthly Data

All monthly data are considered preliminary until after publication of the *Natural Gas Annual* for the year in which the report month falls. Seven States report monthly data on nonhydrocarbon gases removed: Alabama, Arizona, Mississippi, New Mexico, North Dakota, Oregon and Texas. Monthly data for California, Colorado, Florida, and Wyoming are estimated based on annual data reported on Form EIA-895. Nonhydrocarbon gases as an annual percentage of gross withdrawals reported by each of the six States is applied to each State's monthly gross withdrawal data to produce an estimate of nonhydrocarbon gases removed.

Final Monthly Data

Beginning with report year 1990, States filing the Form EIA-627, "Annual Quantity and Value of Natural Gas Report," were asked to supply monthly breakdowns of all data previously reported on an annual basis. The sums of the reported figures were used to calculate monthly volumes. In 1997 the Form EIA-627 was discontinued. States were requested to file an annual schedule on the monthly Form EIA-895, "Monthly Quantity and Value of Natural Gas Report."

For States not supplying monthly data on the annual schedule of the EIA-895, final monthly data are calculated by proportionally allocating the differences between total annual data reported on the Form EIA-895 and the sum of monthly data (January-December).

Note 2. Supplemental Gaseous Fuels

Annual Data

Annual data are published from Form EIA-176.

Preliminary Monthly Data

All monthly data are considered preliminary until after the publication of the *Natural Gas Annual* for the year in which the report month falls. Monthly estimates are based on the annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. This ratio is applied to the monthly sum of these three elements to compute a monthly supplemental gaseous fuels figure.

Final Monthly Data

Monthly data are revised after publication of the *Natural Gas Annual*. Final monthly data are estimated based on the revised annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. This ratio is applied to the revised monthly sum of these three elements to compute final monthly data.

Note 3. Production

Annual Data

Natural gas production data are collected from 33 gas-producing States on Form EIA-895 which includes gross withdrawals, vented and flared, repressuring, nonhydrocarbon gases removed, fuel used on leases, marketed production (wet), and extraction loss. The U.S. Minerals Management Service (MMS) also supplies data on the quantity and value of natural gas production on the Gulf of Mexico and Outer Continental Shelf. No adjustments are made to the data.

Estimated Monthly Data

State marketed production data for a particular month are estimated if data are unavailable at the time of publication. The data are estimated based on final monthly data reported on the Form EIA-895 for the previous year.

Estimates for total U.S. marketed production are based on final monthly data reported on the Form EIA-895 for the previous year. State estimates for nonhydrocarbon gas removed, gas used for repressuring, and gas vented and flared are based on the ratio of the item to gross withdrawals as reported on the EIA-895. These ratios are applied to the month's estimates for gross withdrawals to calculate figures for nonhydrocarbon gases removed, gas used for repressuring, and gas vented and flared. Estimates for gross withdrawal data are calculated from final monthly data filed on Form EIA-895 for the previous year.

Preliminary Monthly Data

All monthly data are considered preliminary until after publication of the *Natural Gas Annual* for the year in which the report month falls. Preliminary monthly data are published from reports from the Form EIA-895 and the MMS. Volumetric data are converted, as necessary, to a standard 14.73 psia pressure base. Data are revised as Table 7 monthly data are updated.

Final Monthly Data

Final monthly data for 1993, 1994, and 1995 are the sums of monthly data reported on the annual Form EIA-627, "Annual Quantity and Value of Natural Gas Report." For prior years, the differences between each State's annual production data reported on the EIA-627 and the sum of its monthly IOGCC reports for the year were allocated proportionally to the monthly IOGCC data.

Note 4. Imports and Exports

Annual Data and Final Monthly Data

Annual and final monthly data are published from the Office of Fossil Energy, U.S. Department of Energy, *Natural Gas Imports and Exports*, which requires data to be reported each quarter by month for the calendar year.

Preliminary Monthly Data - Imports

Preliminary monthly import data are based on data from the National Energy Board of Canada and responses to informal industry contacts and EIA estimates. Preliminary data are revised after the publication of the article "U.S. Imports and Exports of Natural Gas" for the calendar year.

Preliminary Monthly Data - Exports

Preliminary monthly export data are based on historical data from the Office of Fossil Energy, U.S. De-

partment of Energy, *Natural Gas Imports and Exports*, informal industry contacts, and information gathered from natural gas industry trade publications. Preliminary monthly data are revised after publication of "U.S. Imports and Exports of Natural Gas" for the calendar year in which the report month falls.

Note 5. Consumption

All Annual Data

All consumption data except electric utility data are from the Form EIA-857 and Form EIA-176. No adjustments are made to the data. Electric utility data are reported on Form EIA-759.

Monthly Data

All monthly data are considered preliminary until after publication of the *Natural Gas Annual*.

Total Consumption

Preliminary Monthly Data

The most current month estimate is calculated based on the arithmetic average change from the previous month for the previous 3 years. The following month this estimate is revised by summing the components (pipeline fuel, lease and plant fuel, and deliveries to consumers).

Final Monthly Data

Monthly data are revised after publication of the *Natural Gas Annual*. Final monthly total consumption is obtained by summing its components.

Residential, Commercial, and Industrial Sector Consumption

Preliminary Monthly Data

Preliminary monthly residential, commercial, and industrial data are from Form EIA-857. See Appendix C, "Statistical Considerations," for a detailed explanation off sample selection and estimation procedures.

Average Price of Deliveries to Consumers

Price data are representative of prices for gas sold and delivered to residential, commercial, and industrial consumers. These prices do not reflect average prices of natural gas transported to consumers for the account of third parties or "spot-market" prices.

Final Monthly Data

Monthly data are revised after the publication of the *Natural Gas Annual*. Final monthly data are estimated by allocating annual consumption data from the Form EIA-176 to each month in proportion to monthly volumes reported in Form EIA-857.

Agricultural Use

Beginning with the reporting of 1996 annual data, the EIA changed the customer category used for reporting deliveries to consumers in the agricultural industry from commercial to industrial. In 1995 and earlier years, consumption of natural gas for agricultural use was classified as commercial use. Separate reports of the volumes affected are not available so the direct impact of this change is not known. Most natural gas consumed in agriculture is used to drive irrigation systems and to dry crops.

For the reporting of monthly data, the customer category will not be changed until 1998. In 1996, the monthly data reported under the old classification were adjusted to the annual data reported under the new classification. Monthly 1997 data will be adjusted in the same way as the 1996 data.

In comparing sectoral use over time, note that:

> There is an inherent shift in natural gas volumes from the commercial to industrial sectors due simply to changes in the reporting requirements. This break in series may indicate a spurious increase in industrial consumption with a corresponding decrease in the commercial sector.
>
> The sum of natural gas volumes consumed by the commercial and industrial sectors will not be changed by this modification of the instructions.

Electric Utility Sector Consumption

All Monthly Data

Monthly data published are from Form EIA-759.

Pipeline Fuel Consumption

Preliminary Monthly Data

Preliminary data are estimated based on the pipeline fuel consumption as an annual percentage of total consumption from the previous year's Form EIA-176. This percentage is applied to each month's total consumption figure to compute the monthly estimate.

Final Monthly Data

Monthly data are revised after the publication of the *Natural Gas Annual.* Final monthly data are based on the revised annual ratio of pipeline fuel consumption to total consumption from the Form EIA-176. This ratio is applied to each month's revised total consumption figure to compute final monthly pipeline fuel consumption estimates.

Lease and Plant Fuel Consumption

Preliminary Monthly Data

Preliminary monthly data are estimated based on lease and plant fuel consumption as an annual percentage of marketed production. This percentage is applied to each month's marketed production figure to compute estimated lease and plant fuel consumption.

Final Monthly Data

Monthly data are revised after publication of the *Natural Gas Annual.* Final monthly plant fuel data are based on a revised annual ratio of lease and plant fuel consumption to marketed production from Form EIA-176. This ratio is applied to each month's revised marketed production figure to compute final monthly plant fuel consumption estimates. Final monthly lease data are collected on the Form EIA-627 and estimates from the Form EIA-176. See the *Natural Gas Annual* for a complete discussion of this process.

Note 6. Extraction Loss

Annual Data

Extraction loss data are calculated from filings of Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production." For a fuller discussion, see the Natural Gas Annual.

Preliminary Monthly Data

Preliminary data are estimated based on extraction loss as an annual percentage of marketed production. This percentage is applied to each month's marketed production to estimate monthly extraction loss.

Final Monthly Data

Monthly data are revised after the publication of the *Natural Gas Annual.* Final monthly data are estimated by allocating annual extraction loss data to each month based on its total natural gas marketed production.

Note 7. Natural Gas Storage

Underground Natural Gas Storage

All monthly data concerning underground storage are published from the EIA-191. A new EIA-191 became effective in January 1994. Injection and withdrawal data from the EIA-191 survey are adjusted to correspond to data from Form EIA-176 following publication of the *Natural Gas Annual.*

Underground and Liquefied Natural Gas Storage

The final monthly and annual storage and withdrawal data for 1991 through 1995 shown in Table 2 include both underground and liquefied natural gas (LNG) storage. Underground storage data are obtained from the EIA-191 and EIA-176 surveys in the manner described earlier. Annual data on LNG additions and withdrawals are taken from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals and applying it to annual LNG data.

Types of Underground Storage Facilities

There are three principal types of underground storage facilities in operation in the United States today: salt caverns (caverns hollowed out in salt "bed" or

"dome" formations), depleted fields (depleted reservoirs in oil and / or gas fields), and aquifer reservoirs (water-only reservoirs conditioned to hold natural gas). A storage facility's daily deliverability or withdrawal capability is the amount of gas that can be withdrawn from it in a 24-hour period. Salt cavern storage facilities generally have high deliverability because all of the working gas in a given facility can be withdrawn in a relatively short period of time. (A typical salt cavern cycle is 10 days to deplete working gas, and 20 days to refill working gas.) By contrast, depleted field and aquifer reservoirs are designed and operated to withdraw all working gas over the course of an entire heating season (about 150 days). Further, while both traditional and salt cavern facilities can be switched from withdrawal to injection operations during the heating season, this is usually more quickly and easily done in salt cavern facilities, reflecting their greater operational flexibility.

Note 8. Average Wellhead Value

Annual Data

Form EIA-895 requests State agencies to report the quantity and value of marketed production. When complete data are unavailable, the form instructs the State agency to report the available value and the quantity of marketed production associated with this value. A number of States reported volumes of production and associated values for other than marketed production. In addition, information for several States which were unable to provide data was obtained from Form EIA-176. It should be noted that Form EIA-176 reports a fraction of State production. The imputed value of marketed production in each State is calculated by dividing the State's reported value by its associated production. This unit price is then applied to the quantity of the State's marketed production to derive the imputed value of marketed production.

Preliminary Monthly Data

Preliminary values for the monthly U.S. Natural gas wellhead price are estimated from the prevailing cash market prices at 5 major trading hubs: Henry Hub, LA; Carthage, TX; Katy, TX; Waha, TX; and Blanco, NM. These prices appear initially in the trade publication, *Natural Gas Week* , and they reflect the spot delivered-to-pipeline, volume-weighted average prices for natural gas bought and sold at the specified trading hubs. Prices include processing, gathering, and transportation fees to the hubs. The estimated wellhead prices are derived with a statistical procedure based on analysis of monthly time series data for the period 1995 through 1997. The preliminary estimates are replaced when annual survey data become available. This procedure was adopted beginning with publication of the February 1999 issue of the *Natural Gas Monthly* and it affects price estimates from January 1998 to the present.

Final Monthly Data

The Form EIA-895 requests State agencies to report monthly values of marketed production. Preliminary monthly gas price data are replaced by these final monthly data.

Note 9. Balancing Item

The "balancing item" category represents the difference between the sum of the components of natural gas supply and the sum of the components of natural gas disposition. These differences may be due to quantities lost or to the effects of data reporting problems.

Reporting problems include differences due to the net result of conversions of flow data metered at varying temperatures and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycles and calendar periods; and imbalances resulting from the merger of data reporting systems, which vary in scope, format, definitions, and type of respondents.

Annual Data

Annual data are from the *Natural Gas Annual*. For an explanation of the methodology involved in calculating annual "balancing item" data, see the *Natural Gas Annual*.

Preliminary Monthly Data

Preliminary monthly data in the "balancing item" category are calculated by subtracting dry gas production, withdrawals from storage, supplemental gaseous fuels, and imports from total supply / disposition.

Note 10. Heating Degree-Days

Degree-days are relative measurements of outdoor air temperature. Heating degree-days are deviations of the mean daily temperature below 65 degrees Fahrenheit. A weather station recording a mean daily temperature of 40 degrees Fahrenheit would report 25 heating degree-days. There are several degree-day data bases maintained by the National Oceanic and Atmospheric Administration. The information published in the Natural Gas Monthly is developed by the National Weather Service Climate Analysis Center, Camp Springs, Maryland.

The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at these weather stations is used to calculate Statewide degree-day averages weighted by gas home customers. The State figures are then aggregated into Census Divisions and into the national average.

Appendix B

Data Sources

The data in this publication are taken from survey reports authorized by the U.S. Department of Energy (DOE), Energy Information Administration (EIA) and by the Federal Energy Regulatory Commission (FERC). The EIA is the independent statistical and analytical agency within the DOE. The FERC is an independent regulatory commission within the DOE which has jurisdiction primarily in the regulation of electric utilities and the interstate natural gas industry. The EIA conducts and processes some of the surveys authorized by the FERC. Data are collected from two annual surveys and four monthly surveys.

The annual reports are the Form EIA-176, a mandatory survey of all companies that deliver natural gas to consumers or that transport gas across State lines, and the Form EIA-627, a voluntary survey completed by energy or conservation agencies in the gas-producing States.

The monthly reports include two surveys of the natural gas industry and two surveys of the electric utility industry. The natural gas industry survey is the Form EIA-191 filed by companies that operate underground storage facilities, and the Form EIA-857 filed by a sample of companies that deliver natural gas to consumers. The electric utility industry surveys are the Form EIA-759 filed by all generating electric utilities and the Form FERC-423 filed by fossil fueled plants. Responses to these four monthly surveys are mandatory.

A description of the survey respondents, reporting requirements, and processing and editing of the data is given on the following pages for each of the surveys.

Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"

Survey Design

The original version of Form EIA-176 was approved in 1980 with a mandatory response requirement. Prior to 1980, published data were based on voluntary responses to Bureau of Mines, U.S. Department of the Interior predecessor Forms BOM-6-1340-A and BOM-6-1341-A of the same title.

In 1982, the scope of the revised EIA-176 survey was expanded to collect the number of electric utility consumers in each State, volumes of gas transported to industrial and electric utility consumers, detailed information on volumes transported across State borders by the respondent for others and for the responding company, and detailed information on other disposition. These changes were incorporated to provide more complete survey information with a minimal change in respondent burden. The 1982 version of the Form EIA-176 continues to be the basis for the current version of this form.

In 1988, the Form EIA-176 was revised to include data collection for deliveries of natural gas to commercial and industrial consumers for the account of others. A short version of Form EIA-176 was also approved in 1988. Companies engaged in purchase and delivery activities but not in transportation and storage activities may file the short form. Usually, these companies are municipals handling small volumes of gas.

In 1990, the Form EIA-176 was revised to include more detailed information for gas withdrawn from storage facilities, gas added to storage facilities, deliveries of company-owned natural gas and natural gas transported for the account of others. The revised

form was approved for use beginning with report year 1990.

Upon the Office of Management and Budget's approval in 1993, the Form EIA-176 was again revised. All deliveries to consumers are now categorized as firm or interruptible. Commercial and industrial consumers are further categorized as nonutility power producers or as those excluding nonutility power producers.

Data reported on this form are no longer considered proprietary. Response to the form continues to be mandatory.

Survey Universe and Response Statistics

The Form EIA-176 is mailed to all identified interstate and intrastate natural gas pipeline companies, investor and municipally owned natural gas distributors, underground natural gas storage operators, synthetic natural gas plant operators, and field, well, or processing plant operators that deliver natural gas directly to consumers (including their own industrial facilities) and / or that transport gas to, across, or from a State border through field or gathering facilities.

Each company and its parent company or subsidiaries were required to file if they met the survey specifications. The original mailing in 1996 for report year 1995 totaled 1,991 questionnaire packages. To this original mailing, 11 names were added and 61 were deleted as a result of the survey processing. Additions were the result of comparisons of the mailing list to other survey mailing lists. Deletions resulted from post office returns and determinations that companies were out of business, sold, or not within the scope of the survey. After all updates, the survey universe was 1,941 responses from approximately 1,800 companies.

Following the original mailing, second request mailing, and nonrespondents follow-up, 1,911 responses were entered into the data base, and there were 30 nonrespondents.

Summary of Form EIA-176 Data Reporting Requirements

The EIA-176 is a multiline schedule for reporting all supplies of natural gas and supplemental gaseous fuels and their disposition within the State indicated. Respondents file completed forms with EIA in Washington, DC. Data for the report year are due by April 1 of the following year. Extensions of the filing deadline for up to 45 days are granted to any respondent on request.

All natural gas and supplemental gaseous fuels volumes are reported on a physical custody basis in thousand cubic feet (Mcf), and dollar values are reported to the nearest whole dollar. All volumes are reported at 14.73 pounds per square inch absolute pressure (psia) and 60 degrees Fahrenheit.

Routine Form EIA-176 Edit Checks

A series of manual and computerized edit checks are used to screen the Form EIA-176. The edits performed include validity, arithmetic, and analytical checks.

The incoming forms are reviewed prior to keying. This prescan determines if the respondent identification (ID) number and the company name and address are correct, if the data on the form appear complete and reasonable, and if the certifying information is complete.

Manual checks on the data are also made. Each form is prescanned to determine that data were reported on the correct lines. The flow of gas through interstate pipelines is checked at the company level to ensure that each delivery from a State is matched with a corresponding receipt in an adjoining State.

After the data are keyed, computer edit procedures are performed. Edit programs verify the report year, State code, and arithmetic totals. Further tests are made to ensure that all necessary data elements are present and that the data are reasonable and internally consistent. The computerized edit system produces error listings with messages for each failed edit test. When problems occur, respondents are contacted by telephone and required to file amended forms with corrected data.

Other EIA Publications Referencing Form EIA-176

Data from Form EIA-176 are also published in the *Natural Gas Annual*.

Form EIA-895, "Monthly Quantity of Natural Gas Report"

Survey Design

In 1996, an annual schedule was added to the Form EIA-895 to replace the Form EIA-627. Data collection on the Form EIA-895 began in January 1995. This form was designed to replace the Interstate Oil and Gas Compact Commission (IOGCC) form, "Monthly Report of Natural Gas Production." In 1994, the IOGCC decided to discontinue collection of their form. All gas producing States are requested to report on the Form EIA-895; a voluntary report. Data are reported by State agencies. The form was designed to provide a standard reporting system, to the extent possible, for the natural gas data reported by the States. Data are not considered proprietary.

Beginning with 1980, natural gas production data previously obtained on an informal basis from State conservation agencies were collected on Form EIA-627. This form was designed by EIA to collect annual natural gas production data from the appropriate State agencies under a standard data reporting system within the limits imposed by the diversity of data collection systems of the various producing States. The form was redesigned in 1990 to collect monthly breakdowns of all annual data elements. Data are not considered proprietary. It was also designed to avoid duplication of effort in collecting production and value data by producing States and to avoid an unnecessary respondent burden on gas and oil well operators. In 1993, value and associated volume of marketed production by month was added to the EIA-627. In 1996, the Form EIA-627 was discontinued. The information is collected on an annual schedule on the Form EIA-895.

Survey Universe and Response Statistics

Form EIA-895 is mailed to energy or conservation agencies in all 33 natural gas producing States. All producing States participate voluntarily in the EIA-895 survey by filing the completed form or by responding to telephone contacts.

Reports on State production are due 20 days after the end of the report month. (In most cases, the data are not available to the States until after this time period. Therefore, States are requested to send the report within 80 days after the end of the report month.) The annual schedule of the Form EIA-895 is due with the December data report.

Summary of Data Requirements

The Form EIA-895 monthly schedule consists of nine questions on one page, and requires volumetric information on gross production (gas and oil wells individually), gas used for repressuring, gas vented and flared, nonhydrocarbon gases removed, natural gas used as fuel on leases, marketed production, value based marketed production and the value in dollar amount of the marketed production.

Form EIA-895 annual schedule collects data on the monthly and annual production volume of natural gas (including gross withdrawals from both gas and oil wells); volumes returned to formation for repressuring, pressure maintenance, and cycling; quantities vented and flared; quantities of nonhydrocarbon gases removed; quantities of fuel used on leases; marketed production; the value of marketed production; and the number of producing gas wells.

Respondents are asked to report all volumes in thousand cubic feet at the State's standard pressure base and at 60 degrees Fahrenheit. All dollar values are reported in thousands.

Routine Form EIA-895 Edit Checks

Each filing of Form EIA-895 is manually checked for reasonableness and mathematical accuracy. Information on the forms is compared to totals of monthly data reported. Volumes are converted, as necessary, to a standard 14.73 psia pressure base. Reasonableness of data is assessed by comparing reported data to the previous year's data. State agencies are contacted by telephone to correct errors. Amended filings or resubmissions are not a requirement, since participation in the survey is voluntary.

Other EIA Publications Referencing Form EIA-895

Data from Form EIA-895 are also published in the EIA publication, *Natural Gas Annual*.

EIA-191 Survey, "Underground Natural Gas Storage Report"

Survey Design

The Form EIA-191, "Underground Natural Gas Storage Report," was revised effective January 1994. Among the changes from the form used from 1991 through 1993 are a distinction between a monthly and annual survey. Prior to 1991, data on the storage of natural gas were collected on a survey jointly implemented in 1975 by the Federal Power Commission (FPC), the Federal Energy Administration (FEA), and the Bureau of Mines (BOM) as the FPC-8/FEA-G-318 system. The data received on both the FPC-8 and FEA-G-318 were computerized and aggregated by FPC. The form was previously revised in 1991 to include storage data by State, field, and reservoir.

At the beginning of 1979, the EIA assumed responsibility for the collection, processing, and publication of the data gathered in the survey. Form FEA-G-318 was renewed on July 1, 1979, as Form EIA-191 and the survey was retitled the FPC-8/EIA-191 Survey (Figure D4 shows the EIA-191). Form FPC-8 was renewed in December 1985 and the survey retitled FERC-8/EIA-191 Survey. The forms were not merged because of FERC's stated desire to maintain the separate identity of the FERC-8 for administrative reasons. In September 1995, the FERC discontinued the reporting requirements of Form FERC-8. FERC jurisdictional firms will continue to file Form EIA-191.

Survey Universe and Response Statistics

The 103 companies that operate underground facilities will file the Form EIA-191. Of these companies, 42 are subject to the jurisdiction of FERC and are required to report data on Form EIA-191.

The response rate as of the filing deadline is approximately 20 percent. Data from the remaining 80 percent of respondents are received in writing and/or by telephone within 3 to 4 days after the filing deadline. All data supplied by telephone are subsequently filed in writing, generally within 15 days of the filing deadline. The final response rate is 100 percent.

Summary of EIA-191 Data Reporting Requirements

The EIA-191 monthly schedule contains current month and prior month's data on the total quantities of gas in storage, injections and withdrawals, the location (including State and county, field, reservoir) and peak day withdrawals during the reporting period. Prior month's data are required only when data are revised. Information on co-owners of storage fields has been eliminated. The annual schedule contains type of facility, storage field capacity, maximum deliverability and pipelines to which each field is connected. The annual schedule is filed with the January submission.

Collection of the survey is on a custody basis. Information requested must be provided within 20 days after the first day of each month. Twelve reports are required per calendar year. Respondents are required to indicate whether the data reported are actual or estimated. For most of the estimated filings, the actual data or necessary revisions are reflected in the prior month section of the monthly form. Actual data on natural gas injections and withdrawals from underground storage are based on metered quantities. Data on quantities of gas in storage and on storage capacity represent, in part, reservoir engineering evaluations. All volumes are reported at 14.73 psia and 60 degrees Fahrenheit.

Routine Form EIA-191 Edit Checks

Data received on Form EIA-191 are entered into the survey processing system. The survey's five principal data elements (total, base, working gas in storage, injections, and withdrawals) receive a preliminary visual edit to eliminate and correct obvious errors or omissions. Respondents are required to refile reports containing any inconsistencies or errors.

Other EIA Publications Referencing Form EIA-191

The EIA publication *Monthly Energy Review* and *Winter Fuels Report* contain data from the EIA-191 survey.

"Quarterly Natural Gas Import and Export Sales and Price Report"

Survey Design

The collection of data covering natural gas imports and exports was begun in 1973 by the Federal Power Commission (FPC). On October 1977, FPC ceased to exist and its data collection functions were transferred to the Federal Energy Regulatory Commission (FERC) within the Department of Energy (DOE). From 1979 to 1994, the Energy Information Administration (EIA) has had the responsibility for collecting Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." Data are not considered proprietary. The Form FPC-14 was discontinued in 1995.

Beginning in 1995, import and export data are taken from the "Quarterly Natural Gas Import and Export Sales and Price Report." This report is prepared by the Office of Fossil Energy, U.S. Department of Energy, based on information submitted by all firms having authorization to import or export natural gas.

Survey Universe and Response Statistics

All companies are required, as a condition of their authorizations to import or export natural gas, to file quarterly reports with the Office of Fossil Energy. These data are collected as part of its regulatory responsibilities. The data are reported at a monthly level of detail. Data reported on the Form FPC-14 represented physical movements of natural gas. Data collected by the Office of Fossil Energy are reported on an equity (sales) basis. For 1994 and earlier years, comparisons of the data from the two sources may show differences because reporting requirements were different. Prior to 1995, the Form FPC-14 was filed annual-ly by each organization or individual having authority to import and export natural gas regardless of whether any activity took place during the reporting year. Authorizations to import and export was originally granted by the FPC. In 1977, the authority to grant authorizations transferred to the Economic Regulatory Administration (ERA). It now resides with the Office of Fossil Energy, U.S. Department of Energy.

Routine Edit Checks

Respondents are required to certify the accuracy of all data reported. The data are checked for reasonableness and accuracy. If errors are found, the companies are required to file corrected data. The data are compared with data reported by the National Energy Board of Canada and are published quarterly. All natural gas volumes in this report are expressed at a pressure base of 14.73 pounds per square inch absolute and temperature of 60 degrees Fahrenheit, except as noted. All import and export prices are in U.S. dollars and, except for LNG exports, are those paid at the U.S. border. LNG export prices are those paid at the point of sale and delivery in Yokohama, Japan.

Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"

Survey Design

The original Form EIA-857 was approved for use in December 1984. Response to the Form EIA-857 is mandatory on a monthly basis. Data collected on the Form EIA-857 cover the 50 States and the District of Columbia and include both price and volume data. Data are considered proprietary.

Survey Universe and Response Statistics

A sample of 382 natural gas companies, including interstate pipelines, intrastate pipelines, and local distribution companies, report to the survey. The sample was selected independently for each of the 50 States and the District of Columbia from a frame consisting of all respondents to Form EIA-176 who reported deliveries of natural gas to consumers in the residential, commercial, or industrial sectors. Each selected company is required to complete and file the Form EIA-857 on a monthly basis. Initial response statistics on a monthly basis are as follows: responses received by due date, approximately 50 percent, and responses received after follow-up, 100 percent. Virtually all are received in time for incorporation in the current month's processing cycle. When a response is extremely late, and the company represents less than 25 percent of the natural gas volumes delivered by all sampled companies in the State, values are imputed as described in Appendix C. When the company's submission is eventually received, the submitted data are used for future processing and revisions.

The Form EIA-857 is a monthly sample survey of firms delivering natural gas to consumers. It provides data that are used to estimate monthly sales of

natural gas (volume and price) by State and monthly deliveries of natural gas on behalf of others (volume) by State to three consumer sectors - residential, commercial, and industrial. (Monthly deliveries and prices of natural gas to electric utilities are reported on the Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," and the Form EIA-759, "Monthly Power Plant Report.") See Appendix C for a discussion of the sample design and estimation procedures.

Summary of Form EIA-857 Data Reporting Requirements

Data collected monthly on the Form EIA-857 on a State level include the volume and cost of purchased gas, the volume and cost of natural gas consumed by sector (residential, commercial, and industrial), and the average heat content of all gas consumed. Respondents file completed forms with EIA in Washington, DC on or before the 30th day after the end of the report month.

All natural gas volumes are reported in thousand cubic feet at 14.73 psia at 60 degrees Fahrenheit and dollar values are reported to the nearest whole dollar.

Routine Form EIA-857 Edit Checks

A series of manual and computerized edit checks are used to screen the Form EIA-857. The edits performed include validity and analytical checks.

Appendix C

Statistical Considerations

The monthly sales (volume and price) and monthly deliveries (volume) of natural gas to residential, commercial and industrial consumers presented in this report by State are estimated from data reported on the Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers." (See Appendix B for a description of this Form.) These estimations must be made from the reported data since the Form EIA-857 is a sample survey. A description of the sample design and the estimation procedures is given below.

Sample Design

The Form EIA-857 is a monthly sample survey of companies delivering natural gas to consumers. It includes inter- and intrastate companies, and producers, as well as local distribution companies. The survey provides data that are used each month to estimate the volume of natural gas delivered and the price for onsystem sales of natural gas by State to three consumer sectors—residential, commercial, and industrial. Monthly deliveries and prices of natural gas to electric utilities are reported on the Form EIA-759, "Monthly Power Plant Report," and the Form FERC-423, "Monthly Report of Costs and Quality of Fuels for Electric Plants."

Sample Universe. The sample currently in use was selected from a universe of 1,538 companies. These companies were respondents to the Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," for reporting year 1995 who reported sales or deliveries to consumers in the residential, commercial or industrial sectors. (See Appendix B for a description of the Form EIA-176.)

Sampling Plan. The goal was a sample that would provide estimates of monthly natural gas consumption by the three consuming sectors within each State and the District of Columbia. A stratified sample using a single stage and systematic selection with probability proportional to size was designed. The measure of size was the volume of natural gas physically delivered in the State to the three consuming sectors by the company in 1995. There were two strata—companies selected with certainty and companies selected under the systematic probability proportional to size design.

Initial calculations showed that a 25 percent sample of companies would yield reasonably accurate estimates. The sample was selected independently in each State, resulting in a national total of 387 respondent companies. Unlike previous years, no mergers or acquisitions were uncovered as a result of the initial mail-out. Therefore there was no need for either substitution of respondent companies or a reduction in the total number of respondents.

Certainty Stratum. Since estimates were needed for each of the 50 States and the District of Columbia, the strata were established independently within each State. In 16 States and the District of Columbia where sampling was not feasible due to small numbers of companies and/or small volumes of gas deliveries, all companies were selected. The 16 States were: Alaska, Connecticut, Delaware, Hawaii, Idaho, Maine, North Dakota, New Hampshire, New Jersey, Nevada, Oregon, Rhode Island, South Dakota, Utah, Vermont, and Washington.

For each of the remaining States, the total volumes of industrial sales and deliveries and of the combined residential/commercial sales and deliveries were determined. Companies with natural gas deliveries to the industrial sector or to the combined residential/commercial sector above a certain level were selected with certainty. Since a few large companies often account for most of the natural gas delivered within a State, this ensures those companies' inclusion in the sample. The formula for determining certainty was applied independently in the two

consumer sectors—the industrial and the combined residential/commercial. These selected companies, together with the companies in the jurisdictions discussed where sampling was not feasible, formed the certainty stratum.

All companies with natural gas deliveries in sector j greater than the cut-off value ($C_{.j}$) were included in the certainty stratum. The formula for $C_{.j}$ was:

$$C_{.j} = \frac{X_{.j}}{2n} \qquad (1)$$

where:

$C_{.j}$ = cutoff value for consumer sector j,

n = target sample size to be selected for the State, 25 percent of the companies in the State,

X_{ij} = the annual volume of natural gas deliveries by company i to customers in consumer sector j,

$X_{i.}$ = the sum within State of annual gas volumes for company i,

$X_{.j}$ = the sum within State of annual gas volumes in consumer sector j,

$X_{..}$ = the sum within State of annual gas volumes in all consumer sectors.

Noncertainty Stratum. All other companies formed the noncertainty stratum. They were systematically sampled with probability proportional to size. The measure of size for each company was the total volume of gas sales to all consumer sectors ($X_{i.}$). The number of companies to be selected from the noncertainty stratum was calculated for each State, with a minimum of 2.

The formula for selecting the number of noncertainty stratum companies was:

$$m = n\frac{X2}{X_{..}} \qquad (2)$$

where:

m = the sample size for the noncertainty stratum within a State,

X2 = the sum within State of the Xi. for all companies in the noncertainty stratum.

Companies were listed in ascending order according to their measure of size and then a cumulative measure of size in the stratum was calculated for each company. The cumulative measure of size was the sum of the measures of size for that company and all preceding companies on the list. An interval of width I for selecting the companies systematically was calculated using.

A uniform random number R was selected between zero and $\left(\overline{\xi} I = \frac{X2}{m}\right)$ I. The first sampled company was the first company on the list to have a cumulative measure of size greater than R. The second company selected was the first company on the list to have a cumulative measure of size greater than R + I. R + I was increased again by I to determine the third company to be selected. This procedure was repeated until the entire sample was drawn.

Subgroups. In eight States, the noncertainty stratum was divided into subgroups to ensure that gas in each consumer sector could be estimated. The systematic sample with probability proportional to size design described above was applied independently in each subgroup. The methods for determining the subgroup sample size and calculating the subgroup interval for sample selection were the same as the methods described above for the noncertainty stratum, except that X2 was the sum within State of the $X_{i.}$ for only those companies in the subgroup.

These subgroups were defined only for the purpose of sample selection. They are:

California: companies handling only industrial gas and all other companies.

Iowa: companies handling industrial gas and companies delivering only to residential or commercial customers.

Louisiana: companies handling only industrial gas and all other companies, with the latter being further subdivided according to size. The larger group is comprised of all companies with total deliveries of at least 200 million cubic feet while the smaller group consists of companies with less than that volume of delivered gas (three subgroups).

Oklahoma: Companies delivering less than 500 million cubic feet of gas and those delivering more than that volume.

Texas: companies handling only residential/commercial gas, companies handling only industrial gas, and all other companies (three subgroups).

Estimation Procedures

Estimates of Volumes. A ratio estimator is applied to the volumes reported in each State by the sampled companies to estimate the total gas sales and deliveries for the State. Ratio estimators are calculated for each consumer sector—residential, commercial, and industrial—in each State where companies are sampled. The following annual data are taken from the most recent 1995 submissions of Form EIA-176:

The formula for calculating the ratio estimator (E_{vj}) for the volume of gas in consumer sector j is:

$$E_{vj} = \frac{Y_{.j}}{Y'_{.j}} \qquad (3)$$

where:

$Y_{.j}$ = the sum within State of annual gas volumes in consumer sector j for all companies,

$Y'_{.j}$ = the sum within State of annual gas volumes in consumer sector j for those companies in the sample.

The ratio estimator is applied as follows:

$$V_{.j} = y_{.j} \, E_{vj} \qquad (4)$$

where:

$V_{.j}$ = the State estimate of monthly gas volumes in consumer sector *j*,

$y_{.j}$ = the sum within State of reported monthly gas volumes in consumer sector *j*.

Computation of Natural Gas Prices. The natural gas volumes that are included in the computation of prices represent only those volumes associated with natural gas sales.

The price of natural gas for a State within a sector is calculated as follows:

$$P_j = \frac{R_j}{V'_j}$$

where:

P_j = the average price for gas sales within the State in consumer sector j,

R_j = the reported revenue from natural gas sales within the State in consumer sector j,

V_j = the reported volume of natural gas sales within the State in consumer sector j.

All average prices are weighted by their corresponding sales volume estimates when national average prices are computed.

The monthly average prices of natural gas are based on sales data only. Volumes of gas delivered for the account of others to these consumer sectors are not included in the State or national average prices.

Table 25 shows the percent of the total State volume that represents volumes from natural gas sales to the commercial and industrial sectors. This table may be helpful in evaluating commercial and industrial price data. Virtually all natural gas deliveries to the residential sector represent onsystem sales volumes only.

See the section on consumer price calculations in this Appendix for further price information.

Estimation for Nonrespondents. A volume for each consumer category is imputed for companies that fail to respond. The imputation is based on the previous month's value reported by the non-responding company and the change from the previous month to the current month in volumes reported by other companies in the State. The imputed volumes are included in the State totals. To estimate prices for non-respondents, the unit price (dollars per thousand cubic feet) reported by the company in the previous month is used.

The formula for imputing volumes of gas sales for nonrespondents was:

$$F_t = F_{t-1} \frac{y_{.jt}}{y_{.jt-1}} \qquad (5)$$

where:

F_t = imputed gas volume for current month t,

F_{t-1} = gas volume for the company for the previous month,

$y_{.jt}$ = gas volume reported by companies in the State stratum for report month t,

$y_{.j\,t-1}$ = gas volume in the previous month for companies in the State stratum that reported in month t.

Final Revisions

Adjusting Monthly Data to Annual Data. After the annual data reported on the Form EIA-176 have been submitted, edited, and prepared for publication in the *Natural Gas Annual*, revisions are made to monthly data. The revisions are made to the volumes and prices of natural gas delivered to consumers that have appeared in the *Natural Gas Monthly* to match them to the annual values appearing in the *Natural Gas Annual*. The revised monthly estimates allocate the difference between the sum of monthly estimates and the annual reports according to the distribution of the estimated values across the months.

Before the final revisions are made, changes or additions to submitted data received after publication of the monthly estimate and not sufficiently large to require a revision to be published in the *Natural Gas Monthly*, are used to derive an updated estimate of monthly consumption and revenues for each State's residential, commercial, or industrial natural gas consumption.

For each State, two numbers are revised, the estimated consumption and the estimated price per thousand cubic feet.

The formula for revising the estimated consumption is:

$$V^*_{jm} = V_{jm} + \left[(V_{ja} - V'_{jm})\left(\frac{V_{jm}}{V'_{jm}}\right) \right] \qquad (6)$$

where:

V^*_{jm} = the final volume estimate for month m in consumer sector j,

V_{jm} = the estimated volume for month m in consumer sector j,

V_{ja} = the volume for the year reported on Form EIA-176,

V'_{jm} = The annual sum of estimated monthly volumes.

The price is calculated as described above in the Estimation Procedures section, using the final revised consumption estimate and a revised revenue estimate.

The formula for revising the estimated revenue is:

$$R^*_{jm} = R_{jm} + \left[(R_{ja} - R'_{jm})\left(\frac{R_{jm}}{R'_{jm}}\right) \right] \qquad (7)$$

where:

R^*_{jm} = the final revenue estimate for month m in consumer sector j,

R_{jm} = the estimated revenue for month m in consumer sector j,

R_{ja} = the revenue for the year reported on Form EIA-176,

R'_{jm} = The annual sum of estimated monthly revenues. Revision of Volumes and Prices for Deliveries to Electric Utilities. Revisions to monthly electric utilities data are published throughout the year as they become available.

Reliability of Monthly Data

The monthly data published in this report are subject to two sources of error - nonsampling error and sampling error. Nonsampling errors occur in the collection and processing of the data. See the discussion of the Form EIA-857 in Appendix B for a description of nonsampling errors for monthly data.

Sampling error may be defined as the difference between the results obtained from a sample and the results that a complete enumeration would provide. The standard error statistic is a measurement of sampling error.

Standard Errors. A standard error of an estimate is a statistical measure that indicates how the estimate from the sample compares to the result from a complete enumeration. Standard errors are calculated based on statistical theory that refers to all possible samples of the same size and design.

The standard errors for monthly natural gas volume estimates by State are given in Table C1. Ninety-five percent of the time, the volume that would have been obtained from a complete enumeration will lie in the range between the estimated volume minus two

standard errors and the estimated volume plus two standard errors.

The standard error of the natural gas volume estimate is the square root of the variance of the estimate. The formula for calculating the variance of the volume estimate is:

$$V(\hat{Y}) = \sum_{h=1}^{H} \left[N_h^2 \frac{(1 - \frac{n_h}{N_h}}{n_h(n_h - 1)} \left(\sum_{i=1}^{n} (y_i - Tx_i)^2 \right) \right] \equiv \Downarrow$$

(8)

where:

H = the total number of strata

N_h= the total number of companies in stratum h

n_h= the sample size in stratum h

y_i= the reported monthly volume for company i

x_i= the reported annual volume for company i

T = the ratio of the sum of the reported monthly volumes for sample companies to the sum of the reported annual volumes for the sample companies.

Table C-1. Standard Error for Natural Gas Deliveries and Price to Consumers by State, December 1998

State	Volume Million Cubic Feet				Price Dollars per Thousand Cubic Feet		
	Residential	Commercial	Industrial	Total	Residential	Commercial	Industrial
Alabama	4,534	2,355	15,857	23,535	8.99	7.18	3.35
Alaska	2,183	2,974	NA	NA	3.51	2.45	NA
Arizona	4,624	3,376	2,609	14,347	8.39	6.25	3.52
Arkansas	4,917	4,272	11,580	21,139	6.83	5.27	3.76
California	68,820	35,388	64,279	186,234	6.89	6.28	3.45
Colorado	14,198	7,986	6,739	29,849	4.86	4.08	2.31
Connecticut	4,490	4,991	2,815	12,418	10.96	7.54	4.55
Delaware	901	626	1,522	3,962	8.56	6.93	3.71
District of Columbia	1,541	1,752	0	3,293	8.96	7.43	—
Florida	1,397	3,369	11,116	34,116	10.05	6.39	3.97
Georgia	14,775	5,541	12,615	33,189	2.41	2.75	2.61
Hawaii	44	185	0	229	18.88	12.83	—
Idaho	2,434	1,642	2,632	6,707	5.16	4.58	3.08
Illinois	64,039	24,720	29,103	119,345	4.77	4.68	3.78
Indiana	NA	NA	28,078	NA	NA	NA	4.21
Iowa	10,511	5,999	9,466	26,125	4.91	3.95	3.28
Kansas	10,495	5,585	NA	NA	5.60	5.24	NA
Kentucky	9,366	4,924	8,188	22,615	5.24	5.06	3.74
Louisiana	4,941	2,697	95,190	121,183	7.00	6.06	1.20
Maine	132	337	201	670	7.59	6.96	6.07
Maryland	9,252	6,716	3,483	19,949	8.13	7.03	5.31
Massachusetts	NA	NA	NA	NA	NA	NA	NA
Michigan	42,050	20,702	26,840	93,063	4.82	4.72	3.96
Minnesota	18,670	12,694	9,222	40,706	5.21	4.38	3.01
Mississippi	2,509	2,318	6,841	15,796	6.22	4.69	3.30
Missouri	13,831	7,156	5,897	27,396	6.19	5.60	4.27
Montana	2,942	1,819	1,771	6,569	5.05	5.05	4.82
Nebraska	4,223	3,910	2,255	10,495	4.63	4.01	3.30
Nevada	4,335	2,528	2,986	15,213	6.74	5.88	4.59
New Hampshire	739	810	484	2,033	8.09	7.38	4.95
New Jersey	NA	NA	NA	NA	NA	NA	NA
New Mexico	7,289	4,613	3,636	18,415	3.21	3.05	1.54
New York	NA	NA	NA	NA	NA	NA	NA
North Carolina	5,679	4,006	9,524	19,245	9.48	7.15	4.12
North Dakota	1,455	1,390	1,840	4,685	5.04	4.29	3.14
Ohio	42,817	21,958	31,615	96,741	6.08	5.73	5.76
Oklahoma	7,678	5,604	12,040	38,452	5.66	4.23	3.49
Oregon	5,504	3,630	9,024	21,168	6.72	6.01	4.25
Pennsylvania	27,675	15,512	21,066	64,611	7.89	6.75	4.26
Rhode Island	1,883	1,308	2,179	5,371	9.39	8.02	3.85
South Carolina	2,858	1,940	9,241	14,080	9.16	6.73	3.25
South Dakota	1,669	1,306	490	3,653	4.99	3.97	3.23
Tennessee	8,358	6,190	12,892	27,441	6.30	5.94	3.88
Texas	28,481	26,376	210,615	337,466	5.52	4.43	2.30
Utah	9,826	4,903	3,830	18,996	5.66	4.54	3.29
Vermont	289	401	202	895	6.38	4.72	2.61
Virginia	8,989	7,141	7,488	24,375	8.18	6.14	5.50
Washington	NA	NA	NA	NA	NA	NA	NA
West Virginia	3,895	2,880	4,262	11,062	7.13	6.18	2.86
Wisconsin	18,698	11,696	14,588	45,712	5.97	4.94	4.01
Wyoming	1,578	1,708	4,641	7,931	5.10	2.76	3.87
Total	**613,452**	**369,647**	**791,514**	**1,964,054**	**6.36**	**5.22**	**2.83**

NA Not Available.
— Not Applicable.

Source: Energy Information Administration, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

Appendix D

Natural Gas Reports and Feature Articles

Reports Dealing Principally with Natural Gas and/or Natural Gas Liquids

Natural Gas Annual 1995, DOE/EIA-0131(95), November 1996.

Natural Gas Annual 1993 Supplement: Company Profiles, DOE/EIA-0131(93/S), February 1995.

Natural Gas 1996 Issues and Trends, DOE 0560(96), December 1996.

Other Reports Covering Natural Gas, Natural Gas Liquids, and Other Energy Sources

Monthly Energy Review, DOE/EIA-0035. Published monthly. Provides national aggregate data for natural gas, natural gas liquids, and other energy sources.

Short-Term Energy Outlook, DOE/EIA-0202. Published quarterly. Provides forecasts for next six quarters for natural gas and other energy sources.

Natural Gas 1995: Issues and Trends, DOE/EIA-0560(95), November 1995.

U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves - 1995 Annual Report, DOE/EIA-0216(95)/Advance Summary, October 1996.

Annual Energy Review 1995, DOE/ EIA-0384(95), July 1996. Published annually.

Annual Report to Congress 1995 DOE/EIA-01733(95), July 1996. Published annually.

Annual Energy Outlook 1996, DOE/ EIA-0383(96), January 1996. Published annually.

Selected One-Time Natural Gas and Related Reports

The Value of Underground Storage in Today's Natural Gas Industry, DOE/EIA-0591, March 1995.

Natural Gas Productive Capacity for the Lower 48 States, 1980 through 1995, DOE/EIA-0542(95), July 1994.

Largest U.S. Oil and Gas Fields, DOE/EIA-TR-0567, August 1993.

Energy Policy Act Transportation Rate Study, DOE/EIA-0571, October 1993.

Energy Policy Act Transportation Study: Interim Report of Natural Gas Flows and Rates, DOE/EIA-0602, October 1995.

Selected and Recurring Natural Gas and Related Data Reference Reports

Directory of Energy Data Collection Forms, DOE/EIA-0249(95), January 1996.

Oil and Gas Field Code Master List, 1995, EIA-0370(95), December 1996.

Feature Articles

June 1996

Natural Gas Industry Restructuring and Data Collection

(Discusses how restructuring of the natural gas industry has impacted the natural gas data collection efforts.)

July 1996

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

November 1996

U.S. Natural Gas Imports and Exports - 1995

(Contains final 1995 data on all U.S. imports and exports of natural gas.)

December 1996

Crosswell Seismology — A View from Aside

(Discusses crosswell seismology and its geologic and economic implications for the domestic oil and gas industry.)

May 1997

Restructuring Energy Industries: Lessons from Natural Gas

(Compares and contrasts the natural gas and electric power industries.)

July 1997

Intricate Puzzle of Oil and Gas "Reserves Growth"

(Discusses the factors that affect ultimate recovery estimates of a field or reservoir.)

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

August 1997

Natural gas Residential Pricing Developments During the 1996-97 Winter

(Discusses key factors that affect pricing patterns, highlights the effects of weather, utilization patterns of natural gas storage, and pricing mechanisms used in natural gas markets.)

December 1997

Recent Trends in Natural Gas Spot Prices

(Focuses primarily on conditions and developments in the East Consuming Region and their connection to prices at the Henry Hub in the Producing Region.)

March 1998

EIA Corrects Errors in EIA's Drilling Activity Estimates Series

(Discusses and corrects errors in EIA's monthly and annual estimates of oil and gas drilling activity.)

July 1998

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

Special Focuses

January 1997

Natural Gas Productive Capacity

(Analyzes monthly natural gas wellhead productive capacity in the lower 48 States from 1985 and 1996 and project this capacity for 1996 and 1997.)

Outlook for Natural Gas Through 2015

(Presents an outlook for natural gas through 2015.)

August 1997

Worldwide Natural Gas Supply and Demand And the Outlook For Global LNG Trade

(Focuses on natural gas into the next century with emphasis on world natural gas supply and demand to 2015.)

September 1997

Advance Summary: U.S. Crude Oil, Natural Gas, and Natural gas Liquids Reserves, 1996 Annual Report - Advance Summary

(Focuses on proved reserves of domestic crude oil, natural gas, and natural gas liquids.)

May 1998

Deliverability on the Interstate Natural Gas Pipeline System

(Examines the capability of the interstate pipeline network to move gas to various U.S. markets and discusses changes occurring since 1990.)

Special Reports

March 1997

Natural Gas Analysis and Geographic Information Systems

(Explores how geographic information system techniques and methodologies are being used by the Energy Information Administration.)

April 1997

Natural Gas Pipeline and System Expansions

(Examines recent expansions to the North American natural gas)

Natural Gas 1996: Highlights

(Reviews data for 1996 based on Energy Information Administration surveys.)pipeline network.)

July 1997

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

August 1997

U.S. Natural gas Imports and Exports - 1996

(Contains final 1996 data on all U.S. imports and exports of natural gas.)

September 1997

U.S. Underground Storage of Natural Gas in 1997: Existing and Proposed

(Examines recent and proposed expansions of underground natural gas storage capacity and deliverability in the United States as of September 1, 1997.)

October 1997

Comparison of Natural Gas Storage Estimates from the EIA and AGA

(Compares EIA and AGA estimates from January 1994 through July 1997.)

April 1998

Natural Gas 1997: A Preliminary Summary

(Reviews data for 1997 based on Energy Information Administration surveys.)

July l998

Revisions to Monthly Natural Gas Data

(Discusses the revision errors for natural gas data.)

August 1998

U.S Natural Gas Imports and Exports - 1997

(Contains final 1997 data on all U.S. imports and exports of natural gas.)

Appendix E

Technical Contacts

Section	Tables		Principal Data Sources	Technical Contact
Summary Statistics: Natural Gas Production	1,2,3	Monthly: Annual:	EIA-895, "Monthly Quantity of Natural Gas Report"	Sharon Belcher (202)586-6119
		Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"	Roy Kass (202)586-4790
Extraction Loss	1	Monthly: Annual:	EIA computations Form EIA-816, "Monthly Natural Gas Liquids Report" and Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production"	Margo Natof (202)586-6303
Supplemental Gaseous Fuels	2	Monthly: Annual:	EIA computations Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition"	Margo Natof (202)586-6303
Imports and Exports	2	Monthly: Annual:	EIA computations Office of Fossil Energy, U.S. Department of Energy, "Natural Gas Import and Exports"	Linda Cook (202)586-6306
Price: City Gate, Residential, Commercial, and Industrial	4	Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"	Roy Kass (202)586-4790
Wellhead	4	Monthly: Annual:	EIA computations Form EIA-895, "Monthly Quantity and Value of Natural Gas Report"	Sylvia Norris (202)586-6106
Electric Utility	4	Monthly:	Form FPC-423, "Cost and Quality of Fuels for Electric Power Plants"	Roy Kass (202)586-4790
Summary of Natural Gas Imports and Exports	5,6	Monthly:	Quarterly Natural Gas Import and Export Sales and Price Report	Linda Cook (202)586-6306
Producer Related Activities: Natural Gas Production	7,8	Monthly:	EIA-895, "Monthly Quantity of Natural Gas Report"	Sharon Belcher (202)586-6119
Underground Storage:	9,10,11, 12,13,14	Monthly:	Forms FERC-8 and EIA-191, "Underground Gas Storage Report"	Carol Jones (202) 586-6168
Distribution and Consumption: Deliveries to: Residential, Commercial, Industrial, Electric Utility, All Consumers	 15 16 17 18 19	 Monthly:	 Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers" Form FERC-423, "Cost and Quality of Fuels for Electric Power Plants"	 Roy Kass (202)586-4790
Average Price to: City Gate, Residential, Commercial, Industrial, Electric Utility	20 21 22 23 24	Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers" Form FERC-423, "Cost and Quality of Fuels for Electric Power Plants"	Roy Kass (202)586-4790
Onsystem Sales	25	Monthly:	Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers"	Roy Kass (202)586-4790
Heating Degree Days	26	Seasonal:	National Oceanic and Atmospheric Administration	Patricia Wells (202)586-6077
Highlights				Mary Carlson (202)586-4749

Appendix F

Natural Gas Electronic Products

In addition to printed publications, the Energy Information Administration distributes information concerning the natural gas industry in a variety of electronic formats through several media. Two main types of products are available electronically: *viewable documents* that may be read or printed; and *post-processable files* that may be directly used as input to a computer application without additional keying and checking of data.

Viewable documents represent complete or selected sections of publications including text, tables and graphs. They may be as specific as single tables or as general as an entire publication. Post-processable documents on the other hand are either macro-level representations of information in published tables or micro-level respondent information representing responses on a specific nonconfidential survey.

The media used to distribute these electronic publications include: (1) The Energy Information Administration's Internet site (http://www.eia.doe.gov or ftp://ftp.eia.doe.gov); (2) Dial-in access through the Energy Information Administration's EPUB electronic bulletin board or through the Economic Bulletin Board of the Department of Commerce and the COGIS system; (3) The Energy Information Administration's quarterly CD-ROM (InfoDisk); (4) The Energy Information Administration's Fax on Demand System; and (5) diskettes.

	Internet	Dial-In	Infodisk	E-Mail	Diskette
ANNUAL PUBLICATIONS					
Natural Gas Annual, 1997 Provides information on supply and disposition of natural gas in the United States. Information is provided nationally, regionally, and by State for 1997.	V P		V P		P
Historical Natural Gas Annual, 1930 through 1997 Contains historical information about supply and disposition of natural gas at the national, regional, and State level, as well as prices at selected points in the flow of gas from wellhead to burnertip.	P		P		P
Natural Gas 1996: Issues and Trends Examines how industry restructuring continues to expand choices, and challenges, for industry, participants, and natural gas customers.	V		V		
Natural Gas 1995: Issues and Trends Addresses current issues affecting the natural gas industry and markets, and analyzes trends in the most recent natural gas data.	V		V		
Natural Gas 1994: Issues and Trends Provides an overview of the natural gas industry in 1993 and early 1994, focusing on the overall ability to deliver gas under the new regulatory mandates of the Federal Energy Regulatory Commission's Order 636.	V		V		
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves Annual Report, 1996 1996 national and State estimates of reserves, reserve changes, and production, plus industry highlights.	V		V		

V = Viewable P = Post-Processable E = Automatic E-Mail Updates

	Internet	Dial-In	Infodisk	E-Mail	Diskette
Natural Gas Productive Capacity for the Lower 48 States 1986-1998 Analysis of monthly natural gas wellhead productive capacity.	V		V		
MONTHLY PUBLICATIONS					
Natural Gas Monthly, from the previous 12 months Entire Publication in viewable format.	V		V		
OTHER PUBLICATIONS					
Natural Gas Weekly Market Update Analysis of current price, supply and storage data along with a two week snapshot of the weather in four distinct metropolitan areas.	V				
Deliverability on the Interstate Natural Pipeline System This publication chronicles and analyzes pipeline growth from the perspective of the natural gas shipper and pipeline transporter.	V				
Natural Gas 1997: Preliminary Highlights This Special Focus, which was featured in the April 1998 issue of the *Natural Gas Monthly*, presents events that affected the natural gas industry during 1997.	V	P			
Energy Policy Act Transportation Study: Interim Report on Natural Gas Flow and Rates (EPACT) Analysis of natural gas transportation rates and distribution patterns for the period 1988 through 1994.	V		V		
Oil Production Capacity Extension Cost for the Persian Gulf Quantifies the cost of expanding oil production capacity for the Persian Gulf based on geologic plays and fields rather than country-level economics. Development costs and volumes are estimated for the next 15 years.	V		V		
Costs and Indices for Domestic Oil and Gas Fields Equipment and Production Operations 1993-1996 Cost of equipment and operation of oil and gas wells in the lower 48 States.	V		V		
Drilling Sideways- A Review of Horizontal Well Technology and the Domestic Application Salient aspects of current and near-future horizontal drilling and completion technology.	V		V		
International Oil and Gas Exploration and Development Compilation of country-level data and assessment of regional trends relating to upstream aspects of global oil and gas supply.	V		V		
Oil and Gas Field Code Master List Comprehensive listing of U.S. oil and gas field names as of October 1997.	V		V		
Oil and Gas Resources of the Fergana Basin (Uzbekistan, Tadzhikistan, and Kyrgysztan) Reservoir level assessments of oil and gas ultimate recovery in the former Soviet Union area.	V		V		

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	Internet	Dial-In	InfoDisk	E-Mail	Diskette
The Value of Underground Storage in Today's Natural Gas Industry. Explores the significant and changing role of storage in the industry.	V		V		
U.S. Oil and Gas Development in the Early 1900's Analyses of the growing prominence of smaller energy companies in U.S. oil and gas production	V		V		
ANNUAL DATA					
Natural Gas Supply and Disposition, by State 1997	V P	V P			
Natural Gas Summary, United States by Year 1990-1997	V P	V P			
Natural Gas Annual 1997 data Self-extracting file containing data (in comma-delimited format) that appear in the tables in the 1997 *Natural Gas Annual*.	P		P		P
Historical Natural Gas Annual 1997 data Self-extracting file containing historical information (in comma-delimited format) found in the tables in Volume 2 of the 1997 *Natural Gas Annual*. Annual historical data at the national level are presented for 1930-1997. Annual information by State and region is presented for 1967-1997.	P		P		P
1997 Data reported on Form EIA-176 A self-extracting compressed file containing data reported on Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," for 1997.	P				P
1996 Data reported on Form EIA-176 A self-extracting compressed file containing data reported on Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," for 1996.	P				P
Data archive of historical reserves estimates for U.S. Crude Oil, Natural Gas, and Natural Gas Liquids National, State, and State subregion data published in the reserves balance tables of *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves* from 1977 forward.	P				P
MONTHLY DATA					
Natural Gas Production, United States by Month 1989-forward	P	P			
Natural Gas Supply and Disposition 1989-forward	P	P		E	
Natural Gas Imports and Exports 1989-forward	P	P			
Natural Gas Underground Storage: United States Total by Month 1989-forward	P	P		E	
Natural Gas Prices: United States Total by Month 1989-forward	P	P		E	
Natural Gas Consumption by Sector: United States Total by Month 1989-forward	P	P		E	
SELF-EXTRACTING COMPRESSED DATA FILE ARCHIVES					
Natural Gas Consumption and Prices, for most recent 2-3 years	P	P			
Natural Gas Consumption and Prices, for 1984-1995	P	P			

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Glossary

Balancing Item: Represents the difference between the sum of the components of natural gas supply and the sum of the components of natural gas disposition. These differences may be due to quantities lost or to the effects of data reporting problems. Reporting problems include differences due to the net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems which vary in scope, format, definitions, and type of respondents.

Base (Cushion) Gas: The volume of gas needed as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the withdrawal season. All native gas is included in the base gas volume.

British Thermal Unit (Btu): The heat required to raise the termperature of one pound of water by one degree Fahrenheit at or near 39.2 degrees Fahrenheit.

City-gate: A point or measuring station at which a gas distribution company receives gas from a pipeline company or transmission system.

Commercial Consumption: Gas used by nonmanufacturing organizations such as hotels, restaurants, retail stores, laundries, and other service enterprises, and gas used by local, State, and Federal agencies engaged in nonmanufacturing activities.

Depletion: The loss in service value incurred in connection with the exhaustion of the natural gas reserves in the course of service.

Depreciation: The loss in service value not restored by current maintenance, incurred in connection with the consumption or respective retirement of a gas plant in the course of service from causes that are known to be in current operation and against which the utility is not protected by insurance; for example, wear and tear, decay, obsolescence, changes in demand and requirements of public authorities, and the exhaustion of natural resources.

Dry Natural Gas Production: Marketed production less extraction loss.

Electric Utility Consumption: Gas used as fuel in electric utility plants.

Exports: Natural gas deliveries out of the continental United States and Alaska to foreign countries.

Extraction Loss: The reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

Flared: The volume of gas burned in flares on the base site or at gas processing plants.

Gross Withdrawals: Full well stream volume, including all natural gas plant liquid and nonhydrocarbon gases, but excluding lease condensate. Also includes amounts delivered as royalty payments or consumed in field operations.

Imports: Natural gas received in the Continental United States (including Alaska) from a foreign country.

Independent: Producers: Any person who is engaged in the production or gathering of natural gas and who sells natural gas in interstate commerce for resale but who is not engaged in the transportation of natural gas (other than gathering) by pipeline in interstate commerce.

Industrial Consumption: Natural gas used by manufacturing and mining establishments for heat, power, and chemical feedstock.

Interstate Companies: Natural gas pipeline companies subject to FERC jurisdiction.

Intransit Deliveries: Redeliveries to a foreign country of foreign gas received for transportation across U.S. territory and deliveries of U.S. gas to a foreign country for transportation across its territory and redelivery to the United States.

Intransit Receipts: Receipts of foreign gas for transportation across U.S. territory and redelivery to a foreign country and redeliveries to the United States of U.S. gas transported across foreign territory.

Intrastate Companies: Companies not subject to FERC jurisdiction.

Lease and Plant Fuel: Natural gas used in well, field, lease operations and as fuel in natural gas processing plants.

Liquefied Natural Gas (LNG): Natural gas that has been liquefied by reducing its temperature to minus 260 degrees Fahrenheit at atmospheric pressure.

Marketed Production: Gross withdrawals less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating or processing operations. Includes all quantities of gas used in field and processing operations. See Explanatory Note 1 for discussion of coverage of data concerning nonhydrocarbon gases removed.

Native Gas: Gas in place at the time that a reservoir was converted to use as an underground storage reservoir as in contrast to injected gas volumes.

Natural Gas: A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous phase or solution with oi1 in natural underground reservoirs at reservoir conditions.

Nonhydrocarbon Gases: Typical nonhydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide, and nitrogen.

Onsystem Sales: Sales to customers where the delivery point is a point on, or directly interconnected with, a transportation, storage, and/or distribution system operated by the reporting company.

Pipeline Fuel: Gas consumed in the operation of pipelines, primarily in compressors.

Repressuring: The injection of gas into oil or gas formations to effect greater ultimate recovery.

Residential Consumption: Gas used in private dwellings, including apartments, for heating, cooking, water heating, and other household uses.

Salt Cavern Storage Field: A storage facility that is a cavern hollowed out in either a salt "bed" or "dome" formation.

Storage Additions: The volume of gas injected or otherwise added to underground natural gas or liquefied natural gas storage during the applicable reporting period.

Storage Withdrawals: Total volume of gas withdrawn from underground storage or liquefied natural gas storage during the applicable reporting period.

Supplemental Gaseous Fuels Supplies: Synthetic natural gas, propane-air, refinery gas, biomass gas, air injected for stabilization of heating content, and manufactured gas commingled and distributed with natural gas.

Synthetic Natural Gas (SNG): A manufactured product chemically similar in most respects to natural gas, that results from the conversion or reforming of petroleum hydrocarbons and may easily be substituted for or interchanged with pipeline quality natural gas.

Therm: One-hundred thousand British thermal units.

Underground Gas Storage Reservoir Capacity: Interstate company reservoir capacities are those certificated by FERC. Independent producer and intrastate company reservoir capacities are reported as developed capacity.

Vented Gas: Gas released into the air on the base site or at processing plants.

Wellhead Price: Represents the wellhead sales price, including charges for natural gas plant liquids subsequently removed from the gas, gathering and compression charges, and State production, severance, and/or similar charges.

Working (Top Storage) Gas: The volume of gas in an underground storage reservoir above the designed level of the base. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any season.