Highlights

Overview

This issue of the *Natural Gas Monthly* contains estimates of natural gas data through September 2000 for many data series at the national level. National-level natural gas prices are available through May, June, or August, depending on the price series. Also, State-level data are generally available through June 2000.

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

- Natural gas production levels in 2000 remain near 1999 levels.
- The amount of working gas in underground storage at the end of September 2000, 1 month before the beginning of the heating season, is estimated to be 2,546 billion cubic feet**,** 8 percent lower than the average at the end of September during 1995-1999.
- Total consumption of natural gas through September 2000 is estimated to be 16,410 billion cubic feet or 59.9 billion cubic feet per day, about 2 percent above the daily rate for the comparable period of 1999. The daily average consumption increased in the commercial, industrial, and electric utility sectors, but declined in the residential sector.
- The average natural gas wellhead price for August 2000 is estimated to be $3.41 per thousand cubic feet, substantially greater than the monthly prices seen during 1999, which were well below $3.00 per thousand cubic feet.

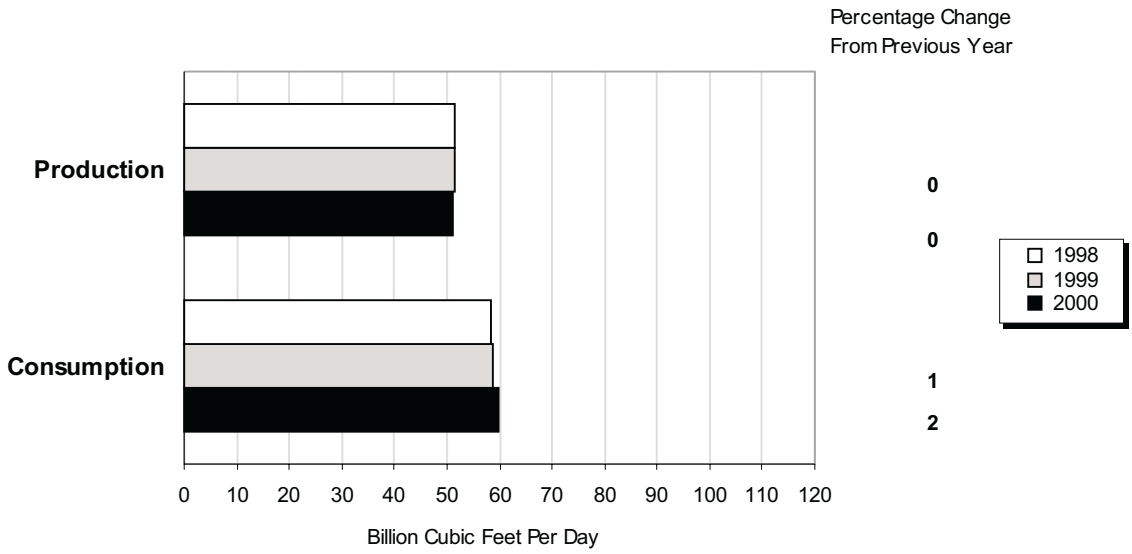
Supply

Dry natural gas production for January through September 2000 is estimated to be 14,019 billion cubic feet, giving an average daily rate of 51.2 billion cubic feet. In the comparable period of 1999, the average daily rate was virtually the same. September dry gas production is estimated to be 1,543 billion cubic feet or 51.4 billion cubic feet per day, 1 percent above the daily rate during September 1999.

Net imports from January through September 2000 are estimated to be 2,558 billion cubic feet or 9.3 billion cubic feet per day. They are less than 1 percent greater than for the same period in 1999 and 14 percent greater than in 1998. Pipeline imports of Canadian gas from January through July 2000 were 1,991 billion cubic feet, 4 percent greater than last year. Pipeline expansion projects recently brought on-line such as the Sable Island Offshore Energy Project contributed to the increase. In contrast, pipeline imports from Mexico during the same period fell substantially from year-earlier levels. Imports of Mexican gas declined from 29.9 billion cubic feet for January through July 1999 to 4.7 billion cubic feet for the same period in 2000, an 84-percent decrease. In addition, there have been no recorded pipeline imports from Mexico for the months of May, June, or July 2000. Liquefied natural gas (LNG) imports from Algeria for the month of July 2000 are estimated to be 5 billion cubic feet, double their June level. LNG imports from Qatar also nearly doubled in July from the previous month, while imports from Nigeria and Trinidad in July remained near June levels.

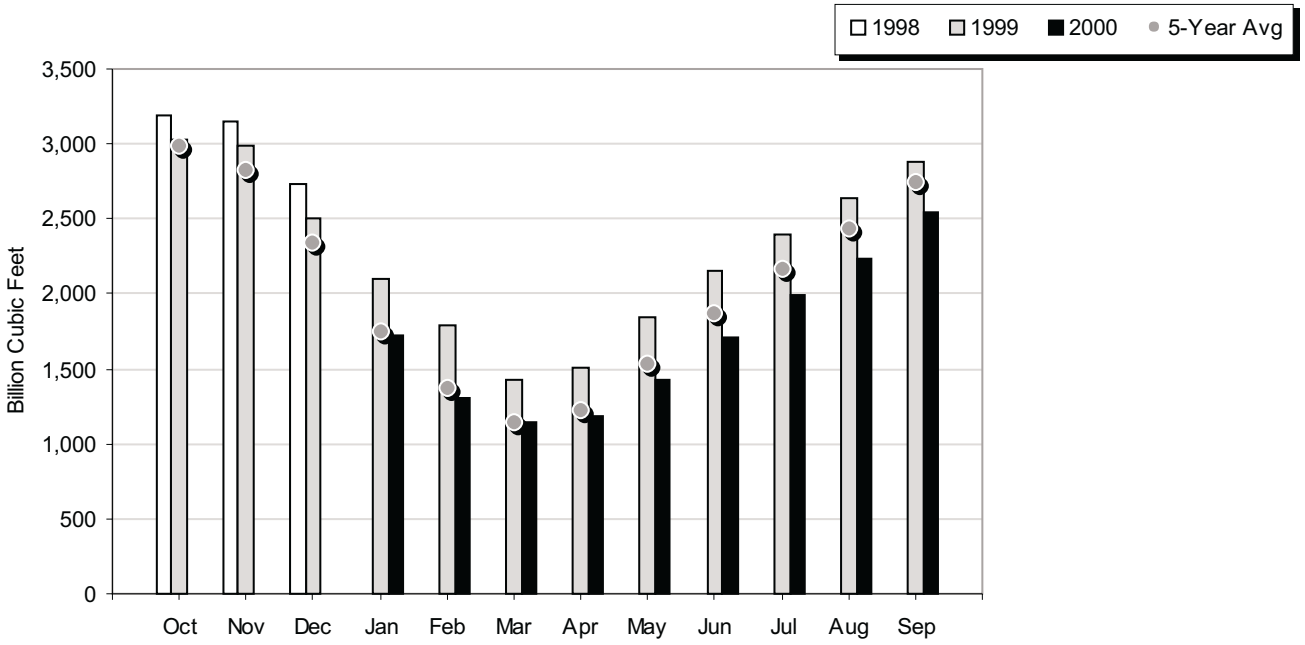
U.S. exports to Canada are estimated to be 41 billion cubic feet for the period of January through July 2000, 23 billion cubic feet more than in the same period last year. For January through July, U.S. exports to Mexico have increased by 19 billion cubic feet or 52 percent over the same period last year. This increase could be a result of the San Diego Gas and Electric / SoCal Project Vecinos, which went into service in the first quarter of 2000. It sends an estimated 300 million cubic feet per day of gas to Mexico.

Figure HI1. Average Daily Rate of Natural Gas Production and Consumption, January-September, 1998-2000



Source: Table 2.

Figure HI2. Working Gas in Underground Storage in the United States, 1998-2000



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 1995 to 1999 while the January average is calculated from January levels for 1996 to 2000. 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 and Supplemental Gas Supply and Disposition," and Short-Term Integrated Forecasting System.

The amount of working gas in underground storage facilities at the end of September 2000 is estimated to be 2,546 billion cubic feet. Working gas levels have been running lower than last year throughout the refill season, which began in April, putting upward pressure on natural gas prices during the summer. Working gas at the end of September 2000 is 8 percent less than the average for the previous 5 years. Net injections are estimated to be 310 billion cubic feet during September 2000, equal to the average in September for the previous 5 years and 29 percent more than during August 2000.

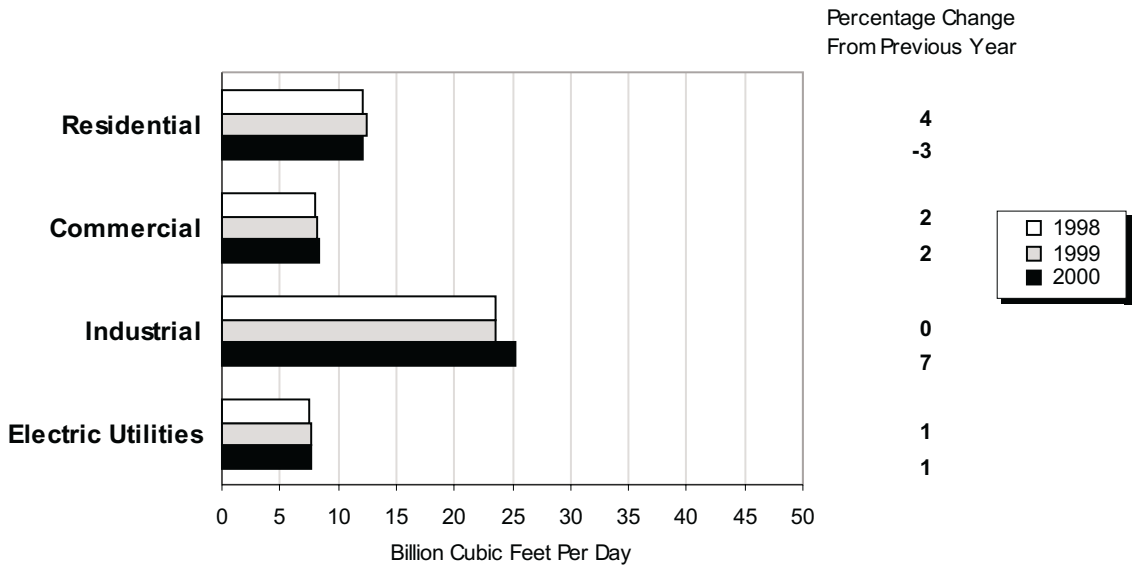
End-Use Consumption

Total consumption of natural gas through September 2000 is estimated to be 16,410 billion cubic feet or 59.9 billion cubic feet per day, about 2 percent above the daily rate for the comparable period of 1999 (Table 3). The daily average consumption increased substantially in the industrial sector, by 7 percent, and also rose in the commercial and electric utility sectors, but by more modest rates. It declined in the residential sector by 2 percent (Figure HI3).

Cumulatively through September 2000, an estimated 3,337 billion cubic feet was consumed by residential users, an average rate of 12.2 billion cubic feet per day or 2 percent below the rate of 12.5 billion cubic feet per day in 1999. Residential consumption declined in every month of 2000, except February when the average daily rate was 9 percent higher than in February 1999. The commercial sector saw an increase in consumption. From January through September 2000, the average daily rate of consumption was 8.4 billion cubic feet, 2 percent higher than in 1999. Large monthly increases were seen for commercial consumption in May and June when 2000 levels were 16 and 17 percent, respectively, above 1999 levels.

The daily rate of natural gas industrial consumption was 25.2 billion cubic feet for January through September 2000 compared with 23.5 billion cubic feet per day during the same period of 1999, an increase of 7 percent. Gas consumption in this sector rose in each month compared with the same month of 1999, except in September when it is estimated to be virtually the same in both years. The increase in industrial consumption may reflect increases in gas used in manufacturing processes as well as gas used by nonutility generators. As the restructuring of the electric utility industry proceeds, many previously regulated generating plants have been sold to entities that are not regulated utilities. These facilities are classified as nonutility generators, and

Figure HI3. Average Daily Rate of Natural Gas Deliveries to Consumers, January-September, 1998-2000



Note: Electric utilities reflect deliveries for January-June.
Source: Table 3.

the gas that they consume is reported as industrial rather than electric utility consumption.

Data for natural gas consumption by electric utilities are available through June 2000. Cumulative consumption in this sector was 5.1 billion cubic feet per day, 2 percent above the daily rate of 5.0 billion cubic feet during the same period of 1999. This rise in consumption occurred despite substantial increases in wellhead prices during 2000 and the reclassification of gas consumption from the electric utility sector to the industrial sector, as described above. Electric utility consumption tends to increase during the summer as the space-heating requirements in the residential and commercial sector are reduced. Electric utility consumption of natural gas is estimated at 306 billion cubic feet in June 2000, nearly the same as in May 2000, but substantially more than the 214 billion cubic feet consumed in April 2000.

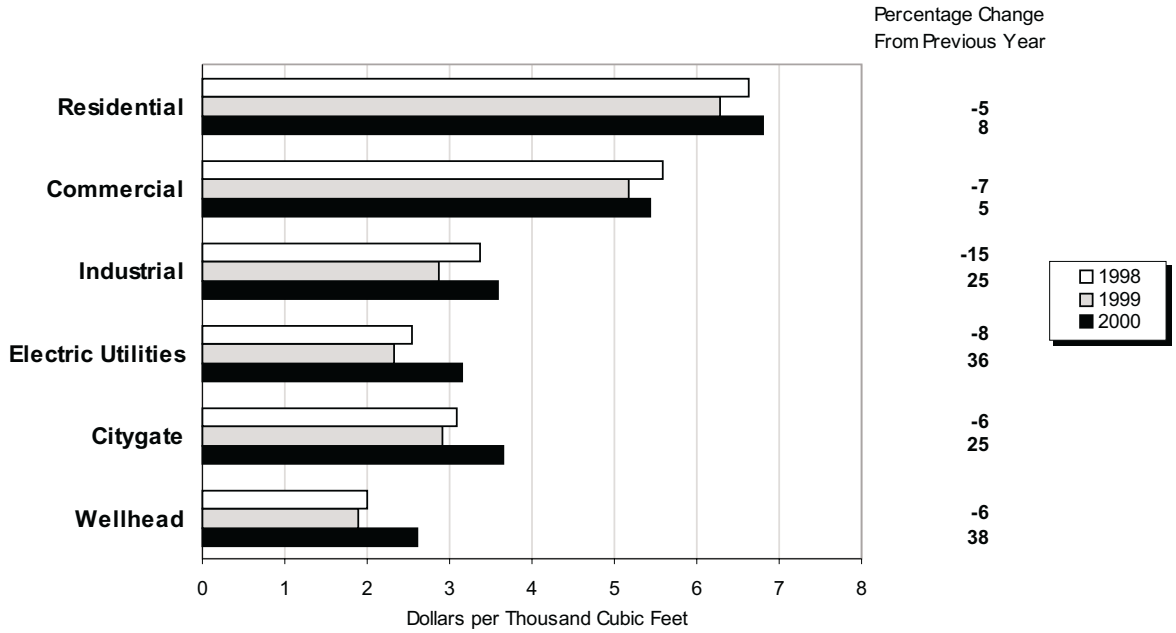
Prices

The average natural gas wellhead price for August 2000 is estimated to be $3.41 per thousand cubic feet, $0.08 (2 percent) below that of July 2000 (Table 4). This is the second month in a row that the average wellhead price has declined; however, the August 2000 price is substantially greater than the monthly prices during 1999, which were well below $3.00 per thousand cubic feet.

Prices on the near-month futures contract at the Henry Hub continued to set records on the New York Mercantile Exchange during September. Daily settlement prices on the near-month contract (for October delivery) exceeded $5.00 per million Btu for the first time since the futures market opened in April 1990 (Figure HI5). The October contract closed at $5.312 per million Btu on September 27. Continued concern about levels of working gas in storage 1 month before the beginning of the heating season on November 1 have contributed to the continued increase in futures prices, despite the increase in net injections into storage during September 2000 compared to the previous month.

The most recent estimates for natural gas prices[1] paid by end users are all higher than for the prior month.

Figure HI4. Average Delivered and Wellhead Natural Gas Prices, January-June, 1998-2000

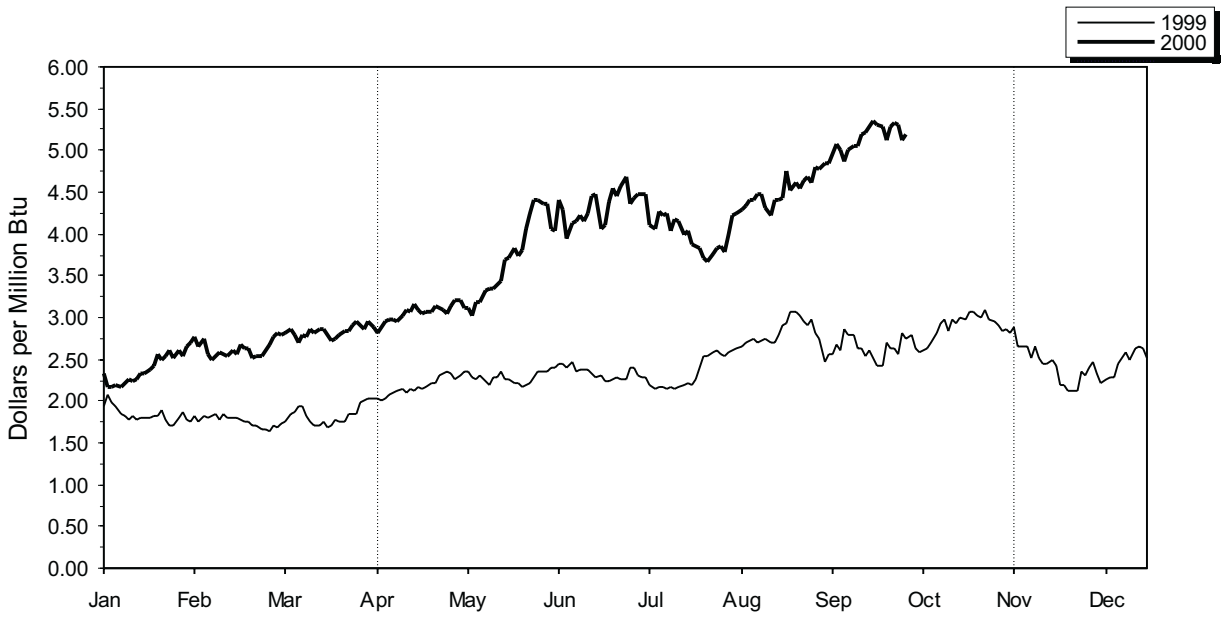


Note: Commercial and industrial average prices reflect onsystem sales only. The reporting of wellhead prices is 2 months ahead of the reporting of city gate, residential, commercial, and industrial prices. The reporting of electric utility prices is 1 month behind the reporting of city gate, residential, commercial, and industrial prices.

Source: Table 4.

1 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 2000 they have averaged 68 percent of commercial deliveries and only 18 percent of industrial deliveries (Table 4).

Figure HI5. Daily Futures Settlement Prices at the Henry Hub



Note: The futures price is for the near-month contract, that is, for the next contract to terminate trading. Contracts are traded on the New York Mercantile Exchange. April 1 is 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.

In June 2000, residential users paid $9.05 per thousand cubic feet for natural gas, $1.11 (14 percent) more than in May 2000. The average price paid by the residential sector typically increases during the summer, largely as the result of the type of service residential users require and the strong seasonal pattern in monthly residential consumption. To provide high-quality, on-demand (firm) service to residential users, a demand charge to reserve pipeline transportation capacity is paid. The demand charge is a constant dollar amount throughout the year. Besides the demand charge, the total residential price includes charges for distribution and for the natural gas commodity, both of which may vary throughout the year. The primary use of natural gas in the residential sector is for space heating, thus usage declines during the summer (Table 3). Because the demand charge is a significant portion of the final price and is constant each month, when consumption goes down, the average price *per unit of gas consumed* increases. Thus *average* residential natural gas prices always rise during the summer as consumption declines.

In the commercial sector, the average price paid for natural gas in June 2000 is estimated to be $5.63 per thousand cubic feet. This is $0.31 (6 percent) higher than in May 2000. For commercial customers, the largest use of natural gas is also for space heating, and many customers require firm service. Thus, on average, commercial prices for natural gas also tend to rise during the summer.

In the industrial and electric utility sectors, much of the natural gas is provided on an interruptible basis and there is no demand charge. Thus, changes in the wellhead price have a more direct impact on prices paid by these users than prices paid by residential and commercial users. In the industrial sector, the average price paid for natural gas in June 2000 is estimated to be $4.26 per thousand cubic feet, $0.55 (15 percent) higher than in May 2000. The estimated average wellhead price in June 2000 was $3.58 per thousand cubic feet, $0.82 (30 percent) higher than in May 2000. For electric utilities, price estimates are only available through May 2000. The May 2000 price is $3.61 per thousand cubic feet, $0.39 (12 percent) higher than in April 2000.