

# Frequently Asked Questions: Natural Gas Supply and Prices

## Q: ARE NATURAL GAS PRICES GOING UP THIS WINTER?

A: The size of home heating bills reflects two factors: the price of each unit of natural gas, as well as the amount of natural gas the customer is using – which is often related to weather. Colder-than-normal winter weather predictably causes natural gas consumption to rise, which creates larger heating bills. The cost of the natural gas itself is the other key factor: natural gas utilities acquire their natural gas inventories throughout the year. A breakdown of the key factors shows:

- **The price per unit (usually appears on customer bills as per “therm” or “CCF.”)**

During much of the first half of 2008, natural gas prices on average were much higher than they are now. Spot prices at the popular Henry Hub in Erath, Louisiana ranged between \$7.18 and \$13.01 per million Btu (MMBtu) from January through July. While prices started to fall in late July, natural gas utilities acquire their winter natural gas supplies throughout the year, so those recent lower prices will be blended in with the higher prices paid earlier in the year.

- **The amount each customer consumes.**

It's difficult to forecast the amount of natural gas customers will use, as this varies greatly with weather. The last several winters have been warmer than normal, helping to offset higher natural gas prices. Obviously, if the weather returns to a more typical cold winter weather pattern, customers will use more natural gas, and their heating bills will rise to reflect their increased consumption.

Most forecasters make their projections based on a “normal” weather pattern and adjust periodically to reflect actual conditions.

## Q: WHAT ARE THE FACTORS THAT INFLUENCE NATURAL GAS PRICES?

A: As in most free markets, natural gas price is chiefly influenced by supply and demand.

- Natural gas is a domestic resource that is found in abundance in the United States. It is a home-grown North American fuel which is highly efficient and whose use by power plants contributes to cleaner air. Homeowners love it for its comfort and warmth and policymakers love it for its environmental attributes as well as its contribution to American energy independence. Use of natural gas is beneficial to energy security, keeps jobs in the U.S. and contributes to a cleaner environment.
- Domestic natural gas resources are abundant -- but access to that supply can be restricted. Although the U.S. has enough natural gas to serve many generations of Americans, exploration and production has been limited by politically motivated moratoria and other restrictions. Most of our natural gas is produced along the Gulf Coast or in Texas, Oklahoma and the intermountain West. Many areas that are rich in natural gas have restrictions on access to that supply. For example, both coasts of the U.S. have moratoria preventing natural gas exploration and production and even a portion of the eastern Gulf of Mexico is currently off-limits, although legislation is pending in the House and the Senate that would lift some of those restrictions.

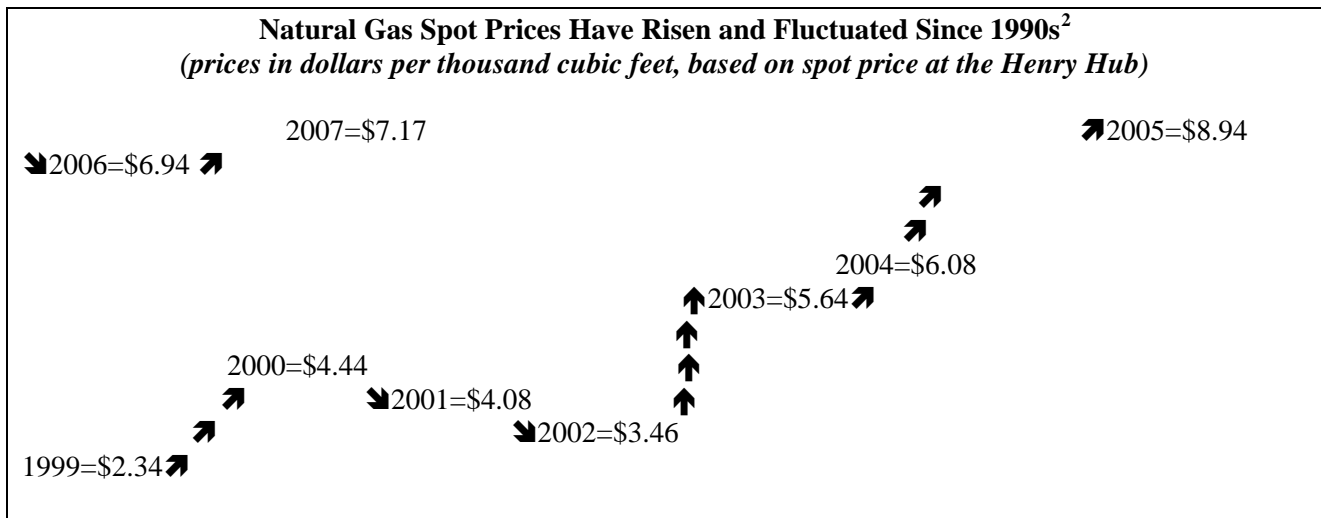
- Just as weather can affect demand, weather can also affect supply, as it did in the fall of 2005 when Hurricanes Katrina and Rita hit the Gulf Coast. Together, they impacted a critical producing region and 3% of a year's production (561 Bcf shut-in of approximately 19 Tcf total annual production.) The balance of supply and demand was already tight, so the hurricane-induced disruption caused prices to increase, significantly.

Increases in supply often take longer to materialize in the market, because it takes time to secure permits for drilling and to build the pipelines required to transport natural gas to market.

## Q: WHY HAVE NATURAL GAS PRICES BEEN SO VOLATILE IN RECENT YEARS?

The wholesale price of natural gas was relatively stable during the 1990s – around \$2 per thousand cubic feet (Mcf) – because natural gas supplies were ample to meet demand. Since 2000, however, wholesale, or “wellhead”<sup>1</sup> natural gas prices have risen, averaging \$7.33 in 2005 and settling back down to around \$6.40 per MMBtu in 2006 and 2007, according to the Department of Energy’s Energy Information Administration (EIA). Factors that can result in higher natural gas prices include increased use of natural gas to generate electricity, especially during the summer months, disruptions to natural gas production caused by unusual weather or hurricanes and public policies that have made it increasingly difficult for energy producers to keep up with consumer demand.

The U.S. will be vulnerable to sudden energy price spikes as long as supply is not allowed to keep pace with demand. Changes in demand can happen quickly and the single largest factor normally affecting demand is weather. As has been shown over and over, extremes in weather can cause natural gas prices to spike.



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, July 2008

<sup>1</sup> The “wellhead” price of natural gas reflects its value as it comes out of the ground, before any processing or transportation occurs.

<sup>2</sup> The term “spot market” refers to a market in which natural gas is bought and sold for immediate or very near-term delivery, usually for a period of 30 days or less. A spot market is more likely to develop at a location with numerous pipeline interconnections, thus allowing for a large number of buyers and sellers. The Henry Hub in southern Louisiana is the best-known spot market for natural gas; for example, natural gas futures traded on the New York Mercantile Exchange (NYMEX) are based on the Henry Hub price.

## Q: WHY IS IT SO HARD FOR NATURAL GAS PRODUCERS TO KEEP UP WITH DEMAND?

A: The thousands of companies that produce natural gas in the U.S. face some stiff challenges:

- Many wells that have produced abundant natural gas for years are becoming depleted. The number of producing gas wells has tripled since 1971 (from approximately 100,000 to more than 300,000) but production per well has declined – indicating that many natural gas basins are maturing.
- It is sometimes difficult and more costly to pull natural gas from mature producing areas. That's why it is important for producers to be able to move to fresh supply areas, and use the best technologies to find and produce more natural gas.
- Even when producers hold valid leases, they often face months of delays and red tape when getting federal or states permits to start working on bringing energy supplies to consumers.

## Q: WHAT IS MY UTILITY DOING TO HELP CUSTOMERS?

A: Utilities want what their customers want: an adequate supply of natural gas at affordable prices. Consumers love natural gas – but they do not like surprises. So natural gas utilities take a number of actions to stabilize natural gas prices and help consumers deal with fluctuations in their energy bills:

- Billing plans – Most utilities offer balanced-billing plans that allow customers to spread their natural gas costs over many months, which makes it easier for people to handle winter heating bills.
- Storage –Natural gas utilities often purchase natural gas during warm-weather months, when it traditionally costs less, and store it for later use on cold winter days. Storage can account for half of some utilities' natural gas supplies on winter's coldest days – contributing to reliable service
- Hedging – More than half of the states allow utilities to use financial tools such as futures contracts and weather risk insurance to stabilize natural gas prices. By the 2006-2007 winter heating season, 87 percent of the gas utilities surveyed by the American Gas Association (AGA) used financial instruments to hedge at least a part of their gas supplies.
- Contract terms – Just as homeowners shop around for food and household items, gas supply managers obtain their gas supplies from a variety of sources and under different contract terms.
- Programs for low-income households – Energy utilities provided \$1.8 billion in assistance to low-income households in 2006 in the form of discounts, fee waivers, efficiency/weatherization programs and arrearage forgiveness funded by customers and stockholders.

## Q: WHAT CAN CONSUMERS DO TO MANAGE THEIR HOME ENERGY BILLS THIS WINTER?

A: The best way to lower your energy bill is to use energy more wisely.

A programmable thermostat allows you to keep your house cooler at night and when you're away and will automatically warm your house to comfort levels for the hours you are home.

Also inspect your windows and doors for drafts. Use caulk or sealant to insulate.

If you are having trouble paying your utility bill, please contact your utility. Low-income customers are eligible for a federal energy assistance program – called LIHEAP that helps to pay energy bills and weatherize homes.

AGA has lobbied hard for increased funding for LIHEAP – it has been funded at around \$2 billion for the last 20 years although more families are eligible and energy bills have more than doubled in that time. Congress has proposed funding LIHEAP at around \$2 billion in FY2009 – less than half the authorized spending level of \$5.1 billion and only enough money to reach a small percentage of the 38 million households eligible for home energy assistance. Contact your member of Congress and ask him or her to support increased LIHEAP funding.

While efficiency alone can help, it cannot solve the problem on its own. Additional natural gas must be produced to keep up with significant increases in consumer demand.

## **Q: WHAT IS THE IMPACT OF NATURAL GAS PRICE FLUCTUATIONS ON THE U.S. ECONOMY?**

A: Energy is the lifeblood of our economy, and natural gas meets one-fourth of the United States' total energy needs.

Natural gas is the backbone of American manufacturing, used to make steel, glass, chemicals, textiles, automobiles, food and many other products. Higher natural gas prices put America at a competitive disadvantage, since natural gas costs less in many countries.

Natural gas is also an essential component of many future sources of energy – we need natural gas to make hydrogen and ethanol.

Without natural gas – it can't happen.

## **Q: HOW CAN WE BRING PRICES DOWN?**

A: Even a marginal increase in natural gas supplies could help dampen price increases.

- Support legislation that would allow states to exercise more control over their energy resources by giving them the opportunity to individually determine whether they wish to opt out of some of the existing offshore drilling moratoria on the Outer Continental Shelf (OCS). According to the U.S. Minerals Management Service, the OCS holds an estimated 480 Trillion cubic feet of natural gas – enough to match current domestic production for the entire U.S. for a 25-year period.

## **Q: WHO OVERSEES NATURAL GAS PRICES AND PROTECTS CONSUMERS?**

A: Natural gas utilities are closely regulated by each state's public utility commission. Utilities are not permitted to make any money from the natural gas commodity, instead utilities make any profits from a service and delivery charges that are completely independent of the cost of that natural gas. In fact, when natural gas prices are higher, consumers wisely respond by using less energy and utilities make less, not more, money. On average, the cost of the natural gas accounts for about two-thirds of a typical home-heating bill.

There are three federal agencies that regulate the natural gas industry to make sure the market is working as it is designed: the Federal Energy Regulatory Commission (FERC), the Securities Exchange Commission (SEC) and the Commodity Futures Trading Commission. All three of them can and sometimes do initiate investigations if there is any concern over market manipulation.

Utilities welcome oversight and investigation of the market because it protects them and it protects their customers. However, most industry experts believe that the price volatility of recent years is related to supply and demand fundamentals.