

Natural Gas Summer Outlook 2004

EXECUTIVE SUMMARY

The Natural Gas Supply Association's (NGSA) second annual Summer Outlook summarizes the market fundamentals that are governing 2004 trends in natural gas prices. While the association does not predict prices, NGSA has analyzed these fundamentals and publicly reported data to help communicate the wholesale market's response to an ongoing tight balance between supply and demand. NGSA expects continuing upward pressure on prices this cooling season, primarily due to projected warmer-than-normal weather, a strengthening economy and relatively flat production. The nation is also experiencing a wave of higher overall energy costs among competing fuels.

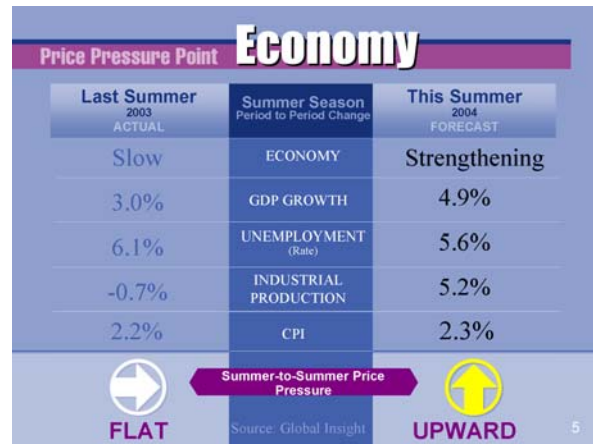
- The weather is the largest single factor affecting natural gas prices, and it is also the most difficult to predict. According to the National Oceanographic and Atmospheric Administration (NOAA), this summer will likely be warmer than normal in the East and West. If accurate, that will lead to more gas-fired electricity generation. As a result, this will likely put upward pressure on the natural gas market.
- The economy is strengthening, and despite some expected demand decreases among industrial customers, natural gas consumption among the sector as a whole is likely to remain relatively constant, or perhaps decline only slightly.
- Producers are responding to market conditions. The natural gas rig count is up 66 percent since April 2002, but this increased drilling activity manages only to maintain U.S. production levels. Large increases in supply/production in the long run are limited without access to government-restricted natural gas reserves and the permitting of new liquefied natural gas (LNG) terminals.

With no expected change in the tight balance between supply and demand in the natural gas market, wholesale natural gas customers can expect continuing weather-related volatility. Overall market costs are likely to trend upward throughout the cooling season, as well, peaking during the hottest days of the year.



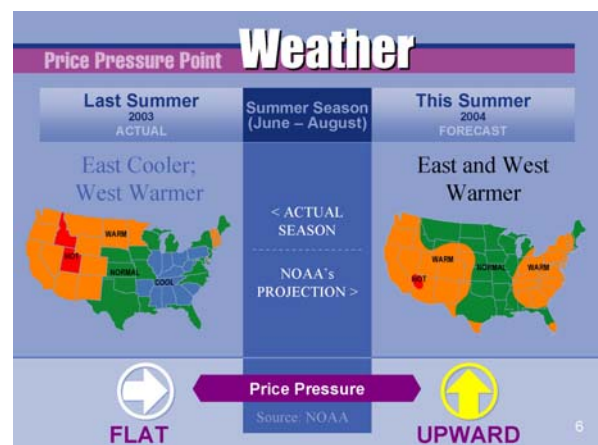
ECONOMIC GROWTH

Last summer, the U.S. economy remained in the doldrums, resulting in flat pressure on the wholesale market. This year, however, the nation appears to be shifting up into high gear. According to the economic forecasting firm Global Insight, the gross domestic product (GDP) is now projected to increase 4.9 percent compared to last summer, up from a 3 percent change between the same periods in 2002-2003. The unemployment rate is expected to fall to 5.6 percent from 6.1 percent in 2003. Industrial production, which was actually down last summer, is forecast to grow 5.2 percent this summer (compared to last summer) with the rate of inflation as measured by the consumer price index staying relatively flat. Overall, this may mean greater summer-to-summer price pressure.





WEATHER

On May 20, NOAA released its latest seasonal forecast for the summer months. It anticipates temperatures this cooling season that are above normal in the West, Northeast, Mid-Atlantic and much of the Southeast. Government forecasters also expect varying warmer-than-normal temperatures from the Rocky Mountains westward. This is likely to lead to above average cooling degree-days for the nation as a whole.



DEMAND

According to projections provided for NGSAA by the consulting firm Energy Ventures Analysis (EVA), overall natural gas demand through the cooling season can be expected to increase as much as 3 percent, up to 51 billion cubic feet per day (Bcf/d) from 49.5 Bcf/d last summer.

Price Pressure Point Demand		
Last Summer 2003 ACTUAL	Summer Season (April-October)	This Summer 2004 FORECAST
49.5	DEMAND Bcf/Day	51.0
-9.7%	DEMAND CHANGE	3.0%
Industrial	SWING DEMAND SECTOR(S)	Industrial and Electric
 DOWNWARD	Price Pressure Source: EVA	 UPWARD

ELECTRICITY DEMAND

One of the greatest demands for natural gas in the summer comes from the power generation sector, where consumption levels peak at this time, due to air conditioning load. Electricity demand outside the winter season has grown steadily during much of the last decade, as natural gas, for a variety of reasons, has captured the majority of new capacity additions. The primary factors shaping natural gas demand in the power sector are weather, economic growth, the availability of hydroelectric generation and efficiency gains for new technologies. Coal supplies competing in this sector are reportedly experiencing price increases, as well.

Of these factors, one of the most significant may be an increase in natural gas demand due to an expected decline in hydroelectric generation in the Pacific Northwest and California. Projections by the Northwest River Forecast Center call for 78 percent of the normal volume of water to flow through the region's hydroelectric facilities. Due to a moderate winter snow-pack, natural gas generation will be required to meet the electricity demand in the Pacific Northwest and California that hydroelectric generation cannot fulfill. Natural gas demand is likely to increase during July and August after the hydro run-off declines.

RESIDENTIAL / COMMERCIAL DEMAND

Natural gas consumption in the residential and commercial sectors during the summer season has been relatively constant during the last several years, about 12.1 Bcf/d, out of a total summer demand of approximately 50 Bcf/d, according to EVA. As a result, it is likely that gas consumption for these sectors will be very close to 2003 demand levels during the upcoming summer. Natural gas consumption for the commercial sector, according to EVA, is projected to average 5.4 Bcf/d through this summer, compared to an average of 5.3 Bcf/d during summer 2003. For the residential sector, EVA projects natural gas consumption to average the same as last summer season, 6.7 Bcf/d.



INDUSTRIAL DEMAND

Industry is the largest consumer of natural gas. The six industries - food, petroleum, paper, chemicals, primary metals and an industrial group producing stone, clay and glass - account for 65-70 percent of industrial gas use. As evidenced in the winter of 2000-2001, increased gas prices can impact production levels and result in decreased production in these industries. A tight balance between natural gas supply and demand in 2004 continues to challenge these industries.

An important issue facing the industrial sector is how much the six key industries can continue to grow given these tight market conditions.



STORAGE

Last summer, the industry entered the cooling season with natural gas storage inventories coming out of the peak heating season at a five-year low. This season, we are entering the summer with storage levels near the five-year average for this time of year. It is expected that the industry will be able to maintain injections averaging more than 70 Bcf a week, resulting in a level approaching 3.2 trillion cubic feet by the end of the injection season. Such a re-fill rate, therefore, will result in somewhat less pressure on the wholesale market.

Price Pressure Point Storage		
Last Summer 2003 ACTUAL	Summer Season (April-October)	This Summer 2004 FORECAST
642	SUMMER STARTING POINT (Bcf)	1,034
5-Year Low	CURRENT LEVELS	At 5-Year Average
80.5	WEEKLY STORAGE ADDITIONS (Bcf)	70.7
3.2 Tcf	END OF INJECTION SEASON	3.2 Tcf
 UPWARD	Price Pressure <small>Sources: EIA and EVA</small>	 DOWNWARD ⁸

SUMMERTIME PRODUCTION

Producers are working hard to fulfill demand as they face the challenge of producing natural gas from mature supply regions where production naturally declines. According to the Energy Information Administration, this year's summer average production is estimated to remain relatively flat at 52.5 Bcf/d, compared with last summer's 52.0 Bcf/d.

Price Pressure Point Supply		
Last Summer 2003 ACTUAL	Annual And Summer Season	This Summer 2004 FORECAST
Flat	PRODUCTION	Flat
20,011	ANNUAL WELL COMPLETIONS	23,682
872	ANNUAL AVG. GAS RIG COUNT	1,016
52.0 Bcf/d	SUMMER AVG. PRODUCTION	52.5 Bcf/d
1.6 Bcf/d	SUMMER LNG IMPORTS	2.4 Bcf/d
 UPWARD	Price Pressure <small>Sources: EIA, EEA</small>	 FLAT ⁹

Applications for permits to drill (APDs) and rig counts are important indicators of activity in the production sector. During the first four months of 2004, APDs were up 15 percent from 2003. It may take up to several years to secure all of the necessary permits before drilling actually begins. Once permits are approved, it takes anywhere from a few weeks to several months to drill a successful producing well. Natural gas producers now have more than 1,000 rigs drilling new natural gas wells. This represents an

increase of 26 percent from the rig activity during the spring of 2003. The natural gas rig count is expected to average 1,016 this year — a three-year high. This increased activity level is expected to result in 23,682 wells completed in 2004, compared to 20,011 in 2003, an 18 percent increase.

Imports also continue to play an important role in addressing concerns about domestic supply. Summer liquefied natural gas (LNG) imports are expected to grow by about 50 percent this year, and the vital role of LNG in the U.S. natural gas supply mix is expected to continually increase over time. Canadian imports, which supplied approximately 14 percent of U.S. natural gas demand in 2003, are expected to decrease by 4.1 percent this summer as Canada faces natural gas production challenges similar to those in the U.S. Overall, according to EEA, summertime natural gas imports are expected to reach 9.7 Bcf/d, up only slightly from 9.5 Bcf/d last year.

LAND ACCESS RESTRICTIONS CONTINUE TO IMPEDE SUPPLY.

Although producers are working hard to increase production, they are limited by government restrictions that prevent drilling for natural gas in some areas that contain some of the nation's largest potential reserves. Severe access restrictions to natural gas resources in the Gulf of Mexico and the Rocky Mountains are forcing producers to expand their production into more technically challenging and higher-cost areas. Moratoria on drilling in the Eastern Gulf of Mexico force producers to drill in deep and ultra-deep waters of the Gulf. Producers are now drilling hundreds of miles offshore, in waters depths exceeding 10,000 feet, because they are prevented from tapping into abundant resources closer to markets.

In the Rockies, where the government controls 52 percent of the land, lease stipulations, permitting delays and restricted drilling severely limit the industry's ability to increase production. The Department of Interior's Energy Policy and Conservation Act Study found that that limits imposed in conjunction with leases affected 35 percent of the lands in five key areas in the West, areas with about 15 Tcf of natural gas resources. Among those lands that are available for leasing, producers face extreme

permitting delays that have the cumulative effect of increasing production costs and extending development times. According to the Independent Petroleum Association of Mountain States, APDs, which should take the Bureau of Land Management 30 days to process, take an average of 137 days to be approved. These delays significantly limit the producer's ability to increase production to meet changes in demand.

In addition, policymaker support for expanding our nation's vital LNG infrastructure and imports will become increasingly important to the U.S. natural gas supply portfolio. The LNG increases to date are attributable to the fact that all four import terminals are now on-line and functioning. However, these four terminals alone will not be sufficient to meet growing demand.

CONCLUSION

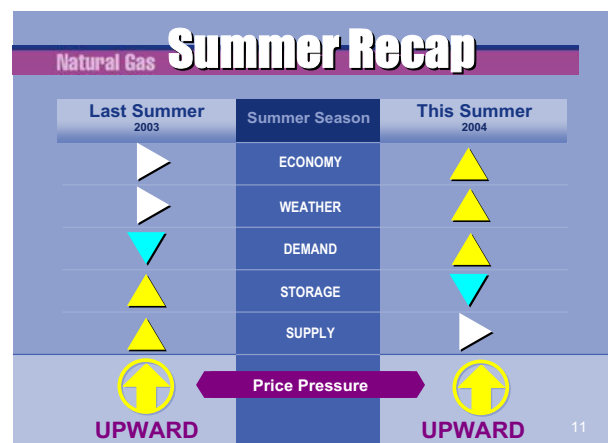
For more than three years, the natural gas industry has been advocating federal policy recommendations that would help set the stage for an easing of the nation's natural gas supply constraints. Comprehensive energy legislation remains stalled, however, further prolonging the risk of weather-related price volatility and higher average costs.

Other than customer conservation, there is little now that can affect the market fundamentals for this summer, which will be determined by weather-driven demand, the economy and the availability of supply. The weather is the largest single factor affecting natural gas costs, and it is also the most difficult to predict. This summer is projected to be warmer than normal and, if so, would likely put an upward pressure on natural gas markets.

Both gas-fired power generators and industrial users may try to reduce their consumption levels somewhat in response to natural gas costs. However, power generators may face environmental restrictions when using other fuels, and because industrial output is expected to grow with the economic recovery, any further reductions are likely to be relatively small.

Based on publicly available data, basic market fundamentals and the tight balance between supply and demand, higher than average natural gas costs are expected to continue throughout the summer season and reach their peak when the weather is the hottest.

For more information, please visit us on the web at <http://www.ngsa.org>.



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