NATURAL GAS

Roles of Federal and State Regulators in Overseeing Prices
What GAO Found

Since natural gas commodity prices were deregulated in 1993, FERC’s role in ensuring that commodity prices are determined competitively and are free from manipulation has been limited to (1) indirectly monitoring commodity markets to identify and punish market manipulation and (2) supporting competition in those markets. FERC faces challenges ensuring prices are fair, however, because staff cannot monitor all of the potentially millions of transactions and because it is difficult to identify market manipulation. FERC’s oversight of commodity markets has risen in importance recently because the commodity price amounted to nearly 60 percent of the total consumer price in 2005 compared with about 30 percent in 1993. FERC also directly approves interstate transportation prices.

FERC has completed action on four of the six new tasks identified by EPAct 2005 related to natural gas. FERC officials said that EPAct 2005 has achieved tangible results. For example, following FERC’s issuance of a policy statement on enforcement in October 2005, some industry members have self-reported instances of noncompliance with FERC-approved rules in an effort to gain consideration for a lesser penalty.

States directly oversee prices for local distribution of natural gas and have a limited role approving commodity and interstate transportation prices. States directly approve utilities’ charges for local delivery of natural gas, but this represented only about 30 percent of the consumer price in 2005. While states can deny gas utilities from passing on the cost of the gas commodity to consumers, state officials told us this rarely occurs. State officials rely on FERC to ensure that commodity prices are fair, but some said they are unaware of FERC’s oversight efforts. FERC officials agree that expanding the information they provide to stakeholders would improve stakeholders’ understanding of FERC’s efforts and could help deter manipulation.

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<td>Commodity price</td>
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<td>Local distribution</td>
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<td><strong>Total</strong></td>
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</table>

Source: GAO analysis of Energy Information Administration data.

Note: Prices shown represent an illustrative example of natural gas prices, in 2005 dollars, based on the average price paid by most utility consumers for 1,000 cubic feet of natural gas.
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Abbreviations

CFTC  Commodities Futures Trading Commission
EIA   Energy Information Administration
FERC  Federal Energy Regulatory Commission
LNG   liquefied natural gas
MOU   memorandum of understanding
NARUC National Association of Regulatory Utility Commissioners

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September 8, 2006

The Honorable Norm Coleman
Chairman
The Honorable Carl Levin
Ranking Minority Member
Permanent Subcommittee on Investigations
Committee on Homeland Security
and Governmental Affairs
United States Senate

High prices for natural gas have the attention of policymakers and the public. After years of being relatively low, natural gas prices have trended upward over the past 5 years. More recently, following Hurricanes Katrina and Rita in 2005, natural gas prices spiked to over $15 per thousand cubic feet, nearly seven times higher than they had been in the late 1990s. The high prices have created hardships for many consumers, particularly low-income residential consumers and energy-intensive industries such as fertilizer manufacturing.

The price that most consumers pay for natural gas is composed of three major components. The first is the charges for the natural gas itself, referred to as the natural gas commodity. The second includes the charges for interstate transportation of the natural gas, generally through large pipelines from areas where it is produced to areas where it is consumed. The third includes the charges for local distribution by natural gas utilities—the private companies that deliver natural gas to consumers in homes and businesses. Utilities generally pass on to consumers the costs of the commodity and interstate transportation, adding these costs to the charges for local gas distribution.

Oversight of these components is shared by the federal government and the states. The Federal Energy Regulatory Commission (FERC) is the lead federal agency with authority over certain sales of the natural gas commodity for resale (for example, the sales by interstate natural gas pipelines or their affiliates to the natural gas utilities that, in turn, sell natural gas to consumers) and over the interstate transportation of natural gas. FERC is obligated to, among other things, ensure that natural gas prices under its jurisdiction are "just and reasonable." Prior to 1993, FERC regulated the commodity and interstate transportation prices subject to its jurisdiction by approving prices based on costs and other factors. While
the regulated market ensured stable prices, it also caused severe gas supply shortages because, with artificially low prices, producers had no incentive to increase production and consumers had no reason to curtail their demand. The Natural Gas Wellhead Decontrol Act\(^1\) required that certain natural gas commodity prices—generally prices charged by natural gas producers—be deregulated by 1993 as part of an effort to address supply concerns and provide other benefits to consumers. Since that time, natural gas commodity prices have been largely determined in the market by supply and demand. Deregulation improved the availability of natural gas and initially lowered prices. The Energy Policy Act of 2005 (EPAct 2005) broadened FERC’s authority over natural gas commodity markets to include, among other things, more authority to police natural gas markets, punish manipulation, and impose greater penalties for other types of violations.\(^2\) The act also identified six specific actions that FERC should take related to natural gas oversight, including issuing a report to Congress and promulgating regulations necessary to implement the new authorities.

In the states, public utility commissions or their equivalents are responsible for overseeing the operations of natural gas utilities. As part of that oversight, the commissions are charged with approving utilities’ investments into new local pipelines and utilities’ charges to consumers for local distribution of the natural gas commodity.

Given the high natural gas prices seen in recent months, policymakers have increased their attention to better understanding the oversight and regulation of the natural gas industry and how prices are determined. In this context, you asked us to provide information about federal and state oversight of natural gas prices. Specifically, you asked us to (1) analyze FERC’s role overseeing natural gas prices, (2) summarize FERC’s progress in implementing additional responsibilities and authorities under EPAct 2005, and (3) examine states’ role overseeing natural gas prices.

\(^1\) Pub. L. No. 101-60. In 1989, Congress passed and the President signed the Natural Gas Wellhead Decontrol Act of 1989, which deregulated natural gas commodity prices. The act restructured the natural gas industry from a regulated environment to one that places greater reliance on competition and mandated that federal controls over natural gas commodity prices end by 1993, allowing the price to be set freely in the marketplace. Prior to 1993, FERC regulated prices directly by approving prices primarily based on costs.

In preparing this report, we reviewed reports, legislation, regulations, and other documentation on the natural gas industry, markets, and federal and state oversight. We examined data on natural gas prices and consumption. In addition, we interviewed officials from FERC, trade associations, industry, and others. We also interviewed state regulators in 10 states—California, Colorado, Georgia, Iowa, Maryland, Pennsylvania, South Carolina, Texas, Vermont, and Wyoming—about their activities and their perspectives on FERC oversight. We selected these states to ensure a broad representation of natural gas consumption levels, residential prices paid for natural gas, purchasing options available to consumers, and methods states use to approve natural gas rates. We conducted our work from February through August 2006 in accordance with generally accepted government auditing standards.

Since natural gas commodity prices were deregulated in 1993, FERC has been limited to an indirect role overseeing the market that determines commodity prices while it has continued with its direct role approving interstate transportation prices. FERC’s role since deregulation has shifted from approving natural gas commodity prices to a more limited role of monitoring the markets that now determine prices. In carrying out its responsibility and to understand the overall market, FERC staff in the Office of Enforcement review a wide range of data on natural gas commodity prices at key energy market trading centers nationwide and on other aspects of the market in order to identify price anomalies or potential market manipulation and undertake informal or formal investigations when needed. To promote competition in natural gas commodity markets, FERC has issued rules of conduct designed to prevent pipeline companies from giving undue preference to their energy affiliates and to open access of pipelines to other entities. More recently, FERC has updated the rules designed to prevent natural gas pipeline companies and public utilities from giving affiliates undue preference and developed standards designed to improve the robustness and availability of price information. While FERC’s role overseeing natural gas commodity markets has been limited, recently it has become more important because the commodity price accounted for almost 60 percent of the total consumer price in 2005, compared with about 30 percent in 1993. FERC faces challenges in ensuring that commodity prices are competitive and free from manipulation. For example, although FERC officials said they now have the authority to examine virtually all transactions, they are still not able to actively monitor all of the potentially millions of transactions that occur in numerous physical and financial markets. While FERC has worked to improve the functioning of competitive markets and focused its
oversight efforts on identifying and punishing market manipulation, staff acknowledged that it is often difficult to determine whether markets are always competitive and free from manipulation. Regarding interstate transportation of natural gas, FERC retains a direct oversight role approving the transportation charges. However, this role has decreased in importance in determining prices consumers pay because transportation declined to about 10 percent of the total consumer price in 2005 from about 20 percent in 1993.

FERC has completed action on four of the six actions identified in the Energy Policy Act of 2005 related to its oversight of natural gas markets and it has expanded its market-monitoring activities in response to the new authorities provided by the act. In particular, in January 2006, FERC promulgated new rules regarding market manipulation. In addition, FERC has initiated action on the two remaining actions. For example, FERC has begun writing regulations regarding its role as the lead agency for coordinating environmental approvals of construction of new pipelines. In addition, FERC staff told us they have begun to use their broadened antimanipulation authority granted by EPAct 2005 to investigate entities previously outside FERC’s regulatory reach. For example, they are analyzing data on the transactions between producers and traders that occur before the gas is shipped through interstate pipelines; prior to EPAct 2005, these transactions were outside FERC’s jurisdiction. According to FERC officials, however, it has not yet used its new authorities to issue fines or penalties because none of the investigations FERC is conducting under the new authority have been completed. FERC officials said that EPAct 2005 is having tangible results. For example, following FERC’s issuance of a policy statement on enforcement in October 2005, some industry members have self-reported instances of noncompliance with FERC-approved rules in an effort to gain consideration for a lesser penalty.

States directly oversee prices for local distribution of natural gas and also have a limited role approving the federally overseen natural gas commodity and interstate transportation prices that gas utilities charge their customers. States directly approve utilities’ charges for local delivery of natural gas from interstate pipelines to homes and businesses and for related services such as meter reading. These charges accounted for about 30 percent of the consumer price for natural gas in 2005, down from about 50 percent in 1993 when natural gas commodity prices were lower. In addition, states have a limited role approving the prices that gas utilities charge their customers for the commodity and transportation costs. In general, states allow gas utilities to recover these costs, but states can
deny recovery under some circumstances. For example, state regulators can and do review utilities’ gas purchases and, in certain instances, may deny recovery of the costs if the utility’s purchase price was above prevailing market prices. In practice, however, according to regulators and experts, state regulators rarely deny utilities these charges because, for example, it is difficult to demonstrate that prices utilities paid are above prevailing market prices. State officials in only 4 of the 10 states in our review said that they had denied recovery of a major natural gas commodity purchase in the past 3 years—and then in only a few instances. Because of their limited authority, state regulators told us they generally rely on FERC to ensure that the commodity and interstate transportation portions of natural gas prices are reasonable. FERC has conducted some outreach activities to keep state regulators informed about its gas market oversight activities. In addition, FERC publicly reports some enforcement information, such as the number of hotline calls it receives and statistics on closed investigations and audits in documents available through its Web site. Despite these actions on FERC’s part, some stakeholders, including state regulators, other government officials, and the public do not fully understand what FERC does to oversee commodity markets, and some lack confidence that natural gas commodity prices in particular are free from manipulation. FERC officials noted they are prohibited by regulation from providing detailed or specific information to regulators or the public about ongoing enforcement efforts without approval by FERC’s commissioners. However, they recognize that providing more information about ongoing and completed efforts, as long as it would not compromise ongoing investigations, would help stakeholders better understand FERC’s oversight activities and deter illegal activity.

To increase stakeholders’ understanding about FERC’s oversight of natural gas commodity markets and to deter market manipulation, we are recommending that FERC better inform stakeholders, including state regulators, other government officials, and the public, about the monitoring and investigation activities that FERC undertakes to help ensure that prices are free from manipulation.

**Background**

Natural gas is a vital energy source used in a large variety of applications, providing about one-fourth of the energy consumed in the United States. Natural gas is a colorless, odorless fossil fuel found underground that is composed mainly of methane and generated through the slow decomposition of ancient organic matter. Most natural gas consumed in this country is produced in North America, but an increasing portion is shipped from overseas in the form of liquefied natural gas (LNG). Natural
gas is used in about 60 million homes and 5 million businesses in a variety of ways, such as for heating, fueling industrial processes in manufacturing operations, fueling electricity generation, and fueling some cars and buses. Most natural gas consumers are residential users, but they use only about 24 percent of the gas consumed in the United States. Other natural gas consumers include industrial consumers, electricity generators, and transportation users.

The natural gas industry performs three separate functions to deliver natural gas to consumers: (1) production of the natural gas commodity, (2) transportation of the commodity between states, and (3) local distribution within states. These major functions are illustrated in figure 1.
Figure 1: Natural Gas Production, Interstate Transportation, and Local Distribution

To produce the natural gas commodity, producers drill wells to reach pockets of natural gas, either at sea (such as in the Gulf of Mexico) or on land (such as in the Powder River Basin of the Rocky Mountain states). Once the gas well has been drilled, the drilling rig is removed and the natural gas flows to the surface, where it is combined with gas from other nearby wells and moved locally through a network of progressively larger local pipelines to processing plants. There, the raw gas is processed to...
remove water vapor, hydrogen sulfide, and other compounds so that it can be transported, bought, and sold nationally. Producers may choose to sell the natural gas commodity to a variety of customers, including marketers, traders, and a variety of consumers. Furthermore, the various players in the market may, in turn, sell gas back and forth several times before it is actually delivered.

Eventually, the natural gas is transported via a network of larger interstate pipelines that connect various supply regions, such as the Gulf of Mexico, to areas where natural gas is consumed, such as large cities on the East Coast. Interstate pipelines converge at several pipeline network interconnections, which link gas consumers across the United States to several different production regions. As a result of this interconnected network, prices of natural gas at different trading locations vary somewhat, but they generally move together as the overall supply and demand balance changes. Some interstate pipeline intersections have become important locations for trading natural gas, such as the “Henry Hub” pipeline interconnection in Louisiana.

Most consumers, particularly residential and small commercial consumers, receive natural gas from local natural gas utilities. Utilities generally operate as monopolies within service areas defined by states and, as such, are the only entity delivering natural gas to most consumers. In most cases, local gas utilities also purchase the natural gas commodity for their customers. Local gas utilities receive natural gas from interstate pipelines and route it into local delivery pipelines to homes and businesses, where it is consumed. A smaller number of consumers—such as operators of electric power plants or operators of industrial or manufacturing plants—may completely bypass the local gas utility. Because these consumers use large amounts of natural gas, they may purchase gas directly from suppliers and receive natural gas directly from interstate pipelines.

The federal government has authority to regulate certain sales of natural gas and its interstate transportation and does so through two agencies. FERC has primary responsibility for natural gas oversight. FERC is led by five commissioners appointed by the President and approved by the Senate. The Commodities Futures Trading Commission (CFTC) also plays a role in federal oversight related to natural gas prices. It is responsible for ensuring that fraud, manipulation, and abusive practices do not occur in federally regulated financial markets, where some natural gas transactions are conducted.
States directly regulate the local gas utilities that fall under their jurisdiction. Because only one utility generally provides gas to a specific service area, utilities lack competition and could take advantage of their monopoly by artificially raising natural gas prices for consumers or by taking other actions. To regulate investor-owned utilities, which distribute over 90 percent of the gas delivered by utilities, states created agencies called public utility commissions. States generally do not allow utilities to profit from the natural gas that they resell, although they allow utilities to recover the costs of purchasing the natural gas commodity by passing those costs on to customers. Traditionally, utilities sold natural gas at a single price per unit of gas—such as per thousand cubic feet—approved by a commission. However, as consumer prices have become more variable, states have generally started to allow utilities to use a “gas cost adjustment” system, where utilities independently adjust the rates they charge consumers, as long as utilities are not profiting from the gas sales.\(^3\)

Since natural gas commodity prices were deregulated in 1993, FERC’s role ensuring that the price consumers pay for natural gas is fair has been twofold and limited. First, FERC has an indirect role overseeing the market that determines commodity prices, with activities generally limited to monitoring the market to identify and punish market manipulation while supporting the development of competition. Recently, this oversight role has become more important because the commodity portion of the price that consumers pay for natural gas has increased from about 30 percent in 1993 to almost 60 percent in 2005. FERC faces challenges in carrying out its oversight of the commodity markets, including difficulties ensuring that markets are competitive and completely free from manipulation. Second, FERC directly approves rates that determine interstate transportation prices. While FERC retains a direct role in approving the rates for interstate transportation, this role has decreased in importance because the interstate transportation portion of the price that

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3The remaining 10 percent is distributed by approximately 1,000 publicly owned municipal utilities, which are regulated by consumer representatives in the municipalities they are located in.

4According to experts, states vary in how often they allow gas cost adjustments—ranging from monthly to annually, or less frequently. In many cases, the prices a utility charges its customers change less frequently than the prices it pays to purchase natural gas on customers’ behalf. As a result, states often allow utilities to hold some of the excess revenue collected when consumer prices are higher than purchased gas costs to offset periods when consumer prices are lower than purchased gas costs.
consumers pay has decreased from about 20 percent in 1993 to about 10 percent in 2005.

Since Deregulation, FERC Has Had a Limited, Indirect Role Overseeing Natural Gas Commodity Prices

In carrying out its responsibilities to help ensure that natural gas commodity prices in deregulated markets are competitive and free from manipulation, FERC’s Office of Enforcement polices wholesale natural gas commodity markets for manipulation. Relying on a wide range of energy data sources in FERC’s Market Monitoring Center, energy market analysts in the Office of Enforcement monitor prices and volumes of natural gas commodity transactions at many key energy market trading centers nationwide to identify price anomalies or other unusual market activity that might indicate market manipulation. FERC officials explained that because natural gas prices at different locations generally move together, FERC’s monitoring of prices at key energy market trading centers allows them to understand the overall natural gas market. In addition, they monitor other factors that may affect the market, such as storage levels, imports and exports, weather, supply and demand for other fuels, and electricity transmission constraints and outages. The Office of Enforcement also operates an enforcement hotline, through which anyone can anonymously offer information about suspicious market activities, such as bidding anomalies or improper transactions between a company and an affiliate. When Office of Enforcement staff identify unexpected or unexplained deviations in price behavior or other anomalies, they examine the anomaly and undertake informal or formal investigations when needed. In response to unusual circumstances resulting in short-term market changes, the office has increased its monitoring and enforcement efforts. For example, in response to persistent high energy prices and Hurricane Katrina, which substantially disrupted domestic natural gas supplies during the fall and winter of 2005, the office initiated a daily review of market activity and intensified its investigation of unusual trading activity, according to office officials.

In addition, the staff conduct a variety of random and targeted audits of individual companies to determine whether companies are following rules and regulations regarding trading activities. For example, in 2004, FERC completed 27 financial audits to determine compliance with its accounting regulations and an additional 12 audits to determine compliance with FERC standards of conduct and other requirements. Among other things, these audits resulted in over 100 recommendations to remedy deficiencies and uncovered $10 million in pipeline costs that were improperly capitalized.
To further help ensure that natural gas commodity prices are competitive and free from manipulation, FERC also supports the development of competitive markets. It has done this primarily by promulgating rules that prevent pipeline companies from giving undue preference to their energy affiliates by requiring that pipeline companies completely separate (or “unbundle”) their transportation, storage, and sales services and open access of their pipeline to other entities. Recently, it has supported the development of competitive markets by fine-tuning existing policies rather than making major changes:

- In 2003, for example, FERC Order Number 2004 updated rules of conduct designed to prevent natural gas pipelines and public utilities from giving undue preference to their affiliates.

- Also in 2003, FERC developed standards and issued orders designed to improve the information about natural gas markets published in price indices—a key source of market information that market participants use to make informed decisions about buying and selling natural gas.\(^5\)

While FERC’s role overseeing natural gas commodity markets has been limited, it has become more important in recent years because the commodity portion of prices that consumers pay for natural gas has increased more than the other components. As shown in figure 2, real natural gas commodity prices accounted for almost 60 percent of the total consumer price in 2005, compared with about 30 percent in 1993. Specifically, real natural gas commodity prices increased from $2.59 in 1993 to $7.51 in 2005—an increase of about 190 percent. Over the same period, real interstate transportation prices and other charges decreased from $1.48 to $1.13 and local distribution charges increased slightly from $3.75 to $4.17.

\(^5\)In December 2005, we reported that FERC’s efforts to improve the availability and accuracy of natural gas price indices had increased industry confidence in short-term price data. See GAO, Natural Gas and Electricity Markets: Federal Government Actions to Improve Private Price Indices and Stakeholder Reaction, GAO-06-275 (Washington, D.C.: Dec. 15, 2005).
FERC continues to face challenges ensuring that the gas commodity market is competitive and free from manipulation. EPAct 2005 allows FERC to gain access to information about virtually any natural gas transaction. However, senior Office of Enforcement officials told us that while they have increased the number and types of data sources they actively monitor, they do not actively monitor all natural gas trades that occur through established markets. The officials said that, even after increasing the number of staff working in the Office of Enforcement dedicated to market monitoring, they are still not able to examine all of the potentially millions of transactions that occur in numerous physical and financial markets. Since the passage of EPAct 2005, FERC also has authority to police all markets that could affect natural gas for manipulation, including sales that do not involve pipeline companies or their affiliates. However, FERC officials have acknowledged that it is often difficult to determine whether markets are competitive and completely
Free from manipulation because, for example, it is difficult to determine what prices should be under completely competitive conditions.

FERC Directly Approves Interstate Transportation Charges

In addition to its efforts regarding competitive natural gas commodity markets, FERC continues to approve the prices that pipeline companies charge for the interstate transportation of natural gas. The Natural Gas Act of 1938, as amended, mandates that FERC regulate the rates that natural gas pipeline companies under its jurisdiction can charge for interstate transportation of natural gas to ensure that rates are just and reasonable.\(^6\) Specifically, FERC requires that every natural gas company file schedules with FERC showing all rates, contracts, and charges for interstate transportation of natural gas subject to FERC. FERC staff analyze the information provided by these companies to ensure that proposed rates are just and reasonable. However, in practice, FERC officials told us that typically, the proposed rate for each unit of service is calculated by dividing a pipeline’s overall cost of service—that is, the company’s total revenue required to cover the pipeline’s operations plus a just and reasonable return on its investment in facilities—by the projected amount of gas its customers will use. A just and reasonable return is typically determined by evaluating the range of returns generally experienced in the industry, and adjusted to reflect the specific investment risks of the pipeline company as compared with the industry. Ultimately, the return on investment must be sufficient to attract capital and compensate the pipeline’s investors for the risks of their investment, but not higher.

FERC’s role in regulating the rates charged for the interstate transportation component of the price that consumers pay for natural gas has become less prominent in recent years because the rates that pipeline companies charge for transportation of natural gas along interstate pipelines have declined relative to the other components of the price consumers pay. As a result, the interstate transportation portion of the consumer price for natural gas accounted for less than 10 percent in 2005, compared with about 20 percent in 1993, as shown in figure 2.

FERC has made substantial progress implementing the additional authorities related to natural gas provided to it in EPAct 2005 but has not yet used its new authority to impose fines or penalties authorized by the act. EPAct 2005 identified six actions for FERC related to natural gas or natural gas markets. As of June 2006, FERC has met all deadlines thus far for implementing additional EPAct 2005 requirements, completing or initiating work on five of the six actions identified in EPAct 2005. FERC has not yet imposed any penalties for violations of rules and regulations related to its new penalty authority since the enactment of EPAct 2005, according to Office of Enforcement officials, because investigations of violations that have occurred since the passage of EPAct 2005 are still under way. Office of Enforcement officials told us that some investigations will be completed soon, and FERC will use its authority if the investigations warrant. Table 1 shows the status of the additional authorities related to natural gas provided by EPAct 2005.

Table 1: Status of FERC’s Implementation of Additional Authorities Related to Natural Gas Provided under EPAct 2005

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<td>1. FERC shall submit to Congress a report on progress made in licensing and constructing the Alaskan natural gas pipeline within 180 days of enactment of EPAct 2005, and every 180 days thereafter. <strong>FERC submitted reports to Congress on February 1, 2006, before the February deadline, and July 10, 2006, before the August deadline.</strong></td>
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<td>2. FERC shall conclude a memorandum of understanding (MOU) with CFTC to facilitate transparency in electric and gas markets by ensuring that agencies may request information in possession of the other agency (for example, FERC may request information regarding futures and options trading data, and CFTC may request information on energy markets) within 180 days of enactment of EPAct 2005. <strong>FERC entered into an MOU with CFTC beginning October 12, 2005, before February deadline.</strong></td>
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<td>3. FERC “may prescribe such rules as it determines necessary and appropriate” under the electric and gas market manipulation provisions, which make unlawful any manipulative device or contrivance (no deadline specified by the act). <strong>FERC issued a statement of enforcement on October 20, 2005, to clarify FERC’s enforcement policy and issued antimanipulation rules on January 19, 2006, broadening FERC’s scope in overseeing natural gas sales.</strong></td>
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<td>4. FERC may authorize natural gas companies to provide storage and storage-related services at market-based rates for new storage capacity (placed into service after the date of enactment of the act) even though the company can’t demonstrate it lacks market power (no deadline specified by the act). <strong>FERC issued a final rule on June 19, 2006, to amend its regulations to establish criteria for obtaining market-based rates for storage services even when a company cannot or chooses not to demonstrate that it lacks market power.</strong></td>
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7Expanded penalty authority provided to FERC after EPAct 2005 applies to violations of any FERC rule, as well as market manipulation.
### Initiated actions

5. FERC shall act as the lead agency for coordinating all applicable federal authorizations related to jurisdictional natural gas facilities, and for purposes of complying with the National Environmental Policy Act (no deadline specified by the act). **FERC issued a policy statement shortly after EPAct 2005 was enacted to implement its provisions regarding the coordination of the environmental processing and consolidation of various agency records related to approving new pipeline construction. On May 18, 2006, FERC issued a notice of proposed rulemaking to codify that policy statement, and will likely issue a final rule in the fall of 2006.**

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### Actions FERC plans to initiate soon

6. FERC may issue rules to increase transparency in electric and gas markets (no deadline specified by the act). **FERC plans to hold a conference in October 2006 to discuss ideas to improve transparency in electric and natural gas prices.**

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In addition, the Office of Enforcement has begun to use the authority under EPAct 2005 to expand its monitoring and investigation of those who violate its new antimanipulation rules. Following the enactment of EPAct 2005, FERC issued antimanipulation regulations implementing its new authority to monitor, investigate, and impose fines and penalties on any person under its jurisdiction that manipulated natural gas commodity prices (action No. 3 in table 1).\(^8\) Previously, FERC could only penalize behavior that manipulated natural gas commodity prices for a limited number of transactions, such as those by owners of interstate pipeline companies and other entities transporting natural gas on an interstate pipeline. Under the new regulations that implement EPAct 2005, FERC’s prohibition against market manipulation applies to transactions by producers, financial companies, local utilities, and natural gas traders, most of which were not previously regulated by FERC. According to Office of Enforcement officials, to implement the authority, the Office of Enforcement has dedicated more time and staff efforts analyzing transactions and other market behavior in venues previously outside FERC’s jurisdiction. For example, Office of Enforcement officials told us they are now able to examine whether financial market transactions,

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which are not generally under FERC jurisdiction, affect the physical natural gas markets over which FERC has authority.\(^9\)

However, FERC has not yet imposed any penalties for violations of rules and regulations related to its new penalty authority since the enactment of EPAct 2005, according to Office of Enforcement officials. With regard to antimanipulation rules, according to Office of Enforcement staff, proving market manipulation is harder than it was before EPAct 2005. Instead of proving that the market behavior had a “foreseeable” effect on market prices, conditions, and rules, FERC must now prove that the conduct that resulted in manipulated prices is intentional or reckless, which office staff told us is a more difficult standard. Although the Office of Enforcement has begun investigating possible violations that have occurred since passage of EPAct 2005—and that may be subject to the new penalty authority—the investigations are still under way. As a result, no penalties have been levied under the new authority, but FERC staff told us they will use its authority if warranted. Nevertheless, according to Office of Enforcement officials, their efforts to implement the new authorities granted by EPAct 2005 are already having tangible results outside of FERC’s antimanipulation activities. Specifically, Office of Enforcement officials noted that following the issuance of FERC’s Policy Statement on Enforcement in October 2005, which explained the new market manipulation rules and higher penalties, some industry members have self reported instances of noncompliance with FERC-approved rules in an effort to gain FERC’s consideration for a lesser penalty.

\(^9\)CFTC is generally responsible for oversight of financial transactions, such as natural gas futures and options traded over exchanges, such as the New York Mercantile Exchange, but has limited oversight of off-exchange and over-the-counter markets, where certain antifraud and antimanipulation provisions of the Commodity Exchange Act apply. For more information on CFTC responsibilities, see GAO, Futures Markets: Approach for Examining Oversight of Energy Futures, GAO-06-742T (Washington, D.C.: May 4, 2006).
States directly oversee the prices utilities charge for local distribution of natural gas but have only a limited role approving natural gas commodity and interstate transportation prices. States review and approve the local delivery prices that utilities charge, and they review and approve the charges utilities pass on to consumers to recover the cost of purchasing and transporting the natural gas commodity. However, states generally allow utilities to pass on commodity prices to local consumers, according to state officials we interviewed. States rely on FERC to oversee commodity and interstate transportation prices, and stakeholders told us they lacked knowledge about FERC’s oversight of natural gas commodity prices. Some stakeholders said they had little confidence that natural gas commodity markets were free from manipulation. FERC officials acknowledged that providing some additional information would increase stakeholders’ understanding of FERC’s oversight of natural gas and help deter market manipulation.

States directly approve utilities’ charges for local distribution of natural gas. In most states, utilities file proposals to set or change natural gas distribution charges with state public utility commissions—state regulators—that specify the rates utilities may charge consumers. These rate proposals outline the utilities’ costs to distribute natural gas. In general, states allow utilities to earn a regulated rate of return, or profit, and the profits allow utilities to realize a return on their investment and enable the utilities to make improvements. Utilities file rate proposals at different intervals. Some follow a regular schedule, such as filing monthly or annually, while others file only when they believe a price change is needed. State regulators review these proposals and may either accept them—enabling the utility to charge those prices to consumers—or deny them, requiring the utility to charge a different rate.

Although state regulators directly approve local distribution charges, the regulators cannot substantially lower utilities’ local distribution charges without affecting service quality or long-term financial health, according to state officials. Like any business, utilities must cover their cost of service, which can include charges for the cost of expanding or maintaining the gas pipelines, the cost of storage paid by the utility, or the cost of utility employees to read consumers’ meters or provide other services. Unless utilities cover these costs, they may eventually face financial problems or go out of business.

Since deregulation, local distribution charges have risen slightly in real terms, but they have decreased significantly as a share of the total
consumer price. Local distribution prices increased from $3.75 in 1993 to $4.17 in 2005 (in constant 2005 dollars), but the share of the price consumers paid for utilities to distribute natural gas decreased, dropping from about 50 percent of the total price in 1993 to about 30 percent in 2005. As a result, state regulators’ ability to affect total natural gas prices paid by consumers has decreased. This occurred primarily because of the increase in natural gas commodity prices, which almost tripled in price over the same period.

States Have a Limited Role Approving Commodity and Interstate Transportation Prices and Take Actions to Stabilize Consumer Prices

States exercise limited oversight of the gas commodity and transportation components of consumer prices by reviewing the costs utilities pass on to their consumers. States can deny utilities from recovering the costs of these purchases from consumers if the costs of the gas purchases do not reflect fair market prices; however, regulators in states we reviewed told us this rarely occurs. Officials in only 4 of the 10 states we reviewed said they had denied utilities’ recovery of gas purchases since 2002. Of these 4 states, the state officials recalled that they had done so infrequently—generally in only one or two cases, out of the dozens of rate changes utilities have proposed since 2002. State regulators cited several reasons why states rarely denied utilities from recovering their costs—for example, they told us it is difficult to prove these costs were above a fair market price. Also, some state regulators we talked to expressed a desire to avoid being overly directive regarding utilities’ purchases because the regulators said that utilities have greater expertise in making purchasing decisions.

Because state regulators have limited oversight of consumer prices but are concerned about recent high and volatile prices, they generally provide for two types of actions to help stabilize consumer prices—they influence how utilities purchase the commodity, and they sometimes implement “customer choice” programs. First, most states encourage utilities to engage in “hedging,” which reduces the need for utilities to buy from volatile short-term spot markets. Hedging includes such techniques as buying gas at fixed prices in long-term contracts or storing gas purchased when prices are relatively low, to be used during times when prices are high. Utilities in these states often engage in some form of hedging to insulate consumers from “rate shocks,” where prices greatly increase from one month to another. While hedging does not guarantee the lowest price, it tends to smooth prices, giving consumers greater price stability.

Second, some states offer “customer choice” programs that allow residential consumers to choose to purchase gas from natural gas
suppliers other than the utility provider. Customer choice programs may encourage more stable natural gas prices because nonutility suppliers have an incentive to hedge their gas purchases to minimize the risk of high prices—unlike utilities, which fully recover their gas purchase costs from the consumer. Therefore, nonutility suppliers may be more likely to offer gas service to consumers at a set price for a period of months or years. However, regulators in the states we reviewed told us that customer choice did not necessarily lead to lower prices, because nonutility gas marketers still purchase gas from the same natural gas commodity markets from which utilities purchase. Moreover, high and variable natural gas commodity prices have decreased participation in customer choice programs. According to the Energy Information Administration, participation in customer choice programs declined from 4.1 million households in 2002 to about 3.9 million households in 2005—representing about 6 percent of all gas users in the United States—and mostly concentrated in two states, Georgia and Ohio.

### States Rely on FERC to Oversee Natural Gas Commodity Prices, but Some State Regulators Lack Knowledge of FERC’s Oversight Activities

States rely on FERC to oversee the market and investigate market manipulation. U.S. Supreme Court decisions and other legal interpretations have established that the federal government has exclusive responsibility for overseeing natural gas commodity prices. As a result, according to the state regulators and other experts we interviewed, the states must rely on FERC to monitor commodity markets and ensure prices are fair. FERC officials acknowledge that it is important to inform stakeholders about their oversight activities. In that regard, in recent performance reports FERC listed actions it has taken to provide information on its oversight, such as providing copies of its market surveillance reports to state public utility commissions. Officials in the Office of Enforcement told us they discuss their market-monitoring and oversight activities during twice-yearly meetings with the National Association of Regulatory Utility Commissioners (NARUC), a national organization of state regulators. In addition, upon request, Office of Enforcement officials have met with state regulators to discuss their market oversight activities. FERC compiles data on the numbers and subject areas of the informal and formal investigations it undertakes, and it reports some of those data for completed investigations. For example, FERC publicly reports the number of hotline calls it receives and some statistics on closed investigations and audits through documents available on its Web site, such as press releases, FERC staff reports, the agency’s annual report to Congress, and its *State of the Markets Report*, which summarizes information about energy market conditions and identifying emerging trends.
However, FERC staff are prohibited from disclosing details about ongoing investigations except by order from the FERC commissioners. In that regard, FERC’s practice has been to release information about the numbers and subject areas of ongoing investigations only rarely because it has been its view that providing overly detailed information could risk undermining FERC’s market-monitoring efforts. FERC officials recognize that publicly disclosing some additional information about its oversight activities, as long as it would not compromise ongoing investigations, could serve to increase stakeholder understanding and, potentially, deter market manipulation. In this regard, FERC has occasionally disclosed information about ongoing oversight efforts at the commissioner’s discretion, as it did in 2002 during the Enron investigation in an effort to increase public understanding of FERC’s oversight activities and raise public confidence in energy markets. FERC officials also told us that they are developing a Web page to better inform the public about its oversight activities in response to questions they received from the public.

Despite FERC’s past efforts, some stakeholders still do not have a full understanding of FERC’s oversight activities and lack confidence in the fairness of natural gas commodity prices. Some state regulators we interviewed told us they lacked assurance that natural gas prices are free from manipulation. For example, regulators from one state sent a letter to FERC expressing concern about high gas prices and that FERC’s oversight may not prevent market manipulation. In response, Office of Enforcement officials invited the state regulators to their offices in Washington, D.C., for discussions and to tour FERC’s Market Monitoring Center to observe firsthand how FERC monitors the market. Between October 2005 and February 2006, FERC received similar letters from two other states and one municipal government requesting information about rising natural gas prices and possible market manipulation. Other state regulators we interviewed told us they would benefit from greater coordination with FERC regarding natural gas prices. Moreover, according to one state commissioner on the NARUC gas committee, state commissioners vary in their knowledge of what FERC staff do to monitor natural gas commodity markets—and many members have limited knowledge. In addition, a NARUC gas committee official elaborated that FERC outreach to the states would help both FERC and the states better fulfill their respective regulatory duties. Citing their concern over rising natural gas prices and concerns over monitoring of commodity markets, attorneys general from four Midwestern states commissioned a report to investigate whether
natural gas prices were artificially high as a result of market manipulation.\textsuperscript{10}

Conclusions

Oversight of natural gas markets has evolved substantially from the days when the federal government set prices based on costs for natural gas produced at wells and controlled, together with the states, nearly all of the rest of the costs of delivering it to consumers. However, aside from FERC’s efforts to prevent market manipulation, neither the federal government nor the states have much influence on the natural gas commodity price that now accounts for the largest portion of the price that consumers pay. As a result, the natural gas prices consumers pay will remain highly affected by what happens in the commodity markets.

Nevertheless, federal oversight of the commodity markets remains a work in progress. Stakeholders, including state regulators, other government officials, and the public, are highly affected by the commodity markets that FERC is charged with overseeing, but some of these stakeholders remain largely unaware of FERC’s oversight processes and activities. Because of regulatory limitations, FERC staff do not publicly disclose information about informal and formal investigations unless the investigations have been completed and have resulted in a formal penalty, despite the advantages such information could have in increasing stakeholder understanding of FERC’s oversight activities and, potentially, deterring market manipulation. However, under current regulations, FERC commissioners have it within their authority to disclose this information. Furthermore, because the commodity component of the price that consumers ultimately pay for their natural gas has taken on such prominence and because states rely on FERC to oversee the commodity market, it is increasingly important for stakeholders to understand what FERC is doing to police this market. In this regard, FERC recognizes the need to provide more information to stakeholders about its oversight efforts and has multiple ways to do so, such as through its Web site. In providing even more information to stakeholders on its oversight efforts, including information, as appropriate, about ongoing monitoring and investigation activities, FERC could both increase stakeholders’

\textsuperscript{10}Mark N. Cooper, \textit{The Role of Supply, Demand and Financial Commodity Markets in the Natural Gas Price Spiral} (report prepared for Midwest Attorneys General Natural Gas Working Group, March 2006).
understanding about FERC’s efforts to ensure the fairness of natural gas prices and better deter market manipulation.

Recommendation for Executive Action

Given the potential benefits of providing more information on its oversight activities, we recommend that the Chairman of FERC provide more information to stakeholders, including state regulators, other government officials, and the public, about actions taken by FERC to ensure that natural gas prices are fair. This effort should be undertaken within existing law and regulation, build upon the efforts that FERC already has under way, and use the information FERC already compiles on its monitoring and investigations. We agree that disclosure of information that is specific or detailed could provide would-be market manipulators with information about FERC’s sources and methods of operation. Therefore, we believe it prudent that the Chairman have initial discretion on how best to do this. The information we recommend that the Chairman consider providing to stakeholders, including state regulators and, where possible, the public, includes the following:

- information on how the Office of Enforcement staff analyze natural gas markets and how the staff go about identifying market anomalies or unusual market behavior;

- information on the types of unusual market behavior that warrant further investigation by the Office of Enforcement; and,

- more timely information on the informal and formal investigations under way, such as the numbers and subject areas but not the identities of those under investigation.

Agency Comments and Our Evaluation

We provided the Federal Energy Regulatory Commission with a draft copy of this report for review and comment.

FERC generally agreed with the report’s findings, conclusions, and recommendation and offered minor technical comments, which we have incorporated, as appropriate. FERC’s written comments are reproduced in appendix II.
As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, will send copies to the Chairman of FERC and other interested parties. We also will make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-3841 or wellsj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix III.

Jim Wells
Director, Natural Resources and Environment
Appendix I: Scope and Method

To obtain information about efforts the Federal Energy Regulatory Commission (FERC) has taken to oversee natural gas prices, we reviewed legislation, regulations, reports, and other documentation on natural gas prices, markets, and federal oversight of natural gas prices. In particular, we reviewed laws and regulations pertaining to FERC’s monitoring, investigation, and enforcement of the wholesale natural gas commodity market, including FERC’s recent Order Number 670, which prohibits energy market manipulation. We also reviewed documentation of FERC’s efforts to oversee and report on the natural gas market, including its State of the Markets Report, Performance and Accountability Report, Market Oversight Report, Market Snapshot Report, and documents describing FERC efforts to support competitive markets, including efforts following Hurricane Katrina and Rita. In addition, we toured FERC’s Market Monitoring Center and interviewed senior officials at FERC’s Office of Enforcement, including its director, about FERC’s efforts to analyze market information for anomalies in market behavior, and a senior official at FERC’s Office of Energy Markets and Reliability about FERC efforts to support competitive markets. We also interviewed representatives of industry trade associations, including the American Gas Association, which represents the investor-owned gas utilities that distribute over 90 percent of the natural gas delivered by utilities; the American Public Gas Association, representing publicly owned municipal utilities; the National Association of Regulatory Utility Commissioners (NARUC), representing state regulators of investor-owned utilities; the National Regulatory Research Institute, the research arm of NARUC; and other academic experts in the field to obtain their perspective on FERC’s oversight efforts. In addition to our document review and interviews, we obtained and analyzed natural gas wholesale gas prices, city gate prices, and end-user price data supplied by the Energy Information Administration (EIA) from 1993, when natural gas prices were deregulated, through 2005. We assessed the reliability of the EIA’s natural gas price data by (1) performing electronic testing of required data elements for obvious errors in accuracy and completeness, (2) reviewing existing information about the data and the system that produced them, and (3) interviewing an agency official knowledgeable about the data. We determined that the data were sufficiently reliable for the purposes of this report.

To obtain information about FERC’s progress in implementing additional authorities provided to it by the Energy Policy Act (EPAct 2005), we reviewed EPAct 2005 and relevant FERC regulations and information documenting FERC’s progress, such as its Policy Statement on Enforcement, memorandum of

1City gate prices include the wellhead price, pipeline transportation cost to the city gate, and marketer fees.
understanding with the Commodities Futures Trading Commission, and FERC’s Status of Energy Policy Act Activities. In addition, we interviewed senior officials in FERC’s Office of Enforcement, including its director, about FERC’s progress in implementing EPAct 2005’s additional requirements and authorities.

To understand efforts states take to oversee natural gas markets, we interviewed state officials responsible for oversight of investor-owned utilities in 10 states—California, Colorado, Georgia, Iowa, Maryland, Pennsylvania, South Carolina, Texas, Vermont, and Wyoming. We selected these states to ensure a broad representation of natural gas consumption levels, residential prices paid for natural gas, consumer choice purchasing options available to consumers, and gas rate approval models. We reviewed documents, regulations, legislation, and rate filings when relevant to our questions. We asked these states’ officials general questions about the same topics, including the states’ coordination with FERC; their regulatory efforts, including monitoring the market for manipulation; how often the states had denied gas utilities from recovering their cost of purchasing the natural gas commodity; and their anticipated challenges in regulating natural gas providers in their state. Because our sample of states was nonrandom and small, we did not attempt to extrapolate our results in order to offer conclusions about all 50 states.

We conducted our work from February through August 2006 in accordance with generally accepted government auditing standards.
FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, DC 20426  

August 16, 2006  

OFFICE OF THE CHAIRMAN  

Mr. Jim Wells  
Director, Natural Resources and Environment  
United States Government Accountability Office  
Room 2T23  
441 G Street, NW  
Washington, DC 20548  

Dear Mr. Wells:  

Thank you for the opportunity to comment on your report entitled Natural Gas: Roles of Federal and State Regulators in Overseeing Prices. As you have noted, the Federal Energy Regulatory Commission (Commission) has taken many steps to improve the understanding of the Commission’s role in overseeing the market and deterring market manipulation. These efforts have included action taken by the Commission to address four of the six new tasks identified by the Energy Policy Act of 2005, along with the Commission’s issuance of a policy statement on enforcement in October 2005. I believe these efforts have enhanced the Commission’s oversight of the natural gas markets and contributed to an increased focus on understanding how natural gas prices are determined.  

In general, I agree with the conclusions and findings of the report. The report recommends improving the Commission’s market oversight and deterring market manipulation by better informing stakeholders, particularly state regulators, about the Commission’s market monitoring and investigations. The report noted that the Commission indirectly monitored commodity markets in order to identify and punish market manipulation and support competition in those markets. The Commission continues to work toward instilling greater overall confidence in the natural gas market by developing vigilant market oversight to ensure that commodity prices are competitive and free from manipulation. The report’s recommendations of how to meet the challenges that lay ahead are consistent with our current direction of attempting to ensure the availability of adequate price information for market participants and improve the understanding of the Commission’s role in ensuring the fair, competitive determination of prices on the natural gas market.
Thank you for your insight and recommendations on how we can improve our role in efforts to regulate and oversee natural gas prices. I appreciate the diligence you and your staff put into this report and hope it will enable us to better utilize the new authority the Commission has been given to facilitate price transparency in wholesale energy markets following the enactment of the Energy Policy Act of 2005. Thank you again for the opportunity to comment on the report.

Sincerely,

Joseph T. Kelliher
Chairman

Enclosure
Appendix III: GAO Contact and Staff Acknowledgments

<table>
<thead>
<tr>
<th>GAO Contact</th>
<th>Jim Wells, (202) 512-3841 or <a href="mailto:wellsj@gao.gov">wellsj@gao.gov</a></th>
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<tbody>
<tr>
<td>Staff Acknowledgments</td>
<td>In addition to the contact named above, Karla Springer (Assistant Director), Lee Carroll, James Cooksey, John Forrester, Jon Ludwigson, Kristen Massey, Alison O’Neill, Frank Rusco, Barbara Timmerman, and John Wanska made key contributions to this report. Others who made important contributions include Casey Brown, Michael Derr, Glenn Fischer, and Kim Raheb.</td>
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