

**Testimony of
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Before the
Permanent Subcommittee on Investigations
Committee on Homeland Security and Governmental Affairs
United States Senate
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Mr. Chairman and Members of the Subcommittee:

On behalf of Chairman Kelliher, thank you for allowing me to submit a statement for the hearing record discussing the critical issues in the natural gas market and recent trends of increasingly high and volatile prices.

Let me begin by laying out the current state of the energy industry in this country. Demand for natural gas is projected to increase at an average rate of 1.5 percent from 2003 to 2025, primarily as a result of increasing use for electricity generation and industrial applications. In 2004, domestic gas production declined 1.4 percent as output from some key traditional supply basins declined. New production sources are desperately needed as supply basins mature. Growth in natural gas supplies will depend on unconventional domestic production (tight gas sands, shale, and coalbed methane), natural gas from Alaska and imports of LNG. There is an estimated \$61 billion needed for natural gas transmission infrastructure investment to serve demand in Canada and the US.

As you are keenly aware, healthy, vibrant energy markets are vital to our economy and to our environment. Clean, reliable energy markets supported by robust infrastructure will give us the competitive edge that we need and that

customers demand. Minnesota is home to 19 Fortune 500 companies, including 3M and many prominent private companies.¹ With a historical 3.3% gross state product annual growth rate, Minnesota's gross state product grew 3.9% in 2004 over 2003.² Minnesota's international exports have strong growth rates - in 2004, Minnesota exports nearly exceeded \$12 billion, which was 12.5% higher than 2003.³ According to the Energy Information Administration, Minnesota had 1,308,143 residential and 123,123 industrial customers of natural gas in 2003. They consumed 138 and 101 billion cubic feet (Bcf) of natural gas, respectively. Consequently, our national economy as well as Minnesota's economic well-being have been and will continue to be affected by the rapid increase and volatility in natural gas prices.⁴

Over the last few years, natural gas prices have escalated, in part, due to depletions and disruptions in the supply of natural gas – and electric prices are inextricably linked to the natural gas market. Last fall, all indications and projections forecasted energy prices to rise even higher this winter because of the loss of domestic oil and natural gas supplies due to Hurricanes Katrina and Rita.

¹ Minnesota Department of Employment and Economic Development.

² US Department of Commerce, Bureau of Economic Analysis News Release, "Widespread Gross State Product (GSP) in 2004 Led by Services-Providing Industries: Accelerated Estimates of GSP by Industry for 2004", BEA 05-06, October 26, 2005.

³ Annual Export Statistics: *Minnesota's Exporting Trends in Manufacturing in 2004*, Department of Employment and Economic Development prepared for the Minnesota Trade Office, Publ. April 2005, Rev. May 2005.

⁴ Minnesota Quarterly Export Statistics: Data on Manufacturing for Third Quarter 2005, Department of Employment and Economic Development prepared for the Minnesota Trade Office, Publ. Dec. 2005.

The hurricanes shut in about 500 Bcf, almost three percent of the Nation's annual production. I would point out that natural gas prices had been at sustained high levels even prior to the hurricanes. As of January 21, eighty percent of the hurricane-related shut-ins have come back on line. To date this winter, we have experienced 12 percent warmer than normal weather. This recovery of Gulf production and mild weather, have had a moderating influence on prices, but wholesale spot prices remain in the \$8.00 to \$9.00 range. The electricity sector is no better, maybe even worse. Customers have felt the impacts and they are angry and frustrated.

However, Hurricanes Katrina and Rita are not the root cause of our high energy prices. That loss exacerbated the already existing and growing problem of inadequate infrastructure and lack of supply. I think it is important to clearly define and focus the debate about high energy prices. Unfortunately, we all too often find it more comforting to blame the high energy prices on unprecedented natural catastrophes, market manipulation, or revelations of corporate malfeasance instead of addressing the underlying economic issues. I do not mean to suggest that we ignore these factors as possibly contributing to high and volatile energy prices. In fact, the Commission has aggressively taken the steps necessary to eliminate or at least minimize the influence of these factors on energy prices. Using the new anti-manipulation authorities provided by the Energy Policy Act of 2005 (EPAAct 2005), the Commission now has in place rules to prohibit market

manipulation by any entity, not just companies traditionally subject to our jurisdiction, and the ability to impose civil penalties for any violation.

The key to affordable energy on a long-term basis is infrastructure, infrastructure, and more infrastructure in order to promote production, efficiency, reliability, and innovation – but most importantly, infrastructure is critical to access supplies, both domestic and foreign. With the passage of the Natural Gas Policy Act of 1978 and the Natural Gas Wellhead Decontrol Act of 1989, Congress removed federal price controls on most wholesale sales of natural gas. Further, the Commission does not regulate retail sales or natural gas wellhead prices. Accordingly, our primary role is to certificate and regulate natural gas pipelines.

The Commission has sufficient authority under the NGA, ANGTA and the Alaska Natural Gas Pipeline Act to get the necessary facilities built and we are using it. In 2005, we approved 870.6 miles of pipeline and 145,336 HP of compression; storage projects that totaled 3.3 Bcf of deliverability and 109.6 Bcf of capacity; and LNG projects that totaled 6.5 Bcf of deliverability and 34.4 Bcf of capacity.

Congress has also done its part by passing the EPA 2005, which gave the Commission additional tools to address the high and volatile natural gas prices on a long-term basis. LNG will be a critical niche player, but requires a national LNG supply program. EPA 2005 clarified that the Commission has exclusive LNG siting authority. Furthermore, consistent with the requirements of EPA 2005

2005, the Commission has issued rules establishing mandatory pre-filing procedures for all applicants seeking to site, construct and operate new LNG terminals and related facilities. I am hopeful the mandatory pre-filing procedures will promote early identification and resolution of the issues surrounding authorization of LNG facilities. Also, using the new authority granted to us by Congress under EPCA 2005, the Commission has issued a Notice of Proposed Rulemaking to reform our pricing policies for natural gas storage facilities in order to encourage greater investment in storage facilities. I believe that expansion of storage capacity may help reduce the volatility in natural gas prices.

I also want to make the point that the lack of adequate infrastructure is not solely a natural gas problem. We have an energy transmission problem. Electric transmission constraints cost between \$1 and \$2 billion during the summers of 2000-2001. Electric infrastructure investment deficit is estimated at \$20 billion per year. Electric transmission investment accounts for less than 2% of utility capital expenditures. Power quality disturbances, particularly critical in a digital economy, are estimated at between \$50 and \$100 billion a year. The convergence of the natural gas and electricity markets requires a comprehensive energy plan of attack. The natural gas and electricity markets are inextricably linked. The solutions are interdependent and infrastructure, specifically transmission, is the great enabler of cost-effective, reliable solutions. The emergence of renewable wind energy as an important electricity supply alternative, for example, will have a mitigating impact on natural gas prices. Minnesota has a very significant wind

resource, particularly in the Buffalo Ridge area in the very southwestern part of the state. Transmission has been one factor limiting further development of this renewable resource.

New technology is also part of the solution to high energy prices for both industries. High temperature superconductors are a good example of advanced materials that have the potential to transform electric power delivery. The prospect of transmitting large amounts of power through compact underground corridors, with minimal electrical losses over long distance, could significantly enhance the overall efficiency and reliability of our electrical system. The accelerated development of advanced composite conductors can increase transmission line capacity. New technologies in exploration and development have unlocked coalbed natural gas as a significant resource, accounting for nearly 10 percent of domestic gas production. Developing new technologies to assess the condition of existing lines, repair pipelines remotely or with less cost, improve the efficiency and reduce the emissions of compressors and monitoring the integrity of gas pipeline systems on a real-time basis will lead to increased efficiency, reliability and safety of pipeline operations.

In closing, I assure the Subcommittee that the Commission is working diligently to promote adequate and reliable infrastructure and to prevent market manipulation. Thank you for this opportunity to share my thoughts, and I look forward to continuing to work with you on these matters.