



**House Public Utilities
and Energy Committee**

Natural Gas Crisis: Impact on Ohio

Testimony submitted by:

Janine L. Migden-Ostrander
Consumers' Counsel

September 28, 2005

The Natural Gas Crisis: Impact on Ohio
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I. Introduction

- We are in a natural gas crisis
- Testimony will focus on the following
 - Statement of the problem
 - Supply Issues
 - Affordability
 - Discussion of Solutions to Supply Problems
 - Long-term
 - Short-term
 - Discussion of Solutions regarding the impact of supply adequacy on price affordability
 - This winter
 - Next Winter and Beyond

II. Statement of Problem: Supply Issues

- According to AGA fact sheet, “US Natural gas resources that are deemed to be technically recoverable are estimated to be 1,258 trillion cubic feet (Tcf) Last year the US consumed more than 22 Tcf. Without increasing demand that equals approximately 60 years of supply. [AGA Fact Sheet, “Overview of the US Natural Gas Industry (2005)]
- 59% of that 60 year supply is located on public lands.
- Of the 200,000 Mw of new plant capacity added in North America in the past 5 years, over 90% is fueled by natural gas. (CERA, 2004) cited in ACEEE, 1/05 Report “Examining the Potential for Energy Efficiency to Help Address the Natural Gas Crises in the Midwest.” (“ACEEE Report”)
- In ECAR, natural gas used to generate electricity as a percentage of fuels used to generate electricity was at approximately 11% in 2000 and is projected to be 24% by 2010.
- In 1990, the US consumed 19 Tcf. This is expected to escalate to 30.7 Tcf by 2025. (Energy Information Administration, Annual Energy Outlook 2005)
- Natural gas supplies nearly one-fourth (23%) of all energy in the US. (AGA Fact Sheet)
- Ohio currently imports approximately over 90% of its natural gas.
- Clearly, natural gas is a key and growing component of our current energy strategy in Ohio.

III. Statement of Problem: Pricing and Affordability

- The price of natural gas has risen from \$2.00 to \$3.00 in the 1990s to \$4.00 to \$5.00 in 2003 to \$6.00 to \$9.00 in 2004, to \$10.00 to \$12.00 in 2005.
- Some estimates show prices going higher in the wake of Hurricanes Katrina and Rita.
- Thus in just two years, prices have more than doubled.
- The US DOE has projected Midwest gas bill to rise 71%; 69% in a best case scenario and 77% in a worst case scenario. This means that the average central Ohioan who paid approximately \$775.00 last winter will pay \$1325.00 this winter for the six month period, an increase of \$550.00 (4% of the 71% increase is due to a warmer winter than last year – the rest is due to price).
- Most of Ohio's imported gas comes from Louisiana and the Gulf of Mexico, where damaged platforms, processing plants and rigs will curtail supply availability and influence price.
- Ohio is expected to spend approximately \$8 billion in natural gas in 2006 based on the ACEEE Report prior to impacts of Hurricanes Katrina and Rita being factored in.
- Residential customer usage accounts for \$3.5 billion of that expenditure or approximately 46% of the total.
- For the 12 months ending July 2005, 197,937 disconnections were reported by the four major gas companies
- For customers at 150% of the federal poverty guideline, there are solutions:
 - Home Energy Assistance Program (HEAP) provides one-time payments of up to \$325.00 per winter heating season to avoid disconnection.
 - Emergency HEAP (E-HEAP) provides a one-time payment of up to \$175 during the winter months to avoid disconnection or to get services reconnected.
 - Home Weatherization Assistance Program (HWAP) provides weatherization assistance to insulate low-income homes.
 - Percentage of Income Payment Plan (PIPP) allows low-income customers to pay 10% of their monthly household income towards their natural gas heating bill.
- For customers in the 151-200% or even 200-250% of poverty guideline, there are very limited assistance programs.
 - Customers who struggled to get by and make payments in previous years are now losing the struggle.
 - Senior citizens and others on fixed incomes and the working poor are most impacted.
 - We need to find solutions to help these people.

IV. Discussion of Solutions to the Supply Problem

A. Supply Options – A Long Term Solution

- Clearly, we need to increase sources of supply, but that is more an issue to be tackled at a national level.
- Word of caution – increasing supply will not necessarily decrease prices very much. New wells have decreasing production rates and increasing depletion rates, making them more costly. The costs associated the importing liquefied natural gas (LNG) and the cost of increasing storage capacity (especially new storage facilities) may be significant.
- Increased demand for the increased supplies will keep the gas market tight.
- Supply options will take several years and longer to develop. It is not a short term solution.

B. Energy Efficiency Short-Term (as well as long-term solution)

- Experts agree that the best short-term solution is energy efficiency which can be developed and implemented in months instead of years.
- Energy-efficiency, if done comprehensively and on a wide scale can reduce the demand for natural gas and hence, reduce price (supply and demand economics).
- Energy efficiency should also be undertaken in the electric industry so as to reduce the need to use natural gas peaking units.
- For the same reason, this state should support renewable portfolio standards which would mandate the percentage of all electricity in this state be generated by renewable energy. Twenty states currently have such programs in place.
- Benefits of Energy efficiency:
 - According to ACEEE, “a reduction of about 1% per year in total gas demand could result in wholesale natural gas price reductions of 10 to 20%. A five-year total national investment of approximately \$30 billion in natural gas and electricity savings technologies could produce over \$100 billion dollars in savings for residential customers and industrial customers (about half due to direct savings from customers participating in energy efficiency programs and about half from the reduced wholesale market prices for natural gas. “ (ACEEE Report at 5).
 - In Ohio, residential, commercial and industrial customers could save \$123 million in 2006; \$182 million in 2010 and \$432 million by 2020 through comprehensive energy efficiency. (ACEEE Report at 24), based on spending \$51 million per year (Id. At 35). So for every dollar spent, customers save significantly greater amounts, and the savings escalate with time.

- Activities in Ohio
 - HB 251- Representative Uecker addresses increasing the efficiency of state buildings and institutions through purchases of energy efficient (Energy Star) appliances
 - There is a debate with respect to whether the energy efficiency standards should be mandatory or voluntary. This hinge on the availability of funding to “seed” the mandatory program.
 - OCC has worked with a committee of state organizations which include Department of Development, Office of Energy Efficiency, the Department of Administrative Services and the Ohio Schools Facilities Commission to provide recommendations.
 - This legislation should help reduce the \$38 million natural gas bill paid by state agencies as well as reduce natural gas consumption by 20% by the year 2010.
 - OCC recommends passage of this important legislation and provide the several million dollars in seed money to make the program mandatory.
 - HB 247 Renewable Portfolio Standards - Representative Skindell has introduced legislation that requires increasing annual percentages of electricity to come from renewable energy sources. This will help alleviate the need to use gas-fired generation.
 - OCC energy efficiency initiative with the local distribution companies – OCC has entered into a dialogue with the four major gas companies to develop a comprehensive statewide energy efficiency program. The plan is targeted to be submitted to the Public Utilities Commission of Ohio in January, 2006 with implementation occurring early enough to impact next winter.
 - Through the efforts of the Midwest Energy Efficiency Alliance (MEEA) and Iowa Public Utilities Chairman President, Diane Munn has convened a Midwest working group on energy efficiency. (Ms. Munn is also President of the National Association of Regulatory Utility Commissions (NARUC).
 - The goal is to target \$166 million in Ohio (\$51 million for gas companies) which represents less than 2% of revenues for energy efficiency. This includes electric and gas companies so as to maximize reduction in natural gas consumption.
 - A regional approach will more dramatically impact prices.
 - OCC is actively participating in this undertaking.

V. Solutions Regarding Price and Affordability

A. Generally – Educate, Educate, Educate

- OCC has undertaken significant activity, beginning this summer to let customers know about the expected high winter heating costs and what their options are.
- Through our website (www.pickocc.org), brochures, speeches, letters to the editors and newsletters, we have informed customers about the impending price increases and have provided information on:
 - Low Income Programs such as PIPP, HEAP, and HWAP
 - Budget Billing
 - Extended Payment Plans
 - Gas Choice (see OCC’s webpage on Comparing Your Natural Gas Choices) which includes a calculator to help factor in differences in taxes, etc.
 - Energy Efficiency Tips

B. Short-Term: This Winter

- OCC supports and signed the letter to Governor Taft recommending that \$100 million in TANF funds be used to provide assistance to low-income households
- OCC recommends that the eligibility criteria be based not on 150% of poverty guideline, but at 60% of the Median Ohio Income so as to increase eligibility.
- OCC also recommends that this same guideline be used for HEAP funds as permitted by federal law. The impact is dramatic and can help customers depending on household size from 168% of poverty to 215% of poverty guideline as this chart demonstrates:

Household Size	150% Poverty	60% Median Income	Median Income % of Poverty
1	\$14,355	\$20,613	215.39%
2	\$19,245	\$26,955	210.10%
3	\$24,135	\$33,298	206.95%
4	\$29,025	\$39,640	204.86%
5	\$33,915	\$45,982	203.37%
6	\$38,805	\$52,325	202.26%
7	\$43,695	\$53,514	183.71%
8	\$48,585	\$54,703	168.89%

- Support the increase in federal LIHEAP funding. OCC has been in contact with our Ohio delegation to support these increases.
- OCC has also joined as part of the National Association of State Utility Consumer Advocates (NASUCA) in a letter to Gale Norton, Secretary of the Interior,

requesting that royalty natural gas be provided to low-income customers pursuant to Sec. 342(J) the National Energy Policy Act of 2005.

- Under the program, the Minerals Management Service would allow producers of natural gas to provide quantities of gas instead of royalty payments. LDCs or gas fired utilities would then contract with the federal government and guarantee that the discounted energy is passed on to low-income consumers.

C. Long Term Solutions – Next Winter and Beyond

- High heating bills are not going away. Affordability will continue to be a problem for many Ohioans.
- Engage in comprehensive energy efficiency which will mitigate some of the bill impacts
- Legislative Options:
 - Provide funding assistance for customers who are at or below 200% or 250% of the poverty guideline through the following:
 - Using a portion of the unclaimed utility funds (currently at \$22 million) to create a fund to assist customers.
 - Allocate a portion of the funds collected in excise taxes by this state from local gas distribution companies for energy assistance payments.

V. Conclusion – Recommendations of the Office of the Ohio Consumers’ Counsel

- Pass HB 251 with a mandatory requirement on energy efficiency and provide the small amount of funding necessary to administer the program.
- Pass HB 247 requiring renewable portfolio standards
- Consider legislation mandating energy efficiency programs in the gas and electric industries, if the necessary programs are not developed at the PUCO level.
- Support additional LIHEAP funding.
- Create a long-term source of funding for customers at or below 200% or 250% of the poverty guideline as discussed above.
- A concerted effort on all of these fronts is needed in order to protect the reliability and affordability of energy in Ohio.

Natural Gas Crisis – Impact on Ohio

Testimony Submitted by:
Janine Migden-Ostrander, Ohio's Consumers' Counsel

Chairman Hagan, and members of the House Public Utilities and Energy Committee, thank you for the opportunity to share with you today the views of the Office of the Ohio Consumers' Counsel on rising natural gas prices and how the state of Ohio can help residential consumers mitigate these costs both in the short and long term. I am Janine Migden-Ostrander, the Consumers' Counsel, and with me today are Dennis Stapleton, Director of Government and Legislative Affairs and additional members of my staff.

I would like to commend Speaker Jon Husted, his leadership team and this committee, for initiating this forum for those of us close to the industry to come together and have a dialogue about the issues facing all utility consumers this winter. As the state's residential utility consumer advocate, I am growing increasingly concerned about the drastic rise in wholesale natural gas prices. It is directly affecting the wallets of millions of natural gas customers throughout the state of Ohio and there does not seem to be a light at the end of the tunnel. It is not only hurting customers like you and me and those sitting in this room here today, but especially hard hit are those consumers below the federal poverty level and the working poor.

You heard from many other industry representatives last week. I concur with their assessment of the potential magnitude and severity of the problems facing Ohio consumers as we enter the winter heating season. However, rather than reiterate all of the issues that provide no alternatives, I prefer to focus on the actions that we can take now in Ohio to help Ohio consumers. The forum you have given us hopefully will lead to solutions to help those residential natural gas consumers in need not only this winter but well into the future.

As we all have heard, the federal Department of Energy estimates that the natural gas prices consumers will pay in the Midwest could increase by as much as 71 percent over last winter's prices. While it is a projection that is based on many variables that could change during the winter heating season, it is an increase that makes us stand up and take notice.

The projections are influenced by the devastating damage of hurricanes Katrina and Rita, oil prices and weather forecasts that indicate a colder than normal winter. Dozens of oil and gas platforms and rigs have been downed by Katrina, but the questions remain: "for how long and what will be the impact on customers' rates?" Oil prices are at an all time high due to worldwide demand, especially in China and India. Additionally, many large industrial customers interchangeably use oil and natural gas as a fuel source, resulting in the prices of these two energy sources to be closely linked. Therefore when oil prices increase, natural gas prices increase too. Coal supplies are down and the price is high, so companies that generally use this energy source have turned to natural gas. And this year in Ohio, as a result of hot summer temperatures, power plants were working harder to meet the increased cooling demand across the country.

Using the Department of Energy's data, we calculated the potential increases that residential consumers in central Ohio could pay to heat their homes this winter. Last winter these consumers paid approximately \$774 between October and March. This year, consumers can expect to pay approximately \$1,324 for the same time period. These types of increases will no doubt have a devastating affect on the residential utility consumers this winter. And, there just seems to be no end to this twisted tale.

As you heard last week, Ohio provides significant assistance to consumers who fall below the 150 percent federal poverty guidelines, but we must also consider options for the

working poor or those who fall in the 151 to 200 percent poverty level. This group is not eligible for any federal or state assistance. The Coalition for Energy Assistance, an ad hoc advocacy group which the Consumers' Counsel supports, has requested that Governor Taft use \$100 million of unallocated TANF (Temporary Aid to Needy Families) funds to help the working families with children in this classification and provide them with energy assistance this winter heating season. Governor Taft's Project THAW, which was implemented during the cold winter of 2000-2001, utilized TANF funds, which helped thousands of low income customers offset high heating bills and enabled them to stay warm during the winter. We are wholeheartedly in support of this much needed action. We would also support the use of excess tax revenues collected by the state from the increase in natural gas prices to either be refunded to all consumers who pay utility bills or to allow a portion of that money to help protect the low-income individuals who do not have children, which primarily are the elderly, the disabled and those on fixed incomes.

Other legislative options that are under consideration revolve around using alternative energy sources for state-owned properties, which may help reduce taxpayers cost for fuel and heating and cooling costs, an energy efficiency plan for state funded buildings and implementing the use of renewable energy sources.

Representative Steve Reinhard has introduced legislation that would require 90 percent of the motor vehicles acquired by the Ohio Department of Administrative Services to be able to use alternative fuels by July of 2006. The legislation also would require alternative fuels be purchased in increasing percentages over a period of years. This plan would reduce the amount of money spent on fuel and also reduce consumption.

Representative Joe Uecker has introduced HB 251, which is aimed at promoting energy efficiency in state buildings. If successful, the legislation should help reduce the \$38 million natural gas bill paid by state agencies every year, as well as reduce energy consumption in state buildings by 20 percent by the year 2010. As of today, state agencies are estimated to spend over \$85 million¹ for electricity and natural gas per year. While our office supports this legislation, we believe there should be some incentives identified for state agencies to use energy more efficiently.

Representative Michael Skindell has introduced HB 247 that sets up a market-based mechanism, which directs electric utilities to incrementally increase the percentage of eligible renewable resources such as wind, biomass, geothermal and solar energy used to generate electricity to serve their retail electric load. It would start at a very low percentage in 2007 and increase every year, topping out at 20 percent in 2021.

One sure way to help residential customers and businesses cope with increased natural gas prices in the short term and in the long run is through energy efficiency. Our office recently helped sponsor a study by the American Council for an Energy Efficient Economy (ACEEE).² The results of the study demonstrated that significant energy savings would accrue to Ohio consumers if energy efficiency programs were implemented by the utility companies. Under this scenario, the benefits of these programs outweighed the costs by 4 to 1.

Late last year, in anticipation of historically high natural gas prices, our office filed testimony at the Public Utilities Commission of Ohio in the Vectren Energy Delivery of Ohio

¹ Based on utility expenses for state agencies in FY 2005

² See "Examining The Potential For Energy Efficiency To Help Address The Natural Gas Crisis In The Midwest" by Martin Kushler, Dan York, and Patti Witte, produced by the American Council for an Energy-Efficient Economy, December 2004

rate case, which proposed a number of company-sponsored residential energy efficiency programs. The programs suggested were cost effective and would have provided all residential customers an option for controlling their energy costs. Unfortunately, our proposal did not prevail before the Commission.

However, we believe in our idea and initiated a statewide energy efficiency dialogue with the four major gas distribution companies, Columbia Gas of Ohio, CG&E, Dominion East Ohio and Vectren, as well as the PUCO. Our goal is to develop energy efficiency programs statewide. This effort is expected to dovetail into a Midwest regional energy efficiency initiative being undertaken by the Midwest Energy Efficiency Alliance (MEEA). If successful, the Ohio energy efficiency initiative will provide needed relief to customers in two ways. First, those customers who participate in the utility sponsored programs will be able to significantly lower their energy use and corresponding energy bills. Second, the statewide and Midwest regional effort should help relieve some of the tightness in natural gas demand and exert downward pressure in natural gas prices to the benefit of all customers. The ACEEE study referenced earlier, documented that a reduction in natural gas use of just 1 percent per year could reduce wholesale natural gas prices by up to 13 percent.

Electric utility sponsored energy efficiency programs also can help moderate natural gas prices. Electricity generation currently represents one quarter of U.S. natural gas consumption and all new power plant construction in Ohio for more than a decade has essentially been gas fired.

On the regulatory side, the Public Utilities Commission of Ohio could take a harder look at base rates and the return on equity of the state's natural gas companies. This would ensure that the companies are following Ohio's rules and regulations and that residential customers are

being treated fairly. Another measure that could be taken to help offset spiraling natural gas prices would be for the Commission to ensure that all of the revenues raised from transactions using facilities that consumers pay for are in turn credited to those same consumers. By law, natural gas companies are not permitted to profit from the sale of natural gas. However, some local distribution companies have managed to avoid that restriction by using their storage facilities and extra gas supplies to earn millions of dollars in revenues. Despite the fact that shareholders pay none of the costs associated with the storage facilities or gas supplies, and share no risks, shareholders are able to retain a majority if not all of the revenues from these transactions. For example, Dominion East Ohio recently reported earning over \$13 million over a two year period through the use of facilities that are paid for by all customers, including residential customers. Nonetheless, the Commission permitted the Company to retain all of the revenues.

As the price of natural gas increases and becomes even more volatile, storage facilities become even more valuable. It is important that the Commission protect consumers by flowing those revenues back to the consumers who paid for the facilities that are used to generate the revenues.

As you can see, there are a number of ideas that could be put in place to help residential utility consumers mitigate rising natural gas prices. The solution is really a four-pronged approach. We need to find the necessary funds this year that will help the greatest number of low income consumers pay their energy bills and avoid disconnection, research and identify a sustained source of funding for the future, look into additional supplies of natural gas and support energy efficiency programs that not only will help us today but 10, 20 and 50 years from now.

MEMORANDUM OF UNDERSTANDING
for
A MIDWEST NATURAL GAS INITIATIVE

WHEREAS, the price of natural gas reached and sustained \$7 per Mcf during the 2004-05 Winter; and,

WHEREAS, in the aftermath of Hurricane Katrina natural gas prices reached more than \$12 per Mcf in September 2005 and are expected to rise 52% during the upcoming winter; and,

WHEREAS, the market for natural gas is extremely tight, causing high and volatile prices which disproportionately impact the Midwest region because of its large concentration of heavy industries that rely on natural gas and the high concentration of natural gas fueled home heating; and,

WHEREAS, high natural gas prices affect all aspects of the Midwest economy including individuals and families who can't afford the associated high home heating costs, the manufacturers and companies that must pass increased production and operating costs on to their customers, and state and local governments and schools that are already financially challenged and must spend more on operating costs; and,

WHEREAS, high natural gas prices are even more burdensome for low-income families and senior citizens who must often choose between paying their heating bill and buying food, medicine or clothes for their families; and,

WHEREAS, supply-side options including drilling in the Arctic National Wildlife Reserve, the Alaska pipeline and increased LNG imports are controversial and will take 5 to 15 years to have an impact on natural gas markets; and,

WHEREAS, energy efficiency is the only short-term option to ease the strain on natural gas markets and is easily implemented at the state and regional levels; and,

WHEREAS, the Midwest region has a \$29 billion "dollar drain" due to its reliance on imported natural gas; and,

WHEREAS, the American Council for an Energy-Efficient Economy found that a small reduction (1% per year for at least 5 years) in natural gas consumption could cause a 13% reduction in wholesale natural gas prices; and,

WHEREAS, energy efficiency also saves money, increases energy reliability and economic prosperity in the Midwest; and,

WHEREAS, a coordinated regional effort to promote and increase energy efficiency could easily achieve savings of 1% per year; and,

WHEREAS, overall investments in energy efficiency across the region have declined in recent years

NOW, THEREFORE, be it resolved:

The states of Illinois, Iowa, Indiana, Michigan, Minnesota, Missouri, Ohio and Wisconsin will work together to address the natural gas crisis through energy efficiency gains.

We commit to pursue a 1% reduction (per year) in natural gas consumption in their state, helping to secure the larger regional goal of 5% reduction by 2011, beginning on the date of their signing this memorandum of understanding and continuing for 5 years from that date.

We commit to consider and enact policies, such as codes and standards for energy consumption, regulatory and legislative mandates and programs, that are appropriate for our state to accomplish the 1 % reduction per year and to serve as an educational contact for all other state agencies, parties and participants in our state to further the goal of a 1% per year reduction.

We commit to working collaboratively between and among states to develop a regional approach to increase energy efficiency as well as to working within our own state to achieve actual energy savings.

We commit to report the annual energy savings in our state to the Initiative for the purposes of demonstrating achievements and sharing lessons learned between the states.

What is the Midwest Natural Gas Initiative?

The Midwest Natural Gas Initiative is a cooperative effort by 8 Midwest states to develop a multi-state energy efficiency initiative to decrease natural gas consumption by 1% per year for five years. This will cause wholesale natural gas prices to decrease by as much as 13%. The initiative will be aimed at developing a Memorandum of Understanding (MOU) and a corresponding regional plan for increasing energy efficiency while accommodating, to the extent feasible, the diversity in policies and programs in individual states. Once the plan is developed, Initiative participants will work with support from MEEA to implement the plan in their state.

Guiding Principles for Initiative Design

1. The initiative will be expandable and flexible, permitting other states to join the initiative if they deem it appropriate.
2. The initiative will not unduly interfere with other national, state or regional energy efficiency programs and initiatives, but will seek to coordinate and collaborate with them to increase the effectiveness of both.
3. The Initiative will start simply and develop over time. Participant input and participation will help shape the path the Initiative will follow.

History

In January, 2005, the National Association of Regulatory Utility Commissioners (NARUC) held a conference entitled “*The Natural Gas Crisis: Finding Clean Solutions.*” The goal of the conference was to examine and explore opportunities for increased energy efficiency, renewable resources and clean distributed energy in response to high and volatile natural gas prices. In response to presentations made at the conference and informal discussion among participants, a group of public service commissioners from the Midwest joined forces to create a regional energy efficiency approach to the natural gas crisis. The Midwest Natural Gas Initiative is a direct result of their efforts.

Framework

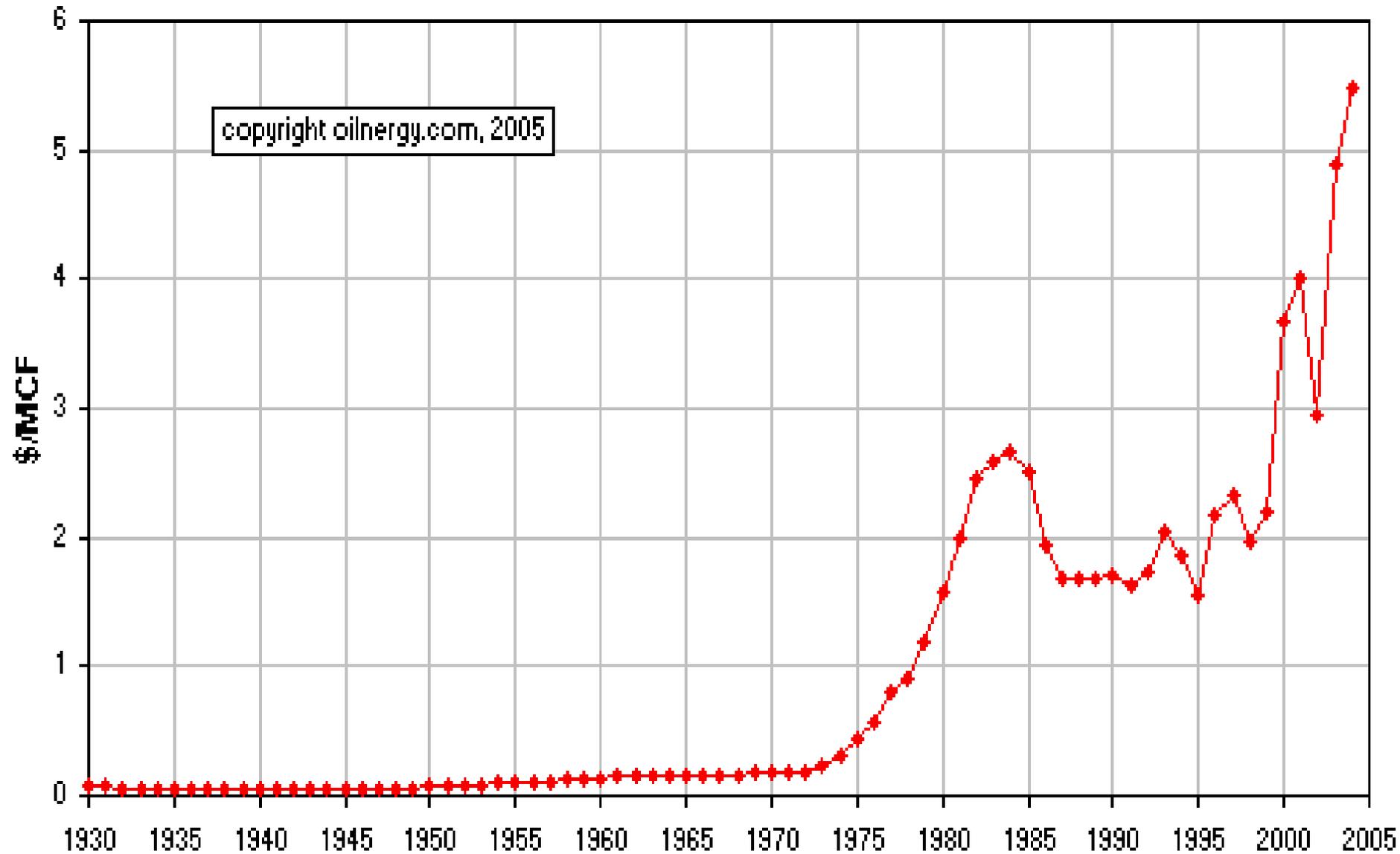
The Initiative will be coordinated by the Midwest Energy Efficiency Alliance (MEEA), a Chicago-based non profit organization dedicated to advancing energy efficiency in order to support a sustainable economy and promote environmental preservation. MEEA will arrange logistics for meetings and conference calls, facilitate a dialogue between the Initiative stakeholders and serve as a resource of information for the Initiative’s stakeholders. The Regulatory Assistance Project (RAP) and American Council for an Energy-Efficient Economy (ACEEE) will also provide policy and technical support to the Initiative.

A steering committee will direct and monitor the activities of the Initiative. The steering committee will consist of one representative from each state as well as representatives from RAP and ACEEE. The members of the steering committee will guide the overall activities of the regional aspect of the Initiative, as well as inform and monitor the activities of each state’s individual committee.

Each state will have its own committee which will consist of a representative from each of the parties signing the MOU from that particular state. The state committees will be responsible for

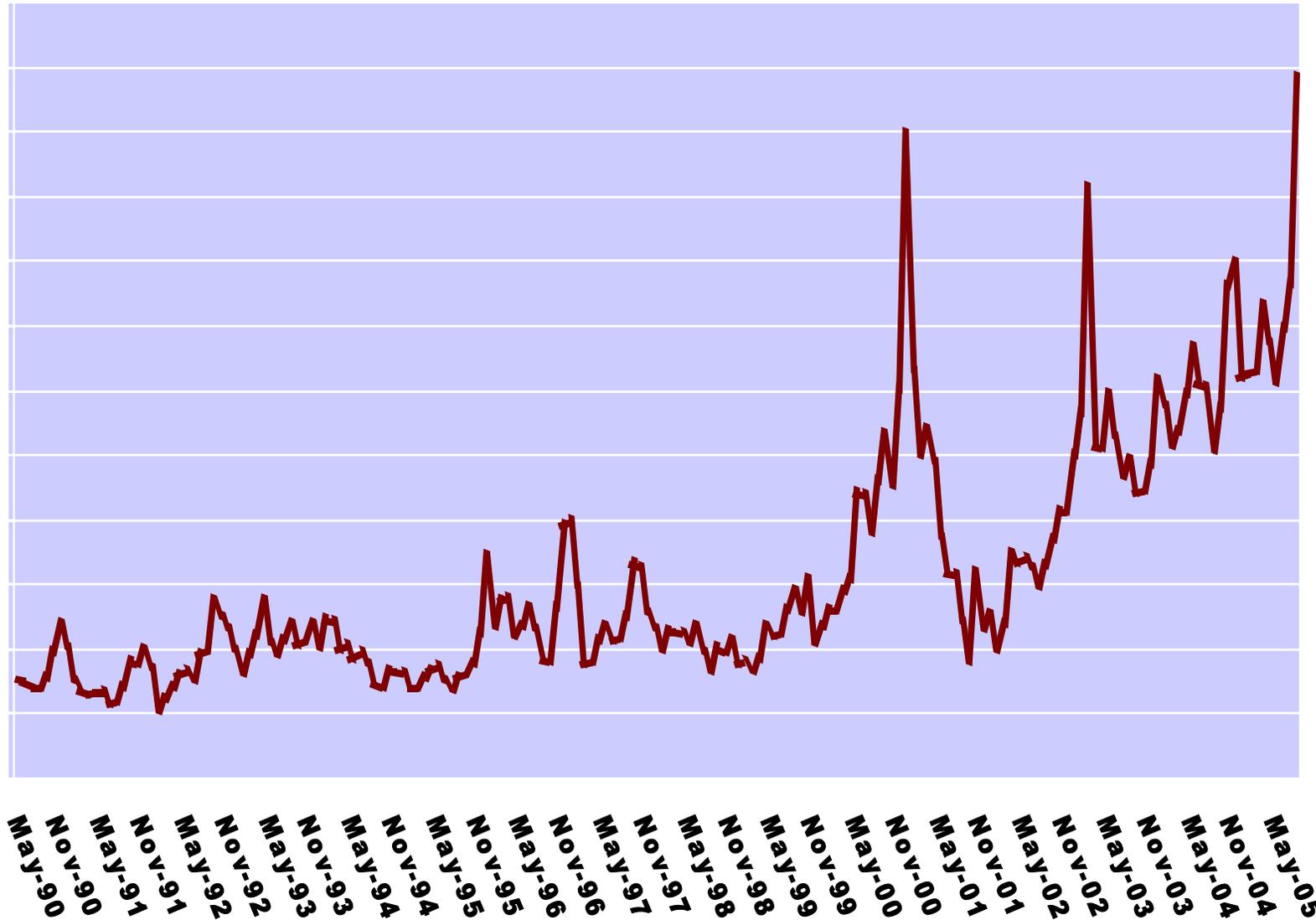
developing and implementing a state action plan that will include policy and program recommendations for achieving the 1% per year reduction in natural gas consumption. One member of the committee will be designated to serve on the steering committee.

U. S. Wellhead Natural Gas Price



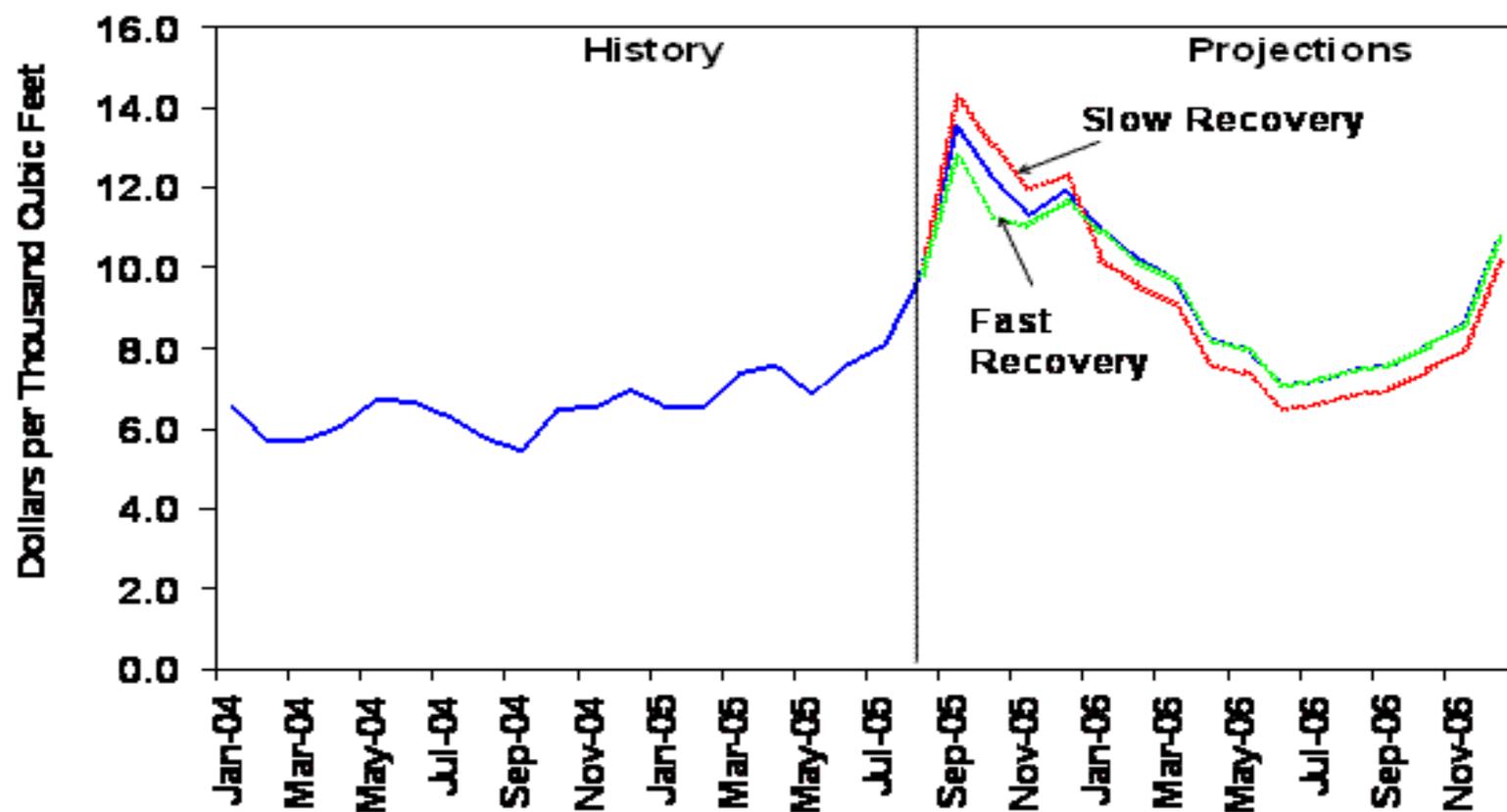
NYMEX Natural Gas Month Ahead Price (\$/Dth)

\$12.00
\$11.00
\$10.00
\$9.00
\$8.00
\$7.00
\$6.00
\$5.00
\$4.00
\$3.00
\$2.00
\$1.00
\$0.00



— Nymex

Figure 9. U.S. Natural Gas Spot Prices
(Base Case and 95% Confidence Interval*)



*The confidence intervals show +/- 2 standard errors based on the properties of the model. The ranges do not include the effects of major supply disruptions.



NYMEX Prompt Month WTI and Natural Gas Prices

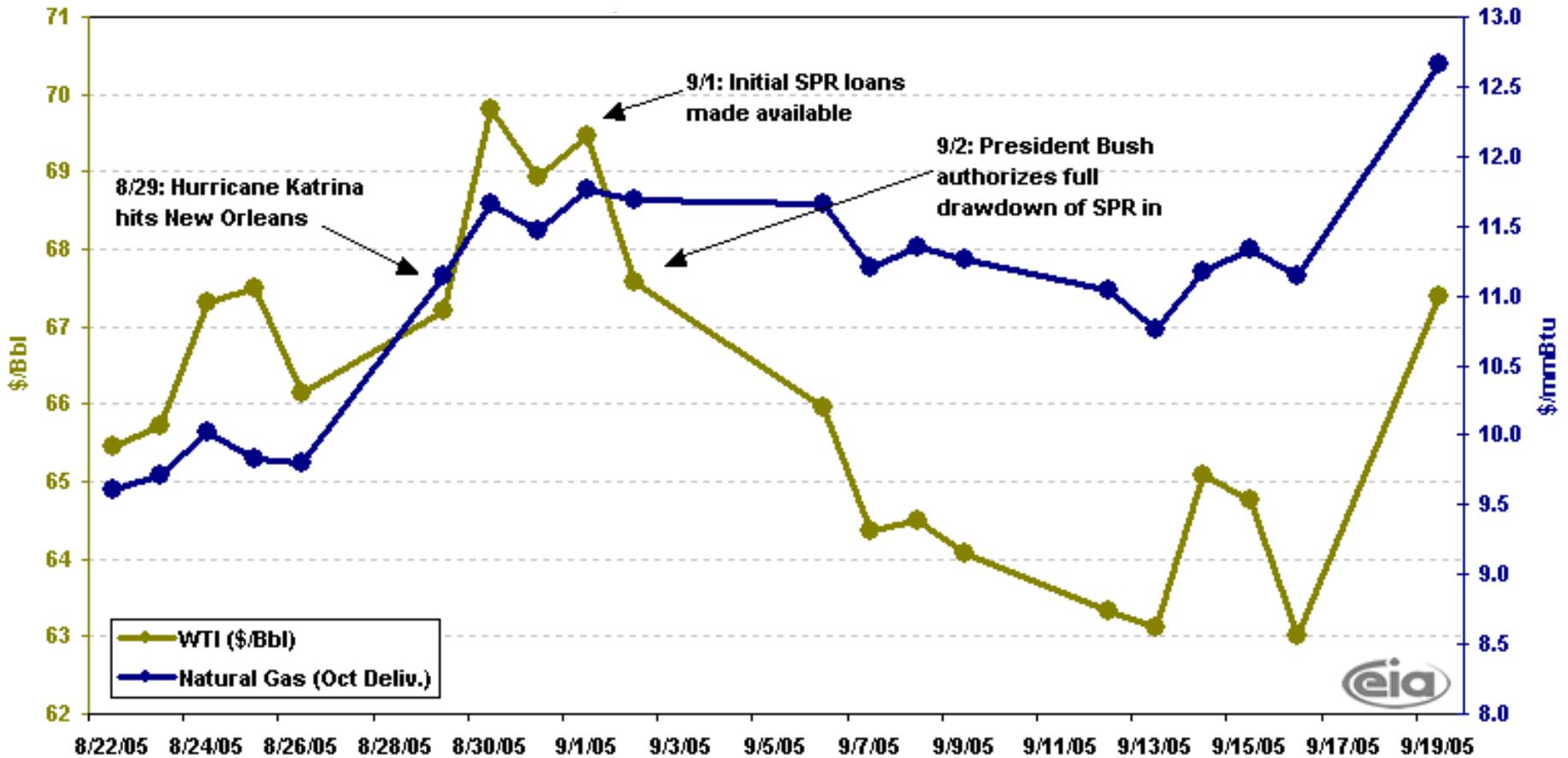


Figure 82. Natural gas consumption by sector, 1990-2025 (trillion cubic feet)

