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THE HIGH PRICE OF NATURAL GAS AND ITS IMPACT ON SMALL BUSINESSES: ISSUES AND SHORT TERM SOLUTIONS

HEARING

BEFORE THE

SUBCOMMITTEE ON RURAL ENTERPRISES, AGRICULTURE & TECHNOLOGY

OF THE

COMMITTEE ON SMALL BUSINESS
HOUSE OF REPRESENTATIVES

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

WASHINGTON, DC, MARCH 17, 2005

Serial No. 109–6

Printed for the use of the Committee on Small Business

Available via the World Wide Web: http://www.access.gpo.gov/congress/house

U.S. GOVERNMENT PRINTING OFFICE

21–283 PDF WASHINGTON : 2005

For sale by the Superintendent of Documents, U.S. Government Printing Office
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THURSDAY, MARCH 17, 2005

HOUSE OF REPRESENTATIVES
SUBCOMMITTEE ON RURAL ENTERPRISES, AGRICULTURE AND TECHNOLOGY
COMMITTEE ON SMALL BUSINESS
Washington, DC

The Subcommittee met, pursuant to call, at 10:07 a.m. in Room 2360, Rayburn House Office Building, Hon. Sam Graves [Chairman of the Subcommittee] presiding.

Present: Representatives Graves, Barrow.

Chairman GRAVES. We will call this hearing to order. I want to thank everybody for coming today and say good morning.

Welcome to the Small Business Subcommittee on Rural Enterprise, Agriculture and Technology. I am glad to see that not everybody attended the steroid hearing downstairs. The good news is maybe we can study steroid use and natural gas somewhere along the process. It is quite a show down there.

Today we are going to focus on something a little bit more serious in my opinion, and that is the high cost of natural gas. The outrageously high cost of natural gas and the impact that it is having on manufacturers, on small businesses and on farmers. We are going to look at maybe some of the short-term solutions that are out there too.

Natural gas is a very important issue because of its diverse applications. Natural gas is used to create electricity, produce fertilizer, feed our crops and drive our vehicles, among many other things. In fact, natural gas is the preferred fuel to heat and cool our homes today totaling over 50 percent of the residential energy consumption, and it is still growing.

Natural gas has been increasing at a dramatic pace in an industrial capacity. In 2000, 95 percent of all new electricity generated was generated from natural gas, and this growth is expected to continue well into the future.

Natural gas is the primary feedstock used in producing nitrogen fertilizer, which is used on farms throughout this country. Lastly, natural gas is being used more in the transportation sector all the time.

My point is that natural gas is popular, and its use is going to continue to grow. Demand is expected to increase 30 to 40 percent by the year 2025. Recent studies show that our recoverable natural gas reserves are sufficient to meet the demand for years to come, but we are facing obstacles in securing these resources and reserves.

On top of that, prices are now more than double what they were during the 1990s, and consumers, manufacturers and farmers are the ones that are paying that price. To be clear, I am supportive of domestic exploration of production, but current proposals will yield results 10 years from now. We need to discuss short term solutions that can address the high cost of natural gas in the present.

One idea is to examine natural gas trading. Natural gas, the pricing is obviously volatile by nature, but that does not explain to me the drastic increase in price over the last five years. Since 2000 and the passage of the Commodities Futures Modernization Act, natural gas has been trading at prices more than double what it was throughout the 1990s. This price increase hits the consumer hard.

Consumers are seeing record high energy bills through the cold winter months and hot summer days. Farmers and manufacturers are experiencing increased expenses of operation. These folks need some relief. We are going to be looking to legislation that will prevent market manipulation, increase transparency in the market and provide for accurate disclosure of storage data so consumers of natural gas will not be at the whim of a volatile market caused by manipulation and fraudulent action.

[Chairman Graves' opening statement may be found in the appendix.]

I am going to now turn it over to our new Minority Member, Representative Barrow for an opening statement. I want to welcome you to the Committee, and I look forward to working with you in the future.

Mr. BARROW. Thank you, Mr. Chairman. It is good to be here.

As the new congressman from Georgia's 12th District, I have the honor of representing a large number of family farmers across a large rural portion of our state. I have been up here in Washington for just three months now, but I am starting to realize something. Folks up here often times do not realize that family farms are small businesses too. They are one and the same, and they should be viewed that way. To protect our farmers, we have to protect the business of farming.

I have lived in Georgia virtually all my life, and I have grown up with farmers. Georgia farmers are some of the most committed and hardworking folks you will find anywhere. The hard work of family farmers in Georgia's 12th is seen in the strength of our state's economy. My district has over 3,000 family farms and produces more than $206 million in agricultural products.

What is true is true across the country. Family farmers are a powerful force in the U.S. economy. With family farmers playing such a strong role in our communities and our economy, we cannot ignore the challenges they are facing today. While production is great, the costs are going through the roof.

Natural gas supplies one of the main energy sources for family farmers to run their farms and operate their equipment. It is also the key ingredient and major cost component in the production of pesticides and fertilizers, up to 95 percent of the total cost for most fertilizers. Farmers need fertilizer, plain and simple.

Nationwide, farmers use nearly 11 million metric tons of nitrogen fertilizer each year. High natural gas prices mean high fertilizer prices, and that means a whole lot of farmers spending a whole lot more than they should have to in order to grow crops the rest of the country depends on.

At the same time the rest of the country's demand for natural gas is going way up for a variety of reasons. It is used much more in residential housing nowadays, and more and more electric plants have switched to natural gas. As demand increases in these other industries, the prices of natural gas jumps higher and higher, and this hurts farmers. When farmers suffer, that affects the rest of us.

As the United States supply of natural gas is slowly tapped out, there are other areas of the world that have ample reserves available. That explains why we are importing more and more of our fertilizer from foreign sources. A 2004 Congressional Research Services report shows that over 50 percent of U.S. nitrogen fertilizer comes from imports since 1998.

According to officials in the fertilizer industry, higher natural gas prices and a glut of imports are having a negative impact on the U.S. fertilizer industry. Right now, 45 percent of the domestic fertilizer industry is in shutdown mode due to high natural gas prices.

To help our family farmers in Georgia and across the nation, we need to hear what is really going on out there. That is why I have asked Georgia farmer Ben Boyd to come up and testify this morning. Mr. Boyd is from the town of Poor Robin, Georgia, which is located near the Georgia/South Carolina state line in Screven County.

Along with his father and his brother, Mr. Boyd farms 3,500 acres of cotton, peanuts, soybeans, corn, watermelon, small grain, and he also raises cattle, so he has seen firsthand how the rising cost of fertilizer affects family farmers.

Farming has been in Mr. Boyd's family for many generations. As the chairman of the American Farm Bureau's Young Farmer Committee, he is committed to providing the next generation of family farmers with the skills they will need to succeed as both farmers and businessmen.

I am proud to have Mr. Boyd and the rest of the witnesses up here today, and I hope we will listen carefully to what they have to say. What is happening to Mr. Boyd is what is happening to the rest of the country, and by listening to him I trust we will agree that Congress has to start coming together to find some common sense solutions to the problems.

Thank you, Mr. Chairman.

Chairman GRAVES. Thank you, Mr. Barrow.

We are going to start. We have two panels today. The first panel we are going to have Congressman Lee Terry speak to us. Congressman Terry represents Omaha, Nebraska, obviously a state that is heavily dependent on natural gas.

Congressman Terry, I appreciate you being here today, and thanks for your testimony.

STATEMENT OF THE HONORABLE LEE TERRY (NE-02), CONGRESSMAN, US HOUSE OF REPRESENTATIVES

Mr. TERRY. Thank you, Mr. Chairman, Mr. Barrow. I appreciate you holding a hearing on this specific topic.

Natural gas accounts for nearly a quarter of America's energy supply and is used in more than half of the U.S. households and businesses. In fact, in my metropolitan area just about 62 percent of the homes are heated with natural gas. Unfortunately, the United States faces a natural gas challenge that threatens the profitability of almost every sector of our economy, as well as our citizens' quality of life.

Nationwide, natural gas prices are up from $1.50 per 1,000 cubic feet just 10 years ago to $7.19 at the close of the market yesterday. This is compared to about right now 70 cents in Venezuela, 40 cents in North Africa, 80 cents in Russia and $3.70 in Eastern Europe.

Farm states, including mine of Nebraska, yours of Georgia and, Mr. Chairman, yours of Missouri, have been hit especially hard by higher natural gas prices since natural gas is the primary material in nitrogen fertilizer, as well as a key fuel for irrigation and drying of grains.

In Nebraska, anhydrous ammonia fertilizer has increased from about $175 per ton in 2000 to as much as $375 per ton last planting season. About half of America's nitrogen fertilizer is now imported today due mostly to the high cost of the key ingredient of natural gas.

Since 2001, at least 15 U.S. fertilizer production facilities have closed primarily due to the high price of natural gas. This could serve as a severe impact on the U.S. economy and our farmers.

The reasons for concern are magnified when one considers that U.S. natural gas consumption is expected to increase 40 percent over the next 20 years. Simultaneously, domestic natural production will drop one percent per year. Keep in mind the global expansion and need for natural gas, particularly from China.

Until substantial new gas supplies are brought to market, the nation's businesses, manufacturers and farmers may not have an adequate supply of affordable natural gas to meet their needs. In fact, a recent study by the American Gas Foundation found that if current natural gas constraints are continued through 2020, the price of natural gas is likely to rise above $13 per 1,000 cubic feet.

There are steps Congress can take to address the natural gas crisis. Now, it has to be a multifaceted approach. Last year we passed a pipeline. We think that is going to be an immediate help. Well, I will tell you what. The politics of the pipeline in Alaska may take 10 years to settle before the 10 years to build, but that is one of the key components, increasing continental production.

Then we have to say and realize we cannot meet the needs and that we will have to import, and that is where liquid natural gas comes in. Chairman Alan Greenspan in several speeches has mentioned the importance of LNG to our economy.

I have introduced a bill, H.R. 359, that would encourage this additional component of additional supply of natural gas to our domestic supply—that is H.R. 359—that ameliorates the morass of permitting. It streamlines the permitting process for an LNG facility.

Right now we have four facilities. There are some offshore facilities that may come on line in the next couple years, but when we talk to those who have asked for a permit for an LNG facility they come back with the same story, and that is the morass for the myriad of permits is intolerable. It delays and even kills good projects.

What we have done in H.R. 359 is basically two simple approaches. There has to be a lead authority, and that should be FERC. We need to have the states and localities involved in the process, but not with veto powers. Also what we have found out is there are folks in the process that have permitting powers that intentionally delay action on their permit, in fact de facto vetoing the permit.

What this bill, H.R. 359, also does then is for localities, states, state agencies, other federal agencies, once the permit request has been filed the clock starts ticking. They have one full year then to present the evidence or begin the process of working with FERC to state what hazards may occur or may not occur. We then have a 301 year timeline.

It is a simple process. We should encourage more LNG because we are not going to be able to meet our own needs with domestic production in the pipeline. It has to be a multifaceted approach, and this is just one of the prongs.

I appreciate, Mr. Chairman, you giving me the opportunity to come here and talk about liquid natural gas because, frankly, as we have talked about energy bills, until just in the last couple months, no one has talked about liquid natural gas and the impact that it is having on our farmers and our small businesses, so thank you for holding this hearing.

[Congressman Terry's statement may be found in the appendix.]

Chairman GRAVES. Thanks for being here, Mr. Terry.

You mentioned some offshore facilities. Where are they located?

Mr. TERRY. That is a good question. Mostly in the Texas and Louisiana facilities right now. There is one in the northeast. There is one in New York, one in Boston, so that is where they are right now.

There are permits that have been applied for in California, along the Gulf coast and the northeast, and those are the ones that are caught up in the regulatory morass.

Chairman GRAVES. I appreciate you being here. Thank you very much for testifying on your bill.

Mr. TERRY. Thank you very much.

Chairman GRAVES. We are going to now seat the second panel. I want to remind everyone that all the statements made by the wit-

nesses and the Members of the Committee will be placed in the record in their entirety. We will go ahead and bring everybody up.

Again I want to thank all the witnesses for being here today. To kind of explain the way the light bar in front of you works, everybody has five minutes to give your testimony. When you have one minute left it turns to yellow and then turns to red.

Now, do I follow that? Not necessarily. If you have something to say I want to hear it. I do not like shutting people off, but we do use the time lights just so everybody has some idea of what is going on.

I want to thank everybody for being here today. What we are going to do is we will introduce each of you individually, let you give your opening statement, and then we are going to have questions for you.

First on the panel is Charlie Kruse who is president of the Missouri Farm Bureau in Jefferson City, a friend of mine and also a farmer. He and his family farm down in Dexter, Missouri, and have been farming for a long, long time. Charlie is very in touch with the issue of natural gas and what it is doing to farmers and the squeeze that it is placing on them.

Charlie, thank you for being here, for coming all the way out. I appreciate and look forward to hearing your testimony.

STATEMENT OF CHARLIE KRUSE, MISSOURI FARM BUREAU

Mr. KRUSE. Thank you, Mr. Chairman. We appreciate, Mr. Chairman, you and the Members of the Committee having this hearing. I am joined in the hearing room this morning by a number of Missouri Farm Bureau folks who happen to be out here this week, and I will just say we are all very proud of our own Congressman, Sam Graves. We appreciate you having this hearing.

My name is Charlie Kruse. I am a fourth generation farmer from Dexter, Missouri, in southeast Missouri. My wife, Pam, and I own a row crop farm and operate it in the boot heel of Missouri. I am the president of Missouri Farm Bureau, and I also serve on the American Farm Bureau Board of Directors.

I appreciate the opportunity to share the Farm Bureau's perspective on the impacts of high natural gas prices. Whether it is gasoline, diesel, electricity or natural gas, farmers and ranchers must have access to reliable and affordable energy inputs. Unfortunately, our country's failed energy policy makes it increasingly difficult for us to produce food and fiber for the United States and the world while at the same time providing for our own families.

Using USDA statistics as a basis, the Farm Bureau has estimated that increased energy input prices during the 2003 and 2004 growing seasons have cost U.S. agriculture over $6 billion in added expenses. Natural gas is especially important to agriculture, as we all know, because it is used to produce nitrogen fertilizers and farm chemicals, as well as electricity for lighting, heating, irrigation and grain drying.

Natural gas can account for nearly 95 percent of the cost of nitrogen fertilizer. During the last four years, the price of natural gas has been extremely volatile, causing retail nitrogen fertilizer prices to dramatically increase.

For example, between 2000 and 2003, the average retail cost of nitrogen fertilizer skyrocketed from around $100 per ton to $350 or more a ton. On my own farming operation, the cost of nitrogen fertilizer is 70 percent higher today than it was two years ago. The same is true for other energy inputs, whether it is diesel fuel, LP gas or whatever.

While I am paying more to plant and harvest my crops, that does not necessarily mean I am receiving or will receive more for what I sell. Currently the price of corn is about 30 to 35 percent lower than a year ago. Soybean prices have fallen 35 to 40 percent. I think it is clear farmers are caught in a real squeeze at this point in time.

Manufacturers and retail suppliers are also reeling from the effects of increased natural gas prices. According to The Fertilizer Institute, 15 nitrogen fertilizer plants have permanently stopped production since 2000, representing 22 percent of domestic capacity. Another 20 percent of the industry is temporarily shut down due to high natural gas prices.

All the while, the agriculture industry is becoming more reliant on foreign imports to meet farmers' demands. An article featured last year in Amber Waves, a publication of USDA's Economic Research Service, states that over half of the nitrogen used in the United States today is imported. In the 1980s, our nation was the largest exporter of nitrogen fertilizer. Now we are the largest importer.

We should be very concerned about increasing our dependence on foreign sources for the nitrogen fertilizer needed to raise the food and fiber on which our country relies.

There are a lot of reasons why the price of natural gas has skyrocketed. First, our national energy policy has discouraged domestic exploration and recovery of oil and natural gas, which has made us more dependent on foreign energy sources.

Second, many power plants have been forced to use natural gas to generate electricity in order to comply with environmental regulations, even though we have huge reserves of coal and the technology to use coal safely and efficiently. The Energy Information Administration estimates demand for natural gas will increase 54 percent by 2025 with electric power generation accounting for 33 percent of consumption.

We recognize there is no silver bullet for solving our nation's energy woes. However, prompt, decisive action must be taken now if we are going to avert a major energy crisis. Farm Bureau supports domestic exploration and recovery of energy resources using sensible, environmentally sound methods. We are encouraged by yesterday's vote in the Senate to explore for energy in Anwar.

We support the use of renewable energy, such as ethanol and biodiesel. We support incentives for the use of clean coal technology and electric power generation, and we support the use of nuclear energy.

In closing, the perfect storm—the combination of significantly higher energy and fertilizer costs coupled with falling grain prices and cotton and rice prices—spells serious trouble for rural America. For this reason it is our hope that Congress will act soon to address these problems.

Mr. Chairman, Congressman Barrow, we appreciate you taking time to hold this hearing today and look forward to answering any questions.

[Mr. Kruse's statement may be found in the appendix.]

Chairman GRAVES. Thank you, Mr. Kruse.

Next on the panel is Terry Hilgedick from Hartsburg, Missouri. Terry is chairman of the Missouri Corn Merchandising Council.

Terry, thanks for coming out to Washington to testify.

STATEMENT OF TERRY HILGEDICK, MISSOURI CORN MERCHANDISING COUNCIL

Mr. HILGEDICK. Thank you and good morning, Chairman Graves and Mr. Barrow. Thank you for the opportunity to testify on the impact of high natural gas prices to farmers.

My name is Terry Hilgedick, as Congressman Graves mentioned, and I am Chairman of the Missouri Corn Merchandising Council and a member of the National Corn Growers Association's Public Policy Action Team. I am from Hartsburg, Missouri, where my wife, Kristie, and I grow corn, soybeans, wheat and watermelons.

NCGA was founded in 1957 and represents more than 33,000 dues paying members from 48 states. NCGA also represents the interest of more than 300,000 farmers who contribute to corn check off programs in 19 different states. NCGA's mission is to create and increase opportunities for corn growers and to enhance corn's profitability and use.

My purpose today is to provide insight to the Subcommittee on how high natural gas prices affect the cost of producing important fertilizers that farmers rely on for their crops. Increased natural gas prices have already had an adverse effect on farmers due to higher production cost and will continue to do so in the future.

Growers rely on affordable natural gas as a feedstock for fertilizer, but also for energy for irrigation, drying grain and producing ethanol. Whether used directly as a feedstock or for heat and power generation, reasonably priced natural gas is essential to grower profitability.

Fertilizers account for more than 40 percent of the total energy input per acre of corn harvested. Most of that energy is consumed in the production of nitrogen fertilizer. Retail prices for fertilizer, the prices paid by farmers, rise sharply when natural gas increases. According to the USDA, farm gate prices for fertilizer have jumped to record high levels. The largest component of making all basic fertilizer products is natural gas, accounting for more than 90 percent of the cost of production.

Nitrogen fertilizer is a key input for the bountiful yields achieved by U.S. corn farmers. Rising natural gas prices in the U.S. have caused domestic nitrogen fertilizer producers to severely curtail production. Of the 16.5 million tons of nitrogen capacity that existed in the U.S. prior to 2000, almost 20 percent has been closed permanently. Another 25 percent is at risk of closing within the next couple years. Farmers face higher nitrogen fertilizer prices and the prospect that there might not be an adequate supply of nitrogen fertilizer to satisfy our needs at any price.

Nitrogen fertilizer producers have no way of curtailing or reducing their demand for natural gas other than shutting down the process itself. This not only destroys their businesses, but it drives up fertilizer prices to the American farmer and food prices to the American consumer. These production curtailments and higher nitrogen prices are largely the cause of the current surge in nitrogen imports.

Imports currently account for about 40 percent of the U.S. nitrogen fertilizer supply. Lower natural gas prices in the Middle East, Asia and South America make it difficult for U.S. nitrogen fertilizer producers to compete with these countries with much lower gas prices.

These countries take their excess natural gas, turn it into fertilizer and undersell U.S. producers. This practice will only become more common in the future. Supplies of nitrogen fertilizer have been adequate during periods of high natural gas prices in the past primarily because of increased imports.

Natural gas accounts for 70 to 90 percent of the cost of producing anhydrous ammonia, a key source of nitrogen fertilizer. In the midwest, at the beginning of the year 2000 anhydrous ammonia was selling for about $170 a ton. Last spring, anhydrous ammonia was selling for $360 a ton. The price of anhydrous at my local dealer last Friday was $435.

For my family farm, the price increase in one year amounts to $13,000 for ammonia alone, and we will have to absorb an additional $7,000 cost increase when other forms of plant food are added in. All costs we cannot pass on to our buyers of production. Unfortunately, these high and volatile prices are expected to continue into the foreseeable future.

Higher natural gas prices will also negatively impact the country's growing ethanol industry. The second biggest cost in ethanol production, second only to feedstock, is the cost of energy, generally natural gas. Energy costs typically make up about 15 percent of a dry mill plant's total cost.

According to USDA's latest crop production report, this year's corn crop will be the largest ever, and yields will increase by nearly seven bushels per acre compared to last year. When harvested, more than 10 percent of that crop will be turned into ethanol. The corn industry becomes more energy efficient every year, but we still must have the adequate, reliable and affordable natural gas to fuel the industry.

Government policy is creating a supply squeeze for natural gas. Electric utilities and other industries are moving away from using nuclear energy and our plentiful supplies of coal and moving towards use of natural gas. Natural gas has been the fuel of choice for more than 90 percent of new electric generation to come on line in the last decade. In addition, as that happens our access to natural gas is limited due to environmental policy. Clearly we cannot have it both ways.

Our ability to be efficient and environmentally friendly corn producers will face huge obstacles if our nation cannot come to grips with its desire to have limitless resources like natural gas for production and not realize that these resources have to come from somewhere.

I am sure that the Members of the Subcommittee as individuals know this well. However, Congress seems to be unaware of this fact. We can produce corn, but we need you to produce the kind of policy that enables us to use the needed resources to do our jobs.

Our nation's current natural gas crisis has three solutions, increase supply, conserve what we have and reduce demand. The 109th Congress is facing a daunting task of finding ways to balance our nation's dwindling supply of and rising demand for natural gas.

Additional supply is available from three primary sources, onshore production, offshore production and liquified natural gas. While there is considerable activity underway in each of these areas, Congress can do more to facilitate the timely development of these critical supply sources. Congress must also adopt measures to ensure new coal and new nuclear facilities are constructed.

Congress should provide federal loan guarantees and other incentives for the retrofitting of existing natural gas fired facilities with the new integrated gasification combined cycle and next generation nuclear technologies. It is vitally important that these forms of power generation be developed and deployed. Without them, the demand for gas fired plants will continue to grow and place an ever increasing burden on the nation's supply base.

Support through long-term extension of tax credits and other incentives for other emerging technologies, including wind and biomass, is also an important element to diversifying our nation's energy resource portfolio. We urge Congress to act expeditiously to promote the development of domestic energy resources to help secure future economic growth for our nation.

Congress needs to enact a comprehensive energy bill now that provides, one, an enhanced role for renewable energy sources; two, further development of all energy resources for a more diverse portfolio; and, three, environmentally responsible production of adequate domestic supplies of natural gas.

There are many indications that our nation's economy and energy security will be seriously impacted should we not take action to expand all sources of domestic energy to feed our country's growing demand. The days of cheap energy are behind us. A renewable fuel standard as part of a comprehensive energy policy would result in expansion of ethanol production, directly contributing to the domestic fuel supply, thus reducing our dependence on imported oil.

Our ability to produce food and fuel for our nation and the world depends on sound energy policy. I encourage this Subcommittee to continue to address energy and natural gas issues. Your decisions impact family farmers' ability to compete internationally.

Simply put, farmers need access to reliable sources of energy and raw materials so they can use the fertilizers necessary to produce an abundant, affordable and healthy food supply.

Thank you, Mr. Chairman.

[Mr. Hilgedick's statement may be found in the appendix.]

Chairman GRAVES. Thank you, Mr. Hilgedick.

We will next hear from Bill Pirkle, who is the Managing Director of Environment Health and Safety, and correct me if I get this wrong, but you are with the Agricultural Retailers Association and The Fertilizer Institute. Is that correct?

Mr. PIRKLE. That is correct.

Chairman GRAVES. Thank you for being here. I appreciate you coming all the way from Collinsville, Illinois, to be with us today, and I look forward to your testimony.

STATEMENT OF J. BILLY PIRKLE, AGRICULTURAL RETAILERS ASSOCIATION/THE FERTILIZER INSTITUTE

Mr. PIRKLE. Thank you. I appreciate the opportunity to come and speak to you, Mr. Chairman, and to the Committee and to the guests of the Committee on behalf of the Ag Retail Group and The Fertilizer Institute and Royster-Clark, which has 250 ag retailer facilities. We serve about 40,000 farmers in 22 states, and we supply crop inputs to another 30 states.

Royster-Clark traces its roots back to 1872 and a sleepy town in North Carolina, Tarboro, North Carolina. Our headquarters are in Norfolk, Virginia, and we employ around 2,500 employees.

ARA is a non-profit trade organization that represents the industry's ag retailers across the United States. Not only does it represent its members; it also educates members on the political process and important issues that affect our industry.

TFI is also a leading voice in the nation's fertilizer industry, and you have heard comments from some of the data that they have furnished on this issue.

One of the things that I would like to speak to you on this morning is that the United States needs a reliable and plentiful supply of natural gas for nitrogen fertilizer. As was mentioned before, 70 to 90 percent of the cost of anhydrous ammonia is from the cost of natural gas. Currently, the nitrogen fertilizer industry accounts for about three percent of the nation's consumption of natural gas as well.

The current natural gas crisis is exacting a heavy toll on our industry. In fact, as has been mentioned in former testimonies, 15 facilities have been shut down permanently. There is another five that have been idled, and that capacity has reduced the domestic production 35 percent. It has also been mentioned this morning, and I would agree, that the imports have increased by 50 percent.

One of the effects upon the supply to the growers is that these domestic facilities stored and had infrastructure within the domestic United States to store product. With the closing of those facilities, 30 percent of the storage capacity of the domestic farmers and their access to those raw materials and crop inputs have been closed.

This increases the cost for the farmer to find suppliers of these raw materials through rail and truck infrastructure. As you know, our country is facing logistical issues as well, which increases the cost of the supply to the farmer and also to the ag retailer.

Royster-Clark is also pleased and concerned about at the same time the issue of natural gas as we have entered into a study with Rentech, who is a technology company, and we are looking at what we call a coal to corn project. This coal to corn project will actually take Illinois coal, and we will ship it to our East Dubuque, Illinois,

nitrogen facility. This technology is not new. It is called Fisher-Trops.

Rentech is actually working with the Coal Coalition in Illinois, along with the governor of Illinois and the local coal industry to try to convert our facility to this ultra clean technology. The clean distillate fuel that would also be produced from that facility could be used in municipalities to help with ambient air quality standards. The Department of Defense has shown some interest in this technology as part of their Clean Fuel Initiative.

The company's conversion to clean coal will ultimately replace the natural gas with this coal gasification as its source of energy for fertilizer production. This shift will pay huge dividends for Royster-Clark, greatly reducing the company's cost of doing business and eventually creating more jobs, 100 new jobs at the facility, an estimated 200 coal mining jobs in Illinois and 1,500 construction jobs during the construction of the facility.

This important coal to corn project will pave the way for expansion that will keep the nitrogen fertilizer production facility in Illinois intact. This also will allow us to supply the midwest farmers and growers in our area.

As excited as we are at Royster-Clark about the promise this project represents for our company, we would like to add that this is not a realistic option for many other domestic nitrogen producers due to the hundreds of millions dollars necessary to complete the coal to gasification feedstock conversion.

Also, there are problems with availability to coal logistically close to the domestic production facilities, and in some states there is an absence of political and financial assistance that has been offered to us by the State of Illinois.

Mr. Chairman, allow me to relay my recommendations which we believe should be included in the federal energy legislation and policy. The first recommendation that we recommend is opening additional federal lands and offshore areas to oil and gas exploration and production. We also believe that you should assure that there is an infrastructure for a pipeline to bring that supply to market.

We also support the bill to build new liquid natural gas terminals by placing the exclusive jurisdiction over these regulatory matters of liquid natural gas under the Federal Energy Regulatory Commission.

We believe that these policies and these initiatives are critically important to the energy security, food security and our nation's security, and we strongly urge the Members of this Committee to support their inclusion in the industry legislation to be considered by the United States House of Representatives.

Let me conclude by saying thank you for the opportunity this morning to share my testimony.

[Mr. Pirkle's statement may be found in the appendix.]

Chairman GRAVES. Thank you, Mr. Pirkle. I appreciate you being here.

Next we are going to hear from Dr. Thomas Duesterberg, who is President and CEO of the Manufacturers Alliance here in Washington, D.C. I appreciate you being here.

I do want to point out too we received notice that we have a series of votes, three votes, at approximately 11:00, which will be sometime in there, but just so everybody is aware that we may have to recess for a very short period of time to run over and vote.

Mr. Duesterberg, I appreciate you being here.

STATEMENT OF THOMAS J. DUESTERBERG, Ph.D., MANUFACTURERS ALLIANCE/MAPI

Mr. DUESTERBERG. Mr. Chairman, I appreciate the opportunity to be here.

Manufacturers Alliance represents about 450 manufacturing companies ranging from the auto sector to the chemicals industry to the electronics industry. Our membership represents over $3 trillion in final sales, and the products of our industries are closely related to the concerns of rural America, in addition to being in many cases located in rural America.

I have chosen today to focus on the role of Liquified Natural Gas and the crisis, but I wanted to call your attention to the cost squeeze that is affecting manufacturing today, and this points out why it is important to focus on natural gas costs.

This is an era of global competition which just continues to increase. Not only China, but now India, Malaysia, Indonesia, Mexico are all competing with U.S. manufacturers. In this environment we have seen a cost squeeze that is produced by a variety of circumstances.

We have a strong dollar, which continues to be an issue for manufacturers as especially Asian producers/producing countries keep the value of their currencies low. Benefit costs are rising rapidly, up 32 percent since 2001. Metals of all sorts, including steel, copper and other inputs to manufacturing, have almost doubled in the last few years.

We have done a study on a variety of factors affecting manufacturing, the price of manufacturing compared to our nine leading trading partners, and a combination of higher taxes here than elsewhere, higher benefit costs, higher energy costs, regulatory costs and tort costs add about 22 percent to the cost of labor in this country, which is already high so it produces a considerable cost squeeze.

Natural gas is important to manufacturing. The sector uses about a third of all natural gas used in this country. It is especially important, as has already been pointed out, to the chemicals industry, but also to the glass industry and to the metal forming industry, which have few options for this heat source.

The impact of this cost squeeze and the higher price of natural gas has been especially devastating on the chemicals industry, which has lost 90,000 jobs in the last few years. We went from a trade surplus of $16 billion in 1997 to a trade deficit of $11 billion in 2003 largely because of this.

Now, one thing that we have looked at as a near term solution. We endorse increases in supply of all sorts, including what has been mentioned for electricity, diversifying electricity, but there are stupendous amounts of natural gas available in the world, including in politically stable places like Norway, Australia, the Nether-

lands, the Caribbean, which could provide a solution to the price of natural gas.

We have calculated that without increased supply of LNG, the price of natural gas could rise to about $12.62 per 1,000 cubic feet over the next 15 years. If, however, we take advantage of momentum to increase the supply of LNG, there have been three new facilities that have been licensed in the last year. There are 19 facilities in the United States that have licenses in various stages of the process.

If we can approve only six new facilities from those 19, we could have up to 25 percent of the domestic supply from LNG by the year 2010. We think that this can reduce the price of natural gas by about 20 to 25 percent over current levels.

Mr. Chairman, let me conclude by saying that manufacturing is at a crossroads because of a cost squeeze and because of global competition. The doubling or even tripling of natural gas prices has exacerbated this crisis, so we need immediate attention.

In addition to increasing domestic supply, we think increasing the ability to import LNG could be a near term solution. The economics are good right now for LNG imports, and we encourage the Committee to investigate means to accomplish this such as Congressman Terry's bill to promote expedited licensing.

[Mr. Duesterberg's statement may be found in the appendix.]

Chairman GRAVES. Thank you, Mr. Duesterberg.

Next we are going to hear from Paul Cicio, who is the Executive Director of the Industrial Energy Consumers of America here in Washington, D.C.

Thank you, Paul, for being here.

STATEMENT OF PAUL N. CICIO, INDUSTRIAL ENERGY CONSUMERS OF AMERICA

Mr. CICIO. Good morning, Chairman Graves, Ranking Member Barrow and Members of the Committee. I am the Executive Director of the Industrial Energy Consumers of America.

Among other things, I would like to bring to the Committee's attention the important issues relating to the regulation of natural gas futures contracts markets. This June will be the five year anniversary of the beginning of the natural gas crisis. Cost of the crisis is nearing $200 billion.

It was in June of 2000 that natural gas prices averaged above $4 per million BTU, a price level that immediately began to impact competitiveness of U.S. manufacturing and small business. One by one, manufacturing plants were permanently shut down, idled, reduction was shifted overseas and resulted in a loss of some three million relatively high paying jobs. Today, with a brisk economic recovery, manufacturing is still down some 2.5 million jobs.

Natural gas prices have continued to rise. Prices on the New York Mercantile natural gas contract closed at $7.14 per million BTU this Monday. In November of 2004, prices reached levels of just under $10 per million BTU.

Had it not been for industrial demand destruction as a result of high natural gas prices and the resulting decline of consumption by

the manufacturing sector, together with a cool summer and a mild winter, we would potentially be facing rationing of natural gas.

The point is the U.S. has a serious natural gas crisis that has the potential to get much worse before it gets better, and sound energy policy is not praying for a cool summer and a warm winter. In the meantime, we will continue to witness the dismantling of U.S. manufacturers who built facilities here in the United States based on globally competitive natural gas prices for fuel and feedstock.

Mr. Chairman, I would like to turn our attention to the natural gas market issues. Energy markets have changed dramatically, and regulatory oversight, transparency and limits to rampant speculation by traders, particularly unregulated hedge funds, is needed to meet this challenge.

Changes made by the Commodity Futures Modernization Act of 2000 were very well intended, but did not anticipate the rapid market changes or the problems it would cause by relaxing CFTC regulatory oversight. The changes that a self-regulated NYMEX has made to the natural gas futures contract contributes to the significantly increased volatility.

The natural gas market is no longer being set by consumer demands for the physical supply of gas. Instead of the market serving the greater public good, it serves the investment interests of an ever growing number of speculators and unrelated billion dollar hedge funds that are completely disconnected from the consumer and the manufacturing market. None of them appear concerned that there are negative impacts on your constituents.

The NYMEX natural gas futures contract has the distinction of being the most volatile commodity in the world, far more volatile than crude oil. The trading limits, commonly referred to as circuit breakers, are about twice that of other energy commodities and about four times that of agricultural commodities in general.

We encourage the Congress to look at the agricultural market. There is no question that the government understands that we must provide affordable food and stable prices. As a result, agricultural commodities set futures trading limits that are substantially below that of the NYMEX natural gas contract and as a result have lower volatility. We believe that natural gas should be treated with the same priority.

The Industrial Energy Consumers of America encourages the Committee on Agriculture to make the following necessary legislative changes to support consumers within the reauthorization of the CFTC:

1] NYMEX should be required to seek prior CFTC approval of proposed changes to the terms and conditions of contracts as it did before CFMA was implemented. CFTC should be required to evaluate the economic impacts of proposed changes and seek public input, a similar approach to the Federal Energy Regulatory Commission;

2] Give CFTC authority to establish trading limits similar to agriculture commodity markets that are far less volatile;

3] Give CFTC and the SEC greater regulatory oversight that increases the transparency of market players and transactions in

both NYMEX and the OTC sufficient to prevent market manipulation;

4] CFTC should evaluate after hours overnight trading and determine if its operations are in the best interests of energy markets and can operate without manipulation. If not, it should be eliminated;

5] Congress should prohibit senior CFTC enforcement officials from taking jobs with organizations that their agency oversees for one year. This would eliminate serious integrity and ethic issues;

6] Restore and reinforce the anti-fraud anti-manipulation gap to CFTC that it once had over energy swap transactions prior to year 2000.

Thank you very much.

[Mr. Cicio's statement may be found in the appendix.]

Chairman GRAVES. Thank you, Mr. Cicio. We appreciate your testimony.

Next we are going to hear from Peter Jones, who is President of Wexco Corporation. He is with the Consumers Alliance for Affordable Natural Gas in Lynchburg, Virginia.

Peter, thank you for being here.

STATEMENT OF PETER JONES, WEXCO CORPORATION

Mr. JONES. Good morning, Chairman Graves, Congressman Barrow and Members of the Committee. I am Peter Jones, President of Wexco Corporation of Lynchburg, Virginia.

Established in 1975, Wexco has grown into a highly respected and capable supplier of machinery components for the plastics industry both in the U.S. and internationally. Thank you for the opportunity to testify before you regarding the critical issue of natural gas markets and pricing.

Today I am appearing on behalf of the Consumers Alliance for Affordable Natural Gas, which was formed to call attention to the natural gas crisis and develop rational policy responses to the natural gas supply/demand imbalance.

CAANG represents a broad collection of industrials, farming interests and other consumers of natural gas. Since the 1990s, government policies have encouraged the use of natural gas as a clean fuel with the largest growth in demand coming from the electric utility sector. Yet supply has not kept pace because of government policies that have restricted the access to abundant domestic reserves.

The resulting supply/demand imbalance has driven U.S. natural gas prices to unprecedented heights. In fact, they are two to three times historical levels, and they are the highest in the industrial world.

Domestic prices are projected to stay at these globally uncompetitive levels for the foreseeable future. As we have heard, April natural gas futures are already over $7, which for a month is the first time in history. This is troubling considering that natural gas is the key feedstock in fuel used in our plastic industry, as well as chemical, fertilizer, paper and other manufacturing companies and

heating homes and producing electricity. Natural gas impacts all facets of the economy.

Because of high natural gas prices, manufacturing plants have closed and jobs have moved to other countries with lower energy costs. Communities across the nation are suffering. Some three million manufacturing jobs have been lost, but we need to understand that each of these jobs supports four to five other jobs in surrounding communities, so it ripples through the economy.

Okay. What has happened to Wexco Corporation that I represent? Our two primary operating costs are natural gas and steel. Our natural gas prices have tripled since I started in Wexco in 1999, and our steel prices at least in part driven by natural gas have also dramatically raised, so our operating costs are skyrocketing. At the same time these high prices are forcing my customers to move offshore where they can achieve competitiveness.

We cannot follow them. We have to stay here in Virginia. My business and our 68 employees are being squeezed. When I started we had 135 employees, and we have downsized to 68. Our benefits are pressured, and our company of 30 years history is definitely under siege.

The nation did not find itself in this mess overnight, so solutions to help alleviate the natural gas supply/demand imbalance will not come overnight. We must address structural supply/demand imbalance, which is the fundamental cause of the high, volatile natural gas prices.

Only with a balanced and comprehensive portfolio of policies that address both sides of the equation will the problem be resolved. There is no silver bullet.

We believe in four pillars to accomplish this. First, we believe in the short term aggressive energy efficiency and conservation measures must be taken, which offer the best near term opportunities for reducing price pressures of natural gas.

Second, significant diversification of industrial and power generation fuels, including renewables, clean coals, syn gas from coal, biomass or other materials and nuclear energy to reduce the demand or offset natural gas use and as a matter of energy security.

Thirdly, expanded supply including LNG and new environmentally sound U.S. production, and finally an infrastructure upgrade that includes LNG terminals, an Alaska pipeline and improved storage and transmission facilities.

The natural gas problem is complex. It will take a multifaceted effort to resolve it, and it must be resolved for U.S. manufacturers to remain globally competitive and to give our small businesses and farmers a fighting chance to compete.

Thank you for this opportunity to present our views. I look forward to answering any of your questions.

[Mr. Jones' statement may be found in the appendix.]

Chairman GRAVES. Thank you, Mr. Jones.

Mr. Barrow?

Mr. BARROW. Thank you, Mr. Chairman. It is my pleasure to introduce my guest at these proceedings, Mr. Ben Boyd from Screven County, Georgia.

As I stated before, Ben is the chairman of the American Farm Bureau's Young Farmer Committee. Not the Georgia Farm Bureau, but the American Farm Bureau Young Farmer Committee, and I am very proud to represent him.

He has a lot of friends from the Georgia Farm Bureau who are here with him today. I want to thank them for being here.

Ben, thank you for testifying today.

Chairman GRAVES. Thank you too, Ben. I want to congratulate you on being chairman of the American Farm Bureau Young Farmer Committee.

I was Chairman of the Missouri Young Farmer Committee and served on that committee for two years. I did not have the pleasure of being able to be on the American Young Farmer Committee, but I am very impressed.

Thank you for being here.

STATEMENT OF BEN BOYD, FARMER

Mr. BOYD. Thank you. I appreciate you all letting me be here today. As I said, I am Ben Boyd, and I farm with my father and my brother close to a little town called Sylvania, Georgia. We are a diversified farm. We grow cotton, peanuts, corn, soybeans, small grains and cattle.

I am a member of the Screven County Farm Bureau, and as we have said I have the pleasure to serve on the American Farm Bureau Young Farmer Committee, which lets me talk to a lot of people from all over the country, but today I am here speaking on behalf of myself, a farmer from Georgia.

I just want to thank my congressman, Mr. Barrow, for letting me come here today. I appreciate you letting somebody like me come and talk to you all.

As we have all affirmed now, natural gas is a critical resource for nearly every farmer in this country from fertilizer, crop protection, chemicals, energy used to dry and store all our commodities. My farm and just about everyone else relies heavily on natural gas.

When the price of natural gas increases as much as it did since 2002, the price for products I use on my farm which are based on natural gas increase as well. Since 2002, nitrogen fertilizer prices have increased 113 percent for me. On my farm, that means an increase of about $54,880 just in nitrogen based fertilizer prices for me to try to work this year on the same crops that I have been growing the whole time.

For my corn acres I went from about $36 per acre in nitrogen prices in 2002 to $64 per acre in 2004, and it is going to be even higher this year I am afraid. Our cotton acres are the same way. Cotton takes nitrogen too. The same fate. As nitrogen goes up, so do my prices for raising this cotton. We use mostly anhydrous ammonia because it is the most economical of all nitrogen based fertilizers.

I do not come here to ask for a break to facilitate inefficiencies. I want to do the best job I can, but I feel like I have cut costs about as much as we can without seeing a dramatic decrease in crop production.

Our farm also uses natural and LP gas to dry commodities. Just on our peanut drying bill alone, the increase has been about $4 per ton this year, so that has been close to $4,000 this past year in increased drying costs.

Farmers all across Georgia and all across the nation deal with higher energy input costs over the last few growing seasons, but in general in this time higher commodity prices have been in place and so we have kind of been able to offset differences, but this year is not the same. As inputs are going up the prices are going down. Many Georgia farmers just like me are going to find it more and more difficult to sustain profitability.

We are eventually going to reach a point where energy costs and energy related inputs force me and my neighbors and people from all over the country to not only change our crops, but maybe to change our livelihoods. When gross income on the farm falls, our rural communities suffer.

When farmers stop farming by choice or by circumstance we lose infrastructure, and this is critical. When we lose this infrastructure in these rural communities, it cannot be replaced without huge capital expenditures in the future.

This is something that really matters to me in the little place I live called Poor Robin, Georgia. Please do not underestimate the difficulty it is going to put on young farmers all over the country. I will argue that nitrogen is the most important fertilizer element to most crops. If something is not done with this problem, I do not know how we are going to be able to keep going.

I believe American agriculture is just as much a national security issue as anything else we do. If you have plenty to eat, you have 1,000 problems. If you are hungry, you only have one.

We have been blessed in America. We have more abundance than we know what to do with, and I think it is imperative that we maintain a broadbased agriculture industry so we grow food all over the country to provide safe, affordable and abundant supply of food and fiber for our citizens. We should also be able to rest assured that our food, we have plenty of it and it is safe.

In closing, what I want everybody to get from this is that this is important to me. We talk about endangered species. You are looking at one. I am a 27-year-old farmer. There are not many of us left, and if for some reason we skip a generation in farmers for one reason or another I am afraid it is going to be because it is not profitable.

It is hard to get into. Right now if you cannot make a living for it—you can ask my banker. It is looking rough, but I think we can do some things that will help. If we can cut our costs as much as we can—I want to do my part. I will cut everything out I can, but I am at the point right now if I cut anything else productivity is going to go down.

If we could do something to decrease the energy related input cost, be it fertilizer, chemicals, all of these things, transportation both ways, I think it would let us be able to produce the food that our citizens need while maintaining these rural economies that according to me are extremely important in this part of the world.

I just thank you all for letting me talk today.

[Mr. Boyd's statement may be found in the appendix.]

Chairman GRAVES. We are going to take a quick recess. We have three votes, twenty minutes maybe, twenty-five minutes, I hope to be back.

I do have several questions. I am interested in coal gasification. I am also interested in what some of your opinions are, particularly Mr. Cicio, in market manipulation, and then I want to hear from our three farmers about what is happening to their operations personally.

You know, agriculture, farming, is the only business out there that I know of that buys everything retail and sells everything wholesale. It is completely backwards to the way it is supposed to be. We are price takers on both ends.

I am particularly interested in what this has done to your operation personally and the impact. You kind of addressed it a little bit and nibbled around the edges, but I want to hear it direct so you might think about those questions.

We should be right back just as quickly as possible. I thank everyone for their patience.

[Recess.]

Chairman GRAVES. I want to thank everybody for your patience in our vote. It obviously took longer than we had thought, but again thank you all for being here, and I hope your schedules have not been messed up too much.

Charlie Kruse is not going to be with us. He did have some commitments, which is fine.

I do want to start with Mr. Cicio. I would be curious as to what your take is on market manipulation and just how much you think is there. It is frustrating the way limits are set or where they are set for natural gas as opposed to other farm commodities, but I am curious about what your take is on market manipulation and just how widespread it is.

Mr. CICIO. Congressman, we have a very interesting situation where there is enormous speculation and enormous increased volatility that has occurred. It is only directionally up, but it is all legal. There is nothing that is illegal about what is going on. The sad thing is that they are permitted by law to do these things.

We could not understand why things were as volatile as they were, and we looked at the construct of the NYMEX natural gas contract, and we found some very revealing things.

Since the passage of the Commodity Futures Modernization Act, it deregulated essentially NYMEX and allowed them to do whatever they want with the terms and conditions of the NYMEX contract. Since 2000, year 2000, they changed the terms of this contract four times, and they have changed the terms, such as the limits, to make it more volatile.

Today, as I mentioned in my testimony, the limits are twice that of other energy commodities and four times the limits of agricultural commodities, so what you have then is a contract that if you were a speculator, a trader, a hedge fund, that is a perfect environment for volatility.

If you are the New York Mercantile or you are a trader, speculator, volatility is good. You want an environment, a contract that

you can push the price around at will. If you are a consumer, you want stability. That is why we like the agricultural commodity situation.

Our number one priority is turning back the clock a bit on the Commodity Futures Modernization Act. Many of the things that were in place, the law of the land, prior to the year 2000 is what we would like to see. Prior to 2000, if the NYMEX wanted to change the contract they had to make that request to the CFTC. The CFTC would evaluate it and either approve it or disapprove it.

We would like to go a step further and encourage the CFTC to do an evaluation of the impact of the proposed changes by NYMEX and allow for public input, and that is pretty much the way FERC manages their issues.

In terms of manipulation, to our knowledge it is not illegal. They have been given the legal right to do this through the design of that contract. We need to fix the contract.

Chairman GRAVES. Mr. Pirkle, you mentioned coal gasification. Could you explain that a little bit more for my clarification and explain that? If you just do a little bit more in-depth on that, I would appreciate it.

Mr. PIRKLE. Sure. Rentech is a technology holding company that has a patented process that is an enhanced Fisher-Trops technology, and Fisher-Trops technology is probably 60 years old. It was developed in Germany during World War II for a way to convert to fuel their armed forces.

It is presently being used in South Africa. There are some production facilities that are there that are actually using the Fisher-Trop technology.

Rentech has actually taken that Fisher-Trop technology and developed and refined it, and the part that they patented is actually when you burn—they can actually consume high sulfur coal which has higher BTU values, so they can actually do that, and with their patented process they capture the sulfur and condense the sulfur emissions down to elemental sulfur, and they can sell that elemental sulfur, so for air emissions it is a clean fuel.

However, it is capital intensive. To construct a facility, the estimates right now are somewhere around $400 million to erect and construct the facility, and that is the stage that we are at right now.

A product that I mentioned, the clean distillate fuel, is a product that will come out of the process. The clean distillate fuel is a low sulfur diesel fuel substitute or equivalent. It has one part per million sulfur.

I mentioned in my testimony that municipalities are very interested in that if they are in a non-attainment area for their municipal transportation needs. The Department of Defense, with their clean fuel initiative, is interested in this clean distillate fuel equivalent as well.

The State of Illinois has given a $5 million grant to complete the engineering studies. Those engineering studies are near comple-

tion. The next step after that would be the raising of the funds to start construction and to move forward with the conversion process.

We have some papers that were developed that give a report of the engineering studies and a little bit more in-depth information on the Fisher-Trop technology that we could submit to you if that would meet your needs.

Chairman GRAVES. Very much so. If you would submit that, I would appreciate it very much.

Mr. PIRKLE. We can do that.

Chairman GRAVES. My staff will work with you to get that.

I do want to hear from Terry and Ben, both of you all, on just what this is doing to your personal operations because as farmers you are hit from both sides and there is not much you can do about it, particularly in today's environment where we have decreasing profit margins in farming. It just makes it that much more tough when you see natural gas which is used for drying and then of course the fertilizer costs on top of that.

What do you foresee in the future with your operations and what worries you and just how tough it is going to be? Terry?

Mr. HILGEDICK. Okay. Basically on our farm we try to look at it a few different ways. We can improve efficiency of the fertilizer that we use. Currently our farm last year, we were producing one bushel of corn for one unit of nitrogen, and we feel like we are probably hitting the wall there.

We applied three different times throughout the growing season, once at planting, once at side rest time, which the corn is about a foot tall, and once again at about six feet tall through irrigators. We feel like we are probably running out of efficiency there, so as far as tweaking that much more I do not know what we would do really and still maintain the kind of yields it takes to make a little money farming.

Secondly, we can try to buy seasonally. Sometimes it works. It worked in 2004. We were able to buy in the fall of 2003 and saved about $50 a ton. That opportunity has not presented itself thus far in our area in 2005 so we are uncovered on our costs on anhydrous ammonia, and, as I mentioned earlier, we are looking at $400 plus a ton.

We cannot grow corn is an option. It is unacceptable for a lot of reasons in that our crop rotations are destroyed. Our yields on our other crops such as soybeans would then plummet due to lack of rotation, so it is a tough animal.

Fourthly, we just pay the price and go on. That is kind of where we are getting to more all the time and just absorb the cost and try to find it somewhere else, try to find some dollars elsewhere.

Chairman GRAVES. Ben?

Mr. BOYD. Well, for us, as I talked about, we can change what crops we are using a little bit to help a little bit, but with us we can grow peanuts, which do not take as much nitrogen, but it is

just like he said on rotation. We are just prolonging the inevitable when we do that because it is a pay it now/pay it later deal.

From my perspective, we do not really need a bandaid like that. We need something that will fix us for a while. What really scares me is we are being able to do it right now. Obviously I am still farming so I tend to believe if it keeps going the way it is going we are going to be farming on equity and that is not good because that will run out, especially for me.

The way it is increasing, if it keeps going up, like right now somehow we are making it, but if it keeps increasing at the rate it is and what they say it might, I do not know. We are going to pray and hope we have a good season, have a good crop, because it is not looking real pretty right now.

Chairman GRAVES. Mr. Barrow?

Mr. BARROW. Thank you, Mr. Chairman.

Ben, to follow up on what you were saying, are there things you can turn to for fertilizer besides nitrogen based fertilizers? Is that an option?

Mr. BOYD. No, sir. What I just said about the crops and changing around, that obviously will not work but a minute or two. I mean, nitrogen is its own thing. It would be like saying do you want food or water. You have to have it.

Mr. BARROW. I want to harken back to something you said at the end of your testimony when we were being called away.

You took a generational perspective on things, and I just want you to share with us. How do you think that young farmers today are facing challenges that young farmers yesterday and before your daddy's generation? Tell us how things look to you today, as opposed to the way things looked back then.

Mr. BOYD. Absolutely. Farming is to capital intensive right now. It is hard to get into if you are not in some sort of operation. With that, we start losing farmers. Like with the age, like the demographics, farmers are getting older and older. There are not many young guys coming up.

If we ever miss a generation of farmers in there, it is not something that you can pick up a textbook. I am not saying that farmers are smart or anything, but just smarter than anybody else so that you could not just have a textbook. You just cannot wake up one morning and decide I am going to be a farmer and read, you know, or read lots of books and figure things out because it is always different.

I would just argue that if we lose it, especially if we lose it in regions, there are some parts of the country that are more efficient at growing some stuff. We need to have people producing commodities all over the country, and if we ever skip one generation I think it is going to be hard for us to get back into it.

Mr. BARROW. Thank you, sir.

Mr. Chairman, you have asked some of the questions I wanted to ask, so I am through.

Chairman GRAVES. Manufacturing. Can any of you delve into competitiveness with some of your foreign competitors? I do not know if any of you have foreign competitors. You may know in general what their energy prices are or what it is doing as far as how that affects you. I would be curious about that.

Mr. JONES. I can speak. In the machine that we make —we make barrels that go into injection molding machines and so on. We have a high cost of energy in casting the biometallics inside the steel cylinders.

There are competitors in China who could put a barrel in one of our customer's plants and make a profit for less money than it takes for us just to produce it. I mean, it is dramatic.

The only thing that keeps us going at this point in time is because most of the equipment in the United States, because of the recession we have had and the lack of a capital investment short term, most of that equipment is older equipment, and people run it until it is about ready to drop and they need a barrel now, and they are not going to get it from China.

So in the short term there is a little bit of protection there, but in the longer term, Congressman, is that the people who make resin, plastic resin, are putting all their capital offshore. The largest manufacturer of injection molding machines now in the world, which makes as many as all the others in the United States combined, is in China.

Plastic processing. I defy you to go into WalMart or Home Depot and find any consumer product made out of plastic that does not say Made in China on it. We are impacted both from a cost standpoint in manufacturing and from a standpoint that the pie that we vie for is getting smaller and smaller.

Chairman GRAVES. Go ahead.

Mr. DUESTERBERG. I might comment just in general. Natural gas prices in Europe, of all places, are now 25 percent or so lower on average than they are here. They get gas from Russia primarily, but also get gas from North Africa in the form of LNG.

Gas is the primary determinant of location now for the chemicals industry, and you see unfortunately major chemical companies in the United States now locating in the Middle East because gas is—they used to burn it. It is available for less than $1 per 1,000 cubic feet.

These industries, if we do not address the problem, are going to continue to move offshore. We are going to continue to put large swaths of the manufacturing sector at a competitive disadvantage if we do not get the price of natural gas down to a level where it is more competitive even with the Europeans.

Chairman GRAVES. Do you have any more questions?

Mr. BARROW. No, Mr. Chairman.

Chairman GRAVES. It is obvious that we need some long-term solutions in the energy bill, if we can get that passed.

There was a little bit of a ray of hope I guess that came out of the Senate the other day at least in looking at some of the things we can do in terms of more domestic production of some of our energy sources.

Obviously Liquid Natural Gas has a lot of potential. We need to do everything we can to try to get that permitting process expedited. Mr. Terry, we are working with him a little bit on that.

What we are going to look at is some of the short term, some things we can do to hopefully eliminate the volatility very quickly. I am going to be filing a bill as soon as we get back from Easter break dealing with the price stops and looking at basically we are going to attempt to implement some limits much like what we see in the farm commodities arena.

Hopefully that will help out or at least lessen the volatility short-term, but obviously long-term we have got to come up with some serious solutions to this because it is hitting everybody. It is hitting our farmers. It is hitting our manufacturers. It is hitting consumers. It is hitting homeowners. Everybody has seen their heating bill skyrocket. We have to do something, and I believe in that.

I appreciate everybody coming out today and giving your testimony. I know some of you it was much tougher to get here than others, but I appreciate that quite a little bit.

Please work with my staff. If you have any other suggestions let us know as we are working through this process of filing the bill. Again, thank you.

This hearing is adjourned.

[Whereupon, at 12:04 p.m. the Subcommittee was adjourned.]

Chairman Graves, Opening Statement

Good morning and welcome to the Subcommittee on Rural Enterprise, Agriculture and Technology. Today's hearing is going to explore the outrageously high natural gas prices and its impact on America's small businesses, specifically farmers and manufacturers, but more specifically discuss short term solutions . I appreciate everyone making the trip out to Washington this morning.

Natural gas is a very important issue because of its diverse applications. Natural gas is used to create electricity, produce fertilizer, feed our crops, and drive our vehicles, among many other things. In fact, natural gas is the preferred fuel to heat and cool our homes, totaling over 50 percent of residential energy consumption and growing. Natural gas has been increasing at a dramatic pace in an industrial capacity. In 2000, 95 percent of all new electricity generated was generated from natural gas, and this growth is expected to continue well into the future. Natural gas is the primary feedstock used in producing nitrogen fertilizers, which are used on farms throughout the country. And lastly, natural gas is being used more in the transportation sector, claiming approximately 3 percent of all U.S. natural gas use. This includes fuel intensive vehicle fleets like taxicabs and busses.

My point is that natural gas is popular and its use will continue to grow. Demand is expected to increase 30 – 40 percent by 2025. Recent studies show that our recoverable natural gas reserves are sufficient to meet our demand for years to come, but we are facing obstacles in securing these resources and reserves. And on top of that prices are now more than double what they were during the 90's, and the consumers, manufactures, and farmers are the ones paying the price.

To be clear I am supportive of domestic exploration and production, but current proposals will yield results 10 years from now. We need to discuss short term solutions that can address the high cost of natural gas in the present.

One idea is to examine natural gas trading. Natural gas is volatile by nature, but that does not explain to me the drastic increase in price over the last 5 years. Since 2000 and the passage of the Commodities Futures Modernization Act natural gas has been traded at prices more than double of what it was throughout the 90's. This price increase hits the consumer hard. Consumers are seeing record high energy bills through the cold winter months and hot summer days, and farmers and manufacturers are experiencing increased expenses of operation.

These folks need some relief and I will be looking at legislation that will prevent market manipulation, increase transparency, and provide for accurate disclosure of storage data, so consumers of natural gas won't be at the whim of a volatile market caused by manipulation and fraudulent action.

Again, I thank all our witnesses today for participating in this hearing and I look forward to your statements.

TESTIMONY OF REPRESENTATIVE LEE TERRY (NEBRASKA-02)

BEFORE HOUSE SMALL BUSINESS SUBCOMMITTEE ON RURAL ENTERPRISE, AGRICULTURE AND TECHNOLOGY

MARCH 17, 2005

Thank you, Mr. Chairman, for the opportunity to appear before the Subcommittee today. I commend you for taking the time to examine how volatile natural gas prices have affected America's small businesses, and what Congress can do to address the problem. Today, I want to place special emphasis on how increased utilization of liquefied natural gas (LNG) can benefit America's small businesses and agricultural producers by expanding natural gas supplies and diversifying our energy portfolio.

Natural gas accounts for nearly a quarter of America's energy supply, and is used in more than half of U.S. households and businesses. Unfortunately, the United States faces a natural gas challenge that threatens the profitability of almost every sector of the economy, as well as our citizens' quality of life.

Nationwide, natural gas prices are up from $1.50 thousand cubic feet (Mcf) ten years ago to more than $6.50 today. This is compared to about $0.70 in Venezuela, $0.40 in North Africa, $0.80 in Russia and $3.70 in Western Europe.

Farm states, including Nebraska and your state of Missouri, Mr. Chairman, have been hit especially hard by higher natural gas prices, since natural gas is the primary material in nitrogen fertilizers, as well as a key fuel for irrigation and drying of grains. In Nebraska, anhydrous ammonia fertilizer has increased from around $175 per ton in the 2000, to as much as $375 per ton last planting season.

About half of America's nitrogen fertilizer is imported today, due mostly to high gas prices. Since 2001, at least 15 U.S. fertilizer production facilities have closed. This could have a severe impact on U.S. farmers and those who consume the food they produce.

Last year, Nebraska businesses paid an average of $7.54 per Mcf for their natural gas. Five years before, those Nebraska businesses were only paying around $4.00 per Mcf.

The increased cost of natural gas has played a substantial role in the loss of nearly three million U.S. manufacturing jobs over the past five years, according to the Industrial Energy Consumers of America. Whether these jobs were located at an auto plant in Ohio or a petrochemical maker in Houston, many have been moved overseas where natural gas is cheaper and more abundant.

These reasons for concern are magnified when one considers that U.S. natural gas consumption is expected to increase 40 percent over the next 20 years. Simultaneously, domestic natural gas production is falling at about one percent a year.

Until substantial new natural gas supplies are brought to the market, the nation's businesses, manufacturers and farmers may not have an adequate or affordable supply of gas to meet their needs. In fact, a recent study by the American Gas Foundation found that if current natural gas constraints are continued through 2020, the price of natural gas could rise to as much as $13.76.

There are steps Congress can take to help address the natural gas crisis. But it will require a multifaceted approach.

Increased domestic production, along with new pipeline construction, is one of the keys to addressing our natural gas crisis. But it is only one part of the puzzle. Last year, many of us in Congress were happy to support construction of the Alaska natural gas pipeline. But even if that project produces as much natural gas as expected, it will only provide an estimated seven percent of what the United States is expected to consume annually by 2025.

In addition to boosting domestic energy production, we must increase energy efficiency and conservation, as well as encourage more diversity in energy sources.

Included that energy diversification must be an aggressive effort to expand America's LNG capacity – another key to addressing our natural gas crisis.

Federal Reserve Chairman Alan Greenspan has warned that unless we expand our supply, the United States will become increasingly uncompetitive in industries that rely on natural gas is a critical input. To do this, Chairman Greenspan advocates a drastic increase in our LNG capacity to serve as a "safety valve" that will ease price volatility.

For half a century, liquefied natural gas has been safely transported around the globe without major accidents or safety problems, either in port or on the high seas. Some countries, such as Japan and South Korea, rely on it almost exclusively for their natural gas needs.

Vast amounts of natural gas around the globe (at least 10,000 trillion cubic feet) are ready to be developed, from places such as the Caribbean, Australia, and Eastern Europe – areas that look more favorably on the United States and her interests. In this country, mitigation measures coordinated by federal, state and local agencies make U.S. LNG terminals, ships, and ports the most secure in the world.

But with only four operating LNG import terminals in the United States, less than three percent of this country's natural gas supply today comes from LNG. The Energy Information Administration estimates that LNG must grow to 18.5 percent of our natural gas supply by 2020 in order to meet expected growth in demand.

The good news is that between 30 and 40 LNG terminals are currently in various stages of planning throughout North America. The bad news is that LNG is caught in a jurisdictional dispute between certain states and the Federal Energy Regulatory Commission (FERC).

Moreover, "not-in-my-backyard" opposition and litigation-minded outside interests in certain areas, particularly Southern California and New England, have delayed many of the proposed LNG terminals. Ironically, these are the same regions that consume massive amounts of natural gas. In fact, one-third of the natural gas consumed in New England is currently supplied by an existing LNG facility.

But opposition to LNG by a handful of communities is costing the nation dearly. The siting authority of LNG terminals is not "just a local issue" as some have stated.

As the energy committees in both chambers prepare to vote on new comprehensive energy plans, we in Congress must look at ways to remove obstacles that are preventing us from expanding our LNG resources. Last month, Congressman Gene Green and I introduced legislation called the LNG Act (H.R. 359).

Specifically, our bill would:

- Eliminate State and Federal conflicts by explicitly giving FERC jurisdiction over the siting, construction, expansion and operation of onshore LNG import terminals;
- Set a deadline of one year for review of LNG terminal applications;
- Create a single administrative record, as developed by FERC, for all proceeding and appeals; and
- Remove regulatory uncertainties for those building or expanding onshore LNG terminals by codifying FERC's current policy on open access requirements.

Since the importation of LNG is a matter of foreign commerce, our bill clarifies that FERC has exclusive authority to determine whether a project is in the public interest, and that the Commission is ultimately responsible for overseeing onshore LNG matters – as established by existing Department of Energy delegation orders. This legislation would help ensure the expansion of America's LNG capacity by establishing a more predictable, streamlined process for new and expanding LNG facilities.

It is important to note that H.R. 359 would not compromise the joint role that the States play with FERC in the environmental impact review process. Our bill would not relieve LNG projects from full compliance with applicable state or federal environmental laws. Instead, H.R. 359 would allow for substantial input by all parties, but without unwarranted and open-ended delays. That is the goal of the Terry-Green LNG Act. We believe it is a worthwhile goal, and are currently working with leaders in the House and Senate to include this legislation in the new draft of the comprehensive energy bill.

The fact is the United States has only three percent of the world's reserves of natural gas, but it consumes about 25 percent of the world's output – nearly twice as much as any other nation. To those who say we must not even consider increasing natural gas imports, I believe the choice is between importing the raw fuel or importing manufactured goods made by foreign workers whose jobs were created by America's high gas prices.

Members of Congress on both sides of the political aisle can agree that energy is a national issue. A plentiful, affordable supply of natural gas is critical to our economy, job growth, and quality of life. LNG must play a larger role in our energy portfolio if we want to grow our economy and promote cleaner energy production.

Thank you, Mr. Chairman.

Statement of the American Farm Bureau Federation

TO THE
HOUSE SMALL BUSINESS
SUBCOMMITTEE ON RURAL ENTERPRISES,
AGRICULTURE AND TECHNOLOGY
REGARDING NATURAL GAS PRICES

Presented by:
Charles Kruse
President
Missouri Farm Bureau Federation

March 17, 2005

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STATEMENT OF
THE AMERICAN FARM BUREAU FEDERATION
AND THE MISSOURI FARM BUREAU FEDERATION
TO THE
HOUSE SMALL BUSINESS
SUBCOMMITTEE ON RURAL ENTERPRISES,
AGRICULTURE AND TECHNOLOGY
REGARDING NATURAL GAS PRICES

Presented by:
Charles Kruse
President
Missouri Farm Bureau Federation

March 17, 2005

Good morning. My name is Charles Kruse. I am a fourth generation farmer from Dexter in southeast Missouri. My wife, Pam, and I own and operate a row crop farm. I am the president of the Missouri Farm Bureau Federation and I also serve on the American Farm Bureau Federation board of directors.

Mr. Chairman and members of the subcommittee, I appreciate the opportunity to share Farm Bureau's perspective on the impacts of high natural gas prices.

Whether it is gasoline, diesel, electricity, or natural gas, farmers and ranchers must have access to reliable and affordable energy inputs. Unfortunately, our country's failed energy policy makes it increasingly difficult for us to produce food and fiber for the U.S. and the world while at the same time providing for our own families. Using USDA statistics as a basis, the American Farm Bureau has estimated that increased energy input prices during the 2003 and 2004 growing seasons have cost U.S. agriculture over $6 billion in added expenses.

Natural gas is especially important to agriculture because it is used to produce nitrogen fertilizers and farm chemicals as well as electricity for lighting, heating, irrigation, and grain drying. Natural gas can account for nearly 95 percent of the cost of nitrogen fertilizer.

During the past four years, the price of natural gas has been extremely volatile, causing retail nitrogen fertilizer prices to dramatically increase. For example, between 2000 and 2003 the average retail cost of nitrogen fertilizer skyrocketed from $100 per ton to $350 or more per ton. On my farm, the cost of nitrogen fertilizer is 70 percent higher today than it was two years ago. LP gas prices have increased 40 to 50 percent. The cost of another energy input, diesel fuel, has increased 40 to 60 percent since 2003. While I am paying more to plant and harvest my crops, that does not necessarily mean I am receiving or will receive a greater return. Currently, the price of corn is 30 to 35 percent lower than last spring's price. Soybean prices have fallen 35 to 40 percent.

Manufacturers and retail suppliers are also reeling from the effects of increased natural gas prices. According to The Fertilizer Institute, 15 nitrogen fertilizer plants have permanently stopped production since 2000, representing 22 percent of domestic capacity. Another 20 percent of the industry is temporarily shut down due to high natural gas prices. All the while, the agriculture industry is becoming more reliant on foreign imports to meet farmers' demands. An article featured last year in *Amber Waves*, a publication of USDA's Economic Research Service, states that over half of the nitrogen used in the United States today is imported. In the 1980s our nation was the largest exporter of nitrogen fertilizer; now we are the largest importer. We should be very concerned about increasing our dependence on foreign sources for the nitrogen fertilizer needed to raise the food and fiber on which our country relies.

There are several reasons why the price of natural gas has skyrocketed. First, our national energy policy has discouraged domestic exploration and recovery of oil and natural gas, which has made us more dependent on foreign energy sources. Second, many power plants have been forced to use natural gas to generate electricity in order to comply with environmental regulations – even though we have huge reserves of coal and the technology for its safe, clean use. The Energy Information Administration estimates demand for natural gas will increase 54 percent by 2025, with electric power generation accounting for 33 percent of consumption.

Farm Bureau recognizes there is no "silver bullet" for solving our nation's energy woes; however, prompt decisive action must be taken now if we are to avert a major energy crisis. We support:

- Domestic exploration and recovery of energy resources using sensible, environmentally-sound methods;
- The use of renewable energy such as ethanol and biodiesel;
- Incentives for the use of clean coal technology in electric power generation;
- The use of nuclear energy.

In closing, the "perfect storm" -- the combination of significantly higher energy and fertilizer costs coupled with falling grain prices -- spells serious trouble for rural America. For this reason, it is our hope Congress will act soon to address the energy needs of our nation. Thank you for your attention to this important issue.

Testimony of Terry Hilgedick
National Corn Growers Association
Before the
House Subcommittee on Rural Enterprises, Agriculture and Technology
Washington, D.C.
March 17, 2005

Good morning, Chairman Graves and Ranking Member Butterfield. Thank you for the opportunity to testify on the impact of high natural gas prices on farmers.

My name is Terry Hilgedick. I am Chairman of the Missouri Corn Merchandising Council, and a member of the National Corn Growers Association's (NCGA) Public Policy Action Team. I am from Hartsburg, Missouri where my wife, Kristie, and I grow corn and soybeans.

NCGA was founded in 1957 and represents more than 33,000 dues-paying members from 48 states. NCGA also represents the interests of the more than 300,000 farmers who contribute to corn checkoff programs in 19 states. NCGA's mission is to create and increase opportunities for corn growers and to enhance corn's profitability and use.

My purpose today is to provide insight to the subcommittee on how high natural gas prices affect the cost of producing important fertilizers that farmers rely on for their crops. Increased natural gas prices have already had an adverse effect on farmers due to higher production costs, and will continue to do so in the future. Growers rely on affordable natural gas as feedstock for fertilizer, but also energy for irrigation, powering farm equipment, drying grain and producing ethanol. Whether used directly as a feedstock or for heat and power generation, reasonably priced natural gas is essential to grower profitability.

Role of Fertilizer
Fertilizers account for more than 40 percent of the total energy input per acre of corn harvested. Most of that energy is consumed in the production of nitrogen fertilizer. Retail prices for fertilizer – the prices paid by farmers – rise sharply when natural gas prices increase. According to the U.S. Department of Agriculture (USDA), farm gate prices for fertilizer have jumped to near record-high levels. The largest cost component of making all basic fertilizer products is natural gas, accounting for more than 90 percent of the cash cost of production.

Nitrogen Fertilizer
Nitrogen fertilizer is a key input for the bountiful yields achieved by U.S. corn farmers. Rising natural gas prices in the U.S. have caused domestic nitrogen fertilizer producers to severely curtail production. Of the 16.5 million tons of nitrogen capacity that existed in the U.S. prior to 2000, almost 20 percent has been closed permanently. Another 25 percent is at risk of closing within the next two years.

Farmers face higher nitrogen fertilizer prices and the prospect that there might not be an adequate supply of nitrogen fertilizer to satisfy farmers' demands at any price.

Nitrogen fertilizer producers have no way of curtailing or reducing their demand for natural gas other than shutting down the production process itself. This not only destroys their businesses, but it drives up fertilizer prices to the American farmer and food prices to the American consumer. These production curtailments and higher nitrogen prices are largely the cause of the current surge in nitrogen imports. Imports currently account for approximately 40 percent of the total U.S. nitrogen fertilizer supply. Lower natural gas prices in the Middle East, Asia and South America make it difficult for U.S. nitrogen fertilizer producers to compete with these countries with much lower natural gas prices to take their excess natural gas, turn it into fertilizer and undersell U.S. producers, a practice that will only become more common in the future. Supplies of nitrogen fertilizer have been adequate during periods of high natural gas prices in the past primarily because of increased imports.

Anhydrous Ammonia
Natural gas accounts for 70 to 90 percent of the cost of producing anhydrous ammonia, a key source of nitrogen fertilizer. In the Midwest at the beginning of 2000, anhydrous ammonia was selling for $160 to $170 per ton. By the end of that year, the price had climbed to $210 per ton. Last spring, anhydrous ammonia was selling for $360 per ton. The price of anhydrous ammonia at my local dealer last Friday was $435 per ton. Unfortunately, these high and volatile prices are expected to continue into the foreseeable future. Of the 20 million tons of ammonia capacity that existed in the U.S. prior to 2000, almost 20 percent have closed permanently. An additional 4 million tons is at risk of closing within the next few years. Tight supplies and increasing demand will continue to pressure producers' margins and profitability.

Ethanol Production
Higher natural gas prices will also negatively impact this country's growing ethanol industry. The second biggest cost in ethanol production – second to feedstock – is the cost of energy, generally natural gas. Energy costs typically make up about 15 percent of a dry-mill plant's total costs. According to USDA's latest crop production report, this year's corn crop will be the largest ever and yields will increase by nearly seven bushels per acre compared to last year. When harvested, more than ten percent of that crop will be converted into ethanol. The corn industry becomes more energy efficient every year, but we still must have adequate, reliable and affordable natural gas to fuel the industry.

Market Watch and Impact
Government policy is creating a supply squeeze for natural gas. On one hand, electric utilities and other industries are moving away from using our plentiful supplies of coal and towards use of natural gas. Natural gas has been the fuel of choice for more than 90 percent of the new electric generation to come online in the last decade. In addition, as that happens, our access to natural gas is limited due to environmental policy. Clearly, we can't have it both ways.

Our ability to be efficient and environmentally friendly corn producers will face huge obstacles if our nation cannot come to grips with its desire to have limitless resources, like natural gas, for production and not realize that these resources have to come from somewhere. I am sure the members of the subcommittee as individuals know this well. However, Congress seems unaware of this fact. We can produce corn, but we need you to produce the kind of policy that enables us to use the needed resources to do so.

Congressional Action Needed

Our nation's current natural gas crisis has two solutions: increase supply and reduce demand. The 109th Congress is facing the daunting task of finding ways to balance our nation's dwindling supply of and rising demand for natural gas. Additional supply is available from three primary sources: onshore and offshore production, and liquefied natural gas. While there is considerable activity underway in each of these areas, Congress can do more to facilitate the timely development of these critical supply sources. To promote additional production, for example, Congress can adopt measures to ensure that potential federal lands and Outer Continental Shelf areas are open for leasing, that leases and permits are issued promptly, that the appropriate tax and royalty policies are in place, and that the necessary pipeline infrastructure is available to bring supplies to market, while leaving behind as small an environmental footprint as possible.

Alaska's North Slope is one area with significant potential reserves that can be unlocked in this way. Alaska's North Slope is believed to hold as much as 100 trillion cubic feet of natural gas, making it the largest reserve in North America. The natural gas industry anticipates the need for more than $60 billion of infrastructure investment over the next fifteen years just to keep pace with demand, including liquefied natural gas terminals, pipelines and storage facilities. The construction of new pipelines, such as a pipeline to bring Alaska's North Slope natural gas to domestic markets, cannot be further delayed.

Congress must also adopt measures to ensure that new coal and nuclear facilities are constructed. Congress should provide federal loan guarantees and other incentives for the retrofitting of existing natural gas-fired facilities with the new integrated gasification combined-cycle and next-generation nuclear technologies. It is vitally important that these forms of power generation be developed and deployed. Without them, the demand for gas-fired power plants will continue to grow and place an ever-increasing burden on the nation's supply base. Support, through long-term extension of tax credits and other incentives, for other emerging technologies, including wind and biomass, is also an important element to diversifying our nation's energy resource portfolio.

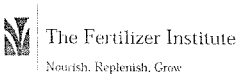
We urge Congress to act expeditiously to promote the development of domestic energy resources to help secure future economic growth for our nation. Congress needs to enact a comprehensive energy policy ***now*** that provides an enhanced role

for renewable energy sources, further development of all energy resources for a more diverse portfolio, and environmentally sensitive production of adequate domestic supplies of natural gas.

Conclusion

There are many indications that our nation's economy and energy security will be seriously impacted should we not take action to expand all sources of domestic, energy to feed our country's growing demand. A renewable fuels standard as part of a comprehensive energy policy would result in the expansion of ethanol production -- directly contributing to domestic fuel supply and reduction in our dependence on imported oil. Our ability to produce food and fuel for our nation and the world depends on a sound energy policy.

I encourage this subcommittee to continue to address energy and natural gas issues. Your decisions impact my farming operation. Simply, farmers need access to reliable sources of energy and raw materials so they can use the fertilizers necessary to produce an abundant, affordable and healthy food supply.



Testimony of

J. Billy Pirkle

of

Royster-Clark, Inc.

on behalf of

Agricultural Retailers Association and
The Fertilizer Institute

Before the

House Small Business Subcommittee on Rural Enterprise,
Agriculture and Technology

Regarding

The High Price of Natural Gas and its Impact on Small Business:
Issues and Short Term Solutions

DESCRIPTION OF TESTIMONY

A description of Royster-Clark, Inc. and an outline of the impact of high natural gas prices on this company and its farmer customers.

March 17, 2005

Introduction

Mr. Chairman and members of the subcommittee, I am J. Billy Pirkle, managing director of environmental health and safety for Royster-Clark, Inc. headquartered in Norfolk, Va.

On behalf of the Agricultural Retailers Association (ARA) and The Fertilizer Institute (TFI), I appreciate the opportunity to testify before the House Small Business Subcommittee on Rural Enterprise, Agriculture and Technology regarding "The High Price of Natural Gas and its Impact on Small Businesses." Furthermore, I would like to thank you Mr. Chairman for scheduling this important hearing and for your leadership in addressing this critical issue impacting Royster-Clark, its many local retail agribusiness outlets and the farmers and livestock producers they serve.

Royster-Clark, Inc. traces its roots to 1872, and maintains headquarters in Norfolk, Va., New York City, and Collinsville, Ill. With more than 2,500 employees, Royster-Clark operates over 250 retail farm supply and service centers in 21 states and distributes product to 30 states. Today, Royster-Clark Inc. is one of the largest independent suppliers of fertilizer, seed, crop protection products and agronomic services in the United States.

ARA is a non-profit trade association representing the interests of agricultural retailers across the United States on legislative and regulatory issues on Capitol Hill. ARA not only represents its membership but also educates members on the political process and the important issues affecting the industry.

TFI is the leading voice of the nation's fertilizer industry, representing the public policy, communication and statistical needs of manufactures, producers, retailers and transporters of fertilizer. In addition to energy policy, issues of interest to TFI members include the environment, international trade, security, transportation and worker health and safety.

Royster-Clark is a member company of both ARA and TFI. Additionally, America's local agricultural retailers supply valuable goods and services to our nation's farmers, including seed, crop protection pesticides, fertilizer, crop scouting, soil testing, custom application of pesticides and fertilizers and development of comprehensive nutrient management plans. Certified Crop Advisers (CCA's) are retained on retailer's staff to provide professional guidance and crop input recommendations to farmers and consumers.

Fertilizer and Energy

The United States needs reliable and plentiful supplies of natural gas for nitrogen fertilizer production, to meet critical agriculture and food production needs. Natural gas is the fundamental feedstock ingredient for the production of nitrogen fertilizer and represents 70 to 90 percent of the production cost of one ton of anhydrous ammonia – the building block for most other forms of commercial nitrogen plant nutrients. The nitrogen fertilizer industry accounts for approximately 3 percent of the total natural gas consumed in the nation.

The National Impact

The current U.S. natural gas crisis is exacting a heavy toll on America's nitrogen fertilizer producers and the farmer customers they supply. The resulting negative financial impact on the North American fertilizer industry is unprecedented and threatens to irreversibly cripple the U.S. nitrogen fertilizer manufacturing industry, which supplies approximately one-half of U.S. farmers' nitrogen fertilizer needs. America's food security, and by extension, our national security will be jeopardized if action is not taken to address our country's current natural gas crisis.

As a result of the ongoing natural gas crisis in America, in total, 20 nitrogen fertilizer (ammonia) production facilities have closed since FY1998/99 (July 1998-June 1999). Fifteen of those plants have closed permanently, representing a 20 percent drop in total production capacity, while five plants remain idle. Operating rates for the U.S. ammonia industry have also declined significantly from historical levels. The permanent and temporary closures in combination with the drop in operating rates have resulted in a 35 percent decline in U.S. ammonia production from 17.85 million tons of material in FY1998/99 to 11.70 million tons in FY2003/04. U.S. nitrogen imports have increased from 6.11 million tons of N in FY98/99 to 10.36 million tons in FY2003/04.

Impact of High Natural Gas Prices on Royster-Clark—Coal to Corn

As stated, the current U.S. natural gas crisis is forcing domestic nitrogen fertilizer plant closures at an alarming rate. The cost of nitrogen fertilizer production has reached an all-time high forcing many U.S. plants to shut down. Jobs are being exported to China, Russia, the Middle East and the Caribbean, as U.S. farmers are becoming increasingly dependent on foreign sources of crop nutrient fertilizers.

Royster-Clark's East Dubuque, Ill., nitrogen fertilizer plant is not immune. This facility is Illinois' only remaining fertilizer producer—a critical production facility serving the heart of America's corn-belt. The facility produces 830 tons per day of ammonia, along with urea and UAN solutions—all needed plant nutrient fertilizers for sale to Midwest farmers. But instead of closing this facility, increasing this nation's fertilizer imports and having similar production and jobs move overseas, Royster-Clark is choosing a more innovative approach to saving this facility and its jobs. We call it the "Coal to Corn" project.

To retain and increase the productivity of the East Dubuque fertilizer plant, Royster-Clark is working with Illinois Governor Rod Blagojevich and Rentech, a technology company, to convert it from natural gas feedstock to Illinois coal using coal gasification, an advanced clean coal technology. By utilizing coal gasification, Royster-Clark will not only eliminate its dependence on the volatile natural gas market and reduce its operating expenses, but also be able to produce multiple products: ammonia for fertilizer, an ultra-clean low sulfur diesel fuel and electric power. The fertilizer will serve Illinois corn farmers and rapidly expanding ethanol production, the ultra-clean diesel fuel will be used in Chicago school and city busses, while the electric power generated in the production process is actually substantial enough to operate the entire facility and have surplus remaining to sell to Illinois consumers.

The company's conversion to clean coal will ultimately replace natural gas with coal gasification as its source of energy for fertilizer production. The shift will pay huge dividends for Royster-Clark, greatly reducing the company's cost of doing business and eventually creating more than 100 new plant jobs, more than 200 coal mining jobs, and about 1,500 construction jobs. This important Coal to Corn project will pave the way for an expansion that will keep this nitrogen fertilizer production facility in Illinois, ensure the company continues to provide area farmers with U.S. produced nitrogen fertilizer, and increase the use of Illinois' abundant coal reserves.

As excited as we are at Royster-Clark about the promise this project represents for our company, I would add that this is not a realistic option to many other domestic nitrogen producers due to the hundreds of millions of dollars necessary for coal-gasification feedstock conversion, limited availability of large supplies of coal and the absence of strong state political and financial assistance, such as that offered to us by the state of Illinois.

Conclusion

Mr. Chairman, allow me to relay recommendations, which we believe should be included in federal energy legislation and policy. These recommendations include: opening additional federal lands and off-shore areas to oil and gas exploration and production; assuring that these areas have access to the necessary pipeline infrastructure to bring supplies to market; and making it easier to build new liquefied natural gas (LNG) terminals by placing exclusive jurisdiction over all matters relating to the approval and siting of LNG terminals under the Federal Energy Regulatory Commission (FERC). We believe these policy initiatives are critically important to the energy security, food security and national security of this nation, and we strongly urge members of this committee to support their inclusion in energy legislation to be considered by the U.S. House of Representatives.

To conclude, allow me to again thank you Mr. Chairman and subcommittee members for your leadership in addressing the critically important issue of the high natural gas price in this country and its impact on small farmers and farm supply operations such as those managed by Royster-Clark. Thank you for the opportunity to testify today.

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Testimony of

Thomas J. Duesterberg, Ph.D.
President and Chief Executive Officer
Manufacturers Alliance/MAPI Inc.

on

"LNG and the Future of Manufacturing"

Before the
Subcommittee on Rural Enterprise, Agriculture and Technology
Committee on Small Business
U.S. House of Representatives

Hearing on *"The High Price of Natural Gas and Its Impact on Small Businesses: Issues and Short Term Solutions"*

March 17, 2005

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Testimony of

Thomas J. Duesterberg, Ph.D.
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on

LNG and the Future of Manufacturing

My name is Tom Duesterberg. I am President and Chief Executive Officer of the Manufacturers Alliance/MAPI, an organization comprised of more than 450 manufacturing companies. The Alliance is the leading executive development and business research organization serving the manufacturing sector. Our activities range from management and policy research to the operation of executive councils and conferences for executives in nearly every management discipline. My remarks today draw on a study we published last September on the impact of high natural gas prices on manufacturers,[1] although where possible the information in that study has been updated. I want to thank the Subcommittee for including me in this important hearing on the energy needs of rural America.

Natural gas is a major source of energy in the United States, accounting for 22 percent of total energy use in 2004. Consumption is projected to grow further as the number of households increases, as electricity consumption rises, and as manufacturing activity expands. As the largest users of this commodity, manufacturers are highly interested in natural gas market conditions. Many industries use significant quantities of natural gas as a feedstock and/or a source of heat. All use electricity, which increasingly is generated from gas-fired plants. All told, the manufacturing sector accounts for approximately one-third of natural gas use. Consequently, questions about the availability and price of natural gas are important and affect decisions regarding the location of manufacturers' facilities. Further, because many manufacturing facilities are situated in rural areas, we believe that factors impacting manufacturers are of direct relevance to the members of this Subcommittee.

In brief, given the ever-increasing pressures on manufacturing from global competition, increasing benefit costs, and rising input prices, the cost and availability of natural gas are growing concerns to the manufacturing sector. Unless the supply and price of this crucial energy source are stabilized (and the two are related), major parts of the domestic manufacturing sector such as chemicals, primary metals, fabricated metals, plastics, paper, glass, and others could be in jeopardy. Other sectors of the economy, notably electrical generation and agriculture, also have been hurt by the rise in the price of natural gas. Domestic wellhead prices in the United States already are 25 percent higher than in Europe. As a previous study from MAPI and the National Association of Manufacturers (NAM) showed, the combination of natural gas prices and other policy-related costs, such as taxes, regulation, health care, and litigation exposure, puts U.S. manufacturers at a steep disadvantage in relation to our nine major trading partners.[2] This competitive situation makes it urgent to find ways to reduce the current steep cost disadvantage now faced by U.S. manufacturers in terms of natural gas prices. One very promising, near-term solution is in building capacity to use LNG as a means to tap the abundant natural gas reserves around the world.

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[1] Donald A. Norman, *Liquefied Natural Gas and the Future of Manufacturing,* Manufacturers Alliance/MAPI, September 2004.

[2] Jeremy A. Leonard, *How Structural Costs Imposed on U.S. Manufacturers Harm Workers and Threaten Competitiveness,* Report prepared for The Manufacturing Institute of the National Association of Manufacturers, 2003, and jointly published with MAPI. Leonard is a consultant to MAPI.

LNG is poised to take off as an important source of energy throughout the world. European countries, including France, the United Kingdom, Italy, and Spain, as well as Asian countries like Japan, China, and South Korea, are preparing to import LNG or are expanding existing LNG facilities. Given the current domestic price of natural gas, the economics of importing LNG are highly favorable and likely to remain so for the medium and long terms. As of mid-2004, there were 17 LNG-receiving terminals under construction or being expanded worldwide, as well as proposals for another 142 terminals. The energy provided by LNG will redound to the benefit of natural gas consumers, including manufacturers, in countries that choose to take advantage of the vast natural gas reserves throughout the world. Most of these reserves are located in countries, such as Norway, Trinidad and Tobago, Australia, and Qatar, where gas consumption, as a percent of reserves, is very low, thereby enabling many of them to become major exporters of LNG. The current and projected expansion of the LNG trade indicates that these reserves are expected to help satiate the world's growing demand for natural gas. In this regard, the expansion of LNG trade is tantamount to the introduction of a major new source of energy.

The growing imbalance between consumption and traditional sources of natural gas brings home the urgency of expanding LNG's role in the U.S. energy portfolio. Public policy should be focused on expediting LNG projects. Improved availability of LNG can contribute significantly toward ensuring adequate gas supplies and will likely lower the price of natural gas. The FERC has recently taken positive steps in this direction. The United States is well positioned to reap the advantage of increased gas supplies from LNG, especially along the Gulf Coast, owing to the extensive gas pipeline systems that originate in Texas and Louisiana and reach all major markets, and the relatively favorable local environment for building new LNG import facilities. The manufacturing sector would benefit greatly from an expansion of LNG imports. In addition to the general downward pressure on the price of gas from increased LNG imports, manufacturers that consume large quantities of gas could negotiate directly with LNG exporters to purchase gas under long-term contracts, thus stabilizing both supply and price.

Recent History

Throughout the 1990s, the price of natural gas in the United States was moderate, making it an economical choice for residential, commercial, and industrial users. It also became the preferred fuel of choice for electricity generation and new industrial facilities in the 1990s because the relatively low level of emissions of carbon dioxide (CO_2) and nitrogen oxides (NO_x) created when gas is burned made it easier for these facilities to gain regulatory approval.

Industries like food, paper, petroleum and coal production, chemicals, plastics and rubber products, nonmetallic mineral products, primary metals, fabricated metals, and transportation equipment all use significant quantities of natural gas. For some industries, like chemicals, metal casting, and glass, natural gas accounts for the largest share of energy use. The reason natural gas is such an important source of energy for these industries is that it is an essential feedstock (chemicals and fertilizers) or it is a superior source of heat (glass). As a result, the ability to substitute other forms of energy for natural gas is limited.

Manufacturing benefited from the availability of natural gas and the relatively low natural gas prices that prevailed throughout the 1980s and 1990s. But gas prices in the United States now compare unfavorably with those in Europe and in much of the world. The rise in natural gas prices since 1999 has put industries that purchase large quantities of gas at a competitive disadvantage, especially in international markets where other firms have access to lower cost gas.

The concern on the part of manufacturers is that natural gas prices will continue to rise, thus putting them at a competitive disadvantage in global markets. For example, natural gas is the most important cost component for manufacturing nitrogen fertilizer (also known as anhydrous ammonia). Domestic commercial production of ammonia fell from 16.6 million tons in 1999 to just 9.5 million

tons in 2001 as a result of higher natural gas prices and weather-related decreases in demand.[3] Exports of ammonia fell from 0.924 million tons for the fiscal year ending June 30, 2000 to 0.576 million tons for the year ending June 30, 2003. Over the same period, ammonia imports rose from 4.7 million tons to 7.3 million tons. In addition to worsening the trade balance, higher fertilizer prices raise the cost of farming and, ultimately, food.

For the chemical manufacturing industry as a whole, the balance of trade swung from a trade surplus of $16.1 billion in 1997 to a trade deficit of $11.2 billion in 2003 as higher gas prices reduced the competitiveness of domestic producers.[4] The deficit was reduced somewhat in 2004 to an estimated $6.8 billion as global demand rose strongly. Not surprisingly, employment in this technologically sophisticated and innovative industry decreased by approximately 90,000 between 2000 and mid-2004. This loss represents 9 percent of total chemical industry employment in 2000.

Other industries vulnerable to higher natural gas prices include iron and steel and the aluminum industry because of their high gas and electricity use. Anecdotal evidence highlights the challenges higher natural gas prices pose for specific companies. Natural gas costs for PPG Industries, a global supplier of paint, glass, fiberglass, and chemicals, increased 50 percent from 2002 to 2003.[5] Dow Chemical announced that because of higher gas costs, it would reduce its workforce in North America by 3,000 in 2004 after cutting 3,500 jobs the previous year.[6] A Dow spokesperson pointed out that the prices the company pays for natural gas currently are $2.05 to $3.08 per thousand cubic feet (Mcf) cheaper in Europe than in the United States.[7]

If natural gas prices remain high, manufacturers will be induced to switch to an alternative energy source like oil, although this can take time. Further, oil prices currently are high and volatile and thus substituting oil for natural gas may not represent much of an alternative. Another option is to relocate plants—and jobs—abroad. As discussed below, a preferable alternative is to increase LNG imports.

The Long-Term Outlook for Energy

The Department of Energy's Energy Information Administration (EIA) produces a long-term outlook for energy. EIA's projections for natural gas consumption assume that the real price of natural gas (in 2003 dollars) will average $4.53 per Mcf in 2020, or about $6.73 in current dollars given EIA's assumption of an average inflation of 2.5 percent. As of October 2004, however, the current dollar price of natural gas at the wellhead averaged $5.45 per Mcf. If the price of gas were to rise at the EIA's assumed rate of inflation of 2.5 percent, the price of gas in 2020 would reach $7.89 per Mcf, measured in nominal dollars. This price is premised on EIA's expectation that LNG imports will grow elevenfold, from 0.5 trillion cubic feet (Tcf) in 2003 to 5.5 Tcf in 2020.

Suppose these additional LNG imports fail to materialize. One can ask what might happen to the price of natural gas under such a circumstance. Assuming that domestic production and Canadian imports follow the path projected by the EIA and grow by 0.9 percent per year between 2004 and 2020, how high would the price of natural gas have to rise to offset the normal growth of gas demand associated with economic growth so that demand is equal to the production and import level projected by the EIA? According to the analysis in our LNG study, the ***real*** price of natural gas would have to rise by 3.5 percent annually to reduce consumption sufficiently so that it equals projected supplies from U.S. production, Canadian imports, and the current level of LNG imports.

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[3] Agency for Toxic Substances and Disease Registry, U.S. Department of Health and Human Services, http://www.atsdr.cdc.gov/toxprofiles/tp126-c5.pdf.

[4] International Trade Commission, U.S. Department of Commerce. Data pertain to the chemical industry as categorized by NAICS code 325.

[5] "Chemical, Farming Industries Detail Price Woes," *Platts Gas Daily*, March 26, 2004, p. 1, www.platts.com.

[6] "High Gas Costs 'Wreak Havoc' on Manufacturers," *Platts Gas Daily*, July 2, 2004, p. 1, www.platts.com.

[7] *Ibid.*, p. 6.

The wellhead price of natural gas averaged $5.36 per Mcf for the first 10 months of 2004. If this price were to grow at 3.5 percent annually, the wellhead price of gas would equal $8.94 per Mcf in 2020. In nominal terms, the price would rise to $12.62 per Mcf, using EIA's expected average inflation rate of 2.5 percent.

If the price of natural gas were to rise at an average annual rate of 3.5 percent, the manufacturing sector would be severely impacted. Industries that consume a lot of gas would be induced to relocate abroad in order to successfully compete with firms that have access to lower priced gas. Other gas-consuming sectors (including electric generation and households) also would be negatively impacted. Finally, the demand for other types of energy like coal and oil would increase as users substitute other forms of energy for natural gas. The increase in demand for energy substitutes would put upward pressure on their prices.

As noted earlier, a number of industries have been adversely impacted by the rise in the price of natural gas since 1999. Less obvious is the impact of higher natural gas prices on the economy at large. Economists at the American Chemistry Council estimated the economic impact of natural gas prices remaining at about $6.15 per Mcf.[8] Compared to their base case scenario forecast in which the price of natural gas averages $3.59 per Mcf, overall U.S. economic growth would be reduced by 0.2 percent in 2004 and by 0.3 percent in 2005. A reduction in GDP of 0.3 percent translates into a loss of $300 billion. The manufacturing sector would be hit harder than the economy at large. Industrial production would be reduced by 0.4 percent in 2004 and by 0.6 percent in 2005.

The Interstate Natural Gas Association of America (INGAA) released a study that estimated the economy-wide impact of delaying the construction of gas pipelines, storage facilities, and LNG terminals.[9] The study found that a two-year delay would raise gas prices by an average of $0.80 per Mcf by 2020, and that this would cost consumers $200 billion by 2020.

Aggressive development of LNG terminals along with added exploration and development could actually reduce gas prices below their current level. One study projected that a large increase in LNG imports along with additional domestic production could reduce gas prices to as low as $4.35 per Mcf by 2007, or by about $1 per Mcf below the current level.[10] Similarly, a study by Charles River Associates projects that expanding LNG imports beyond the level assumed by the EIA in its long-term forecast could lower wellhead gas prices by as much as $1.54 per Mcf—or by about 26 percent—below their base case forecast of gas prices in 2020.[11] According to that study, LNG imports could reach approximately 6.5 Tcf by 2020.

Proposed LNG Terminals

The most recent (2005) EIA long-term forecast has LNG imports rising from 0.5 Tcf in 2003 to 2.5 Tcf in 2010. However, this projection ***understates*** LNG's potential given the number of proposals for new terminals. Three terminals with a total "nameplate" capacity of 5.6 billion cubic feet (Bcf) per day have received FERC permits during the past 18 months. Nineteen other terminals have been proposed with nameplate capacities ranging from 0.5 Bcf per day to 2.8 Bcf per day. Assuming new terminals have an average nameplate capacity of 1.5 Bcf per day and an 85 percent utilization rate (typical for LNG terminals on the Gulf Coast), the construction of just six additional terminals prior to 2010 would provide additional capacity of 2.8 Tcf annually. Together, the four

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[8] Kevin T. Swift and Martha Gilchrist Moore, "Background Paper on Natural Gas Price Shocks and the Economy," American Chemistry Council, February 28, 2003.

[9] Energy and Environmental Analysis, Inc., *An Updated Assessment of Pipeline and Storage Infrastructure for the North American Gas Market: Adverse Consequences of Delays in the Construction of Natural Gas Infrastructure*, Report prepared for The INGAA Foundation, Inc., July 2004.

[10] "Report: LNG Influx will drop gas to $4.25 by '07," *Platts Gas Daily*, p. 1.

[11] Ben Allaire, Bob Baron, Paul Bernstein, and David Montgomery, "Role of LNG Under Lower North American Production," Charles River Associates, Presentation at the Energy Modeling Forum, June 30, 2003.

terminals that currently are operating (including their planned expansions), the three terminals that have received FERC approval, and six additional terminals could import an estimated 5.7 Tcf of gas annually by 2010. This represents 22 percent of projected U.S. gas consumption in 2010. Importantly, if these somewhat conservative assumptions regarding LNG imports are met, the overall impact would be to ***reduce*** prices 20 to 25 percent ***below current*** levels. If new LNG imports are ***not*** achieved, as explained earlier, prices could more than double in the next 15 years.

LNG Economics

The number of terminals that ultimately are built depends on the underlying economics of LNG. Bringing LNG to domestic markets requires large investments in liquefaction facilities, LNG tankers, and terminals for the receipt and regasification of LNG. That LNG is better positioned to compete with conventional natural gas supplies is attributable to the rise in the price of gas since 1999 and to significant reductions in the cost of liquefaction, shipping, and constructing LNG terminals. Our review of LNG studies found that the total cost of production, liquefaction, shipping, and regasification currently ranges from $2.05 to $4.18 per Mcf, depending on the source of LNG supplies. Given that the average wellhead price was $5.45 per Mcf as of October 2004, LNG would continue to be competitive even if prices fall.

Location of LNG Terminals

Although gas is consumed throughout the United States, local opposition to LNG terminals in states like California and in the Northeast makes it likely that the proposals with the best chances of gaining regulatory approval in the near term are for facilities that would be located along the Gulf Coast. There are areas along this coast where population densities are low and communities are more receptive to energy facilities, in part because such facilities (including refineries, ports, and tank farms) have long been located in the region.

More important from an economic and logistic point of view is the existing natural gas pipeline infrastructure that originates along the Gulf Coast. Natural gas resources are distributed across a number of major geologic basins. Most domestic natural gas is produced in the onshore and offshore regions of the Gulf Coast. According to 2001 data, 60 percent of gas produced in the United States flows from the onshore and offshore areas of the Gulf of Mexico. Another 23 percent was produced in New Mexico, Oklahoma, and Wyoming.

LNG in a Global Context

The United States is not alone in looking to LNG as a source of energy. Current projections for 2010 show that the United States accounts for 12 percent of global LNG imports, about the same as South Korea but still well below Japan, which is projected to account for 32 percent of global LNG imports. China is shown as accounting for just 3 percent of LNG imports, but recent reports on Chinese activities suggest that China's share may grow more rapidly. China, which has one LNG terminal under construction, is planning to build as many as 10 LNG terminals. Chinese companies are also looking to invest in gas fields abroad or enter into long-term supply contracts.

LNG exporting countries can be divided into three major regions: the Atlantic Basin, the Pacific Basin, and the Middle East Gulf. Current and potential sources of LNG in Atlantic Basin countries include Algeria, Nigeria, Trinidad and Tobago, Libya, Egypt, Russia, and Norway. LNG from these countries is likely to flow to Europe and the United States. Pacific Basin exporters include or will soon include Indonesia, Malaysia, Australia, Brunei Darussalam, and Russia. Japan, China, South Korea, and the West Coast of North America (United States and Mexico) receive shipments from the Pacific Basin. Finally, Middle East Gulf countries like Qatar, Oman, and the United Arab Emirates supply both Atlantic and Pacific buyers.

In terms of regional, cultural, and political differences, the group of potential suppliers is sufficiently diversified to reduce risks of supply interruptions. In addition to Middle East Gulf suppliers such as Qatar, there are large stranded reserves in Australia, the Caribbean, Norway, Indonesia, and Northern Africa. Countries with large natural gas reserves would likely have a difficult time exercising market power in LNG sales, especially over time. First, more important than the percentage of reserves held by countries like Russia, Iran, and Qatar are countries like Egypt, Australia, Norway, and Indonesia that have the potential of becoming major LNG exporters despite the fact that their natural gas reserves, relative to those of Russia and Qatar, are small. What counts in the LNG market is not the size of a country's natural gas reserves, but rather its liquefaction capacity. For example, a country like Norway could, by constructing liquefaction plants, become a significant LNG exporter despite the fact that it has just 1.4 percent of world natural gas reserves.

While an Organization of Gas Exporting Countries, or "OGEC" is conceivable, the problem faced in trying to control the LNG market is that entry into this market is not limited to countries with huge natural gas reserves. A number of countries with stranded gas reserves on the scale of Norway's could, by constructing liquefaction plants, enter the market and have a competitive impact. While the front-end investment is high, it has not been too high to prevent new plants from being built or from giving rise to proposals for more plants. Once investment is made in these plants, the incentive of owners is to run them at their full utilization rate, not to constrain their output. It is because the owners of liquefaction plants want to protect their investment that they seek out long-term contractual arrangements that guarantee them a market for their LNG.

The expansion of LNG trade represents new competition for all forms of energy, including conventional natural gas. That is, LNG competes with alternative fuels as well as with natural gas brought in by pipeline. Taking advantage of LNG supplies increases overall energy supplies, thereby reducing market power that could devolve to the seller of any single type of energy as the demand for energy grows. To argue against LNG on grounds that a few countries might dominate the supply of LNG is to ignore the fact that LNG is adding to, not reducing, energy supplies.

Conclusions and Policy Recommendations

The rise in the price of natural gas has adversely affected the manufacturing sector. The possibility of growing imbalances in supply and demand will result in even higher natural gas prices in the future unless new sources of natural gas are introduced into the United States, especially over the next three years. In the longer term, energy policy can contribute to expanded supplies by enabling production in those areas in the lower-48 states where huge gas reserves are thought to exist. The construction of a pipeline from Alaska would make the estimated 35 Tcf of gas reserves there available for consumption. Unfortunately, even if construction of a pipeline were to start within the next few years, the completion date would be too far into the future to provide any near-term relief for manufacturers in the form of downward pressure on natural gas prices.

For manufacturers, the future is now. The high price of natural gas already has led to what some call "demand destruction"—that is, the reduction of gas consumption attributable to firms closing production facilities in the United States or going to foreign locations, such as those in the Middle East, to meet increases in demand. Manufacturers who rely on natural gas as a feedstock or for heating are finding it increasingly difficult to compete in world markets. Manufacturers located abroad where natural gas prices are lower than in the United States have a competitive advantage. In the end, demand destruction will apply to manufacturing jobs as well as to natural gas. Many of these jobs will be lost in rural areas where manufacturing facilities are located.

Written Statement

Of

Paul N. Cicio

On Behalf of

The Industrial Energy Consumers of America

Before the

Small Business Subcommittee on Rural Enterprise,
Agriculture and Technology

House of Representatives

The High Price of Natural Gas and its Impact on
Small Businesses
Issues and Short Term Solutions

March 17, 2005

Good morning Chairman Graves, Ranking Member Barrow, and Members of the Committee. I am the Executive Director of the Industrial Energy Consumers of America (IECA). We are grateful for the opportunity to provide testimony on this very essential and timely issue of the high price of natural gas and its impact on small business and to address desperately needed solutions.

Among other things, I would like to bring to the Committee's attention, the important issues relating to the regulation of natural gas futures contracts markets.

The Industrial Energy Consumers of America is a 501 (C) (6) nonprofit organization created to promote the interests of manufacturing companies for which the availability, use and cost of energy, power or feedstock play a significant role in their ability to compete in domestic and world markets.

This June will be the five year anniversary of the beginning of the natural gas crisis. It was in June of 2000 that natural gas prices averaged above $4.00 per million Btu, a price level that immediately began to impact the competitiveness of U.S. manufacturing. One by one manufacturing plants were permanently shut down or idled, production was shifted overseas and resulted in a loss of 3.0 million relatively high paying jobs. Today, with a brisk economic recovery manufacturing is still down 2.5 million jobs.

Natural gas prices have continued to rise. Prices on the New York Mercantile Exchange (NYMEX) natural gas contract closed at $7.14 per million Btu on Monday, March 14. In November, 2004 prices reached levels of just under $10.00 per million Btu.

Had it not been for industrial "demand destruction" as a result of high natural gas prices, and the resulting decline of consumption by the manufacturing sector, together with a cool summer and a mild winter, we would potentially be facing rationing of natural gas.

It is important to elaborate on that point. Since the natural gas crisis began in 2000, industrial natural gas demand, according to the Energy Information Administration, fell by 9 percent because of high natural gas prices, freeing up about .8 TCF of natural gas. This "demand destruction" increased the availability of natural gas for all other consumers by 3.5 percent of total U.S. consumption.

At the same time, U.S. production fell by 4.92 percent from year 2001 to 2004 or .97 TCF. This is despite record well completions by the exploration and production industry.

The point is the U.S. has a serious natural gas crisis that has the potential to get much worse before it gets better. And, sound energy policy is not "praying for a cool summer and a warm winter." In the mean time, we will continue to witness the "dismantling of U.S. manufacturing" who built facilities based on globally competitive natural gas prices for fuel and feedstock.

Five Years After the Natural Gas Crisis Started:

The wholesale price of natural gas that manufacturers pay has increased from $2.11 per million Btu in 1998 to $6.05 per million Btu in year 2004, a nearly 300 percent increase.

The U.S. is the only country in the world who does not fully utilize its natural resources. A significant amount of natural gas resources remain in moratoria and cannot be touched. Meanwhile, countries like the UK, Norway and Australia continue to expand offshore drilling.

The NYMEX natural gas contract has the distinction as the most volatile commodity in the world.

The US has the highest sustained price of any industrialized country in the world.

The natural gas crisis has cost consumers nearly $200 billion. The amount does not include the cost of lost jobs or the increased cost of electricity.

As U.S. manufacturing shut down facilities, imports of energy intensive products have increased exponentially, increasing the trade deficit.

The "supply gap," the amount of natural gas that the United States depends upon from Canada and LNG imports has increased 42 % from 2.6 TCF in 2001 to 3.7 TCF in 2004, a increase of 1.1 TCF. This is significant given total US demand in 2004 was 22.2 TCF. Canadian exports to the U.S. have decreased and LNG has shown only modest increases.

As a result, manufacturing is not spending their "growth capital" in the U.S. in large part because of the high and volatile price of natural gas and energy in general relative to other places in the world.

The Solution is a Combination of Supply, Demand and Technology Policies

The solution to the natural gas crisis is a combination of policies that encourages development of all energy sources such as increased supplies of natural gas, coal, nuclear, LNG and renewable energy; and economy-wide demand side management policies.

All options need to be on the table. Consumers win when energy markets compete between and among the energy supply options. IECA strongly supports policies that encourage use of coal for power generation when used with Integrated Gasification Combined Cycle Technology. IGCC is a superb technology that also provides a solution to environmental challenges.

Improvement in energy efficiency across all sectors of the economy should be a high priority. All things being equal, cost effective policy that reduces demand could reduce the price of natural gas. It is also good for the environment.

Lastly, and equally important, removing Congressional and Presidential moratoria should be removed.

Increase Government Oversight of the Natural Gas Markets and NYMEX

The energy market and especially natural gas, needs greater oversight so that it operates efficiently and serves the interests of the public rather than unregulated speculators who are becoming increasing dominant players. The CFTC has a vital role in the needed changes.

Energy markets have changed drastically and regulatory oversight, transparency and limits to rampant speculation by traders, particularly unregulated hedge funds, is needed to meet the challenge. Changes made by the Commodity Futures Modernization Act of 2000 (CFMA) were well intended but did not anticipate these rapid market changes or the problems it would cause by relaxing CFTC regulatory oversight.

Congress placed its trust in the industry when it reduced federal oversight of natural gas trading. The changes a "self-regulated" NYMEX has made to the futures contract in response to further market pressure contributes to the significantly increased volatility.

Changes made by the CFMA have led to unintended results in the marketplace. The natural gas market price is no longer being set by consumer's demands for the physical supply of gas. Instead of the market serving the greater public good, it serves the investment interests of ever-growing unregulated billion dollar hedge funds that are completely disconnected from the consumer and manufacturing market. Hundreds of unregulated hedge funds are now trading energy, and many are of international origin. None of them appear concerned that there are negative effects on your constituents, the consumers of natural gas and oil products.

We encourage Congress to look at the agriculture market. There is no question that government understands that it must provide affordable food and stable food prices. As a result, agricultural commodities have futures trading limits that are substantially below that of the NYMEX natural gas contract. And, as a result, have lower volatility. We believe that energy (natural gas) should be treated with the same priority.

IECA encourages the Committee on Agriculture to make necessary legislative changes to support consumers within the Reauthorization of the CFTC legislation.

- NYMEX should be required to seek prior CFTC approval of proposed changes to the terms of futures contracts as it did before CFMA was implemented. CFTC should be required to evaluate the economic impacts of changes and seek public input.

- Give CFTC authority to establish trading limits similar to the agriculture commodity markets which are far less volatile.

- Give CFTC and SEC greater regulatory oversight that increases their transparency of "market players" and transactions in both the NYMEX and the Over the Counter (OTC) market, sufficient to prevent market manipulation.

- CFTC should evaluate after hours "over-night" trading and determine if its operation is in the best interests of the energy markets (versus the interests of NYMEX) and can operate without manipulation. If not, it should be eliminated.

- Congress should prohibit senior enforcement officials from taking jobs with organizations that their agency oversees for one year.
- Restore and reinforce the anti-fraud and anti-manipulation "gap" to the CFTC that it once had over swap transactions in exempt commodities (natural gas). Section 4 (g) of the Commodity Exchange Act

Testimony of Peter Jones
President of Wexco Corp., Lynchburg, VA
speaking on Behalf of the Consumers Alliance for Affordable Natural Gas before Committee on Small Business of the U.S. House of Representatives Subcommittee on Rural Enterprises, Agriculture and Technology

March 17, 2005

The Consumers Alliance for Affordable Natural Gas was formed to call attention to the natural gas crisis and develop and promote rational policy responses to the natural gas supply-demand imbalance. CAANG comprises large and small consumers across the breadth of the U.S. economy working in concert with a wide array of interests, including those of farmers.

Government policies have encouraged the use of natural gas as a clean fuel, with the largest growth in demand coming from the utility sector. Yet supply has not kept pace because government policies also have restricted access to domestic reserves. The result is a supply/demand imbalance with U.S. natural gas prices at unprecedented highs that are two to three times historical levels. Now the highest in the industrial world, natural gas prices are projected to stay at these heights until Congress acts. Though the supply-demand imbalance is the main culprit behind the price rise, the lack of market transparency also is a contributing factor.

Energy—particularly natural gas—is a major business cost, and current high natural gas prices are eroding competitiveness. Plants have closed, jobs have moved to other countries and communities are suffering. It has been estimated that as many as 2.7 million manufacturing jobs have been lost and each manufacturing job lost supported five others in the local community. And more jobs are at risk.

About 200 gigawatts of gas consuming electricity generation capacity has been built since 1997, but only a portion of total capacity is in use. This overbuild of capacity represents a demand "overhang" that could reach 3.3 Tcf of increased gas consumption annually and has contributed to industrial "demand destruction" that threatens the nation's manufacturing base.

If ignored, the gap between supply and demand will create hardship for residential consumers, especially those on low and fixed incomes. Small businesses and farmers too will face pinched pocketbooks as a result of the new natural gas pricing structure.

While there is no silver bullet that alone can resolve the crisis, CAANG believes the problem can be alleviated with a balanced portfolio of initiatives. To ease this growing crisis, we need both to reduce demand for natural gas <u>and</u> expand supply.

The balanced policies needed encompass:

- Aggressive energy efficiency and conservation measures, which offer the best near term opportunities for reducing price pressures on natural gas.
- Significant diversification of industrial and power generation fuels -- including renewables, clean coal, syngas from coal or biomass, and nuclear energy -- to reduce demand or offset natural gas use and as a matter of energy security.
- Expanded supply, including new U.S. production and increased LNG imports.
- Infrastructure upgrades, including an Alaska gas pipeline and improved storage and transmission facilities.

Fuel Diversification & Efficiency

In the short-term, curbing consumption of natural gas through end use efficiency and conservation is the most effective response to the current crisis facing natural gas markets. Supply solutions will generally take longer to come on line, so for the next few years demand-side solutions will be critical. In addition, because natural gas has come to play such a crucial role as the marginal energy source for electric power generation, electric efficiency and conservation are equally, if not more important, than direct gas end-use reductions in addressing near-term market imbalances. In the longer term, efficiency reduces demand growth, allowing more time to expand gas supplies and develop alternative energy resources to create sustainable energy markets. Programs and policies needed to mobilize energy efficiency and conservation are well understood, and can be deployed rapidly. Aggressive implementation of recommended efficiency policies alone can result in gas savings of about 2 TCF annually by 2010, and over 4.4 TCF annually by 2025.

In addition to short-term efficiency actions in the short- to mid-term, aggressive and immediate fuel diversification, in both industrial and power generation uses, is essential to meet the daunting challenges posed by the 200 GW gas power generation "overbuild" and its existing 3.3 TCF "overhang" (industrial "demand destruction" threat). The 3.3 TCF gas generation overhang will soak up all or most additional natural gas supply, thereby creating the threat of destroying demand from industrial users which will shut down, unless something dramatic is done to diversify industrial and power fuel mix. While a broad mix of fuel diversity options should be encouraged, coal gasification offers the best means to replace natural gas uses for both power and ag-industrial applications in an environmentally friendly manner. Government programs and incentives should encourage rapid development and deployment of gasification-based power generation and polygeneration (which creates gaseous fuel along with other valuable products, e.g., fertilizer, from coal or other feedstocks).

Managing demand through end-use efficiency improvements

- *Efficiency Performance Standard* – Setting a national efficiency standard could be an effective way to encourage and support programs needed to realize improved energy efficiency. This concept was implemented in 1999 in Texas, setting a

statewide target for electric growth reductions through energy efficiency by utilities. This model could be followed at the national level for electric and gas distribution companies.

- *Expand Federal R&D and Deployment Programs* – Energy efficiency R&D and deployment are critical to supporting the technology innovations and accelerated adoption that have fueled the reductions in energy intensities the U.S. has experienced over the past 30 years. Among these programs are *Energy Star, Industries of the Future,* and *the CHP Challenge.* Recent years have seen funding reductions to levels that jeopardize these programs. In particular, the *Energy Star* program is achieving large energy savings each year. Increased funding should be considered for FY2006 or perhaps even in a FY2005 supplemental appropriation.

- *Appliance Efficiency Standards* – Appliance efficiency standards have been one of the greatest energy policy success stories of the past quarter century, saving consumers tens of billions of dollars in lower energy bills to date. These minimum efficiency specifications eliminate the least efficient products from the marketplace. In addition, they have created an incentive for manufacturers to innovate, improving the full range of product performance while reducing consumer costs. A number of new products are poised for adoption, and were part of last year's Energy Bill. In addition, manufacturers and efficiency advocates have negotiated standards for several other products that could be included. While the full measure of benefits from standards is long-term, many of these standards are ready for adoption in the short term, and could begin to have an impact almost immediately.

- *Building Energy Codes* – Each year, new buildings and major renovations are creating the energy consuming stock that will define energy markets for decades to come. Model building codes have already been developed that can sharply reduce the energy needs of our future building stock. However, these codes need to be adopted promptly and implemented effectively at the state and local level. With local governments strapped for funding, updating and enforcing buildings codes frequently falls to the bottom of the funding list. The federal government should provide increased financial and technical support to local governments for implementation and enforcement of model building codes.

- *Public Awareness Campaign* – While all the above initiatives will help to address specific market opportunities, it is important that the public be made aware that their actions can contribute to the common benefit. They also need guidance on what specific actions they can take. We suggest expanding existing national programs such as *Energy Star* to lead these efforts in combination with calls to action by national and state leaders. The program deployed in 2001 by the state and utilities in California can serve as a model for a national initiative.

Improving Fuel Efficiency in Electricity Generation.
Electricity generation is the fastest growing demand sector for use of natural gas, increasing by 31 percent in the past six years. Given limited supplies and multiple uses for gas, national policies should promote the efficient use of this valuable resource. In the past 30 years, industrial consumers, exposed to global competition, have improved their efficiency by more than 60 percent. Electric utilities, insulated from global competition, have achieved efficiency improvements of less than 30 percent. It is in the national interest to encourage all natural gas users to be as efficient as possible and to diversify the mix of fuels used to run industrial and power generating facilities. Policies that encourage more efficient use of gas for electrical generation and that diversify the nation's fuel portfolio can contribute significant gas savings.

CAANG recommends that Congress direct DOE and EIA to:

- Expand and improve efficiency reporting for gas fired electricity generators, both utility and IPP, incorporating current reporting on efficiency levels as much as possible.
- Develop methods for efficiency comparisons between natural gas fired generating units.
- Report to the Congress on potential options to increase efficient use of natural gas and identify barriers to achieving those improvements.
- Study and report to Congress on the effectiveness of Regional Transmission Organizations in enabling improved economic dispatch of electricity and conserving natural gas.
- Identify the best practices of generators that achieve the highest efficiency performance and which could be utilized by other generators.
- Set reasonable efficiency-in-fuel-use targets for coal, oil and natural gas use by existing and new electricity generating units; authorize DOE to adjust the targets periodically to raise them above current industry averages; provide incentives to encourage generators to achieve efficiency targets (including through generation from industrial CHP, and co-production or polygen facilities); determine whether special provisions are needed to insure grid stability and access.
- Address fuel pass-through policies to the extent they may affect the goals of this section.

Expanding use of polygen or combined heat and power (CHP) technology.
Since the energy shocks of the 1970's, there have been great advances in the technologies to extract more value from the combustion of natural gas. In addition to classic combined heat and power technologies using natural gas to make electricity along with a variety of thermal energy products both in industrial and commercial applications, polygen

technologies that make syngas for chemical feedstocks, liquid fuels, process steam and power have developed in the refinery sector and could migrate into other industrial sectors. Even with these important attributes, polygen and CHP units still face barriers, particularly with respect to their relationship to incumbent electric utilities. Separate from tax incentives, discussed below, government policies that would encourage greater penetration of polygen or CHP technology include but are not limited to:

- *Interconnection* – Congress and FERC should create incentives for States to adopt inexpensive, expedited, and simplified interconnection processes for CHP and polygen facilities and other small generators (up to 20 MW), much as many states have already done.

- Where there are interconnection rules at both the federal (FERC is currently developing such regulations) and state level, the small generator should be allowed to choose which to rely on. FERC should be required to accept the small generator's election in connection with FERC jurisdictional transactions.

- The Department of Energy should be required, and funds should be authorized to pay related costs, to develop and maintain a list of small generator and interconnection equipment that has been certified through testing by a recognized national laboratory to perform as indicated, so that individual on-site unit testing can be omitted as part of the interconnection process. In addition, the Department of Energy should establish and maintain a list of qualified experts, based on confirming the credentials and experience of those who offer themselves for such a list, who, if so requested by users, are capable of resolving technical interconnection disputes quickly and at low cost to the parties involved.

- *Electricity Tariff Equity* – FERC should be mandated to require that any electric power provider that has an open-access tariff on file with FERC must provide back up, maintenance, and supplemental power, as well as stand-by capacity service. They must be available at a fair, reasonable, non-discriminatory, and non-preferential rate to any interconnected CHP, polygen, or recycled energy (e.g., waste heat recovery, heat engine, back pressure turbines) facility that seeks to engage in FERC-jurisdictional transactions. At a minimum, each jurisdictional electric utility must modify its tariffs so that all customers installing new distributed energy resources are served under rates, rules, and requirements identical to those of a customer of the same class that does not install distributed energy resources, and must withdraw any provisions in otherwise applicable tariffs that activate punitive tariffs, rates, or rules should a customer use distributed energy resources.

- The Department of Energy should be directed to conduct a study of the potential benefits that may be offered by distributed generation such as polygen or CHP to a FERC-jurisdictional utility (or indirectly to that utility's other customers) including, but not limited to: increased system reliability; improved power quality; ancillary services; emergency supply potential; offsets to otherwise required ratepayer investments in generation, transmission, or distribution; or

reactive power. The study shall determine the means of quantifying the value of such potential benefits under varying circumstances. After DOE accepts public comments on the study and publishes it, if any small generator demonstrates the achievement of such benefits, the utility rates charged to that small generator must, in order to be considered fair, reasonable and non-discriminatory for all purposes in Federal jurisdiction, include a credit to the small generator against any charges otherwise imposed for not less than one-half of the value of that demonstrated benefit.

- Rates for those who self-generate power behind their meters should only reflect continuing power purchases from the grid. The rates should not include costs for transmission or distribution services based on any behind-the-meter generation.

- *CHP/Polygen Resource Standard* – Congress should encourage states to set targets for CHP, polygen, recycled and renewable energy that increase capacity installation and operation. In particular, CHP, polygen, recycled and renewable energy should be declared acceptable to meet at least half of the requirements in any adopted policy requiring a percentage of power purchased for resale by utilities to come from renewable or energy-efficient sources of electric generation.

- *Net Metering* – The provision from HR-6 from the 108th Congress for net metering of CHP and other qualifying facilities up to a maximum of 500 kW should be included and extended to recovery of waste energy and polygeneration.

- *CHP Gas Tariffs* – Congress should create incentives for states that adopt, for jurisdictional utilities, a gas delivery tariff that provides gas delivery to CHP facilities at rates for transmission and distribution service no less advantageous than the rate at which gas is delivered to any other gas-fired electric generator (much as New York State has already done).

- *Research, Development, Demonstration, and Deployment* -- Significant opportunities exist to diversify our fuel mix by gasification of abundant domestic fuels such as coal and biomass. Government research and development programs should give greater emphasis to solving barriers to their broad scale demonstration and deployment so that they can make major contributions to offsetting use of natural gas. Incentives should be utilized to encourage commercially ready gasification technology deployment for power generation or polygeneration applications as a means to reduce demand for natural gas.

Increase Domestic Supplies

Increasing domestic natural gas supplies is an essential factor in correcting the diverging U.S. trends of growing natural gas demand and shrinking supply, which have created today's natural gas crisis. This burgeoning gap can only be closed by pressure on both ends: demand reduction and supply growth. Most credible analyses have determined that additional domestic production is needed. The supply activities outlined below are

premised on the need for concurrent policies designed to reduce demand, which are part of the integrated balanced portfolio that CAANG espouses. Supply options are longer term, but we must begin now if we are to address the crisis.

The supply policy goal must be to ensure adequate supplies of natural gas in the United States that it is globally competitive in terms of pricing. At the same time, we should rely on modern technology for finding and producing natural gas in ways that greatly minimize environmental risk. Major technological advances have significantly reduced the environmental risk associated with energy development, particularly for natural gas reserves. That technology was recently validated during severe hurricanes in the Gulf of Mexico. Even when production platforms were torn loose from their moorings and piping, the emergency shutoff equipment installed prevented any significant releases of hydrocarbons. Directional drilling advances have also reduced the number of wells that must be drilled, both offshore and onshore, to produce natural gas, reducing the environmental "footprint" of natural gas exploration and development.

Domestic natural gas supplies are found on and off shore; each presents a unique set of factors that require separate approaches. There are also certain generic actions that should be taken.

1. On Shore natural gas development. It appears that while the most significant barriers to near term on-shore natural gas development are administrative in nature they are significant in impact. Existing procedures need to be refined so that they work more efficiently and are in keeping with the objectives of existing law. Overlapping jurisdictions and a confusing matrix of policy directives currently hamper the effective administration of resource development. More specifically, CAANG advocates the following to insure timely and comprehensive processing of leases and permits:

    - The Administration, principally the Department of the Interior (DOI) and Council on Environmental Quality (CEQ), have conducted significant recent studies and recommendations for streamlining permit reviews and to identify and address impediments to exploring and developing existing leases in natural gas fields. Although seemingly modest, they can have real impact in reaching decisions on individual lease applications in a timely manner. Congress should insist that the process streamlining measures that have been examined and tested over the past four years be put into action. In particular, Congress should codify Executive Orders 13211 and 13212, which require assessments of how new regulations impact energy supply, distribution and use, and which establish accountability for agencies to process permits efficiently.

    - The BLM has undertaken several initiatives that should move forward. These include BLM's 2003 Process Improvement Instruction Memoranda, recommendations from DOI's Office of Inspector General, and recommendations from the Energy Policy and Conservation Act (EPCA) Phase I study.

- In addition, Congress should ensure that the Bureau of Land Management and the Department of Agriculture (US Forest Service) have adequate funding resources and clear direction to lease available areas and process permits in a timely manner. This includes the more effective processing of Applications to Drill, regular updates of land use plans, a more efficient processing of NEPA requirements, and efforts to resolve all appeals and protests in a more timely fashion. Fully staffed and directed field offices can go a long way to prevent administrative logjams from impeding environmentally sound production.

2. Off Shore Natural Gas Development. The second source of domestic natural gas reserves, those located offshore along the Outer Continental Shelf (OCS), warrant careful attention from federal policymakers. CAANG believes that a fresh look at our statutory and regulatory regimes is in order. Now, with pressing natural gas supply needs apparent, is an opportune time to reconfigure our Federal-state ocean and coastal partnership.

   The most recent Minerals Management Service (MMS) figures on natural gas estimates indicate that significant amounts of this resource exist and are recoverable given current technology. The most promising quantities of natural gas appear to be located in the Gulf of Mexico and off of the Alaska coast; comparatively smaller amounts are likely to be found off either the Pacific or Atlantic coastlines. It also appears that the more exploration activity which is conducted, the better will be our collective knowledge on where these resources are likely to exist.

   Given the recent attention oceans policy management has received from this Administration, now would be a good time to reevaluate the Outer Continental Shelf Lands Act to give states the ability to play a greater role in resource management and ownership. These reforms contemplate a reordering of the current statutorily prescribed royalty payment rates to states and the federal government. Consideration could also be given to the creation of certain funding streams for comprehensive oceans management at the federal level and for full funding of the Land and Water Conservation Fund.

   CAANG is not suggesting a blanket lifting of current OCS moratoria. Rather, a strategic approach to offshore development should be taken that provides those natural gas resources necessary to close the gap between demand and supply in the context of the balanced set of policies described previously. In particular, MMS should consider giving preference to unassociated or "gas-only" production. In this regard, CAANG recommends the following for consideration:

   - Natural gas production should be encouraged by granting states a revenue share of production activities off of their coasts including those areas currently under moratoria.

- Coastal states currently hosting production activities adjacent to their shores should be compensated via royalty revenue commensurate with those activities.

- Coastal states should be provided the authority to petition DOI to lift the moratoria on acreage off of their coasts, with an emphasis on primarily unassociated natural gas exploration. Particularly sensitive areas should be protected. Coastal states for which petitions are granted and which realize increased natural gas exploration off of their coasts would receive royalty revenue from this activity.

- State and federal oversight for all exploration and production activities should be integrated and coordinated to avoid duplication and conflict. "Environmental best practices" should be mandatory for all companies involved in exploration and development activities.

- Consideration should be given to creating a dedicated trust fund with a portion of the royalty revenue generated from new natural gas exploration and development for ocean policy management activities and grants to coastal states for coastline management initiatives.

- As a backstop, DOI in consultation with DOE should be granted authority to selectively lift moratoria as necessary to ensure production sufficient to meet domestic demand in the event that the state process proves insufficient. Any such authority should include meaningful public dialogue and proper environmental safeguards.

3. Generic Actions

- *Build the Alaska natural gas pipeline.* The area with the largest known natural gas reserves is in Alaska. Legislation was recently enacted that will facilitate building a pipeline to bring that gas to lower 48 markets. Congress should remain vigilant in monitoring progress in moving that pipeline to reality and move promptly to address any developments that could impede its construction.

- *Emphasize natural gas.* Given the pressing need for natural gas, the Department of the Interior should be authorized and directed to give special consideration to the sale and processing of leases with highest natural gas potential. The Bureau of Land Management (BLM) and the Minerals Management Service (MMS) should manage their leasing and permitting programs in a manner that provides the greatest opportunity for bringing significant additional supplies of natural gas into the market. MMS should also review whether the overall Eastern Gulf Planning areas should be restructured so that acreage closer to the Central Gulf could be reviewed taking into account similar areas that have been successfully and safely developed.

Infrastructure Issues

New supplies of natural gas must be brought on line by increasing access to domestic resources of natural gas, and increasing imports of natural gas, including LNG from foreign sources. Consistent with that increase in supply will be a real need to improve facilities used in the transmission, distribution and storage of natural gas.

The United States still has abundant domestic supplies of natural gas, but these supplies are either more difficult to access or in areas that are currently unavailable to producers. Although construction of the Alaska natural gas pipeline could meet nearly half of the projected shortfall in demand, it will likely not be completed until well after 2010. Another problem contributing to price volatility for natural gas is a lack of storage capacity. Increasing natural gas storage capacity by 1 TCF could significantly reduce this volatility.

In conjunction with demand reduction and increased supplies, CAANG recommends that there also be further work associated with the infrastructure necessary to move and store that increased production of natural gas, including the following:

Transmission: FERC should be required to study and report on the needs for new transmission pipelines. Particular attention should be given to examining the capacity at our borders to accommodate more imports from Canada and ultimately from Alaska. Similarly, the study should address how the country's transmission system will respond should currently underutilized producing areas of the Rocky Mountain basin begin adding supply.

Distribution: Congress should require FERC to study and report to the Congress on the needs for new natural gas distribution pipelines. Particular emphasis should be given to examining the interconnection needs of new LNG regasification facilities, storage facilities and any new transmission pipelines.

Storage: Although FERC has identified shortfalls in current storage capacity for natural gas and the lack of incentives to create such capacity, it has not initiated any policy changes to change this situation.

- FERC should be directed to study and report within 12 months on the costs/benefits to consumers of incentives to develop natural gas storage. Such analysis should consider mechanisms such as:
  - Market-based rates for new natural gas storage by independent storage providers
  - Peak/off peak rates
  - Seasonal rates
  - Higher returns on equity reflective of risk, and
  - Accelerated depreciation.

- FERC should be directed to study and report on the benefits of conditioning grid connection for existing and future natural gas-fired electric utility generation to natural gas storage facility development and gas deliverability.

- FERC should examine whether waivers or exemptions of certain environmental and certificate analyses, affiliate rules or open access requirements would assist the development of storage facilities.

Liquefied Natural Gas

CAANG supports the Administration's efforts to expand imports of LNG into the United States. LNG is a commodity subject to global competition significantly driven by power markets. It also requires large investments in a lengthy supply chain of exploration and production, liquefaction, shipping, and regasification. Although LNG alone is not the solution to solving the current supply and demand imbalance, this additional supply is a valuable part of the "balanced portfolio" of measures that CAANG views as necessary. Some LNG has the advantage of being able to come on line earlier than other sources of supply such as the Alaska natural gas pipeline and thus can begin to contribute to the supply side in the near to mid term.

The level of interest in LNG -- FERC lists over 40 terminals under study or development -- indicates there is sufficient market-driven interest in bringing LNG to the US and that significant changes in government policies are not needed. At the same time, importation of LNG can be a part of a solution to the supply shortfall but will likely require the development of 10 to12 strategically located regasification facilities by 2010, bringing 10 to 12 BCF per day of new capacity. The cost of this new LNG infrastructure has been estimated at between $10 and $20 billion. Moreover, as with any significant energy-related facility, potential impediments can arise and it is important that both Congress and the Administration be sensitive to potential problems and be ready to address them. Specific areas of potential assistance include the following:

Understanding the LNG industry. Although LNG has been part of the U.S. energy mix for decades and operated reliably and safely, it has not had a high profile with the public, the press or many decision makers. In today's security conscious environment, LNG facilities and operations are subject to greater scrutiny. Key federal agencies, e.g., FERC, Coast Guard, DOT, need to continue providing essential information on the value of the LNG and their safe operating environment to insure public review and debate are based on accurate information.

Providing support for LNG in international markets. Given the high private sector capital investment required for liquefaction, shipping, and regasification, long term supply commitments from exporting countries are critical to a sustainable LNG industry in the United States. Government can assist those efforts by demonstrating support for LNG generally, processing terminal applications efficiently, establishing terms and conditions for operating onshore facilities similar to those currently governing off shore terminals,

and reinforcing the U.S. interest in LNG in international forums. Government should be on record with international suppliers, which are often government-owned companies, as recognizing the importance of consistent, stable policies toward LNG and committing to support the emerging expansion of LNG in the United States.

Supporting smooth processing of LNG terminal permits. FERC and the Coast Guard have been the lead agencies for processing LNG siting permits, for onshore and offshore respectively. Congress should enact provisions that will enhance coordination and facilitate processing of LNG permits, including:

- Reinforce the role of FERC as the lead agency for LNG project siting review and permitting and give FERC more responsibility to coordinate the data collection and processing of permits for LNG facilities.
- Set statutory deadlines for FERC review of LNG terminal applications.
- Remove any regulatory uncertainties for building/expansion of onshore LNG terminals and facilities, such as strengthening interagency coordination; shortening processing timelines via parallel processing; clarifying cost of recovery for infrastructure investors.
- Provide onshore LNG facilities the same expedited review opportunity and related operating policies applicable to offshore LNG facilities.

Environmental Concerns

CAANG's interest in solving the natural gas crisis, including expanding supplies, is not driven by any desire to rollback environmental protections that have been developed and implemented over the past 35 years. But environmental concerns are significant issues that must be confronted in the natural gas debate -- on both the demand and supply sides. Much of the recent increase in demand for natural gas is associated with its cleaner burning properties. As we have continued to make progress in attaining air quality goals in this country, achieving the remaining improvements is becoming an increasingly difficult technological challenge. Shifting to natural gas can give industrial and utility facilities greater certainty in meeting new requirements and having new capacity permitted and built in a timely manner.

The NPC Report documents that electric generating demand is the single greatest increase in current and projected demand (industrial use has actually declined 14% during the last decade). Since the mid 1990's, over 230,000MW of natural gas generating capacity has come on line, increasing natural gas demand by 31%. Annual natural gas demand from electric power (5.3 TCF) is now 25% of total use, having grown by more than 50% between 1987-2002. "At the same time, the stock of gas-fired power generation and industrial equipment became less flexible in its ability to operate with alternate fuels. This loss of flexibility has been driven in part by an array of governmental policies such as local siting restrictions on fuel backup and New Source Review Proceedings." NPC Summary, p. 22. Without the ability to achieve greater fuel diversity to reduce demand for natural gas, the imbalance that is driving today's high prices cannot be effectively addressed.

Domestic natural resources and advanced energy technologies offer immediate opportunities to achieve greater fuel diversity, i.e., to meet the challenge of the natural gas generation "overbuild" and its threat of industrial "demand destruction." These resources and technologies offer high environmental performance but face market barriers to deployment. Environmental policy must recognize these barriers and offer the means to research, develop, and demonstrate and deploy these resources and technologies, e.g., gasification.

Environmental concerns have also significantly influenced efforts to increase domestic supplies. Only a small portion of our offshore areas are available for lease (Western and Central Gulf) with the others covered by moratoria or Presidential withdrawals. Even the natural-gas rich Eastern Gulf has not been made available to its full potential. Similarly, natural gas opportunities in large portions of the most promising onshore new production (the Inter-Mountain West) are constrained by environmental concerns.

It is this combination of environmental drivers encouraging growth in natural gas demand but also limiting the ability to increase supply that is driving the producing the natural gas gap and attendant price increases. Energy and environment are core values that Congress must address but there should be improvements in reconciling those values and rebalancing the current overemphasis on environmental concerns. In these comments, CAANG has already identified some of the key responses:

- Aggressively implement Executive Order 13211 requiring energy impacts to be factored into regulatory and other decisions affecting energy related projects.

- Insure full consideration, in environmental and permit reviews, of the value of new technology to minimize environment risk potential, both in limiting impact (directional drilling) and preventing releases (production technology in off shore areas).

- Provide timely environmental reviews, including having a single record, that fully consider environmental impacts yet do not allow delays that effectively deny permits necessary for exploration and development.

- Reexamine decisions on moratoria to insure any continuation takes into consideration the growing demand for natural gas and the advances in technology that allow offshore development to present less environmental risk.

- Direct DOE and EPA to identify ways in which utilities and industrial facilities could most efficiently and effectively repower their gas-fired units to be fueled by gasification of other energy sources, including assessing the costs and benefits of incentives and the removal of market, regulatory, and any procedural impediments to achieving such fuel shift.

Tax Incentives

Tax and other incentives are effective tools for changing behaviors and stimulating companies and consumers to make investments the near term market conditions would not elicit. In particular, timely and effective tax, and other incentives, can fully meet, or largely mitigate, the economic damages of the 3.3 TCF electric generation demand "overhang," (i.e., "demand destruction") threat to the US agricultural and industrial economy. If 15% of current gas fired combined cycle utility capacity and 10% of industrial natural gas use were converted to gas from other fuels using commercial gasification technology, up to 1.5 TCF of natural gas could be replaced, approximately the amount that will be shipped through the Alaska gas pipeline.

Properly structured and implemented, incentives can provide multiple benefits, often beyond the individual project, that justify their availability. Particularly in the area of energy where new technologies often need to be jump started since their benefits may be realized later in the life of the project, such measures are critical to achieving the broader societal benefits of increasing supplies, lowering costs, and applying more environmentally protective technologies. The following areas of tax and other incentives would have, collectively in the near-, mid- and long- term, significant value in addressing the nation's natural gas crisis:

End use efficiency incentives:

The 108th Senate developed a set of energy efficiency tax incentives that address commercial and residential buildings, and some key appliances. These are a strong starting point for developing a portfolio of credits that can immediately encourage investment in energy efficiency and achieve near-term natural gas demand reduction. Appropriate but modest-cost incentives for high-efficiency residential furnaces, air conditioners and heat pumps should also be included in such a provision.

Fuel diversification in electricity generation and industrial use incentives:

In addition to residential and commercial incentives for end-use efficiency, industrial and power incentives are needed to deploy new technologies in the mid and long term that effectively reduce natural gas demand. CAANG recommends:

- Immediate assessment and establishment of appropriate incentives calculated to deploy technologies that reduce or avoid use of natural gas. These incentives include:
    - Federal credit (loans, lines of credit, loan guarantees, etc.);
    - Performance guarantees (suppliers, government);
    - Non-financial incentives (e.g., environmental regulation);
    - Energy regulatory incentives (e.g., PUC, FERC, RTO actions);
    - Tax credits (investment, production, R&D);
    - Accelerated depreciation.

- A broad range of industrial and power technologies should be eligible, including:

- Industrial gasification used for natural gas substitution (syngas production) for materials and energy production (e.g., polygen or co production) in the chemical, fertilizer, paper, glass and the primary metals sectors.
- Industrial and power applications of integrated combined cycle (IGCC) technology or other equipment that produces electricity with lower emissions than conventional coal fired generation.
- Highly efficient combined heat and power (CHP), cogeneration, or co-production units for generation of electricity or for other industrial purposes.
- Fuel cells and advanced hydrogen production and delivery technology.

- A broad range of industrial outputs from syngas production should be eligible, including:
  - Chemical feedstocks,
  - Fuels
  - Fertilizers
  - Hydrogen
  - Steam
  - Power

- A broad range of inputs or feedstocks should be eligible:
  - Coal
  - Petcoke
  - Biomass, broadly defined to include all wastes and residues, e.g., cellulose and lignin
  - Waste

- The H.R. 6 Conference Report included CHP investment tax credit which would benefit from the following modifications. The 15 MW eligibility cap on the provision should be eliminated and provisions in the original Senate language inadvertently lost in conference that made recycled energy (e.g., waste heat recovery, heat engines and back-pressure turbines) eligible should be restored. The 15 MW cap originally was intended to limit tax expenditures for this purpose, but the last scoring indicated that the CHP tax credit actually stimulated sufficient economic activity such that it provided net tax revenues rather than expenditures. Provide such incentives to technologies that rely on natural gas, but achieve higher efficiency, whether through improved combustion or co-production, e.g., combined heat and power.

- Since the threat of demand destruction from the 3.3 TCF overhang is greatest for industrial gas users, give incentive priority to repowering or refueling of existing industrial units, followed by existing power CT/CC units. Government supported industrial gasification will provide technical and financial validation for technology deployment spillover for refuel in power sector and additional process refuel in industrial sector. The comparative economic multiplier effect of investment is approximately 50% greater for industrial v. power facilities, (i.e.,

more jobs, and more jobs saved from natural gas price-induced layoffs). Thus, industrial incentives are deserving of higher priority than power sector NGCC refuel or greenfield central station power.

- Since the threat of demand destruction to industrial users, and the potential economic damage, is great, remove QF and other eligibility limits based on unit size.

Investment

Continued interest in the lease sales that are conducted by MMS and in proposals for LNG terminals, indicate that there remains a vibrant private sector interest in expanding natural gas supplies in this country. And these represent very significant commitments of capital given the high cost of exploration and production and for construction of major regasification facilities. The problem is not willingness of the industry to invest. The key factors to realize the benefits of the investments are opportunity and certainty. To make investments, there need to be places to invest in; although there are still places for the oil and gas industry to pursue, in the Gulf of Mexico and in the West, we have significantly constrained opportunities by locking up a majority of our off shore areas and restricting onshore. Those could hold the promise of major finds that would be more cost effective to produce and be of greater value to both the developers and the consumers. Without addressing the policies and practices surrounding decisions on what areas will be made available, investment will remain fettered in this country.

Similarly, investors want some certainty that they will be able to realize a return on their investment and will not face changes in policy that lead to stranded investments. As the NPC recommended, "[t]o make the kinds of investments that will be required, operators and customers need a stable investment climate and distinguishable risk/reward opportunities. Changes to underlying regulatory policy, after long-term investments are made, increase regulatory and investment risk for both the investor and customers." (NPC Summary, p. 65.)

It is also important to recognize that savings in natural gas usage achieved by efficiency gains are similarly a resource and investment in those measures and technologies also need to be encouraged and supported by government policies. Not only do they include some traditional capital investment, such measures also need to be considered investments in the country's industrial base. Without these measures correcting the natural gas supply and demand imbalance, the recent significant erosion of manufacturing facilities and jobs will only increase. In the broadest sense of the term, all of the measures that CAANG is endorsing should be considered valuable investments.

Recommendations made by CAANG in this submission, if adopted, would facilitate and encourage and reward the private investment needed to solve the current gas supply shortfall:

- Expand opportunities for investment supported by stable policies that allow development of investments made.

- Provide government officials the resources and the procedural mechanisms to review and act on permits necessary for new energy projects in a timely and balanced manner.
- Provide incentives to deploy new technologies that use natural gas more efficiently and enable industrial and utility operators to diversify their fuel mix.
- Support and expand FERC policies that will provide long term stability to the expanding LNG industry.
- Maintain realistic funding for industrial energy efficiency research, development and deployment in the DOE Industrial Technologies Program.

FERC & EIA Market Data

Markets that facilitate trading and provide for futures contracts are a valuable service and let companies manage economic risk associated with volatile commodities the price of which is influenced by unpredictable factors such as weather. As some unfortunate recent events have shown, certain criteria and oversight are essential to sustain faith in properly functioning markets. Accurate information upon which data can be matched and verified is essential. Natural gas has been particularly volatile which makes it appropriate to assess the sufficiency of the rules for trading and the oversight to make sure those rules are consistently followed and are sufficient. The overarching focus of markets should be enhancing the ability of sellers and buyers to meet demand efficiently; the market system should not exist to reward trading for trading's sake.

Areas associated with natural gas trading and federal government oversight that should be examined include:

- The Commodity Futures Trading Commission (CFTC) should assess the potential negative influence of hedge fund activity in increasing volatility and the ultimate price of natural gas to the consumer and recommend to Congress any needed statutory changes to enable appropriate oversight of these market players.
- Congress should direct a study of over the counter markets' capacity to manage natural gas natural gas contracts efficiently and fairly.
- The CFTC should examine the effectiveness of current daily trading limit standards in reducing volatility. Experience with agriculture futures contracts should be examined to determine how futures contract design could lessen volatility.
- The CFTC should report to Congress whether the number of contracts a single entity can own (currently 12,000) allows such a concentration of contracts that it may distort free movement of the market and should recommend any changes to its contract limits. The percentage of the futures market any one entity can control should be carefully considered to avoid market distortions.
- CFTC should be required to determine whether adequate transparency is available, including examining the sufficiency of rules that reveal who actually holds the positions and obligations of the holder to disclose his or her interests in any public statements.

- Congress should assess the adequacy of the budgets for the CFTC and other oversight and enforcement groups.
- Congress should direct EIA to review its inventory reporting policies and procedures and make changes that would increase the accuracy and reliability of data used by traders.

STATEMENT OF
MR. BEN BOYD
TO THE
HOUSE SMALL BUSINESS SUBCOMMITTEE ON
RURAL ENTERPRISES, AGRICULTURE AND TECHNOLOGY
REGARDING NATURAL GAS PRICES

March 17, 2005

Good morning. My name is Ben Boyd. I farm with my father and brother near Sylvania, Georgia. On our farm operation, we grow a number of commodities: cotton, peanuts, corn, soybeans, small grains and cattle. I am a member of the Screven County Farm Bureau, and I am honored to serve as the Chairman of the American Farm Bureau Young Farmer Committee. Today, I am here speaking on behalf of myself, as a young farmer from Georgia.

I want to thank the Chairman, members of the subcommittee, and in particular Congressman John Barrow, for this opportunity to share my perspective on the impacts of high natural gas prices and the effect it is having on Georgia farmers like me.

Natural gas is a critical resource to nearly every farm in America, and my family's farm in Georgia is no exception. From fertilizer, to crop protection chemicals, to energy used to dry or store commodities, my farm relies heavily on products based on natural gas.

When the price of natural gas increases significantly, as it has since 2002, the price for products I use on my farm which are based on natural gas increase as well. Since 2002, nitrogen fertilizer prices have increased 113 percent. On my farm, the increase in price has cost us an additional $54,880 in increased nitrogen fertilizer prices to raise the same crop I did a few years ago. On our farm's acres where corn is raised, the price of nitrogen fertilizer nearly doubled from $36 per acre in 2002 to $64 per acres during the 2004 growing season. Our farm's cotton acres have suffered a similar fate of significantly higher input costs due to the run up in nitrogen fertilizer prices. In addition, the cost of freight on fertilizer has also doubled over this period of time.

NH_3, or anhydrous ammonia, is the most economical of all nitrogen-based fertilizers and that is why we use it the most of any commercial fertilizers on our farm. I would not ask for a break to facilitate inefficiencies. I feel our family farm operation has cut cost as much as we can without seeing a dramatic decrease in crop production.

Our farm also uses natural gas and LP gas to dry commodities once harvested. The cost drying peanuts has increased nearly $4 per ton, and cost our operation an additional $4,000 in drying costs last year.

Farmers across Georgia and nation-wide have had to deal with higher energy input costs over the last two growing seasons. In general, higher commodity prices over this same

period of time, has helped to offset these increased costs, and the 2002 farm bill has been a major factor helping farmers maintain profitability.

This year however, my family's farming operation along with my neighbors may not fare as well. Most commodity prices have fallen sharply, and there is disturbing news about cutting programs in the farm bill. All the while, fertilizer, chemical, and fuel prices continue upward. Many Georgia farmers like me are going to find it even more difficult to sustain profitability.

American farmers just like me and my family are extremely resourceful. However, we will eventually reach a point where energy costs and energy-related inputs may force my farming neighbors and me to change our crops or change our livelihoods. When gross income falls on the farm, rural communities suffer. When farmers stop farming, either by choice or by circumstance, rural areas are permanently harmed. When farmers like me are forced out of business, we lose infrastructure. This infrastructure can not be replaced without huge capital expenditures in the future.

Ideally, Georgia farmers need to see energy-related input prices come down. In order for this to happen, natural gas prices must decrease significantly.

This is something that really matters to farmers like me in Poor Robin, GA. Please do not underestimate the difficulty caused to young farmers like me by sky high energy costs. I will argue that nitrogen is the most important fertilizer element to most crops, and nitrogen fertilizer is derived mainly from natural gas. If something is not done to help us with this problem, I and many of my fellow farmers will find it increasingly difficult to remain on the farm.

I believe American agriculture is just as much a national security issue as anything else. We have been blessed in America to have more abundance than we know what to do with. It is imperative that we maintain a broad based agricultural industry to provide a safe, affordable and abundant supply of food and fiber for our citizens. Americans should always be able to rest assured that their food supply is safe and reliable.

In closing, I want to thank this committee for its time and interest in this very important issue to my own family farm operation, my neighbors and farmers all over the country. What I would like you to understand is that farmers can not keep paying more and more for fertilizer. We have cut our costs as much as we can without seeing a dramatic loss in productivity. Young farmers like me are getting fewer and farer between. We need help and decreasing energy-related input costs would help us in being able to produce the food for our citizens while maintaining the rural economies we desperately need. Thank you for allowing me to speak today.

Testimony of the National Mining Association
Before
Committee on Small Business
Roundtable on Regulatory Issues

By
Bradford V. Frisby
Associate General Counsel
National Mining Association

March 17, 2005

I. Introduction

Thank you for the opportunity to present our remarks to the House Committee on Small Business. The National Mining Association (NMA) is a national trade association that includes the producers of most of the nation's coal, metals, industrial and agricultural minerals; the manufacturers of mining and mineral processing machinery, equipment and supplies; and the engineering and consulting firms, financial institutions and other firms serving the mining industry. According to statistics from the Department of Labor's Mine Safety and Health Administration, over 96% of the controlling companies in the coal mining sector as a whole, and over 99% of the companies in the metal/nonmetal mining sector, are considered small entities by the Small Business Administration (SBA).

II. Background

The mining of minerals plays an indispensable role in our society by providing products that are essential to our economic security and way of life. In fulfilling that role, NMA members have pledged to conduct their activities in a manner that recognizes the needs of society and the needs for economic prosperity, national security, and a healthy environment. Our members are committed to integrating social, environmental, and economic principles in our mining operations from exploration through development, operation, reclamation, closure, and post closure activities, and in operations associated with preparing our products for further use.

Mining is one of the most heavily regulated industries in the United States. In addition to the general laws that most businesses must comply with such as the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Occupational Safety and Health Act, and the Endangered Species Act, mining is subject to several statutes drafted specifically to regulate our industry. Some of these include the Surface Mining Control and Reclamation Act, the Mine Safety and Health Act, and the Federal Land Policy Management Act. All of these laws combine to produce over 4,000 new federal regulations each year.

To ensure that regulations under such laws do not impose unwarranted burdens, Congress has attempted to pass a series of regulatory reform statutes to help improve the process while alleviating the regulatory burden on the public. Some of these laws include the Paperwork Reduction Act, the Regulatory Right-to-Know Act, the Data Quality Act, and the Small Business Regulatory Enforcement Fairness Act. Unfortunately, those laws have not always been successful in providing the necessary tools to ensure that regulations are working the way that they are intended.

III. Existing Regulatory Reforms

Paperwork Reduction Act

The Paperwork Reduction Act (PRA) of 1995 provides the backbone for ensuring that federal agencies do not abuse their authority with respect to collecting information from the public. It generally requires federal agencies to go to the Director of OMB to

get approval for collections of information from the public. It provides public protection by allowing a defense by citizens against any penalties for failing to comply with paperwork collections that are not authorized by OMB. See 44 U.S.C. § 3512.

The PRA also required that paperwork burdens would be reduced by 5-10% each year from 1996-2001. However, despite this law, the Office of Management and Budget reports that the general trend of paperwork burden hours has continued to increase to about 8.1 billion hours in 2003. *See Managing Information Collection, Information Collection Budget of the United States Government, Fiscal Year 2004*, Office of Management and Budget, Office of Information and Regulatory Affairs at p. 4.

Regulatory Right-to-Know-Act

Like the PRA, the Regulatory Right-to-Know Act (31 U.S.C. § 1105 note, Pub. L. 106-554) requires certain regulatory reporting by OMB to the Congress. Specifically, it requires estimates of total annual costs and benefits of Federal rules and paperwork, an analysis of the impacts of federal regulation, and recommendations for reform. However, despite its noble purpose of documenting where federal regulatory costs may exceed their benefits, the report generally aggregates costs and benefits into vague groups of ranges that make identifying useful and specific reform virtually impossible. *See, e.g. Progress in Regulatory Reform: 2004 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities*, Office of Management and Budget, Office of Information and Regulatory Affairs at p. 3 ("The estimated annual benefits range from $63 to $169, while the estimated annual costs range from $35 billion to $40 billion."). Despite the requirement that the benefits and costs be broken out by major rule, many of the agencies do not provide such information to OIRA because they are not required to do so by law.

Data Quality Act

Another noble attempt at regulatory reform was the passage of the Shelby Amendment, or the so-called "Data Quality Act." Pub. L. 106-554, § 515(a). This law requires OMB to issue guidelines to improve federal data quality. OMB's *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies* require other federal agencies to issue their own information quality guidelines and establish an administrative mechanism allowing the public to seek and obtain the correction of information maintained and disseminated by the agency.

Although there are many good aspects to OMB's efforts in implementing the Data Quality Act, ultimately the implementation of the guidelines is up to each individual agency. Federal agencies possess a tremendous amount of discretion regarding how they implement their own agency-specific guidance that will ultimately govern their own information dissemination (and correction) practices. Agencies determine what categories of information are appropriate for what level of quality; what constitutes "influential" information; what types of information must be reproducible, and what information should or should not be corrected.

Unfortunately, there is no really effective enforcement mechanism under the law. According to at least one Federal District court, there is no private right of action under the Data Quality Act, nor may a court review an agency's decision to deny a party's information quality complaint. *See Salt Institute v. Thompson*, 345 F. Supp. 2d 589 (Dist. VA 2004).

Small Business Regulatory Enforcement Fairness Act

The Regulatory Flexibility Act (RFA) requires federal agencies to analyze their regulations to determine whether they will have a significant economic impact on a substantial number of small entities. This well-intentioned law was routinely ignored by federal agencies until it was amended in 1996 by the Small Business Regulatory Enforcement Fairness Act (SBREFA). Unlike most all of the other regulatory reform statutes passed by Congress, SBREFA included a critical and explicit *judicial review* provision that provides a right to challenge agency non-compliance with the law in federal court. 5 U.S.C. § 611(a). The result of this judicial review provision is that agencies are forced to follow the law, or risk having their rules overturned by Federal court. *See Northwest Mining Association v. Babbitt*, 5 F. Supp.2d 9 (D.D.C., 1998); *See also U.S. Telecom Assn. v. FCC*, No. 03-1414 (D.C. Cir. March 11, 2005).

Since the 1996 amendments to the RFA, federal agencies have vastly improved their regulations affecting small business. According to a report by the U.S. Small Business Administrations' Office of Advocacy, "In FY 2004, more agencies approached the Office of Advocacy requesting RFA training or seeking advice early in the rulemaking process." *Report on the Regulatory Flexibility Act, FY 2004*, Office of Advocacy, February 2005, p. 52. The RFA, along with the judicial review provisions of SBREFA, have resulted in net savings to small businesses of more than $17 billion in first year regulatory compliance costs in FY 2004 and $2.8 billion in ongoing annual costs. *Id.* at p. 1.

IV. Establishing Regulatory Accountability

A. Increase Funding for the Regulators' Regulators

Among all Federal agencies, there are two that stand out as what could be described as the "regulators' regulators." These agencies are the Office of Advocacy in the Small Business Administration, and the Office of Information and Regulatory Affairs (OIRA) within the Office of Management and Budget.

The Office of Advocacy is charged with responsibility for implementing the Regulatory Flexibility Act, described earlier. Advocacy provides critical training for other Federal agencies on the requirements of the Act, and works behind the scenes to ensure that agencies comply with their obligations to consider the impacts that their rules and regulations will have on small entities. The agency also establishes special small business panels that examine, in great detail, regulations of the Environmental Protection Agency and the Occupational Safety and Health Administration. Finally, if the agency fails to comply with the RFA, Advocacy is an independent voice that is not reluctant to

file comments (and is even authorized to file amicus court briefs) on behalf of small business. Funding for this valuable agency should be increased, because it would pay dividends many times over in the form of better and less burdensome regulations on small businesses.

OIRA is the arm of OMB that is in charge of reviewing the thousands of federal regulations that are promulgated by the federal government each year. With a bare bones staff, the agency must focus on the largest and most egregious rules in order to effectively leverage their resources to have an impact on the rulemaking process. Congress should add at least 100 full time employees to OIRA to allow them to develop more in house expertise in various aspects of science, economics, and accounting to provide more of an objective check and balance against federal agencies that promulgate ever more burdensome regulations. Such an investment would result in better rules with higher benefits and lower costs, and therefore would greatly increase the net benefits to society as a whole.

B. Judicial Review

Based on past experience with regulatory reform statutes, statutes with legal enforcement mechanisms, such as the RFA/SBREFA, are much more effective than reform laws that provide only for non-binding guidance like the Data Quality Act or simple reporting such as the Regulatory Right-to-Know Act. Accordingly, in considering regulatory reform proposals, it is critical that any reform legislation include explicit enforcement provisions through judicial review or other means. If the Data Quality Act, for example, was amended to provide explicitly for judicial review, then it would be much more effective in ensuring that federal agencies would improve the quality of the data that they disseminate to the public.

C. Regulatory Budgeting

The federal government spends over 2 trillion dollars a year in discretionary spending. Each year, the President proposes a budget, and Congress debates it, revises it, and approves it. Revenue measures are set to pay for such spending, or money is borrowed, and the federal programs go forward according to these rules. Although far from a perfect system, there is a certain level of accountability, because the decisions that are made on the federal budget are public, accessible, and are made by elected officials who were elected to make such decisions.

By contrast, the federal regulatory system has no real budget, no enforceable rules, and no electoral accountability. Although it is impossible to determine the exact cost of federal regulation, scholars have estimated that such costs are over $800 billion per year in the United States and growing every year. *See Ten Thousand Commandments, An Annual Snapshot of the Federal Regulatory State*, Clyde Wayne Crews, Jr., Cato Institute (2002)(estimating regulatory costs of $ 843 billion in 2000); *See also Profiles of Regulatory Costs, Report to the U.S. Small Business Administration*, by Thomas D. Hopkins, U.S. Department of Commerce, National Technical Information Service, # PB96128038 (November, 1995).

Federal agencies propose rules which hopefully will provide overall net benefits to society, but in most cases there is no requirement that the costs and benefits are adequately analyzed, let alone that the benefits outweigh the costs. In fact, federal agencies are graded only on how much benefit they provide to the public, not on how much cost they impose on the regulated community. Therefore, there is an insatiable appetite for ever-growing regulatory requirements, regardless of cost.

There are two potential ways to solve this problem. One way is for Congress to establish a regulatory budget similar to the federal budget. Agencies could be allowed to impose a certain amount of cost or burden on the public within their permissible regulatory cost budget. But once the burden budget goal is reached, the agency would have to either eliminate other regulatory burdens to justify the new rule, secure Congressional approval for a larger burden budget, or not issue the new rule.

At the very least, when it comes to imposing information collection requirements as part of a rulemaking, agencies should be required to review their existing requirements from the same regulatory program and eliminate any unnecessary or outdated information requests. If not, they should be required to explain why such is the case.

The second way that agencies could be forced to ensure that their rules are providing more net benefits than costs would be to mandate that each agency perform a standardized cost-benefit analysis on each of their regulations. This process could be enforced in the executive branch by OIRA. If agencies were unable to demonstrate that that benefits of the rule outweigh the costs, it would not be promulgated. There are already a number of mechanisms for examining costs and benefits in rules, such as Executive Orders 12866. However, the tools used to enforce these, such as prompt letters and return letters, are not sufficient to ensure that the overwhelming growth of Federal regulations occurs in a manner that ensures that such rules will provide overall net benefits to society.

Thank you for the opportunity to share our views on federal regulations and what Congress can do to make it work better for the American people. We look forward to working with the Committee on improving Federal regulations in the years ahead. If you require any further information please contact me at (202) 463-2643 or via email at bfrisby@nma.org.

Statement by the American Chemistry Council to the House Small Business Subcommittee on Rural Enterprise, Agriculture and Technology

On

The High Price of Natural Gas and its Impact on Small Businesses: Issues and Short Term Solutions

Today, natural gas inventories are 25 percent higher than a year ago and yet the price of natural gas for April delivery is more than $7.00 per million BTU. By contrast, in 2004 natural gas was priced at $5.20 for the month of April. In 2003, it averaged $4.47 for the month and in 2002, natural gas was priced at $2.94. This price spiral is largely the result of poor policy decisions and manufacturers, small businesses, farmers and families are paying a heavy price as a result.

The price of oil is currently trading above $50 per barrel. That is an undeniable drag on the economy, but it is a drag on every economy in the world. Natural gas is trading above $7.00 in the US, and NOWHERE ELSE in the world. In Europe and Asia, the price of gas is closer to $4.50. In the Middle East and Russia, the price is under $1.00.

The nation's chemical industry is especially vulnerable to potential shortages and high prices in natural gas markets. The chemical industry is the nation's largest industrial consumer of natural gas. We use gas, like other consumers, for heat and power. But natural gas is also a raw material, a key ingredient, used to make thousands of products that everyone of use, every day.

For reasons described below, the chemical industry's center of gravity is at risk of moving overseas. High and volatile natural gas prices are a major reason why. Quarterly earnings reports from our members show that operating incomes from their US-based operations are severely lagging their overseas operations and those reports are driving investment decisions away from the US market.

To preserve a healthy future for chemical manufacturing in the United States, we must immediately develop a plan of action with the federal government that will result in concrete measures to bring natural gas supply and demand into better balance and return prices to globally-competitive levels.

Natural gas prices have nearly tripled in recent years, sending our industry's gas bill up by $10 billion in two short years. Chemical manufacturing operations in other regions of the world have not had to absorb these kinds of cost increases. We have lost $38 billion in business to overseas manufacturers over the past five years. More than 90,000 good-paying American jobs have disappeared in that time.

The US chemical industry has historically been the most globally competitive manufacturing industry in America. In the late 1990s our companies achieved the largest trade surpluses of any industry in the nation's history. Today, America imports $9 billion more in chemicals than it exports. Most of that turnaround can be traced to high natural gas prices.

Many experts have commented on the terrible toll high and volatile natural gas prices are taking on the nation's economy and its industries. At Fed chairman Allen Greenspan's April appearance before the Joint Economic Committee, he said that, "We are losing a lot of business especially in chemical-related areas, because we can't compete at these (natural gas) prices." The following week, at a conference, he noted that "elevated long-term prices" for energy, …ha(ve) been substantial enough and persistent enough to influence business investment decisions, especially for facilities that require large quantities of natural gas."

Stephen Brown of the Federal Reserve Bank in Dallas recently told the Louisiana Public Service Commission, "You're looking at the gradual destruction of employment in certain petrochemical firms. Given the prices of natural gas and oil, the petrochemical industry here could be gone in 10 to 20 years."

Unfortunately, there is ample evidence to support Mr. Greenspan's and Mr. Brown's observations:

- A year ago, *The Washington Post* ran an article on the front page of its business section. The headline said, "Chemical Industry in Crisis: Natural Gas Prices are Up, Factories are Closing, And Jobs are Vanishing." The US has "the highest natural gas prices in the industrialized world," R. William Jewell, vice president for energy at Dow Chemical, told *the Post*. In the past two years, Dow has closed four major chemical factories in North America and replaced them with production from Germany, the Netherlands, Kuwait, Malaysia and Argentina. "These jobs didn't leave the US because of labor costs," Jewell told *the Post*. "They left the US because of uncompetitive energy costs." Dow's energy bill increase by $2.5 billion last year, most of it natural gas. The company has eliminated 4,500 jobs – 10 percent of its workforce -- to make keep its costs under control.

- On April 12, the Wall Street Journal ran the following story, "DuPont to Eliminate 3,500 Jobs As High Gas Prices Take a Toll." The lead sentence said, "Buffeted by high natural-gas prices in the U.S., DuPont Co. said it plans to cut 3,500 jobs, or about 6% of its work force, by the end of the year."

- Vertex Chemical of St. Louis saw its raw material costs jump by $2.5 million last year. Vertex is tiny. It has only 48 employees. Those kinds of cost increases can sink a company of that size.

- Another company, Cytec Industries Inc., has been forced to shut down its ammonia and methanol plants in Louisiana due to high and volatile natural gas prices. Ammonia is used to make ammonia and methanol in plywood manufacturing.

- Nexen Chemical shut down two sodium chlorate plants in Taft, La because of high gas-based electricity costs. Sodium chlorate is used to manufacture pulp and paper products. The company moved its production capacity to Canada and eliminated 100 highly paid jobs.

- Vulcan Chemicals says, "it has experienced a negative impact on the bottom line of more than $50 million" since 2002 due to increases in the price of natural gas.

- Celanese says, "the change in US natural gas pricing over the past few years has driven Celanese to reduce its exposure to US natural gas by sourcing methanol production in Trinidad." The company is shutting down its Bishop, TX methanol plant in 2005.

- An article published in a recent edition of the *New Orleans Times-Picayune* contained some sobering numbers. Of nine companies that owned Louisiana ammonia plants in 1998, six have shut down all ammonia-producing operations: Borden Chemicals & Plastics, Cytec Industries, Farmland Industries, IMC-Agrico, Koch Nitrogen and Monsanto. The article says that more than 4,000 chemical industry jobs – jobs that pay more than $50,000 a year on average – have disappeared during the recent run up in natural gas prices. The paper also reported that another 1,800 jobs will probably be lost in the next year.

- The DSM Elastomers plant in Addis, La will shut down at the end of the year. The plant's site manager says natural gas contributed to its closure.

- Mississippi Chemical closed two Donaldsonville plants in March, laying off 72 workers. The plants made building-block chemicals derived from natural gas.

- BASF announced in May that it would be cutting as many as 500 jobs at its Geismar, La. Facility

Charles Ludulph, a senior vice president with Stonebridge International, a respected consulting firm, recently said: "While media attention has focused primarily on US crude oil and retail gasoline prices, the more important change in energy prices relates to long-term natural gas." Mr. Ludolph also said, "…rising natural gas prices have implications for the de-industrialization of the country…"

And, it's not just industry that is being battered. Natural gas is the main ingredient used to make nitrogen fertilizers. Today, the US imports some 60 percent of its fertilizer supply. If that import stream, much of it sourced in Russia, were to be disrupted, it would have significant implications for the nation's ability to feed itself.

Urgent action is needed to return natural gas prices to globally competitive levels. We believe there is a solution to this terrible problem. It is contained in last year's report by the National Petroleum Council.

The National Petroleum Council is a federal advisory committee chartered to advise the Secretary of Energy on energy policy matters. The NPC is comprised of senior executives and energy experts from industry, academia, and the non-profit community.

The NPC issued what many regard as the most definitive study on natural gas markets ever written. We support the study's key findings and recommendations, including the following statement:

> *"The solution is a balanced portfolio that includes increased energy efficiency and conservation; alternate energy sources for industrial consumers and power generators, including renewables; gas resources from previously inaccessible areas of the United States; liquefied natural gas (LNG) imports; and gas from the Arctic."*

It may be tempting to think that current prices are an accurate reflection of the "free market at work." For North American consumers competing in global markets, natural gas does not trade in a "free market." Public policies, implemented by Congress, have forced a dramatic growth in natural gas consumption. Other government policies restrict access to proven reserves. Those policies were passed to help achieve well-intentioned environmental protection goals, but those policies paid no attention to the economic impact high natural gas prices are having on consumers.

Congress helped to create current conditions in natural gas markets. Congress must now act to correct those conditions. We urge Congress to consider and act on the following recommendations.

- Use Natural Gas More Efficiently. Demand-side management of natural gas can have tremendous benefits. We believe that a 5 percent reduction in natural gas consumption to produce electric power, for instance, can free up 1.5 trillion cubic feet of natural gas a year – enough natural gas to heat 18-million homes. In November 2003, the American Council for an Energy-Efficient Economy issued a report. Its chief finding: "Nationwide efficiency and renewable energy efforts would result in energy bill savings to residential, commercial, and industrial consumers exceeding $104 billion."

- Encourage Greater Fuel Diversity. The nation has put too many of its energy eggs in the natural gas basket. Demand far outstrips supply. The nation must expand and diversify its fuel portfolio. Incentives for deploying proven new clean coal technologies, like coal gasification, must be quickly developed. Additional incentives for cost-competitive renewable energy are needed as well.

The 2003 study by the National Petroleum Council estimates that implementing new efficiency and fuel diversity measures could reduce natural gas purchases by more than $640 billion over the next 20 years.

- Increase availability of Domestic Reserves. Lehman Brothers recently reported that domestic natural gas production fell by more than 5 percent in the first quarter of the year, despite record high prices spurring new investments in supply. The nation's current resource base is in decline, we need a new political consensus on environmentally responsible natural gas exploration and production. To finally bring supply back into balance with demand, we need to increase imports of LNG as well.

  The National Petroleum Council report says that American consumers would save $300 billion over the next two decades if the nation expanded its resource base.

Congress this year must enact a balanced portfolio of natural gas policies – including curbing demand through energy efficiency, diversifying fuel use, increasing supply, and building infrastructure – that enable consumers to buy adequate supplies at globally competitive prices. Every day that Congress fails to confront and address this crisis, more jobs are lost to foreign operations and more residential consumers must choose between heat or food. Only Congress can solve these problems and put the long tern economic future of the nation back on track.

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