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ONGOING ENERGY CONCERNS FOR THE AMERICAN CONSUMER: NATURAL GAS AND HEATING OIL

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND POWER

OF THE

COMMITTEE ON COMMERCE
HOUSE OF REPRESENTATIVES

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ONGOING ENERGY CONCERNS FOR THE AMERICAN CONSUMER: NATURAL GAS AND HEATING OIL

THURSDAY, SEPTEMBER 28, 2000

HOUSE OF REPRESENTATIVES,
COMMITTEE ON COMMERCE,
SUBCOMMITTEE ON ENERGY AND POWER,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:40 a.m., in room 2322, Rayburn House Office Building, Hon. Joe Barton (chairman) presiding.

Members present: Representatives Barton, Stearns, Largent, Shimkus, Shadegg, Bryant, Boucher, Hall, McCarthy, Sawyer, Markey, and Pallone.

Also present: Representative Green.

Staff present: Cathy Van Way, majority counsel; Miriam Erickson, majority counsel; and Sue Sheridan, minority counsel.

Mr. BARTON. The Subcommittee on Energy and Power of the Commerce Committee will come to order. Today we are going to have a hearing on ongoing energy concerns for the American consumers, with specific regard to natural gas and home heating oil.

I want to apologize for being late. I normally start right on time. I held a press conference this morning at 9:30 on this issue; and there were a lot of press questions, and it took longer than it should have. So I want to apologize to my distinguished witnesses this morning for being late and to my colleagues for keeping them waiting. I don't normally do that.

I want to welcome everyone to today's hearing. Today's hearing was intended to focus on the causes of the recent increase in the price of natural gas, the continued increase in oil prices and what we could do to address them. Unfortunately, a lot of the time for this hearing is going to probably be spent talking about the administration's politically driven decision to release oil from the Strategic Petroleum Reserve.

The American consumers deserve a national energy policy that is comprehensive, long-term and well-interrogated. The goal should be to maximize domestic resources and minimize dependence on foreign resources. Components of a comprehensive strategy include, at a minimum, greater use of nuclear power, clean coal technology, natural gas, oil, renewable energy, incentives for conservation and incentives for alternative energy sources.

Under the umbrella of NAFTA, I believe that it is time to begin to think about coordinating a Western Hemispheric energy policy

with our NAFTA partners Mexico and Canada. Both of those nations have significant untapped natural resources. Within our own borders, I believe that we need to reassess the advisability of putting so many of our remaining potential mining and drilling areas off limits for various environmental and local political reasons.

In past hearings of this subcommittee, we have learned about some of the things that resulted in today's energy crisis. The environmental policies that require refineries to produce boutique fuels specially formulated for the season or region have significantly reduced the flexibility of the fuel delivery system. Environmental policies have also made it difficult to site and build new energy extraction, transportation and refining infrastructure. So our existing, aging infrastructure must handle a record level of demand.

Today, our oil refineries are operating at close to 100 percent capacity, somewhere between 92 and 96 percent. Similarly, policies that prohibit the development of domestic energy resources automatically work to increase our dependence on foreign energy sources, giving the OPEC cartel an increased capability to establish the energy policy for the United States.

Finally, the extremely low energy prices that we saw several years ago resulted in a lag in investment and in exploration and production, and that is hurting us today.

Most administrations facing the challenges in our energy sector would initiate a meaningful debate on energy policy. The Clinton-Gore Administration apparently has instead chosen to take a political shortcut by releasing oil from the Strategic Petroleum Reserve. I have serious questions about this action. I question the administration's authority to swap oil from the Reserve in this manner.

Even if the administration has such authority, I question if it is being used in accordance with the direction given to it by the Congress in the Energy Policy and Conservation Act, the act that authorizes the SPR.

I certainly question the timing of the release. We are told that the purpose of this swap is to increase the fill level for the Reserve. Yet all public statements and press releases talk about moderating market forces and increasing the supply of refined products, like heating oil, on the market. Scant, if any, mention has been made of increasing the amount of oil in the Reserve, which today stands at approximately 570 million barrels.

If the purpose is to fill the Strategic Petroleum Reserve, why did the administration wait until 6 weeks before the election to fill the Reserve by releasing oil? If the purpose of the release is to increase heating stocks, why didn't the administration come to Congress to ask for authority and money to address the problem with heating oil stocks rather than using the Reserve in a manner that was never contemplated by the statute?

The contract system to be used in the allocation of the oil being released does not require it to be refined into fuel oil. So one can honestly question if the fuel oil supplies will really increase as a result of the move.

I question why the administration decided to release the oil over the valid objections of the Treasury Secretary, and I question what the long-term impact of this drawdrawn will have on oil markets, both in terms of consumer prices and investment by the industry.

It is true that Vice President Gore and several Members of Congress, including my good friend, Mr. Markey, who is going to have his say in just a minute, have called for release of oil from the Strategic Petroleum Reserve. All I can say to that is, if only the administration was so compliant every time a Member of Congress asked it to do something.

But according to the administration's own Secretary of the Treasury, Larry Summers, such a release would only be a short-term solution at best and may not even have any significant impact. I am going to quote from the memo that Secretary Summers of the Treasury Department sent to the President of the United States, and I quote:

"Chairman Greenspan and I believe that using the Strategic Petroleum Reserve at this time as proposed by DOE would be a major and substantial policy mistake. It would set a new, ill-advised precedent and the claim that the exchange is nothing more than a policy of technical SPR management would simply not be credible in the current environment."

The memo goes on to say, "The downsides of an SPR exchange outweigh the limited benefits."

He also says, "Using the SPR at this time would be seen as a radical departure from past practice, as an attempt to manipulate prices. The SPR was created to respond to supply disruptions and has never been used simply to respond to high prices or a tight market. Given the substantial size of the proposed sale and its proximity to both the OPEC meeting and the November election, it will be impossible to argue credibly that the proposed exchange is simply a technical SPR management policy."

Yet that is what I expect the subcommittee is going to hear today from Under Secretary Moniz, that the proposed exchange is simply a technical SPR management policy. He has to say that, because a straightforward release from the Reserve would have been illegal under current circumstances.

The President would have had to have declared that a national emergency exists and that there may be a significant or would be a significant reduction in supply which is of significant scope and duration. Since the creation of the Reserve, that high standard has been met once and used by an administration when Iraq invaded Kuwait for oil, and we fought to right that wrong. That release was scheduled to be 33 million barrels and turned out to be, I believe, 17 million barrels.

This subcommittee is very sympathetic to consumers that are vulnerable to high prices. It stands ready to work with the administration on improving the intersection point of supply and demand, but no option to remedy high prices should include the use of one of our strategic assets intended for use only in emergency situations not for short-term political expediency. No one would requisition a strategic bomber reserve of B-1s, B-2s and B-52s to use as commercial airliners if the price of airline tickets got too high in one part of the country. It would be ridiculous to put that strategy in place and use that strategic asset when we have a market imperfection.

As chairman of this subcommittee, I cannot accept the decision to release oil from the Strategic Petroleum Reserve cavalierly. It is

a basic change in the role that our Strategic Petroleum Reserve has been intended to fill. If the this precedent is established and left unchallenged, any future Secretary of Energy and President can abuse the discretion of the law when market forces and political forces make it politically expedient.

When I asked the briefing team from DOE yesterday if they could do this more than once, they with a straight face said yes, they could announce such an auction, if I remember correctly, every week.

Now, I simply don't think that is acceptable under the law as it exists today, and I am going to do everything that I can to prevent that abuse of the Strategic Petroleum Reserve. I am going to formally request in writing today that the Department of Energy and the President explain to Congress in writing their policy justification for the action they plan to take, the legal authority for the action they plan to take, and the unique circumstances that require it to be taken at this particular time. That letter will get to the President and the Secretary late this afternoon or early tomorrow morning.

I have three more pages of statement, but I have way overextended my time, so I am going to put that in the record. Suffice it to say, when we scheduled this hearing, it was supposed to be about broader policy questions in the natural gas markets and the fuel oil markets. The decision to release the Strategic Petroleum Reserve has heightened that issue.

I wish the Secretary of Energy were here today. I appreciate the Under Secretary, Dr. Moniz, being here, but this is a big, big deal. You can't change the use of the Strategic Petroleum Reserve for political purposes and expect it to go unchallenged.

With that, I turn to my good friend, the gentleman from Massachusetts, the Honorable Edward Markey.

Mr. MARKEY. I thank you, Mr. Chairman, and I commend you for calling today's hearing to examine the current energy crisis facing our Nation, and that is just what we are facing right now, a looming energy crisis.

Of course, some folks down in Texas may have another term for what we are experiencing. They call it profit-taking opportunities. But for consumers throughout this Nation, consumers who are worried about whether there will be enough supplies for home heating oil this winter and whether they will have to choose between heating and eating, this is a real crisis.

Now, you can do two things when you see a crisis looming ahead. You can go into denial or you can take action to avert it. President Clinton and Vice President Gore have chosen to act. The administration has moved decisively to diffuse the short-term supply crisis we are facing by ordering the release of 30 million barrels of oil from the Strategic Petroleum Reserve. At the same time, the administration has put forward proposals to address our Nation's longer-term energy needs.

This plan includes tax incentives for production, for efficiency and renewables, investments in alternative energy sources, more energy-efficient buildings and appliances, alternative fuel vehicles and transition toward a more efficient and competitive electricity marketplace.

What has been the Republican response? Denial, denunciation and delay. They deny the need to use the Strategic Petroleum Reserve, they denounce the administration for acting, and they delay action on the administration's energy plans.

So far this year, the Republicans have slashed solar renewables and conservation programs by $1.3 billion below what the Clinton-Gore Administration asked for so that we could have a long-term energy plan.

They have failed to pass legislation the administration requested to provide tax credits to keep marginal wells in production, or tax credits to spur investment in renewable energy sources and energy-efficient technologies. And now the Republicans are mobilizing to challenge the administration's plan to deploy the Strategic Petroleum Reserve.

That is only for real supply emergencies, say Governor Bush and Republican leaders in Washington.

Well, the stockpiles of home heating oil in the Northeast are 60 percent below the levels of last year, and consumers are facing the possibility that there may be literally no oil in the tank in the event of an early cold snap. I would say we have an emergency. Even as we meet at this very moment, out on the floor of Congress is the other part of this doubleheader. In fact, the Republicans have brought the Energy and Water bill out to the floor at this very moment and they have stripped out of the bill the language which reauthorizes the Strategic Petroleum Reserve and authorizes a Northeast Home Heating Oil Reserve—taken it right out of the bill.

So think of this as a story in two parts, as we speak, as we meet right now, 2 weeks before Congress adjourns with winter looming. You know, George Bush says that President Clinton is doing this 45 days before an election. Up in New England, we say he is doing it 45 days before winter starts. Just a different perspective as to what, in fact, the needs of the American people may be.

But the big oil Republicans say we can't use the Reserve. Never mind that when DOE has done an oil swap to help out a big oil company, as it has done three times in the last 4 years, the Republicans never complained. Never mind the fact that only a few years ago Representatives Armey and DeLay joined 35 other Republicans to introduce a bill that would eliminate the Energy Department and abolish the Strategic Petroleum Reserve. Never mind that only 4 years ago, the Republicans were tapping the Reserve as a slush fund to pay for their tax cuts and budget priorities. Never mind that the Republicans have failed to even reauthorize the Strategic Petroleum Reserve under the Energy Policy and Conservation Act and that the authorization expired back on March 31.

Never mind any of that. The Reserve is suddenly sacred to the GOP. It can't be touched to help consumers.

I even read some disturbing articles in the press that yesterday you, Mr. Chairman, are considering introduction of legislation that would prevent the administration from moving forward on its plans to release oil from the Reserve. Here is how the press reported on your plans just yesterday:

"Futures contracts hit new highs on afternoon reports that U.S. Republican lawmakers, led by Congressman Joe Barton, Repub-

lican of Texas, were trying to block the release of crude oil from U.S. reserves on procedural grounds. 'The market is down on the release,' said oil market analyst Tom Bentz. 'If there is not going to be a release, we are going to snap back.'" So that is the message from the markets. Stop the release and we will snap oil prices right back up to $38 a barrel.

Why would you possibly want to drive oil prices back up and prevent American consumers from getting the help they are going to need this winter? That is like the Boston Red Sox saying we really aren't going to need Babe Ruth next season. Let's trade him to the Yankees.

Well, I don't want to see the American public afflicted with an energy policy curse of the Bambino. The Strategic Petroleum Reserve, the Strategic Petroleum Reserve is our own "Sultan of Swap" to deploy when the Middle East oil despots and multinational oil companies curtail supplies. That is why I, along with 70 of my House Democratic colleagues, including Minority Leader Gephardt and Dave Bonior and Caucus Chairman Frost, have signed on to a letter urging you to abandon your plans to block the release from the Strategic Petroleum Reserve to help consumers across this country.

We go on to say that we are fully prepared to fight any efforts to prevent this oil from getting into the market, and I am fully confident that we can and will prevail in such a battle.

I look forward to hearing from our witnesses today on the administration's decision to release the oil from the Reserve. I am glad that we are actually having this hearing, because I think the American public clearly understands that their best interest is on the side of the American government using its oil to battle the governments of other countries who are using their oil to undermine the American economy.

I thank you, Mr. Chairman. I look forward to the witnesses.

Mr. BARTON. Thank you, Congressman.

I point out that we announced the hearing before they announced the release of the SPR, but I would also point out that, as you well know, the Red Sox, when they swapped or sold Babe Ruth, they later regretted it. So you might want to think about that a little bit, too.

Mr. MARKEY. That is my point, I think. Thank you for restating the central point.

Mr. BARTON. Your habit of selling oil, we may, I think, regret if we make that a precedent, is my point.

Mr. HALL. Mr. Chairman, would the gentleman yield?

Mr. BARTON. Briefly, before I go to Mr. Bryant.

Mr. HALL. I think Mr. Markey's remarks are another reason and occasion the former railroad commissioner, Jim——

Mr. BARTON. Hightower?

Mr. HALL. No, not Hightower. From Kerrville.

Mr. MATTHEWS. Jim Nugent.

Mr. HALL. Jim Nugent, before this committee answering Mr. Markey, when Mr. Markey asked him if he did really say, Let the Yankees starve——

Mr. MARKEY. Freeze.

Mr. HALL. [continuing] and freeze in the dark; and he denied it. And I gave him a chance to correct it, and he said I didn't say what Mr. Markey said. I said, what did you say? He said, I said, Let the thieving Yankees freeze and starve.

Mr. MARKEY. No, we say the same thing about the Yankees, okay? But—it is in the other half of my metaphor, but when it comes to oil, we understand your attitudes toward that in the Northeast and Midwest.

Mr. HALL. When you are fooling with Texas and our Governor, you have read that sign "Don't Mess with Texas," and I will talk to you January 1 of this next year.

Mr. BARTON. It is obvious that we have a happy subcommittee, even though it is a serious issue that is under discussion today.

The distinguished gentleman from Tennessee, Mr. Bryant, is recognized for an opening.

Mr. BRYANT. Thank you, Mr. Chairman. It is always a pleasure to follow the likes of Eddie Markey and Ralph Hall. I don't know how I can top that.

But like my colleague from Massachusetts, I too have concerns about our chairman and some of the statements he has been making about this issue, in particular, one that is in today's Journal, Congressional Daily, where he says that—Mr. Barton says this, "that we see no controlling legal authority to tap this reserve."

Are you going to next tell us you invented the Internet?

Mr. BARTON. Well, if I did, I would; but I didn't, so I won't.

Mr. BRYANT. Let me just say very briefly, I know we have a vote on here, that this is not a new problem.

The price of heating oil last winter was up. The Clinton-Gore Administration then really didn't lift much of a finger to address the fuel problem; and I might say that my concern here is certainly for the Northeast and that they have adequate heating oil, but it seems like the administration, this Clinton-Gore Administration, only becomes concerned about this shortage in heating oil in the Northeast every 4 years.

That was the case in 1994. As I read newspaper stories from that time, when Mr. Clinton himself was engaged in a race for the presidency with Senator Dole; and this article, quoting from it, the St. Petersburg Times, it says, "Not to be outdone, President Clinton announced the sale of oil from the Nation's Strategic Petroleum Reserve and asked the Energy and Justice Departments to investigate the reason for the higher gasoline prices," and so on.

Again, he announced that. I don't think that was actually ever consummated, but here we are 4 years later, just before an election, and unfortunately it appears that there is at least a hint of some of the same motivation; that is, election-year politics versus the other years that were involved where the Northeast has faced similar situations.

Let me add my complete statement to the record. I can go on and on, but I want to leave this panel and these witnesses that will be testifying today with a challenge of talking about whether or not the release of this 30 million barrels of oil is good public policy.

I want to, as much as I can, reserve judgment on this question although, quite frankly, I am impressed with what Secretary Summers and Mr. Greenspan say about this. They don't think it is good

public policy and, in fact, recommend strongly against this. But I hope we can get some answers to this.

But I would point out, too, that since its creation, this reserve has—I think only one time has the President used his authority to actually dip into that, and that was during the Gulf War.

The other question that is lingering here is, is it good politics? Not just, is it just good public policy for the Nation, but is it good politics? And there we get into why are we doing this every 4 years? And we really won't know that answer, will we, until November 7.

I will say this much, if the American public is really listening on this issue, I think it would be outraged that for the last 8 months, when we all have been paying these extremely high prices, that now, simply because the President wants to help out the Vice President, he is willing to release oil from the Strategic Reserve to give him a bounce in the polls.

I thank the chairman for the time, and I hope that the American people will recognize that the members—I hope all members on both sides of the aisle are calling for good, sound policy and not just politics; and I yield back my time.

[The prepared statement of Hon. Ed Bryant follows:]

PREPARED STATEMENT OF HON. ED BRYANT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TENNESSEE

Thank you Mr. Chairman. Mr. Chairman, I appreciate your holding this hearing today. As part three of an ongoing investigation into our nation's energy policy, I have personally found these to be very enlightening, and I am looking forward to hearing from our distinguished witnesses.

As elected officials, I believe that when we are here in Washington, participating in hearings, or marking up legislation, we should leave partisanship at the door and focus on our energies on accomplishing the people's business. But Mr. Chairman, as reluctant as I am to inject partisanship into our work in this committee, I really must cry foul at what is an obvious misuse of our nation's resources for personal and political advancement.

As most Americans are aware we are currently suffering through some of the highest fuel costs in our nation's history with oil prices recently hitting a year high of $37.50 a barrel. Prices at the pump are sky rocketing and concerns are again being raised about the affordability of home heating oil. For some, this has meant an economic inconvenience, for others serious hardship, but all of us have spent a lot more of our paychecks on fuel that we are used to.

Now, this is not a new problem. The price of home heating oil was high last winter and the price of gas began going up last spring. But apparently the Clinton/Gore Administration can't lift a finger to address fuel prices unless we are less than 6 weeks from an election.

Let me offer some specifics. Last winter, when the Northeast was faced with low home heating oil stocks resulting in unusually high prices, many Members of Congress called on the President to release supplies from the Strategic Reserve. According to the Congressional Research Service, the Clinton Administration "resisted calls for an SPR drawdown, arguing that this was not the sort of situation for which the SPR was intended." At the time, Vice President Gore concurred with this view, warning that using the Strategic Reserve to influence the oil market would be futile because "all they [OPEC] would have to do is cut back a little bit on supply."

A lot has changed in just a few short months. Last week, new polls came out showing that the Vice President was now in a dead heat and perhaps even behind in the Presidential race. At about the same time as these polls came out, Vice President Gore changed his position on the reserve and "publically" appealed to President Clinton to tap the strategic reserve to "ensure that oil prices stabilize at a lower level . . . [which] should help increase the supply of home heating oil and build up stocks before the winter months approach.

To no one's surprise, rather than continue to oppose this type of drawdown, President Clinton announced the that he will release 30 million barrels from the reserve.

Is a 30 million barrel release good policy? I have reserved judgement on this question, and I hope that today's hearing will better education us on this particular question. I would point out, however, that since its creation in the 70s, only once has a President used this authority and that was during the Gulf War.

Is this good politics? We won't know the answer to that question until November 7th. But, if I were the American public, I would be outraged that for the last eight months, I had been needlessly paying higher prices simply because the President wanted to wait until a release from the Strategic Reserve would give Vice President Gore the biggest bounce in the polls.

I thank the chairman for the time, and hope the American people will recognize that the Members on this side of the aisle are calling for sound policy, not politics.

Mr. BARTON. I thank the gentleman.

Does the gentleman from Texas wish to make an opening statement, Mr. Hall? Mr. Hall, do you want to make an opening statement right now or are you going to come back? Do you want to go vote and then come back?

Mr. HALL. What do you want me to do? You are the chairman.

Mr. BARTON. Well, Mr. Largent, do you want to make an opening statement now?

I am not going to start the hearing until the members that were present while I was absent have an opportunity to make an opening statement.

Mr. HALL. Will I have an opportunity when I come back?

Mr. BARTON. You will have an opportunity when you come back.

Mr. HALL. I will be right back.

Mr. BARTON. You will come back?

Mr. SHIMKUS. I have already voted.

Mr. BARTON. You have already voted?

Mr. SHIMKUS. Yes.

Mr. BARTON. Mr. Shimkus is going to take the chair.

Make your opening statement, John, and then stop. Okay? We don't want to start the hearing until I am back and the members that were here at the beginning are back.

So I am going to turn the chair over to Mr. Shimkus for an opening statement only and then we will suspend the hearing.

Mr. SHIMKUS [presiding]. Thank you, Mr. Chairman.

I had a real long opening statement. I wasn't going to make it long because everything was covered, but maybe I should drag it out now. But my intent is not to do that.

I will highlight just briefly some of the comments that I made earlier this morning, and I do hope that throughout this hearing we also address—the SPR is going to be the big issue we are going to talk about today, and that is what happens in the timing of hearings, but I think there are also some other critical issues that we need to address—energy reliability being one, the natural gas issue and that.

So let me begin by reiterating stuff that many of you have heard me say over my 4 years of being on the subcommittee, that I do feel we have been shortchanged maybe on both sides by our inability to work toward a consensus national energy policy. One side will say they have one; the other side will say they don't. We say we have one; the other side says we don't have one. And that does not do our public—it does not serve us very well.

I do know that imported oil has increased 58 percent. Fifty-eight percent of our import is now foreign oil, which is up from mid-30 percent during the Gulf War.

That shows a backward approach to an energy policy. I think most Americans would be aghast that we are now more reliant on foreign imported oil than even before the Gulf War, and obviously our approach is to try to change that.

A national energy policy takes in many different aspects. Imported oil will always be a portion of the portfolio. We will never relieve ourselves, but the oil reserves that we have in this country should be part of our energy policy. The other energy-producing capabilities that we have through coal and through nuclear are going to be part, have to be part, of a national energy strategy.

Of course, my personal favorite is biofuels, which many of you have worked with. I have had some small successes in biodiesel, included in the Energy Policy and Conservation Act. I think that is a step in the right direction. And the debate with ethanol, it is all part of it. It is not going to consume all of the energy portfolio, but it should be a portion. Just like any investment portfolio should be diversified, our energy portfolio should be diversified.

As we see today, we are here because—it is not because of our overreliance on imported oil.

The second issue I want to talk about is to address the SPRO issue, which—I also had the opportunity to meet with folks from the Department of Energy yesterday, and I appreciate the time.

As a former Army, active Army officer, reservist, concerned with national defense, I think about the Strategic Petroleum Reserve and I highlight the first word, "strategic." I think Chairman Barton was right on the line saying that if you have a strategic bomber fleet, you don't transform those to carry passengers if the prices of airline tickets go up. If you have a Strategic Petroleum Reserve, and it is really not that much, if we have a stoppage in the sea lanes, what are we going to use to fuel the tanks? What are we going to use to provide the jet fuel? What are we going to use for our amphibious assault vehicles? That is there for our national security.

So when I see what I think is the misuse of it for whatever purpose we will delve in today, I see it as an assault on our men and women in uniform who may be life and death utterly dependent upon our Strategic Petroleum Reserve to fuel the weapons of war, should we need it; and that is my focus as still being involved with the defense forces of our Nation.

The third thing that I mentioned already this morning is this whole debate over price and supply, and there will be quotes flying around from everybody. I know that we had some important hearings about the high gasoline prices in the Midwest this summer—so high, in fact, that the Governor of the State of Illinois and the State legislature rolled back the gas tax, so high that the Governor of Indiana did it—he could do it by rule—but not high enough to release any oil from the Strategic Petroleum Reserve.

I don't think I would make a very good administration official, especially if I had risen through the ranks and would have to tow the party line on decisions made by the executive branch, which I think deep down inside our heart we know that there are other reasons for the release at this time, and we will go into that.

This is a great committee. We deal with great issues. An energy policy is critical as our Nation moves forward, and we have to bal-

ance the environmental debate with our needs for a reliable source of supply and a balanced approach. Hopefully we will get through the battle, go back to some more strategic thinking at the end of the hearing.

With that, I see no more of my members having returned from the vote, so at this time I will recess the hearing, subject to the call of the Chair.

[The prepared statement of Hon. John Shimkus follows:]

PREPARED STATEMENT OF HON. JOHN SHIMKUS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Good morning, Mr. Chairman and to all who have shown up this morning. I am looking forward to this hearing today.

For the past several months, I would say that our country has been on the verge of an energy crisis. Oil and natural gas prices have sky-rocketed to almost record highs. The price increases now pose a real threat to our country's continued economic growth. What can be done?

What we have heard from this Administration is the blame game. They blame, as they call it, "Big Oil." They blame corporate America for gouging the American consumer. They blame the Republican controlled Congress for not passing their energy agenda (which as Chairman Barton has mentioned is being held up by Democrats in the Senate). They'll blame anybody and everybody, as long as it isn't them.

EPA was not willing to take the blame for the gasoline price spikes in the Midwest this summer. They knew what was coming. All they had to do was say there may be some supply problems for a few months while a new, cleaner blend of gasoline enters the market and this will likely cause the price of gasoline to increase for a short time. But they couldn't, they blamed everyone else. They've been investigating oil companies for months with nothing to show for it. Even the Department of Energy doesn't agree with EPA.

And then, as oil prices continued to stay high this summer, we've heard VP Gore on the campaign trail blaming "Big Oil." Big Oil he says is the problem. It couldn't be his administration. They've done everything they can, right?. They've made domestic oil production a major priority, right? That's why small wells all over Illinois have closed down. That's why there hasn't been drilling in ANWR, even though most Alaskans favor the drilling.

And then we have the Strategic Petroleum Reserve (SPR). While it may be well intentioned, the move to "swap" some reserves will do little to address our nation's heavy dependence on foreign oil and most likely will not impact price. While a President himself has technically only drawn from the SPR once, during the Persian Gulf War, this most recent action to allow the Secretary of Energy to "swap" oil reserves marks the second time that President Clinton has ordered large releases from SPR, both have happened to take place in the months before Presidential elections. The SPR was established to protect Americans from a cut-off of oil imports, not to manipulate prices and not for political gain!

On one hand we have Secretary Richardson saying releasing oil is all about supply and that supplies are down across the country. On the other hand we have both President Clinton and Presidential candidate Gore saying it is about price. Still yet, we have DOE staff saying this was done to increase oil in SPR?

Which is it? Are we taking from SPR because of supply problems, or because of the high prices or for politics?

To be honest, this seems to sum up this administration's whole energy policy, confusing. One agency is doing one thing, while another is doing something completely different. Al Gore is out there saying Big Oil is gouging the consumer for profits, while Secretary Richardson is saying on "Meet the Press" that oil companies will actually make money because of the SPR "swap". Secretary Richardson is saying we are doing all we can to increase domestic production, yet the President has used his executive powers to severely limit oil and gas activity on government lands, including ANWR in Alaska. DOE has been trying to increase the use of renewable fuels, but rules and possible waivers issued by EPA run contrary to that. And this isn't even going into the contradicting policies concerning nuclear fuel, hydro power and coal. In the end we are left confused, paying more for oil and no energy future.

With regards to home heating oil, I would like to mention one thing that may help the supply problem. Biodiesel. Since biodiesel is made domestically with renewable resources, using it at blended levels with home heating oil would still reduce dependence on foreign oil and increase our supply. While there may be some concerns

with using biodiesel as home heating oil, there should be no problems when blended at low levels between 5 to 20%. Even at those small levels, it could stretch supplies enough to last the winter and keep the prices at reasonable levels.

Although we are currently talking about biodiesel's use in the home heating oil market this year because of the high price of heating oil, to help avoid this situation in the future, we should be developing a long-term strategy for integrating biodiesel and other alternatives into home heating oil every year. Biodiesel can help displace imported petroleum, improve air quality and support domestic industries like agriculture.

I happen to think that our nation should not rely only on just one energy source such as natural gas, coal or wind to generate power, but all of these sources. It is the smart thing to do over the long haul. Just like any good retirement portfolio, our energy industry should be diversified.

Again, thank you for having this hearing today Chairman Barton. I yield back the balance of my time.

[Brief recess.]

Mr. BARTON. The subcommittee will come to order. We expect another vote in approximately an hour. We would like to finish our opening statements and, if possible, get the first panel's testimony before we go into questions.

The Chair would recognize the gentlelady from Missouri, Congresswoman McCarthy, for an opening statement.

Ms. MCCARTHY. I thank the chairman. I just wanted to make sure I wasn't bumping my most senior member, Mr. Hall.

I appreciate the opportunity to make a few brief remarks and to put the rest of my remarks in the record.

I am concerned about the direction in which this hearing seems to be going with regard to efforts that are under way to try to address a very real need for the American consumer, that is, the need for an affordable fuel to get products to them, get them to the workplace and keep this strong economy going.

There was one other time in recent history when strategic oil reserves were used, and it did something not unpredictable, but rather parallel to what we anticipate and are experiencing currently in Mr. Gore's effort to use these resources again to address consumer needs; and that is that it lowered the oil prices which was, in fact, a boon for the consumer and certainly was something to, in the world of economics, take note of. But certainly there was no other—there was no particular downside in that period in our history, and I don't anticipate one now.

But what I do find frustrating and what I do anticipate is lots more rhetoric about what we should be doing to address our energy needs rather than action; and that is a very real concern that I have had in my short service on this subcommittee, that as we talk about energy restructuring and as we talk about some of the global climate concerns that we have, we fail to really fund the programs adequately that we need to be funding that the National Energy Policy Act earlier in this decade recognized would get us more stability, less dependence on foreign fuels and certainly a better atmosphere and climate, our commitment to the globe and to our children.

So I hope today's hearing will move in the direction of some substantive things that we can be doing, as policymakers here in the Congress, to see that we carry out some of the very good ideas proposed by a previous Congress and reiterated when the National Energy Policy Act was renewed; and that we rise above the tendency to be political or partisan or finger-pointing and, instead, walk

away from this experience with some goals in mind that we can achieve even now, this late in the session, and certainly as we move forward in the next session.

Thank you very much, Mr. Chairman.

Mr. BARTON. Thank you. The Chair would recognize Mr. Hall for an opening statement.

Mr. HALL. Mr. Chairman, thank you very much, and members of the committee. I certainly appreciate your convening this hearing today to take an early assessment of the outlook for the prices and supply of natural gas and heating oil as we move into the winter days that are ahead.

Most of our talk right now has been about SPRO, and the President's recommendation and all that. That is important and maybe it is important to the American people to know that we care, that we are trying to do a little something. So I am not terribly critical of that. I don't really, deep down, support it, but if 5 or 6 days of maybe an effort to lower gasoline prices helps the American people, maybe that is good.

But, you know, the big—the big fish here is escaping us, and that is supply. We have to get into a supply, some type of a steady, dependable supply. What we will hear from these witnesses, these men who will testify here—and I thank them for their time, because it takes time to come up here, it takes time to get ready, it takes time to sit there and listen to all of us make our speeches. We thank you for your time, and I recognize a great group here who will give us some good input, but I don't believe we are going to hear a very pleasant scenario.

It is a strong signal of how quickly things can change in the energy markets of the world. About 18 months ago, this committee was holding hearings on the impact of low prices on exploration and production for oil and natural gas. Experts told us then of impending problems, but Congress didn't do anything about it. We didn't do anything to stimulate domestic exploration or production. We didn't do anything about it to give some stability to oil and gas or energy prices to where the little guys that find energy—they look for it and find it, and the big guys buy it; but the little guys have to have some incentive to look for it, and they have to have some funds to look for it.

No bank can loan money to look for oil or gas or energy today, no matter how high the prices are, because we don't have any duration—they don't have anything, and they would have their files checked and tossed out, or written down by examiners when they got there.

Today we need these additional supplies of oil and natural gas. We go to the fields and find that the infrastructure to support exploration and drilling programs is in terrible shape. I can go by Tyler, Texas, and see the stacked rigs at Delta Drilling; and it cries out loud and gives me testimony of the fact that the oil and gas industry is in trouble. And when the oil and gas industry is in trouble—there are 10 States that produce it, the other 40 use it; and when we want good situations for the oil and gas producers, we are outvoted 4-to-1. We have to trade something for it.

Service companies have left the business, the rigs have been cut up for scrap and, most importantly, many of the people who have

knowledge of how to get oil and natural gas out of the ground, they have left the business. I am not talking about the chairman of the board or the head of the drilling outfit. I am talking about the guy that does the rig, the tool pusher. They are all in 7-Elevens now. They are working. They are retrained or they are driving long-line trucks. We are going to have a hard time ever getting them back.

In this good economy, a lot of people have found other jobs and cannot be expected to return.

Mr. Chairman, we ask ourselves, why do we continue to make these mistakes? Or as we would say in East Texas, why do we continue to eat our seed corn? And that is exactly what we are doing. It is because we fall for the lure of lower oil and gas prices, and I am not indifferent to that. I like paying 99 cents at the pump instead of $1.49, or as much as $2 in some States, but I also recognize that low prices are every bit as much a sign of an energy crisis as the relatively high prices we find ourselves paying now. What is missing, once again, is stability, price stability.

Today oil is a worldwide commodity, and we no longer have the ability to set the price. There may have been a day and time when we could. We complain about it, yet we do nothing about it. Domestic oil and gas production continues to decline even as demand grows.

Members, what is wrong with this picture? We have the ability to produce and influence the world price of oil. We have that ability. We have to be willing to provide the tax incentives to encourage domestic oil and gas production, not just when the prices are high, but when they are inevitably going to fall, and they go up and down. There is no longer a need to worry about unjustly enriching the big oil companies. They are largely gone now; they have gone offshore and they are not likely to return.

We also have to be willing to take a look at our public lands and permit additional exploration and production on them—Alaska, the Pacific—Atlantic coast and Pacific coast, as well as the onshore lands. Don Young has a bill in this Congress that if we would all tie on to it, get together—I invite the environmentalists to come into it because they are a great part of it.

I hope I am an environmentalist, but let me tell you something. An offshore rig off of Santa Barbara doesn't look near as bad to me as a troop ship laden with our boys and girls going somewhere to fight for energy, and don't you ever think this country won't fight for energy. We will. We sent 400,000 kids to a desert over there. That was a war over energy. We didn't love the Emir of Kuwait; we couldn't have cared less. We didn't want a bad guy to get all the energy in that part of the world.

So that is the answer. Japan went south into Malaysia when Cordell Hull and Henry Simpson cut their energy off. Hitler went into the Ploesti oil fields. History repeats and repeats and repeats that energy is a national asset, and that is something that we have to remember and to take care of.

Other developed countries without the fuel resources that we have would like to be in our position. The United States can influence the price, but we have to pay to play.

Mr. Chairman, I don't want to go over, but I applaud the administration for recognizing that natural gas is a clean, efficient fuel

that is highly suitable for electric power production. However, they have only worked half the problem. They have neglected the supply side, and unless there is a substantial supply response, we are not only likely to have high prices but natural gas supply shortages as well.

As good as natural gas is for a variety of uses, and I respectfully say that it ought to be the fuel of the future, we shouldn't neglect coal. Dr. John McKetta, an eminent lecturer, a professor and engineer, said that if we could but mine our coal, we have enough coal to double the output of the total of the OPEC nations all put together. Now, that is saying something. Coal has the potential to be as clean a fuel as gas, but more research has to be done.

Other States have to put scrubbers on their coal. We have to have the technology to develop clean coal technologies to reach these goals.

I have sympathy—I kid Mr. Markey and we go back and forth at one another, but I respect his problems for the North and East and for their need for heating oils. He and I worked on a bill together to try to reduce that. You know what all the pitfalls are there, but I recognize them, as does Mr. Markey. We want the same thing; we want a supply system for this country.

With that, Mr. Chairman, I yield back my time.

Mr. BARTON. Thank you, Mr. Hall.

The gentleman from Oklahoma, Mr. Largent.

Mr. LARGENT. Thank you, Mr. Chairman. I want to thank you for holding this hearing this morning to look at what the American consumer can expect to pay for natural gas and heating oil in the coming months.

Unfortunately, I have a sense that consumers will have to continue to pay higher electricity prices and more to heat their homes until Congress and the future administration work in a cooperative effort to develop a long-term, comprehensive energy policy.

We will hear from Mr. Moniz, Under Secretary of Energy, of DOE's plan to release 30 million barrels of oil from the Strategic Reserve over the next 30 days to bring down gas and heating oil prices. Additionally, the administration plans to release $400 million in LIHEAP funds to assist low-income households; and I have questions of Mr. Moniz in this seemingly contradictory behavior, because I have a letter here dated February 24 that argued against releasing oil from the Strategic Reserve.

Mr. Chairman, you held a press conference this morning questioning the administration's authority to release oil from the Reserve, and I wholeheartedly agree with your assessment that the SPRO is for emergencies and not a tool to reduce oil prices.

The administration may think that this is a great election year campaign tool, but from a public policy standpoint, it is shortsighted and potentially dangerous.

I commend members' attention to the testimony of Mr. Steven Strongin, managing director of Goldman Sachs. Mr. Strongin is here this morning. He hit it on the nail squarely in his assessment as to why—quote, "Why has storage capacity failed to keep pace with demand?" The answer in it—lying in its simplest form, is that the combination of regulation, taxes and direct market intervention has made the return on capital in the oil industry a break-even

proposition at best, and has made investing in the downstream, refinery, marketing, storage and other aspects of the infrastructure, distinctly unprofitable.

The market has responded by not providing the capital to expand, and the net result is the capacity constraints that you see today.

What is the administration's solution? Releasing 30 million barrels from the Strategic Petroleum Reserve.

I will be interested in hearing from our witnesses as to what free market solutions we should be examining, rather than a government command and control approach.

I yield back the time.

Mr. BARTON. I thank the gentleman from Oklahoma.

The gentleman from New Jersey, Mr. Pallone, is recognized for an opening statement.

Mr. PALLONE. Thank you, Mr. Chairman.

Mr. Chairman, I have to say that I was really shocked to see the effort this morning by the Republican leadership to challenge the President's authority to tap the oil reserve, and I can't——

Mr. BARTON. Would the gentleman yield on that?

Mr. PALLONE. Yes.

Mr. BARTON. I don't want to tar the Republican leadership. That was a Joe Barton press conference, so you can be shocked at me, but don't tar my good friends in the leadership.

Mr. PALLONE. I apologize. I meant you, and I guess also Chairman Murkowski and a bunch of other people here, though; I guess the Ways and Means chairman and others.

It doesn't mention the Speaker, that is true.

Mr. BARTON. Okay.

Mr. PALLONE. But let me say this. The reason that—I can't help, after I, you know, see what is happening here on the other side, but look at this as a situation—sort of classic situation of "us versus them." You know, I am from the Northeast. People are going to be hurting. They want a response.

We theoretically come down here because we are concerned about our constituents and their concerns. And the bottom line is that the President's ability and willingness to tap the SPRO is the only thing that in the short term is going to deal with this crisis in terms of price.

I can't help but think that what is really going on here is that, you know, OPEC and big oil in the United States and, you know, the Bush-Cheney ticket obviously—you know, coming from an oil background, they are all against this because they don't want the price manipulated, because they don't care if the price is high, frankly. If they cared whether the price is high, they wouldn't have a problem with the President trying to do something to bring it down.

You know, they have been criticizing Vice President Gore, as well, because he has been out there saying that the SPRO should be tapped. But I would say, you know, it is interesting because as my colleague said, Mr. Barton, not only Democrats, but some Republicans and a lot of Democrats called on President Clinton to do this swap. We had over 100 House Members, including 20 Republicans, such as the House International Relations Chairman Gil-

man and Representative Rick Lazio of this committee, that sent a letter to President Clinton requesting the swap.

And I, for one, would not heed the allegations of the big oil ticket nor trust them to protect the Nation's consumers from high oil prices, particularly if the oil profits to which they are linked were at stake.

Tuesday's Washington Post, in the business section, noted that this past Monday oil prices fell to their lowest levels in a month, from $38 to $32 a barrel in the wake of the announcement regarding the Strategic Petroleum Reserve. I understand that yesterday prices fell even more, and John Lichtblau, chairman of the Petroleum Industry Research Foundation, noted in the same Post article that the price drop reflects the fact that inventories will be increased. He went on to say that while very recently there has been speculation about $40-a-barrel oil, now there is speculation that it will drop to below $30. The assumption has changed directionally.

What the President is proposing to do works. I don't really care about anything else because that is what the people want. They are the ones that are going to be suffering. If it works, we should do it.

In fact, several OPEC ministers have been tacitly supportive of President Clinton's actions as well, because it creates greater certainty in the marketplace. The Venezuelan oil minister, and OPEC president Ali Rodriguez, reaffirmed the administration's belief and intent in releasing oil from the SPRO. I think oil prices will not remain at their high levels.

In spite of this, according to Reuters, the Chair of this subcommittee wants to stop the White House—and he has admitted—from conducting the SPRO swap. I just don't understand the whole theory here. I don't understand why the chairman and some of the other Republicans are trying to make an issue of this when it works to keep the price down and to bring the price down, which is what we should be concerned about if we care about the public and our constituents.

Let me go on to a second thing because I know the time is short. The other thing that is really bothering me now is that I see Murkowski and others using this as an excuse to try to destroy the environment.

Just 2 days ago, Senator Murkowski was on the Senate floor once again pushing for drilling Alaska's last remaining open space, the Arctic National Wildlife Refuge. Not only is he advocating a policy of environmental destruction, but drilling the Arctic Refuge won't produce a drop of oil for many months, so it is not going to do anything in the short term, and on the other hand, would only produce several months' worth of supply. Instead of drilling the Arctic Refuge, we should be banning exports of Alaskan oil to other countries.

Senator Murkowski also has been pushing for abolishing the fuel tax and for offshore drilling, and yet there has been bipartisan support in both Chambers to the existing moratorium on offshore drilling for quite some time and widespread bipartisan opposition to doing away with the fuel tax.

Now, it is the big oil GOP leadership in both the House and the Senate that were reluctant to investigate whether the oil compa-

nies were profiting excessively from the gas price spikes this summer, and the Clinton administration's investigation has proven that the increase in price was not due to environmental standards as the Republican majority had alleged in their attempt to divert attention from the oil giants' greed. They don't want to do anything—the other party doesn't want to do anything about the price, and they want to use this as an excuse to try to destroy the environment and go after ANWR and everything else.

Now let me say, what should the Republicans, who are in the majority, be doing? Instead of trying to reverse the positive steps the administration has taken and making these false accusations, I would challenge the GOP leadership to adopt the sound energy policy, which they have failed to do; pass the measures that the Democrats have been advocating and have been proposed by the Clinton-Gore Administration in its budget request. Above all, we should be implementing measures that sustain our natural resources, practical measures that would conserve energy, promote our long-term energy security and promote international competitiveness in alternative energy resources, all without sacrificing our economic growth.

We hear today that the bill, the Energy and Water bill that is on the floor right now, actually cuts research in solar energy and other things that the President had proposed. They are going in the opposite direction if they want to conserve and they want to come up with alternatives.

Before we adjourn, the GOP leadership should pass the administration's request for funding and tax incentives for energy efficiency and renewable energy measures, efficient energy research and development, weatherization and alternative fuel vehicles, and mass transit.

I just don't understand the whole theory on the other side. It is against the will of the people who want the prices to come down. It is against the environment and preservation of the environment. And above all, they are doing nothing to try to conserve energy resources and make it so that we have a sound energy policy. And any excuse to suggest anything else is going on here on the part of the majority party, I think is just an effort in trying to pull the wool over the eyes of the public.

Thank you, Mr. Chairman.

Mr. HALL. Would the gentleman yield?

Mr. PALLONE. Oh, sure, Mr. Hall.

Mr. HALL. I think that you have made some good points here, and I am kind of like the old storekeeper that said, I ignore the impossible and cooperate with the inevitable.

So along that line, if they are going to take out of the SPRO—and it appears that they are going to; I am not just dead set against it if it helps the American people or even makes them feel like we have some feeling for them—but would you join in a sense of Congress to ask the President, when they refill that 30 million barrels, that they not go for Pemex oil, that they get domestic oil here no matter what the price is?

Mr. PALLONE. Let me say this——

Mr. BARTON. Well, this is an opening statement. I like to hear a debate between members of the Democratic Caucus, but I don't think we need to do it here.

Mr. HALL. I believe he is going to agree with me, Mr. Chairman. I wish you would give him another 30 seconds.

Mr. BARTON. I don't think he is going to agree with you.

Mr. PALLONE. Well, no.

What I am going to say, Mr. Hall, is that when you were speaking before about the need to encourage domestic oil production—I am not talking about an ANWR offshore, but just in general—I think that we should do whatever we can to do that, whether it is tax incentives or some of the things you propose. I mean, I think those things make sense.

I just don't want the offshore drilling and the ANWR and that, but I agree with you that we need to do more to encourage domestic production, absolutely.

Mr. HALL. You are very sensible and you were a good chairman of the subcommittee, and I respect you. I am going to ask you to help me with that sense of Congress when we get under way. Thank you.

Mr. BARTON. The gentleman from Florida is recognized for an opening statement.

Mr. STEARNS. Mr. Chairman, I just briefly just want to maybe comment on what Mr. Pallone talked about.

The Kyoto Protocol talked about less dependence on oil and, in fact, trying to bring discipline into the market by letting the prices move in the direction that they would to encourage people to come up with alternative energy sources and also to get people to discipline themselves.

So I think the one thing, Mr. Chairman, that Mr. Pallone is forgetting is that we have to allow the markets to have a little swing here so that discipline can come in place; and the Kyoto Treaty, the protocol, was talking about just that.

I don't think there is any conspiracy here. I think OPEC is trying to get the price of oil higher and Americans are increasing their dependence. What we need to do—I think the Senator from Alaska is correct, that there is probably some nice way that we can start using the Alaskan oil reserves and do it environmentally in such a way that we protect the environment; and I think that can be done. Certainly, if we have that large a supply of oil, that would be helpful to bring down, and I don't think it will destroy the environment.

So I think it is important that my colleagues realize that there is a way to balance the exploring of oil with the environment, and we have done that every day.

His description that we do the will of the people, that is fine, but that is a short-term solution. The long-term solution is to get the American people less dependent upon foreign oil and develop our alternatives ourselves.

What the President did is a short-term solution. It could have actually been done by just deleting some of the foreign tax—the Federal tax that is on the gasoline; and this swap that the President is doing, it might be a short-term solution, but I think this committee and what we are trying to do is work out long-term solu-

tions so that the people are less dependent on foreign oil, we have alternative sources, we use our environment in such a way that we have the fruits of our oil supplies, at the same time protect the environment and at the same time protect the people from themselves in the sense of giving them incentives to discipline themselves to use less gasoline.

Thank you, Mr. Chairman.

Mr. BARTON. I thank the gentleman.

Does the gentleman from Texas, Mr. Green, wish to make an opening statement?

Mr. GREEN. Mr. Chairman, I appreciate the opportunity, but not being a member of the subcommittee and having a great deal of interest in the issue, I just appreciate the chance to sit in.

Mr. BARTON. We appreciate it.

Mr. Largent, you did give an opening statement, I believe, right?

Mr. LARGENT. Yes.

Mr. BARTON. Seeing no other members present, we are going to let the long-suffering first panel actually testify now. We are going to start with the Under Secretary, Dr. Moniz, and we will go right to the distinguished chairman of the Federal Energy Regulatory Commission.

We have the distinguished former chairman and current member of the Texas Railroad Commission, Mr. Matthews, and we will continue on.

I have read most of the opening statements. I know that they are a little bit longer than 5 minutes. I am going to recognize each of you for about—let's try 8 minutes, and if we need a little bit more time, we'll allow it. Does Mr. Shadegg wish to make an opening statement?

Mr. SHADEGG. Mr. Chairman, I have an opening statement, but since you have closed opening statements, I will simply insert it in the record. I have a hunch you heard my opening statement.

Mr. BARTON. We will give you an opportunity if you want.

Mr. SHADEGG. I have a hunch you heard my opening statement at our press conference earlier this morning. I think this is an important hearing. I thank you for holding it.

I have to tell you that I am worried about the policy we are embarked upon and look forward to hearing the testimony of the witnesses.

[The prepared statement of Hon. John Shadegg follows:]

PREPARED STATEMENT OF HON. JOHN B. SHADEGG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Chairman Barton, I commend you for holding this hearing on the prices of heating oil and natural gas. Today's hearing is especially timely because of the Administration's recent decision to release 30 million barrels of oil from the Strategic Petroleum Reserve (SPR) in order to force down the price of heating oil.

I am very concerned with the decision to raid the SPR for three reasons. First, releasing oil from the SPR carries serious national security implications. The SPR is not intended as a hedge against high oil prices during an election year, it is a national security asset designed to keep our economy functioning during times of war and dire emergency. It was created in 1975 at the height of the Oil Embargo, during which our economy was literally being brought to a halt by severe shortages of oil. In fact, when Congress authorized the SPR, it specifically stated that the storage of oil would "**diminish the vulnerability** of the United States to the effects of **a severe energy supply interruption**, and provide limited protection from the

short-term consequences of **interruptions** in supplies of petroleum products." *(42 U.S.C. 6231) (emphasis added)*

This statutory Finding shows that the SPR was designed to deal with "severe interruptions" to our country's energy supplies which could increase the "vulnerability" of the United States. Not the political vulnerability of individual candidates. The strategic vulnerability of the United States.

Second, it is impossible to escape the conclusion that the President's release of oil from the SPR is for political reasons. After all, this President has done it before. On April 30, 1996, the President ordered the sale of 12 million barrels from the SPR for the stated purpose of lowering gasoline prices **only three days after challenger Bob Dole proposed the repeal of the 4.3 cent gasoline tax.** This year's decision to release SPR oil fits the pattern. The Vice President, in a battle for the states of the Upper Midwest, called for the release of SPR oil on September 21 and the President ordered the release the next day.

The oil was released even though Treasury Secretary Lawrence Summers, with the support of Federal Reserve Chairman Alan Greenspan, bluntly warned on September 13 that the release of SPR oil would be "a major and substantial policy mistake" by using the SPR to "manipulate prices" rather than its intended purpose of handling supply disruptions. Of course when he realized his job was on the line, Secretary Summers contradicted himself, exactly like Energy Secretary Hazel O'Leary did following the President's 1996 SPR release.

And while we are talking about fascinating episodes of history, let me just mention a proposal made in 1992 by the current Vice President of the United States. On page 349 of "Earth in the Balance", the Vice President specifically calls for imposing a new tax on heating oil and other petroleum products as producers of Carbon Dioxide. Surely he must have realized that imposing a new tax on a product would drive up its price.

Finally, raiding the SPR will not decrease oil and gas prices over the long term: it is purely a short term fix. How do we know this? As I mentioned earlier, President Clinton released 12 million barrels from the SPR for sale on April 29, 1996. Its now September 28, 2000, Americans have just suffered through a summer of high gasoline prices, and the price of oil was $31.50 per barrel yesterday morning. So much for the effectiveness of releasing SPR oil on controlling longterm prices.

Mr. Chairman, we are not faced by a severe disruption in our oil supplies nor is our economy being brought to its knees. We are faced with a combination of relatively tight supplies, a lack of refinery capacity and, in the gasoline market, some federal environmental policies which are making much of our gasoline more expensive to produce.

The solution to this problem, and future shortages in oil supplies, is a comprehensive national policy which reduces our dependency on foreign oil by increasing domestic production. We currently depend on imports for 62.1 percent of our oil and as long as we have this level of dependence, Americans will be dependent upon the whim of a foreign cartel. It is my hope that this hearing will shed more light on this issue and help to show the long-term folly of releasing oil from the SPR to manipulate prices.

[Additional statement submitted for the record follows:]

PREPARED STATEMENT OF HON. TOM BLILEY, CHAIRMAN, COMMITTEE ON COMMERCE

Mr. Chairman: I'd like to commend you for holding this hearing. Energy supply and pricing issues are very much in the news. Last March consumers in the Northeast raised concerns over rising heating oil prices. This summer consumers across the country raised concerns about rising gasoline prices. Now, as we look towards another winter, consumers are worried about heating oil and natural gas prices. How can this be when the country is at the brink of broad new innovations and efficiencies in all power sectors.

American consumers are worried about the sharp rise in prices to heat their homes and fill the car up. Natural gas prices are more than double what they were last year. Heating oil inventories are at historically low levels and prices are high. American consumers are making decisions to conserve and use energy efficiently, but sometimes that is not enough. This hearing will look at innovations to help consumers. It will look at supply problems that must be solved for the good of the country.

Today, record demand for energy in the U.S. is straining the limits of an aging infrastructure. Administration policies to promote conservation are, by themselves, inadequate in a growth economy. Our dependence on foreign oil is not a conservation problem. It is not entirely an efficiency problem. It is more complex. I want to

solve it with common sense. America must modernize its enrgy infrastructure to improve domestic power supply. Under this Administration investment in exploration and production for new sources of energy is lagging behind.

This country is at an historical cross-road. A comprehensive, forward-thinking national energy policy is essential to carry our nation into the 21st Century.

Our economy demands abundant energy supplies at affordable prices. Congress and the Administration need to be working on solutions to reduce dependence on foreign oil and bolster environmentally sound investment in power infrastructure. Short-term election year gimmickery such as drawing down the Strategic Petroleum Reserve will only add to a legacy of failed energy limitations.

Using the Reserve in this manner hides from America the real prospects for long-term energy independence.

Today I hope to learn the cause of the recent price increases, the long-term impact of the drawdown of the S-P-R, what we can be doing to ensure that an adequate supply of natural gas and oil reaches consumers in a timely fashion, and whether there are barriers to innovative technologies that can help us utilize our energy resources more efficiently. I also want to learn about what consumers can do to save money on their energy bills this winter.As always I am interested in affordable and reliable energy supply.

I look forward to hearing from today's distinguished panel of witnesses. Thank you.

Mr. BARTON. Thank you, sir.

So, Dr. Moniz, we will start with you; Mr. Mazur and then Chairman Hoecker, Mr. Matthews, Mr. Harris and Mr. Strongin. Welcome to the subcommittee again.

STATEMENTS OF HON. ERNEST J. MONIZ, UNDER SECRETARY FOR ENERGY, SCIENCE AND ENVIRONMENT, DEPARTMENT OF ENERGY; HON. MARK J. MAZUR, ACTING ADMINISTRATOR, ENERGY INFORMATION ADMINISTRATION, DEPARTMENT OF ENERGY; HON. JAMES J. HOECKER, CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION; HON. CHARLES R. MATTHEWS, COMMISSIONER, TEXAS RAILROAD COMMISSION; BYRON LEE HARRIS, WEST VIRGINIA CONSUMER ADVOCATE DIVISION, PUBLIC SERVICE COMMISSION; AND STEVEN STRONGIN, MANAGING DIRECTOR, GOLDMAN, SACHS & CO.

Mr. MONIZ. Mr. Chairman, thank you for the opportunity to testify once more before this committee today on energy policy. What I would like to do is to comment in these opening remarks on both some short- and long-term energy challenges facing the Nation and the administration's efforts to address them.

Certainly economic growth, robust economic growth, over the last 8 years has dramatically increased demand for energy, both domestically and internationally. Energy demand in the United States is up 14 percent over the last few years, and the Asian economic recovery has accelerated worldwide demand for oil and other energy sources.

In the near term, we are facing very low inventories of crude oil and distillate, including heating oil. Nationwide, our stocks of distillate, which include both heating oil and diesel fuel, are down 19 percent over the same time last year. On the East Coast, stocks are 40 percent lower than last year and in New England, my home region, the heating oil inventory shortfall is closer to 65 percent. Low stocks are an important indicator of the many problems in the market, but most importantly for today's discussion, they are relevant because in a typical winter stocks will provide up to 17 percent of the East Coast's winter heating oil supply.

Recognizing the strong interest in the SPRO time exchange program, aimed at avoiding a heating oil crisis, I will describe a chronology leading to this action. Even though last winter was mild, the underlying high price of crude, transportation and refining problems and a sudden 2-week extreme cold snap sent prices of heating oil soaring. The Northeast region was threatened with spot heating oil shortages.

At that time, Members of Congress called on the administration to sell oil from the SPRO. Secretary Richardson indicated that the heating oil problem did not constitute an emergency supply disruption and that a sale would be inappropriate.

I would note that at that time there were preliminary discussions of the SPRO exchange as an alternative to the sale, which is allowed for in the statute as a way to acquire oil for the SPRO and does not require any emergency finding by the President.

We had not, however, reviewed or exercised all of our options and instead elected to pursue other avenues to address the problem. Further, a SPRO release at that time would not have addressed that winter's heating oil problem because the cold snap occurred very late in the heating season.

In January and February, the administration took several actions, including the release of $300 million in emergency LIHEAP funds, dispatching Coast Guard crews to expedite deliveries of product and loans to small businesses disadvantaged by temporary high prices. DOE renegotiated the contracts under its SPRO royalty in-kind program in order to keep oil on the then-tight market.

After dealing with the immediate needs for heating oil to address the fundamental problem of low crude oil stocks, the administration opted for diplomatic efforts to encourage producing nations to put more oil on the market. So the Secretary took two trips to meet with OPEC and non-OPEC producing United Nations in February and March. Shortly after these missions, OPEC announced a 1.7-million-barrel-per-day increase in production. The price of oil declined by $7 or $8 for 2 months, prior to the peak-demand, summer-driving season when oil and gasoline prices climbed again.

In March, the President announced his support for a home heating oil reserve in the Northeast and urged the Congress to pass a series of initiatives, including oil and gas production incentives and incentives for energy efficiency and renewable energy.

In June, demand for gasoline increased seasonally, and it took heroic refinery runs to meet peak gasoline demand. Oil prices increased, and there were signals over the summer that inventories of crude oil and distillate were lagging behind previous year numbers. On several occasions over the summer, DOE and EIA staff briefed congressional staff and White House officials on summer gasoline problems and our growing concern for this coming winter.

In late June, OPEC increased production by another 700,000 barrels. Again, crude oil prices declined slightly, although gasoline prices remained very volatile, rebounding in August before declining in recent weeks.

In July, the President administratively established the Northeast Home Heating Oil Reserve and again called on Congress to pass a trigger mechanism that was appropriate for its use.

This action was prompted by our growing concerns over low crude and heating oil inventories and a desire to have the Reserve filled before the start of the heating oil season in November. We were very cognizant of concerns that we not compete with private heating oil providers and that we acquire heating oil for the heating oil reserve before peak demand season.

In early September, the Department acquired 2 million barrels of heating oil through an exchange of crude oil from the SPRO. The two storage sites for heating oil reserve will shortly be filled to the 2 million barrels.

August inventory numbers, however, were alarming. Crude oil inventories were the lowest since 1976. Nationwide inventories of distillate were 20 percent lower than last year, on the East Coast 40 percent lower than the same time in 1999. At the same time, the National Weather Service predicted the coming winter would likely be closer to a normal winter as opposed to last year's which was, on average, very mild.

In early September, OPEC announced another 800,000-barrel-per-day production increase. Nevertheless, growing concerns over world excess production capacity and very tight crude and heating oil inventories put the price of oil to over $37 a barrel last week, last Wednesday, a highly unusual market reaction to the announcement of a sizable increase in oil supply.

During the month of September, there were four separate occasions where the price of crude hit 10-year highs, and both API and EIA data indicated very little stock build, if anything, at a time when we would expect to start seeing increases.

On September 12, 113 Members of Congress sent a letter to the President urging him to conduct an exchange of oil from the SPRO, including the chairman of the House International Relations Committee, and 13 of those members, both Democrat and Republican, are on this committee.

I understand this is a long description of the circumstances leading up to the administration's decision to conduct an exchange of SPRO oil, but it is important the record on the administration's actions be clearly spelled out.

The administration established a home heating oil reserve to address an actual supply emergency. We are conducting an exchange to avert one. EIA estimates that the temporary infusion of 30 million barrels of oil going into the market will likely net up to 5 million gallons of heating oil for the winter, a substantial amount against the oil inventory shortfall in this country.

Equally important, the exchange will actually increase energy security when the exchange transaction is completed. There will be more oil in the SPRO, not less. We do not take the use of the SPRO lightly, but we do not apologize for using every tool available to us to ensure that Americans have adequate supplies of heating oil and distillate this winter.

Indeed, this countercyclical time exchange operates on the same underlying principle as that being followed in the royalty in-kind program, a program that involves basically the same amount of oil as the time exchange, adds 28 million barrels of oil to the SPRO and has been widely praised by many, including those from oil-producing States, like Senator Murkowski. This is in contrast to the

sell of 23 million barrels directed by Congress in 1996 and 1997 that had no connection whatsoever to energy challenges.

The administration-proposed $5 million sale in 1996, referred to earlier, was part of the February 1995 budget submission to Congress, which was not an election year, in order to address a SPRO management issue, specifically, the need to decommission a storage site.

Mr. Chairman, with your permission, I would like to submit a few letters of support for the time exchange for the record.

Mr. BARTON. Without objection.

[The following was received for the record:]

Consumer Federation of America

Howard M. Metzenbaum
U.S. Senator (Ret.)
Chairman

September 21, 2000

The Honorable William J. Clinton
The White House
Washington, D.C. 20500

Dear Mr. President:

I am very pleased to hear that you are seriously considering ordering the release of oil from the Strategic Petroleum Reserve. As you know, I have written you three times since March urging you to order such a release.

Let me add my voice to those in your administration who are urging you to act immediately to release 60 million barrels of oil. We are approaching a crisis situation. The price of oil topped $38 a barrel yesterday and could well reach $40 very soon. The Energy Department recently predicted that heating oil prices this winter will be 30 percent higher than a year ago, when price spikes sent costs soaring above $2 a gallon. A fairly large release will be necessary to stabilize fuel prices before Winter hits.

I am aware that Treasury Secretary Summers has advised you not to release oil from the Reserve. His hesitancy to "interfere with the market," given current conditions, is misplaced. A trade dominated by a monopoly of producers (OPEC) is not a free market. Americans are at the mercy of OPEC and the major oil producers. OPEC sharply cut oil production sharply to increase prices. As a result, the price of oil has more than tripled since December of 1998.

In 1992, Congress authorized conditions for a drawdown of the Reserve that precisely parallel this economic situation, in which a significant oil supply reduction coupled with severe price increases is likely to have a major adverse impact on the economy.[1] In the wake of significant oil price increase in 1973-74, 1979-80 and 1990, this nation experienced inflation and recessionary impacts. It is imperative that we do everything we can now to keep today's economy healthy and strong.

Once again, I applaud you for considering a move to provide immediate relief to beleaguered consumers. Unless you act quickly, it could be a very long winter for many Americans.

Warm regards,

Howard M. Metzenbaum
Chairman

cc. The Honorable Bill Richardson
The Honorable Lawrence Summers

[1] [42USC6241(d)(2)]

1424 16th Street, N.W., Suite 504 • Washington, D.C. 20036
(202) 797-8551 FAX (202) 797-9093

FOR IMMEDIATE RELEASE
September 22, 2000

Contact: Art Jaeger/ Travis Plunkett
(202) 387-6121

CONSUMER FEDERATION CHAIRMAN APPLAUDS PRESIDENT FOR TAPPING INTO NATION'S OIL RESERVES

Metzenbaum Hopes Move Will Steady Fuel and Heating Oil Prices

Washington, D.C. - The nation's largest consumer advocacy organization hailed today's announcement from President Clinton and Energy Secretary Richardson to draw oil from the U.S. Strategic Petroleum Reserve, a step that the Consumer Federation has repeatedly urged the President to take. At just under 600 million barrels of crude oil, the U.S. Strategic Petroleum Reserve is the largest in the world.

"With crude oil prices higher than at any time since the Persian Gulf War and going up, we are nearing a crisis situation," said retired Senator Howard Metzenbaum, the chairman of the Consumer Federation of America. "I applaud the President and Secretary Richardson for moving decisively to provide relief to beleaguered consumers. This isn't the only measure the U.S. needs to take to decrease our dependence on OPEC oil, conserve energy and bring down prices, but it is a good first step."

The President reportedly has decided to release a million barrels of oil a day for 30 days for domestic use.

Crude oil prices have more than tripled since December of 1998, from less than $11 a barrel to over $35. Most oil analysts agree that the recent decision by the Organization of Petroleum Exporting Nations (OPEC) to increase production by 800,000 barrels a day worldwide will not stabilize fuel prices. The Energy Department has predicted that heating oil prices this winter will be 30 percent higher than a year ago, when they topped $2 a gallon. Moreover, gasoline inventories are very low compared to a year ago.

"Our hope is that the release of oil from the Reserve will send a very strong signal to the oil market," said Metzenbaum. "Until now, consumers have been at the mercy of OPEC and the major oil companies. We will soon see if the release is big enough to begin to stabilize gasoline and heating oil prices."

-30-

Truckload Carriers Association
2200 Mill Road ❖ Alexandria, VA 22314 ❖ 703/838-1950 (phone)
703/836-6610 (fax) ❖ tca@truckload.org (e-mail) ❖ www.truckload.org (website)

2000 – 024190

September 22, 2000

President William J. Clinton
The White House
Washington, DC 20500

Dear Mr. President,

I am writing to express the support of my member companies for the serious concerns conveyed to you earlier this month in a letter from Walter McCormick, president and CEO of the American Trucking Associations, which were followed up in his meeting with U.S. Energy Secretary Bill Richardson on Wednesday of this week.

In his letter, Mr. McCormick described the potentially devastating impact the skyrocketing diesel fuel prices could have on the trucking industry and the U.S. economy. He stated that at least 35,000 trucks have already been taken off the road due to surging fuel costs and that the figure will probably rise much higher. Since that letter was mailed to you on September 5, diesel fuel prices have risen *another* 10 cents per gallon.

More than 1,300 small trucking companies have already gone out of business since January 2000. If fuel costs are not contained very soon, more trucking companies will go bankrupt. Clearly, this will adversely affect the shipping public and undermine the strong economy that you helped create.

ATA has urged you to open the Strategic Petroleum Oil Reserve. We support this and urge you to do so quickly.

On behalf of our members, I want to thank you for your consideration of our concerns.

Sincerely,

Robert A. Hirsch
President

cc: Bill Richardson, U.S. Secretary of Energy
Walter B. McCormick, Jr., president & CEO, American Trucking Associations, Inc.

NEWS RELEASE

AMERICAN TRUCKING ASSOCIATIONS
2200 Mill Road • Alexandria, VA • 22314-4677
Office of Strategic Communications • 703.838.1873 • FAX 703.684.4326

FOR IMMEDIATE RELEASE
Friday, September 22, 2000

Contact: Tom Amontree
(703) 838-1945

Statement of Walter B. McCormick, Jr.
President & CEO of the American Trucking Associations
On the Decision to Open the Strategic Petroleum Reserve

"The President did the right thing opening the Strategic Petroleum Reserve. It is a bold move to protect the interests of the United States and this historic economic expansion. The American Trucking Associations and our motor carriers and those in Congress that support the trucking industry, have been strong advocates of this action. Opening the reserve is the best way to increase supply and drive down high and rising diesel fuel prices. It also sends a strong message to OPEC nations that the U.S. will do what it takes to protect our economy and the people who move it.

"This action protects a vital U.S. industry at a critical time. While many in the trucking industry survive on profit margins of less than three percent, the cost of diesel fuel has increased by 73 percent over the past 18 months. In this time, more than 1,300 small trucking companies have filed for bankruptcy, and up to 35,000 owner-operators have had to sell their rigs because they can no longer afford to pay for fuel.

"The situation is critical not only for the trucking industry, but also for the economy as a whole. Our industry represents more than 87 percent of the freight transportation market. Any threat to our ability to deliver the goods threatens the foundation of today's strong U.S. economy. This action makes a strong stand for the interests of all Americans by helping the trucking industry continue to do its part to keep the economy moving and growing strong."

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PRAGUE, Sept 23 (Reuters) - Following is the statement of G-7 Finance Ministers and Central Bank Governors September 23, 2000 Prague:

1. We, the Finance Ministers of the G-7 countries, including the President of the Eurogroup, the Central Bank Governors of Canada, Japan, the United States, and the United Kingdom and the President of the European Central Bank, met today with the Managing Director of the International Monetary Fund to review recent developments in the world economy. We, the Finance Ministers and Central Bank Governors of the G 7 countries together with the Managing Director of the International Monetary Fund and the President of the World Bank, discussed reform of the international financial institutions. We, the Finance Ministers and Central Bank Governors of the G7 countries also discussed implementation issues of the enhanced HIPC initiative, and abuse of the global financial system.

Developments in the G7 countries

2. Prospects for continued expansion in industrialized countries and the world economy more generally have further improved in recent months as underlying fundamentals have strengthened. A more balanced and therefore more sustainable pattern of growth among our economies is emerging. Continued vigilance, however, remains important and we re- affirmed our commitment to macroeconomic and structural policies directed at improving conditions for strong and sustainable growth in each of our economies. More specifically: In the United States and Canada, growth remains strong, unemployment low and inflation contained. For a sustainable rate of growth to be maintained, fiscal policies and monetary policy should continue to be prudent, and in the United States, national savings should increase. In the United Kingdom growth is strong, employment is rising and inflation remains low. Monetary policy, supported by fiscal policy, should continue to be aimed at meeting the inflation target, while sustaining growth and employment. In the Euro area as well, growth is strong and inflation remains low. Continuation of sound macroeconomic policies and intensification of structural reforms with a view to raising private investment and increasing productive potential are important. In Japan there are signs of a recovery. Still, macroeconomic policies should remain supportive to ensure a self-sustaining, domestic demand-led recovery. Structural reforms in the financial and

Oil Prices

3. We are concerned about the adverse effects on the world economy of the recent sharp increase in the world oil price. It is important that world oil prices return to a level consistent with lasting global economic prosperity and stability for both oil producing and consuming countries, and in particular for the poor developing countries. In light of continuing high prices and low levels of stocks it is crucial for the world economy that OPEC and other oil producing countries take actions to contribute to a reduction in oil prices and greater stability in

oil markets. Improved efficiency in the use of energy in all economies would contribute to that objective. We welcome the U.S. action to release a limited quantity of its oil reserves in the form of swap transactions. We agreed to remain in close contact and to continue our discussions with oil producing and consuming countries as we evaluate measures appropriate to the evolving situation in oil and product markets.

Exchange Rates
4. We discussed developments in our exchange and financial markets. We have a shared interest in a strong and stable international monetary system. At the initiative of the European Central Bank, the monetary authorities of the United States, Japan, United Kingdom, and Canada joined with the European Central Bank on Friday, September 22, in concerted intervention in exchange markets, because of the shared concern of Finance Ministers and Governors about the potential implications of recent movements in the euro for the world economy. In light of recent developments, we will continue to monitor developments closely and to cooperate in exchange markets as appropriate.

Emerging Market Economies
5. Recovery in emerging market economies is well under way. Macroeconomic fundamentals have generally strengthened and market sentiment remains positive. Policies in these countries must be directed at deepening economic reforms, in particular by improving underlying fiscal positions and debt structures and by strengthening the financial sector. Countries should, however, maintain the momentum for reform and address real and potential underlying vulnerabilities. We stress in particular the need for further progress in corporate and financial restructuring in many Asian countries and the need for policies aimed at reducing vulnerabilities in many Latin American countries.

AP J4365 ri ----- Latin American Briefs,0193

Eds: Includes items from Venezuela, Brazil and Guatemala
By The Associated Press

CARACAS, Venezuela (AP) - The president of the Organization of Petroleum Exporting Countries said Saturday he expects the Clinton Administration's decision to release oil from America's strategic stockpile to provoke a sharp decline in oil prices next week.

Ali Rodriguez, who is also Venezuela's oil minister, called the move "positive," saying it would help counter speculation, which he says adds dlrs 4 to dlrs 8 to the price of oil. He did not say by how much he expected prices to fall.

U.S. President Bill Clinton directed the release of 30 million barrels of oil from the U.S. government's Strategic Petroleum Reserves on Friday. His top energy adviser cited a looming home heating crisis.

Rodriguez said the Venezuelan government accepted U.S. Energy Secretary Bill Richardson's assurances that the decision was not an attempt to rattle the oil market but was a response to domestic concerns.

سفارة المملكة العربية السعودية
في واشنطن

ROYAL EMBASSY OF SAUDI ARABIA
601 NEW HAMPSHIRE AVENUE, N. W.
WASHINGTON, D. C. 20037

September 23, 2000

PRESS RELEASE

Saudi Ambassador reacts to the use of the SPR

HRH Prince Bandar bin Sultan, when asked about the U.S. decision to release oil from the Strategic Petroleum Reserve, stated the following:

"This issue was addressed by our Minister of Petroleum a few days ago. I would like to repeat that this is an internal decision by the U.S. that does not concern Saudi Arabia. If the decision to use the SPR will help stabilize the oil markets within the price range of $ 22 – 28 per barrel, which would help both consumers and producers, we believe it would be a positive move."

END

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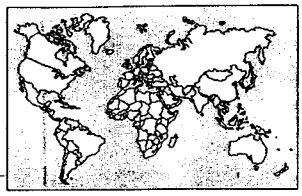
NEWS *FROM THE*

House International

Relations Committee

Benjamin A. Gilman, Chairman



DATE: September 22, 2000
FOR RELEASE: Immediate

Contact: Lester Munson, Communications Director (202)225-5021

GILMAN STATEMENT ON PARTIAL RELEASE OF STRATEGIC PETROLEUM RESERVE

WASHINGTON (September 22) – U.S. Rep. Benjamin A. Gilman (20th-NY), Chairman of the House International Relations Committee, released the following statement today:

"We welcome the president's announcement today that he will release 30 million barrels of oil from the strategic petroleum reserve to help replenish the low reserves of home heating oil in the Northeast.

"While this release will help somewhat today, additional action will be needed for relief tomorrow, particularly for the people of the Northeast.

"Unless this release is followed up by additional production increases by leading OPEC nations, particularly Saudi Arabia, its impact will be quickly dissipated. We must have immediate tangible action from OPEC to back up their commitments to us and other consumer nations to bring the price of oil back below $25 per barrel."

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Congress of the United States
Washington, DC 20515

September 19, 2000

The Honorable William Jefferson Clinton
President of the United States
The White House
1600 Pennsylvania Avenue, NW
Washington, DC 20500

Dear Mr. President:

We write to urge you to take immediate action to address this winter's expected energy crisis. While we hope that the Northeast Home Heating Oil Reserve will be up and running this winter, we believe that additional steps must be taken.

Unless averted, this winter's expected crisis could have a disastrous impact on the American people -- especially the elderly, working families, family farmers, small businesses, the disabled and the poor.

Let us briefly outline some of the concerns that we have and some of the proposals we believe would significantly aid energy consumers:

Heating oil price spikes last winter caused significant financial hardship for millions of low and moderate income Americans. With heating oil inventories at historically low levels, severe price spikes are expected again this winter. In fact, home heating oil prices have already started to rise and could end up substantially higher than last year.

Over the past year, natural gas prices have increased by 40-50%. With low storage levels, increased use of natural gas for electric generation, and higher industrial use, we can only expect higher prices.

Gasoline prices remain high. The price run-up earlier this year, which was particularly severe in the Mid-West, showed how dependent we remain on foreign oil. Today we are importing significantly more oil than we did during the energy crisis in the 1970s.

In the West, Mid-West, Northeast and Mid-Atlantic electricity generation capacity margins are dangerously tight. Recently, we have experienced significant electric rate increases in a number of areas including California, New York and parts of Montana. Rolling brownouts, blackouts and poor power quality can result from an over burdened system forced to supply electricity for peak loads.

With domestic crude oil stocks at a 24-year low -- 30 million barrels below last year -- significant increases in prices are taking place in propane, kerosene and other forms of heating fuels.

To respond to this crisis we request that you undertake the following courses of action:

We ask that you immediately swap crude oil from the Strategic Petroleum Reserve (SPR) with the oil industry. The SPR currently contains 576 million barrels of crude oil. Investment

experts in the petroleum market believe that just a small release of oil from the reserve could immediately stabilize prices and convince OPEC ministers to increase production by a modest amount.

We also urge you to demand that OPEC and other major foreign suppliers increase their production of both crude oil and home heating oil exported to the United States in order to address this problem. Last March, OPEC agreed to produce enough oil to ensure that prices do not rise above $28 per barrel. While OPEC has recently agreed to raise the production of oil by three percent, most analysts believe that it is not likely to make much of a difference. Clearly, OPEC is not living up to this commitment.

Finally, we request that you immediately release $400 million in emergency Low Income Home Energy Assistance Program (LIHEAP) funding. Currently, two-thirds of LIHEAP households have incomes of less than $8,000 per year and even with the assistance, the average LIHEAP family spends over 18 percent of its income on home energy costs -- compared with 6.7 percent for all households. In the United States of America, low-income senior citizens and children should not be forced to go cold in the winter.

Timing is critical. Upon release of emergency funding last year, it took two to four weeks, depending on the state, for low-income households to actually receive the funds. In order to avoid similar delays this winter, in which the situation may be as bad or worse, we need to make LIHEAP funding available now. Currently, state LIHEAP programs are organizing their plans for the coming months. Some states have expressed interest in using an early funding release for fuel pre-contracting before prices rise higher this winter. We applaud such foresight and would like to assist these efforts. We recognize that other states may not be prepared to take such measures and ask that you permit states to carry forward these contingency funds into the next fiscal year.

We thank you in advance for your attention to these matters. We also request a meeting with you at your earliest convenience to discuss this vitally important situation. Clearly, if we are going to prevent severe economic hardship for millions of Americans, we must act expeditiously.

Sincerely,

Bernard Sanders

Jack Quinn

Sherwood Boehlert

John Joseph Moakley

John McHugh

Dennis Kucinich

Ron Kind

Robert Ney

Marcy Kaptur

Rosa DeLauro

William Coyne

Benjamin Gilman

Richard Neal

Jerry Costello

Bob Filner

Tony Hall

Robert Weygand

Sam Gejdenson

James Oberstar

James Walsh

Carolyn McCarthy

David Phelps

Dale Kildee

James Moran

John Olver

Robert Borski

Martin Meehan

Sherrod Brown

Frank Pallone, Jr.

Danny Davis

Barney Frank

William Delahunt

Eva Clayton

Robert Andrews

John Tierney

Carolyn Maloney

Robert Brady

Bill Pascrell, Jr.

Michael Forbes

John Baldacci

Ted Strickland

Stephanie Tubbs Jones

James McGovern

Eliot Engel

Constance Morella

Tim Holden

Peter Visclosky

Albert Russell Wynn

John Murtha

Maurice Hinchey

Lane Evans

Joseph Crowley

Barbara Lee

James Maloney

Edward Markey

David Minge

Mark Udall

Frank Mascara

Bart Stupak

Patrick Kennedy

Chaka Fattah

Wayne Gilchrest

James Traficant

William Clay

John Larson

Gerald Kleczka

John Conyers, Jr.

Chris Smith

Marge Roukema

Michael Capuano

Jim Saxton

Lynn Rivers

Thomas Barrett

William Lipinski

Nydia Velazquez

Phil English

Michael McNulty

Jerrold Nadler

Rush Holt

Juanita Millender-McDonald

Robert Menendez

Gregory Meeks

Donald Payne

Steven Rothman

Patsy Mink

Charles Bass

Steny Hoyer

Rick Lazio

Tom Sawyer

Paul Kanjorski

Anthony Weiner

Martin Frost

Thomas Allen

Tom Lantos

Sue Kelly

James Greenwood

James Barcia

Ron Klink

Peter King

Robert Wise

Louise Slaughter

Rod Blagojevich

John LaFalce

Nancy Johnson

Jose Serrano

Nita Lowey

John Sweeney

Tammy Baldwin

Chris Shays

Bobby Rush

Neil Abercrombie

Jan Schakowsky

Julia Carson

Mr. MONIZ. Let me turn then very briefly to longer-term issues.

Mr. BARTON. Briefly. You have about 22 seconds. So I will give you a little more time than that.

Mr. MONIZ. Thank you.

A strategically focused national energy policy integrated with economic, environmental, security and technology policies is certainly critical to the well-being of Americans, our economy and our way of life. Building on the administration's energy policy documents of 1995 and 1998, Secretary Richardson today is issuing a report, Following the New Economy: Energy Accomplishments, Investments and Challenges. It reiterates—and I want to stress, it reiterates the bipartisan, core principles of U.S. energy policy: reliance on competitive markets as the first principle of energy policy; support for energy science and technology; promotion of government, industry, consumer partnerships; the use of targeted incentives in regulations; and facilitation of international cooperation.

Powering the New Economy, this volume coming out today, sets forth many energy accomplishments and investments made within that policy framework and continuing preeminent challenges identified in the 1998 comprehensive national energy strategy. Of particular relevance to today's hearing are the challenge of enhancing America's energy security, a key issue being that of increasing oil supply in an environmentally responsible fashion, and very importantly, reducing oil demand through advanced technology development and the challenge of increasing the competitiveness and reliability of U.S. energy systems, particularly the electricity natural gas intergrid.

The report lists many of the administration's actions in this area in place: a proposal to Congress promoting energy efficiency in vehicles to reduce demand; increasing domestic oil production, and I would note in Alaska, for example—of course, last year we opened up NPRA, which will have approximately—at least 2 billion barrels of economically viable oil; international investments; meeting increased refining and production capacity; the home heating oil reserve, LIHEAP; SPR management; infrastructure initiatives to meet technology needs of the electricity and natural gas intergrid; many more that I will leave you to read in the document.

Mr. BARTON. You really need to wrap up, Mr. Moniz.

Mr. MONIZ. Okay. And I will, Mr. Chairman, just say that the economic policies of the administration have helped ensure the Nation's successful transition from the 20th to the 21st century, from the Industrial to the Information Age. We also have significant challenges ahead as our 20th century energy infrastructures seek to keep pace with our 21st century energy needs and demands.

We are proud of our energy accomplishments and look forward to working with industry, consumers, workers, environmentalists, the Congress, State and local governments, to meet the energy challenges of the next century.

Thank you, Mr. Chairman, and I will be happy to answer questions.

[The prepared statement of Hon. Ernest J. Moniz follows:]

PREPARED STATEMENT OF ERNEST J. MONIZ, UNDER SECRETARY, ENERGY, SCIENCE AND ENVIRONMENT, U.S. DEPARTMENT OF ENERGY

Mr. Chairman, over the past year we have seen considerable volatility in our energy markets. We have endured supply problems and price increases in heating oil and diesel fuel, gasoline, natural gas, and electricity. The year has not seen a season go by without a new energy challenge. Every region of the country has experienced significant price increases for petroleum products and, more recently, natural gas, and several specific regions have suffered through more dramatic spikes in prices for specific fuels or electricity.

Many factors have contributed to these energy price increases and supply problems, but one of the most important is the dramatic economic growth experienced by the United States and much of the world in recent years. This growth has spurred increasing demand for energy, which came on the heels of severely low oil prices that had discouraged new exploration, production and development of oil worldwide. This increasing demand for energy, along with the rebound of Asian economies, strained the capacity of energy suppliers to boost production and to maintain adequate inventories.

We are confident that market forces, given sufficient time, will respond by adding new production capacity and rebuilding inventories, and reliance on competitive market forces remains the "first principle" of our energy policy. But this response could have come too late to avoid significant oil supply problems this winter. To help minimize the adverse effects of these supply shortfalls on users of petroleum products, the President has directed the Department of Energy to release 30 million barrels of oil from the Strategic Petroleum Reserve over a period of 30 days, in exchange for larger amounts of oil when prices fall next spring. The President has also directed the Department of Health and Human Services to release $400 million in Low Income Home Energy Assistance Program (LIHEAP) emergency funds to all States to assist low income households facing significant increases for heating oil, natural gas and propane. Finally, the President has directed DOE, the Environmental Protection agency and other Federal agencies to take a number of other actions to help mitigate the adverse impacts these supply shortages and higher energy prices could have on all consumers this winter.

While actions to address these immediate problems are important, we must maintain our focus on the long term health of the U.S. energy sector, economy and environment. It is this longer view that has enabled energy supplies to keep pace with demand and produced positive results for the economy, for the environment, for energy efficiency, and for consumers:

- From 1990 to 1999, the economy grew by 32 percent after inflation and real disposable income grew by 28 percent.
- During this same period, electricity generation increased 22 percent, but emissions of criteria pollutants declined. And
- Total energy consumption increased 14 percent while the economy's energy intensity has declined by 12 percent since 1992.

To fuel the economic growth of the last decade, domestic production and generation of natural gas, coal, nuclear, renewables and hydroelectric power have increased. Domestic oil production is the only exception, although U.S. production declines are expected to flatten out by 2005, ending many decades of decline. Also, over the last several years, the *rate of decline* in domestic oil production has been reduced significantly.

While declining U.S. oil production and increasing demand have meant increasing oil imports, these imports are now coming from more diverse and secure sources. The Western Hemisphere now supplies over 50 percent of our imported oil, roughly double its share in 1980. In addition, we have diversified our sources of oil imports to the point where we are currently supplied by over forty oil-producing nations. If we include domestic oil production, three quarters of our oil is supplied from the Americas.

Yes, there has been increased volatility in oil, gasoline, natural gas and electricity prices during the last eight months, but over the years—while the demand for energy has grown—real energy prices have come down, even when the recent price increases are taken into account. In real terms, residential prices for both electricity and natural gas today are about 25 percent lower than their peaks in the early 1980s. Similarly, most consumers are now paying about 35 percent less for gasoline, after adjusting for inflation, than in 1980. And today's lower energy costs are being paid by consumers whose earning power has, typically, increased sharply during the 1990's.

These are substantive and tangible results. While recent price volatility imposes hardships on many citizens and businesses and presents an important challenge,

this Administration's policies overall have helped generate unprecedented economic growth . . . met increased demand for energy from all sources . . . diversified our sources of energy supply . . . decreased energy intensity . . . and, even with increased energy use, held steady or significantly reduced the release of major air pollutants.

To fuel the unprecedented economic growth seen during the Clinton/Gore Administration, the nation's energy resources have expanded to meet ever-growing demand. At the same time, we have met the environmental imperatives associated with increased energy production and use. This progress has been achieved through a sustained, bipartisan commitment to these core principles:

- A reliance on competitive markets,
- Support for energy science and technology,
- Promotion of government/industry/consumer partnerships,
- Use of targeted incentives and regulations, and
- Facilitation of international cooperation.

Using these principles, the Administration has achieved many significant energy accomplishments. Just to name a few:

We are promoting efficient energy use in homes, buildings, and vehicles to reduce the nation's energy bills and reduce our reliance on imported oil. We've increased the production of new sources of oil and gas supply through technology advances and we are encouraging greater public/private partnerships to develop oil and gas resources. We've also lowered the costs of domestic oil and gas exploration through technology advances. We've encouraged international cooperation on oil and gas issues and investments in oil and gas infrastructures and production at home and abroad and we increased the size and security of our "national oil insurance policy," the Strategic Petroleum Reserve.

On the environmental side, we've improved the environmental performance of coal and we are economically generating more power from renewable energy sources to provide clean, abundant fuel for the future and reduce our reliance on imported and diminishing fossil fuel resources.

We do, however, recognize that the current volatility of petroleum, natural gas and, in some regions, electricity prices, coupled with sustained economic growth, is straining consumer confidence, energy production and energy infrastructures. These strains will present several preeminent energy challenges for the first few years of the 21st century.

OIL AND GAS

Let me begin by talking about the challenges now facing the oil and gas sectors, and our responses to these challenges.

Our oil and gas markets over the past year have been volatile. As you know, as part of the Administration's efforts to address market imbalances—while holding to our core principle of free market—we've talked extensively with oil producing nations. Secretary Richardson has also initiated efforts to reduce volatility in world oil markets through international cooperation and better oil market data. OPEC and other producers have heard our concerns and have boosted their output three times, with the most recent increases to come on-line in October.

Our latest data show that there are about 3.5 million barrels-per-day more oil on the market than at this time last year. That is a significant addition to the world market. And according to the Energy Department's Energy Information Administration, the latest addition of 800,000 barrels-per-day—along with boosted production from non-OPEC producers—should enable the oil industry to finally begin rebuilding global stocks.

I say "finally" because, while more oil has come onto the markets over the past year, demand has grown much faster than anticipated, increasing by 14 percent over the past few years. And as demand has absorbed additional supply from the market, the oil industry has been unable to aggressively refurbish stocks. This has resulted in a number of price increases across the range of petroleum products. We are seeing this at the gas pump, where drivers are paying an average of about $1.55 per gallon—up over 40 cents from last year, but down over 10 cents from this past Spring.

With heating oil inventories already at levels far lower than usual for this time of year—on the East Coast, oil inventories are 40 percent less than last year and in New England that figure is closer to 65 percent—we are facing the potential of a winter of oil supply shortfalls and another round of price increases for all petroleum products.

To ensure that Americans have the fuel they need to heat their homes, President Clinton directed the Department of Energy to use the Strategic Petroleum Reserve to help bolster domestic oil supplies through an exchange program.

The Department of Energy will exchange crude oil from the Reserve. Companies that obtain oil will be required to return comparable or higher quality crude oil to the Reserve in the fall of 2001. Because oil prices are expected to be lower then, the companies will return the amount they obtained plus additional quantities as a bonus percentage that will be specified in the offers. This ultimately will increase the amount of oil in the Reserve and enhance the nation's "insurance" against future energy supply disruptions.

The President made the decision to carry out the oil exchange because of concerns that lagging petroleum product inventories could create potentially severe hardships for many American families this winter.

Similarly, natural gas prices this winter are predicted to be much higher than last winter. Why? Because natural gas production has been relatively flat for several years, demand has been increasing, prices are high for competitor fuels, and working storage is low.

With consumers expected to pay significantly higher prices for fuel oil, propane and natural gas this winter, the impact on low income households is likely to be particularly severe.

To help lessen this impact the President directed the largest release in LIHEAP emergency funds ever. This early action will enable States to take steps now to help low-income households cope with high fuel prices this coming winter.

The President has also asked Federal agencies to fill their heating oil tanks now in order to avoid contributing to increased demand in the middle of winter and DOE will encourage State and local governments to take similar actions. DOE will also be working with state utility commissions to encourage factories and businesses with interruptible gas contracts to act now to ensure they have adequate back up supplies of oil. The Environmental Protection Agency will be encouraging states to consider temporary adjustments in their sulfur content restrictions on home heating oil in order to make it easier to build heating oil inventories this winter. The Administration has addressed the issue of supply through increased Coast Guard support for tanker movements during the freezing weather, and Small Business loans for distributors and other small businesses impacted by high prices. DOE will continue to meet with representatives of the energy industry to encourage their cooperation with Federal efforts to assure that adequate supplies of affordable energy are available this winter.

Recognizing the growing demand for natural gas in the United States, particularly for power generation, the National Petroleum Council was asked to undertake a comprehensive study of the capability of industry to meet potentially significant increases in future natural gas demand. The resulting December 1999 study, "*Natural Gas, Meeting the Challenges of the Nation's Growing Natural Gas Demand*," listed seven major recommendations. Acting on these recommendations, the Administration established an Interagency Task Force on Natural Gas to review and implement certain recommendations of the National Petroleum Council on natural gas supply and infrastructure needs.

Finally, the President has renewed his call for Congress to authorize permanently a home heating oil reserve with an appropriate trigger and to enact his energy tax package and budget initiatives. These steps would increase the number of homes occupied by low-income families that can be weatherized, help families and businesses buy fuel-saving cars, energy efficient homes and appliances, and would accelerate the development of cleaner, more efficient energy technology.

Adequate budget resources will enable the Administration to continue its efforts to enhance energy security by improving the efficiency of motor vehicles and other end-use technologies, substituting alternative fuels, especially in the transportation sector, and by increasing and diversifying oil supplies, both domestically and internationally.

ELECTRICITY

The electricity sector has not been immune from supply constraints and price volatility this year.

And, as with oil and natural gas, there are many reasons why California and other regions have experienced short term capacity shortfalls that have produced unusual spikes in electricity prices.

The patchwork of state-by-state actions to increase competition in the electric sector has created significant uncertainty in electricity markets—transmission markets are becoming increasingly regionalized, and market requirements that change at each state border are discouraging the investments we need to modernize and expand the nation's power grid.

Plus, today's electricity infrastructure is being asked to operate in ways for which it was not designed, with every-growing demands for improved service and increased load. The digital "New Economy" is placing unprecedented reliability and power quality demands on the system. Power outages have already cost the U.S. billions over the past few years, and in the growing competitive environment of state-by-state restructuring, owners of transmission lines are increasingly focused on the bottom line—with far fewer incentives to comply with voluntary reliability standards or invest in system upgrades. The Administration anticipated these changes and introduced comprehensive electricity restructuring legislation over two years ago, but the Congress has failed to enact it.

These uncertainties and the consequent inability of the industry to build the infrastructure needed to keep pace with demand, have translated into new, real, and growing problems. Generating capacity reserve margins have tightened. The construction of new major transmission facilities has virtually stopped. During this and recent summers, some regions of the country experienced major problems—as the heat rose, demand for electricity increased and, in at least one instance, the lights went out. In others, elected officials and utility executives made urgent public appeals for conservation to avoid the major rolling blackouts that could result from inadequate reserves caused by shortfalls in supply or unavailable transmission capacity due to aging distribution facilities. In addition, we are all aware of the price spikes that have occurred in electricity markets in California, the Pacific Northwest and parts of New York. Consumers in San Diego witnessed an increase of more than 100 percent in their electric bills this summer.

Without Federal action, state restructuring programs cannot reach their full potential—and in the end, it will be electricity consumers that lose out. This is why the Clinton/Gore Administration proposed comprehensive legislation, which has languished on the Hill since 1998. Basic features of this legislation would:

- Clarify key authorities for Federal and State agencies with respect to governance of the new electricity industry;
- Establish clear Federal policy support for retail and wholesale competition;
- Maximize consumer benefits through mechanisms and authorities to ensure true competition, including clear labeling for informed choices;
- Support for public benefits such as low income assistance, energy efficiency, renewable energy
- Reduce emissions through competition, which encourages efficiency, green power and innovative services;
- Provide incentives for distributed generation;
- Strengthen system reliability while relying on traditions of industry self-regulation.

The electricity infrastructure in the United States currently delivers over $200 billion worth of electric services every year, and the industry has a book value of over $700 billion—we cannot neglect the engine that powers our economy. Electricity markets are crying out for the certainty needed to make essential investments in generation, transmission and distribution infrastructure.

The Federal government needs to send out the right signals—to establish the "rules of the road" and develop a comprehensive roadmap so that consumers, businesses and the environment will all benefit from the promise of electricity competition.

It is important that we act . . . we act wisely . . . and we act soon. The Clinton/Gore Administration stands ready—and has been ready over the last three sessions of Congress—to work with Congressional lawmakers to deliver on the promise of competition by passing comprehensive federal electricity legislation.

Mr. Chairman, as in our oil markets, unparalleled economic growth has spawned burgeoning demand that is outstripping supply. Enactment of Federal electricity restructuring legislation, as proposed by the Administration will increase available power supplies and promote investment in the nation's transmission grid. It will also provide mechanisms for consumers to reduce their electricity consumption. These factors will help stabilize electricity markets and reduce customers' bills, and would go a long way towards resolving this problem.

In addition to this Administration's unwavering support for restructuring legislation, we proposed a significant energy infrastructure initiative to meet the technology needs of the 21st century; formed a Power Outage Study Team to examine the reliability problems of last summer and make recommendations to prevent future power supply problems; hosted eleven regional electricity reliability summits to find ways to improve the reliability of our electric power supply; and created an Office of Energy Emergencies to anticipate, mitigate, and respond to the range of energy emergencies needs including electricity, natural gas and heating oil problems.

Just recently, we worked with the General Services Administration to develop a plan for Federal agencies to reduce electricity consumption during power supply emergencies. This summer, when California was experiencing its problems, the President directed all Federal agencies to reduce consumption during peak hours. And the President directed the Power Marketing Administrations and the Army Corps of Engineers and the Bureau of Reclamation, which operate Federal dams, to provide as much power as possible to California this summer within the constraints of the law.

Secretary Richardson wrote FERC Chairman Hoecker to request him to speed-up the Commission's investigation of California's electricity markets.

And the President released $2.6 million dollars in emergency Low Income Home Energy Assistance Program funding and requested the Small Business Administration to help San Diego residents and businesses impacted by the increase in electricity rates.

NATIONAL ENERGY POLICY FOR THE LONG TERM

While it is urgent that we take the actions I have just described to address the immediate problems facing the energy sector, we must also continue to address the sector's longer term challenges.

Challenge #1: Enhancing America's Energy Security

Our transportation sector is 97 percent reliant on liquid fuels, and economic growth has left world oil capacity only a few percentage points greater than world oil demand. While I have already summarized our actions to address the many short term problems facing the oil and natural sectors, we also have a strategy for the long term. To meet the mid to long term challenges, the Administration is developing ways to:

- Reduce overall demand for oil in transportation, industry, buildings and power generation, especially through increased efficiency in use;
- Increase domestic oil production through tax incentives and technology investments;
- Promote international investment in developing the world's oil resources; and
- Meet the need for increased production capacity.

Challenge #2: Increasing the Competitiveness and Reliability of U.S. Energy Systems

Electricity is increasingly the energy form of choice for myriad applications at home and at work. At the same time, the network of generation, transmission, and distribution facilities of electricity and the natural gas transportation system we use to fuel it, are strained by the increased demand for electricity and electricity services. Electric sector restructuring and improved reliability are needed in the short term. To address the longer term challenges of this sector, the Administration has:

- Proposed a significant energy infrastructure initiative to meet the technology needs of the 21st century electricity/natural gas "intergrid";
- Proposed ways to eliminate key barriers to distributed generation, paving the way for the entry of these new technologies and systems into electricity markets.

Challenge #3: Mitigating the Environmental Impacts of Energy Production and Use

Americans place high value on environmental stewardship, and expanding energy use challenges our ability to protect the environment. The Administration has consistently advanced environmental goals through technology development, incentives, and regulation. Many of the accomplishments and investments discussed earlier, such as those dealing with end-use efficiency in the transportation, industrial and building sectors, directly provide environmental benefits. Other specific actions aimed at 21st century environmental challenges include:

- Mitigating global climate change through domestic and international cooperation;
- Addressing global climate change through research and development;
- Promoting environmental protection through tax incentives and investments in energy efficiency, renewable energy;
- Promoting cleaner fuels;
- Supporting a vigorous program for solar, wind, and other renewable energy sources focused on R&D, pilot projects, and other initiatives;
- Advancing clean energy through a new International Clean Energy Initiative;
- Creating DOE's 15th national laboratory, the National Energy Technology Laboratory, to focus on technologies to meet the Nation's energy needs for fossil fuel use in environmentally sound ways;
- Enhancing carbon capture and sequestration programs.

Challenge #4: Providing Diverse Energy Technologies for the Future

Today's technology investments are essential to meet tomorrow's energy needs. The pace of energy research and development needs to increase in line with the Administration's proposals submitted to the Congress over the last several years. The cumulative effect of lower appropriations levels will be felt in the years ahead. The Department of Energy has developed a comprehensive energy R&D portfolio analysis process, working with the private sector and the academic and scientific communities, to ensure that:

- Our energy investments reflect the Administration's strategic energy goals;
- DOE's energy research and development portfolio addresses emerging energy challenges; and
- DOE's energy R&D budget requests reflect energy priorities and the investment levels necessary to meet our future energy needs.

The energy policies of this Administration have helped ensure the nation's successful transition from the 20th to the 21st century—from the Industrial to the Information Age. We also have significant challenges ahead of us as our 20th century energy infrastructures seek to keep pace with 21st century energy needs and demand. We are proud of our energy accomplishments and look forward to working with industry, consumers, workers, environmentalists, the Congress, and state and local governments to meet the energy challenges of the new century.

Mr. BARTON. Thank you, sir.

We would now like to hear from the distinguished chairman of Federal Energy Regulatory Commission, the Honorable James Hoecker.

We will recognize you for 8 minutes also, Mr. Chairman.

Mr. HOECKER. It won't take me that long, Mr. Chairman.

Mr. BARTON. Good.

STATEMENT OF HON. JAMES J. HOECKER

Mr. HOECKER. Chairman Barton and members of the subcommittee, I am very pleased to be here today to testify about the current domestic natural gas market, especially the deliverability problems that have raised prices for American natural gas consumers.

The prospect of higher prices this winter for natural gas is a matter of serious concern for businesses and consumers. I would not minimize the consequences for our citizens of today's price and deliverability issues, especially if our winter weather is extreme. But having said that, I want to express that regulatory and other public policy responses to this situation should be measured and balanced, in recognition of the fact that the fundamental structure of interstate natural gas markets is sound, in my estimation, and permit me to make three points in that regard.

First, the Commission plays a key, but limited, role in U.S. natural gas markets, authorizing the construction of pipeline transmission and storage facilities that are needed to bring natural gas to the consuming public and regulating the rates for transportation and storage services.

We have lacked jurisdiction over natural gas well-head prices since the late 1980's and we have never had authority over State-regulated local distribution or the retail sales of natural gas.

But within its jurisdiction, the Commission is working hard to ensure that there is adequate pipeline infrastructure available at fair prices to serve the quickly growing demand for natural gas.

The commission, while fulfilling its commitment to ensure that project development is environmentally responsible, has nonethe-

less authorized 6,000 miles of major pipeline facilities just since 1997.

My prepared testimony shows that we are discharging our responsibilities more efficiently now than ever.

Second, policy decisions by Congress and the Commission have created a transportation platform for a well-functioning commodity market for natural gas. Since the 1980's, this market has produced significant benefits for consumers in terms of availability of supply and reduction in price. Some of those benefits have come at the cost of a severe downturn in exploration and development, and that was the result of a collapse of natural gas prices 2 to 3 years ago.

In response to the turnaround in prices recently, however, gas producers have responded by significantly increasing their level of drilling activity. I believe that this is evidence of a functioning market which transmits appropriate price signals across the interstate delivery network.

And third, there are indeed many long-term solutions responding to the dramatic increase in energy demand. They include energy efficiency, delivery to the lower 48 of Alaskan natural gas, improved energy technologies, diverse supply portfolios, and better and more efficient electric power markets.

But I would say that supply and demand curves and long-term forecasts don't heat people's houses and don't cook their food. So notwithstanding the fundamentally sound market approach to natural gas commodity pricing that we have, policymakers and market participants must acknowledge and respond to the consumer distress that can result from volatile natural gas prices, and they have to use the tools available to them to mitigate potential distress.

Those tools include, first, use of long-term contracts and hedging techniques by local distribution companies to ameliorate the effects of price volatility; Second, employment of rate design and stabilization tools by State regulators, and oversight of LDC gas purchasing practices; Third, giving retail customers the ability to choose which suppliers and services available in the market they want and enabling them to determine their individual tolerance for price risk; and, Fourth, Federal and State government support for programs such as weatherization and LIHEAP to assist the most vulnerable energy customers.

The FERC is committed to doing its part to make natural gas markets work for American consumers by working for responsible development of the pipeline infrastructure needed to support the expected historic growth in natural gas demand.

I want to thank the committee and I will be happy to answer questions.

[The prepared statement of Hon. James J. Hoecker follows:]

PREPARED STATEMENT OF HON. JAMES J. HOECKER, CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION

Mr. Chairman and Members of the Subcommittee: Good morning. I am James Hoecker, Chairman of the Federal Energy Regulatory Commission (Commission). Thank you for inviting me to participate in today's hearing about current American natural gas and heating oil markets.

As you know, the wellhead price of natural gas has doubled in the past year and will affect the price to end-users this winter. This price increase has led to questions about what the Commission and others can and should do in response. I would like to stress three basic points.

First, the Commission plays a key, but limited, role in U.S. natural gas markets, authorizing the construction of pipeline transmission and storage facilities that are needed to bring natural gas to the consuming public and regulating the rates for transportation and storage services. We do not have jurisdiction over natural gas production or the price of natural gas at the wellhead or over local distribution or retail sales of natural gas. Within its jurisdiction, the Commission is working to ensure that there is adequate pipeline infrastructure available at fair rates to serve the quickly growing demand for natural gas.

Second, policy decisions by the Congress and the Commission have created a well-functioning commodity market for natural gas. Since the 1980s, this market has produced significant benefits for consumers in terms of availability of supply and reductions of price. Gas producers have responded to the recent price increases by significantly increasing the level of drilling activity. I believe that this is evidence of a functioning market which transmits appropriate signals across interstate delivery systems.

Third, notwithstanding the fundamentally sound market approach to natural gas commodity pricing, policymakers and market participants must acknowledge and respond to the consumer distress that can result from dramatic increases in natural gas prices, and use the tools available to each of them to mitigate that distress. These tools include: (1) use of long-term contracts and hedging techniques by local distribution companies to ameliorate the effect of spot price volatility; (2) employment of rate design and stabilization tools by state regulators, and oversight of LDC gas purchasing practices; (3) giving retail customers the ability to choose which supplies, and services available in the market they want, enabling them to determine their individual tolerance for price risk; and (4) Federal and State government support for programs such as weatherization and LIHEAP to assist the most vulnerable customers.

My testimony today will briefly describe the Commission's responsibility in regulating natural gas and current Commission policies governing the commodity market. After providing a quick overview of the state of wholesale natural gas markets, I will focus specifically on the Commission's pipeline certification activities and its efforts to facilitate authorization of pipeline capacity to meet growing demand and environmental and landowner concerns about new pipeline construction.

I. THE COMMISSION'S ROLE IN NATURAL GAS MARKETS

The Commission's role in the natural gas industry is largely defined by the Natural Gas Act of 1938 (NGA). Under the NGA, the Commission regulates the construction of new natural gas pipelines and related facilities and oversees the rates, terms and conditions of sales for resale and transportation of natural gas in interstate commerce. Regulation of retail sales and local distribution of natural gas are matters left to the States, as are the production and gathering of natural gas. The wellhead price of natural gas, which the Commission previously regulated, was gradually deregulated by Congress beginning with the Natural Gas Policy Act of 1978 (NGPA). All wellhead price controls on natural gas ended on January 1, 1993, pursuant to the Natural Gas Wellhead Decontrol Act of 1989 (Decontrol Act).

Natural gas pipeline siting and construction is authorized by the Commission if found to be required by the public convenience and necessity under section 7 of the NGA. Besides the NGA, the Commission's actions on pipeline projects typically include consideration of factors under the National Environmental Policy Act and often entail consideration of a wide variety of issues under the Endangered Species Act, the Fish and Wildlife Coordination Act, the Coastal Zone Management Act and other such natural and cultural resource protection laws. In addition, the Commission must take into account the concerns of affected landowners along the pipeline project's right-of-way. These environmental and landowner issues have become increasingly prominent in certificate proceedings in recent years, and the Commission has responded by adopting landowner notification rules and a new policy statement on evaluation of certificate applications in September of 1999.

II. POLICY FRAMEWORK FOR COMPETITIVE NATURAL GAS COMMODITY MARKETS

In 1978, the Congress began the process of decontrolling natural gas commodity prices with the Natural Gas Policy Act. In the face of a critical supply shortage, Congress opted to encourage market forces to play a more significant role in determining supply, demand, and price of natural gas.

In 1985, because the Commission believed that pipeline transportation problems were preventing consumers from seeing the benefits of wellhead decontrol, the Commission issued Order No. 436. This was the first order to institute open access and non-discriminatory transportation across a major energy delivery infrastructure.

Open access pipelines had to allow gas buyers to purchase gas directly from production area sellers and to obtain transportation services on the same non-discriminatory basis as the pipeline companies served themselves.

In 1989, the Congress enacted the Natural Gas Wellhead Decontrol Act, which ended all remaining wellhead price controls as of January 1, 1993.

In 1992, in Order No. 636, the Commission completed its open access transportation initiative by requiring interstate pipelines to exit the natural gas sales, or "merchant," business. This effectively separated the transportation of gas from the sale of gas and removed both the opportunity and incentive for pipelines to discriminate among shippers or sources of supply. The Commission also required pipelines to permit firm shippers to resell their unused pipeline capacity rights (called "capacity release"), creating a valuable and efficient secondary transportation market. More recently, in February of this year, the Commission issued Order No. 637 which, among other actions, waived the capacity release price cap for transactions of terms of less than one year. The information gained from this program should make market, and regulatory, responses even more effective.

III. STATE OF NATURAL GAS COMMODITY MARKETS

The pro-competitive policies pursued by Congress and the Commission have resulted in an integrated continental gas market that provides reliable service at efficient prices to consumers. As a result of the policies of the last 20 years, natural gas commodity markets today are competitive. There are about 8,000 producers operating over 300,000 wells in the United States. There is truly a continental natural gas market in North America. The North American Free Trade Act and complementary pro-competitive regulatory policies on both sides of the Canadian-U.S. border have lead to the integration of Canadian and U.S. natural gas markets and projections of an increasing contribution of Canadian gas to meeting U.S. market growth. In the current market, natural gas buyers are no longer limited to buying from one or two pipelines and instead have a wide range of supply options that can be reached through various pipeline transportation options, including capacity release or gas purchases at market hubs. In addition, an active financial market has developed to allow buyers and sellers of natural gas to hedge against future increases in natural gas prices.

This competition has produced substantial benefits for consumers. Inflation-adjusted delivered gas prices were substantially lower in 1999 than they were in 1984, resulting in over $55 billion in lower gas costs in that year alone.

Reserve prospects are very promising. Estimates range from 1,100 trillion cubic feet (Tcf) to 1,700 Tcf—the equivalent of a 40- to 60-year supply at current and projected requirements. Demand for clean-burning fuel, technological development, industry ingenuity, and pro-competitive policies have together created a natural gas market that is expected to grow by another 50 percent over the next decade and a half; from 21 trillion cubic feet today to 30-35 trillion cubic feet in 2015. A sizeable portion of the increase will come from gas-fired electric generation. The National Petroleum Council (NPC) believes that electric generation will account for nearly 50 percent of demand growth between now and 2015. Electric generation could create as much as 7 Tcf of gas demand by itself during that period.

Unfortunately, spot wellhead prices for natural gas have roughly doubled over the last year. The wellhead price has averaged over $4.00 per thousand cubic feet since June. (EIA Short-Term Energy Outlook, September 2000.) But wellhead prices made up only 31 percent of residential consumer's 1999 delivered price, on average; so a doubling of wellhead prices does not necessarily foretell a doubling of consumer prices. Moreover, transportation access has made the commodity market liquid and efficient and, despite recent price increases, consumers are still saving money compared to pre-competitive prices. In addition, the recent wellhead price increases have already prompted a market response by producers to increase the supply of natural gas. The number of natural gas drilling rigs in use, for example, has more than doubled in the past 15 months. This recent activity is not likely to be sufficient to increase the supply of natural gas in time to mitigate price increases this winter, however. After the lag associated with getting new production on line, however, a better balance of supply and demand can be restored in the future.

In sum, the operation of the interstate natural gas market appears sound, as evidenced by the dramatic increase in drilling activity in response to market price signals. While I believe that competitive commodity markets are the best foundation for meeting consumer needs for reliable, reasonably priced natural gas, policymakers must acknowledge the financial burden, and even real consumer distress, caused by dramatic price fluctuations. The Commission, state regulators, local dis-

tribution companies, and customers each have opportunities to respond to the recent price increases.

The Commission's principal role is to work to ensure that sufficient pipeline and storage infrastructure continues to be available to meet growing demand (recent pipeline certificate activities are discussed below), and to ensure that transportation and storage services are available at fair prices and nondiscriminatory terms and conditions. The Commission will be monitoring the gas market situation very closely this winter to ensure that pipeline transportation markets continue to work in the public interest.

Local distribution companies (LDCs) have opportunities to manage spot market commodity price risk through a wide variety of instruments available in the market. Long-term contracts, futures contracts, options, swaps, collars, and various types of privately negotiated contracts are examples of financial instruments to manage risk. Risk management allows LDCs, or customers with retail choice, to choose supply arrangements that reflect their particular tolerance for price volatility.

State regulators, for their part, have opportunities to mitigate retail rate volatility, for instance, by employing rate stabilization programs and oversight of LDC purchasing practices.

Price volatility also highlights the continued importance of energy efficiency initiatives such as the Weatherization Assistance Program and other appropriate aid for low-income customers such as the Low-Income Home Energy Assistance Program (LIHEAP).

IV. CERTIFICATE POLICY

Adequate natural gas pipeline transmission and storage capacity is critical to support the continued functioning of these markets. Most electric generating plants planned for the next five years will use natural gas. Continued growth in natural gas consumption requires expanding and enhancing the existing natural gas transportation infrastructure. As stated earlier, much of the increase will come from gas-fired electric generation; perhaps as much as 7 Tcf of gas demand, estimated to represent nearly 50 percent of demand growth between now and 2015.

The Commission has worked to ensure the adequacy of the transportation infrastructure by authorizing proposed construction of new natural gas pipelines in appropriate circumstances. Since 1997, for example, the Commission has authorized the addition of almost 6,000 miles of pipeline, representing 17 billion cubic feet per day (Bcf/day) of new delivery capability to the pipeline network. (See Attachment 1). These facilities represent an investment of over $7.5 billion in natural gas transportation infrastructure. In light of probable demand growth for natural gas, the Commission continues to receive new proposals for pipeline development. (See Attachment 2). To respond to this market need, the Commission is committed to timely processing of applications for natural gas pipeline facilities. (See Attachment 3, showing pipeline certificate processing times).

Recent reports concerning the potential construction of pipeline facilities to transport Alaska North Slope natural gas to consumers presents a significant opportunity to bolster our growing energy economy. As I testified before the Senate Committee on Energy and Natural Resources on September 14, the Commission is committed to timely processing of any proposed pipeline projects under its jurisdiction, including a reactivated ANGTS (Alaska Natural Gas Transportation System) project, or any other projects to transport Alaska North Slope gas under section 7 of the NGA.

Even though I believe that our track record on certification of natural gas pipeline and storage facilities is a very good one, we cannot afford to rest on our laurels. I would note that the modern pipeline certificate proceedings are characterized by heightened and more organized landowner objections, environmental issues, and debates over regional needs for pipeline additions. In response to these concerns, the Commission adopted a new certificate policy that sets forth the factors the Commission will consider in determining whether new pipeline construction is in the public convenience and necessity. The Commission's Certificate Policy Statement, issued in September 1999, establishes a policy against requiring existing customers of a pipeline to subsidize pipeline expansion, permits new flexibility to project proponents in making a showing of need for pipeline construction, and requires a weighing of public interest factors, including the impacts of new pipeline construction on landowners and affected communities in evaluating certificate applications. The Policy Statement provides the industry with guidance as to how the Commission will evaluate proposals for new construction, and provides a more transparent process for evaluating new projects.

Further, the Commission is making every effort to ensure that the certification process is fair and efficient. On Tuesday of this week in Albany, New York, the

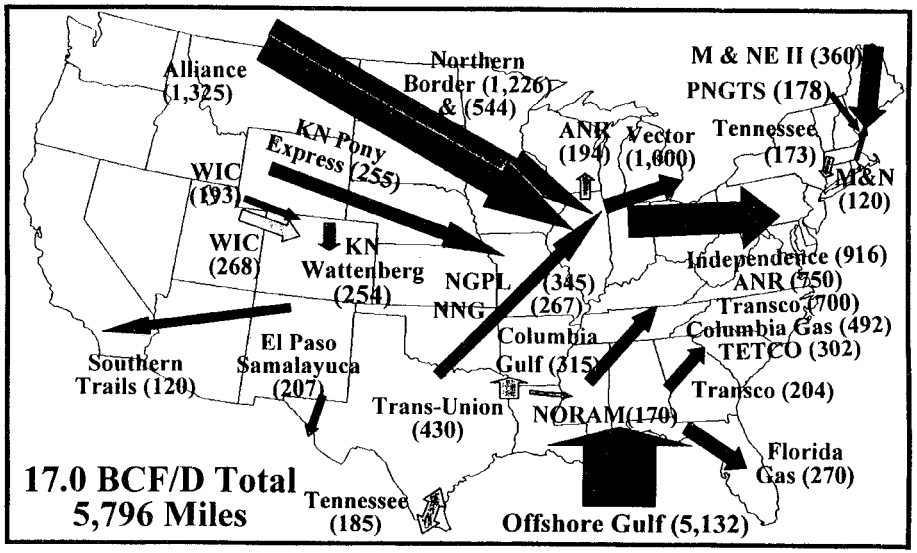
Commission staff began its Gas Outreach Program to improve the certification process through collaborative processes. This meeting was the first in a series that the Commission staff is conducting across the country to identify the most effective and efficient processes that can be used to prepare pipeline applications. We are attempting to encourage the use of prefiling collaboration in resolving disputes among the applicant, landowners, resource agencies, and other parties most affected by pipeline development. Early dispute resolution will ultimately result in quicker and better Commission decisions.

V. CONCLUSION

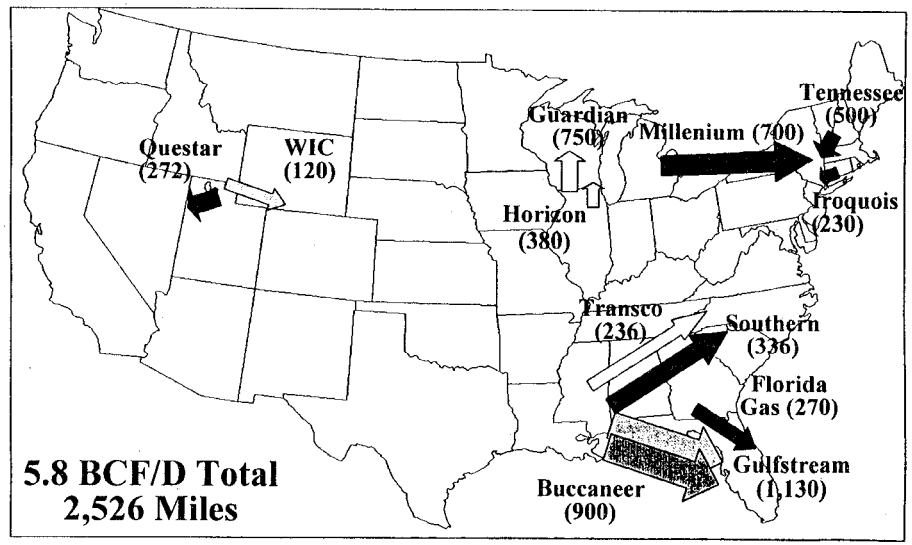
The recent price increases in natural gas markets have renewed concerns about the proper role of government in ensuring an adequate supply of energy at reasonable prices. The Commission believes in promoting a robust interstate natural gas market. It no longer regulates the wellhead price of natural gas. Yet, it does play a key role in overseeing the development and operation of the interstate pipeline grid. The Commission is committed to doing its part in making natural gas markets work for the Nation's consumers, by working toward the responsible development of the pipeline infrastructure needed to support the expected growth in demand for natural gas over the next decade.

Attachment 1

Major Pipeline Projects Certificated (MMCF/D) 1997-2000



Major Pipeline Projects Pending July 2000 (MMCF/D)



Attachment 3

Case Processing Timelines

7/26/00

Chart I

PIPELINE CERTIFICATES GPRA SUMMARY REPORT[1]

	Dockets Terminated Between 10/1/1998 and 6/30/1999		Dockets Terminated Between 10/1/1999 and 6/30/2000	
Category[2]	Number of Dockets	Average Age	Number of Dockets	Average Age
A	247	54.32	31	50.03
B1	139	110.56	61	100.72
B2	25	270.12	7	180.28
C	34	314.26	36	198.58
D	12	450.08	20	431.85[3]

[1] Developed from CerTrack's GPRA Summary Reports dated 7/25/00.

[2] Category A cases are prior notice filings. Category B cases are minor certificate cases where no precedential issues are present (7(b), categorical exclusions, minor EA, gathering, replacements, increase MAOP and other minor construction). Category B1 cases are unprotested filings, both issued under delegated authority and by Commission Order. Category B2 cases are protested filings, Commission order. Category C cases are cases of first impression or policy implications (total peaking, original gathering spin off/spin down). Category D cases are major certificates generally requiring EIS or major EA.

[3] Does not include rapid dismissals of 10 dockets (CP99-628-000, CP99-630-000, CP99-629-000, CP00-27-000, CP00-28-000, CP00-29-000, CP00-84-000, CP00-85-000, CP00-86-000 and CP00-87-000) that were subsequently refiled.

Mr. BARTON. Thank you, Mr. Chairman.

We now want to hear from the witness from the Energy Information Agency, the Honorable Mark Mazur, is that correct?

Mr. MAZUR. Mazur.

Mr. BARTON. Mazur. You have been before the subcommittee before. We appreciate your attending again today and we will recognize you for 8 minutes.

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

Mr. BARTON. Put the microphone close to you. That is a very sensitive mike.

STATEMENT OF HON. MARK J. MAZUR

Mr. MAZUR. Thank you, Mr. Chairman. It is good to be back here in front of the subcommittee.

I would appreciate it if my entire statement could be in the record, and then I will be quite brief.

Mr. BARTON. Without objection.

Mr. MAZUR. I just want to focus on a small number of points. I am going to use some charts to illustrate my points.

I want to reiterate that the Energy Information Administration is the independent forecasting and statistical arm of the Department of Energy; and basically we are focusing on the data that we have collected and then our forecasts, in particular our Short-Term Energy Outlook that we released in early September, for what we think the likely future paths of energy prices and supplies will be.

Mr. BARTON. We will stipulate that we think you are—at least the chairman thinks you are an honest broker, and you just try to do a really good job of getting the best data possible.

Mr. MAZUR. Thank you, sir.

The first chart looks at crude oil prices. What we are looking at here is West Texas Intermediate crude oil prices, benchmark crude. What we saw happen throughout this year is a fairly steady progression of prices with a slight dropoff in the spring, but then a resumption of an increase in prices, and prices averaged about $31 a barrel for the month of August.

They increased and peaked a little over $37 a barrel about a week ago; since then have dropped maybe $5 a barrel or so, and we project a slight decline over the coming months as we get additional supplies onto the market. So a gradual decline throughout 2001 is what our short-term forecasts show for oil prices.

The second chart looks at crude oil inventories. U.S. crude oil stocks were about 285 million barrels in our most recent survey earlier this week. These are about 20, 25 million barrels below the levels seen at this time last year, and as the chart shows we don't expect to see an incredible amount of improvement in the short term. The green shaded area is the normal band, and you see the stocks being drawn down throughout 1999 and then staying below the normal band throughout 2000; and projected well into 2001, still being below the normal band.

What low stocks mean, it is a clear sign of a tight market in crude oil.

We see a similar pattern when we get to stocks of distillate fuels. A drawdown in inventories in 1999 and inventories not rising fast

enough to get up to the normal band throughout 2000, and our forecast shows below-normal inventories well into 2001.

Heating oil stocks—while distillate stocks are heating oil plus diesel fuel generally, heating oil stocks are even tighter than this chart shows for overall distillate stocks.

As Under Secretary Moniz pointed out, the level of tightness can be seen in percentage terms—total distillate stocks may be 20 percent below last year's levels, may be 15 percent below 10-year average levels; heating oil stocks, somewhat tighter than that, may be 40 percent below last year's levels on the East Coast.

I want to switch gears a little bit and move from oil issues and refined products to natural gas.

What we have seen happen in natural gas prices this year has been a very rapid run-up, starting in approximately March or April of this year. Right now spot prices for natural gas are around $5 or a little above $5 per thousand cubic feet, approximately twice what they were at this time last year.

The price run-ups are caused by a number of factors, and it is difficult to sort out the individual factors or put weights on them, but the combination of them has led to a fairly rapid run-up. These include things like relatively flat production over several years. We have seen U.S. production, or North American production, in natural gas being around the same level for the last 3 or 4 years.

We have growing demand as the economy expands. We also see growing demand in the electricity generation sector as natural gas becomes one of the more favored fuels in that sector.

We have an expected higher winter demand. As we head into the heating season, people are looking forward to normal winter weather in contrast with the relatively mild winters we have had the last 3 or 4 years, and we have low storage levels as we head into the heating season.

This last chart looks at the gas storage levels. The shaded area again is the normal band, and you can see that the stock levels for natural gas were toward the high end of the band throughout 1998-1999, but as we go into 2000 and projected into 2001, we are at the bottom end of that range.

If you look at the level of stocks, we are approximately 10 percent below the 5-year average for natural gas stocks at the beginning of September.

So as we head into the heating season, there is concern that stocks are low. Again, markets are tight in natural gas as well as in any other heating fuels.

Our projections are for higher heating bills for consumers as we head into the season. Both home heating oil consumers and natural gas consumers are expected to have somewhat higher bills as a result both of higher commodity prices and also greater consumption as we project a normal winter coming this year.

That ends my prepared remarks. I will be happy to answer any questions.

[The prepared statement of Mark J. Mazur follows:]

PREPARED STATEMENT OF MARK J. MAZUR, ACTING ADMINISTRATOR, ENERGY INFORMATION ADMINISTRATION

I want to thank the Committee for the opportunity to testify this morning. I will review the status of the current crude oil, heating and transportation fuel markets

as well as the Energy Information Administration's (EIA's) short-term forecast for these markets.

Today, as we face the upcoming heating season, inventories for heating fuels are generally low and heating fuel prices are relatively high. What we are seeing in the wholesale or spot markets for heating fuels includes:

- Spot No. 2 heating fuel oil (New York Harbor) averaging a little over $1.00 per gallon for the first two weeks in September. This is about 40 cents per gallon higher than last year;
- Natural gas prices are at levels much higher than last year. Henry Hub, Louisiana spot prices averaged $4.87 per million British Thermal Units (MMBtu) through the first two weeks in September, which is about $2.20/MMBtu higher than last year; and
- Propane spot prices averaged 73 cents per gallon during the first two weeks of September at Conway, Kansas, the area serving the high usage Midwest region. This is about 33 cents per gallon higher than they were a year ago.

Transportation fuel prices are also high. National average retail diesel fuel prices on September 18 were $1.65 per gallon, which is 43 cents per gallon higher than this time last year. National average prices on September 18 for regular gasoline were $1.56 per gallon, 29 cents per gallon higher than last year.

The world price for crude oil is both the source of much of the current high price situation in the United States, and also a crucial element of an eventual price decline. Crude oil prices for the first two weeks in September have averaged about $34 per barrel for West Texas Intermediate (a benchmark crude oil). This is about $11.50 per barrel or 27 cents per gallon more than last year.

As I will explain, world petroleum demand exceeded world crude oil production in 1999 and early 2000. Petroleum inventories were used to meet the excess demand, drawing down stocks of crude oil, and prices rose in response. Today, world inventory levels are very low, and likely will remain low through the winter. Low inventories generally are a cause for concern because they leave markets vulnerable to price volatility.

Crude Oil Market

Crude oil prices have more than tripled from late 1998 to today (Figure 1). Prices for West Texas Intermediate (WTI) crude oil rose more than $24 per barrel (57 cents per gallon) from under $11 per barrel in December 1998 to more than $35 per barrel recently. To put this in perspective, in today's dollars, prices for crude oil peaked in 1981 at about $73 per barrel ($39 per barrel in nominal terms), more than twice today's levels.

Crude oil markets tightened in 1999 as the Organization of Petroleum Exporting Countries (OPEC) and several other exporting countries reduced supply, and, at the same time, the recovery of the Asian economies increased demand. In 1999, world oil demand exceeded production, and inventories progressively declined. Organization for Economic Cooperation and Development (OECD) country inventories, those held by the world's largest industrialized countries, fell well below normal in mid-1999, and stayed there (Figure 2).

OPEC increased production earlier this year, but world oil inventories are still well below normal. OPEC recently announced an 800,000-barrel-per-day increase in aggregate production quotas, effective in October. In addition to increases in non-OPEC production projected by EIA, the various announced OPEC production quota increases should be adequate to begin the process of rebuilding inventories back toward normal levels. If our other forecast assumptions are correct, we expect to see world inventories approach normal levels sometime next year. However, this recovery is a slow process, and because we are beginning the winter with very low petroleum inventories worldwide, inventories will remain low through the winter and well into 2001 (Figure 2). With low inventories worldwide, there is the potential for crude oil price volatility if there is a significant supply disruption or unusual demand strength.

U.S inventories are similar to the world pattern (Figure 3). U.S. crude oil inventories (excluding the Strategic Petroleum Reserve) ended August at 289 million barrels. This is the lowest level for that time of year since 1976. U.S. crude oil inventories are projected to remain below normal levels for the entire winter and well into 2001.

EIA's crude oil price forecast reflects a gradual recovery of world inventories towards more normal levels accompanied by slowly declining prices. By December, prices for WTI could be moving back towards $30 per barrel, with further gradual declines throughout 2001. EIA's base-case forecast has crude oil prices averaging about $2.50 per barrel (or 6 cents per gallon) higher this winter than last (October through March).

Heating Oil

Like U.S. crude oil inventories, U.S. distillate (mainly heating oil and diesel fuel) inventories are much lower than typical for this time of year (Figure 4). With low inventories, there is little supply cushion for unexpected changes in supply or demand. As we saw last winter, a sharp cold snap, for example, can lead to a dramatic price run-up.

U.S. distillate inventories were 112 million barrels at the end of August, 14 percent below their 10-year average for this time of year. On the East Coast, which consumes about two-thirds of the nation's heating oil, inventories are even tighter. East Coast distillate inventories were at 40 million barrels, 31 percent below their 10-year average. Although we expect distillate production to be higher this winter than last (in part in response to fairly large refining margins), demand may also be higher if colder weather occurs in the Northeast (last winter had about 11 percent fewer heating degree-days than average) and diesel fuel consumption continues to grow. EIA expects that distillate stocks will be below normal throughout the winter and into 2001 (Figure 4). These low stocks mean there is the potential for price volatility in distillate markets this winter, not unlike that experienced last winter.

While our most likely scenario has the United States entering the peak heating oil demand months with low distillate inventories, refineries are capable of producing more distillate than shown in our forecast. Compared to our forecast assumptions, higher crude utilization rates and distillate yields have been achieved historically, and current high distillate prices relative to crude oil should encourage greater production. This, in turn, has the potential to result in stronger inventory builds than shown—perhaps as much as 5-10 million barrels more by the end of November.

Residential heating oil prices on the East Coast are expected to average $1.32 per gallon this winter, which is about 15 cents per gallon higher than last winter (Figure 5). If winter weather is normal, consumers will be buying more distillate than last winter, since last heating season was relatively warm. Under these conditions, EIA expects that heating oil consumers will be paying higher bills, compared to last year. A typical consumer in the Northeast uses about 680 gallons of heating oil during the winter months. At $1.32 per gallon, such a consumer will be paying over $900 for fuel, which is about $140 more than last heating season.

Natural Gas

Average natural gas wellhead prices this winter are likely to be much higher than the levels seen last winter. Spot prices have risen rapidly this year, and, in mid-September, were just over $5/MMBtu, about double their level at the beginning of the year (Figure 6). There are several factors contributing to this recent price run-up. U.S. natural gas production has been relatively flat for the last couple of years; demand has been fairly high this year, especially from electricity generators using natural gas as a fuel; demand is expected to be high this winter, under normal weather assumptions; prices are high in the distillate and residual fuel oil markets, competitor fuels for natural gas, keeping natural gas demand up; and current working storage levels are low—about 9 percent lower than their 5-year average levels for this time of year (Figure 7). The injection rate for gas into storage continues to be slow relative to last year's rates, which is keeping pressure on market prices.

Current high prices are not expected to diminish until after the upcoming heating season, and we expect to see higher residential natural gas prices compared to last winter. However, because residential rates include capital costs, transmission, storage, and other overhead costs, a doubling of prices at the wellhead will not mean a doubling of residential bills. For a typical household in the Midwest, prices are forecast to average about $8.40 per thousand cubic feet, which is about 27 percent higher than last winter (Figure 8). We also expect households to consume more natural gas than last year, if this winter exhibits a normal weather pattern. The combination of higher prices and higher consumption will result in this typical household paying more than $730 for natural gas this winter, which is about $220 or approximately 40 percent more than the prior winter's heating bill. About two thirds of this $220 increase is attributable to higher prices, and the remaining one third is due to a return to average winter temperatures.

Propane

Propane also merits some concern this year. Prices are high relative to last year, largely a result of crude oil price increases, but inventories are within normal ranges for all regions but the Midwest. Midwest inventories at the end of August were 14 percent below their 10-year average for this time of year. While stock levels in this region may yet recover, strong demand for crop drying could increase demand for propane, preventing stocks from completely rebuilding. The Department of Agriculture is predicting a record corn crop this year, but there is uncertainty

as to the level of drying needs. Regardless, we are watching the Midwest propane situation closely.

Gasoline and Diesel

Diesel fuel and heating oil experience similar price pressures. While these fuels have different sulfur levels, they come from the same part of a barrel of crude oil. Low-sulfur distillate stocks, which represent diesel inventories, generally are not below the normal range. But because diesel fuel can be used to serve heating oil markets, diesel prices tend to follow heating oil prices during the heating season. As we saw last winter on the East Coast, a price run-up in the heating oil market can spill over to diesel prices. This winter, we expect on-highway diesel fuel prices to average $1.49 per gallon, which is about 15 cents per gallon over last winter's prices.

Gasoline markets are generally improving. We have passed the high demand, high production summer period and are now using the winter formulation gasoline, which is easier to produce than the summer formulation. Inventories are now in the normal range. However, temporary regional problems could still occur, such as those sometimes seen in California, when supply difficulties such as unanticipated pipeline or refinery shutdowns arise. On average, EIA expects gasoline prices this winter to be about 7 cents per gallon higher than last winter—mainly reflecting higher crude oil prices.

Summary

In summary, we are in the midst of a year of volatility for crude oil, refined products, and natural gas. As we begin the winter heating season, prices for all heating fuels are higher than last year, and inventories are low. Although increased world crude production should begin to help markets build inventories back toward normal levels, the process likely will be slow, and petroleum inventories worldwide are likely to remain low into 2001. With low inventories for crude oil and refined products, unexpected supply disruptions or demand changes can cause disproportionate product price movements.

EIA has been trying to help consumers prepare for the possibility of a winter of high prices and potential price volatility by alerting the public, industry, regulators, and Government decision-makers to the situation. In addition to our usual Web-based products and publications, we have made numerous presentations around the country and will be providing further information at our annual Winter Fuels Conference on October 6. EIA and the participating States will also be collecting and publishing heating oil and propane prices weekly this year, instead of twice per month, reflecting increased interest in this topic.

This concludes my testimony. I would be glad to answer any questions you may have.

Figure 1

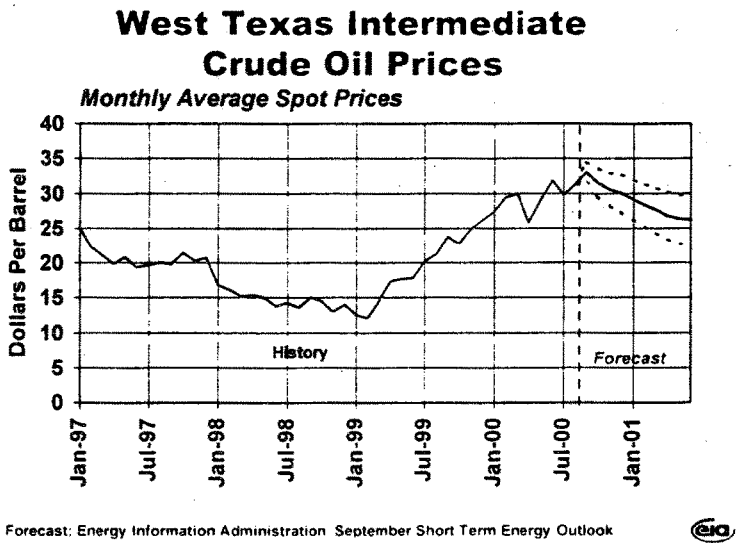


Figure 2

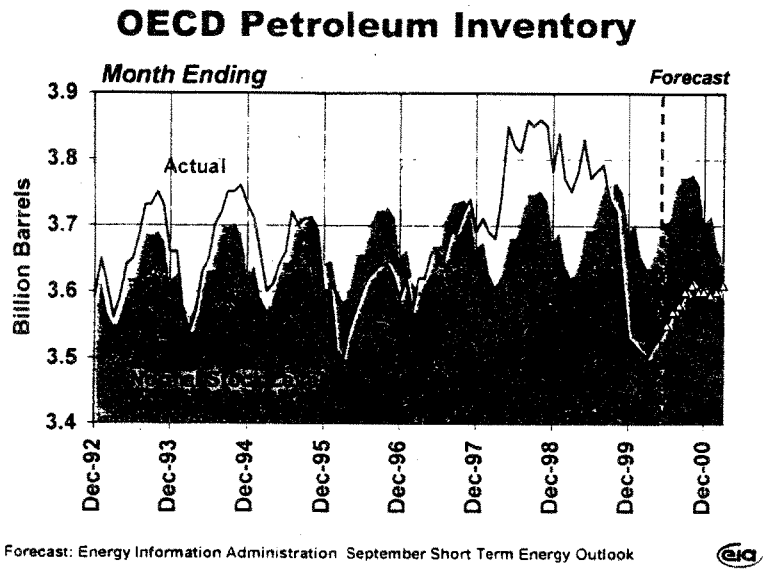


Figure 3

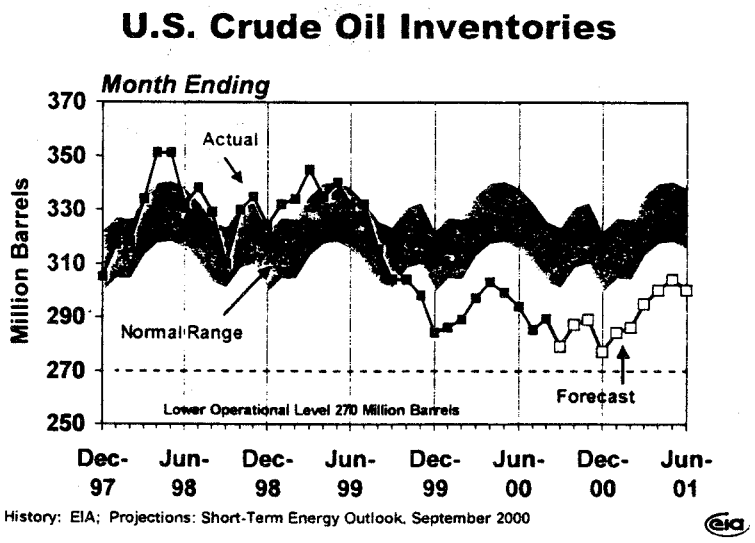


Figure 4

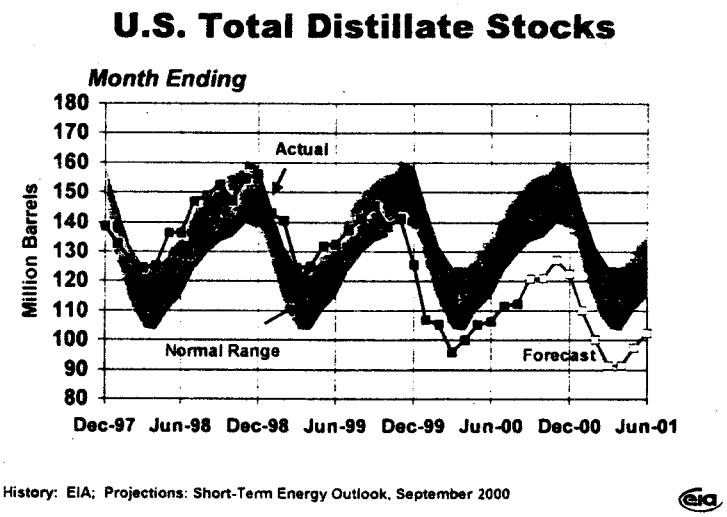


Figure 5

Consumer Winter Heating Oil Costs

Average Northeast Household Heating With Oil	97-98 Actual	98-99 Actual	99-00 Actual	00-01 Forecast
Gal	*636*	*647*	*643*	*683*
$/Gal	*$0.93*	*$0.80*	*$1.19*	*$1.32*
Cost ($)	*$591*	*$518*	*$765*	*$901*

Sources: History: EIA; Projections: Short-Term Energy Outlook, September 2000

Note: "Gal" is gallons.

Figure 6

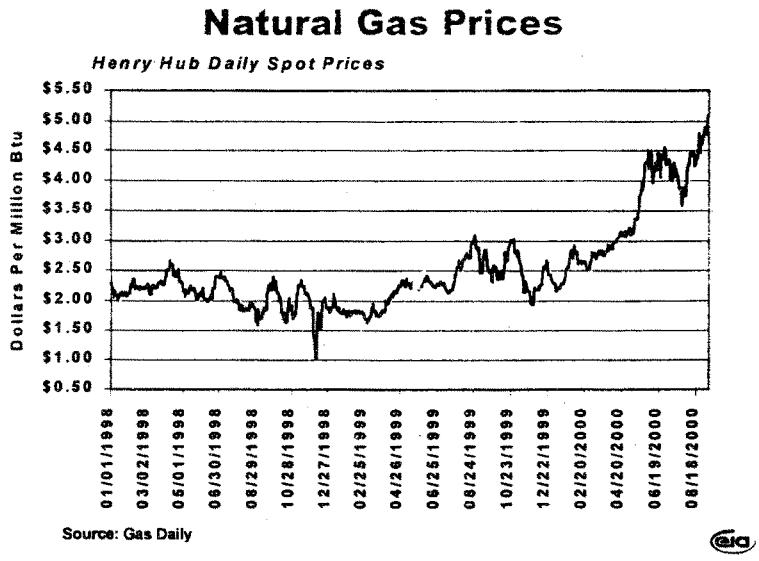


Figure 7

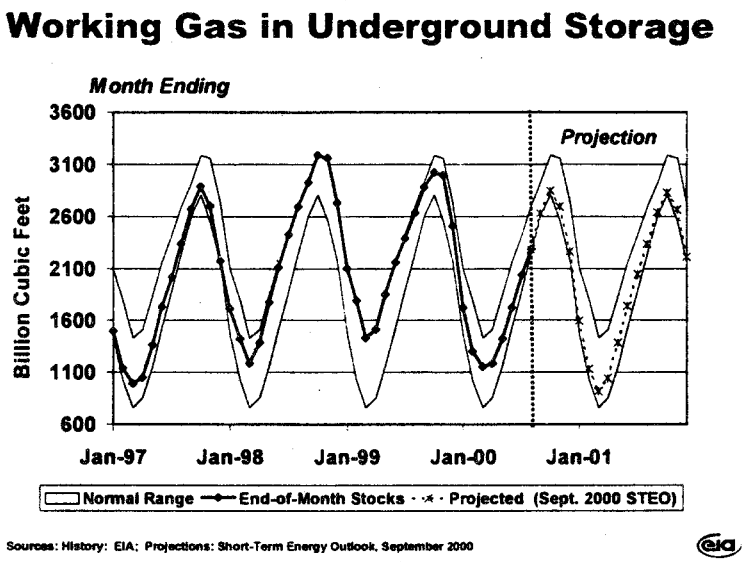


Figure 8

Consumer Natural Gas Heating Costs

Average Midwest Household, U.S. Prices	97-98 Actual	98-99 Actual	99-00 Actual	00-01 Forecast
Mcf	*82.4*	*81.8*	*77.4*	*87.4*
($/Mcf)	*$6.62*	*$6.28*	*$6.61*	*$8.40*
Cost ($)	*$546*	*$514*	*$511*	*$734*

Sources: History: EIA; Projections: Short-Term Energy Outlook, September 2000

Note: "Mcf" is thousand cubic feet.

Mr. BARTON. Thank you, sir. We appreciate that. We appreciate your being relatively brief.

Mr. MAZUR. On average, we are okay.

Mr. BARTON. On average, commendable.

We are now going to go to the distinguished member of Texas Railroad Commission, the Honorable Charles Matthews, who—a point of personal privilege—is a personal friend of mine. He is the former mayor of Garland, Texas; has had extensive experience in the coal industry, the oil and gas industry; and is the past-elected Chairman of the Texas Railroad Commission—and knew the name of Jim Nugent because that is the gentleman he beat to become a member of the Texas Railroad Commission several years ago.

We appreciate your coming to Washington and we recognize you for 8 minutes.

STATEMENT OF HON. CHARLES R. MATTHEWS

Mr. MATTHEWS. Thank you. I will say, the first thing, we have tried to clean up our language since Mr. Nugent left. We have tried to be a little more politically correct.

I appreciate very much the opportunity to testify before this committee. I think before I get into my prepared remarks, it might be helpful if I put out a couple of points.

The rest of these folks who spoke are from the national government and have a different perspective perhaps, but I think there are a couple of numbers that you might be aware of, that members of the committee need to be aware of. The oil business, after 100 years, in Texas is still the No. 1 business in Texas. It puts about $60 billion into the Texas GNP.

We still produce about 25 percent of all of the domestic oil production in the country. We produce a third of all of the domestic natural gas in the country, and while we are large producers of natural gas, we are large consumers of natural gas, but we are also large exporters of natural gas. Last year we exported to the Midwest and the Northeast 1.7 trillion cubic feet of natural gas, and so we are a major player.

And I am just going to talk very briefly, but my written remarks contain more of it. It is, I think, necessary for what happens in Texas, particularly on the GNP side, to be included in the debate, because we are such a large part of the market.

Texas enacted its electric restructuring bill in 1999 which will open the Texas retail electric markets to competition. Because all of the announced new electric generation will be gas-fired, the demand for natural gas as a boiler fuel will continue to rise. A key component to the successful implementation of this legislation is the availability of natural gas at a reasonable price.

Texas, as I have said, is the largest producer of natural gas in the United States. However, based on the decline in natural gas production and the shortage of skilled labor, I am concerned about the ability of the industry to meet the increased demand for natural gas, despite technological advances made in exploration and production. The ability to achieve the necessary level of production will depend upon the availability of equipment, labor and capital investment.

The current demand-supply equation for natural gas is out of balance. An example of the demand-supply relationship is the fact that the United States and Texas both are well behind meeting the targeted amount of working gas and storage for the winter demand.

I do not believe we should change the demand side of the equation through price controls or other governmental intervention. Instead, we need to make changes to the supply side by developing and advocating policies that help promote the exploration and production of natural gas. These policies include reopening training programs for oil field workers, developing tax incentives to stimulate drilling, and encouraging the continued development of new technologies.

Let me just say in closing that Texas, since 1989, as every session of our legislature meets in the odd years, has introduced and successfully passed incentive programs to encourage various activities in the oil patch. Those have all worked. The return to Texas, to our economy, to our tax base, has always been well on the positive side.

Many States around the country have followed our lead. We have a record of proving over and over again that tax incentives do work; they do stimulate activities out there and that the return to the taxpayer—it is not a cost, it is a return many times over what the size of the tax incentives are.

Mr. Chairman, I appreciate the opportunity to be here. I will be available for questions.

[The prepared statement of Charles R. Matthews follows:]

I want to thank Chairman Barton for inviting me to testify before the Subcommittee on Energy and Power.

In 1999, the Texas Legislature enacted Senate Bill 7, commonly referred to as the Electric Restructuring Bill (Acts 1999, 76th Leg. Ch. 405). This bill opens the Texas retail electric market to competition. It is my contention that the successful implementation of the bill depends on the availability of natural gas at a reasonable price.

Last month I attended the National Association of Regulatory Utility Commissioners' Summer Committee meeting, where I serve on the Gas Committee. This was my first NARUC meeting, and frankly, I was shocked! I listened to speaker after speaker discuss the rosy outlook for local distribution companies and merchant power plants. They focused entirely on the downstream part of the industry.

The assumption of almost every one of the speakers was that natural gas would be plentiful and available at a reasonable, or even low, price. Based on the production figures from Texas and the recent rise in the spot market price for natural gas, I seriously question the validity of these assumptions.

implemented successfully and electricity costs for Texas businesses and residential customers are to remain reasonable. Therefore, it is essential that we understand the issues challenging the natural gas industry. I am grateful to have this opportunity to talk to you about some of the upstream concerns affecting the provision of natural gas to electric generation utilities and gas distribution customers.

I believe that Texas has plenty of natural gas in the ground. With the new technological developments, we will be able to discover, develop, and produce from new smaller and deeper fields.

However, achieving the necessary level of production from these new fields will depend on the availability of equipment, labor, and capital investment.

I will present a balanced discussion regarding the issues facing the natural gas industry, including:

- the decline in natural gas production,
- the increase in natural gas demand and its relation to electric de-regulation,
- the shortage of skilled labor, and
- the emerging technological advances.

I hope this information will help you better understand the challenges facing the Texas natural gas industry.

PRODUCTION

Texas consistently has been a leading producer of natural gas in the nation. From 1936 to 1998, Texas produced 274 trillion cubic feet of natural gas. Of the lower 48 states, we are number one in on-shore natural gas production, and we produce about a third of all natural gas in the United States.

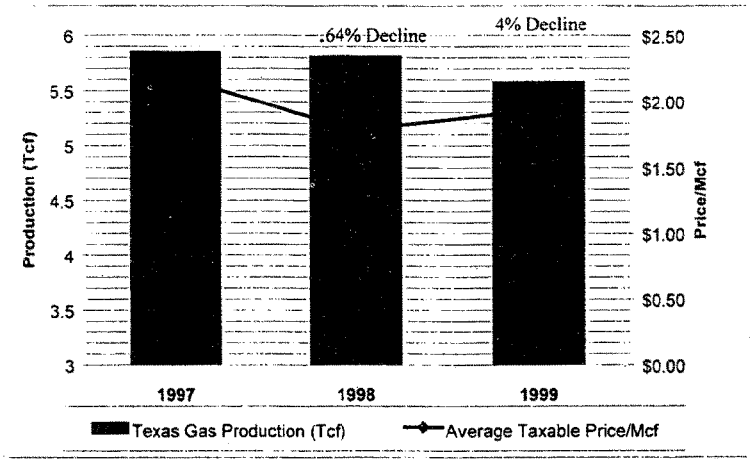
Texas has proven reserves of nearly 40 trillion cubic feet. Moreover, experts such as Dr. Bill Fisher, former Director of the Bureau of Economic Geology at the University of Texas, project that yet another 325 trillion cubic feet of reserves remain to be developed.

New wells are essential to the health of the Texas economy. Without new wells, the gas production in Texas is declining at a composite rate of 23 percent per year. The onshore Texas Gulf coast decline rate is 33 percent per year; in East Texas, with lower productivity and longer-life production, the rate is 14 percent. Average production on the Gulf of Mexico shelf is declining at 38 percent per year.

Overall, there has been an average decline of just over 2% per year in total Texas natural gas production since its peak in 1972.

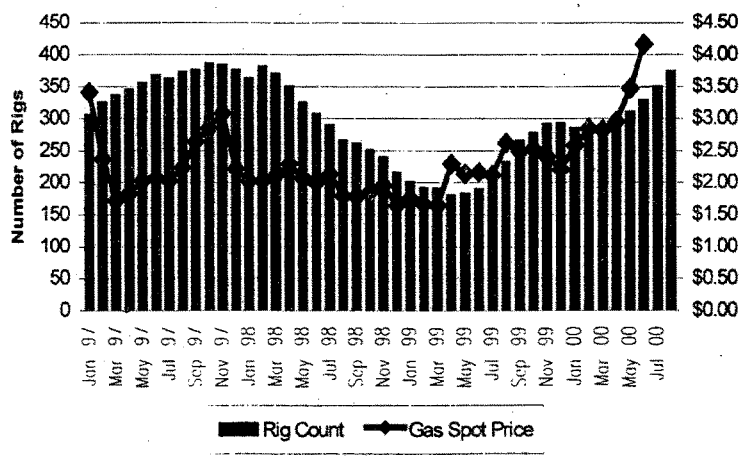
Let me share a few statistics with you.

Slide 1: Texas Natural Gas Production 97-99



This slide shows natural gas production in Texas and the average taxable prices for natural gas during 1997, 1998, and 1999. As you can see, production declined between 1998 and 1999, even though the price of natural gas increased during that period. As you well know, the price of natural gas has risen significantly in 2000. But, will this increase in price stimulate production?

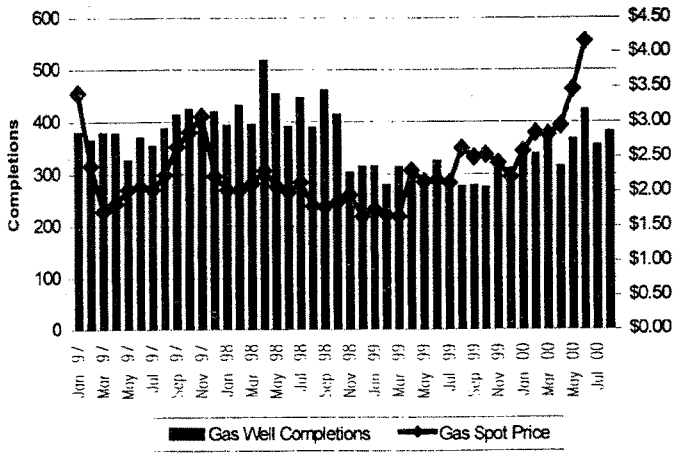
Slide 2: Texas Rig Count and Natural Gas Price



Two important indicators of industry activity are rig count and number of well completions. The number of active drilling rigs is a good indicator of the investment in the oil field. In June of 1997, there were 368 active drilling rigs operating in Texas. This number dropped to 190 two years later. Our latest data, from September 18, 2000, shows Texas rig count at 386.

Rig count is critical to sustaining production, and the impact of a reduced rig count readily can be felt. One study showed that for every 100 fewer rigs, daily deliverability of natural gas declines by 600 to 900 Mcf six to nine months later.

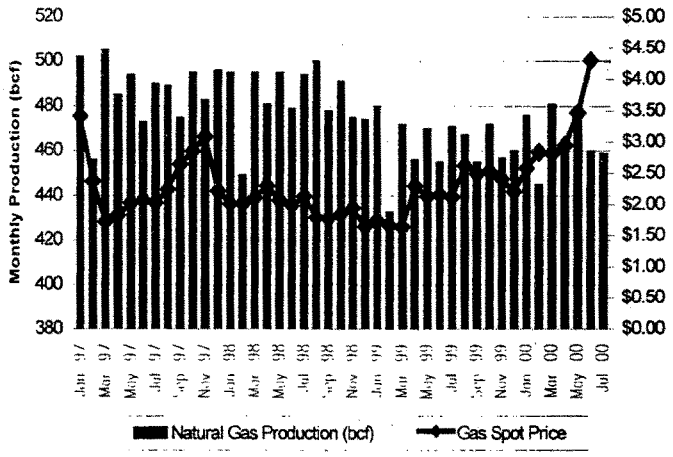
Slide No. 3: Texas Gas Well Completions and Price



I like to use completion numbers as indicators of industry activity because the completion numbers show the number of drilled wells that actually are capable of producing. Since March of 2000, the number of completions has begun to respond to the increased gas spot market prices, but not as consistently as one would expect. In June of 1999, there were 325 wells completed. In June of this year, 423 wells were completed.

However, this number was not sustained: in July there were 355, and in August there were 382 completions. For your convenience, I have attached a listing of completions from January 1997 through August 2000.

Slide No. 4: Tx Natural Gas Production and Price



Looking at the last three years of production, you can see that production has declined despite the increase in price.

Production had remained stable until the end of 1998, even though the price dropped sharply at the beginning of December 1997 and continued to decline through 1998. With the increase in price beginning in April of 1999, I would have expected to see more production beginning in January 2000, especially considering the increase in completions.

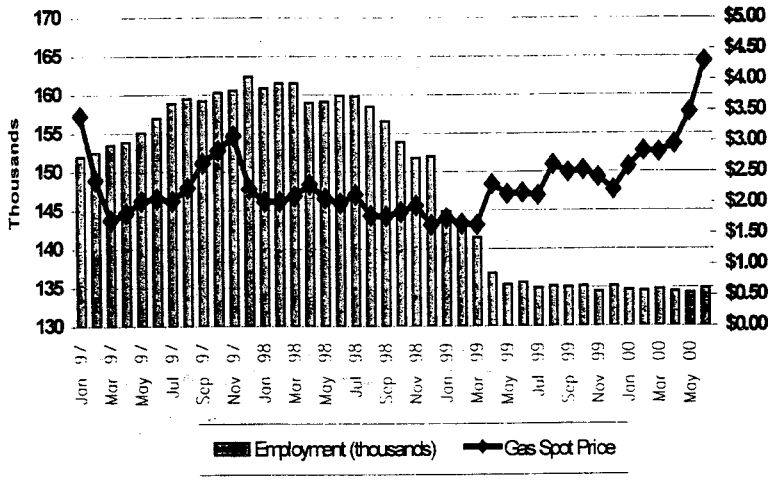
One reason for the slower-than-expected increase in production is that Texas, like other energy producing states, has a scarcity of skilled oil field workers.

DECLINE OF SKILLED OIL FIELD WORKERS

The old saying "fool me once, shame on you; fool me twice, shame on me," is an expression taken to heart by workers in the oil and gas industry. During the last year and a half, the U.S. oil and gas industry lost 50,000 jobs, including 18,000 in Texas, according to the Texas Workforce Commission.

Some of these workers have left the industry permanently. I am concerned that even if the price of natural gas remains high, we will not have enough skilled workers to drill the wells.

Slide No. 5: Tx Oil and Gas Extraction Employment



This slide shows that during 1998, for every 10 percent drop in gas prices, there was a 3 percent drop in oil patch employment in Texas. Unfortunately, the labor market does not respond as rapidly to a rise in prices as it does to a drop in prices. Since gas prices have rebounded, a 10 percent increase in price has increased employment by only ½ percent.

There are not enough skilled workers in the field now. Consequently, the industry has been forced to make compromises. For example, under optimal conditions, a well should employ three crews of four workers for each 24-hour period. However, because of the labor shortage, some operators are using only two crews of three for each 24-hour period. To make matters worse, each crew often has only one experienced worker. This situation raises real concerns about safety and efficiency in the oil patch.

As Paine Webber reported on June 29, 2000, the industry can attract people as prices improve, but it will take time. Deterioration in efficiency can be expected as more rigs inevitably will be operated by inexperienced crews. The question looming is how can the industry attract and train the necessary labor force?

In 1997, I worked to establish a joint program involving the Texas Workforce Commission, Texas A&M University System, and the Texas Engineering Extension Service in Abilene to train rig hands. Because of the industry downturn, the school was closed. However, I am now working toward reopening the program. The program could

provide as many as 1,100 trained hands each year to replace those who left the industry during the difficult times.

NATURAL GAS STORAGE INVENTORIES

Storage levels are important factors in relation to the supply of natural gas. Typically, gas is taken out of storage in the winter months and placed into storage during the summer months. We are not seeing that happen this year. Two factors contribute to this situation: the price and the weather. Prices dictate the overall level of gas that is put into storage, while weather dictates the pattern. The price for natural gas has been very high this summer, and the weather has been very hot.

Furthermore, the recent NYMEX spreads have been relatively flat. For example, natural gas is currently trading in the $5.25 per MMBtu range at Henry Hub, the major natural gas hub in South Louisiana. The NYMEX futures price for January 1, 2001, deliveries to Henry Hub are $5.50 per MMBtu. The 12-month strip representing the average NYMEX price over the next year is $4.90 per MMBtu.

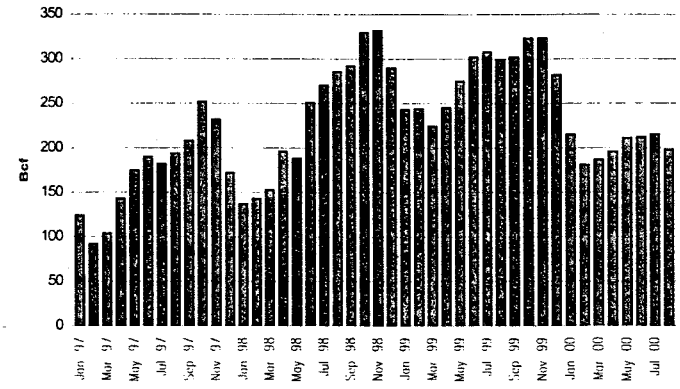
These factors make injection of natural gas into storage uneconomical for marketers and local distribution companies.

The heating season for the U.S. begins on November 1, 2000. By this date, the targeted amount for gas in storage is 3 TCF. On July 20, 2000, Payne Webber estimated that at the current injection rate, only 2.6 Tcf will be in storage by the start of the heating season. At the end of August, only 2.186 Tcf was in storage.

Texas is likely to follow this trend. Our target is 325 Bcf in storage; however, we're likely to have less than 250 Bcf. During the months of June and July 4.7 Bcf was ***withdrawn*** from storage; in August, another 8.4 Bcf was ***withdrawn*** from storage. Several factors are contributing to this situation: there is no excess production to put into storage, the spot market price is so high that it does not make economic sense to put gas into storage, and the non-utility generators are placing significant demands on the natural gas market.

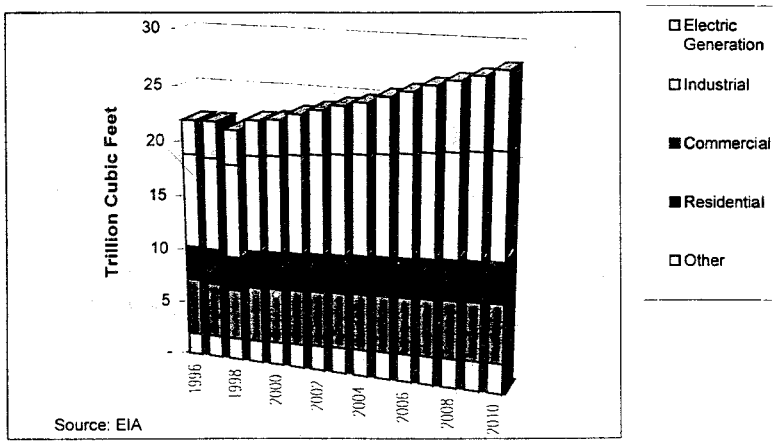
Both U.S. and Texas storage levels have declined from last year. Let's look at some Texas figures. Compare the storage levels in August of 2000 with the levels in August of 1998 and 1999.

Slide No. 6: Texas Natural Gas Storage



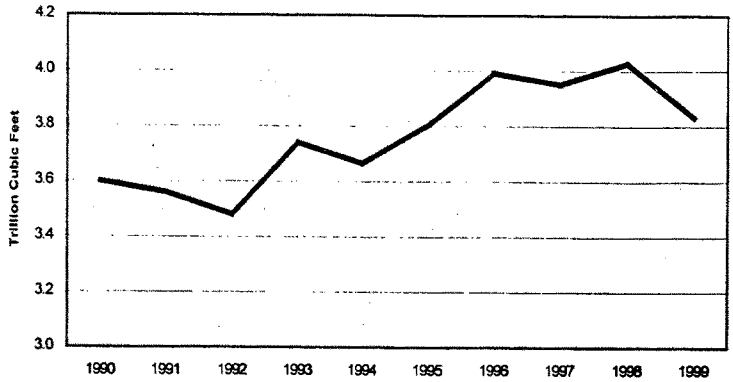
As you can see, we have about 100 Bcf less gas in storage than we did a year ago and about 88 Bcf less than two years ago. This concerns me greatly. How can the industry meet the increasing demand for Texas natural gas when there is a decline in both production and storage?

Slide No. 7: U.S. Natural Gas Demand



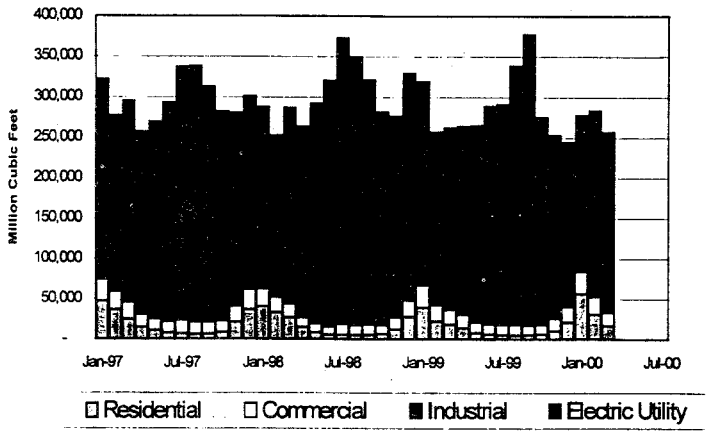
Experts in the energy field expect the demand for natural gas to grow over the next decade. In the U.S., the demand for natural gas in 2010 is projected to be about 28 Tcf, which is more than 30 percent over the 1998 level of 21.4 Tcf. As you can see by the top portion of the bar, the biggest driver for this growth is the increased demand for gas-fired electric generation, which is expected to more than double between 1998 and 2010, from 3.2 to 7.6 Tcf.

Slide No. 8: Texas Natural Gas Consumption



Natural gas consumption in Texas also has been increasing steadily over the last six years. We can assume that this increase in consumption will continue, especially with the recently enacted Texas Electric Restructuring Bill and the numerous natural gas power plants coming on line in the near future. The decline in 1999 can be attributed to the warm winter weather.

Slide No. 9: Gas Consumption in Texas by Class



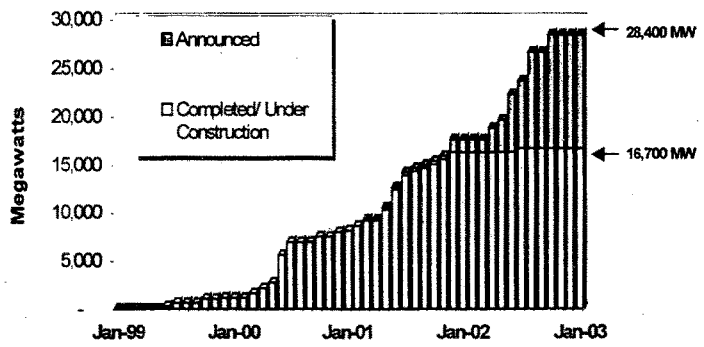
We can see from this graph:

- that industrial customers and electric utilities are the major consumers of natural gas;

- the electric utilities' share of natural gas consumption has grown significantly; and
- the peak periods for natural gas consumption, largely due to electric utility consumption, have occurred during July and August, which is a shift from the historical peak winter months.

As Doctors Weinstein and Clower of the University of North Texas observed in their July 2000 paper entitled *The Impact of Natural Gas Prices on the Texas Economy*, the most important factor driving up natural gas consumption is the demand for electric power. They observe that because coal and nuclear plants are in disfavor and there is no significant hydro in the state, natural gas has become the most viable option for power generation.

Slide No. 10: ERCOT Gas-Fired Merchant Plant Additions

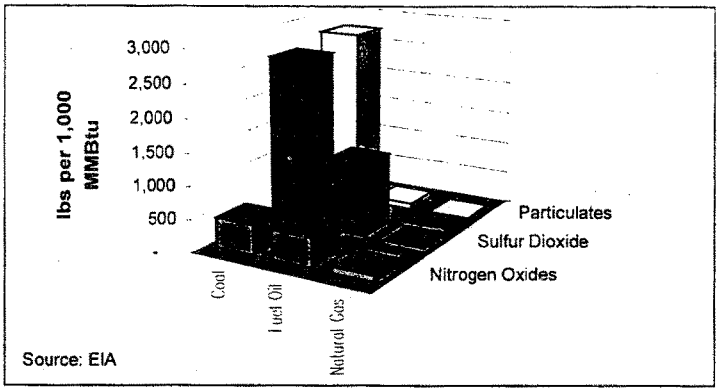


Source: Texas Public Utility Commission

All the new non-utility generating plants coming on-line in Texas will be gas-fired. This slide depicts the effect of these new plants on natural gas consumption in Texas. The light colored portion of the bars shows that since 1999, in Texas alone, non-utility generators have built or have under construction 16,700 MW of new gas-fired capacity. The darker, upper portion of the bars indicates an additional 11,700 MW in projects that have been announced and may be built by 2003.

The technological advances in combined-cycle plants have made natural gas the preferred fuel for new electric generation plants. Compared with conventional plants, these gas-fired plants are less expensive to operate, faster to build, and more environmentally friendly.

Slide No. 11: Fossil Fuel Emissions



Among fossil fuels, natural gas yields far fewer pollutants than oil or coal. For example, looking at the front bars, the combustion of 1,000 MMBtu of natural gas produces 92 pounds of nitrogen oxides compared to 448 pounds for oil and 457 pounds for coal. Similarly, the middle row of bars shows that the combustion of 1,000 MMBtu of gas produces 0.6 pounds of sulfur dioxide compared to 1,122 pounds for oil and 2,591 for coal. The furthest row of bars shows that natural gas produces seven pounds of particulates, oil 84 pounds, and coal 2,744.

Slide No. 12: How Will the New Gas-Fired Generation Impact Gas Demand

The Public Utility Commission reports that 6,900 Megawatts of new gas-fired generating capacity is online in Texas. What does this mean for natural gas demand?

If we assume an average heat rate of 7,000 Btu/kwh and a load factor of 65%, which is typical for the new generating plants, then this new 6,900 MW will require a total of about 750 MMcf of gas per day.

Slide No. 13: What Must Industry Do to Meet This New Demand for Gas?

How many new wells, over and above the current activity, must be drilled to meet this new demand?

Assume that a new well in Texas produces 3 MMcf per day. Then, 250 new wells are needed to produce 750 MMcf per day. But, not all wells drilled are productive, so let's assume that 1 in 2 wells is successful. So now 500 new wells need to be drilled **just to meet the new electric generating demand.**

CAPITAL INVESTMENT

During the price collapse of 1998 and part of 1999, oil and gas companies lost substantial sums of money, which otherwise would have been reinvested in new drilling programs. In 1999, oil and gas company spending in the U.S. fell sharply due largely to the extremely low oil prices and weak natural gas prices. According to a July 24, 2000, Goldman Sachs report, domestic exploration and development expenditures fell 32% in 1999, with exploration falling 36% and development falling 25%.

This reduction in drilling investment seriously brings into question the industry's ability to substantially increase U.S. oil and gas reserves and deliverability over the intermediate term. Capital expenditures in 2000 are expected to exceed 1999 expenditures by 15% But, overall, the exploration and production industry is behaving cautiously in allocating currently high cash flow levels to exploration and production despite a strong outlook for both oil and gas prices.

This follows Goldman Sachs' May 23, 2000, report that a rebound in capital budgets driven by improving commodity prices, will only partially reverse the substantial production declines in North American gas production. Goldman Sachs stresses that the supply/demand market is fundamentally out of balance and that the only way for markets to rebalance over the intermediate term is for prices to moderate consumption, with a **sustainable** gas price in excess of $3.00 per MMBtu.

In their paper, Drs. Weinstein and Clower discuss what this increase in natural gas prices means for the Texas economy. Their conclusion, based on their models, is that higher natural gas prices bring both good and bad news. First the good news: higher prices generate added jobs, income, and severance tax revenues. Each sustained $1 increase in price boosts the state's economy by almost $3 billion. However, the bad news is that each $1 increase results in $4.29 billion higher operating costs for Texas industries.

In relation to energy costs for consumers, each $1 increase per MCF boosts fuel costs to utilities and non-utility generators by about $1.46 billion, which is then passed on to households through "fuel adjustment" charges. This results in a loss in discretionary household spending, which further decreases total economic activity in the state by $2.1 billion.

The net effect of increased natural gas prices, if sustained, is a decrease of $3.4 billion per year in the state's economic activity.

TECHNOLOGICAL ADVANCES

Although many of the easy-to-extract hydrocarbons already have been produced, technological advances, such as 3-D seismic and horizontal drilling, have opened previously uneconomical fields to development and enabled operators to drill previously unreachable areas. These new technologies also have improved the chances of finding successful wells and recovering more gas than before from those wells. According to the American Petroleum Institute, in 1970, one-in-ten wildcat wells was successful. In 1998, the success rate rose to one-in-four. However, the technology needed to achieve this success rate is expensive, and the price of gas must be high enough to justify employing this more expensive technology.

I believe the service sector will be crucial in helping the industry supply the needed natural gas. The emerging technologies the service sector currently is providing and is in the process of developing will be crucial in producing more oil and gas. Some of these technologies include: new computers, advanced communication systems, the use of sensors, new drilling and well completions, and reservoir character technology.

All these technological advances in the industry will aid in the continued production of gas in Texas and also may aid in offsetting the need for labor, which is very important considering the declining labor force in the industry.

The demand for natural gas most certainly exists, and the resource is in the ground. But with reserve replacement declining, more gas wells now are required to support a given level of production.

However, sustained strength in natural gas prices means that today's technology can cost-effectively open previously uneconomical fields to development and enable drilling in previously unreachable areas.

In order for electric restructuring to be most beneficial to the citizens of Texas, natural gas must be both plentiful and affordable. As a Railroad Commissioner, I believe that it is my responsibility to do everything in my power to ensure that fuel bills are reasonable. The current supply and demand equation for natural gas is out of balance. I do not propose changing the demand side of the equation through price controls or other governmental intervention. Instead, I believe we need to make changes to the supply side of the equation. We need to develop and advocate policies to help promote the exploration and production of natural gas.

In closing, I hope I have laid before you some of the challenges confronting Texas natural gas. I believe Texas is in a great position to fully participate in the opportunities created by the increased demand for natural gas.

This concludes my remarks. Thank you.

Mr. BARTON. Thank you, Commissioner Matthews. That is the shortest I have ever heard you speak publicly. I am pleasantly surprised.

Mr. MATTHEWS. I am intimidated by this box.

Mr. BARTON. Okay.

We now want to hear from Mr. Byron Lee Harris, who is the West Virginia Consumer Advocate in the Division of their Public Service Commission, from the great State of West Virginia.

We will recognize you for 8 minutes, sir.

STATEMENT OF BYRON LEE HARRIS

Mr. HARRIS. Thank you, sir. I am here to speak on behalf of the West Virginia Consumer Advocate Division and the National Association of State Utility Consumer Advocates, NASUCA. NASUCA is a national organization of 41 offices of utility ratepayer advocates in 39 States and the District of Columbia.

NASUCA member offices operate independently from the regulatory commissions and their States, and are designated by State law to act as ratepayer advocates. I am the chairman of NASUCA's natural gas committee.

Although the final bill received by natural gas customers is rendered by their local gas utility, the amount of that bill is determined by three distinct markets: the production market, which is not subject to price regulation; the interstate pipeline market, which is subject to regulation by the FERC; and the local distribution market, which is subject to regulation by State utility commissions.

The high natural gas prices that are the subject of this hearing are due to increases in the prices at the wellhead. The interstate pipelines and the local gas utilities have not, for the most part, increased the rates that they charge for their services to a significant degree over the last year.

There is also a difference in the recommended policy response from producers and State regulators. Producers recommend that free market forces should be permitted to operate and that these forces will eventually bring down the price of natural gas. The responses by State regulators, which I will discuss in further detail, advocate a more interventionist approach.

The reason for this dichotomy is clear. The production market for natural gas is highly competitive, so market forces can be allowed to work. The distribution market, on the other hand, is still a regulated monopoly service. The primary statutory mandate of State commissions is to protect consumers from the unreasonable prices that would otherwise accrue in a monopoly environment.

The appropriate regulatory response depends upon the model used to regulate natural gas in utilities in each State.

Under the traditional model, the State commission allows the utility to pass through all of its prudently incurred costs for purchasing, storing and transporting natural gas to its customers. The potential responses to high gas prices in these States include modifying or extending budget payment programs, shifting recovery of costs away from winter months to even out consumers' annual bills, or doing nothing. Customers with difficulty in paying their

bills could seek assistance from other agencies, not State utility regulators.

Some States use the retail choice model in which customers are permitted to purchase their natural gas from the gas utility or from any other licensed entity. In these States, the most appropriate response is to conduct comprehensive education of customers regarding the expected price increases and to help them become more informed gas purchasers. The Commission should also include in their education efforts messages regarding energy conservation practices.

A third regulatory model is the rate cap model, where the total rate charged by the utility is set and frozen for an extended period. Under the rate cap model, the utility cannot recover increased costs of gas from its consumers. Conversely, if the utility purchases wisely, it can retain the margin realized.

This is the model used in West Virginia. As a result of the rate caps that we have in place, approximately 85 percent of West Virginia's natural gas customers will not experience an increase in their rates this winter, which has been estimated to be an $82 million savings.

At current gas prices, an absolute freeze may not be the best option now. Commissions could opt for a modified cap that protects against price increases, but is flexible enough to capture potential price declines.

Thank you for this opportunity to appear, and I will respond to any questions.

[The prepared statement of Byron Lee Harris follows:]

PREPARED STATEMENT OF BYRON LEE HARRIS ON BEHALF OF THE NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES

I am here to speak on behalf of the West Virginia Consumer Advocate Division and the National Association of State Utility Consumer Advocates (NASUCA). NASUCA is a national organization of 41 offices of utility ratepayer advocates in 39 states and the District of Columbia. NASUCA member offices operate independently from the regulatory Commission's in their states and are designated by state law to act as ratepayer advocates. Some offices are separately established utility advocate organizations whereas others are divisions of larger departments. The West Virginia Consumer Advocate Division, for example, is a division of the State Public Service Commission. We are, however, an independent division of the Commission and have the authority to appeal any finding, decision, or order of the Public Service Commission.

The response of Consumer Advocate agencies to the dramatic increase in natural gas prices depends in large part upon the way in which the states currently regulate their natural gas utilities. The regulatory model varies from state to state, of course, but I have broken it down into three general categories: 1) the traditional model, 2) the retail choice model; and, 3) the rate cap model.

The traditional way that states have historically regulated the prices charged by natural gas utilities was a bifurcated process. The two pieces of this process are often referred to as the base rate piece and the gas cost piece.

Under the traditional approach there was one proceeding, generally referred to as a base rate case, that was used to determine the level of salaries, investment in plant and equipment and profit that should be allowed in the rate charged by the utility. Base rate proceedings were typically initiated by a filing made by the utility which may occur every year, every other year or may have as long as five years or more between cases. In between each base rate case, the utility was at risk for recovery of the costs included in that portion of its rates.

The gas cost piece of the traditional rate setting approach is usually addressed in second type of proceeding which is variously called a gas cost recovery or purchased gas adjustment proceeding. In a purchased gas proceeding, the utility is permitted to adjust its rate to recover the cost of gas purchased, stored and transported

on behalf of its customers. These adjustments may be made annually, quarterly or even monthly so that the utility is made whole for all of the costs its incurs in purchasing gas on behalf of its customers.

Under the traditional bifurcated regulatory scheme, the final price of natural gas to the consumer was composed of anywhere from 25% to 35% in the base rate piece and 65% to 75% in the purchased gas adjustment piece. Thus only 25% to 35% of the utility's total expenses were at risk for recovery. The remaining amount was trued up through the purchased gas adjustment mechanism.

I have identified three potential responses by regulators to the impending increases in gas prices under this traditional regulatory model. First, do nothing. By interfering with the price signals to consumers, regulators will inadvertently discourage conservation efforts. Conservation efforts, especially long term retrofitting measures, will of course help to keep prices lower in the future. The philosophy behind this approach is that consumers who are unable to pay their gas bills should seek assistance from other government agencies. Second, budget billing programs, where the customer is permitted to choose to pay a fixed amount throughout the year, may be modified or extended. In some states, the date for enrolling for budget payment plans may have already passed prior to widespread education efforts about the impending increases in natural gas prices. Those enrollment dates could be reopened to allow customers to choose the budget payment option. Third, regulators may want to amortize the impact of higher gas prices by shifting certain costs that would otherwise be recovered during the winter months to the summer months. Since most natural gas usage occurs during the five winter months, commissions can even out the monthly bills of consumers by deferring a portion of the impact of the price increases in natural gas until the non-heating months.

Some states have discarded the traditional regulation model and operate under what I have termed the retail choice model. Under this model, the state commissions continue to regulate the base rate portion of the utility's price: the level of salaries, investments and profit. The purchased gas portion of the rate, however, is not regulated. Rather than have the gas utility buy gas on behalf of all of its customers, those customers are given the choice to buy their gas supplies from any licensed entity that it is willing to sell it to them. States that have opted for the retail choice model believe that competitive market forces from the interaction from many suppliers and many individual consumers buying and selling gas will yield lower gas prices than under the traditional regulatory model. My colleague in Ohio, Rob Tongren, the director of the Ohio Consumers Counsel is a proponent of the retail choice model. Under the Ohio retail choice model, customers may choose to continue to receive their gas purchased by their local gas utility or they can buy from a number of other suppliers available to them. The retail choice program that is operated on the Columbia Gas of Ohio system has enabled residential customers to achieve savings of 10% on their gas bills.

I have identified 3 potential responses by regulators that use the retail choice model: Education, Education, Education. The idea behind the retail choice model is that regulators do not interfere in the determination of the price of gas between consumers and their suppliers. What regulators can do, however, is to provide consumers with information so that they may make informed choices. Earlier this month, the Ohio Consumers Counsel issued a press release informing customers of the expected gas price increases and telling them how they can get more information about their supplier options. The Consumers Counsel also provided some easy to implement energy saving measures that consumers can use to help lower their heating bills. A concerted effort to educate consumers as to the increases in gas prices, their options in light of those increases and energy conservation are important to help consumers manage their gas bills this winter.

The third regulatory model, which we have adopted in West Virginia, is to set gas utility rates using rate caps for extended periods. The rate cap approach to regulation is not a new concept: it has been used for a number of years for telephone companies. And other states have used rate caps on the base rate portion of their gas utility's rates. What is fairly unique to West Virginia is that we have set a cap on the total gas utility rate—both the base rate and the purchased gas portions. As a result of the rate caps that we have with three of our largest gas utilities, approximately 85% of West Virginia's residential customers will see no increase in their gas rates this winter.

The rate cap approach is fairly simple, we negotiate a rate to be charged by the utility and freeze that rate for a period of three years. The utility then has every incentive to seek more aggressive and innovative ways to manage its costs. The utility is free to prosper or fail depending on their success in making business decisions. All too often in utility regulation we are faced with requests for rate increases by utilities to reimburse them for the costs of what are essentially bad business deci-

sions. Under the rate cap approach, utility consumers keep their bargained for rate whether or not the utility is successful in holding down its costs. At the end of the rate cap period we negotiate a new rate and incorporate ongoing savings the utility has achieved into the new rate.

An intrinsic benefit of the rate cap approach is of course rate stability. It is our experience that utility consumers not only want their rates to be at a reasonable level, but they also want predictability. The rate cap insulates customers from the volatility in natural gas prices. Attached to this statement is a chart that demonstrates this benefit for our largest gas utility.

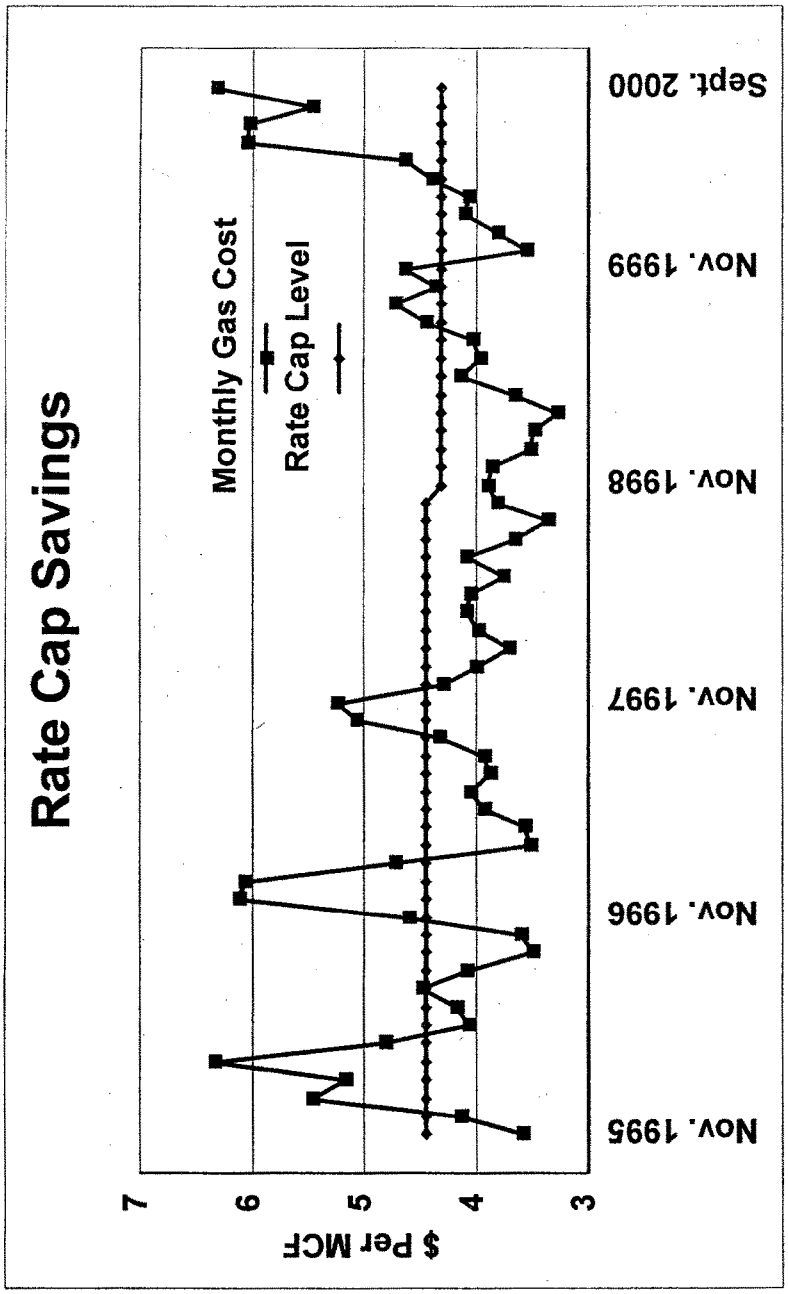
The relatively flat line is the purchased gas rate that was used in the first three year rate cap period which began November 1, 1995. The other line is the estimate of what the purchased gas rate would have been if we had been changing those rates on a monthly basis. When this second line is above the flat line, consumers were better off under the cap than under traditional regulation and when it is below the flat line consumers were worse off. In addition to showing the savings that the rate cap approach has achieved, which I will discuss in a moment, this chart also shows how volatile rates would have been if we did not have the rate caps in place.

In the first year of the rate cap, November 1995 through October 1996, residential customers saved $8.6 million. Keep in mind that West Virginia is a small state, while $8.6 million does not sound like a lot of money, it represents a savings of 10%. We achieved a 9% savings again in the second year of the rate cap, but in the third year, gas prices were lower than the rate cap by a margin of 9%. Over the entire three year rate cap period, residential customers clearly benefitted from the rate cap.

In 1998, we negotiated another three year rate cap which was implemented in November 1998. As you can see from the chart, even though we negotiated a small reduction in rates, it doesn't appear that we started off so well. Gas prices have been below the rate cap line for most of the period, only going above the line beginning in April this year. As all of you at this summit know, however, the futures prices for natural gas are trading today at much higher levels than any of the prices I have on the chart. Based upon the recent NYMEX futures prices, I estimate residential customers of this gas utility are going to save from $5 to $10 million per month this winter.

While I am a proponent of the rate cap approach to regulating gas utilities, I recognize that the current natural gas price environment may not be the most opportune time to enter into an extended rate agreement. Just as potential home buyers may delay their decision to buy when interest rates are high, commissions may be reluctant to agree to rate caps at current rate levels. A modified rate cap that protects against upturns in prices but is still flexible enough to capture potential gas price declines may be the better regulatory approach at this time. This type of hedging is, after all, exactly what thousands of competitive gas buyers and sellers engage in to try to achieve a long term price they can live with.

Whatever regulatory model is appropriate for your state, clearly something must be done to educate consumers about their options and assist consumers with their natural gas bills this winter. Perhaps your state's approach is that regulators should not interfere in the pricing of natural gas and that consumers are better assisted through other government programs. Keep in mind that the federal funding for energy assistance and weatherization programs has dropped by over 30% since 1995. If your state takes a more active role in natural gas markets, I have outlined some regulatory options that I hope are useful. Thank you.


Rate Cap Savings
Monthly Gas Cost
Rate Cap Level
$ Per MCF
7
6
5
4
3
Nov. 1995
Nov. 1996
Nov. 1997
Nov. 1998
Nov. 1999
Sept. 2000

Mr. BARTON. Thank you, Mr. Harris. We appreciate your coming up from West Virginia.

Last but not least, we want to hear from Mr. Steven Strongin——

Is that right, Strongin?

Mr. STRONGIN. Yes.

Mr. BARTON. [continuing] who is the Managing Director of Commodity Research for Goldman Sachs Company in New York.

Your testimony is in the record, and we would recognize you for 8 minutes. You are probably going to have to scoot over and push that microphone closer.

STATEMENT OF STEVEN STRONGIN

Mr. STRONGIN. Thank you very much. It is a pleasure to be here.

The question raised in today's hearings about the current level of oil prices can be answered in two very different ways, with very different implications.

The first and obvious answer is to trace the direct causal chain which leads to a discussion of inventories and available production which has dominated the discussion so far.

The second answer evokes a deeper discussion of why the entire energy infrastructure from oil well to refinery is near capacity, and why the system has so little flexibility and reserve capacity that only 18 months after record lows we are now into record highs.

The obvious immediate cause of the current spike in oil prices is that inventories are near minimum operating levels and there is insufficient oil production globally to meet likely demand this winter. This supply constraint environment developed from a slowdown in global production capacity growth due to low price environments that prevailed in 1988, combined with a strong recovery and global demand by mid-1999 after the downturn precipitated by the Asian crisis.

A further complication is that global access to refining capacity is currently very limited. Even if we could find more oil than our current estimates suggest is available, only a relatively small amount of that oil could be refined into heating oil in time for this winter. Thus, the net effect of new oil, whether it was either new production or increased releases of SPR oil, would be to push down crude prices while refined product prices to consumers would likely remain quite high and still be subject to significant upward spikes due either to the weather turning cold or any problems developing in the global refinery system.

In essence, the system has simply run out of flexibility to adjust to new demands both at the oil well and at the refinery.

The deeper and more important question is why the system is so fragile and has jumped from feast to famine and back again so fast. The key to this price volatility is the ability of the market to use inventory builds and draws to smooth out supply and demand balances. The problem is that capacity, as measured in days-forward consumption, has declined sharply over the last 2 decades from 20 days in the 1980's to less than 9 days today.

Simply put, due to a combination of regulation, taxes and direct market interventions by the government, the return on capital in the oil industry has been poor and investments in the downstream

part of the business—refining, marketing, storage and other aspects of the basic infrastructure—have been distinctly unprofitable.

The market has responded by not providing the capital to expand and the net result is the capacity constraints you see today.

If you look at the industry as a whole today, the total value of the industry as measured by the market is only about 1 percent higher than the cash that has been invested into it over the last 20 years. If you look at it in comparison, in terms of basic financials over the past 3 years, you can really see what is driving this. Utility and energy companies both have generated less than a 12 percent return on equity capital, which pales in comparison to the 20 percent returns achieved by companies in other industries such as technology, health care and financials—consumer cyclicals and others, where you are still seeing active investing.

It is hardly surprising in this context that our energy infrastructure is at its limits and most of the investment activities are occurring elsewhere. The only long-term solution to this type of problem is allowing the return on equity to attract capital and create the incentives to invest. Bottom-line returns simply have not been sufficient in a market context to justify investment, and the result is insufficient capacity.

In this context, the recent SPR announcement must be viewed with caution. The modest increase in supply as created by the SPR release should allow refiners to operate their full capacity through early winter, while interfering only modestly with the return on capital necessary to attract new investment. While this modestly reduces the potential for economic disruptions this winter, it hints at a more aggressive effort to manage prices. Such efforts would have the potential to further destroy incentives to invest in these industries and would likely create an even more severe shortage next year and beyond.

The wonder and unfortunate reality of modern capital markets is, the market allocates capital to where it is most useful, measured by the market's willingness to pay for the product. If you shield the consumer from these costs, you will likely destroy the incentives to create the products, and without question, if you prevent shareholders from receiving those profits either through additional regulation or taxation, you will further undermine the market's willingness to invest and thus will create even tighter capacity constraints for the future.

Thank you very much, Mr. Chairman.

[The prepared statement of Steven Strongin follows:]

Mr. Chairman and Members of the Committee, thank you for the opportunity to testify before you today to address your concerns about today's high energy prices, the reason for those prices, and the potential actions that could be taken to address those prices.

My name is Steven Strongin. I am a Managing Director of Goldman Sachs and the Head of Commodity Research. The views presented are my own and do not necessarily reflect the views of Goldman, Sachs & Co.

The question raised in today's hearing about the current level of oil prices can be answered in two very different ways with very different implications. The first and obvious answer is to trace the direct causal chain, which leads to a discussion of inventories and available oil production. The second answer evokes a deeper discussion about why the entire energy infrastructure from oil well to refinery is near capacity and why the system has so little flexibility and reserve capacity that only 18 months after record lows, we are near record highs.

It is important to understand the answers to both of these questions in order to understand what is really happening and what policy can do about today's problems without making tomorrow's problems even worse.

The obvious immediate cause of the current spike in oil prices is that inventories are near minimum operating levels and there is insufficient oil production and refinery capacity to meet likely demand this winter. Global demand is now at 77 million barrels-a-day with a likely peak demand this winter of over 82 million barrels-a-day, even with normal weather, the highest demand level in history. Global capacity to produce oil on an immediately deliverable basis is only 78 million barrels-a-day. Thus, depending on winter weather, the market will need to draw 250 to 350 million barrels of inventories over the next 6 months to match supply and demand. The problem is that while total inventories are 4.6 billion barrels, only 200 million of those barrels are realistically available to meet demand, as the other 4.4 billion are required to keep the system running (fill refineries, ships, distribution systems and pipelines). Consequently, there simply isn't enough oil to meet demand.

A further complication is that there is only about 78 million barrels-a-day of refinery capacity that can be used to meet OECD demand (there is another 2 million barrels-a-day of unused refinery capacity in the interior of China and the Former Soviet Union area, but those refineries lack the necessary infrastructure to deliver refined product back into the global economy). Thus, even if we could find more oil than our current estimates suggest is available (either from OPEC or non-OPEC suppliers), or if significantly more oil is released from the Strategic Petroleum Reserves, only a relatively small amount of that oil could be refined in time for winter. Thus, the net effect of that new oil would be to push down crude prices, while refined product prices to consumers would still likely remain quite high and still be subject to significant upward spikes should either the weather turn cold or any problems develop in the global refinery system. In essence, the system has simply run out of flex to adjust to new demands.

The direct antecedents of this situation are equally straightforward. At the end of 1997, the Iraq oil-for-food agreement added 2.0 million barrels-a-day to working supplies, OPEC increased output by 800,000 barrels-a-day, and the Asian crisis cut demand by 400,000 barrels-a-day. These events combined to create a 3 million barrels-a-day surplus of oil, which filled every storage tank in the world in less than 7 months, driving prices down to $11 a barrel (less than $4 a barrel for heavy crude oils such as those produced in Mexico and Canada). With every storage tank full, producers were forced to cut production, as there was literally nowhere for the oil to go. And with prices at historical lows, new drilling largely ceased, bringing rig counts to historic lows as well.

The combination of shut-in wells (many of which will never be re-started) and a lack of drilling caused the growth in production capacity to slow and in many countries to actually decline. At the same time, the very successful policy and market response to the Asian crisis caused global demand to return to its former growth track by the middle of 1999. The mix of lower production and higher demand led to a deficit of more than 2 million barrels-a-day, which caused the market to empty all of the storage tanks that had been filled during the prior surplus in only 12 months. The lack of new supply was initially masked by the ability to draw inventories, but as inventory levels declined, the short fall in available production became more obvious and prices began to rise dramatically. This created the current situation of insufficient supplies and little if any ability to draw on inventories to meet demand.

The deeper and more important question is why the system was so fragile and jumped from feast to famine and back so fast. The answer to this has two parts; first, the mechanics of oil pricing, and second, the broader issue of economic incentives that led to the investment decisions that created this fragility.

The mechanics are based on two aspects of the oil market. First, the oil market prices the level of forward inventories - the lower the forward inventories the higher the price. For simplicity, the market prices oil at $12 when every storage tank is full, and prices oil at $32 when inventories are brought to minimum operating levels. At both extremes, there is significant volatility with price spikes below when tanks are full and price spikes above when tanks are empty. Intermediate inventories produce intermediate prices and lower volatility as the inventories provide a shock absorber to the system.

Given the strong relationship between inventories and oil prices, storage capacity then becomes the key determinate of oil price volatility. In the 1980s, we had about 1.2 billion barrels of storage beyond that which is necessary to operate the system and deal with seasonal demand swings. This storage represented about 20 days of forward consumption, a significant shock absorber that generated relatively stable oil prices. By the early 90s, the available storage beyond what was necessary to run the system had fallen to 900 million barrels, only 14 days of forward consumption. In this environment, prices, while more volatile, were still not a significant source of economic uncertainty. Today, we have only 700 million barrels of storage beyond what is necessary to run the system, which at today's higher demand levels is only about 9 days of forward consumption. Price volatility has exploded to nearly three times the historical average.

This lack of inventory capacity and related infrastructure is the basic cause of the fragility of the system. The difference between $12 and $34 oil is only 9 days of forward consumption in inventories. Thus, fairly small deficits or surpluses will cause the market to move from full to empty and from $12 to $35 a barrel or back in a relatively short amount of time. In fact, at current levels of consumption, a surplus of only 1%, combined with normal seasonal inventory builds, would push the market back to $12 in only 17 months.

The broader question is, "Why has storage capacity failed to keep pace with demand?" and the linked question "Why is every aspect of the system at capacity?" The answer in its simplest form is that a combination of regulation, taxes and direct market intervention has made the return on capital in the oil industry a breakeven proposition at best and has made investing in the down stream (refinery, marketing, storage and other aspects of the infrastructure) distinctly unprofitable. The market has responded by not providing the capital to expand and the net result is the capacity constraints that you see today.

The financials are all too clear. If you look at the integrated oil industry as a whole, even at today's oil prices and today's historically high equity valuations, the industry is valued at barely 1% more than the cash that has been invested into it, hardly a compelling return. Worse, if we exclude the largest three companies, Exxon, BP and Royal Dutch/Shell, who have benefited most from the expansion in super cap multiples that has occurred across all industries, the rest of the oil industry is actually valued at only 85% of the cash invested. It is hardly surprising that the market has not supplied sufficient capital to meet current demands.

If we look deeper into the numbers, the lack of investment in basic core infrastructure (refining and marketing) becomes even clearer. E&P, the drilling part of the business, has earned an 8.5% return on cash invested, barely enough to justify continuing expenditures. Refinery and marketing, the infrastructure part of the industry, has earned only 4.7% on cash invested, far less than the 8% to 15% cost of capital these companies are charged by the market for the risks inherent in these investments. With these types of returns every dollar spent reduces shareholder wealth, hardly a good use of capital.

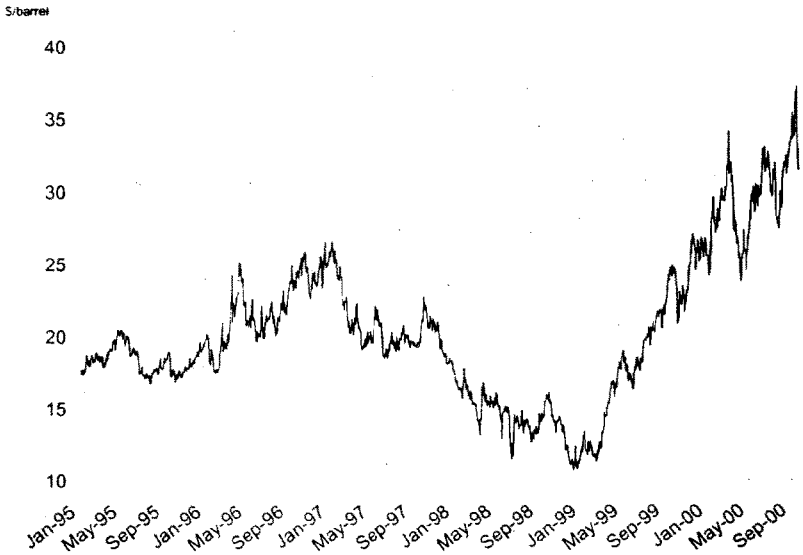
The reality of modern capital markets is that only industries with significant positive returns on cash invested above the cost of equity attract new capital. If you compare return on equity across industries over the last three years for companies in the S&P 500, the reason for today's shortages of electricity, oil and natural gas becomes quite transparent. Utilities and energy companies have managed to produce slightly less than a 12% return on equity while technology companies have produced a 25.3% return on equity, health care companies a 32.1% return on equity, consumer staple companies a 29.1% return on equity, consumer cyclical companies a 21.7% return on equity, capital goods companies a 20.9% return on equity, and financial companies a 19.9% return on equity.

It is hardly surprising that our energy infrastructure is at its limits and most of the investment activity is occurring elsewhere. The only long-term solution to this type of problem is allowing the return on equity to attract capital and create the incentives to invest.

This is one of the reasons why the recent SPR announcement must be viewed with caution. In terms of the immediate problem of making it through this winter without economic disruptions, the modest increase in supplies created by the SPR release should allow refiners to operate at their full capacity through early winter, while interfering only modestly with the returns on capital necessary to attract new investment. However, like most such efforts, it hints at more aggressive efforts to manage prices. Such efforts would have the potential to further destroy incentives to invest in these industries and would likely create even more severe shortages next year and beyond.

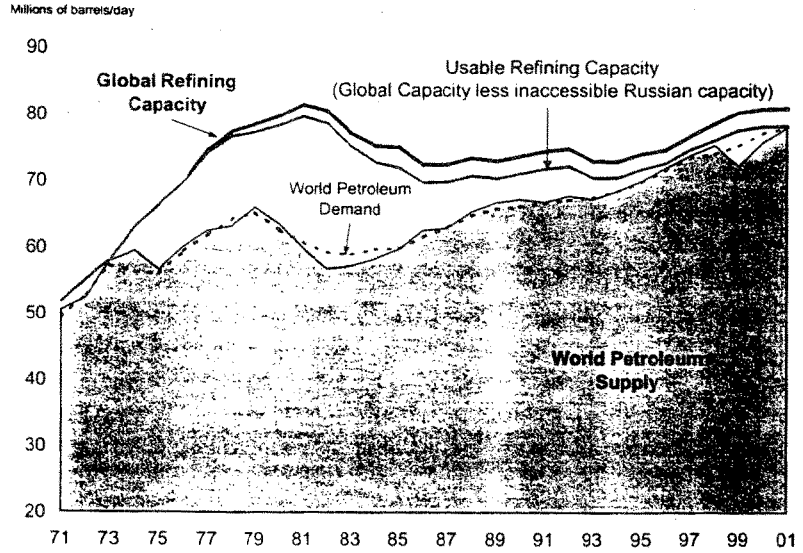
The wonder and unfortunate reality of modern capital markets is that they allocate capital to where it is most useful, measured by the market's willingness to pay for the product. If you shield the consumer from those costs, you will likely destroy the incentives to create the product. And, without question, if you prevent shareholders from receiving those profits, either through additional regulation or taxation, you will further undermine the market's willingness to invest and thus will create even tighter capacity constraints for the future.

Exhibit 1: WTI Crude Oil Price Path



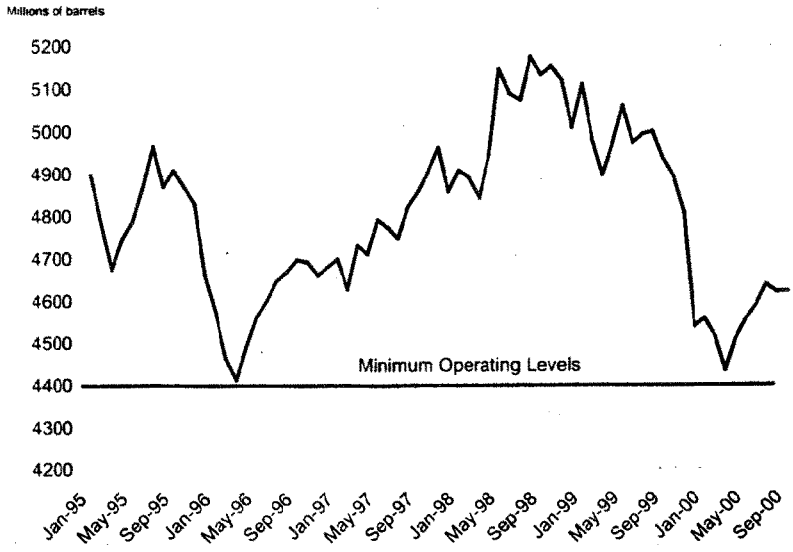
Source: Goldman, Sachs & Co.

Exhibit 2: Global Supply And Demand And Refining Capacity Constraints



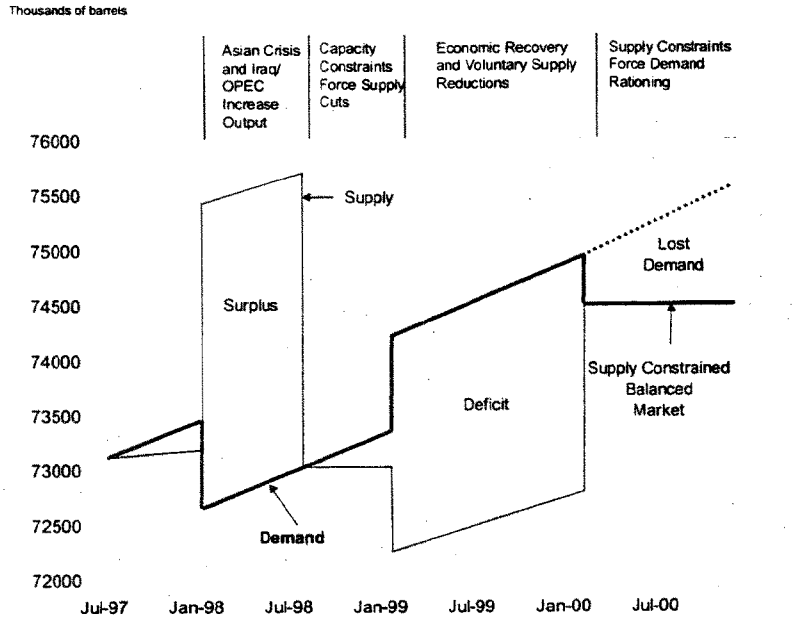
Source: IEA, Oil & Gas Journal and Goldman, Sachs & Co.

Exhibit 3: Global Hydrocarbon Inventories



Source: IEA; Goldman, Sachs & Co

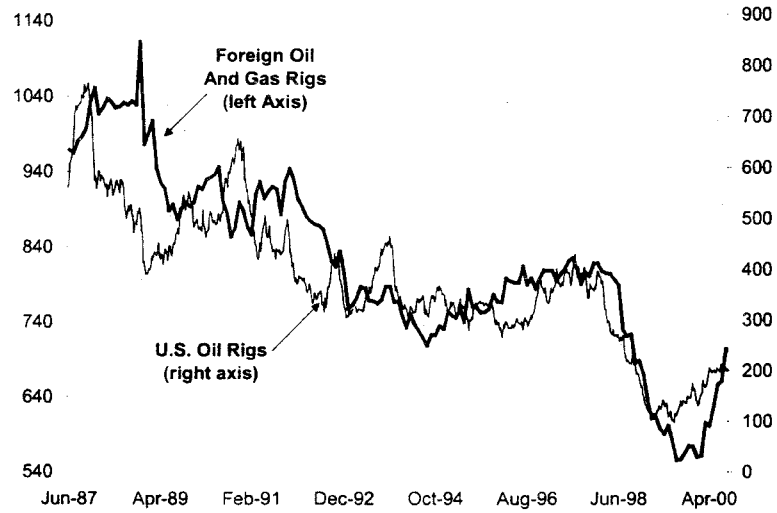
Exhibit 4: A Stylized View Of Supply And Demand In The Oil Market



Source: Goldman, Sachs & Co.

Exhibit 5: U.S. And International Rig Counts

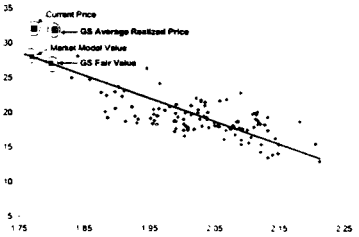
Number of rigs



Source: Baker Hughes

Exhibit 6a: Modal WTI Prices Versus End-Of-March Atlantic Basin Oil Stocks

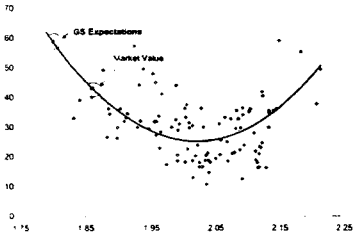
Billions of barrels, horizontal axis; $/bbl, vertical axis



Source: Goldman, Sachs & Co.

Exhibit 6b: Actual WTI Volatility Versus Expected End-of-March Atlantic Basin Inventories

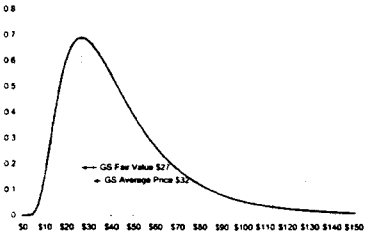
Billions of barrels; horizontal axis; percent volatility, vertical axis



Source: Goldman, Sachs & Co.

Exhibit 6c: Annual Distribution Of WTI Prices With 58% Volatility

$/barrel, horizontal axis; frequency, vertical axis



Source: Goldman, Sachs & Co.

Exhibit 6d: Oil Price Probabilities Over Time

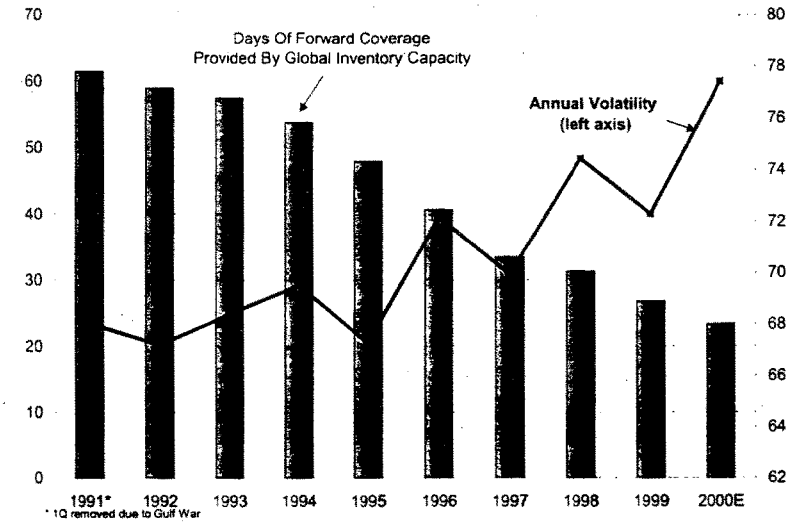
$/barrel

Time Horizon	% Prob of Prices Trading Above $40	% Prob of Prices Trading Above $45	10% Prob Prices Exceed	5% Prob Prices Exceed
1	8%	2%	$39.36	$41.91
2	15%	6%	$42.51	$46.46
3	19%	10%	$44.93	$50.11
4	21%	12%	$46.98	$53.28
5	22%	14%	$48.77	$56.14
6	23%	15%	$50.37	$58.77
7	24%	17%	$51.83	$61.22
8	24%	17%	$53.17	$63.53
9	25%	18%	$54.42	$65.72
10	25%	19%	$55.57	$67.81
11	25%	19%	$56.65	$69.80
12	25%	19%	$57.67	$71.71

Source: Goldman, Sachs & Co.

Exhibit 7: Annual Oil Volatility Versus Global Inventory Capacity

Percent volatility, left axis: days of inventory, right axis



Source: Goldman, Sachs & Co.

Exhibit 8: Comparative Valuation Analysis

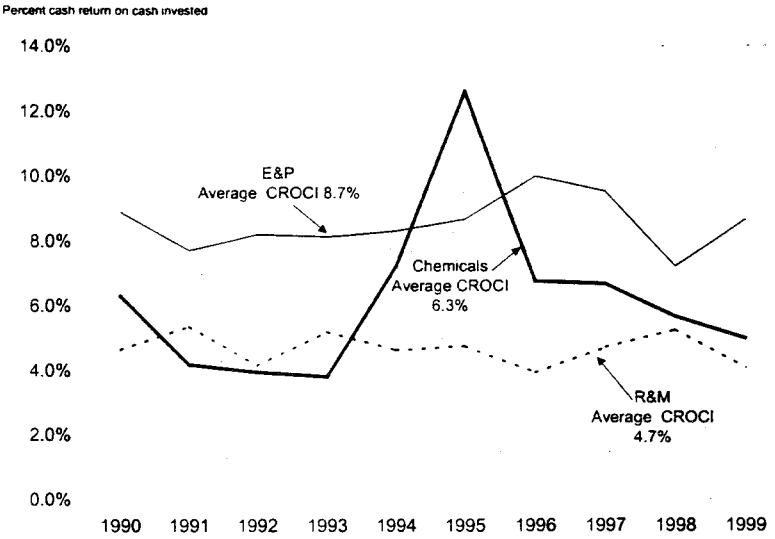
[illegible]	Price	Enterprise Value	Gross Cash Invested	EV/GCI
Super Majors				
BP	$55.81	$241.927	$194.354	1.2
Exxon Mobil	$88.00	$316.164	$219.855	1.4
Royal Dutch Petroleum	$62.69	$152.885	$98.899	1.5
Shell Transport and Trading	$51.19	$32.373	$65.933	1.4
Average				1.4
International Majors				
Chevron	$90.19	$63.798	$65.649	1.0
Eni	EUR8.65	$66.751	$91.937	0.7
Repsol YPF	EUR23.54	$50.793	$66.908	0.8
Texaco	$54.25	$36.326	$48.824	0.7
TotalFinaElf	EUR183.00	$175.456	$147.254	1.2
Average				0.9
North American Majors				
Amerada Hess	$73.25	$8.204	$14.287	0.6
Conoco	$27.19	$21.482	$26.682	0.8
Occidental Petroleum	$23.81	$15.794	$24.457	0.6
Phillips Petroleum	$56.38	$25.358	$29.120	0.9
USX-Marathon	$29.13	$11.557	$24.615	0.5
Petro Canada	C$4.25	$6.780	$8.557	0.8
Suncor	$39.20	$7.250	$5.379	1.3
Average				0.8
European Majors				
CEPSA	EUR9.72	$4.148	$5.394	0.8
Enterprise	$94.00p	$5.009	$9.190	0.5
LASMO	155.50p	$3.529	$7.899	0.4
MOL	HUF3,980.00	$2.196	$3.312	0.7
Norsk Hydro	Nkr388.00	$16.700	$25.309	0.7
OMV	EUR84.28	$4.391	$12.871	0.3
Average				0.6
Emerging Market Majors				
Petrobras	$33.31	$44.615	$40.556	1.1
PetroChina	HK$1.79	$408.738	$487.858	0.8
Perez Companc	$16.69	$5.539	$7.337	0.8
Average				0.8

EV = enterprise value GCI = gross cash invested
E=Estimate

[illegible]	Enterprise Value	[illegible]	[illegible]
Super Majors	$803.349	$578.841	1.39
International Majors	$385.124	$420.581	0.94
North American Majors	$88.425	$133.093	0.72
European Majors	$35.973	$64.975	0.55
Emerging Market Majors	$458.890	$535.755	0.86
Industry	$1,789.761	$1,733.246	1.03
Industry excluding Super Majors	$986.412	$1,154.404	0.85

Source: GS Estimates; Company Reports

Exhibit 9: Divisional Inflation Adjusted Cash Return On Cash Invested



Source: Goldman, Sachs & Co

Exhibit 10: Sector Returns in the S&P 500

Economic sector	Return on equity*	3 Year total return (annualized)*	Share of total market value*
Health Care	32.1%	29.2%	9.7%
Consumer Staples	29.1%	21.7%	10.7%
Technology	25.3%	86.3%	28.5%
Consumer-Cyclicals	21.7%	46.4%	9.2%
Capital Goods	20.9%	37.0%	8.9%
Financials	19.9%	26.5%	14.1%
Utilities	11.9%	12.7%	2.4%
Energy	11.8%	13.8%	5.0%
S&P 500	**22.0%**	**45.4%**	**100.0%**

*Weighted averages of individual firm returns; weight based on market value.

Source Goldman, Sachs & Co

Mr. BARTON. Thank you.

The Chair is going to start the questioning period. We are expecting a floor vote around 12:30, which is in about 10 minutes. When that vote occurs, if it occurs, if Mr. Bryant wants to ask his questions, we will certainly do that; and then we will take a brief lunch break and a personal convenience break for the witnesses, try to get back here by approximately 1 p.m. And then do the rest of the questions for this panel. And then we will go to the second panel.

So the Chair is going to recognize himself for 10 minutes for the first round of questioning.

Secretary Moniz, we have here several of the energy acts that have been authorized by the Congress over the last years, and one of those is the Energy Policy Conservation Act that has the Strategic Petroleum Reserve. I am sure you have got a copy of the act, or one of your staff has a copy of the act.

Can you show me where in the act it says that you can use the Strategic Petroleum Reserve to affect supply and prices?

Mr. MONIZ. Again, the motivation for this time exchange is not to manipulate prices. The issue is, as Mr. Strongin just said, to provide the opportunity for refineries in the next months to operate near capacity, to increase stocks, including distillate.

Mr. BARTON. Let me read from the Department of Energy press release. It is dated September 22, 2000, statement of Energy Secretary Bill Richardson, "The intended result of this exchange is simple: To increase oil supply." That is the Secretary of Energy.

This is the President's statement. The President of the United States, the Honorable William Clinton, September 23, 2000, on the South Lawn; and he says, "The underlying cause of low inventories is the high price of crude oil. The overriding purpose for our action is to increase supply and help consumers make it through the cold winter."

And that is noble. Nobody is opposed to that in principle.

The President says, if you look at it, the reason that prices got so high is that the supply has gotten so low, and what we are trying to do is even out supply and price. He goes on later, "All I can tell you is, I think this is a prudent thing to do, to increase stocks for the winter and to try to make sure that it has a moderating effect on prices, but basically to deal with the supply issue."

This is the President of the United States. This is the Secretary of Energy. Not one of those gentlemen in their public statements has said they are trying to put more oil into the Strategic Petroleum Reserve through some kind of a swap next year.

So, once again, where does it give you the authority to use the SPR to affect supply and prices?

Mr. MONIZ. If I may just read an additional statement——

Mr. BARTON. You are going to get a formal question on that in a letter from me later in the day.

Mr. MONIZ. But also the press release that you referred to says, "The temporary infusion of 30 million barrels of oil into the market will likely add an additional 3 to 5 million barrels of heating oil this winter." It goes on about refineries.

It also adds, "As has been the case in earlier exchanges, the response to our solicitation will reflect the needs of the market.

Awards will be made on the best deal for consumers, the taxpayer, the management needs of the SPR."

So in EPCA—and we do have people who can answer more precisely the question, but EPCA provides the authority to add oil to the SPR through exchange. This is an exchange. It is a process that will play out over this year, essentially. It will result in more oil for the SPR.

It is countercyclical, as are other actions that have been taken, like the RIK program; and very importantly—and the timing is very important. Mr. Markey referred to his rule for 45 days. The timing is very important in the sense that this is the time to get the product out from SPR, to reach the refiners in November and to produce heating oil product for the winter season; and in doing so, in fact, our what we believe is a conservative estimate of the amount of heating oil needed will have a substantial impact in addressing the current inventory shortfall.

Mr. BARTON. I understand that, but again, my understanding of the act is that it, in some sections, explicitly prohibits against trying to manipulate the market for supply and-demand purposes; and even in the section that the General Counsel's office was quoting yesterday as a justification, there is a subparagraph that suggests you need to minimize supply and price impact.

And, you know, I am going to look forward to seeing all the legal beagles in DOE burn the midnight oil to try to come up with something in the act that says you can use it to affect supply and price.

We are not opposed to trying to put more home heating oil in the Northeast—at least I am not, and I don't think anybody on the subcommittee is. Congressman Markey and I worked together to put into the Reauthorization Act that is now pending in the Senate a specific provision to create a home heating oil reserve in the Northeast and to change the trigger for using that reserve so it wouldn't require a national emergency to use it.

So I think that I am on record as saying that I don't even oppose that.

I am opposed to turning the Strategic Petroleum Reserve into a short-term market manipulative tool, and that, to me, appears to be what the Department of Energy is attempting to do.

Let me ask you another question. Let's assume that this swap that has now become such a darling is, in fact, legal. I have my questions, but I will assume that it is. My definition of the swap is you give me something, I give you something simultaneously.

Has the Department of Energy ever used this swap provision in the past to give something now to get something back later?

Mr. MONIZ. Yes. Again, for example, this is very similar in terms of principle with the RIK program.

Mr. BARTON. No, I am not asking similar in principle. I am asking specifically, have you released oil from the Strategic Petroleum Reserve on a short-term basis with the expectation that on a longer-term basis you are going to get more oil back?

Mr. MONIZ. First—well, yes. Let me give you two examples. Again, in the RIK, first of all, there is the issue of the schedules of return having been renegotiated.

Mr. BARTON. I am not asking about the royalty-in-kind program. That is specifically enumerated in the act. I understand royalty-in-kind.

Mr. MONIZ. No. 2, just earlier this year when we had the problem with two refineries being unable to get product because the dock collapsed, we did an exchange to service those companies and keep product running.

Mr. BARTON. That was because there was a specific accident, though. There is no specific accident in this pending case. You have got 30 million barrels of oil in the Reserve, and you are going to put it up for bid Monday, with the expectation that bidders are going to come in and offer to give you more oil back sometime between next August and next November, as I understand it.

Mr. MONIZ. Correct.

Mr. BARTON. Has that ever been done before? The answer is no, it has never been done before.

Mr. MONIZ. Well, I would argue that it is the same as has been done with——

Mr. BARTON. No, not the same as has been done. Has it ever been done before?

Mr. MONIZ. The same as has been done.

Mr. BARTON. As has been done.

Mr. MONIZ. The same——

Mr. BARTON. Now, the current administration is saying it depends on the definition of "is" or "has".

Mr. MONIZ. No, I am sorry. Excuse me. I will be very—it is the same that was done this year in response to that dock collapse. Oil was supplied. Oil was subsequently returned.

Mr. BARTON. So we had a dock collapse last week and that caused the President of the United States and the Secretary of Energy to say we are going do release 30 millions barrels of oil?

Mr. MONIZ. No, sir.

Mr. BARTON. So it is not the same.

Mr. MONIZ. I am sorry. The procedures were the same. The issue now here is that there is a use of the authority for exchange to fill the Reserve. It is being done to observe the market forces, and it is being done in this countercyclical way which will, in fact, minimize impact.

Mr. BARTON. Okay. So you will supply the—when I put this in writing, we will get the documentation and the incidents and all of that that you referred to?

Mr. MONIZ. Yes, sir. Certainly.

Mr. BARTON. Let me ask you another question. These contracts that are going to be let, if they are let, what happens next August if the market—the futures market right now is wrong; prices are higher, not lower?

Mr. MONIZ. My understanding is that there is a contract to return a certain amount of oil.

Mr. BARTON. Is that your understanding?

UNIDENTIFIED WOMAN. Yes, that is the understanding.

Mr. BARTON. Now, I was told yesterday that there was a renegotiation provision in the contract that if they guessed wrong, the Department is going to be very willing to reopen those contracts for renegotiation. Is that true or not true?

Mr. MONIZ. I don't believe so, but I can ask Mr. Shages. May I?

Mr. BARTON. Sure. He is the man who told me what I just repeated to you. He is a credible person.

Mr. SHAGES. Yes, my name is John Shages. I am the Director of Policy and Finance for the Strategic Petroleum Reserve.

The contracts will be set for a specific time and for a specific amount of oil. Whatever amount is agreed to that they will give back to us, that is the amount they must give back to us.

Mr. BARTON. So, what you told me yesterday about renegotiating if there was a difference in the market, that is not true today?

Mr. SHAGES. The administration will be willing to do that, but it doesn't have to do that. They are contractually bound to deliver a specific amount of oil back.

Mr. BARTON. But the administration would be willing to do that. So there is some provision—if this great swap idea in practice turns out to be wrong in terms of the way the market is going, then your expectation is that there will be a renegotiation?

Mr. SHAGES. Well, let me put it this way. I am a civil servant, I will be——

Mr. BARTON. I understand that, and I would much rather ask my questions to the Secretary, but you are an honest man and we will get a straight answer.

Mr. SHAGES. I will be willing to do the renegotiation.

Mr. BARTON. You will?

Mr. SHAGES. I will because it will be for the best interests of the Strategic Petroleum Reserve and the American people.

Mr. BARTON. So the reality, Mr. Secretary—thank you, sir—is as I thought it was. If markets go down, you will get more oil and everybody will be happy, but if markets tighten up and go up, you will just renegotiate and you won't get any more oil or you will keep deferring it? Is that a fair assessment?

Mr. MONIZ. Well, I think, first of all, again, as Mr. Shages said, there is a contractual requirement. As he also said, clearly anytime, in any transaction, there can be a renegotiation. If there is a renegotiation, it will be to advance the interests of the public.

Mr. BARTON. Are there any restrictions in these pending contracts as to how the oil can be used?

Mr. MONIZ. No, sir.

Mr. BARTON. There is no——

Mr. MONIZ. Just a second. Except they will be used for domestic product.

Mr. BARTON. So the restriction is——

Mr. MONIZ. And the mix in terms of heating oil——

Mr. BARTON. Is there a restriction that it has to be refined?

Mr. MONIZ. It can go into inventory and buildup inventory stocks.

Mr. BARTON. My understanding is that this is crude oil.

Mr. MONIZ. Correct.

Mr. BARTON. And that whoever gets the bid has to take possession of it.

Mr. MONIZ. Takes possession of it.

Mr. BARTON. They can't leave it in the SPR?

Mr. MONIZ. Correct.

Mr. BARTON. But once they take possession, there are no restrictions on what they use it for?

Mr. MONIZ. Correct.

Mr. BARTON. So there is no guarantee that it is going to go into home heating oil?

Mr. MONIZ. I think the logic here is that the market will dictate.

Mr. BARTON. We hope. Hope springs eternal.

Mr. MONIZ. Because, again, the market is operating on its price structures, and this will presumably stimulate refineries that typically in October or November are running at a lower capacity to run——

Mr. BARTON. Presumably, hopefully and prayerfully, but there is no requirement.

Mr. MONIZ. It is being left—it is a market—in the end, it is a market activity.

Mr. BARTON. Okay. I am going to have to move on here.

Mr. MONIZ. Which is the principle.

Mr. BARTON. One more thing. Is there any restriction on who can bid for the oil? Could Saddam Hussein send his agent and bid for oil in this auction on Monday?

Mr. MONIZ. No, I don't believe so.

Mr. BARTON. So foreign nationals cannot bid, or just Saddam Hussein cannot bid?

Mr. MONIZ. There is not a restriction to only American companies, but Saddam Hussein could not bid for it.

Mr. BARTON. Why could he not bid? You just don't like him or what?

Mr. MONIZ. It is our policy, right.

Mr. BARTON. It is a policy; you would not accept a bid?

Mr. MONIZ. Right.

Mr. BARTON. Okay. I was told yesterday that there were no restrictions on who could bid. Now, at was an informal briefing. I would certainly hope that Saddam Hussein could not bid, so I would support that policy.

Mr. MONIZ. Again, this would be an unlikely market result in any case.

Mr. BARTON. I understand.

All right. Now, Mr. Mazur, I want to ask you a question on the charts. I want to put the charts back up that the EIA had about the inventory situation, the blue charts that had fuel oil stock inventories and crude oil inventories.

My question is, since about a year and a half ago, looks like that inventories have been consistently below normal ranges but they do track the normal trends, and it looks to me like an analysis of that could be that the market has just fundamentally changed and the oil industry has decided to keep less in inventory because they are below the normal ranges, they are moving up and down, both for distillate stocks and for crude oil inventory stocks. Has EIA done any analysis of whether the fundamentals have changed in inventory control, or do you think that that is purely a reflection of higher oil prices and the people that own the inventory don't want to keep that much capital tied up in inventory?

Mr. MAZUR. We have not done a formal analysis of whether there has been an incredible shift in regime of inventory behavior for the

oil industry from last year to this year. In part, though, it seems more likely that high prices and economic factors explain a lot of what is going on here, and we do have tight markets; there is a tendency not to hold inventories when we have seen backwardation in the markets.

Mr. BARTON. Is it at least academically——

Mr. MAZUR. Backwardation means today's prices are going to be higher than future prices.

Mr. BARTON. [continuing] plausible that we may have a fundamental shift in inventory control management and that we are going to have lower inventory levels regardless of what we do on the supply side?

Mr. MAZUR. There are some industry analysts who say that is possible, but it is a very hard story to tell in that it just occurred last June.

Mr. BARTON. Okay. I am going to turn the chair to Congressman Bryant, and if no other member shows up after your questions, recess the hearing until approximately 1 o'clock p.m. Okay?

Mr. BRYANT [presiding]. I promise I will only take 10 minutes.

I want to express my appreciation to this panel. I apologize to you for leaving. I wanted to hear all of your testimony. I had to go vote, as we are doing an exchange here in the chair so we can vote on this passage of a bill. So I apologize to you if I cover some of the territory that the chairman did, because again I missed his questioning.

If I could just follow up on a point that the chairman was making on that chart. And, Mr. Strongin, you are from Goldman Sachs; do you have an opinion on this issue of the inventory controls?

Mr. STRONGIN. The inventory controls, yes.

Mr. BRYANT. Because that almost—to me it is almost a parallel track here.

Mr. STRONGIN. It is very much a parallel track in a straightforward way. It simply reflects the fact that when you refine oil, you get both gasoline and heating oil, which means you build inventories of gasoline in the winter because demand is down, and you build inventories of heating oil in the summer when you are trying to produce the gasoline for people to use. And so that is just the normal seasonal patterns.

As to the rest of the question, actually there is very good evidence there hasn't been any change in the way inventories are handled. If you take a look at the kinds of pricing models that we use to forecast, which are basically forecasting a price off of inventory projections, the market is right in line with those models, which really indicates that there is no real change in the behavior pattern of inventories. And, in fact, the real challenge that we face is the normal seasonal increase in demand from today to the middle of winter is about 3 million barrels a day of consumption. That represents a need to draw about 250 million barrels, depending on the weather, to 350 million barrels of oil out of inventory, heating oil. It is sort of not there, and that is why you are seeing prices go up, because it is trying to deal with that particular problem.

Mr. BRYANT. I think I did miss part of your testimony. Did you in your testimony indicate why it is not there?

Mr. STRONGIN. It is not there because we currently have a global demand for oil that is higher than it has ever been, and we lack both the production capacity and the refining capacity to meet that demand. This is not a subtle problem. It is a simple, fundamental lack of capacity.

Mr. BRYANT. And you are saying that there is a production problem, but if there was not a production problem——

Mr. STRONGIN. You would have a refining problem.

Mr. BRYANT. [continuing] you would have a refining problem?

Mr. STRONGIN. Right. And the real question, I think from a policy standpoint, is why is there so little flex in the reserve capacity in the system as a whole? And I largely attribute that to the fact that the return on capital in the industry has been so low. You know, you do not have a shortage of semiconductors. You do not have a national semiconductor policy, and the reason is returns on equity in those industries are 20 to 40 percent. When you look at the energy industry, you have a return on equity of 12 percent. If you look at the refining and marketing part of the business, which is where that Reserve capacity is held, you have a return on equity of less than 5 percent, in a modern marketplace.

Mr. BRYANT. In your opinion, why is the return on capital so low?

Mr. STRONGIN. In many cases, probably the single largest factor, though there are a number of them, if you look at the last 20 years of the oil industry, you have a progressive set of new environmental regulations put on. Each of those environmental regulations forced refiners to upgrade their facilities. They also incrementally expanded capacity even though there was no real demand for it. That progressively eroded the returns on the industry. You also, by and large, have seen governmental action take place to cutoff the tops of the earning cycle; things like windfall profits taxes. The combination of that has meant when you look across the whole cycle, the return on capital in the industry is simply low.

Mr. BRYANT. How would you view—a little off the subject but we initially alluded to it, I think, a little bit in the opening statements. From your industry, how would you view issues like the drawdown from the Strategic Reserve that is currently being discussed, 30 million barrels?

Mr. STRONGIN. I guess there are sort of two responses to that. One is the simple physical reaction, divorced from the politics and market precedent issues, which is that it represents about the necessary oil to run the U.S. refinery system at max through winter. As such, it modestly reduces the probability of stocking out of heating oil in the Northeast this winter. That would be economically disruptive. So as a pure physical action, it represents a reasonable action and it probably is about the largest size action that can be reasonably undertaken.

From a broader economic issue of the precedent and notion of further price management, when you have an industry that has capacity constraints because of a lack of profitability, and you do things that hurt that profitability and manage those prices, you are continuing on an environment where the investment environment is going to be poor. What that may lead to is even worse problems next year and the year beyond.

You see a very similar pattern in the natural gas industry, which has been subject to the same kinds of regulations. So that as a local action, I think it is reasonable. More globally, out of context, it raises worrisome questions about whether, in fact, the return on capital in this industry will be allowed to be high enough to generate the necessary investment to provide the necessary infrastructure and energy to drive a global economy forward.

Today when you look at the Goldman Sachs global economic forecast or any of our peers', one of the key constraints on global and U.S. growth is available energy. If you continue to underinvest in that sector, you will continue to put a constraint on growth globally.

So one has to be very careful when one begins to play with short-term economic incentives that one hasn't created long-run economic incentives that are actually quite counterproductive. I think that is really the central issue here, and that has to be taken in the broader context of other actions toward the industry; issues that you will hear later on about willingness to produce pipelines for natural gas, the environmental regulations that surround refining, the environmental issues that surround where and when and how you can drill; and the secondary issues of how companies are taxed and treated when they invest outside the country.

Mr. BRYANT. I haven't forgotten about the rest of the panel here.

Mr. Moniz.

Mr. MONIZ. May I comment?

Mr. BRYANT. Yes, because I wanted to ask you some questions, too.

Mr. MONIZ. Please. I would just like to comment that certainly much of what has been said we certainly agree with. The issue of, for example, the competition for capital is a very important issue that we certainly recognize. I also would like to reemphasize what was said that—well, I guess between the two of us, that the exchange going on right now is timed in both scale and schedule to meet a real need in terms of the refineries operating in this period—in other words, the Novemberish kind of time period—to produce the product that we are talking about. But I would like to reemphasize that this is not an issue of—I think to use your words earlier—an aggressive attempt to manipulate prices. This is a focused exchange activity addressing a real problem, and that is how it will be carried out.

The market will determine how it goes in detail, and we, in fact, plan to certainly keep trying to address this question and try to understand what a government role would be in addressing the issue of capital competition in the private sector. As has been said, returns on some of the new economy investments, for example, right now certainly is much, much larger and we need to address it for our infrastructure questions.

Mr. BRYANT. So could we lie to rest this issue that we hear so often in politics today about big bad oil gouging this country? I mean, can we lay that issue to rest? That is not happening from what I hear?

Mr. STRONGIN. I mean, the economics of that are startling simple. I mean, if you take a look at the integrated major companies, which is in essence big bad oil, to use your phrase, today's market

value of those companies is approximately $1.01 for every $1 they have invested. In that context, that is hardly a market value or an ability to generate returns that is going to attract new dollars. So the notion that somehow that industry has been able to accumulate wealth in some radical fashion is clearly, you know, belayed by the numbers.

Mr. MONIZ. I would just add, however, that I think there are many factors involved in the price volatility we have seen and those factors have not been certainly all untangled.

Mr. BRYANT. Okay. Let me follow up on that, Mr. Moniz. In 1996, the Department of Justice opened an antitrust investigation into the rising gasoline prices, coincidentally the last time we had a Presidential election. What was the outcome of DOJ's investigation and was a report actually issued on the high price of gasoline?

Mr. MONIZ. May I defer that, Mr. Chairman, to the economists here who may have a better answer?

You have no answer? We will have to get back to you, Mr. Chairman.

Mr. BRYANT. Okay.

Mr. MONIZ. Fine. I am sorry. We will have to get back to you on that, and the Department of Justice will presumably have to respond.

[The following was received for the record:]

The Department of Energy has not been able to locate any record of a U.S. Department of Justice investigation of gasoline prices during 1996. However, the Department of Energy prepared a 45-day report entitled *An Analysis of Gasoline Markets Spring 1996* which was released in June 1996. This report is available from the Energy Information Administration at www.eia.doe.gov/oil__gas/petroleum. The report found that—

> "...the gasoline price increases experienced by consumers in early 1996 resulted from a confluence of factors, but that crude oil price increases and normal seasonal gasoline price increases accounted for most of the change. Unusual factors in gasoline markets also played a role, and include: a late-winter cold spell causing refiners to focus on distillate instead of gasoline longer than usual; lower-than-normal gasoline stocks; continuing high gasoline demand and high refinery capacity utilization; and persistent expectations that both crude oil and gasoline prices would fall several months in the future, which discourage production in excess of demand to build stocks."

Mr. BRYANT. I understood also in reading additional material, that nothing ever resulted from this DOJ investigation in terms of charges being filed. And I also understand that DOE did a 45-day investigation.

Mr. MONIZ. In 1996, are you referring to?

Mr. BRYANT. In 1996.

Mr. MONIZ. Again, I would have to respond for the record.

Mr. BRYANT. Okay.

[The following was received for the record:]

I believe my earlier response to your question concerning the 1996 Department of Justice investigation described DOE's "45-day" report from that year.

Mr. BRYANT. Well, let me have another follow-up. Oil companies have been investigated dozens of times in the last 20 years and are again under investigation. Has the government ever found any evidence of wrongdoing during these last 20 years?

Mr. MONIZ. I apologize. This is not my area of expertise and so, again, I can certainly get you an answer quickly.

[The following was received for the record:]

A large number of firms in a variety of businesses are part of the oil industry because of their involvement in producing, or refining crude oil or delivering and marketing petroleum products. These businesses are subject to the state and federal laws and regulations affecting any business, as well as some which are specific to their segment of the business. Oil industry firms, like other firms, are subject to laws covering:

- mergers and competitive practices
- taxes
- leases or payments for federal resources
- shipping safety and standards
- environmental operations
- product quality
- worker safety and health

A number of federal agencies (including the Department of Justice, Federal Trade Commission, Department of the Treasury, Department of Interior, Department of Transportation, Environmental Protection Agency, and Department of Labor) are involved in enforcing these laws and would be the appropriate sources of information about specific types of investigations. No central record is kept of the investigations initiated against the industry or of the number of these investigations which resulted in enforcement actions. Since 1981, the Department of Energy (DOE) has not had any regulatory authority over the oil industry although DOE has been responsible for collecting nearly $5 billion from firms required to make restitution for pricing violations during the period of price controls in the 1970's. These funds have been distributed to parties who were overcharged during the 1970's.

Mr. BRYANT. One other question. In this issue of the drawdown, there was a memo that I had a copy of awhile ago and it is from, I believe, Secretary Summers where it mentions he and Mr. Greenspan object. The chairman read this in his statement, that Chairman Greenspan and I, and this is Mr. Summers speaking, the chairman and I believe that using this Strategic Petroleum Reserve at this time, as proposed by DOE, would be a major and substantial policy mistake. Even DOE suggests its impact on heating oil prices would be quite small. Moreover, it would set a new and ill-advised precedent, and the claim that the exchange is nothing more than a policy of technical SPR management would simply not be credible in the current environment. If you are inclined—this is to the President—if you are inclined to authorize SPR change, I would like to speak with you before you make your decision.

He goes on to say that there are alternatives available involving the SPR that are focused and targeted on the home heating issue. Could you tell us what some of those alternatives are?

Mr. MONIZ. Yes. May I first comment just on the issue of the memo?

Mr. BRYANT. Yes.

Mr. MONIZ. I won't comment in detail on the memo from the Secretary to the President. I would just emphasize that that was, of course, a period of interagency discussion. In the chronology I noted in my oral testimony, this was going on for some time. That memo, I would just note, I believe was written in the context of a possible significantly larger exchange than was finally decided upon by the President; and indeed Secretary Richardson, of course, also wrote a memo to the President which analyzed the policy reasons in favor of doing this.

Mr. BRYANT. I will agree they were talking about twice the amount they are talking about now, but I don't think the issue with these folks was over the amount. It was actually the policy of dipping into it.

Mr. MONIZ. There were several issues, clearly, but again the Secretary, who was the Secretary of Energy and obviously has a key role in this, wrote a memo as well that gave a compelling case for reasons why. The President obviously evaluated all of these inputs and made a decision to go forward.

Mr. BRYANT. Do you have a copy of Secretary Richardson's memo?

Mr. MONIZ. No, I do not.

Mr. BRYANT. Could you furnish this committee with a copy of that?

Mr. MONIZ. That would be a up to the President, sir. It is a privileged communication to the President.

Mr. BRYANT. Would you ask him if he would furnish us with a copy?

Mr. MONIZ. We will ask him.

Mr. BRYANT. Thank you.

Commissioner, if I might ask you, back on the issue of natural gas pipelines, do you recall building more natural gas pipelines to the Northeast would take some of the pressure off of heating oil in situations like the one that occurred this past January and February?

Mr. HOECKER. Well, natural gas has, contributed to the northeastern market, to a greater degree recently than it has in past times. We have authorized 6,000 miles of additional pipeline capacity nationally and a good portion of that is going to the Northeast. I do think that the Northeast is going to require additional capacity, but our experience recently, after having authorized some major pipeline additions to that part of the country, is that the proponents of those new facilities have not found the market to be there yet, and are not building them to the original design capacity that we approved.

So I think that additional supplies are going to be needed. I think it would take some pressure off in that market, but in many ways natural gas hasn't penetrated parts of the energy market like residential heating, for example, to the degree that it has in other parts of the country.

Mr. BRYANT. Thank you. Very quickly, before I close my question, does anyone have any quick comments to any of the questions I asked? Okay. Thank you.

I noticed Mr. Shimkus has arrived, and I would yield the gentleman the appropriate time to question this panel.

Mr. SHIMKUS. Thank you, Mr. Chairman.

I would like to start with Mr. Moniz on trying just to get clarification on the swap. I understand that 30 million barrels come out, possibly 30 million-plus will come in months to come—April for generalities, whenever—unless there is an emergency. That is defined in the agreement? What I am trying to get at, what happens if there is a—if the price skyrockets? I think I tried to cover this yesterday when we met. What happens if the price per barrel is $60 per barrel when the swap is to be completed?

Mr. MONIZ. Again, bids will come in tomorrow, presumably, from companies. They will propose an arrangement, including how much oil they would return for the oil they take out, with appropriate specification of the oil quality, and they can also bid for sweet or

sour crudes, for example. Then they would be required contractually to restore—to provide the oil in return on a schedule between August and November of next year; and that would be a contract.

Now, as we discussed earlier, there is always in any transaction an opportunity to request a renegotiation of some terms. That is not ruled out. But if that occurs, then that renegotiation will take place so as to maximize the public's benefit.

Mr. SHIMKUS. Okay. That is what I would hope that would happen. I mean, if the intent—because the legislation that you are using is legislation to attempt to fill the SPRO; am I correct? I mean, that is——

Mr. MONIZ. Yes, its——

Mr. SHIMKUS. That is the real legalism behind this, is terminology to help fill the SPRO, not really in your own terminology's effect on price or supply?

Mr. MONIZ. It is a countercyclical use of an exchange to, in fact, provide more oil to the Reserve.

Mr. SHIMKUS. And it is also——

Mr. MONIZ. And, of course, to meet a near-term potential crises with heating oil.

Mr. SHIMKUS. And the capacity is a billion barrels, correct? I mean, that is a possibility?

Mr. MONIZ. Seven hundred million, roughly.

Mr. SHIMKUS. Is there a goal to have?

Mr. MONIZ. Well, we have a number of programs adding oil. Again, as we said earlier, first of all, in 1996 and 1997, largely through direction to reduce the deficit, 28 million barrels came out of the Reserve. We are now refilling 28 million barrels through the Royalty in Kind program, with again an exchange of schedule negotiated to help conditions.

Mr. SHIMKUS. Right. But we didn't really refill it when petroleum barrels were $18 or less, or did we?

Mr. MONIZ. I am sorry? What is the question, please?

Mr. SHIMKUS. You know, we had low petroleum prices last year. When were the contractual arrangements made to refill the SPRO? Was it made at the ebb of the low prices or was it made afterwards?

Mr. MONIZ. I am sorry. Are you referring to the RIK program?

Mr. SHIMKUS. I am talking about refilling of the SPRO.

Mr. MONIZ. We have not had any appropriations to fill the SPRO in many, many years.

Mr. SHIMKUS. Has there been a request to fill the SPRO?

Mr. MONIZ. No, not in recent years. The mechanisms have been used like the Royalty in Kind but no appropriations adding back 28 million barrels, and now this will also add some additional volume.

Mr. SHIMKUS. Okay. Let me move to Chairman Hoecker for a second, because I want to address the natural gas issue and highlight most of the heating of—and we predict natural gas prices will go up this winter.

Mr. HOECKER. Yes.

Mr. SHIMKUS. So, since the vast majority of heating in the Midwest is natural gas, folks who use that heating method are going to pay higher prices.

Mr. HOECKER. That is right.

Mr. SHIMKUS. There is nothing that can be done through our Energy Department to alleviate the needs of the most poor and, taking Mr. Moniz' statement, those who are going to have to make choices between food and heat in the Midwest?

Mr. HOECKER. Well, sir, as I said in my opening statement, the FERC has focused on improving and making more efficient the pipeline infrastructure that we regulate. When it comes to providing low-income weatherization, LIHEAP, other assistance to people who could be suffering from these high prices, when it comes to ensuring that LDCs engage in prudent purchasing practices and that natural gas rates are stabilized so that perhaps the peak pricing is distributed over the whole year, those are areas that either the Department of Energy and the administration or State regulators have under their direct authority.

Mr. SHIMKUS. But we do not have a strategic natural gas reserve to mitigate emergencies of higher prices?

Mr. HOECKER. What we have is a very competitive and well-working market. We have working gas storage that has increased substantially in recent years, and as I believe DOE's charts have shown, that the fill rate is behind a good many previous years but it is in sort of the broad band of past practice.

Mr. SHIMKUS. Right, but the answer is there is——

Mr. HOECKER. There is no——

Mr. SHIMKUS. As natural gas prices go up, there is really no immediate ability to do what was being done for those in the Northeast? I mean, there is no strategic natural gas reserve that you can release and swap out?

Mr. HOECKER. Exactly.

Mr. SHIMKUS. And I thank you for this. I read the 1998 DOE—your last publication, because I have always been focused on this broad portfolio which many of you have mentioned, which is what we need. So I am going to just through a quick perusal, since I just received it—in fact, I stole it from the chairman.

Mr. MONIZ. We will provide you a copy.

Mr. SHIMKUS. I know you would. Page 36, there is a—and I will just quote it. On July 10, 2000, President Clinton directed Secretary of Energy Bill Richardson to establish a home heating oil reserve in the Northeast. DOE has completed the process of obtaining 2 million barrels of home heating oil to store at interim facilities in the Northeast. If that is true, if that is correct, are these being used to supplement the additional projected 5 million that may go on the market to ease this crunch?

Mr. MONIZ. Well, these are certainly separate actions. The 2 million barrel reserve will, of course, need to have a trigger mechanism for release in terms of some emergency situation. The—let's call it 5 million barrels, there have been lower and higher projections made—will go out into the market in a certain sense in the normal way from those who acquire the oil, who borrow the oil.

Mr. SHIMKUS. So we have this 2 million—I mean, this is 2 million barrels.

Mr. MONIZ. Right.

Mr. SHIMKUS. Of home heating crude oil.

Mr. MONIZ. Right.

Mr. SHIMKUS. That is available?

Mr. MONIZ. No, home heating oil.

Mr. SHIMKUS. Home heating oil, excuse me. That is available but it is not releasable?

Mr. MONIZ. No, it is releasable, but under conditions.

Mr. SHIMKUS. But we are not——

Mr. MONIZ. The Congress is still evaluating the triggering mechanisms.

Mr. SHIMKUS. As we are the triggering mechanism for the SPRO. I mean, we are evaluating it right now. I mean, that is part of our process is trying to figure out if the release of the SPRO is done appropriately or not.

Mr. MONIZ. Yeah, as part of the EPCA discussion, the heating oil reserve trigger is explicitly being discussed.

Mr. SHIMKUS. I would think that it would have been a much easier process for the administration to come before us and, if we have these 2 million barrels, to at least say we have got these, we set it up for heating oil emergencies, we think this is a heating oil emergency, let's use these first and help us expedite the trigger mechanism, than to go through this what some would think is a questionable procedure that is going to take 30 million barrels out with the possible refining for home heating oil of 5 million. I mean, we don't know for sure.

Mr. MONIZ. And diesel and other products, right.

Mr. SHIMKUS. Right, but the crisis is in home heating oil.

Mr. MONIZ. We are very concerned about a possible crisis in heating oil, right. But again the 2 million barrels is a reserve being formed right now as opposed—which——

Mr. SHIMKUS. The statement says you have it.

Mr. MONIZ. Well, it is being filled right now. It is about half filled right now. It will be completely filled very shortly.

Mr. SHIMKUS. All right. So we have 1 million barrels?

Mr. MONIZ. It will be filled imminently. I mean, the contracts were awarded a few weeks ago. It is being filled. And again I would remind you that kind of use could be—could more reflect the kind of sudden event that took place last winter where, for example, in the Northeast without refineries, dependent upon transportation, frozen harbors and rivers caused a very—an immediate supply problem in terms of shipping.

Mr. SHIMKUS. And quickly, I would like on page, I think it is 27——

Mr. MONIZ. May I just comment as well on the LIHEAP question you asked earlier? Of course, the President also announced a $400 million release there.

Mr. SHIMKUS. I know the chairman spoke in the press conference about that.

Mr. MONIZ. In addition, with your interest in technology, I would just mention that being funded for fiscal year 2001, we also have a gas power and gas infrastructure initiative that will look at things like, for example, improving storage technologies for gas.

Mr. SHIMKUS. Very similar in the last report, we get a lot of charts and graphs about projected future energy use. I think when we have this debate over national energy policy, I think what we want to see is what is the—what is the administration, through the Department of Energy, where do we want—where do we want to be? What percentage of our energy portfolio do we want to be in natural gas, nuclear power, coal-generated facilities; but we never see that, or, you know, my personal favorite, renewable fuels. And then we can start addressing policies to reach those areas.

You know, we are engaged in the energy deregulation issue. It is a very—pardon my choice of words—very hot debate, especially with California and the push for peaker plants in Illinois because of the high price spikes of 2 years ago, two summers ago, there is an aggressive movement to create peaker plants in the State of Illinois because the market works. High prices, capital; possible profits to reinvest.

What that does now, because of EPA rules and the ability to make smaller plants that are all built very similar, is that that is going to create a greater demand for natural gas. That is what is happening, and the price will grow because of that.

I hear the chairman getting annoyed with my length of time so I will yield back my time.

I want to thank you. I am not trying to be adversarial. The national energy structure, as you all know, since I keep harping on it, is very, very important to me. I do—as my opening statement said, the strategic importance of that is critical, I think, to the lives, and you will make the argument maybe lives of people being warm. I can make the argument that the lives of the natural gas people being warmed in Chicago are likewise as important as those in the Northeast, but until we get together and get a percentage of where we want to be in the future, these are nice, they are cute, they are colorful, but they are not—they are not going to help us drive policy, and I yield back my time.

Mr. MONIZ. May I comment, Mr. Chairman?

Mr. BRYANT. Please, briefly.

Mr. MONIZ. I would like to emphasize, first of all, of course, we would be delighted to come and have a more in-depth dialog. We believe this document reflects what is a very successful overall energy policy. We need to clearly have some issues right now, volatility in these markets. However, on the percentage I would like to say that, again, our first principle—and I think it is a bipartisan, long-standing first principle—is on the market dynamics. So we view our job as helping to shape the opportunities, technology developments, regulatory structures, et cetera, that will allow the many kinds of energy supplies that we need to satisfy all of the citizens' needs that you referred to, Mr. Shimkus, optimally.

So, for example, I think you will find in here many successful supply programs. You will find that nuclear power last year actually, because of higher capacity factors, had the highest contribution to power that it has ever had, and we have new technology programs for the future. Through all the areas, I would be happy to come by and talk about that.

Mr. BRYANT. Before I recognize the gentleman from Arizona, let me just reiterate the memo from the Secretary, particularly since

reference was made before this committee in terms of what was said in the reference—in that memo. This committee would certainly appreciate you passing our request for that document to be produced to us.

Mr. MONIZ. We will inquire.

Mr. BRYANT. If you would report back in some form to us what the response is. We would appreciate that. We would certainly like to see that memo.

[The Department of Energy had not responded at time of printing.]

Mr. BRYANT. At this time, the Chair recognizes the gentleman from Arizona, Mr. Shadegg.

Mr. SHADEGG. Thank you, Mr. Chairman. I have a number of questions. I want to focus Mr.—is it Moniz, is that how you pronounce your name?

Mr. MONIZ. Moniz.

Mr. SHADEGG. Moniz. There were some questions raised by your testimony and some questions raised by the memorandum for the President dated September 13, written by Lawrence Summers. I understand my colleague Mr. Bryant has already asked you some questions about that, but I feel compelled to ask some more questions.

First of all, in 1996, the President ordered a release of 12 million barrels from the Strategic Petroleum Reserve because of the price spike in gasoline. That happened to be during the 1996 Presidential campaign and it happened 3 days after Bob Dole called for a repeal of the 1993 gas tax increase.

We are now in the same kind of climate. You came here with thoughtful testimony saying this was not political and we are in a different situation than we were last summer when the administration opposed this release from the Reserve. I think sometimes we ought to learn from history.

The question I have of you is: Can you now, or could you supply me in the future, evidence that shows that that release resulted in a long-term decrease in the price of gasoline or heating oil?

Mr. MONIZ. May I first clarify the 1996 releases? Again there was one release—Okay, two in 1996, one in 1997, total 28 million barrels. Five million barrels was in the February 1995 fiscal year 1996 budget proposal to the Congress to address a SPRO infrastructure need in terms of decommissioning a site.

Mr. SHADEGG. I understand there was a rationale and the Congress was involved. My question is——

Mr. MONIZ. The second and third releases were congressionally directed to address deficit.

Mr. SHADEGG. In May 1996, the President ordered this release. It was, in fact, in advance of the date that Congress had authorized.

Mr. MONIZ. The requirement was in fiscal year 1996 and it was so done in fiscal year 1996.

Mr. SHADEGG. Now, we could bicker over the dealings. My question is: Did that bring about a long-term reduction in either the cost of gasoline or heating oil?

Mr. MONIZ. Well, I think clearly no; you know, relatively small. I mean, release of that type is not going to have a long-term effect.

Mr. SHADEGG. So it did not have a long-term effect?

Mr. MONIZ. It had an effect of, I believe, reducing prices for some time.

Mr. SHADEGG. But I think you just said it did not have a long-term effect.

Mr. MONIZ. No, correct; but again the motivation was again congressional direction for deficit reduction.

Mr. SHADEGG. Let me quote the President. The President said he was releasing because, "a rise in price of gasoline affects the take-home pay of working people who have to commute." That is a direct quote from the President. It doesn't say anything about revenue. It doesn't say anything about the needs of the Strategic Petroleum Reserve. I am quoting the President of the United States in May 1996, and I guess the point that I think you have already indicated to me is it did not have any long-term effect on the price of gasoline.

Mr. MONIZ. I would say no; yes, correct.

Mr. SHADEGG. Let me ask another question. Do you support the use of the SPRO for price manipulation purposes?

Mr. MONIZ. No. These exchanges, again, are to, A, increase supply of the SPRO and, B, in this case, again, to countercyclically address a potential crisis that we have in this winter.

Mr. SHADEGG. As a policy matter, you don't support the use of the SPRO to price manipulate?

Mr. MONIZ. Correct.

Mr. SHADEGG. Okay. I am glad you turned to the topic of exchange because that takes me to the to Lawrence Summers' memo. In the Lawrence Summers' memo, he indicates that both he and Chairman Greenspan believe that the price reduction which might occur as a result of a release of 60 million barrels, twice what is in fact being released, they say even this modest effect overestimates the probable impact. And then they go on to say that one of the ways in which it overestimates the impact is the bounce-back in the price when the fuel is returned to the Strategic Petroleum Reserve, and that in point of fact that may cause a spike in price or an increase in price, far offsetting any temporary decrease.

Do you disagree with that?

Mr. MONIZ. Well, the—first of all, let me just stress that I certainly had not seen Mr. Summers' memo.

Mr. SHADEGG. Could I have the staff give Mr. Moniz a copy? I can't believe you are here without having even seen the memo. It is a short memo.

Mr. MONIZ. Well, it is—I think I—I hear your reading of it. Clearly, again, we are in a situation where with very tight supplies and inventories right now, as Mr. Mazur said earlier a backwardated situation in terms of futures prices, with the oil being returned over a several-month period and a few hundred thousand barrels a day, we don't—we certainly don't expect price spikes. Clearly, we are not—over the program, we are not putting oil into the market; that is, over the length of the program.

Mr. BARTON. Would the gentleman yield?

Mr. SHADEGG. Certainly.

Mr. BARTON. You know, I told one of your staff, I said he is an honest man and you said you are, too, and you are.

Mr. MONIZ. Right.

Mr. BARTON. But how can you say that with a straight face, that you are not putting oil in the market? You are putting 30 million barrels in the market.

Mr. MONIZ. I said over the length of the program. Thirty million goes out right now and next year 30-plus million barrels will be returned to the SPRO.

Mr. BARTON. It is just not credible, Mr. Secretary. If I swapped Babe Ruth for—I don't know, who was a player then—Ty Cobb—and I get to use Babe Ruth for the season but I give him back next year, I had Babe Ruth. I used him.

You put 30 million barrels on the market, they are going to be—hopefully going to be used.

Mr. MONIZ. Hopefully, absolutely.

Mr. BARTON. They are not just going to sit in some tanker offshore Texas or Louisiana.

Mr. MONIZ. We certainly hope so.

Mr. BARTON. So you are putting supply into the market. That is a fact. I mean, that is——

Mr. MONIZ. Agreed.

Mr. BARTON. Okay.

Mr. MONIZ. Again, we certainly hope. Over the length of the program, it remains—it is simply—it is equally a fact that——

Mr. SHADEGG. What is the meaning of "is"?

Mr. BARTON. Unless you guess wrong on the market, and the market is tight next summer and then you will renegotiate.

Mr. MONIZ. If that should occur, it would be with the best interest of the public in mind.

Mr. BARTON. So for all intents and purposes, you are changing the policy for the use of the SPR to put oil into the market when it is politically expedient to affect prices or supply, and if the Clinton administration becomes a Gore administration you all are going to intend to do that from right now. You are changing the use of the SPR.

Mr. MONIZ. First of all, I will not address political expediency questions. This is a timed and scaled release to meet a very real problem that deals with refinery schedules, refinery capacities—we heard that confirmed earlier from the private sector—to address a real problem in a way that will, in the interval, increase oil in the SPRO. That is what it is.

Mr. SHADEGG. Reclaiming my time. We now have a copy of the memo delivered to you. It is a major issue. It has been in the press. It is being discussed by everyone, so if you haven't seen it before today, I suggest you ought to talk to your staff.

Treasury Secretary Lawrence Summers says point blank in this memo dated September 13 that both he and Chairman Greenspan believe that using the SPR, as is proposed, would be a major policy mistake. I take it that either you disagree with those two gentlemen or you think something changed between September 13 and today, and I am confused by your testimony as to what is the case.

Mr. MONIZ. First, as I said earlier, the memo was certainly written at a time when the interagency discussion was also evaluating a significantly larger release.

Mr. SHADEGG. As a matter of fact, he talks about a 60 million barrel release, and he says even a 60 million barrel release, twice what you are proposing to release, would produce only a reduction of home heating oil of 2.6 cents a gallon by January, and he says that is overly optimistic.

So we can assume that since you aren't releasing 60 million barrels, and they say—and they should know, Chairman Greenspan and the Secretary of the Treasury—produce a 2.6 percent—I am sorry. They are relying on your estimate that that would produce a 2.6 cent reduction by January. This is a release of half of that amount, so we are talking about a 1.3 cent reduction by January. And they go on to say that is an overestimate.

Mr. MONIZ. Again, let me answer—let me reemphasize something and then make a comment.

There obviously was an interagency discussion with a variety of perspectives being provided to the President, including those by the Department of Energy and our Secretary, who made what we would argue a compelling case for the policy soundness of this move.

Second, the focus is not on price. As has been said earlier, the expectation remains to be seen—as the bids come in, the expectation is that this will lead to an additional well-timed December heating oil increase of supply of let's say 5 million barrels. That 5 million barrels would represent a very substantial part of what is currently the inventory shortfall.

This is confirmed—this is also argued by others in the private sector. Mr. Ting, for example, from Smith Barney. Is it Smith Barney? It is Smith Barney, for example. We have it somewhere here. I can't find the paper on that.

And I think we heard earlier that this does have the right scale to have the refineries operating at what would be the appropriate capacity in this November/December timeframe to supply that product.

Mr. SHADEGG. I am absolutely dumbfounded by your testimony, and I have to be honest about that. I heard you just tell the chairman that you weren't putting oil into the market.

Mr. MONIZ. Excuse me, sir.

Mr. SHADEGG. You disagreed with that.

Mr. MONIZ. Excuse me, sir. I said over the year, and that is a fact.

Mr. SHADEGG. Okay. The second thing that I just heard you say is the focus of this policy is not price, and yet both the President and the Vice President have specifically said that the purpose of this policy is price. It is to bring down the cost of home heating oil in the northeastern United States. That statement is repeated in every journal you pick up, but your testimony is it is not price.

Mr. MONIZ. Clearly, sir, the focus is on this supply and inventory issue. Clearly, any action ever taken with the SPRO or any other supply, any other inventory, a privately held inventory is going to have an effect on the market. That is clear.

Mr. SHADEGG. So if the President says his goal is to take care of the cost of home heating oil, you are telling me on behalf of the Department of Energy that is not the goal?

Mr. MONIZ. The purpose is to prevent a supply shortfall. Clearly, that has implications in the market; there is no question about it.

Mr. SHADEGG. You probably disagree with many points in this memo. I am not going to take the time to focus on all of them, but in his memo Treasury Secretary Summers, along with Mr. Greenspan, say that the impact of the release, then twice what is currently being proposed, would be negligible. They say it would be lost in the day-to-day price fluctuations. And one of the points they make is the fact that U.S. refineries have only a limited capacity no matter what the availability of crude petroleum.

We heard this morning testimony that refinery capacity is at average 95 percent. Refinery by refinery, it is somewhere between 91 and 97 percent, and they make the argument that that makes any release, other than its rhetorical value, have no meaningful value. I take it you disagree with that as well?

Mr. MONIZ. Our analysis is that clearly while refinery capacity today is averaging 95 percent, historically, as one goes into October/November those capacities go down. There are periods of maintenance, both required and discretionary. Our analysis, and I believe supported by many others, including in the private sector, is that this should provide incentives for the refineries after they finish their turnarounds in October to come back in November, as we heard earlier on this panel, to operating at closer to full capacity in that time period and therefore increase product to the market.

Mr. BARTON. I would yield to the gentleman an additional 4 minutes. Are you about to wrap up?

Mr. SHADEGG. I would like to conclude with just one question about the gentleman's testimony.

Mr. BARTON. This will be the last question.

Mr. SHADEGG. At page 3 of your testimony, you make the point that other energy production, natural gas, coal, renewables, nuclear, and you say hydropower, had increased in the last decade. You acknowledge that domestic oil production is the exception and that U.S. production declines are expected to flatten out in 2005.

Two pages further in your testimony, at page 5, you say we have increased the production of new sources of oil and gas supply through technology advances. You say we are encouraging greater private/public partnerships to develop oil resources and we also lowered the cost of domestic oil exploration through technology advances.

I read some conflict between the two, and I guess I would like you to provide either now or in the future, for my information, those technological advances that the administration has produced.

Mr. MONIZ. If I may answer, Mr. Chairman, for a few minutes, I guess that is a yes.

First of all, domestic production of oil has been declining since 1970. In the last years, the rate of decline has gotten smaller, and a major reason for that, compared to 1990-1992, we were dropping about 250,000 barrels per day per year in production. That has now been nearly halved. A major reason for that is the coming on of a lot of the deep water drilling, where again the Congress and the administration worked together on things like the Royalty Relief Act, for example, which helped stimulate that. So the decline is

flattening out. Expectations, EIA projections are that by 2005 we will have flattened out.

One reason why it is flattening out is technology, deep-water technologies. All of these, by the way, generally develop with industry drilling technologies, 3-D 4-D seismic technologies, all of these programs; and we can certainly provide you more details.

Mr. SHADEGG. So the "we" means industry, not necessarily the administration?

Mr. MONIZ. It means the Department of Energy typically, in cost-shared—are in deep programs with industry, some exclusively, DOE for a while, like using very high-powered supercomputers to develop new 3-D and 4-D seismic technology.

Mr. SHADEGG. I appreciate that clarification.

Mr. BARTON. We have one more, Congressman. Can you last another 10 minutes? We can give a very brief 5-minute personal convenience break, but I do want Congressman Markey to have his shot at you.

Mr. MARKEY. If you need a drawdown right now.

Mr. BARTON. I will recognize Mr. Markey for 10 minutes. This will be the last round of questions for this panel.

Mr. MARKEY. Thank you.

This is a very funny debate. We have got this strategic oil reserve. The governments in other countries are meeting to plot to take oil off the world market to drive up prices for American consumers. Our government has a 570-million-barrel Strategic Petroleum Reserve to deal with their governments. The Bush campaign says it is a bad idea to use it against these OPEC nations who, if they met in the United States, would be a per se violation of antitrust law.

Six or seven companies who control one product can't meet and decide that they are going to take a product off the market in order to increase price. They would be going to jail. So the only weapon we really have is this Strategic Petroleum Reserve.

Now, the Bush perspective is that we shouldn't use it. But if we do not use it, the squirrels will be better prepared for this winter in the Northeast than the consumers are going to be because there won't be enough oil. When it was released last week, the price of oil had went down $6 a barrel. That is good for consumers.

You know, I have been trying to think of other times when people wouldn't use their reserves that they had put together. Nero wouldn't send out the fire fighters; rather, he just fiddled while Rome burned. The Minute Men in Lexington and Concord, I suppose they could have stayed in their houses and not all taken out their rifles; but good thing they did. We are sitting here without a British flag over our heads.

Here, however, we are told that it really wouldn't make much sense to deploy it. Kind of like the fish telling Noah they do not need an ark even though the storm is about to arrive.

Here, the oil companies are the fish. They are swimming in it; they love it. But for consumers there is going to be a severe impact unless our government acts to paradox these OPEC governments. It is not private sector; the government decides in these countries whether or not energy is going to come our way.

To Mr. Moniz: Has this Republican Congress yet authorized under EPCA, the Energy Policy Conservation Act, the availability for the President to deploy the Strategic Petroleum Reserve?

Mr. MONIZ. We are certainly awaiting the reauthorization of EPCA. Of course, the House has done some action.

Mr. MARKEY. The House has passed it.

Mr. MONIZ. And the Senate has not. We think it is very important to be passed. Again, this time exchange is authorized under the Interior act, Interior appropriations bill, but we need other authorities that are having real impact which are, for example, antitrust issues without oil companies being able to work with the International Energy Agency.

Mr. MARKEY. So the authority has expired?

Mr. MONIZ. It lapsed in March, and we are very eager to have it restored as well as to provide the trigger mechanism for the home heating oil reserve.

Mr. MARKEY. One of the authorities that would be given to you would be to have the ability to engage in exchanges of oil; is that right?

Mr. MONIZ. Again, we believe we have continuing authority, what—we do have authority continuing to do these time exchanges for the purpose of increasing supply. But, clearly, having the EPCA reauthorization for the whole suite of requirements triggers, et cetera, for both the SPRO and the heating oil reserve which is part of it are very important.

Mr. MARKEY. I understand that DOE has entered into four previous exchanges, using that authority, prior to last week. Is it true that three of those four exchanges helped an oil company—the May 1996 ARCO exchange, the August 1998—May crude change, and the June 2000 CITGO-Conoco exchange.

Mr. MONIZ. We have consistently used management authorities of the SPRO to help relieve some possible supply congestions including, for example, this year you mentioned the last one.

Mr. MARKEY. Did any Republican Members of the Senate challenge your ability to be able to do that?

Mr. MONIZ. No, I would say both that and the royalty-in-kind program have been widely applauded by both sides of the aisle.

Mr. MARKEY. When the Department announced in August of 2000 that it was going to do an exchange to set up a 2-million-barrel Northeast home heating oil reserve, was its authority to do so challenged?

Mr. MONIZ. Not generally, no.

Mr. MARKEY. It was not.

Mr. MONIZ. Correct.

Mr. MARKEY. Did the Republican-controlled Congress back in 1996 order the Department of Energy to sell oil from the Strategic Petroleum Reserve?

Mr. MONIZ. Yes, in the appropriations bills of 1996 and 1997.

Mr. MARKEY. Was it done to meet a severe energy destruction or warlike conditions?

Mr. MONIZ. There were no energy issues at all involved.

Mr. MARKEY. What was the reason that oil was ordered to be sold by the Republican Congress in 1996?

Mr. MONIZ. It was to address the funding issues.

Mr. BARTON. Will the gentleman yield on that?

Mr. MARKEY. I will be glad to yield.

Mr. BARTON. Did the administration request such an authorization to sell in 1996?

Mr. MONIZ. The administration requested a 5-million-barrel sale to address on operational issue involving decommissioning of one of the storage sites and the additional 23 million barrels were handled through the other——

Mr. MARKEY. Now I also recall, Mr. Moniz, that last year the Republican leadership introduced a bill to eliminate the Department of Energy—just to eliminate it. What would happen to the Strategic Petroleum Reserve under that legislation?

Mr. MONIZ. Congress would have to determine its future. There have been in the past some calls for eliminating it. But clearly we think this is a very important investment in our energy and national security.

Mr. MARKEY. Under section 401 of that bill which the Republican leadership introduced last year abolishing the Department of Energy, the United States would be instructed to sell parts of the Strategic Petroleum Reserve immediately, develop a plan for the rest of the reserves, and sell off all of the naval petroleum reserves. Do you think that would be sound energy policy?

Mr. MONIZ. No, I do not.

Mr. MARKEY. What kind of signal would that send to OPEC if that Republican leadership bill passed and we didn't have a Strategic Petroleum Reserve and we didn't have any naval reserves, and their governments then met to decide to take more oil off the world market to drive up our prices domestically?

Mr. MONIZ. We clearly believe that all the producing nations should be working on a market basis and to follow the steps that you suggested would not encourage that.

Mr. MARKEY. Yeah. Well, you know, from your responses it seems to me that the Republicans have a rather schizophrenic policy regarding the Strategic Petroleum Reserve. They won't reauthorize your authorities under the program, but they haven't let it lapse either. They do not have a problem with oil swaps from the strategic petroleum reserves that help big oil companies, but they do have problems with swaps that help consumers.

They view the Strategic Petroleum Reserve as a sacred national security asset, but they are willing to sell Strategic Petroleum Reserve oil to pay for tax cuts. They attack DOE for doing its job to help American consumers, but they simultaneously want to get rid of the Department of Energy and sell off the petroleum reserve.

Again, as I said earlier, the biggest problem that I have with their perspective is that these huge oil increases will ripple through our economy unless we do something about it.

I remember back in August 1990, Mr. Chairman—and I'll end on this.

Mr. BARTON. You are doing fine.

Mr. MARKEY. Thank you.

Back in August 1990 Saddam Hussein invaded Kuwait. The price of oil spiked from $16 or $18 a barrel up to the mid-30's.

We held a hearing in this room a couple of weeks later in August asking the Bush administration whether or not they would deploy

the strategic petroleum reserves in order to let the markets know that we would not allow for exploitation of this unusual circumstance. They said that they would not, and we went through August, September, October, November, and December and into January.

Now, when the actual conflict began, they deployed a small amount of the Strategic Petroleum Reserve, but it was immediately apparent that it really wouldn't be needed because Saddam Hussein was going to be defeated. However, that 5 to 6 months to $36-a-barrel oil rippled its way through the entire American economy late in 1991 and in 1992, causing this very brief recession, with Republicans very oftentimes saying it is misinterpreted, and it has been continuous uninterrupted prosperity in our country all the way back to the Reagan administration.

But there is this little blip. And the blip is actually related to the oil spike up to $36, $37 a barrel.

So now we come to the year 2000. We have the very same circumstance with guaranteed consequences for every other industry in the United States dependent upon oil. Either we can do something now, which I praise the administration for doing in lowering this price right now in the futures marketplace, or we would suffer the same consequences, a little mini-recession because it would affect every single product made within our society.

So I would hope that we could learn from that experience back in 1990-91. I understand from certain regional perspectives that it is good for their narrow economies to have high prices of energy. But for the macro economy it is not. It hurts every other industry to have this discretionary price rise because it saps their ability to be able to make investments in their core products, their core services. So hopefully we will have learned that lesson.

I am afraid, as we come up to this election, that people are playing politics with the American economy once again. But I think the American people are wise to what has to happen, and as a result, are in the support of the President's deployment.

I thank you, Mr. Chairman.

Mr. BARTON. Thank you, Mr. Markey.

We are going to take a break. We have to go vote. I want to commend Congressman Markey publicly. When I went to him last year about passing the reauthorization bill on the floor for the SPR, he was the one that suggested changing the trigger for the Northeast fuel oil reserve and putting it in the bill; and I think the reason that we have fuel oil going into that particular reserve today is because of the good work that you did last year.

I would also like to say that in defense of you and several other Members of Congress you all have consistently asked for release of the Reserve. You have not changed your policy; the people who have changed are the administration. And my objection is not based on price, the current price situation.

My objection is, we are setting a precedent to fundamentally change the way we use the Reserve. If we want to do that, we ought to have a public policy debate. We ought to say, now that we have 570 million barrels, we are in a different environment in the marketplace.

This gentleman pointed out in his testimony that you have got about 78 million barrels of refinery capacity, and you might have 82 million barrels of demand and you fundamentally have to do something. It might well be time to rethink the way we use that Strategic Petroleum Reserve. We should have that debate. Let the Congress weigh in with the administration and the private sector and bring a bill to the floor to do that.

Mr. MARKEY. Would the gentleman yield?

Mr. BARTON. Yes.

Mr. MARKEY. I would like to begin by praising you. I know, get the smelling salts.

Mr. BARTON. I won't take it personally.

Mr. MARKEY. You convinced me last year that we should build in greater incentives for stripper wells because we can't allow those marginal wells to go off line because of their lack of need in any particular economy because they are so vital long term. And I agreed with you on that, and we built that into the legislation which we passed.

Mr. BARTON. And we had a debate, and democracy works.

Mr. MARKEY. It did work, and so the bill was a regional home heating oil reserve and stripper well incentives which is, I think, the way you should look at it from a national perspective. That is a good deal for both sides. I would just like, however, to add one word of defense for Secretary——

Mr. BARTON. I always like you to help me in my closing comments.

Mr. MARKEY. Secretary Summers. In fact, I talked to him last week, and he said that his analysis of the existing marketplace today is different than the one last spring.

Mr. BARTON. Even last week. His analysis is different today than when he wrote the memo.

Mr. MARKEY. The supply shortages, the looming price spikes helped to convince him that, in fact, if it was deployed it would work in lowering the price. And the same way that on the same day he agreed to intervene into the Euro, to put that up. So 1 day the Euro went up and oil prices went down, both times the United States using its assets in order to ensure there is more stability in the global economy.

Mr. BARTON. Let me reclaim my time.

I have one final question for the Under Secretary before we leave. I am going to send this letter that I have talked about to the President, the Secretary of Energy. I will want a fairly quick response.

My assumption is that there has been quite a bit of thought gone in before this policy change. What, in your opinion, would be a reasonable time for me to give the President, the Secretary to respond to the concerns that I have outlined today?

Mr. MONIZ. I would be hard pressed to advise you on what that time should be. There clearly has been an analysis. I am certainly willing to take it up this afternoon with the Secretary in terms of what he thinks.

Mr. BARTON. I am thinking about a 1-week response, but if you thought—perhaps 2 weeks, but I do want a written response while

this Congress is still in session. So you might, in your conversation with the Secretary, bring that up.

Mr. MONIZ. I will.

[The following was received for the record:]

Department of Energy
Washington, DC 20585

October 17, 2000

The Honorable Tom Bliley
Chairman
Committee on Commerce
U.S. House of Representatives
Washington, D.C. 20515-6115

The Honorable Joe Barton
Chairman
Subcommittee on Energy and Power
U.S. House of Representatives
Washington, D.C. 20515-6115

Dear Mr. Chairmen:

Enclosed are the Department's responses to the questions posed in your October 2, 2000, letter regarding certain Strategic Petroleum Reserve matters. Also enclosed, as an initial response, are "records" you requested. Many of the records may relate to more than question. Following a more thorough review of our files, if additional responsive documents are found, they will be submitted at a later date. Some of the records provided in response to your letter are agency deliberative process information, which may be exempt from public disclosure pursuant to exemption 5 of the Freedom of Information Act, 5 U.S.C. 552(b)(5). Therefore, we request that special care be taken to protect the confidentiality of this information.

You note in your letter to the Secretary that circumstances of a severe energy supply interruption do not exist. We agree and did not assert authority under this provision in law when we directed the exchange of SPR oil. Rather we used the authority in EPCA which allows the government to acquire oil through an exchange, an authority which we were encouraged to use by 113 members of Congress, including thirteen members of the Committee on Commerce.

It is true that in his announcement of the exchange, Secretary Richardson indicated that we are seeking to address a specific concern about U.S. heating oil supply. As you may know, the heating oil and crude oil supply situation in August and September of this year was alarming. In September, distillate supplies nationwide were 19 percent lower than last year. In the Northeast they were 40 percent lower than this time last year, and in New England heating oil inventories were 65 percent lower than last year. The Administration is prepared to utilize every available tool to constructively address this problem and the exchange, which is allowed for under law, is one of those tools.

In your October 2nd letter requesting information on the SPR exchange decision, you quoted from the Secretary's announcement but left out the following passage in which he identifies the

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underlying benefit of the exchange, which "... will ultimately result in more oil in the Reserve, as our exchange contractors will be returning the SPR oil plus a premium. This will further increase the nation's protection against potential or actual energy supply disruptions."

As Secretary Richardson has indicated publicly, the decision to conduct the 30 million barrel crude oil exchange was made with guidance from the President. Several of your questions include requests for documents relating to communications with the Executive Office of the President. Documents in this category are not included in this response because every President is entitled to consultative privacy in receiving advice from his subordinates, and therefore this Department is not in a position to breach the usual confidentiality of the communications by which that advice in rendered.

Should the committee have any questions concerning this response, please have your staff contact David Berick, Deputy Assistant Secretary for House Liaison at (202) 586-5450.

Sincerely,

Melanie Kenderdine
Director, Office of Policy

cc: The Honorable John D. Dingell
Ranking Minority Member

The Honorable Rick Boucher
Ranking Minority Member
Subcommittee on Energy and Power

Enclosures

Question 1:

When did the Department make the decision to release oil in an "exchange" from the Reserve, how long was the exchange option considered, and what factors did the Department consider in making the decision to conduct an exchange?

President Clinton directed Secretary Richardson to conduct the exchange of crude oil on September 22, 2000. The Department began actively considering the use of an exchange during January and February, 2000. The Department began discussions with other agencies of the Executive Branch in February and March. At that time, it was determined the Department would not proceed unless the President directed an exchange be initiated. Debate of the issue continued periodically until September, when the President decided in favor of the exchange.

In proceeding, the Department concluded that market conditions favored acquiring more oil for the Strategic Petroleum Reserve by a time exchange. The Department also concluded that other viable options for oil acquisition were foreclosed by market conditions and fiscal concerns. The Department also found that inventories of crude oil and all products were dropping rapidly and that market conditions would dictate that inventories would continue to fall until supply exceeded demand on a world-wide basis. Finally, the Department reasoned that it is good policy to acquire oil for the Reserve in a counter-cyclical manner, i.e. taking oil off the commercial market when prices are very low and refraining from taking oil off the market when prices are very high.

Records relating to the decision by the Department to direct the recent oil "exchange" from the Strategic Petroleum Reserve will be provided.

Question 2:

Over the past year, has the Department considered any other plans or proposals to "exchange" oil from the Reserve, and what factors did the Department consider in its decision to conduct or not conduct an "exchange"?

In June 2000, a dock under construction sank in a shipping channel near Lake Charles, Louisiana. The dock blocked the movement of ships that supply two refineries with crude oil. The refineries are owned by Citgo and Conoco. The refineries advised the Department their inventories of crude oil were very low and they would have to curtail refining within a few days. They requested, and the Strategic Petroleum Reserve (SPR) Office agreed, to exchange oil with both refineries. Both refineries took 500,000 barrels of oil from the SPR West Hackberry site and returned oil with an aggregate premium of 30,000 barrels about two months later.

The SPR is also the beneficiary of contracts that require several companies to deliver oil to the Reserve sites throughout the year. These contracts were a result of having exchanged domestic royalty oil from the Gulf of Mexico for other oils to be delivered to the SPR sites. Because of market conditions, SPR had the opportunity to renegotiate the delivery dates of these contracts, which delayed the return date, but increased the volume for the SPR. This renegotiation resulted in more oil in the market. The Department effectively exchanged 16 million barrels of oil due in 1999 and 2000 for 18 million barrels of oil due in 2000 and 2001.

Finally, the Department exchanged crude oil from its existing sites for heating oil for the Northeast Heating Oil Reserve and for the first year of storage services for that heating oil.

In making its decision on the Citgo and Conoco exchanges, the Department concluded it could get more oil for the Reserve and that the country's inventory situation was worsening and would be negatively impacted if two major refineries were allowed to run out of oil.

In the case of the renegotiated deliveries, the Department acted in order to get more oil for the Reserve. It concluded that the exchange addressed two of the objectives given in the Energy Policy and Conservation Act for consideration during oil acquisition: 1) minimization of the cost to the Reserve, and 2) minimization of the impact of the acquisition upon supply levels and market forces. In the case of the second objective, the Department refrained from taking oil off the commercial markets at a time when inventories were low and prices volatile.

In the case of the exchange for distillate product (heating oil), the Department reasoned that there were no options fiscally feasible for creating a heating oil reserve quickly, and that absent Government action, heating oil inventories in the region would remain dangerously low.

Records relating to these or any other proposals or considerations to exchange oil, whether actually conducted or not, any time since January 2000, will be provided.

Question 3:

Over the past year, has the Department considered a "drawdown" of the Reserve as provided in Section 161 of EPCA?

The Department considered a drawdown in the event of a Y2K emergency. We discussed the possibility of using the anticipatory authorities (EPCA section 161(h)) for a drawdown in the event we received market signals prior to January 1, 2000, that were of sufficient concern to warrant a drawdown. We also discussed invoking EPCA section 161(d) emergency authorities in the event of an actual energy supply disruption resulting from Y2K problems. We prepared an emergency finding for the President for both circumstances. In the event, a Y2K related drawdown was not necessary, but we were prepared in the event that it was.

The Department also discussed the possibility of a drawdown during the heating oil crisis last winter. We determined the problem was regional in nature and did not meet the national energy emergency criteria for an SPR drawdown. Further, the heating oil crisis was over within a relatively short period of time. It was believed a drawdown, even if it could be justified under the emergency criteria, could not be concluded in time to have an impact on heating oil supplies in the Northeast.

Question 4:

Over the past year, has the Department considered a "test sale" of oil from the Reserve?

In August and September of this year, the Department discussed a test sale as a possible response to growing concerns over heating oil inventories. We discussed the possibility of using the funds from a test sale to purchase heating oil from suppliers outside our normal supply chain, primarily from Asia. The Administration ultimately rejected this option, for a number of reasons, including (1) the principal purpose of a "test" is to check the operational capability of the Reserve, and (2) in any event, the volumes (a maximum of five million barrels of crude oil for each sale) would be inadequate to increase heating oil supplies significantly.

Question 5:

Does the Department have the authority under EPCA to use the Strategic Petroleum Reserve to conduct a drawdown or otherwise release oil from the Reserve?

The FY 2000 and 2001 Department of the Interior and Related Agencies Appropriations Acts included funding for continued operation of the Strategic Petroleum Reserve (SPR) pursuant to the provisions of the Energy Policy and Conservation Act (EPCA) and thereby sustain and extend the SPR-related authorities of EPCA despite the current lapse of EPCA. Therefore, the Department remains guided by the SPR provisions of EPCA.

EPCA provides the Secretary with broad authority that can be used "[t]o the extent necessary or appropriate to implement..." the SPR Plan. (Subsection 159(f)). Included is authority to acquire SPR oil "by purchase, exchange, or otherwise" (subsection 159(f)(E) (emphasis added)). Subsection 160(a)(3) provides the same acquisition authority. Thus, EPCA recognizes that SPR oil need not be acquired only by purchase; other means of acquisition (exchange and otherwise) are also permissible to the extent they implement the SPR Plan.

SPR Plan Amendment No. 2 declared the SPR Plan "... is hereby amended to increase the Reserve size to one billion barrels...." Currently the SPR contains considerably less than the one billion barrels of oil envisioned by SPR Plan Amendment No.2. Therefore, acquisition of additional crude oil can be judged "necessary and appropriate to implement" the goals of SPR Plan Amendment No.2. Consequently, the Secretary may use the several authorities conferred by EPCA, including acquiring petroleum products by "exchange or otherwise" under subsections 159(f)(E) and 160(a)(3), in order to implement the volume goal of the SPR Plan.

The decision to acquire additional crude oil for the SPR by exchanging 30 million barrels of oil currently in the SPR for future deliveries of more than 30 million barrels conforms to the acquisition objectives articulated in subsection 160(b) of EPCA. Subsection 160(b) states that the "Secretary shall, to the greatest extent practicable, acquire petroleum products for the Reserve ... in a manner consonant with" five specified objectives. The first of these acquisition objectives is "minimization of the cost of the Reserve." By acquiring additional oil by the use of a time-exchange, the cost to the SPR in appropriated funds is zero less the administrative costs of effecting the exchange. The second objective deals with the "orderly development of the Naval Petroleum Reserves" and is not relevant to the transaction in question. The third is "minimization of the Nation's vulnerability to a severe energy supply interruption." Because the 30 million barrel exchange will ultimately increase the amount of oil available in the SPR to respond to a severe energy supply disruption, it directly serves this third objective. The fourth objective is "minimization of the impact of such acquisition upon supply levels and market forces." By acquiring oil for the SPR using a time-exchange mechanism that exchanges 30 million barrels of oil currently in the SPR for future deliveries of more than 30 million barrels, the acquisition has a minimal and benign net effect on oil supply. Therefore, the acquisition meets the fourth objective by actually putting supply into the currently tight oil market. Moreover, the market is being relied upon to make the most efficient decisions on access and use of the crude oil volumes offered for exchange. The fifth objective is "encouragement of competition in the petroleum industry." The acquisition encourages competition in the petroleum industry because the exchange was conducted on a competitive basis and there were no limits or specifications placed on the use of the exchanged oil.

Question 6:

Does the Department have the authority under EPCA to use the Strategic Petroleum Reserve to address potential heating oil shortages?

Yes, the Department has authority under EPCA to address potential heating oil shortages. EPCA gives the Secretary of Energy broad authority to create, manage, maintain, reconfigure, and operate the Strategic Petroleum Reserve. Section 159(f), for example, specifies a number of the Secretary's authorities. More than one authority in this section, and in other EPCA sections, might be available for use in a given situation.

This past summer the Secretary used the authority in EPCA section 159(d) to amend the SPR Plan to create a regional distillate ("home heating oil") reserve in the Northeast, the creation of which is authorized by sections 154 and 157. Then the Secretary used his authority in sections 159(f) and 160(d)(3) to acquire the distillate. Those sections give the Secretary authority to acquire oil for the SPR (of which the regional reserve is a part) by "purchase, exchange, or otherwise." In that case, the Secretary chose to acquire the oil by exchange. Further, the Secretary used other authority in section 159(f) to lease the facilities in which the distillate is currently stored. Finally, should the conditions of section 161 be met, and the President so finds and directs the Secretary to do so, the Secretary would draw down the regional reserve. In this regard, section 161(h) specifically supports a drawdown of the reserve (with certain limitations) to address a circumstance that "is likely to become," in other words, a potential, heating oil supply shortage. These authorities are more fully explained in SPR Plan Amendment No. 6, which was transmitted to the Congress on July 10, 2000, and which is enclosed for your information.

Question 7:

What are the short-term and long-term policy implications of a release of oil from the Reserve as announced by the Department on September 22, 2000?

The Congress has appropriated no funds to acquire oil for the SPR since FY1992, when the last of the money was appropriated to replace the oil sold during Desert Storm. The Congress passed legislation requiring the Department to sell oil from the Reserve in 1996 and 1997 for revenue-generating purposes.

Since 1992, in order to fulfil our obligations to manage the SPR and maximize its value, the Department has had to rely on other authorities to add to the size of the Reserve or replace oil directed to be sold. These authorities include the exchange authority and provisions on taking oil in lieu of cash royalty payments to the Government. In addition, the Department has also sought to lease unused SPR storage space and underutilized SPR surface facilities in order to use the proceeds to acquire additional oil for the Reserve.

All of these means to acquire oil for the Reserve are expressly provided for in EPCA. Presumably, the policy implications associated with the implementation of these provisions were considered when the Congress authorized them as part of EPCA. From the Department's perspective the policy implications are: better management of the Reserve; increased energy security through increased oil in the Reserve; and temporarily, more oil supply to refine into product, including heating oil.

The exchange provisions of EPCA specifically allow for the exchange of oil to acquire oil for the SPR and is not related to any significant supply interruptions. Nor are there any statutory requirements or limitations on the size of an exchange to acquire oil. The Department would question the efficiency of acquisition of SPR oil through an oil exchange that was limited to a few barrels at a time, beyond those circumstances in which exchanges were utilized to assist industry in urgent and unusual situations.

The SPR exchange announced on September 22 will result in at least an additional 780,000 additionals barrels in the Reserve by November of next year. The solicitation issued on October 16 will result in additional oil for SPR. Energy Information Administration analysts have

concluded the exchange will likely result in an increase in heating oil inventories of 3-5 million barrels based on the size of the release, the underlying impacts of the release on crude oil prices, and the ability of refiners to increase yields during October, November, and December. Market analysts have concluded this analysis is correct and most likely conservative.

In addition, there was evidence in the market that there was a higher-than-normal price premium associated with sweet crude vis-a-vis heavy crude. The exchange made sweet crude available, which produces greater yields of heating oil, diesel fuel, and gasoline than heavy crude. On September 20, when it was reported in the press a SPR exchange was likely, the price of oil was $37.20 per barrel. Shortly after the exchange was announced, the price of oil dropped to around $30. The average price drop per barrel prior to the recent Israeli-Palestinian unrest was around $4.60. This dramatic price volatility suggests the market was overheated and it further suggests there was significant speculation built into the price.

While the exchange was conducted to add oil to the Reserve and increase heating oil supplies, the extreme backwardation – the condition in which current prices are substantially higher than futures prices -- in the market was widely acknowledged as a disincentive to building both crude and product inventories. The sharp drop in oil prices dramatically reduced the backwardation curve, and should encourage the building of industry inventories.

Question 8:

Has the Department concluded that, absent a release of crude oil from the Reserve, there will be a shortage of heating oil this winter?

The Department has concluded use of the Reserve in an exchange will help bolster domestic oil supplies, especially the critically low inventories of heating oil that could create potentially severe hardships for many American families this winter. Distillate inventories across the country, which include heating oil, are about 19 percent lower than they were a year ago. On the East Coast, where 36 percent of families use heating oil to stay warm, distillate inventories are lower still: 40 percent less than last year's levels. In New England, heating oil inventories are closer to 65 percent lower than last year. The SPR oil exchange will add the equivalent of a million barrels of crude oil per day to the U.S. market over a period of 30 days, a temporary infusion of oil that could quickly restore commercial inventories. The action will likely add an additional 3-5 million barrels of heating oil this winter.

The Department, through the EIA, continually collects and analyzes data on heating oil inventories. The Department recognized the potential for a heating oil shortage this winter through a series of events that began last winter and continued through the summer.

Last winter, the underlying high price of crude oil and transportation problems, and a sudden three-week cold snap, caused heating oil prices to increase rapidly and raised concerns about spot heating oil shortages. While this situation was short-term and regional in nature, the underlying factors of low crude oil stocks and transportation problems raised longer-term concerns.

In February and March, Secretary Richardson engaged in diplomacy with OPEC and other producers to address the problem of low crude oil stocks. Shortly thereafter, OPEC announced a 1.7 million barrel-per-day increase in production, and for the next two months, the price of oil dropped by almost $8 a barrel. In March, the President announced his support for a home heating oil reserve in the Northeast and urged Congress to pass legislation to create the reserve.

In June, gasoline demand caused oil prices to rise, and crude oil and distillate inventories remained low. OPEC increased production again in late June – by 700,000 barrels-per-day – and crude oil prices fell back slightly. Still, gasoline demand was absorbing all available supply, and heating oil inventories remained low as a result.

In July, President Clinton established a Northeast Home Heating Oil Reserve due to concerns about heating oil inventories. In August, crude oil inventories remained very low and the National Weather Service predicted a colder winter than last year. In September, the market's highly unusual reaction to OPEC's announcement of another 800,000 barrel increase -- oil increasing to almost $38 a barrel -- enhanced concerns about the effect of speculation on the price of oil and about heating oil inventories.

In sum, the Department continually collects analyzes data on heating oil inventories and the market conditions impacting inventories. The Department has been aware of the potential of a heating oil shortage this winter for many months, took numerous steps to address the problem, and considered many alternatives, but ultimately the underlying problem of low crude oil inventories must be corrected in order to restore normalcy in heating oil inventories. Thus, only one reasonable option was available -- the release of additional oil into a tight market through a SPR exchange.

Question 9:

What is the Department's position on the optimal size of the Reserve?

The Department believes it should attempt to fill the existing 700 million barrel capacity of the Reserve. Any decision on a larger Reserve is being deferred until such time it is clear the existing Reserve will be filled.

Records relating to any analysis conducted since 1993 regarding the optimal size of the Reserve, and all records relating to any analysis regarding the need to increase or decrease the size of the Reserve, will be provided.

Mr. BARTON. I want to thank all the panelists. We didn't ask too many questions of the gentlemen at this end, and I want to apologize to Commissioner Matthews. I had a long line of questions for you on natural gas, and we will submit those to you to put in writing for the record.

I will thank the Chairman of the FERC for spending all his day over here. I know you have a lot going on.

I thank Mr. Mazur. You are always honest and forthright in your testimony, and we appreciate that. We will take a 20-minute break. The second panel will reconvene at 2 p.m. This panel is released.

[Brief recess.]

Mr. STEARNS [presiding]. The Subcommittee on Energy and Power will come to order.

Well, let me welcome to all of you in the second panel. We look forward to your opening statements. If you don't mind, I would like to limit them to 5 minutes, and Mr. Lindahl we will start with you, left to right.

STATEMENTS OF GEORGE LINDAHL III, VICE CHAIRMAN, ANADARKO PETROLEUM CORPORATION; ROBERT B. EVANS, PRESIDENT, DUKE ENERGY GAS TRANSMISSION CORPORATION; JOHN SANTA, CEO OF SANTA ENERGY, ON BEHALF OF THE PETROLEUM MARKETERS ASSOCIATION OF AMERICA; KEVIN MADDEN, VICE PRESIDENT AND GENERAL MANAGER, HOME AND BUILDING CONTROL, FEDERAL MARKET, HONEYWELL INTERNATIONAL; AND ROGER COOPER, EXECUTIVE VICE PRESIDENT FOR POLICY AND PLANNING, AMERICAN GAS ASSOCIATION

Mr. LINDAHL. Thank you, Mr. Chairman. It is a pleasure to be here today.

Anadarko is one of the world's largest independent oil and gas exploration companies. I will limit my remarks to natural gas, since we are not in the heating oil business, but we are the fifth largest natural gas producer in the United States.

And I think we are all in agreement that the potential for a shortage of natural gas this winter and beyond is real. It is our hope that as you continue your discussions on how to relieve the pricing pain that consumers are feeling will emerge some well-reasoned, long-term solutions.

A return to price controls clearly is not the answer. We all know that. Price controls have discouraged new investment and created shortages. Be assured, as the No. 1 driller in the United States today, which Anadarko is, we are doing everything we can to ease today's natural gas supply crunch. We and our partners are running 81 rigs, as we speak, today. That is about 8 percent of the total rigs working in the United States.

Other companies are hard at work too. The industry-wide rig count has dramatically increased from a year ago to about 1,000 rigs, and four out of five are drilling for gas. But as fast as we are drilling, it is simply not going to solve the problem we have to face this winter. Unfortunately, any solution is more long term than that.

We have a tremendous resources base of natural gas in the United States. In fact, estimates for the lower 48 reserves show a 60 to 80 year supply of natural gas in the United States at current producing rates; but before consumers can get it, we have to be able to get at it.

We face two major obstacles to this. The first is we are behind the drilling curve due to low natural gas prices that persisted until just recently.

The second is limited access to public land and excessive regulatory restrictions on drilling. I will give you some examples of both. The main reason natural gas prices are at $5 a thousand cubic feet is that when prices fell so low a couple of years ago, the industry didn't have sufficient cash-flow to drill and increase production. Deliverability fell as demand began to rise.

In fact, natural gas production for the next 2 years is forecasted to rise only 1 percent, yet demand is rising by 3 or 4 percent a year, driven by the increased use of clean burning natural gas to generate electricity.

I think it is obvious that natural gas is becoming the fuel of choice. It is clean, efficient, plentiful, reliable, and it is homegrown.

Yet we have serious concerns whether the domestic industry is going to be able to meet the near-term demand even with supplies from Canada. Canada is as strapped as we are for supply and pipeline capacity.

Essentially, natural gas is a homegrown fuel. It is extremely expensive to transport it as LNG or in ships as liquefied natural gas. So we have to find more to replace the supply, the good news is that we have the supply resource. We just need an energy policy that lets us develop it and bring it to market.

Unfortunately, since the early 1980's, both Republican and Democratic administrations have shut us out of some of the most prospective places to drill. In those that are still open, we have been loaded down with so many costly restrictions that exploration production is prohibitively expensive in many areas.

The National Petroleum Council, an industry panel that advises the Secretary of Energy estimates that some 10 years' supply of natural gas is now off the markets due to banning drilling on the East Coast, West Coast and much of the Rocky Mountains. We need to stop putting new acreage off limits; but equally important, we need to reduce the restrictions on land we could be drilling.

Let me give you one example of my own company's experience in this regard. In southwest Wyoming, we are trying to redevelop a large gas field that was discovered in 1940. It has been producing since 1940. Our company wanted to drill and recognized 1,000 new locations to drill gas wells in this old field. It is called Wamsutter Field. It took us 5 years to get through the environmental impact statement to start drilling in field wells, in a known gas field. The permitting step alone can take over 1 year.

We can't start drilling without a cultural clearance. If we find a weathered cowbone on location, we are shut down until we confirm that it is a cowbone and not an artifact.

We can't drill during certain winter habitats, during breeding or calving season. So really our drilling window in this known giant gas field with a thousand locations is 3 to 4 months a year. There is a lot of gas in this field if we could only get approvals to drill.

The Arctic is another gas resource area, Alaska, where we are going to take a long time to develop the resource. A hundred trillion cubic feet of gas is known and it is being held up to excessive regulatory restrictions. It is estimated it could take 7 years and $12 billion to get a pipeline built from the North Slope to the lower 48 to bring this known gas resource. It is our guess at least half of the time will be devoted to regulatory clearance and a pretty good chunk of the $12 billion of the price tag.

We recognize that there are ecologically sensitive areas where we need to tread even more lightly then usual, and we are doing that. Giving you an example, 5 years ago Anadarko and our partner ARCO, now Phillips, found a giant field south of Prudhoe Bay called Alpine. It is a 40,000-acre field that we have developed the last 5 years, and we have used 100 acres of the surface to develop 40,000 acres. So we have used one-quarter of 1 percent of the surface to develop a giant field.

So we are very conscious to the environment, and we have done a great job and we think we ought to be able to continue to drill in Alaska. We are proud of our record. All we are asking for is pol-

icymaking based on risk-reward analysis as opposed to arbitrary bans without appropriate concern for economic consequences.

Again, we appreciate being here and we look forward at Anadarko to working with this committee on helping to relieve the high gas prices. We think we need a long-term solution; near term, we are going to see high prices.

[The prepared statement of George Lindahl III follows:]

PREPARED STATEMENT OF GEORGE LINDAHL III, VICE CHAIRMAN, ANADARKO PETROLEUM CORPORATION

Thank you, Mr. Chairman, and members of the subcommittee. My name is George Lindahl, and I'm Vice Chairman of Anadarko Petroleum Corporation, one of the world's largest independent oil and gas exploration and production companies. We're based in Houston.

I appreciate the opportunity to appear before you today.

Let me preface my remarks by saying that I would like to limit my comments to natural gas, if I may. My company is the 5th largest natural gas producer in this country, but we're not in the heating oil business. I should leave it to heating oil experts to address that area.

I think we're all in agreement that the potential for a shortage of natural gas this winter and beyond is very real.

It is our hope that as you continue your discussions on how to relieve the pricing pain that consumers are feeling, there will emerge some well-reasoned, long-term solutions.

A return to price controls clearly is not the answer—we all know that. Price controls discourage new investment and create shortages.

Be assured, as the busiest driller in the country, Anadarko is doing everything it can to ease today's supply crunch. We and our partners are running 81 drilling rigs right now in the U.S.—about 8 percent of the total number at work.

Other companies are hard at work, too. Industry-wide, the rig count has dramatically increased from a year ago, to about a thousand rigs. Four out of five are drilling for gas.

But as fast as we're drilling, it's simply not going to solve the problem we face this winter. Unfortunately, any solution is more long-term than that.

We have a tremendous resource base of natural gas in the United States. Estimates put lower 48 reserves between 1200 and 1600 trillion cubic feet. But before consumers can get it, we have to be able to get at it.

We face two major obstacles to this. The first is that we're behind the drilling curve due the low natural gas prices that persisted until just recently.

The second is limited access to public lands and excessive regulatory restrictions on drilling. I'll speak to both.

The main reason natural gas prices are at $5 per thousand cubic feet is that when prices fell so low a couple of years ago, the industry didn't have sufficient cash flow to drill and increase production. So, natural gas deliverability fell—at the same time demand began to rise.

Production is only rising about 1 percent a year—yet demand is rising by 3 or 4 percent a year, driven by increased use of cleaner-burning natural gas to generate electricity.

I think it's obvious that natural gas is becoming the fuel of choice—it's clean, efficient, plentiful and reliable. Yet, I have serious concerns whether the domestic industry is going to be able to meet the near-term demand—even with supplies from Canada. Canada is as supply and pipeline constrained as we are right now.

Essentially, natural gas is a home-grown fuel—it's so expensive to transport via ship as liquefied natural gas that we can't count on imports, as we do with crude oil. So we have to supply our own.

The good news is that we have the supply resource. We just need an energy policy that let's us develop it and bring it to market.

Unfortunately, since the early 1980s, both Republican and Democratic administrations have shut us out of some of the most prospective places to drill.

In those that are still open, we have been loaded down with so many costly restrictions that exploration and production is prohibitively expensive in many areas.

The National Petroleum Council—an industry panel that advises the Secretary of Energy—estimates that some 213 trillion cubic feet of reserves is effectively off limits in the lower 48 and offshore. That's a 10-year supply at today's rate of demand.

We need to stop putting new acreage off limits, but equally important, we need to reduce the restrictions on land where we could be drilling.

Let me give you one example of my own company's experience in this regard.

We and several other companies are developing a giant natural gas field in southwestern Wyoming. It's called the Greater Wamsutter Field, and it was discovered in the mid-40s.

In the 90s, we wanted to conduct some additional drilling there. It took five years to get through the environmental impact statement process.

The permitting step alone can take as long as a year. We can't start drilling without a cultural clearance—which we can't collect data for when there's snow on the ground.

And we can't drill during certain winter habitat periods, during some breeding or calving seasons.

So, really, our drilling window there is only three or four months out of the year. There is a lot of gas in the Wamsutter Field, if we could only get approvals to drill.

The Arctic is another gas-rich area where it's going to take a long time to develop the resources. 100 trillion cubic feet of gas plus is being held up due to excess regulatory restrictions.

It's estimated that it could take seven years and as much as $12 billion to get a pipeline built from the North Slope to the lower 48. It's my guess at least half of that time will be devoted to regulatory clearance, and a pretty good chunk of the price tag as well.

We recognize that there are ecologically sensitive areas where we need to tread even more lightly than usual, and we're doing that. Anadarko and our partner Phillips, the operator, are developing oil on a 40,000-acre tract on Alaska's North Slope from just a 100-acre pad at the Alpine Field. That's only one-fourth of one percent of the total surface area. We're very proud of that.

All we're asking for is policymaking based on a risk-reward analysis as opposed to arbitrary bans without appropriate concern for economic consequences—and that includes prices.

Again, I appreciate the opportunity to address you today. Anadarko looks forward to working with you to help give America the affordable, reliable sources of energy it needs.

Thank you.

Mr. STEARNS. I thank you.

Mr. Evans.

STATEMENT OF ROBERT B. EVANS

Mr. EVANS. Thank you Mr. Chairman. I am here on behalf of Duke Energy Gas Transmission Corporation, headquartered in Houston, Texas. Our company owns Texas Eastern Transmission Corporation, Algonquin Gas Transmission Company, East Tennessee Natural Gas, and we are the operating partner for the United States portion of the Maritimes & Northeast Pipeline. These pipelines serve the eastern United States as well as northeast Canada.

I am here today on behalf of the Interstate National Gas Association of America. INGAA is the trade association for the interstate natural gas pipeline industry, representing most of the major pipelines in the United States, Canada and Mexico. INGAA also has a foundation that is composed of our pipeline members and many of our pipeline equipment and service suppliers.

Today I would like to address three topics:

Concerns regarding natural gas prices and deliverability as we approach the winter; What steps the pipeline industry has taken to assure reliable service; and What policy changes are desirable to assure adequate supply and pipeline infrastructure in the future.

There is obviously a great deal of concern about natural gas prices, as already mentioned by the panelist on my right. The demand for natural gas in the United States is growing rapidly. In

January 1999, the INGAA Foundation released a study that says that gas demand is anticipated to grow to about 30 trillion cubic feet per year by 2010 from a baseline of 22 Tcf in 1988. Much of the growth is being driven by the industrial and power generation sectors. Approximately 95 percent of all newly installed electric generation is fueled with natural gas. As our economy grows and the demand for electricity grows, the demand for natural gas will likewise grow. Meanwhile, the natural gas supply has not kept up with demand and the reasons for that have already been covered.

Since the implementation in the early 1990's of FERC Order 636, the role of interstate pipeline has been to transport gas owned and marked by others. In recent years, the natural gas industry has operated on a regulatory environment that increasingly permits markets to decide when and whether pipeline projects should be built and how they should be priced. As a result of this environment, several new pipelines or expansions of existing pipelines have commenced service in recent years or soon will commence service.

Some of the more significant examples are the Maritimes & Northeast Pipeline, Portland Natural Gas Transmission System, Alliance Pipeline and Northern Border. These projects, which have commenced in the last 2 years, have required the investment of over $4.9 billion and provide 3.3 Bcf per day of additional capacity to move gas from the production areas to the markets that need the gas.

These projects represent the commitment of significant resources by the sponsors. To give details of one such project, in December 1999, the Maritimes & Northeast Pipeline, a joint partnership between Westcoast Energy, Inc., Exxon Mobil Corporation, Nova Scotia Power and Duke Energy began delivering natural gas from new production around Sable Island in offshore eastern Canada. Markets for this project are in eastern Canada and in Maine, New Hampshire and down into the Boston area. This new 650-mile pipeline connects a supply basin not previously attached to the pipeline grid and delivers approximately 400 MMCf/d per day into the U.S. To fuel homes, factories and electric generation plants that, in many cases, are getting access to natural gas for the first time.

With the discovery of additional reserves and deliverability offshore east coast, Maritimes is also looking at an additional expansion that will probably be announced before the end of the year to bring additional gas down into the Northeast. Building such a large pipeline project requires the resolution of huge engineering, environmental, regulatory and economic challenges. We are proud that we are able to meet these challenges and bring this project home. It is especially gratifying that we were able to work with the local State and national regulators and interested parties to overcome problems in a timely and effective way.

We are grateful for the assistance of FERC in addressing several of these problems. With respect to this winter, Duke Energy believes that we and the industry as a whole are prepared to deliver the full contractual firm requirements for our customers. In areas such as New England, new pipeline capacity has increased deliverability and allows us to serve market growth. Last year alone, pipeline capacity into New England, including the Maritimes & Northeast Project, increased approximately 25 percent.

Given our success to date, where do we go from here? INGAA and Duke Energy believe there is enough natural gas in North America to meet the projected increase in consumption to 20 Tcf today to 30 Tcf by approximately 2010. However, the market will not be able to deliver on the 30 Tcf potential without significant investment both in terms of exploration and production and in building new pipeline infrastructure.

Where is all the natural gas going to come from? The United States is able to meet about 85 percent of its current demand through domestic supplies in the lower 48. Almost all of the remaining 15 percent of supply comes from Canada. The Canadians have done a good job of developing their natural gas production and their transportation markets, but they cannot provide vast quantities needed to support the future market needs.

Although Mexico has significant natural gas reserves as well, its economy is growing at such a fast pace that Mexico may need to import natural gas from the U.S. In order to keep up with its own demand.

Activities surrounding proposals to build a pipeline to bring natural gas to the lower 48 States from Alaska is resumed, and hopefully the results will be a construction of a pipeline sometime this decade. Supplies of LNG are also available, but price will be a factor in making that come forth. The National Petroleum Council study has been mentioned, so I will pass that over.

In addition to the gas production, we must have the pipeline infrastructure to move the new natural resources to market. To fully capture the 30 Tcf market, additional pipeline capacity is required. The INGAA Foundation's study on the 30 Tcf market estimated that our industry will need to invest about $2.5 billion per year in infrastructure expansion between now and 2010 just to keep up with the market that is growing. These new facilities will not be new-peak-day capacity pipelines. Rather they will be a mix of facilities necessary to attach new wells to existing facilities, some interregional facilities and even market-area facilities to reflect shifting loads.

The other recommendation that we have got is that a group be put together that can study how we can go forward better on environmental permits, and this is bringing together several groups to work on a task force to obtain a memorandum of understanding among the major departments so that environmental impact statements can be processed and moved forward in a timely fashion and protect the environment at the same time.

I thank you for inviting me to testify here today and of course I will be pleased to answer any questions.

[The prepared statement of Robert B. Evans follows:]

PREPARED STATEMENT OF ROBERT B. EVANS, PRESIDENT, DUKE ENERGY GAS TRANSMISSION CORPORATION ON BEHALF OF THE INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA

Mr. Chairman and Members of the Committee: I thank you for the opportunity to testify today on the natural gas industry. I am Robert B. Evans, President of Duke Energy Gas Transmission Corporation, which is headquartered in Houston, Texas. Our company owns Texas Eastern Transmission Corporation, Algonquin Gas Transmission Company, East Tennessee Natural Gas and we are the operating partner of the United States portion of the Maritimes & Northeast Pipeline. These pipelines serve the eastern United States as well as northeast Canada.

I am here today on behalf of the Interstate Natural Gas Association of America (INGAA). INGAA is the trade association for the interstate natural gas pipeline industry, representing most of the major pipelines in the United States, Canada and Mexico. INGAA also has a Foundation that is composed of our pipeline members and many of our pipeline equipment and service suppliers.

Today, I would like to address three topics:

- Concerns regarding natural gas prices and deliverability as we approach winter,
- What steps the pipeline industry has taken to assure reliable service, and
- What policy changes are desirable to assure adequate supply and pipeline infrastructure in the future.

There is obviously a great deal of concern about natural gas prices as we approach this winter. Natural gas wellhead prices are up significantly since this time last year, for reasons that are hardly a mystery. Quite simply, demand has risen faster than supply.

Demand for natural gas in the United States is growing rapidly. In January of 1999, the INGAA Foundation released a study that says that gas demand is anticipated to grow to about 30 Trillion cubic feet (Tcf) per year by 2010, from a baseline of 22 Tcf in 1998. Much of this growth is being driven by the industrial and power generation sectors. Approximately 95 percent of all newly installed electric generation is fueled with natural gas. As our economy grows, and the demand for electricity grows, the demand for natural gas will likewise grow.

Meanwhile, natural gas supply has not kept up with increasing demand, causing prices to rise. Total consumption in 1999 increased while domestic dry gas production fell for the second year in a row. Rising energy prices have spurred drilling over the last year and it is expected that over time, supply and demand will come back into balance if market forces are allowed to operate.

Since the implementation in the early 1990's of FERC Order 636, the role of interstate pipeline has been to transport gas owned and marketed by others. In recent years, the natural gas industry has operated in a regulatory environment that increasingly permits markets to decide when and whether pipeline projects should be built and how they should be priced. As a result of this environment, several new pipelines or expansions of existing pipelines have commenced service in recent years or will soon commence service. Some of the more significant examples have been Maritimes & Northeast Pipeline, Portland Natural Gas Transmission System, Alliance Pipeline and Northern Border. These projects which have commenced in the last two years have required the investment of over $4.9 billion and provide 3.3 Bcf per day of additional capacity to move gas from production areas to the markets that need the gas.

These projects represent the commitment of significant resources by their sponsors. To give details about one such project, in December 1999, the Maritimes & Northeast Pipeline, a joint partnership between Westcoast Energy, Inc., Exxon Mobil Corporation, NS Power Holdings Inc. and Duke Energy, began delivering natural gas from new production around Sable Island in offshore eastern Canada. Markets for this project are in eastern Canada and in Maine, New Hampshire and down into the Boston area. This new, 650 mile pipeline connects a supply basin not previously attached to the pipeline grid and delivers approximately 400 MMCf/d into the U.S. to fuel homes, factories and electric generation plants that in many cases are getting access to natural gas for the first time.

Building such a large pipeline project requires the resolution of huge engineering, environmental, regulatory and economic challenges. We are proud that we were able to meet each challenge and complete this important project. It was especially gratifying when we could work with local, state and national regulators and interested parties to overcome problems in a timely and effective way. For instance, as we were constructing the pipeline, we discovered that we did not have enough right-of-way in many places to handle our construction efforts and heavy equipment as required under OSHA. We brought this fact to the attention of FERC and they permitted us to widen our rights-of-way for these construction purposes. We are grateful for their assistance in addressing this problem in a timely manner.

With respect to this winter, Duke Energy believes that we, and the industry as a whole are prepared to deliver the full contractual firm requirements for our customers. In areas such as New England, new pipeline capacity has increased deliverability and allows us to serve market growth. Last year alone, pipeline capacity into New England—including the Maritimes & Northeast Project—increased approximately 25%. In order to manage the rising peak daily and hourly loads, companies such as Duke Energy are also adding new information tools that will enhance pipeline operation. Improvements on Duke Energy's Northeast pipelines for this winter will provide hourly operational data for the first time and will greatly improve our

pipelines' and our customers' ability to adjust operations as demand conditions change.

Given our success to date, where do we go from here? INGAA and Duke Energy believe there is enough natural gas in North America to meet the projected increase in consumption—from 22 TCF today to 30 TCF by approximately 2010. However, the market will not be able to deliver on the 30 Tcf potential without significant investment both in terms of exploration and production and in building new pipeline infrastructure.

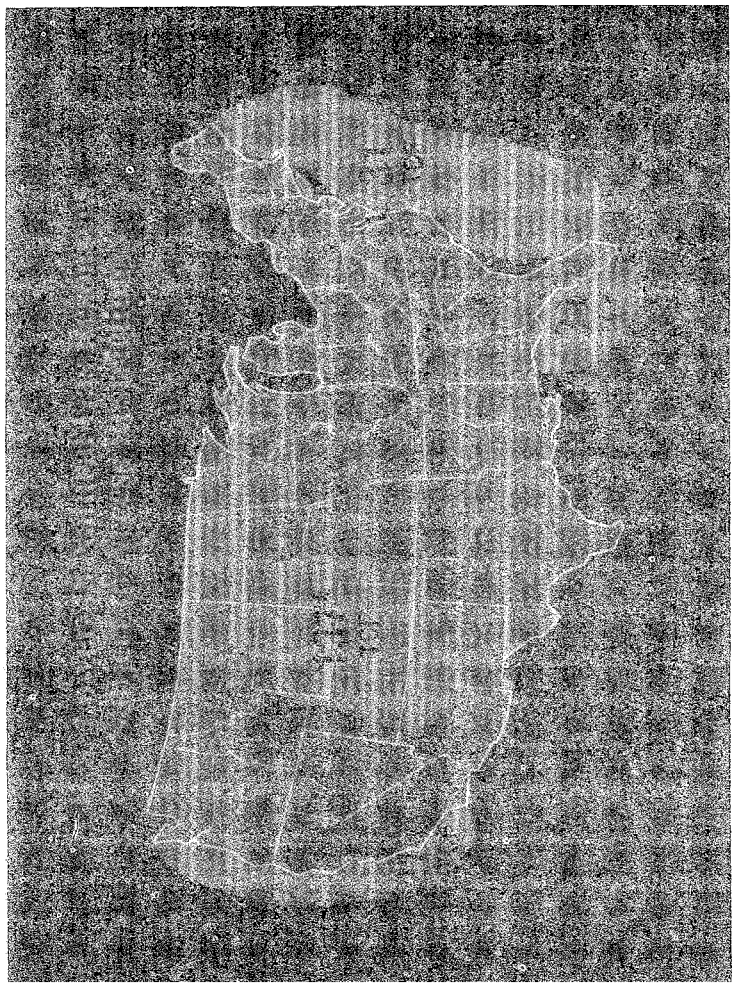
Where is all this natural gas going to come from? The United States is able to meet about 85 percent of its current demand through domestic supplies in the Lower 48. Almost all of the remaining 15 percent of our supply comes from Canada. The Canadians have done a good job in developing their natural gas production and transportation markets, but they alone cannot provide the vast quantities needed to support future market needs. Although Mexico has significant natural gas reserves as well, its economy is growing at such a fast pace that Mexico may need to import natural gas from the U.S. in order to keep up with its own demand. Activity surrounding proposals to build a pipeline to bring natural gas to the lower 48 states from Alaska is resuming and, hopefully, will result in construction of a pipeline sometime in this decade. Supplies of liquefied natural gas (LNG) from overseas are available, but price will be a factor in determining where and when this supply is brought to the North American market.

Mr. Chairman, the enclosed chart prepared for the National Petroleum Council study on natural gas illustrates the point I am trying to make. Natural gas is a domestically produced fuel. Yet a quick glance at this chart clearly indicates that a great deal of the Lower 48 is prohibited to new exploration and production, primarily because of environmental concerns. The irony, of course, is that natural gas is growing in importance precisely because of its environmental benefits for use in generating electricity or fueling industrial operations. I urge Congress to review this large-scale lockup of natural gas resources with a goal of making more of these areas available for drilling.

In addition to the gas, we must have the pipeline infrastructure to move the new natural resources to market. To fully capture a 30 Tcf market additional pipeline capacity is required. The INGAA Foundation's study on the 30 Tcf market estimated that our industry will need to invest about $2.5 billion per year in infrastructure expansion between now and 2010 just to keep up with where the market is going. These new facilities will not all be new peak day capacity pipelines. Rather they will be a mix of facilities necessary to attach new wells to existing facilities, some interregional facilities, and even market-area facilities to reflect shifting locations of existing loads.

As you may be aware, it is increasingly difficult to build any type of new facility—including pipelines. Getting the support of policymakers and the Federal Energy Regulatory Commission is vital to our efforts. One major challenge for a pipeline project is the need to obtain and coordinate multiple state and federal environmental permits. Accordingly, we urge this Administration to convene an interagency task force to obtain a memorandum of understanding among the major departments and agencies with responsibilities to develop environmental impact statements (EIS) for new pipeline projects. The purpose of this memorandum of understanding would be to establish a general framework for cooperation and participation that will harmonize the processes through which the various departments and agencies environmental review responsibilities are met and their decision-making authorities are exercised in connection with the authorization of interstate natural gas pipeline projects. FERC, with the assistance of the Council on Environmental Quality (CEQ), would be the lead agency in this process. This should expedite the review and preparation of the EIS while preserving the environmental review process.

Mr. Chairman, I thank you for inviting me to testify today and would be pleased to answer any questions the members of this subcommittee may have.



Mr. BARTON. Thank you, Mr. Evans. I apologize for not being here when this panel convened, especially to Mr. Lindahl.

Mr. Allison of Anadarko Petroleum is a good friend of mine; I really wanted to hear what you had to say. But I did read your testimony.

We will now hear from Mr. John Santa. It is a great name to have, by the way. He is CEO of Santa Energy Group in Bridgeport, Connecticut.

STATEMENT OF JOHN SANTA

Mr. SANTA. I have got a list, Mr. Chairman, and I am checking it twice; don't forget that.

Thank you, Mr. Chairman and committee members. My name is John Santa. I am the CEO of Santa Energy in Bridgeport, Connecticut. My company is a regional marketer and distributor of petroleum products, natural gas and energy-related products throughout southern New England. We maintain nearly 700,000 barrels of storage, and we supply some 130 dealers in three States.

I am here on behalf of the Petroleum Marketers Association of America. PMAA represents heating oil retailers throughout the country, as well as distributors of gasoline and heating oil. On behalf of those 10,000 fellow dealers across the Nation, my family and my associates at Santa Energy, I thank you very much for having me here today.

I am going to mention three things to you. One is some tactical thoughts on a situation, some strategic thoughts, and finally a couple of suggestions on how we might get somewhere on this issue.

Tactically speaking, we have been in the business of supplying people for 60 years. We are going to keep doing it. We never let anybody run out of product, and we are not going to do it this year either. We have a current supply demand imbalance, and I would most respectfully submit to you that while it appears to be dramatic, it is not nearly as dramatic as the supply demand imbalance we found 18 months ago. Had we convened a hearing 18 months ago, we might not have had to have this one today.

Mr. BARTON. Say that again.

Mr. SANTA. Had we convened a hearing 18 months ago, we might have to have this one today.

In point of fact, we do not see a crisis today in the heating oil business. The situation should be dealt with and we will deal with it, but we do not see it as a crisis. The issue we have to deal with very specifically from the standpoint of being a wholesaler who wants to inventory product and put it away for the winter is, there is no carry. The market is improperly configured on a forward pricing basis. We will talk more about that later. But with no carry, you simply do not buy the product. So much for the tactical aspects.

Strategically speaking, if there is one message that I bring to you today than this, let it be these words: It is a whole new ball game. Twenty years ago, price discovery in America was very, very simple, open the Wall Street Journal, looking for Exxon Cargo, New York Harbor, and that was pretty much it; and everything was a variation off that.

Today that doesn't work anymore. Today, it is the Merc. And the Merc is a very, very efficient and very, very all-encompassing price discovery mechanism. It works really, really well.

There are whole new performance mandates in all the different sectors of the energy field. On marketers, it is a whole different kind of set of suppliers that are coming to market with product. End users are getting buffeted with constantly moving prices. They didn't have that in the 50's and 60's. They have them now. They have had them for 20 years, and we probably will have them for 20 more, until or unless we decide to do something about it.

But speaking about doing something about it, I would like you to know that last year the majority of my customers in all divisions—industrial, wholesale, commercial and retail—did not have a problem with either price or supply because they committed to me. I went to the Merc. I bought the product; I bought the derivatives that hedge the price, and they did just fine. Just fine. So, on a long-term basis, it is a bit about commitment and contracting one with another.

There was a time back in the pre-Mercantile Exchange world that you didn't buy a petroleum product except under contract. The idea of buying it without a contract is a new thing since 1980, and that is a bit of what is bringing about the situation right now. There is not significant commitment and linkage between users and suppliers or intermediaries and larger wholesalers. That is a problem for our situation right now, and that is a strategic issue to be addressed.

So, suggestions: I have a couple of them for you to ponder; perhaps we can talk about them later. One is, I think we have to do some engineering on our domestic supply and demand side. Sitting here and damning the folks that live in an Abu Dhabi or the folks who live in Kuwait, that is not going to get us too far. That is their country. It is their natural resources; they can do with them whatever the heck they want to do with them.

We have to do what we can do with our stuff. With our stuff, we can control demand. In 1980, the average home in New England burned 1,600 gallons of heating oil a year; today, the average home burns 900 gallons a year. We all did it. The government, private sector, home owners, the oil industry. We all did it together. We can do it again.

Second, on the supply side, what can I tell you? We haven't built a new refinery in America for 25 years. Those things have birthdays just like us every year and you can't really go to the world market and say we are serious about not being held up by foreign governments when we do not even build our own facilities here.

Finally, consumer information: Our consumers do not understand that they can buy both product and price insurance. My customers do, but in the general world they don't. We can help a lot with that.

I look forward to working with you on this and having a active discussion on that. Thank you for your time.

[The prepared statement of John Santa follows:]

PREPARED STATEMENT OF JOHN SANTA, CHIEF EXECUTIVE OFFICER, SANTA ENERGY, ON BEHALF OF THE PETROLEUM MARKETERS ASSOCIATION OF AMERICA

My name is John Santa and I am C.E.O. of Santa Energy of Bridgeport, Connecticut. We are a regional marketer and distributor of petroleum, natural gas and energy related products in southern New England. We employ 170 people, operate a fleet of 140 units and market approximately 4 mm.bbl. of all products to the residential, commercial, industrial and wholesale sectors. We own or throughput in five terminals in three states. We maintain nearly 700,000 bbl of storage to supply some or all of the needs of approximately 130 dealers. Started by our parents in 1940, grown by my brothers and me for the past 40 years, we now are ushering in a new generation of family and owners and managers who will rise to the twenty-first century energy challenges.

You have asked me here today to discuss the petroleum supply and pricing situation with you and your committee colleagues. For this opportunity and on behalf of my family and other dealers like me whom I represent, I thank you. My approach to this will be to present you with what we perceive to be the symptoms, problems and solutions to the issues before us today.

SYMPTOMS:

Current Pricing Outlook: Some have speculated that inventories are not being built because there is no product available. While, U.S. refineries are producing gasoline at record levels, no one in our industry is interested in storing heating oil when everyone anticipates price declines. The businesses we represent don't go into the second and third generation with that type of behavior. There would be no heating oil industry if myself and others in the industry were not always trying to deliver a competitive price to market. However we have survived and prospered in the cold weather markets.

Reviewing last winter, it is my view that the minimum operating inventory levels were 27 million barrels of distillate on the East Coast. Statistics also indicate that in a brisk winter, inventories may be called upon to satisfy approximately 20 million barrels of demand. Of course, higher imports or production in the United States can reduce that number. As of last week, there was almost 41 million barrels in inventory, and we have been growing inventory at approximately 1 million barrels per week. Thus, we have 14 million barrels of usable inventory and by November 1, we should have sufficient inventory to weather a severe weather problem.

In order to balance an uneven demand curve with proper supply we must have some inventory. In order to build inventory there must be pricing to encourage that storage. So if oil in January was worth substantially more than September, the market would have a *carry* and a wholesaler like us would be encouraged to buy and store product. Currently the market offers no such incentive. The price is high now and not much higher in January. So, when there is no *carry* and hence no payment for the necessary financing and storage costs of the product, then you just don't buy it. Which leads to low supply, which leads to, volatility. Petroleum pricing like that of all other commoditized products works on the very simple rules of supply and demand. Low supply and constant or growing or perceived growing demand is, by its nature, a most volatile condition. Combine these factors together and the situation is set for hysteria, which is often fed by the media. Consider however that fear is really based on ignorance of the real issues at hand and we now begin to gain ground and reassert control over the issue confronting us. While there are many factors that comprise the problem at hand, I would like to discuss a few that I consider to be most important.

During the winter, market signals encouraged inventories to be drawn down to low levels and then a confluence of events happened which led to price increases for many customers. This summer, market conditions discouraged inventory development, and as a result the inventory at the secondary level are lower than on average for September. However, there is time to build inventories to comfortable levels.

The primary petroleum price discovery mechanism prior to 1980 was to simply

buy the Wall Street Journal and look up the price for Exxon Cargo New York Harbor and in essence all other prices would be variations on that. Those days are gone. Today's infinitely efficient albeit merciless mechanism is the commodity market. Gone are the old lions like Getty and Gulf and now it is the likes of Morgan-Stanley and Transmontaigne who drive pricing mechanisms on domestic refined product. The very important and most subtle difference between our old and new players is that the old ones were highly integrated energy producers who were both fiscally and physically deeply invested in infrastructure of the petroleum industry, while the new ones are almost exclusively financial firms without any ties to production capacity. This is not an indictment or judgement on the new breed as much as it is a realization that different people are now playing the game and for very different reasons and goals. The old ones were committed and connected to the petroleum market and its end users. The new ones are committed to the financial market and their investors. It doesn't make them bad, just different. And hence, we too must act differently.

Infrastructure: Some of the best attributes of petroleum as an energy fuel are the flexibility of its transport modes, its storability and its safety. Consider the fact that unlike electricity moving in wires or gas through pipes, petroleum can be move in ships, barges, trains or pipelines. It can be stored with great safety near or away from waterways and it can be easily moved by truck, boat or pipeline to an end users home or facility to be stored again for more imminent use. All of this however presumes that there is someone there who wishes to obtain the permit and then build, maintain and operate this system. Quite simply this is what has been lost with the exit of the major integrated petroleum companies. Here is a brief description of its effect on our little corner of the world – 20 years ago Stamford Connecticut had eight terminals. Today it has one; Norwalk had five and today, one; Bridgeport had ten and today it has three. While all of us would concede that we might have been somewhat "overtanked" in the past that is surely not the case now. Longer drives and fewer choices certainly spell impending issues as you try to supply that market. And who can blame the terminal operators? Threats of pollution difficulties, OSHA compliance issues, pressure from developers – all of these add up to a very unappealing prospect for a terminal company if they are not fully and totally committed to the energy world. And for the end user / homeowner, it erodes that entire price stabilizing storage. Is the picture now becoming clearer? Now let's get to a component that really exacerbates the issue:

Non-Contracted Supply Of Gas Interruptible: Let me state clearly at the outset that it is our firm opinion that energy users from the substantial commercial size on up should have dual fuel capability. It just makes sense. With very little difficulty or dislocation we supply the needs of many, many interruptible end users. But, we do it on contract and they buy it from us every year on a predictable and monthly ratable schedule. In large part last years difficult mid season spike was immeasurably worsened by the effect of many companies who were either working on an interruptible rate and hadn't used any petroleum in years or they hadn't contracted for any product or, believe it or not, actually had no tank! These were the consumers who actually dealt the coup de gras to an already severely strained and considerably overworked petroleum infrastructure. They were major contributors to last years price spike and concomitant supply dislocation.

What steps should the Congress take to do its part for the American consumer? We believe that the energy bill now being considered is a responsible and measured piece of legislation. First, and perhaps the most widely understood provision is the treatment of the regional product reserve. While my industry has some concerns with the government storing product and selling it and possibly undermining natural market forces, we also understand that the current markets do not fully accommodate the interplay between natural gas and heating oil, as well as the impact that electricity generation can have on either market depending on whether the electricity is generated by oil or natural gas.

Tax Incentives: Utilize tax policy to encourage energy infrastructure, refining and domestic production. All of these factors would help to not only spur our national economy but they would also help to lessen our balance of trade issues. In the instant

case of the Regional Petroleum Reserve. I have suggested to Secretary Richardson that a simple tax incentive to wholesalers when there is no carry would eliminate the need to establish and maintain the reserve. Right now, the product being aggregated for the reserve seems to be extending the price spike and its very existence as well as uncertainty about the nature and timing of its release is a disincentive for wholesalers to store product.

Marketers should be allowed to develop a tracking system for fuel in inventory. Marketers who purchase in excess of current needs should be allowed to track that fuel at cost and then sell the fuel and use the tracked price. This would provide a truer picture of inventory costs to the taxpayer.

Allow marketers who purchase fuel in a market without a carry to take a credit against taxes for any losses sustained from this maneuver. Essentially, the marketer who buys inventory in October for use in November is exposed to tremendous risk, particularly as today when the market does not provide any incentives to store oil. However, through the regional product reserve the government is taking on some of the risk. We believe that this approach would provide incentives for marketers to store product.

Jones Act – The essence of any energy problems and mini-crisis such as we had in the northeast is not that there is no oil, but the oil is not where it is needed. In the northeast, there was a difficult time bringing oil into the area. Currently, the Jones Act requires that transportation within the United States coastal waters must be on U.S. flag vessels. The Secretary of Treasury can waive this requirement for national emergency reasons. The industry has no belief that the Jones act will be waived and therefore does not seek cargoes originating in the Gulf that are not on U.S. flag vessels, does not seek foreign flagged vessels to bring product into the northeast and does not seek waivers. The transportation infrastructure needs cannot be ignored, and therefore the Congress should consider ways to lessen the impact of the Jones Act during these winter situations.

Storage – Currently, between the Internal Revenue Service and the Environmental Protection Agency we store multiple grades of diesel and kerosene. Prior to 1993, we stored one type of diesel that was used for heating oil. Today we store two. Thus, we need two tanks to store the same volume of sales. In 1998, these rules were extended to kerosene. Thus, we now have four tanks to store two products. While, that may appear to be a way of extending storage, it isn't because many cannot justify adding the tankage to store the new products, and others cannot justify storing a product that can only be consumed by half of their customers. As a result, storage shrinks and storage becomes more centralized. We believe that one grade of fuel that can be used for all purposes is appropriate. We are now hearing of local kerosene shortages, which certainly result from fewer parties storing the product.

Contracting for Product: There was a time when all or nearly all product was contracted for at the wholesale, commercial and industrial levels. Among other things, this sort of system allows refiners to know with certainty how much product they needed to produce and at what time they needed to do so. Today there is no such situation. Opportunistic wholesalers enter a market and exit again as quickly as they came if conditions don't suit them. Resellers jump from one wholesaler to another over fractions of pennies difference in price per gallon. And finally, while the majority of end users and homeowners are loyal to their suppliers, nevertheless a whole stratum of consumers has entered the market to hop-shop for Oilheat as though they were buying peas or paper towels at the local supermarket. This then reverberates back up the supply chain. Overlay all of this with the deregulation of natural gas and electricity markets and you now have a very confused and jittery group of energy suppliers and users. In that situation the prices can get very volatile. And they do. And that's why we are here today.

Pipelines – Natural gas pipelines have entered the northeast, and we have rushed to deregulate the fuel and energy systems. We strongly support deregulation, and believe our product competes with natural gas. Competition is good and my company has

thrived in a competitive market. However, an issue that has been highlighted is the relationship of the fuels and what happens in demand surges.

It is very difficult for any system to build capacity for a surge in demand. The Post Office, UPS and toy stores all have a difficult time preparing and manning up for Christmas. We have a similar event in our industry, severe cold weather, unfortunately, we don't know when it will happen, whether it will happen, and whether it will happen twice in a row. Fortunately, the oil industry has been able to handle this through storage and an efficient delivery system. However, the recent problems have highlighted a problem with the relationship between natural gas and heating oil. Natural gas has a similar problem, but instead of having gas stored, they divert their customers to heating oil.

While this was easy for the oil industry to absorb in the northeast when gas was a minor player and oil was the large player, as the fuels have reached parity, oil can no longer handle the movement of these gas customers into the market. New York State is now mandating that these "interruptible consumers" store oil before the winter. We believe the Federal Energy Regulatory Commission should regulate the pipelines to ensure that a high percentage of the pipeline is sold to firm consumers and that interruptible consumers have taken care of their storage needs. We believe these steps would allow both markets to serve consumers efficiently, but also allow for a more graceful interplay between the markets.

Finally we come to conservation. We have been here before. The energy crises of the 70's had America and much of the world in quite a spin. But we got out of it and did so very well with the very simple method of conservation. As consumers or legislators it is relatively difficult to do much about the supply of product. We can however do something very good and real and immediate about demand. In 1971 the average New England home used 1600 gallons per year of oilheat. Today they use only 900 gallons. This is the kind of activity that really permanently affects the price of petroleum. In the past oilheat dealers like our firm worked very hard to bring this about. We stand ready to do it again.

YEAR	Nominal Price per year/ $ per gallon	Annual Gals Per Customer NYMetro	Nominal Cost Per Year	Inflation Adjusted Price 1980 Base Year $ per gallon	Inflation Adjusted Heating Cost
1984	1.14	1,207	$1,375	$1.10	$1,323
1985	1.10	1,126	$1,239	$1.02	$1,150
1986	876	1,120	$ 982	$ .80	$ 896
1987	88	1,118	$ 984	$ .77	$ 866
1988	884	1,148	$1,015	$ .75	$ 858
1989	932	1,042	$ 972	$ .75	$ 783
1990	1.15	1,127	$1,294	$ .88	$ 990
1991	1 09	958	$1,045	$ .80	$ 767
1992	1.03	1,024	$1,053	$ .73	$ 751
1993	1.02	1,173	$1,193	$ .70	$ 825
1994	.999	1,210	$1,208	$ .67	$ 815

1995	1.00	1.042	$1.047	$ .66	$ 687
1996	1.13	1.246	$1.411	$ .72	$ 899
1997	1.12	949	$1.061	$ .70	$ 661
1998	97	803	$ 777	$ .60	$ 477
1999	92	943	$ 867	$ .55	$ 521
2000	1.55	1.077	$1.669	$ .95	$1.017
Average	**95.6**	**1.077**	**$1.063**	**$ .77**	**$ 841**

Year	Median Family **Income**	Average Cost: **House**	Average Cost: **Car**	Nominal Cost Per Year: **Heating Oil**
1984	$31.097	$ 97.600	$11.450	$1.375
1985	$32.777	$100.800	$11.902	$1.239
1986	$34.716	$111.900	$12.894	$ 982
1987	$36.812	$127.200	$13.386	$ 984
1988	$39.051	$138.300	$14.065	$1.015
1989	$40.763	$148.800	$14.645	$ 972
1990	$41.451	$149.800	$15.472	$1.294
1991	$43.056	$147.200	$16.083	$1.045
1992	$44.251	$144.100	$18.151	$1.053
1993	$45.161	$147.700	$17.678	$1.193
1994	$47.012	$154.500	$18.657	$1.208
1995	$49.687	$158.700	$18.360	$1.047
1996	$51.518	$166.400	$19.620	$1.411
1997	$53.350	$176.200	$20.447	$1.061
1998	$56.061	$181.900	$	$ 777
1999	$	$195.800	$	$ 867

Table 5. Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (PADD), 1998 to Present
(Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998												
Total U.S.	132.8	127.6	124.5	125.3	136.3	136.3	147.0	149.0	152.6	147.4	154.6	156.1
0.05% Sulfur and under	68.1	64.8	63.7	62.8	68.4	68.2	73.1	72.0	72.9	68.8	73.5	76.8
Greater than 0.05% Sulfur	64.7	62.8	60.8	62.5	67.9	68.1	73.9	77.1	79.7	78.6	81.1	79.3
East Coast (PADD I)	54.6	50.5	45.7	49.0	57.8	60.0	67.5	70.8	73.7	75.5	75.8	76.4
0.05% Sulfur and under	17.9	15.8	14.3	14.6	16.5	17.6	19.9	19.8	20.1	21.4	21.6	23.2
Greater than 0.05% Sulfur	36.7	34.7	31.4	34.5	41.2	42.4	47.6	50.9	53.6	54.0	55.1	53.2
New England (PADD IX)	10.1	9.7	8.8	11.3	13.2	13.8	15.2	15.2	16.3	16.6	15.7	15.6
Central Atlantic (PADD IY)	31.0	27.9	26.1	25.8	31.8	34.6	38.8	41.9	44.4	44.5	45.2	44.5
Lower Atlantic (PADD IZ)	13.5	12.9	10.8	12.0	12.8	11.7	13.4	13.7	13.0	14.4	16.0	16.3
Midwest (PADD II)	31.9	32.5	31.3	31.6	31.6	30.2	33.2	34.0	31.9	27.1	31.1	33.4
0.05% Sulfur and under	22.5	22.0	21.6	21.3	21.8	20.5	22.7	24.2	21.8	18.8	21.7	23.7
Greater than 0.05% Sulfur	9.4	10.5	9.7	10.3	9.8	9.7	10.4	9.8	10.1	8.3	9.3	9.7
Gulf Coast (PADD III)	31.8	28.8	32.7	29.9	31.6	31.1	32.5	31.1	32.5	30.7	31.3	31.2
0.05% Sulfur and under	16.8	15.7	17.2	16.1	18.7	19.0	19.9	18.0	20.2	18.3	18.7	18.6
Greater than 0.05% Sulfur	15.0	13.0	15.4	13.8	12.9	12.1	12.7	13.2	12.3	12.4	12.5	12.6
Rocky Mountain (PADD IV)	2.8	2.7	2.4	2.2	2.9	3.0	2.9	2.8	2.7	2.8	3.2	3.1
0.05% Sulfur and under	2.3	2.1	2.0	1.8	2.4	2.5	2.5	2.4	2.3	2.4	2.6	2.5
Greater than 0.05% Sulfur	0.4	0.6	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.5
West Coast (PADD V)	11.7	13.2	12.5	12.6	12.5	11.9	10.9	10.4	11.7	11.2	12.3	12.1
0.05% Sulfur and under	8.5	9.2	8.6	9.1	9.0	8.5	8.1	7.7	8.5	7.9	8.8	8.7
Greater than 0.05% Sulfur	3.2	4.0	3.9	3.6	3.5	3.4	2.8	2.7	3.2	3.3	3.6	3.3
1999												
Total U.S.	147.9	142.3	125.7	125.3	134.8	133.2	138.1	142.0	145.2			
0.05% Sulfur and under	75.2	74.0	69.1	68.0	71.9	67.8	70.7	68.6	72.8			
Greater than 0.05% Sulfur	72.6	68.3	56.7	57.4	62.9	65.5	67.4	73.4	72.4			
East Coast (PADD I)	68.0	61.4	49.0	48.2	56.9	58.4	63.3	66.4	68.2			
0.05% Sulfur and under	21.1	18.9	16.9	16.3	18.7	17.1	19.6	18.7	19.5			
Greater than 0.05% Sulfur	46.9	42.5	32.2	31.9	38.2	41.3	43.7	47.6	48.7			
New England (PADD IX)	15.0	16.4	12.7	12.3	14.1	14.8	15.2	15.8	15.6			
Central Atlantic (PADD IY)	38.3	31.9	24.2	23.4	29.8	31.7	36.0	39.2	38.6			
Lower Atlantic (PADD IZ)	14.7	13.0	12.2	12.4	12.9	11.9	12.1	11.4	14.0			
Midwest (PADD II)	34.6	35.2	30.7	32.1	33.8	31.7	31.0	30.1	30.1			
0.05% Sulfur and under	24.5	24.9	21.8	21.8	23.4	21.5	21.0	20.5	21.3			
Greater than 0.05% Sulfur	10.1	10.2	8.9	10.3	10.5	10.1	10.1	9.7	8.8			
Gulf Coast (PADD III)	29.8	30.5	31.1	31.1	29.3	29.7	30.8	31.3	31.2			
0.05% Sulfur and under	18.0	18.6	18.7	19.7	18.6	18.9	20.3	18.7	19.9			
Greater than 0.05% Sulfur	11.8	11.9	12.4	11.4	10.6	10.8	10.5	12.6	11.3			
Rocky Mountain (PADD IV)	3.2	3.2	3.0	2.6	3.1	2.9	2.4	2.7	2.9			
0.05% Sulfur and under	2.7	2.8	2.6	2.2	2.7	2.3	2.1	2.2	2.4			
Greater than 0.05% Sulfur	0.4	0.4	0.4	0.4	0.4	0.8	0.3	0.5	0.5			
West Coast (PADD V)	12.3	12.1	12.0	11.4	11.7	10.5	10.5	11.5	12.8			
0.05% Sulfur and under	8.9	8.8	9.1	8.0	8.5	7.9	7.8	8.5	9.7			
Greater than 0.05% Sulfur	3.4	3.3	2.9	3.4	3.2	2.6	2.7	3.1	3.1			
Week Ending:												
1999	10/15	10/22	10/29	11/05	11/12	11/19	11/26	12/03	12/10	12/17	12/24	12/31
Total U.S.	143.3	139.8	138.0	134.0	132.0	129.4	131.5	134.8	131.8	128.9	123.1	119.7
0.05% Sulfur and under	69.7	69.4	67.7	66.6	65.0	64.7	67.1	69.1	68.0	67.0	64.1	64.8
Greater than 0.05% Sulfur	73.6	70.4	70.3	67.4	67.0	64.7	64.5	65.7	63.8	61.9	59.1	54.8
East Coast (PADD I)	68.8	66.5	64.3	61.6	60.7	58.7	58.9	58.5	57.2	56.3	51.6	47.6
0.05% Sulfur and under	19.1	19.3	17.5	17.0	16.3	16.2	16.6	16.8	17.0	16.8	15.1	15.3
Greater than 0.05% Sulfur	49.7	47.2	46.9	44.7	44.5	42.5	42.2	41.7	40.1	39.5	36.5	32.3
New England (PADD IX)	15.6	14.8	15.0	14.5	14.5	14.0	12.9	13.1	12.7	11.8	10.6	9.3
Central Atlantic (PADD IY)	39.5	38.7	37.1	35.0	33.4	32.8	32.7	32.5	32.1	30.7	29.5	27.7
Lower Atlantic (PADD IZ)	13.7	12.9	12.2	12.1	12.8	11.9	13.2	12.9	12.4	13.8	11.5	10.6
Midwest (PADD II)	28.5	28.3	27.8	28.3	29.0	28.9	29.9	31.7	31.7	31.1	30.7	31.2
0.05% Sulfur and under	20.2	19.9	19.5	20.0	20.4	19.6	21.1	22.1	21.7	21.4	21.0	21.4
Greater than 0.05% Sulfur	8.3	8.5	8.3	8.4	8.6	9.4	8.8	9.6	10.0	9.7	9.8	9.8
Gulf Coast (PADD III)	31.3	31.1	31.4	30.6	29.3	28.8	28.5	29.8	28.9	27.7	26.3	26.1
0.05% Sulfur and under	19.4	19.5	19.5	19.2	18.2	18.3	17.7	18.3	17.9	17.6	16.3	16.1
Greater than 0.05% Sulfur	11.9	11.6	11.9	11.4	11.1	10.5	10.8	11.5	11.0	10.1	10.0	10.0
Rocky Mountain (PADD IV)	2.7	2.6	2.7	2.6	2.6	2.8	2.9	3.0	2.9	3.0	3.1	3.2
0.05% Sulfur and under	2.1	2.1	2.3	2.2	2.3	2.4	2.5	2.7	2.6	2.6	2.6	2.8
Greater than 0.05% Sulfur	0.6	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
West Coast (PADD V)	12.0	11.4	11.8	10.9	10.3	10.2	11.3	11.7	11.2	10.7	11.5	11.6
0.05% Sulfur and under	8.9	8.6	9.0	8.4	7.8	8.3	9.1	9.2	8.9	8.6	9.1	9.3
Greater than 0.05% Sulfur	3.1	2.8	2.8	2.6	2.4	1.9	2.3	2.5	2.2	2.1	2.4	2.4

Note: PADD and sub-PADD data may not add to total due to independent rounding.
Source: See page 34.

Table 5. Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (PADD), 1998 to Present
(Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998												
Total U.S.	132.8	127.6	124.5	125.3	136.3	136.3	147.0	149.0	152.6	147.4	154.6	156.1
0.05% Sulfur and under	68.1	64.8	63.7	62.8	68.4	68.2	73.1	72.0	72.9	68.8	73.5	76.8
Greater than 0.05% Sulfur	64.7	62.8	60.8	62.5	67.9	68.1	73.9	77.1	79.7	78.6	81.1	79.3
East Coast (PADD I)	54.6	50.5	45.7	49.0	57.8	60.0	67.5	70.8	73.7	75.5	76.8	76.4
0.05% Sulfur and under	17.9	15.8	14.3	14.6	16.5	17.6	19.9	19.8	20.1	21.4	21.6	23.2
Greater than 0.05% Sulfur	36.7	34.7	31.4	34.5	41.2	42.4	47.6	50.9	53.6	54.0	55.1	53.2
New England (PADD IX)	10.1	9.7	8.8	11.3	13.2	13.8	15.2	15.2	16.3	16.6	15.7	15.6
Central Atlantic (PADD IY)	31.0	27.9	26.1	25.8	31.8	34.6	38.8	41.9	44.4	44.5	45.2	44.5
Lower Atlantic (PADD IZ)	13.5	12.9	10.8	12.0	12.8	11.7	13.4	13.7	13.0	14.4	16.0	16.3
Midwest (PADD II)	31.9	32.5	31.3	31.6	31.6	30.2	33.2	34.0	31.9	27.1	31.1	33.4
0.05% Sulfur and under	22.5	22.0	21.6	21.3	21.8	20.5	22.7	24.2	21.8	18.8	21.7	23.7
Greater than 0.05% Sulfur	9.4	10.5	9.7	10.3	9.8	9.7	10.4	9.8	10.1	8.3	9.3	9.7
Gulf Coast (PADD III)	31.8	28.8	32.7	29.9	31.6	31.1	32.5	31.1	32.5	30.7	31.3	31.2
0.05% Sulfur and under	16.8	15.7	17.2	16.1	18.7	19.0	19.9	18.0	20.2	18.3	18.7	18.6
Greater than 0.05% Sulfur	15.0	13.0	15.4	13.8	12.9	12.1	12.7	13.2	12.3	12.4	12.5	12.6
Rocky Mountain (PADD IV)	2.8	2.7	2.4	2.2	2.9	3.0	2.9	2.8	2.7	2.8	3.2	3.1
0.05% Sulfur and under	2.3	2.1	2.0	1.8	2.4	2.5	2.5	2.4	2.3	2.4	2.6	2.5
Greater than 0.05% Sulfur	0.4	0.6	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.5
West Coast (PADD V)	11.7	13.2	12.5	12.6	12.5	11.9	10.9	10.4	11.7	11.2	12.3	12.1
0.05% Sulfur and under	8.5	9.2	8.6	9.1	9.0	8.5	8.1	7.7	8.5	7.9	8.8	8.7
Greater than 0.05% Sulfur	3.2	4.0	3.9	3.6	3.5	3.4	2.8	2.7	3.2	3.3	3.6	3.3
1999												
Total U.S.	147.9	142.3	125.7	125.3	134.8	133.2	138.1	142.0	145.2	137.6	140.6	
0.05% Sulfur and under	75.2	74.0	69.1	68.0	71.9	67.8	70.7	68.6	72.8	68.6	71.5	
Greater than 0.05% Sulfur	72.6	68.3	56.7	57.4	62.9	65.5	67.4	73.4	72.4	69.0	69.1	
East Coast (PADD I)	68.0	61.4	49.0	48.2	56.9	58.4	63.3	66.4	68.2	63.0	62.6	
0.05% Sulfur and under	21.1	18.9	16.9	16.3	18.7	17.1	19.6	18.7	19.5	16.9	18.2	
Greater than 0.05% Sulfur	46.9	42.5	32.2	31.9	38.2	41.3	43.7	47.6	48.7	46.1	44.4	
New England (PADD IX)	15.0	16.4	12.7	12.3	14.1	14.8	15.2	15.8	15.6	15.1	13.9	
Central Atlantic (PADD IY)	38.3	31.9	24.2	23.4	29.8	31.7	36.0	39.2	38.6	35.6	34.5	
Lower Atlantic (PADD IZ)	14.7	13.0	12.2	12.4	12.9	11.9	12.1	11.4	14.0	12.3	14.3	
Midwest (PADD II)	34.6	35.2	30.7	32.1	33.8	31.7	31.0	30.1	30.1	28.5	31.8	
0.05% Sulfur and under	24.5	24.9	21.8	21.8	23.4	21.5	21.0	20.5	21.3	20.9	22.7	
Greater than 0.05% Sulfur	10.1	10.2	8.9	10.3	10.5	10.1	10.1	9.7	8.8	7.6	9.2	
Gulf Coast (PADD III)	29.8	30.5	31.1	31.1	29.3	29.7	30.8	31.3	31.2	31.4	30.9	
0.05% Sulfur and under	18.0	18.6	18.7	19.7	18.6	18.9	20.3	18.7	19.9	19.4	18.8	
Greater than 0.05% Sulfur	11.8	11.9	12.4	11.4	10.6	10.8	10.5	12.6	11.3	12.0	12.1	
Rocky Mountain (PADD IV)	3.2	3.2	3.0	2.6	3.1	2.9	2.4	2.7	2.9	2.5	2.8	
0.05% Sulfur and under	2.7	2.8	2.6	2.2	2.7	2.3	2.1	2.2	2.4	2.2	2.5	
Greater than 0.05% Sulfur	0.4	0.4	0.4	0.4	0.4	0.6	0.3	0.5	0.5	0.3	0.4	
West Coast (PADD V)	12.3	12.1	12.0	11.4	11.7	10.5	10.5	11.5	12.8	12.2	12.5	
0.05% Sulfur and under	8.9	8.8	9.1	8.0	8.5	7.9	7.8	8.5	9.7	9.2	9.4	
Greater than 0.05% Sulfur	3.4	3.3	2.9	3.4	3.2	2.6	2.7	3.1	3.1	3.0	3.1	
Week Ending:												
1999-2000	12/03	12/10	12/17	12/24	12/31	01/07	01/14	01/21	01/28	02/04	02/11	
Total U.S.	134.8	131.8	128.9	123.1	119.7	122.7	118.8	110.6	106.5	99.6	99.5	
0.05% Sulfur and under	69.1	68.0	67.0	64.1	64.8	67.6	68.4	65.4	64.8	60.6	61.6	
Greater than 0.05% Sulfur	65.7	63.8	61.9	59.1	54.8	55.1	50.4	45.3	41.7	39.1	37.9	
East Coast (PADD I)	58.5	57.2	56.3	51.6	47.6	47.4	44.2	38.3	33.5	27.9	27.8	
0.05% Sulfur and under	16.8	17.0	16.8	15.1	15.3	16.3	15.8	14.3	14.1	11.4	11.7	
Greater than 0.05% Sulfur	41.7	40.1	39.5	36.5	32.3	31.1	28.4	24.0	19.4	16.5	16.1	
New England (PADD IX)	13.1	12.7	11.8	10.6	9.3	8.9	8.0	5.5	4.5	3.6	4.0	
Central Atlantic (PADD IY)	32.5	32.1	30.7	29.5	27.7	26.4	25.0	21.9	18.0	15.1	15.4	
Lower Atlantic (PADD IZ)	12.9	12.4	13.8	11.5	10.6	12.2	11.2	10.8	11.0	9.2	8.4	
Midwest (PADD II)	31.7	31.7	31.1	30.7	31.2	31.3	31.4	30.2	29.6	28.5	28.7	
0.05% Sulfur and under	22.1	21.7	21.4	21.0	21.4	21.5	22.1	21.0	20.5	19.7	19.9	
Greater than 0.05% Sulfur	9.6	10.0	9.7	9.6	9.8	9.8	9.3	9.2	9.1	8.8	8.8	
Gulf Coast (PADD III)	29.8	28.9	27.7	26.3	26.1	29.2	27.8	27.2	27.8	28.2	28.2	
0.05% Sulfur and under	18.3	17.9	17.6	16.3	16.1	18.0	17.9	17.9	17.7	17.4	17.9	
Greater than 0.05% Sulfur	11.5	11.0	10.1	10.0	10.0	11.2	9.9	9.3	10.1	10.8	10.3	
Rocky Mountain (PADD IV)	3.0	2.9	3.0	3.1	3.2	3.3	3.6	3.3	3.5	3.5	3.5	
0.05% Sulfur and under	2.7	2.6	2.6	2.6	2.8	2.8	3.1	2.8	3.0	3.0	3.0	
Greater than 0.05% Sulfur	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.5	0.5	
West Coast (PADD V)	11.7	11.2	10.7	11.5	11.5	11.5	11.9	11.7	12.0	11.6	11.2	
0.05% Sulfur and under	9.2	8.9	8.6	9.1	9.3	8.9	9.5	9.3	9.5	9.1	9.1	
Greater than 0.05% Sulfur	2.5	2.2	2.1	2.4	2.4	2.5	2.5	2.4	2.6	2.5	2.2	

Note: PADD and sub-PADD data may not add to total due to independent rounding.
Source: See page 34.

Table 5. Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (PADD), 1999 to Present
(Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1999												
Total U.S.	142.9	140.5	124.6	125.0	131.8	132.5	137.3	141.2	145.3	138.6	141.4	125.5
0.05% Sulfur and under	74.0	73.1	68.5	68.1	70.2	67.6	70.8	68.6	73.0	66.4	72.3	69.3
Greater than 0.05% Sulfur	68.8	67.4	56.1	56.9	61.6	64.9	66.5	72.6	72.4	69.2	69.1	56.2
East Coast (PADD I)	63.3	59.9	48.4	47.4	55.9	57.5	62.6	65.5	67.6	63.4	63.0	48.5
0.05% Sulfur and under	20.1	18.1	16.6	15.7	18.0	16.6	19.4	18.4	19.1	17.0	18.4	16.1
Greater than 0.05% Sulfur	43.2	41.8	31.7	31.7	37.9	40.9	43.3	47.1	48.5	46.3	44.6	32.4
New England (PADD IX)	14.5	15.9	12.3	12.2	14.1	14.8	15.2	15.8	15.6	15.1	13.9	9.3
Central Atlantic (PADD IY)	34.3	30.9	23.8	22.8	28.8	30.8	35.4	38.4	38.0	36.0	34.8	28.0
Lower Atlantic (PADD IZ)	14.5	13.0	12.3	12.4	12.9	11.9	12.1	11.4	14.0	12.3	14.3	11.2
Midwest (PADD II)	34.6	35.1	30.5	32.0	31.8	32.1	31.1	30.0	30.5	28.9	32.1	32.1
0.05% Sulfur and under	24.4	25.1	21.8	21.9	22.1	22.0	21.2	20.6	21.6	21.2	23.0	22.9
Greater than 0.05% Sulfur	10.2	10.0	8.6	10.0	9.8	10.0	9.8	9.4	8.9	7.7	9.1	9.2
Gulf Coast (PADD III)	29.6	30.4	31.0	30.8	29.2	29.6	30.8	31.4	31.4	31.4	30.8	29.5
0.05% Sulfur and under	17.9	18.4	18.5	19.3	18.6	18.7	20.4	18.7	20.0	19.6	18.9	18.4
Greater than 0.05% Sulfur	11.7	12.0	12.5	11.5	10.6	10.8	10.5	12.7	11.4	11.8	12.0	11.2
Rocky Mountain (PADD IV)	3.2	3.3	3.0	2.6	3.2	3.0	2.5	2.8	2.9	2.5	2.8	3.3
0.05% Sulfur and under	2.8	2.9	2.6	2.2	2.8	2.3	2.1	2.3	2.4	2.2	2.5	2.8
Greater than 0.05% Sulfur	0.4	0.4	0.4	0.4	0.5	0.7	0.4	0.5	0.5	0.3	0.4	0.4
West Coast (PADD V)	12.2	12.0	11.8	12.1	11.6	10.4	10.3	11.4	13.0	12.4	12.6	12.1
0.05% Sulfur and under	8.9	8.8	9.0	8.9	8.7	7.9	7.7	8.5	9.8	9.3	9.6	9.2
Greater than 0.05% Sulfur	3.3	3.2	2.9	3.3	3.0	2.5	2.6	2.9	3.2	3.1	3.0	2.9
2000												
Total U.S.	106.7	105.2	96.0	100.1	105.4	106.4						
0.05% Sulfur and under	65.6	63.5	60.1	66.2	66.8	67.9						
Greater than 0.05% Sulfur	41.1	41.7	35.9	33.9	38.6	38.5						
East Coast (PADD I)	30.7	33.8	28.3	26.0	29.2	32.3						
0.05% Sulfur and under	13.3	12.7	12.0	13.1	14.4	15.0						
Greater than 0.05% Sulfur	17.4	21.1	16.3	12.9	14.8	17.4						
New England (PADD IX)	3.5	5.8	3.6	2.4	3.0	3.7						
Central Atlantic (PADD IY)	16.6	18.0	14.8	13.1	15.0	17.6						
Lower Atlantic (PADD IZ)	10.6	10.0	9.9	10.5	11.2	11.0						
Midwest (PADD II)	29.5	29.9	28.2	28.8	30.2	29.9						
0.05% Sulfur and under	20.8	20.6	19.9	20.1	21.7	21.1						
Greater than 0.05% Sulfur	8.8	9.2	8.3	8.7	8.5	8.8						
Gulf Coast (PADD III)	29.7	29.1	25.9	29.3	30.3	29.4						
0.05% Sulfur and under	18.2	17.9	17.3	20.2	18.3	19.9						
Greater than 0.05% Sulfur	11.5	8.2	8.6	9.1	12.0	9.5						
Rocky Mountain (PADD IV)	3.5	3.3	2.9	2.6	2.9	3.0						
0.05% Sulfur and under	3.1	2.9	2.6	2.3	2.4	2.7						
Greater than 0.05% Sulfur	0.5	0.4	0.3	0.4	0.4	0.4						
West Coast (PADD V)	13.2	12.0	10.7	13.4	12.8	11.8						
0.05% Sulfur and under	10.2	9.4	8.3	10.6	10.0	9.3						
Greater than 0.05% Sulfur	3.0	2.6	2.4	2.8	2.8	2.5						
Week Ending:												
2000	07/07	07/14	07/21	07/28	08/04	08/11	08/18	08/25	09/01	09/08	09/15	
Total U.S.	108.5	109.3	110.4	110.7	110.2	111.5	112.4	112.4	112.3	114.6	115.9	
0.05% Sulfur and under	69.9	70.9	69.4	69.2	69.2	70.9	69.6	68.2	68.7	67.2	67.8	
Greater than 0.05% Sulfur	38.6	38.3	41.0	41.5	41.0	40.6	42.8	44.2	45.6	47.4	48.1	
East Coast (PADD I)	34.2	34.3	35.3	33.8	35.7	36.2	37.8	38.9	39.8	41.2	40.6	
0.05% Sulfur and under	15.8	15.4	15.0	14.4	15.7	15.7	16.1	15.9	16.6	17.1	16.1	
Greater than 0.05% Sulfur	18.4	18.9	20.4	19.4	20.0	20.4	21.7	23.0	23.1	24.1	24.4	
New England (PADD IX)	3.9	4.2	4.4	4.8	4.9	6.3	5.9	6.1	6.3	6.0	6.1	
Central Atlantic (PADD IY)	18.4	18.4	20.3	18.9	19.1	18.7	20.2	21.5	22.7	23.4	22.9	
Lower Atlantic (PADD IZ)	11.9	11.6	10.6	10.0	11.7	11.1	11.7	11.4	10.8	11.8	11.5	
Midwest (PADD II)	29.8	31.1	30.7	31.1	31.0	30.9	30.0	30.1	30.1	30.3	30.1	
0.05% Sulfur and under	21.3	22.7	21.9	22.9	22.4	22.3	21.8	21.5	21.2	21.5	21.3	
Greater than 0.05% Sulfur	8.5	8.4	8.8	8.2	8.6	8.6	8.3	8.6	8.9	8.7	8.8	
Gulf Coast (PADD III)	29.5	29.1	29.9	31.3	29.5	30.0	30.5	29.4	29.1	29.6	32.2	
0.05% Sulfur and under	20.7	20.9	20.9	20.1	19.8	21.1	20.5	19.5	18.0	17.6	19.8	
Greater than 0.05% Sulfur	8.8	8.2	9.0	11.1	9.7	8.8	10.0	9.9	11.1	12.0	12.3	
Rocky Mountain (PADD IV)	3.2	3.1	3.0	3.0	3.1	3.1	3.1	2.8	2.5	2.7	2.6	
0.05% Sulfur and under	2.8	2.7	2.6	2.6	2.5	2.6	2.7	2.4	2.1	2.3	2.2	
Greater than 0.05% Sulfur	0.4	0.4	0.4	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.4	
West Coast (PADD V)	11.8	11.7	11.4	11.6	11.0	11.4	10.9	11.2	10.9	10.8	10.5	
0.05% Sulfur and under	9.3	9.3	9.0	9.3	8.8	9.1	8.6	8.9	8.8	8.6	8.3	
Greater than 0.05% Sulfur	2.5	2.4	2.4	2.3	2.2	2.3	2.4	2.3	2.1	2.2	2.2	

Notes: • PADD and sub-PADD data may not add to total due to independent rounding. • Distillate fuel oil stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D, page 53.
Source: See page 34.

Mr. BARTON. Thank you Mr. Santa. That was very informative to me, and I appreciate that testimony.

Now I would like to hear from Mr. Kevin Madden, who is Vice President and General Manager of the Federal Government Business Unit, Home and Building Controls Division of Honeywell International in McLean, Virginia. We welcome you to the subcommittee.

STATEMENT OF KEVIN MADDEN

Mr. MADDEN. Good afternoon, Mr. Chairman and members of the committee. I have the distinct pleasure of leading the home and building control business units that sells energy-efficient products and services strictly to the Federal Government market, helping the Federal Government reduce their energy consumption by 35 percent by the year 2010.

I want to thank you, Mr. Chairman, and the members of the committee for the opportunity to testify. I hope to expand a little the debate with my testimony and encourage the committee to focus on energy efficiency as a way to work to solve the current energy issues.

While Honeywell's business is wide-ranging, an amazing number of our products and services help manage and reduce energy usage. Energy efficiency is an often-ignored participant in the energy supply debate, but simply put, helping consumers and business and government reduce their oil and gas use will lower energy bills and put downward pressure on oil and gas prices. Advancing energy efficiency is sound policy that will yield economic and environmental benefits for many years to come.

Today's energy efficiency, even while it saves money, provides greater comfort, as evidenced in the documents that I put in my testimony from the sites that we are currently working in, and a better quality of life for all involved.

The Federal Government can play a critical role in moving the economy toward a full application of energy-efficient technologies. This does not require a new program or any significant new funding. It only requires simple attention to regulations, focus on research and development and market leadership.

By the way of example, I would like to highlight three examples of Honeywell technologies that impact energy usage, and the efficiency can be brought to bear across the economy.Let me now turn to the three examples: energy-boosting technologies, distributed energy technologies, and the Federal Energy Savings Performance Contracting Program.

I spoke earlier about how energy efficiency technology has transcended the stodgy reputation it had in the past. To drive home that point, let me lead off with a series of examples that are just plain fun—turbochargers for cars. Extensive data from Europe in production cars show that turbocharging enables use of smaller engines, improves driveability and provides up to 8 percent improvement in fuel economy.

Public pressure for fuel economy in Europe has resulted in an increased use of turbocharged gasoline engines. As a result, the average turbocharged passenger car in Europe is equipped with a four-cylinder engine providing higher average fuel economy.

In the United States, where the use of boosting devices such as turbochargers has not penetrated the market, the average passenger car is approximately six cylinders and growing. Especially in the move to larger SUV vehicles, the steady increase in vehicle size is making it more difficult for auto manufacturers to meet the existing standards.

Boosting devices such as turbochargers enable the small engine to deliver the power of a large engine for passing and starting while running at close to the engine sweet spot most of the time. This results in significant fuel economy improvement.

In addition, the next-generation boosting devices, such as electrically assisted turbochargers and the variable geometry supercharger, are currently under development. These technologies will double the savings that we are currently seeing today in Europe.

The three engine-boosting technologies described above may bring significant fuel economy improvements to the automobile, particularly in the highly popular large sports utility vehicles.

We have proposed a technology development program to adapt and demonstrate gasoline boosting technologies for U.S. applications and to help bring this technology to market, and we urge Congress to move forward aggressively with research and demonstration programs in this area.

The next technology I would like to highlight is our Parallon75 generator, a 75kw generator capable of supplying power to a number of different applications from McDonald's to small hospitals, bakeries and farms. The distributed generation can reduce the energy consumption and enhance the reliability of both the distribution and the transmission of electricity grids by creating a more diverse, robust mix of power generation closest to the load.

Most of our current customers want to use our units in parallel with a grid to draw power from our microturbines to produce low-cost, efficient power and use the grid for backup and as a supplement. In the United States, however, our customers are facing serious issues when they attempt to connect to the respective grids. Utilities are using both technical and physical requirements for interconnection, and the terms and conditions for interconnection create an uneven playing field for our units. Some of our customers have sites in numerous States on different utility grids. This leads to a mix of standards and requirements for interconnections.

Mr. Chairman, distributed generation technologies, like our Parallon, are inherently attractive economically as long as the playing field is level and exists in the industry. They offer real choices and solutions to our consumers, lower energy costs, reliability and improving the environment. We need your help at all levels of the Federal Government to make this choice a reality.

My final example is closest to my heart. It is the business unit that I lead. And as I talked earlier, I provided a lot of testimony in the packets relative to the Fort Bragg example, the Luke Air Force Base example, and also the departure of a garrison commander on his way to his promotion to becoming a brigadier general. In that sense, the program is working today.

In terms of Luke Air Force Base, where I came back from early this morning, it is already programmed, to date, at a 26 percent reduction from the program inception. We need to figure out a way,

as leaders, to recognize and reward that type of behavior and accelerate it.

So, in closing—I want to skip a little bit here, given the timing aspects of things, sir, but in closing, with a clear focus, Congress and the administration can lead the way and accelerate these and other initiatives to help alleviate the energy supply issues that we are focused on here today.

Thank you again, and I will be happy to answer any questions you have.

[The prepared statement of Kevin Madden follows:]

PREPARED STATEMENT OF KEVIN MADDEN, VICE PRESIDENT AND GENERAL MANAGER, HONEYWELL INTERNATIONAL, HOME AND BUILDING CONTROL, FEDERAL MARKET

Good Morning, Mr. Chairman and members of the Committee. My name is Kevin Madden and I currently am Vice President and General Manager of the Federal Government Business Unit for Honeywell's Home and Building Control business. Honeywell is a US$24-billion diversified technology and manufacturing leader, serving customers worldwide with aerospace products and services; control technologies for buildings, homes and industry; automotive products; power generation systems; specialty chemicals; fibers; plastics; and electronic and advanced materials. The company is a leading provider of software and solutions, and Internet e-hubs including MyPlant.com, MyFacilities.com and MyAircraft.com. Honeywell employs approximately 120,000 people in 95 countries and is traded on the New York Stock Exchange under the symbol HON, as well as on the London, Chicago and Pacific stock exchanges. It is one of the 30 stocks that make up the Dow Jones Industrial Average and is also a component of the Standard & Poor's 500 Index.

I want to thank you, Mr. Chairman and members of the Committee for this opportunity to testify. I hope to expand the debate a little with my testimony and encourage you to focus on energy efficiency as you work to solve the current issues we as a nation have regarding energy. While Honeywell's business is wide-ranging, an amazing number of our products and services help manage and reduce energy use. Energy efficiency is the often-ignored participant in the energy supply debate. Simply put, helping consumers, businesses, and governments reduce their oil and gas use will lower energy bills and put downward pressure on oil and gas prices. Advancing energy efficiency is sound policy that will yield economic and environmental benefits for many years. Most importantly, the energy efficiency of today is a far cry from that of yesterday. Today's energy efficiency, even while it saves money, provides greater comfort, greater productivity, and a better quality of life.

But even as energy efficiency breaks free of its grab-a-sweater, depravation reputation, it still fails to reach its full potential—a potential that only serves to strengthen our economy, reduce our dependence on foreign oil, and provide pressure on oil prices. The federal government can play a critical role in moving the economy toward full application of energy efficiency technologies. This does not require a new program and significant new funding. It only requires simple attention to regulations, focus on research and development, and market leadership. By way of example, I'd like to highlight three examples of Honeywell technologies that impact energy use and efficiency and then discuss actions by the federal government that would spur application of energy efficiency technology across the economy. Let me now turn to the three examples: engine boosting technologies, distributed energy technologies, and federal energy management.

Boosted Gasoline Engines

I spoke earlier about how energy efficiency technology has transcended its stodgy reputation. To drive home that point, let me lead off my series of examples with an energy efficiency technology that is just plain fun: turbochargers for cars.

Current automobile engine boosting technologies, such as turbochargers, appropriately applied to gasoline powered cars can improve fuel economy by about 8%. State-of-the-art European cars realize this fuel economy improvement today. Next generation boosting technologies, such as electrically assisted turbochargers and variable geometry superchargers, can provide even higher levels of fuel economy, potentially up to 14-16%.

Extensive data from Europe on production cars shows that turbocharging enables the use of smaller engines, improves drive-ability and provides up to 8% improvement in fuel economy. Public pressure for fuel economy in Europe has resulted in the increased use of turbocharged gasoline engines. As a result, the average

turbocharged passenger car in Europe is equipped with a four-cylinder engine, providing higher average fuel economy. In the United States, where the use of boosting devices such as turbochargers has not penetrated the passenger car fleet, the average passenger car engine is approximately six cylinders and growing. The push by consumers to move into larger and larger SUV vehicles, the fastest growing portion of the U.S. automotive fleet, is creating a demand for larger engines. But the steady increase in vehicle size is making it more difficult for auto manufacturers to meet existing standards, making technological solutions for fuel economy and emissions essential. Rising fuel prices are rapidly bringing the fuel economy issue home to consumers.

Car engines have a "sweet spot" at which they deliver the best fuel economy. A typical U.S. sedan needs only a small 4-cylinder engine to operate regularly at the "sweet spot." Larger engines, used to improve performance during starting and passing and improve safety, operate away from the "sweet spot" most of the time and compromise fuel economy. Boosting devices, such as turbochargers, enable a small engine to deliver the power of a large engine for passing and starting, while running at or close to the "sweet spot" most of the time. This results in significant fuel economy improvement.

Turbocharging technologies currently in use in Europe should be adapted and demonstrated for U.S. conditions and emissions requirements realizing the full 8% improvement in fuel economy with engine downsizing for large SUVs.

In addition, next generation boosting devices, such as electrically assisted turbochargers in which an electric motor/generator is added to the turbocharger, are currently under development. This mid-term technology, which Honeywell calls the DynaCharger, can eliminate "turbo lag" and enable engine/car manufacturers to electronically control the air supply to meet "air on demand" requirements. One criticism of turbocharging has been a "sensation of turbo lag" during starting and pulling away from the curb. This has been contrasted by the ability of turbochargers to deliver high torque at medium and high engine speeds. Electrically assisted turbochargers completely eliminate the sensation of "hesitation" at low engine speeds while maintaining high torque at medium and high speeds. This enables further downsizing of the engine as well as electrical power generation using exhaust energy that is otherwise wasted.

The demand for electrical power on passenger cars, to drive various accessories continues to increase greatly. This technology, by generating electrical power, has the potential to improve fuel economy by a further 3%, to a total of 11% improvement.

Another approach to boosting that Honeywell is developing is the Variable Geometry Supercharger. Most gasoline engines are "throttled" to control the power they deliver to the wheels. When vehicles are idling, or operating at steady cruise conditions, they don't need much power. Under these conditions engines operate at "part open throttle" conditions forcing the engine to "work hard" to "breathe." In today's gasoline engines this breathing work is wasted energy. A Variable Geometry Supercharger captures this energy and converts it to useful work, improving fuel economy by 6-8%. The supercharger also performs the function of a turbocharger by "boosting" the engine when needed. As in turbocharged engines, this results in an 8% improvement in fuel economy due to engine downsizing allowing a total potential overall improvement of 14-16%.

The three engine boosting technologies described above may bring significant fuel economy improvements to the automobile and particularly to the highly popular, large Sports Utility Vehicles. We have proposed a technology development program to adapt and demonstrate gasoline-boosting technologies for U.S. applications and help bring this technology to the market, and we urge Congress to move forward aggressively with research and demonstration programs in this area.

Distributed Generation Technologies

The next technology I'd like to highlight is our Parallon75 generator, a 75kw generator capable of supplying power to a number of different applications from McDonalds to small hospitals, bakeries and farms. Distributed generation—technologies such as our 75kw Parallon generator—can reduce energy consumption and enhance the reliability of both the distribution and the transmission electricity grids by creating a more diverse and robust mix of power generation resources close to loads.

Our facility in Albuquerque is now in full production and we are shipping products to customers here in the United States and internationally. Most of our current customers in the United States want to use our units in parallel with the grid—to draw power from our microturbines to produce low cost, efficient power and use the grid for backup or as a supplement.

These United States customers, however, are facing serious issues when they attempt to connect units to their respective grids. Utilities are using both the technical and physical requirement for interconnection and the terms and conditions for interconnection to create an uneven playing field for our units. Some of our customers have sites in numerous states and on different utility grids, leading to a mix of current standards and requirements for interconnection. Here are some examples of how this is being done:

- Refusing to connect distributed generation units to the grid.
- Requiring customers to add costly and redundant equipment to our units to assure safety and power quality, even though our units have significant safety and power quality protection equipment already built into them.
- Requiring site-by-site interconnection surveys and tests, costing thousands of dollars each, to connect units to the grid. These take months to complete, even though our units are pre-certified by a national testing laboratory.
- Imposing economic penalties such as exit fees and unfair tariffs.
- Imposing unreasonable terms to interconnect, such as high insurance rates, unreasonable indemnification provisions and unilateral disconnection rights.

To address these issues, which effectively discriminate against our units, two things are necessary in federal legislation.

- Establish a uniform national interconnection standard. IEEE is working this on, but it needs to be driven by a federal entity. Congress is in the best position to advocate a nationwide policy on encouraging DG interconnection, since only Congress can address matters relating to interstate commerce. Our customers and we want to be able to install and operate these units in every state, not just those with interconnection policies for DG.
- Set a requirement for interconnection, which ensures those terms, conditions and costs for interconnection are just, reasonable and non-discriminatory.

Mr. Chairman, distributed generation technologies, like our Parallon, are inherently attractive economically as long as a level playing field exists in the industry. They offer real choices and solutions to consumers—lower cost energy, reliability and improving the environment. We need your help at the federal level to help make this choice a reality.

Federal Energy Management

My final example and the example that I have responsibility for is our energy saving performance contract (ESPC) at Ft. Bragg in North Carolina. This project demonstrates how the federal government, through its own market power, can be a credible example of energy efficiency for the rest of the economy.

Energy Saving Performance Contracts were first authorized in the Energy Policy Act of 1992. These are alternative procurement mechanisms that allow agencies to procure energy upgrades without up-front appropriations. The energy savings that result from the upgrades are used to pay, over the term of the contract, for the improvements. This program breaks the investment barrier that so often plagues energy efficiency, leveraging the savings to drive the project.

Fort Bragg and its ESPC partners, Honeywell and the Huntsville Corps of Engineers, began implementing a comprehensive ESPC program in 1997. Since that time ten Task Orders totaling $17,000,000 have been awarded. They are generating savings in excess of $5,000,000 annually. Over the term of this program, Fort Bragg will save over $85,000,000. I've included, in an addendum to my testimony, details on the projects at Ft. Bragg. In those details you will note the significant energy savings achieved, the significant environmental improvement of the facility, and descriptions of the types of improvements achieved. I urge you to review these details not only because of the success they indicate but also call to your attention how replicable this kind of program is—these are straight-forward improvements to the facilities.

But the improvements go beyond energy and dollar savings. At Ft. Bragg, the infrastructure improvements have had a lasting affect on those residing and working at the installation. The results that have been achieved to date and the positive reaction from the people involved has created a situation where Fort Bragg personnel are now competing to see whose area will move up on the ESPC priority list. ESPC is having a profound and positive impact on Fort Bragg making significant improvements on the base and in the quality of life afforded there.

ESPC contracts are beginning to gain momentum throughout the DOD and the civilian agencies. We just signed contracts at Army Alaska and have projects underway with DOE, GSA, and the Air Force. But like so many procurement changes and reforms, change comes slowly, as old, familiar methods are favored over the new, thus negating the change sought by Congress. The Ft. Bragg success, with its significant economic, energy and emissions savings, should be ample encouragement to

the federal government to embrace this change and to lead by example. As the world's largest energy consumer (and therefore energy waster), the federal government should find ways to accelerate these types of activities. Congress should not only support these programs but also demand results like those found at Ft. Bragg from every installation and civilian agency. Set contracting goals and demand reports on progress. Congress and the federal government can be leaders in energy efficiency even as they meet strict budgetary restrictions and save money for the American taxpayer.

Mr. Chairman, I appreciate this opportunity to highlight some of Honeywell's technologies that can be used throughout the economy to drive productivity, enhance comfort and quality of life, and save energy and money. I hope the examples I shared demonstrate how the federal government can be a leader in the application and deployment of energy efficiency technology--both within its own ranks and throughout the US economy. With a clear focus, Congress can lead the way and accelerate these and other initiatives—and help alleviate the energy supply issues that you are focused on today.

Addendum A:

Details on the Ft. Bragg ESPC Contract with Honeywell

Fort Bragg is utilizing the Army Corps of Engineers 4 State Regional ESPC Contract. The initial task order was completed in FY98 and four more were completed during FY99. As a result, the actual savings realized during FY99 reflect only a portion of the total savings that will be generated on an annual basis. The total amount of energy consumed at Fort Bragg in FY98 was 5,783,816 MBTU. The total amount of energy consumed for both FY98 and FY99 was 11,500,831 MBTU. The five completed ESPC projects delivered 89,208 MBTU's in energy savings during FY99. Table A describes the energy reduction in kWh and MBTUs. Task Orders 1, 2, 3, 5, and 6 contributed energy savings in FY99. All ten Task Orders will contribute energy savings in FY00 and beyond.

These initial task orders, in conjunction with a rate re-negotiation with the local utilities which was conducted with Honeywell as part of the overall ESPC program, generated $2,267,115 in cost savings during FY99. The total cost of energy for FY 98 was $33,177,241. The total energy cost for FY 99 was $30,866,573.

The ten task orders that have been completed to date will generate source energy reductions of 227,467 MBTU's per year and 4,513,191 MBTU's over the term of our contracts. The cost reductions, including the new ESPC derived rates, will save Fort Bragg $5,281,920 per year and $85,205,612 over the term of the contracts. $82,021,130 of these savings are being re-invested in the facilities and infrastructure of Fort Bragg.

The following paragraphs summarize the improvements made at Ft. Bragg under each task order. The first task order at Fort Bragg was a small lighting project at Simmons Army Air Field (SAAF) which was utilized as a bore cleaner to do a check out of the ESPC process. Following closely in its footsteps was Task Order number two which was a comprehensive project at SAAF. The energy conservation measures (ECM's) implemented at SAAF include the following:

- Installed approximately 22,000 linear feet of natural gas pipeline enabling SAAF to be converted to natural gas systems from oil fired systems;
- Installed 26 natural gas fired boilers and retrofitted 2 existing boilers to natural gas;
- Replaced the forced induction heating in the hangars with radiant heating;
- Implemented building automation controls and a central monitoring system;
- Installed a comprehensive lighting retrofit
- Incorporated/updated day-lighting in the hangars
- Converted an aging central plant to individual boilers counteracting steam distribution losses along with much more effective hangar heating;
- Replaced an aging and oversized 450-ton centrifugal chiller operating at 2.3kw/ton with a 250-ton chiller operating at .7kw/ton.
- High efficiency motor replacements

The third task order involved four buildings at the Officer's Club complex where a multitude of individual systems that had been added throughout the years were combined into a central system.

- Comprehensive HVAC system upgrade
- Heating System improvements
- Control System improvements
- Lighting System retrofit and upgrades

The fifth and sixth Task Orders are lighting only projects in 207 buildings in the 82nd Airborne area. These projects focused on lighting in order to remedy a lighting problem in the vehicle maintenance facilities (VMF's). The VMF's had an average IES lighting level of 15 versus a minimum standard of 50. Bringing the lighting levels up to standards would also increase the energy consumption, negating the benefits of ESPC. As a result, a project was designed and implemented that encompassed VMF's, barracks and administration buildings. Fort Bragg was able to create enough savings in those other buildings to bring the VMF's lighting levels up to IES standards while improving the lighting quality and level in all of the buildings while also achieving our ESPC goals.

Five additional task orders have now been completed but did not generate energy savings during FY99. These projects were implemented in 32 buildings at the Joint Strategic Operating Command, The NCO and Enlisted Clubs, 15 buildings in the Knox Street warehouse area, and 26 vehicle maintenance facilities in the "A" and "C" areas. They involved electric demand peak shaving, control systems improvements, HVAC system improvements, heating system improvements and lighting.

Table B describes the cost savings achieved in FY99, the total for all ten task orders by year beginning in 2000 as well as the total savings projected for the life of the program. As a result of the initial ten task orders, Fort Bragg will be able to invest over $80,000,000 in improvements throughout the Post.

Numerous environmental benefits have been derived from the implementation of these projects. These benefits are summarized in the tables below. Table C shows the emission reductions that resulted from the ESPC generated energy savings during FY99. Table D shows the annual emission reductions that are projected on an annual basis at Fort Bragg as a result of the first ten Task Orders that have been completed. The source of this information is the Environmental Protection Agency. All environmental savings are calculated from the source of the energy supply.

Table B - Cost Savings Related to ESPC Projects Contracted at Fort Bragg Through FY99

Task Orders	Projects	Project Costs	1st Year Energy Savings	1st Year O&M Savings	Total 1st Year Savings	Savings Over Contract Term	Savings in FY99 (with Escalation) Compared to FY98	Percents of Total Fort Bragg FY99 Utilities	Savings Reinvested at Fort Bragg
TO1	SAAF Lights	$236 838	$23 841	$4 461	$28 302	$532 078	$29 187	0 09%	$532 078
TO2	SAAF Mechanical	$6 900 000	$586 081	$303 931	$889 992	$20 469 816	$749 246	2 43%	$20 469 816
TO3	O'Club	$489 531	$32 519	$31 147	$63 666	$1 773 478	$20 242	0 07%	$1 684 804
TO4	JSOC	$3 100 000	$409 334	$67 061	$476 395	$8 551 919	$0	0 00%	$7 696 727
TO5	82nd Lighting	$3 364 064	$362 894	$239 192	$602 086	$14 127 583	$60 209	0 20%	$12 714 825
TO6	Demo Lighting	$402 365	$84 724	$51 381	$136 105	$1 039 581	$13 611	0 04%	$935 623
TO7	Knox Street	$692 974	$68 637	$61 441	$130 078	$3 767 420	$0	0 00%	$3 390 678
TO8	NCO Club	$178 194	$20 478	$759	$21 237	$600 312	$0	0 00%	$600 312
TO9	A-Area VMF	$724 148	$81 576	$14 893	$96 469	$2 375 300	$0	0 00%	$2 137 770
TO10	C-Area VMF	$621 169	$74 895	$8 169	$83 064	$2 192 550	$0	0 00%	$2 082 923
	Load Mgt & RTP	$547 775	$2 754 526	$0	$2 754 526	$29 775 575	$1 394 621	4 52%	$29 775 575
	Total	$17,257,058	$4,499,485	$782,435	$5,281,920	$85,205,612	$2,267,115	6.83%	$82,021,130

Table C - FY99 Environmental Benefits Realized from ESPC Projects at Fort Bragg

Task Orders	Projects	Energy Reductions (MBTU)	Sox (tons/yr.)	Nox (tons/yr.)	Particulate (tons/yr.)	Co (tons/yr.)	Co2 (tons/yr.)	Hydro-C (tons/yr.)	Societal Benefits ($/yr.)
TO1	SAAF Lights	1 416	0 1183	0 0427	0 0061	0 0018	12 0	0 0003	$728
TO2	SAAF Mechanical	61 010	5 0966	1 8413	0 2629	0 0760	515 0	0 0110	$31,340
TO3	O'Club	1,244	0 1039	0 0375	0 0054	0 0016	10 5	0 0002	$639
TO5	82nd Lighting	2,336	0 1952	0 0705	0 0101	0 0029	19 7	0 0004	$1,200
TO6	Demo Lighting	622	0 0519	0 0188	0 0027	0 0008	5 2	0 0001	$319
	Total	66,628	5.5659	2.0108	0.2871	0.0830	562.4	0.0120	$34,226

Table D - Projected Annual Environmental Benefits from ESPC Projects Completed at Fort Bragg

Task Orders	Projects	Reductions (MBTU)	Sox (tons/yr.)	Nox (tons/yr.)	Particulate (tons/yr.)	Co (tons/yr.)	Co2 (tons/yr.)	Hydro-C (tons/yr.)	Societal Benefits ($/yr.)
TO1	SAAF Lights	1416	0.1183	0.0427	0.0061	0.0018	12.0	0.0003	$728
TO2	SAAF Mechanical	62,255	5.2006	1.8789	0.2682	0.0776	525.5	0.0112	$31,980
TO3	O'Club	3.769	0.3148	0.1137	0.0162	0.0047	31.8	0.0007	$1.936
TO4	JSOC	8.053	0.6727	0.2430	0.0347	0.0100	68.0	0.0015	$4,137
TO5	82nd Lighting	23.362	1.9516	0.7051	0.1007	0.0291	197.2	0.0042	$12,001
TO6	Demo Lighting	6.217	0.5193	0.1876	0.0268	0.0077	52.5	0.0011	$3,194
TO7	Knox Street	11.048	0.9229	0.3334	0.0476	0.0138	93.3	0.0020	$5,675
TO8	NCO Club	1.528	0.1276	0.0461	0.0066	0.0019	12.9	0.0003	$785
TO9	A-Area VMF	17.474	1.4598	0.5274	0.0753	0.0218	147.5	0.0031	$8,976
TO10	C-Area VMF	14.888	1.2437	0.4493	0.0641	0.0186	125.7	0.0027	$7,648
	Total	150,011	12.5315	4.5273	0.6463	0.1870	1266.2	0.0270	$77,059

Addendum B:

Letter from Garrison Commander William C. David, Colonel, Infantry

Mr. MICHAEL R. BONSIGNORE
Chairman and Chief Executive Officer
Honeywell Inc.
101 Columbia Road
Morristown, New Jersey 07962

DEAR MR. BONSIGNORE:

As I conclude a 38-month tour as Fort Bragg's Garrison Commander, I want to convey my personal thanks to you and the entire Honeywell team for making our Energy Savings Performance Contract (ESPC) partnership such a tremendous success. Simply put, ESPC has been the best and most enduring initiative—by far—of the many undertaken during my tour.

As you are aware, the U.S. Army faces many fiscal challenges in this period of constrained resources. From a strategic view, those of us in the installation management business have been charged by the Army's senior leadership to implement more efficient business practices so that funding for current readiness and force modernization programs can be preserved.

Fort Bragg is the Army's largest installation by population and enjoys a well-deserved reputation as its premiere power projection platform. Today's fiscal environment, however, affords local commanders with few opportunities for capital investment into the base. My own operations and maintenance budget, for example, has shrunk from $220M in Fiscal Year 1997 to about $185M in Fiscal Year 2000. That is why I consider ESPC to be an answer to a prayer.

Through this partnership, we are modernizing facilities and improving quality of life in a budget-neutral way. The cornerstone of our success at Fort Bragg has been the Integrated Solutions Team (IST). The IST process has enabled us to identify and prioritize needs in a way that maximizes the benefits of our ESPC program.

The results are compelling. Eighteen projects—worth approximately $30M—have either been completed or are in progress. We have also leveraged Honeywell's experience in both the supply as well as demand sides of our energy program. This has allowed us to obtain better energy rates from our suppliers and reduce consumption, with the added benefit of reducing environmental emissions.

This partnership has accomplished a great deal in a short period of time. I am hopeful that my counterparts at other DoD facilities will recognize the power of this program and move toward implementation. I appreciate your personal vision and commitment in this endeavor. From my perspective, this has truly been a "win-win."

WILLIAM C. DAVID
Colonel, Infantry
Garrison Commander

Addendum C:

Press Release on ESPC Contract at Luke Air Force Base

INNOVATION AND TEAMWORK: LUKE AIR FORCE BASE SPEEDS TOWARD ENERGY REDUCTION GOALS

HONEYWELL, AFCESA, AETC JOIN FORCES WITH LUKE

PHOENIX, Arizona, August 21, 2000—Luke Air Force Base, home to the U.S. Air Force's F-16 training center, is combining innovation and teamwork to meet aggressive energy conservation goals, boost productivity and enhance the quality of life for its on-site personnel and families.

Located near Phoenix, Luke Air Force Base experts have teamed with Honeywell, the Air Force Civil Engineer Support Agency (AFCESA) and the Air Force's Air Education and Training Command to reduce energy use. The upshot: Luke Air Force Base, long a leader in energy conservation, is using its new, comprehensive approach to produce better, faster and more cost-effective results than elsewhere across the Air Force.

Energy—how it is used, what it costs—is always an important matter. But interest in energy reduction increased sharply with the Presidential Executive Order 13123, Greening the Government Through Efficient Energy Management. Signed in 1999, the order mandates all federal facilities to reduce energy consumption by 30 percent by 2005 (as compared to 1985 usage) and reach 35 percent by 2010. Reductions in water use are also required.

Better, faster, cheaper

Luke Air Force Base ended 1999 with a 25 percent energy reduction, roughly four percentage points ahead of the Air Force average. According to Col. Michael Cook of AFCESA, which is tasked to help the Air Force meet the federal mandate, Luke now appears on track to exceed a 30 percent energy reduction by the end of 2000. "That's a substantial reduction," Col. Cook said.

What truly sets Luke apart from the rest of the Air Force, Cook said, is Luke's team-based energy conservation program. "By pulling in experts from the government and Honeywell and by taking a big-picture approach at reducing its overall energy use, Luke is finding better, faster, and cheaper ways to save energy," said Cook.

In contrast, other bases have employed a project-oriented approach, where the base and the contractor focus, for example, on specific changes to lighting to reduce energy use, said Cook. The project goals may be reached, but the effort is, by nature, self-limiting in what it can accomplish.

The Air Force's overall energy goal is to find cheaper sources of power and across-the-board methods to conserve energy, Cook said. "An active teaming approach gives the government opportunities to maximize energy conservation," he added. "We're urging every base to do its utmost."

"Team Luke"

The cross-functional team that stands behind many of Luke's energy achievements includes Luke Air Force Base, Honeywell, AFCESA and AETC. Nicknamed "Team Luke," the group has spearheaded major energy savings efforts that have also yielded better working conditions and quality of life improvements for the base's on-site military personnel and families. And, notably, Team Luke's use of the Integrated Product Team (IPT) approach shaved months off of typical project schedules.

To date, the Air Force awarded Honeywell $9.5 million in energy savings performance contracts to upgrade facilities at Luke. The first major stage of the energy program took just five months to complete. Team Luke upgraded the 874 military family housing units, installing new heating and air-conditioning systems and replacing aging lighting with energy-efficient fixtures. The team also handled major lighting upgrades (including significant daylighting) for eight of Luke's large industrial and administrative buildings, including two aircraft engine maintenance facilities.

Team Luke has rolled out the second stage of the program, which affects 103 buildings. The improvements, tailored to the requirements of each facility, include installation of a new energy management control system (EMCS) and measures to improve lighting, water conservation and daylighting. A major upgrade of one building's heating, ventilation and air-conditioning (HVAC) system is also underway. These changes will be completed this fall.

Quality of life improvements

The desert's torrid temperatures often sizzle to 110 degrees or more. In conditions like this, air conditioning is necessary for survival.

So, Luke's on-site military families welcomed the modernization of aging air-conditioning systems (as well as heating and lighting upgrades). The base held "town hall" meetings and formed an advisory committee of on-site military families. This committee, representing the interests of the entire base of residents, helped shape the improvements in the 874 homes on the base.

Productivity boost

The retrofits in the industrial and administrative buildings are expected to boost productivity, as well as reduce energy use. In the jet engine repair facilities, for example, 85 new daylighting fixtures and new, longer-life lights and ballasts will decrease lighting maintenance requirements—and the corresponding disruption of the engines and maintenance crew. A new control system turns the lights on and off as needed, taking advantage of available natural light. It also ensures that the facility meets the recommended lighting standards.

Improvements in the aircraft engine repair facilities boosted light levels from 25 to more than 70 foot-candles. "In the engine shops, one of the jet engine mechanics remarked that the new lighting was so much better that 'it's the difference between night and day,'" according to Lt. Col. Dave Brewer, Civil Engineer Squadron Commander. "After returning from leave, another mechanic insisted that something had been done to the floor during his absence."

Better living conditions and more comfortable work environments help increase Luke's mission productivity. "These changes at Luke are contributing to mission effectiveness," says Garland Scott of AETC. "We're extremely pleased with the results."

Best of the best

Over the years, Luke's 56th Civil Engineer Squadron (CES), called the Dragonslayers, has earned a reputation for "best of the best" performance and has built a legacy of civil engineering excellence. Luke holds the 1999 Curtin award for outstanding Civil Engineer Squadron in the Air Force, in the small unit category. In addition to the Curtin award, the 56th CES gained command recognition in 1999 with 12 awards within AETC.

The 56th CES Dragonslayers also secured Department of Energy (DOE) awards in each of the last three years, including awards for water conservation in 1997, alternate fuels in 1998, and installation of plate and frame heat exchangers in 1999. Significant Luke projects include the construction of a central chiller plant to reduce energy consumption by 45 percent, saving more than $500,000 a year.

Process improvements

Honeywell has worked closely with officials from AFCESA, AETC and Luke Air Force Base to dramatically streamline and accelerate project review and approval processes. Using a concept pioneered by the U.S. Air Force, called the Integrated Product Team (IPT) Approach, Team Luke has significantly decreased overall administration costs, improved quality and shortened project schedules.

These process improvements have been so successful that AFCESA is promoting the streamlined approach to bases and regions across the nation.

Honeywell performance contract

Through the Energy Savings Performance Contracting procurement process, Honeywell replaces the existing energy systems in federal facilities with new equipment and cutting-edge energy management technology. The replacement systems are paid for with the savings reaped from the new, more energy-efficient systems. Necessary improvements are made to infrastructure without spending any new tax dollars.

"Honeywell is proud to partner with the U.S. Air Force and Luke Air Force Base to boost energy efficiency, improve infrastructure and add value to the Team Luke approach," says Kevin Gilligan, President of Honeywell Home and Building Control.

Luke Air Force Base averages nearly 40,000 sorties and trains 800 pilots a year. It is the largest fighter-training base in the western world, with more than 200 aircraft, 7,000 military and reserve men and women, and 1,500 civilian employees. Since 1941, Luke Air Force Base has produced more than 50,000 pilots for America's most advanced fighters.

Honeywell Home and Building Control, a US $6-billion unit of Honeywell, provides products and services to create efficient, safe, comfortable environments. The business unit offers controls for heating, ventilation, humidification and air-conditioning equipment; security and fire alarm systems; home automation systems; energy-efficient lighting controls; and building management systems and services.

Honeywell is a US $24-billion diversified technology and manufacturing leader, serving customers worldwide with aerospace products and services; control technologies for buildings, homes and industry; automotive products; power generation systems; specialty chemicals; fibers; plastics; and electronic and advanced materials. The company is a leading provider of software and solutions, and Internet e-hubs including MyPlant.com, MyFacilities.com and MyAircraft.com (joint venture with United Technologies and i2 Technologies). Honeywell employs approximately 120,000 people in 95 countries and is traded on the New York Stock Exchange under the symbol HON, as well as on the London, Chicago and Pacific stock exchanges. It is one of the 30 stocks that make up the Dow Jones Industrial Average and is also a component of the Standard & Poor's 500 Index. Additional information on the company is available on the Internet at www.honeywell.com.

This release contains forward-looking statements as defined in Section 21E of the Securities Exchange Act of 1934, including statements about future business operations, financial performance and market conditions. Such forward-looking statements involve risks and uncertainties inherent in business forecasts.

Addendum D:

Summary of Honeywell's Energy Efficiency Capabilities

HONEYWELL ENERGY EFFICIENCY AND ENVIRONMENTAL CAPABILITIES

Honeywell is a US $24-billion diversified technology and manufacturing leader, serving customers worldwide with aerospace products and services; control technologies for buildings, homes and industry; automotive products; power generation systems; specialty chemicals; fibers; plastics; and electronic and advanced materials. Honeywell employs approximately 120,000 people in 95 countries.

While a diversified company, there is a common thread that runs through many of the products, solutions and services that we offer our customers and that is that they improve energy efficiency and offer environmental benefits. This report is intended to provide interested readers with a comprehensive view of Honeywell's capabilities from this energy efficiency and environmental perspective. You may be surprised by the range of markets to which we deliver these capabilities and the impressive benefits that result as well as the breadth of technologies we deploy. Following this overview are specific examples from around the world of illustrative projects and customer relationships that span the full range of Honeywell's energy efficiency and environmental capabilities.

We Bring Energy Efficiency and Environmental Benefits to . . .

Power Generation

Honeywell brings efficiency and environmental benefits to power generation in two major ways. One, we provide technologies, services and products that improve the operating performance and therefore energy use and related emissions output within a range of power production facilities—from industrial power users to independent power producers. Secondly, we have developed and now manufacture high efficiency stand-alone power generation units that can operate either on or off an electrical power grid.

Electric Utilities

Deregulation and privatization in this industry are having a major impact on the way plants operate in this historically slow-changing industry. This restructuring will require utility-generating companies to respond to a dynamic global business environment; they will need to increase revenues and reduce the cost of a delivered product from aging fossil-fuel-fired steam power plants. At the same time, they must maintain safety and reliability while meeting ever-changing environmental regulations.

As one of its primary markets, Honeywell Industrial Automation and Control (IAC) has been providing electric utilities with system and product solutions that improve the operation of plants through automation and advanced control applications. Systems solutions are delivered through the Power Generation Center of Excellence. IAC has also helped utilities respond to organizational changes by providing support and assistance to replace skills lost during these reorganizations with the TotalPlant employee development program. Benchmarking the organizational process and improving the productivity of the plants can be a very important step in the deregulation process and is another service available from Honeywell IAC.

Industrial Energy

Honeywell does not take the traditional view that the power house is strictly an allocated cost center. Too often, utilities such as steam, electricity, compressed air and chilled water are treated as an unavoidable overhead, or an allocation rather than a manageable variable cost.

Honeywell believes that energy is often a hidden and neglected variable cost that can be managed and controlled by production managers with a direct impact on profitability. Controlling these hidden costs can be a major source for product cost reduction, profit improvement, and/or a means to differentiate your product on price. Honeywell has developed a family of solutions to address the needs of regulatory control, advanced monitoring, and optimization designed to specifically minimize energy costs while maximizing availability and reliability. It has been Honeywell's experience that implementation of industrial energy management and control projects reduce energy expenses from 2 to 6 percent.

Independent Power Producers

Deregulation is spawning an increasing number of non-utility power generators whose goal is to provide the lowest-cost energy. Recent surveys of the industry indicate that the instrument and control systems originally installed in these plants have not been sufficiently reliable; they do not incorporate the advanced design elements necessary to ensure the availability or performance expected from these generator sets.

Honeywell's proven reliability and advanced control applications provide the ideal suite of solutions that this highly competitive industry needs to continue to be competitive.

On-Site Power Generation

Honeywell offers the Parallon™ 75, a compact, self-contained unit that uses a microturbine to convert a wide variety of gaseous and liquid fuels into electricity for onsite power generation, to small and mid-sized businesses. Capable of providing energy solutions from 75 to 1 MW, the system is designed to operate parallel to the utility grid or as an independent source of power for the customer. It helps to reduce energy bills, improve power quality and reliability, and minimize the risk of power outages.

Power Transmission and Distribution

Honeywell helps electric utilities reduce their operating costs and improve energy savings through its new generation METGLAS amorphous metal distribution transformers (AMDTs). These transformers can achieve up to 80% lower core loss than conventional transformers. When you consider that 10% of all electricity generated by utilities today is lost in the transmission and distribution process, the potential savings through reductions in core loss can be significant.

District Energy Systems

Honeywell is the only company that can provide a complete solution for every part of a District Heating System achieving energy savings at each level of operation up to a total of approximately 45%, and thereby reducing CO_2, NO_X and SO_2 emission. Honeywell's approach offers integrated automation of the generation plant, integrated control of the heat distribution systems, and local user comfort control.

Process Industries

Substantial amounts of energy and power are utilized in the process of manufacturing many of the materials and products that consumers and businesses consume each day. Honeywell is a world leader in automation solutions for a wide range of process industries, including oil and gas, chemicals and petrochemicals, pulp and paper, mining, metal and minerals, pharmaceuticals and other consumer goods. By providing advanced control and information management software and industrial automation systems and related field instrumentation and control products, Honeywell helps industries optimize their manufacturing processes and in so doing, achieve greater energy efficiency in the plant operations. As noted above, Honeywell's control systems can also be applied within a plant's powerhouse, thereby achieving improved energy efficiency in both the process and power generation aspects of the industrial facility.

Buildings and Residences

Approximately 45% of the energy consumed worldwide goes to power and heat homes and buildings. Honeywell is a global leader in control systems and products that can improve the operating performance of key systems (heating, cooling, lighting and security) within homes or apartment buildings, factories, schools, hospitals,

airports, commercial buildings, and military installations. In fact, Honeywell offers comprehensive energy retrofits for all of these kinds of facilities, enabling the homeowner, building owner or operator to enjoy greater comfort and easier management while also achieving energy and thereby cost savings.

Honeywell also offers "Performance Contracting" to many of its customers. The concept of performance contracting was first conceived in North America in the early 1980s. Performance Contracting or Comprehensive Technical Service (CTS) is a service that Honeywell's Home and Building Control division offers to owners of building complexes, particularly to hospitals, industrial plants, schools and universities. Working with the customer, Honeywell identifies a range of infrastructure improvements that will significantly reduce the customer's operating costs. Honeywell then formally guarantees that the cost of the improvements will be completely covered by energy and operational savings.

The Aerospace Industry

Flight Management Systems (FMS)

Through the combination of FMS experiences, Honeywell has become the world leader in Flight Management Systems. Many of Honeywell's FMS products are designed to control for lowest fuel burn and to allow the crew to fly the airplane in the most cost efficient way, thus reducing the energy consumed and the emissions created by the aircraft. FMS products achieve this by providing cockpit level control of the airplanes including variables such as determining the right altitude to fly and predicting arrival times. Honeywell has developed patented algorithms for several performance and economy functions that offer the flight crew choices impacting environmental issues. Along with the efficiency index algorithms and greater navigation accuracy, Honeywell has developed self-tuning performance capability for optimum efficiency, Autopilot Coupled Vertical Navigation for maintaining a desired flight profile, and Noise Abatement Departures features.

The Automotive Industry

Honeywell brings higher fuel economy and helps reduce automotive-related emissions through our Garrett™ Turbocharger engines and on-board automotive sensors.

Engines outfitted with Turbochargers give a small engine the same horsepower as a much bigger engine and make bigger engines more powerful, up to 40% more powerful than it would have without the turbocharger. Because a turbocharger delivers more air to the engine, combustion of fuel is more complete and cleaner, which helps reduce emissions. Fuel economy is increased as small, turbocharged engines turn more of the fuel energy they consume into power and waste less of it through heat loss and friction.

Honeywell Sensing and Control as a leading supplier of active cam, crank, transmission, body systems, and wheel speed sensors for applications that require high accuracy, extreme temperatures, or specialized packaging to survive rugged environments. Our cam and crank position sensors are most often used to help customers enhance their system's pollution control, fuel efficiency, and ignition timing. Transmission speed sensors help automatic transmissions shift smoothly.

Textile and Carpet Industry

Evergreen Nylon Recycling, our joint venture with DSM Chemicals, is the first of its kind in the world. Opened in November 1999, the facility will process 200 million pounds of normally landfilled carpet into high-quality caprolactam, the basic building block chemical used to make nylon. Honeywell's Type-6 nylon has inherent properties that allow it to be broken down into its base components with the company's proprietary recycling process. Competitive types of nylon are more difficult to work with and involve more cost and complexity. With the new facility fully operational, it is now possible to turn your old carpet into the door handle on your next new car with no loss of performance or vibrancy of color.

Environmentally Safer Refrigerants

Honeywell is a leading developer and producer of environmentally safer fluorocarbons used to replace ozone-depleting CFCs (chlorofluorocarbons) and HCFCs (hydrochlorofluorocarbons). These products, sold in many regions of the world under the Genetron® trade name, are used to replace chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) in commercial refrigeration (supermarkets, warehouses, grocery stores), stationary (residential and commercial) and automotive air conditioning and foam insulation for building construction and appliances. Genetron® products offer an environmentally friendlier alternative for air condi-

tioning in automobiles and homes. Genetron® also has a variety of commercial applications.

Mr. BARTON. Thank you, Mr. Madden.

Last but not least, we will hear from Roger Cooper, who is the Executive Vice President for Policy and Planning for the American Gas Association. We probably should institute a prize for the person who testifies last at these hearings because you have had to sit here all day long and you deserve a little extra recognition for taking it in such good humor.

So your statement is in the record in its entirety and we recognize you for 5 minutes to summarize it.

STATEMENT OF ROGER COOPER

Mr. COOPER. Thank you, Mr. Chairman. The morning was educational.

I am Roger Cooper of the American Gas Association. As you know, we represent 189 local natural gas utilities that serve customers in all 50 States. I can be brief.

Mr. Evans and Mr. Lindahl, I basically concur with what they have said about the natural gas marketplace. You, Mr. Chairman, are very knowledgeable about the natural gas industry.

Let me run through a couple of points. One, the evolution of competition, I think, is something we all agree in the natural gas industry has been extremely beneficial for consumers. Last year, natural gas consumers paid about 20 percent less on average than they did back in 1985.

This morning, I would like to focus on how natural gas utilities are preparing to ensure reliable service this winter and how we are working with our customers.

It is no secret that most consumers will pay more to heat their homes this winter. The average unit cost, according to the Department of Energy, Energy Information Administration, for residential gas consumers will go up 25 percent higher than last year. That is not good news, but there are some good news aspects to that.

Put it in perspective: In 1985, the average American family using gas heat had to spend 4.5 percent of their disposal income to heat their homes. Last year, it was only 2.3 percent, almost cut it in half, 2.3 percent of disposal income to heat homes; and Mr. Santa was actually suggesting a similar number, I think, in the oil business.

There have been tremendous efficiencies up and down the line—the pipelines, the utilities, tighter homes, more efficient appliances. So we have really done a lot for the consumer in that area.

The other point is that about two-thirds of a gas bill is not for natural gas. It is for gas service, the safety end of the business, maintaining the pipes, delivering the gas. So whenever we talk about this increase in price, it is usually nationally one-third of the bill.

An important point, and many people don't know this, is that natural gas utilities do not make money on the commodity cost of gas. We buy gas and we resell it to customers at exactly the same price that we pay for it. That is a requirement under State law and regulation in basically every State unless there is a customer choice program in there; but the utility does not make money on

natural gas and, in fact, the way utilities make money, the way they earn their allowed return, is to transport gas. Essentially, the more gas they transport, the better chance they have to earn their allowed rate of return. So higher gas prices for utilities—generally they are in the same shoes as the consumer. If prices go up, demand may go down and their ability to transport gas also declines.

So utilities generally are not too excited about higher prices, but we are very much with the rest of the industry as to what needs to be done; we need to get that product to our customers.

Now, what about gas supplies for consumers this winter? They will be adequate. Our members are in the reliability business. Our reliability record is fantastic. People don't hear about losing gas heat in the winter. Maybe your furnace dies, but the gas company delivers the gas. We will provide service to our customers as provided under their contracts. Firm customers will get firm service; interruptible customers may be interrupted as provided under their contract. And how do we do this? We contract for firm pipeline capacity. It is very expensive. Pipelines are very expensive. We enter into firm contracts. We enter into firm supply contracts on the gas commodity side, and we maintain storage and other peaking facilities to handle peak demand.

On natural gas storage, as you may know, the American Gas Association collects and releases weekly storage numbers. We have been doing that for 6 years. This season, storage has been lagging the 5-year average, but we expect to enter the winter heating season with adequate storage to meet demand. We expect we will probably be around the level we were in 1996-1997 winter, probably about 2.7 trillion cubic feet in storage, a little below the usual fill of 3 trillion cubic feet.

As to communications with our customers, we are communicating with our customers, as you may expect, with bill inserts and so on and so forth.

In conclusion, if I could make just one brief statement, I think with all the differences we hear today, there are four areas of substantial agreement in this industry. One, the restructured market has benefited consumers; two, the North American gas resource base is enormous; three, there will be an increase in demand that will not be met by the current supply—we do need to increase supply; we do need to increase infrastructure. Fourth is critical, to access the natural gas resource base and increase that infrastructure.

Gas utilities will spend approximately $99 billion over the next 20 years on infrastructure improvement.

Thank you very much, Mr. Chairman.

[The prepared statement of Roger Cooper follows:]

PREPARED STATEMENT OF ROGER COOPER, EXECUTIVE VICE PRESIDENT, POLICY AND PLANNING, AMERICAN GAS ASSOCIATION

Good morning, Mr. Chairman and members of the committee. I am Roger Cooper, Executive Vice President, Policy and Planning, for the American Gas Association. I appreciate the opportunity to testify today.

The American Gas Association (AGA) represents 189 local natural gas utilities that serve customers in all 50 states. AGA members deliver natural gas to over 50 million homes and businesses in the U.S.

As distributors of natural gas, our interest in natural gas supply is virtually identical to the consumer's interest—we want a reliable supply of gas at a reasonable price, preferably produced in the United States or North America.

Why are gas prices higher this year?

The simple answer to that question is that demand for natural gas is very strong and supplies are tight. This tightening is reflective of low wellhead gas prices during 1998 and 1999; it is not a reflection on the gas resource base. Almost all of the natural gas consumed in the United States is produced in the U.S. From mid-summer 1998 to early 1999, the price that producers could get for natural gas was fairly low—less than $2 per one thousand cubic feet (Mcf). This contributed to a decline in the number of rigs drilling for natural gas.

The United States currently enjoys a very strong economy. As a result demand for all forms of energy has increased. About 40 percent of the natural gas consumed in the U.S. is used by factories and other industrial customers, so on-going economic growth continues to push natural gas demand. Relatively high oil prices have kept many factories and electricity generators from switching from natural gas to fuel oil. While only 15 percent of the electricity generated in the U.S. comes from natural gas, in the future an increasing amount of electricity will come from natural gas because it burns cleaner than other fossil fuels.

EIA currently predicts that natural gas prices will moderate in mid-2001, due largely to the fact that more rigs are drilling for natural gas than at any time in the last 15 years.

What can residential consumers expect this winter?

While the price of natural gas at the wellhead has more than doubled this year, EIA estimated in its most recent Short-term Energy Outlook that the average unit cost for residential consumers this winter will be 25% higher than last year. Weather, which has been 10 to 15% warmer than normal for the past three winters, will be an important determinant of a residential consumers' total bill for heating.

Prices for residential natural gas service are regulated by state agencies, usually called public service commissions or boards. Some states appoint regulators; others elect them. Residential natural gas prices are for natural gas service, not just the gas commodity. The price of the gas commodity makes up about one-third of the total price a residential customer pays, on average. The remainder of the customer's bill includes amounts for the transmission and distribution of gas, system maintenance, safety and inspection programs, customer service, metering, billing and other costs. Due to the increasing efficiency and competition in the gas utility industry, consumers have seen a steady and significant decline in the transmission and distribution component of their bills since the late 1980's. (see attached charts).

Natural gas utilities do not add any profit margin to the price they pay for gas. In general, our customers do not pay any more for gas than the utilities do. Put another way, the natural gas utility does not make money on the commodity cost of gas.

In fact, utilities can lose sales when gas prices get too high because consumers tend to use less gas. We make our regulated rate of return by transporting the natural gas to the consumer and maximizing the throughput on our pipes.

Regulatory policies and utility actions also tend to lessen the impact of price spikes for natural gas consumers. In many states purchased gas costs for gas utilities are averaged over a season or even a year and passed on to consumers as an average cost of gas. This does not mean that the purchase price for a gas utility's gas supplies cannot increase unexpectedly. What it does mean is that a particular spike in gas prices for a day or week or even months may be mitigated by the averaging of costs over the year, thereby reducing volatility.

Another positive development for consumers since the energy crises of the 70's is the tremendous efficiency improvements in natural gas equipment. Improved efficiency has reduced average residential natural gas use by over 12% between 1980 and 1997. Appliance efficiency gains account for two-thirds of that improvement. Gas furnaces have gone from an average 65% efficient to over 80% efficient today. In addition, homeowners are consuming less natural gas on average than they did 20 years ago because new homes are being built more tightly and because many homeowners have made their existing residences more energy-efficient. In 1999, the average household spent only 2.3% percent of its income on natural gas, compared to about 4.5% percent in 1985.

Reliability is our top priority. Supplies will be adequate

Natural gas utilities will be prepared to provide natural gas to their customers this winter as contracted. Utilities traditionally plan to have enough supply available to meet the demand on the coldest winter day and for the duration of the most severe winter season. This winter will be no different. Utilities assure reliable service in three primary ways:

- Contracting for firm pipeline capacity: in other words we reserve space on the interstate pipelines that transport gas from the producing areas such as Texas, Louisiana and Canada to the consuming areas. We don't fly stand-by—we have a firm reservation.
- Signing firm supply contracts: our contracts with producers and marketers of natural gas are firm and contain severe penalties designed to ensure compliance. The majority of our supplies are purchased under monthly, multi-month or even multi-year contracts. Some prices in these agreements are tied to various indices, while others are fixed.
- Filling storage and peaking inventories: utilities own or lease storage facilities in or near their market area—typically in underground reservoirs. We typically fill that storage during the summer and early fall to assure that supply is available for the winter. (Storage gas usually functions as natural hedge against higher winter prices.)

Not only do natural gas utilities typically include a certain level of redundancy in their contracting practices, but some companies also maintain LNG (liquified natural gas) and propane-air peaking facilities in order to meet peak demand.

Utilities do not appear to be having any difficulty obtaining natural gas, although they are paying more per unit of gas than they did last year because supplies are tight.

National storage figures indicate that although aggregate levels of working gas in storage are about 10 % behind the five-year average, volumes in storage are currently ahead of the pace of the 1996-97 winter heating season. (see attached charts). In that year the pre-winter storage level peaked at 2.725 Trillion cubic feet (Tcf) of working gas relative to a potential "full" level of 3.294 Tcf. The American Gas Association believes that storage levels will be adequate again this year.

Interruptible and firm customers

I have been discussing how utilities prepare to serve their "firm customers". These typically are residential and commercial customers, which together make up about 36% of total U.S. natural gas demand, as well as some industrial and electric utility customers. Utilities typically purchase natural gas supplies for these customers and also deliver it. In addition, utilities supply and transport natural gas to industrial and large commercial customers who have alternate fuel supplies under what are known as interruptible contracts. About 25% of the total gas consumed is subject to interruptible contracts.

These contracts, which provide significant savings to industrial consumers, generally provide that the supply of gas can be interrupted if supplies are needed to serve firm customer demand. These customers also have the option to switch fuels when it is in their economic interest. Interruptible customers are responsible for securing adequate supplies of their alternative fuel, such as diesel oil or propane.

Interruptible contracts have been used in the gas industry for decades. They provide obvious economic benefits to industrial consumers. They also benefit firm customers because the utility does not have to design the size of its infrastructure just to meet those two or three really cold days in the winter, thus reducing costs for all, while helping ensure reliability.

So, interruptible contracts exist for two main reasons. They exist to meet the needs of industrial customers for low-cost energy that allows them to better compete in world markets and they exist to benefit all gas customers by lowering their costs.

Impact of customer choice

I would like to emphasize that the evolution of competition in the natural gas industry has been a tremendous benefit to consumers. Until this summer, natural gas consumers paid about 20% less on average than they did in 1985—making natural gas a terrific value.

Increasingly, customers make their own arrangements for natural gas supply directly with producers and marketers and the gas utility provides only transportation and related services. And in many cases, large gas consumers bypass the utility and hook-up directly with and interstate pipeline.

The most recent AGA statistics indicate that 87 percent of all gas consumed by electric utilities, 91 percent of all industrial gas consumed, and 35 percent of commercial gas purchases were purchased under a customer choice option. (1998 figures—see attached charts).

Customer choice programs are also available for about 44% of the U.S. households with natural gas.

Customer choice programs can benefit savvy consumers because marketers are able to offer customers more options for buying natural gas such as fixed price contracts and can use hedging to mitigate price spikes.

Hedging, or the use of futures and options contracts to manage risks related to rising or falling commodity prices, is not always available to local gas utilities due to public utility commission regulation. Some jurisdictions, such as the state of New York, allow utilities to offer fixed price options to their customers.

Communications with our customers

The American Gas Association and its members have been and will continue to communicate with our customers to prepare them for the higher bills expected this winter, to assure them that supply will be available and to assist them in mitigating the impact of higher prices and to manage their bill payments.

Through the use of newsletters, bill inserts and public service announcements utilities are encouraging their customers to:

- Enroll in budget billing programs, spreading their winter cost across the whole year, and.
- Ensure that their appliances are working properly and efficiently and that their homes are energy efficient.

In addition utilities are publicizing the availability of energy assistance programs such as

- LIHEAP—the federal Low Income Home Energy Assistance Program.
- State programs such as locally the Maryland, DC and Virginia energy assistance programs.
- Fuel funds—many utilities have established fuel funds to help families who do not qualify for government assistance or who have used up their benefits. These are funded by shareholder dollars, customer contributions through a check-off on their bills and charitable contributions. For example, the Washington Area Fuel Fund was created by Washington Gas Company and is administered by the Salvation Army.

Although, as I mentioned earlier, the average American family has been spending about 2.3 percent of its income on natural gas heating in recent years, low income and fixed income households devote an average of 15 percent of their budget to home energy. Obviously, the impact on these consumers will be more severe and assistance programs should be targeted to these families.

AGA encourages the members of this committee to contact your colleagues on the Appropriations Committee and to urge them to increase funding for the Low Income Home Energy Assistance Program this year. The current base funding for LIHEAP is $1.1 billion, which is only about half the amount that was provided in 1984-85—the last time gas prices were this high.

Conclusion

Finally, the committee has asked for my comments on long term energy policies to increase domestic production and to ensure the adequate supply and deliverability of natural gas.

Today, we are in a period of volatility in energy markets characterized by increased demand and higher prices. But it is critical that the current volatility not mask the widespread agreement about fundamental aspects of the natural gas marketplace. These fundamental points are central to energy policy-making. They are:

- First, the restructured natural gas market has produced benefits for all classes of consumers;
- Second, the North American natural gas resources base is enormous. Current estimates of the natural gas resource base in the United States often exceed 1,200 Tcf (based on current technology and economics), and are, therefore, equivalent to approximately 65 years of supply at the current level of consumption. (see attached charts). New technologies and changing economics allow us both to discover more gas and add to our existing resource base gas supplies that in earlier years were considered technologically or economically unobtainable.
- Third, there will be an increase in demand for natural gas that cannot be met by our current level of production and imports; and
- Fourth, it is critical that we access the natural gas resource base and develop the necessary infrastructure to meet this growing demand. As recommended by the National Petroleum Council in its December 1999 report we must "[e]stablish a balanced, long-term approach for responsibly developing the nation's natural gas resource base." This includes providing access for exploration and production to areas that are currently off limits to the industry and encouraging the development of the necessary infrastructure to transport natural gas to market.

These are clearly challenging times for our industry. However, through careful planning our nation's natural gas utilities are prepared to meet our customers' needs for safe, reliable service this winter.

Thank you for the opportunity to participate in this important hearing. I would be pleased to answer questions at the appropriate time.

Mr. BARTON. Thank you, Mr. Cooper.

The Chair is going to recognize himself, let's try 7 minutes, for questioning. Since we held you all to 5, we will cut the questions down and hopefully try to get out of here by 3 since I have a 3:45 flight to Houston.

My first question to you, Mr. Lindahl, since you represent one of the larger natural gas petroleum companies in the country, are you familiar with the proposal to build a natural gas pipeline up in Alaska to transmit natural gas to the Lower 48?

Mr. LINDAHL. Yes, sir, and while you were out I addressed that. That is probably a $12 billion project. The gas is known, and maybe half the cost is regulation to build the pipeline, so anything we can do to cut down the time, the regulation, the restrictions, helps. That gas is known. Anadarko is spending a lot of money on the North Slope looking for gas, and we would like to expedite getting that to the market.

Mr. BARTON. What is the largest impediment to making a decision and actually constructing that pipeline? Are there environmental impediments in Canada? Are there just uncertainties in the financial markets as to financing it in the United States? If you could wave a magic wand and eliminate, or at least make it possible to handle the No. 1 impediment, what would that be?

Mr. LINDAHL. It would be environmental permitting and regulations to permit the actual pipeline. That one thing can cost billions of dollars and take years to do when the gas is known, it is there, it is ready to move.

Mr. BARTON. Now, are those U.S. Federal regulations, Alaskan State regulations, Canadian provincial regulations or Canadian national regulations?

Mr. LINDAHL. I think all of the above. I think the environmental and the Federal would be probably the largest hurdle to overcome to getting the pipeline permitted.

Mr. BARTON. Okay.

Is it your opinion that if there was some emphasis and some sunlight placed on that issue in the next Congress, that that might help? I mean, could we do some things at the congressional level, working with whatever new administration comes in, that could expedite that?

Mr. LINDAHL. For sure, yes. And again I think if you have got 100 trillion cubic feet of proven gas on the North Slope. Industry has a stellar record environmentally for producing oil the last 25 years. There is no reason not to expedite getting that gas to the Lower 48 from Alaska and Canada.

Mr. BARTON. Mr. Evans, I would like to ask you a question since you are president of a company, a gas transmission company.

In the old days, the Natural Gas Policy Act days in the late 1970's and early 1980's, we considered the natural gas market to be kind of an adjunct of the oil market; that there was a fairly direct linkage between oil prices and natural gas prices. Is that situation the same today or do we now have more of a discrete market just for natural gas?

Mr. EVANS. I certainly believe there is a distinct market for natural gas and that has been, of course, driven by the growth in demand both on the electricity side and the industrial side. About half of the wells that are actually actively drilling now are searching for natural gas, as opposed to searching for oil and finding natural gas as a secondary product.

So, yes, there is definitely a thriving natural gas market and, of course, Anadarko is basically in the business as a natural gas producer as opposed to seeking oil production.

Mr. BARTON. Mr. Lindahl, Mr. Evans and Mr. Cooper, let's assume that oil prices moderate and come back down to $20 to $25 a barrel in the next year. I think the futures market in the New York Mercantile yesterday or the day before, had a 1-year price for oil at about $24.50 a barrel. I could be wrong on that, but I think that is what it was.

If that becomes reality, does that mean that natural gas prices drop from their levels of 4.50 Mcf, do they go back down to 3.50 Mcf, or do you expect natural gas prices to stay somewhere in the range that they are today? Mr. Cooper, Mr. Evans and Mr. Lindahl?

Mr. LINDAHL. I will start out, just to say that the prices have decoupled; and I mentioned earlier that the next 2 years' production for gas is going to grow at 1 percent, demand is going to grow at 3 to 4 percent. So I think the days of $2 or $2.50 gas are gone.

We have had three abnormally warm winters in the past. If we have a normal winter, you are going to see lots of spikes, but I think gas is in the $3 to $4 range going forward, and it is demand and supply. We are not drilling enough wells to replace the supply.

Mr. BARTON. Mr. Evans, do you agree with that?

Mr. EVANS. I expect them maybe to come down a little bit more than that, but he certainly is in the business of drilling for natural gas.

I think one thing that could help that in the long term, of course, is to open up some of the areas that are locked out right now for the producers to explore for natural gas, and if that happens then, of course, the infrastructure will be built to bring that to market. So I think you would see the prices moderate somewhat.

Mr. BARTON. Mr. Cooper?

Mr. COOPER. If one can walk between those, I generally agree with both gentlemen.

Mr. BARTON. Spoken like the representative of a trade group.

Mr. COOPER. No, and I will tell you why.

One point: On our end of the market, 40 percent of the gas market goes to industrial demand, and a large part of that market is dual fuel market. They can switch over to oil and do switch over to oil as a purely economic decision. So oil is an economic substitute for natural gas, and right now one reason we see gas prices high is industrial load has not switched over to oil. It has stayed on gas.

So there is a substitute effect——

Mr. BARTON. Right.

Mr. COOPER. [continuing] separate from any wellhead linkage. If you look historically, I agree it is a distinct market, but they do tend to still trend together if you look back to where we had very

low gas prices as a time of very low oil prices. So I am not a wellhead expert, but there is some interconnection.

Mr. BARTON. Okay. Let's switch to fuel oil and our expert here is Mr. Santa, and to a lesser degree, Mr. Madden. Last year, with all of the hullabaloo over fuel oil prices in the Northeast, what was the average price per gallon that your customers paid, if you can recollect that?

Mr. SANTA. About a dollar, Mr. Chairman.

Mr. BARTON. About a dollar?

Mr. SANTA. That is retail, home heating. Industrial—commercial is around 80 cents; industrial is around 60 cents.

Mr. BARTON. The home retail consumer is who we are most politically sensitive to.

Mr. SANTA. I understand. Thank you.

Mr. BARTON. So your people didn't pay this $2 a gallon?

Mr. SANTA. No way, no way. A few of them did. They could have a choice. Not everyone with me had a capped price. They could buy it that way or take their chances.

Mr. BARTON. Now, if I am in your marketing territory right now, and I haven't done anything—I just woke up this morning and, by God, I need to get some heating oil——

Mr. SANTA. Give me a call.

Mr. BARTON. There is all kinds of hell breaking loose in Washington; I had better get my act together. So I call your representative and say, you know, I have got a 300-gallon tank—I don't know what the average gallon tank is.

Mr. SANTA. Sure.

Mr. BARTON. Make me a deal. What's the deal you can give me right now today if I am an average customer, your marketing territory, on home heating oil for this winter?

Mr. SANTA. I can give you a capped price deal or I can give you a market price deal, whichever one you would like.

Mr. BARTON. Let's say I don't know, so give me both deals and let me decide. Is that proprietary?

Mr. SANTA. It is not really proprietary. It just happens to be right now that the market price is slightly higher than the capped, but they are both around $1.50.

Mr. BARTON. Let's say I want a capped deal. Generally, what is that going to be?

Mr. SANTA. Let's call it—most all my customers right now are capped at an average of $1.30. Some are $1.40. Some are $1.20. Some are $1.42. Some are $1.12. It depends upon when they bought in. If you bought today, it would probably be in the $1.40-1.50 range for a cap.

Mr. BARTON. If I say I want a capped deal and you say $1.40 a gallon, how many gallons do I have to buy and when do I have to put money into the deal?

Mr. SANTA. We know what you are going to buy already, because we know the size of your home and things like that. We know our customers very intimately, and you don't have to put anything in the deal. Just sign on to be my customer, and I will take good care of you.

Mr. BARTON. Is it a 3-month contract, a 4-month contract?

Mr. SANTA. We usually take people a year at a time.

Mr. BARTON. Okay.

Mr. SANTA. The year usually ends in the summertime. But understand something very subtle about that cap, Mr. Chairman, and it is that that is the highest it can go. If the price goes down, guess what?

Mr. BARTON. You are guaranteeing to me I won't pay more than that?

Mr. SANTA. That is right, that is top.

Mr. BARTON. And I might pay a little bit less?

Mr. SANTA. You might pay a lot less. Remember, oil spikes down as well as up.

Mr. BARTON. I don't have to put upfront money in right now to get a capped deal? I don't have to give you a $200 deposit?

Mr. SANTA. No.

Mr. BARTON. Or something like that?

Mr. SANTA. Some of my colleagues in the business do it that way. It is like you want to buy an insurance policy. Because that costs me money, I have to go to the Merc, buy a derivative which might cost me 2 or 3 cents a gallon. You are going to burn 1,000 gallons a year, so that is about $25. So I might just say to you, well, Mr. Barton, here is what we will do. You pay me $25, and you buy the insurance, and I will sell you the oil for this price over here.

Mr. BARTON. Okay.

Mr. SANTA. I wrap it together. I package the deal.

Mr. BARTON. Okay. Now, if I am Fly by-Night Barton and I am just coming through Connecticut, you know, escaping the Texas Rangers, I don't——

Mr. SANTA. Yes, we have heard of you.

Mr. BARTON. [continuing] I am not real interested in a long-term deal; I just want enough for the next month. So I don't want a capped deal; I want basically a 1-month deal.

Mr. SANTA. Right.

Mr. BARTON. What would that be today generally? Would it be the same $1.40 a gallon or would it be a little less?

Mr. SANTA. It might be a little higher than that. It might be a little higher than that.

Mr. BARTON. Because you did a credit check on me and knew that I was——

Mr. SANTA. Your reputation preceded you, Mr. Chairman.

We don't need a credit check. No, but seriously, the way that it gets lower with the cap is that I am buying a strip, I am buying what you call a Merc strip, which has a rateable amount of product over the months. And the reason I have no carrier and I can't inventory right now is that the stuff for January, February, March, April, May, June, July, it costs less than it costs now. Whereas, if I am going out today and I am going to see my major wholesaler, I am going to see Gasco and I want to buy a barge or cargo of product, well, it is more expensive for product material right now.

So therefore if Fly by-Night Barton is coming through, and he just wants a load on the run, great, here you go, that is the stuff I just bought today. You get that.

If you are my good friend and want to stay with me forever, at least a year, then I give you the special deal because we build relationships.

Mr. BARTON. I understand that.

The last question, and then I will go to Congressman Stearns: This home heating oil reserve in the Northeast that we are beginning to put into place, how will that impact the marketplace, and are you aware of how it actually will be used if it were to be used?

Mr. SANTA. I really don't have a clue and that is not so disconcerting to me as the fact that I do not think that you have a clue, and that is what really worries me. What are you going to do with it? When are you going to bring it out? At what price? You are not in my business, so therefore if you decide to dump that at 10 or 12 or 15 or 20 cents under market, I can't do anything about that. You can afford it; I can't.

Mr. BARTON. Actually, I do have a little of a clue.

Mr. SANTA. So, I mean, we had offered to Secretary Richardson an alternative which we thought made a little bit of sense, and that was, instead of putting all that stuff into storage which you don't know what you are going to do with, why don't you nice folks just offer us a tax incentive when we do not have a carry, so that we would be encouraged to put stuff in storage?

Well, it is too late for that now. You have pulled the trigger. You have got your stuff. It is there. Whatever.

Mr. BARTON. We could look at that, though, next year. That is not a crazy thing.

Mr. SANTA. Well, he seems to like it. I don't know. So, whatever.

But I mean we want to work with you. We have a burning need to take care of customers; and we do it, we just do it.

Mr. BARTON. Is there—and then I will go to Congressman Stearns.

Is there anybody in a service territory that has some market share that is dependent on home heating oil, that is in danger of not receiving home heating oil this winter, to your knowledge?

Mr. SANTA. You are talking about a reseller like a dealer or are you talking an end-user like a customer?

Mr. BARTON. An end-user like a homeowner?

Mr. SANTA. No.

Mr. BARTON. Is there any region that uses home heating oil to a significant degree where there is a consensus that grandmother might not get home heating oil?

Mr. SANTA. No, no way, Mr. Chairman. We take care——

Mr. BARTON. The EIA information about lower home heating oil, or heating oil stocks, they are certainly below the average they have been.

Mr. SANTA. Sure.

Mr. BARTON. But there is no one credible that is saying, because of that, we can't get heating oil to people that need it?

Mr. SANTA. I certainly wouldn't say that, Mr. Chairman, absolutely not. Thank you.

Mr. BARTON. Okay.

Mr. Stearns, for 7 minutes.

Mr. STEARNS. Thank you, Mr. Chairman.

Mr. Cooper, in your opinion, are financial tools such as futures and options contracts a useful tool to protect consumers from volatility in natural gas prices? And to the best of your knowledge, how many State commissions permit local gas utilities to do this? When

State commissions permit the use of hedging, what is the percentage of gas utilities that take advantage of this tool?

Mr. COOPER. I can't give you answers to all of those questions with numbers, but I would be happy to submit them for the record.

But let me give you a sense of what the hedging situation is. In some States, you have good hedging programs that are programs that give utilities some incentive to enter into a hedging deal and look and enter into these agreements. In other places, you have hedging that basically is "Heads you lose, tails I win," which is, if you make any money from hedging, that goes to the customers; if you lose any money, it comes out of your shareholders.

Now, remember I said utilities make no money selling natural gas, so you start into this business by saying this is not something I can profit from or gain money from, and so hedging is about handling risk, and if you are going to do something that involves handling risk, you have got to give someone the incentive to take that risk.

So we favor increased use of hedging. To answer your question, we favor the increased use of hedging, and I think what we are going to see to see this winter is a lot of public utility commissions reviewing their hedging policy. A lot of them, typically, utility commissions tend to be pretty conservative, and they hear "hedging" and that sounds wild and risky. I think a lot of people in the financial community would say the risky thing is not hedging, and it took higher gas prices to get a focus on that.

Mr. STEARNS. Do you know the percentage of gas utilities that take advantage of this tool?

Mr. COOPER. It is not allowed in many States, and the States where it is allowed, I think most the utilities do take advantage of it. But I will check, and if we have those figures, I would be happy to submit them for the record.

Mr. STEARNS. In your testimony, you state that there will be adequate storage levels for this year. However, EIA estimates that the aggregate levels of storage are about 10 percent behind the 5-year average. Please explain this apparent discrepancy.

Mr. COOPER. I agree with the EIA numbers. Our own numbers show we are running about 10 percent below the 5-year average. However, that is an average. We project at this point that we will have as much gas in storage as we had as we entered the 1996-1997 winter heating season. That was a pretty cold winter. We came out of that heating season with still quite a bit of gas in storage.

As I said earlier, our companies are in the reliability business. Their job is to get gas to customers. Because they don't make any profit on buying gas, they have no incentive to try to not buy enough gas, not supply gas to customers; and in repeated conversations with our customers, with our members, we believe that as we have in all the past years, we will continue to provide enough gas.

Storage, by the way, is about 3 trillion cubic feet of natural gas when it is filled, and this country consumes about 23 trillion cubic feet a year.

So it is, in some places, a very important part of the market on some cold days; in other places, it is not nearly as important. It is

one tool that is available to utilities for providing for their customers.

Mr. STEARNS. Mr. Santa, you indicate that there are no shortages. Is that true?

Mr. SANTA. That is right.

Mr. STEARNS. There are no shortages?

Mr. SANTA. That is correct.

Mr. STEARNS. You said 18 months ago we could have identified this problem, and it would have helped us, right?

Mr. SANTA. Yes.

Mr. STEARNS. How could we have identified it?

Mr. SANTA. Right then, Mr. Stearns, the price of product on a world scale basis was outrageously low. It was much, much, much too low.

Mr. STEARNS. How do you know it might not go lower?

Mr. SANTA. Well, even where it was around at around $10 a barrel, give or take——

Mr. STEARNS. It couldn't go lower?

Mr. SANTA. [continuing] it was roughly the equivalent of selling Ford Tauruses for $638.

Mr. STEARNS. Are you saying anytime it goes to $10 a barrel, that is the breaking point?

Mr. SANTA. When the arrow gets down that low—let's look at it this way: At $10 a barrel, the end-users are delighted and the producers are in the dumps. At $40 a barrel, the producers are real happy and the end-users are in the dumps.

Mr. STEARNS. Right.

Mr. SANTA. Those are the two extremes, and that is just about the way it goes.

You know where we are heading for; $25, $26, $24, $23, $25 a barrel, plus or minus, is where it is going to be. But the thing is, the reason I say about that $10-a-barrel thing, there is such a heavy disincentive to stop drilling wells, to stop producing product, to stop exploring that you have got to know that the next thing that will come is a shortage, because demand is not going to go away.

Mr. STEARNS. Do you folks agree with that? Do the rest of you agree with that——

Mr. LINDAHL. Yes.

Mr. STEARNS. [continuing] pretty much?

Mr. Cooper, I think it was you that said that the cost of energy consumption is going down in houses?

Mr. COOPER. Yes.

Mr. STEARNS. Isn't that just because there has been a mild, mild winter?

Mr. COOPER. No, no. It is certainly the warmer winters, but comparing 1985 to today, the amount that the American family using gas heat spends of their disposable income to heat their home, in 1985 it was 4.5 percent of disposal income, today it is 2.3 percent. This winter, with the increase in gas prices, we are looking at maybe it will be around 3 percent.

Sure, a warmer winter is one factor, but the major factors are just squeezing efficiencies and savings both in appliance efficiency and home efficiency, and cost-cutting in the pipeline and distribu-

tion, and just all up and down the lines basically. You know, we often don't talk much about energy efficiency, but there have been real savings. In some ways, it hurts our members because the average residential home uses a lot less gas than they did in prior years. But that is the reality.

Mr. STEARNS. Mr. Lindahl, we in Congress sometimes talk about alternative sources of energy that can be developed to reduce the demand on petroleum. Do you think that is actually a real thing, or are we just talking in the wind here?

Mr. LINDAHL. I personally think, in my lifetime, in my children's lifetime, you know, natural gas and oil are going to be the fuels that provide the majority of the energy. We sure ought to be working on renewables and solar, but those things take higher prices to develop.

Mr. STEARNS. What about ethanol or—I don't know—coal and coming up with a new way?

Mr. LINDAHL. Again, natural gas is U.S., it is efficient, it is clean; it is a fuel of the future, and we need to develop a national energy policy around natural gas.

Mr. STEARNS. So you don't see any alternative energy in the next 50 to 100 years, 50-60 years?

Mr. LINDAHL. The majority will be provided by natural gas and oil, with small amounts by renewables and others.

Mr. STEARNS. In the first panel, we were talking about the Strategic Petroleum Reserves and what the administration is going to do. I don't know if this has been asked, Mr. Chairman, but do you think that there should be, long term, a strategic gas reserve?

I mean—they are building something in New England, but I mean, should there be a national strategic gas reserve? I assume you don't think so.

Mr. LINDAHL. Well, let's put it in context. The strategic oil reserve is a 40-day supply.

Mr. STEARNS. Right.

Mr. LINDAHL. We are releasing 36 hours at 30 million, and Saudi Arabia has a 200-year supply of oil at current production, so you have to keep that in perspective.

Mr. STEARNS. So it is piddly.

Mr. LINDAHL. It is a rounding number in our energy consumption, and we lose sight of 36 hours in supply. It is a short-term "too late, too little."

Mr. STEARNS. It sounds like just psychological then.

Mr. LINDAHL. It is.

Mr. STEARNS. So it would make no sense to do a strategic gas reserve then, either?

Mr. EVANS. As far as natural gas storage, the free market is working there. There is a tremendous amount of silo/dome storage and some reservoir storage that is being developed in the United States now. So it is being done by the energy industry.

Mr. STEARNS. The private sector.

Mr. LINDAHL. One other comment: I would point out that I think in Alaska, with 100 trillion cubic feet of proven gas, we have got a strategic gas reserve; we just can't get to it.

So I think we have one. We need the government to let us get that gas down to the Lower 48.

Mr. STEARNS. Mr. Chairman, my last question of Mr. Lindahl then is, whether it is offshore or onshore, the environmental community has made it very difficult to get to these resources. What could we, as Members of Congress, do to break through this logjam? Or what concerns should we have to both protect the environment, but get at these resources?

Mr. LINDAHL. I think, you know, today one individual can stop us drilling for several years for any reason, and we need to change the environmental laws so that we coexist. Many of the environmental groups do not want us ever to drill again anywhere in the United States, for any reason; and they stop us and slow us down, and it is very costly.

Mr. STEARNS. They want us to go back to wood?

Mr. LINDAHL. No, they don't want you hugging the trees, touching the trees either. So I mean, that is a real problem. We have people who say coexistence can't occur. I mentioned to you, in Alaska we developed a 40,000-acre field on 100 acres, one-fourth of 1 percent, we found that we can coexist. Our record for the environment is stellar as a producer.

Mr. STEARNS. Would you say that is 1,000th of—what is the percent of that 40 acres on the 40,000?

Mr. LINDAHL. It is one-quarter of 1 percent of the surface acres we used to develop a 40,000-acre field. So we did that through horizontal drilling, and through pad drilling and developed a giant oil field in Alaska. It is coming on the fourth quarter, and next year it will make 88,000 barrels a day for new oil for the U.S., but the environmentalists don't want us ever drilling a well anywhere in Alaska for any reason.

Mr. STEARNS. Well, I know the chairman and I are certainly on your side.

Thank you, Mr. Chairman, for a good hearing.

Mr. EVANS. Could I add one thing there?

Mr. BARTON. Yes, sir.

Mr. EVANS. In addition to the environmental permitting on the drilling, we also need focus on the permitting of pipelines. The environmental costs of permitting and building a pipeline are probably over 30 percent of the costs associated with putting a new pipeline in the ground. That is an area of concern.

Mr. STEARNS. And going up?

Mr. EVANS. Yes, absolutely.

Mr. BARTON. Let me ask a question of you, Mr. Madden. You didn't get asked a question so I want to ask a question to you so you don't go home and feel unloved this afternoon.

Mr. MADDEN. Okay. I will be loved.

Mr. BARTON. Do you believe that some of these distributed generation devices and legislative vehicles that we have up here, if we had that, would—you know, you deal basically with the Federal Government and the military, but if we had some of that in statute, would that help the average customer, the average homeowner, better manage their energy needs?

Mr. MADDEN. I believe so. If you take a look at some of the sites that we are currently managing like at Fort Bragg, it is the fifth or sixth largest city in North Carolina. So, inside the fence, we are dealing with 5,000 residential units.

So absolutely.

Yesterday, coming from Luke Air Force Base, where in essence 55 percent of their utility bill is demand charges, in that sense if we could do some distributed generation and do some peak shaving, we reduce that cost significantly, absolutely.

Mr. BARTON. Well, I want to thank this panel. You have been excellent. Not as much political turmoil over your testimony, so we didn't quite have the TV cameras and some of the political rhetoric that we had this morning, but what you are saying is, in some ways, more important because it is real world, and it is exactly the kind of information that the Congress and the executive branch need to make policy decisions.

The Chair would ask unanimous consent to keep the record open for any opening statements of members that were not present this morning, and also so that we can submit questions for the record to these witnesses and the prior panel. Is there an objection to that?

Well, hearing no objection, that is so ordered also.

We would also ask unanimous consent to put Secretary of the Treasury Summers' memo into the record. I assume that has been approved? Do you know? You don't know?

Well, hearing no objection, that is so ordered also.

[The information referred to follows:]

DEPARTMENT OF THE TREASURY
WASHINGTON D.C.
September 13, 2000

MEMORANDUM FOR THE PRESIDENT

FROM: Lawrence H. Summers

SUBJECT: Strategic Petroleum Reserve

Chairman Greenspan and I believe that using the Strategic Petroleum Reserve at this time, as proposed by DOE, would be a major and substantial policy mistake. Even DOE suggests its impact on heating oil prices would be quite small. Moreover, it would set a new and ill-advised precedent, and the claim that the exchange is nothing more than a policy of technical SPR management would simply not be credible in the current environment. If you are inclined to authorize a SPR exchange, I would like to speak with you before you make your decision.

The proposed sale of 60 million barrels is 3½ times as large as the largest previous such sale, which was during the Gulf War. Even DOE estimates that the proposed sale would reduce the price of home heating oil by only 2.6 cents per gallon by January. An effect of this size would be lost in day-to-day price fluctuations. In part, the modest size of the impact reflects the fact that refineries in the U.S. have only limited capacity, no matter what the availability of crude petroleum.

Chairman Greenspan and I believe, for a number of reasons, that even this modest effect overestimates the probable impact. In particular, DOE fails to take account of (a) any offsetting effect from the repurchase segment of the swap; (b) any offsetting reduction in privately held inventories; and (c) any reduction in supply, including a possible reduction in over-quota production by OPEC members.

The downsides of a SPR exchange outweigh the limited benefits.

- The current tight world oil market and the political problems that this is raising in a number of countries creates a situation in which Iraq might attempt to disrupt markets by withholding supplies. We need to be in a position to respond immediately and forcefully should Iraq do so. Using the SPR at this time diminishes its psychological value as a potential response to Iraqi mischief. More importantly, using the SPR to replace more than 2 million barrels per day in lost Iraqi production *in addition to* the proposed 1 million barrels per day exchange would place the SPR under unprecedented operational stress.

  - Using the SPR at this time would be seen as a radical departure from past practice and as an attempt to manipulate prices. The SPR was created to respond to supply disruptions and has never been used simply to respond to high prices or a tight market. Given the substantial size of the proposed sale, and its proximity to both the OPEC meeting and the November election, it will be impossible to argue credibly that the proposed exchange is simply a technical SPR management policy.

  - Despite the diplomatic efforts with the Saudis, there is a substantial risk that others will adjust their supplies in response. It will be impossible to exchange 60 million barrels without attracting considerable attention. Oil producers make ongoing adjustments. We cannot predict how this change in the equation will impact their judgements on balance. When combined with the diplomatic pressure that has been placed on OPEC by a number of consuming nations, producing nations are likely to believe that they will be perceived as bowing to U.S. pressure if they fail to respond adversely to this use of the SPR. Furthermore, using the SPR would expose us to valid charges of naiveté because we would be using changes in crude supply as a very blunt tool for dealing with the prospect of high heating oil prices.

  - Engaging in a large SPR exchange would increase the sense of Administration ownership of oil prices. It would set a dangerous precedent that would put pressure on all future Presidents and call into question our commitment to the free operation of these markets.

I understand the salience of the oil price issue. There are alternatives available involving the SPR that are focused and targeted on the home heating oil issue. These would be less threatening to the Saudis because they are smaller and better targeted, and they would not jeopardize our capacity to respond to Iraqi mischief and set a much less dangerous precedent.

Mr. BARTON. This hearing is adjourned.

[Whereupon, at 3:10 p.m., the subcommittee was adjourned.]

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