Bridging the Gap to the Energy Future
Speech to U.S. Chamber of Commerce
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Ladies and gentlemen, thank you for being here today. I am very pleased to have the opportunity to provide my thoughts on the energy situation – and to offer ideas on what our American policymakers should do to enhance future energy security.

I want to say first that, despite the current tight market, the world is not short of energy potential. For many years in this country, we have been blessed with abundant resources. Our use of them has been less than prudent. But there are still enough resources available to build a secure energy future for our children and grandchildren.
That is, if we make the right choices today.

However, making these choices will require strong political leadership and determination, as well as sound insight into the realities of the energy market. We can no longer take energy for granted. In fact, we need no less than a national commitment to achieve security of both near- and long-term supply. We need policies that outline a clear path to follow.

And let me preface my next statement by saying up front that I clearly represent what is considered a special interest here in Washington – the oil industry. So it is with great care and purpose that I say … that we need leadership that looks beyond the wishes of special-interest groups and instead chooses to address the needs of American citizens.

The energy cupboard is not bare. We have the resources to bridge the gap until cleaner-burning fuels and alternative sources can provide a meaningful share of our energy. But in the meantime, we must act with courage and forethought. I'll share my ideas on the fundamental elements of a successful national energy policy.

Fundamental elements of policy
There are many opinions on how to meet our future needs. But there is no silver bullet. There is no single source that would replace hydrocarbons at a lower cost and with no environmental impact. Our legislators need to acknowledge that fact.

It is not just me saying this. Most authoritative sources, including the Department of Energy, recognize that fossil fuels will still supply 85% or more of our energy in 2030. That's because hydrocarbons are the primary sources capable of meeting demand at the scale required. And even at today's prices, they are still the lowest-cost sources available.

Our legislators must also acknowledge that energy is a global business that requires global solutions. We must cooperate with the exporting nations. This is essential for energy security, as well as to provide a future path to any meaningful impact on the world's carbon emissions. We must not act in isolation.

And our legislators must acknowledge that we live in a world that is increasingly competing for energy. If we want to retain our world leadership, we must have sound energy policy that enhances our competitiveness and economic strength.

Further, American companies are competing against national oil companies that benefit from the cooperation and friendly policies of their governments. In comparison, too often our government works to punish American companies. Legislators must keep this in mind when considering new regulatory and tax policies that would reduce our competitive edge.

By recognizing these points, they could develop a policy that begins to deal directly with the issue of national energy security. Before getting into specifics, I'll provide some further background on the energy market.

The tightening energy market

Let's start with the fact that reliable and affordable energy is essential for economies to prosper and grow. World population is expanding, economies are booming, and as a result, energy demand is rising.

In recent years, existing producing fields and refineries have been pushed at close to their maximums to keep up with demand. There is not enough extra capacity in the system right now to make up for big disruptions, such as those caused by storms or geopolitical events. In addition, most of the world's new oil and gas will come from countries with very different economic situations and political beliefs and agendas than the United States.

So the available supplies of potential imports may not be as large as we would like. And to buy these imported sources, we will have to compete for them price-wise in the world market.

There is a persistent belief that "big oil" can increase supplies anytime. But most of the world's oil is controlled by exporting nations – not the publicly-owned companies like ConocoPhillips. The six biggest international publicly-owned oil companies have direct access to only about 5% of the world's reserves. Another 30% is available – in theory – through partnerships with national oil companies. But there is a great deal of international competition for opportunities to develop this roughly one-third of the world's oil and gas. This competition did not exist just 30 years ago, and it comes largely from the national oil companies. This leaves two-thirds of the world's resources completely off limits to us.

There is another problem – one you may not want to hear about during a time of high energy prices. The problem is that the costs of developing and producing oil and gas are going up. Labor, equipment and materials all cost more. And the energy prospects themselves are more challenging.

In North America and Europe, we are generally only allowed to drill in the same old areas, which are now highly mature. So in these areas, we are chasing the tougher prospects – which are more remote, or in deeper water, or at deeper drilling depths, with rougher

weather and heavier, harder-to-produce oil. Although these resources are sometimes very large, they are more expensive to develop.

We also face increased regulation and more stringent environmental standards. While many of these are necessary and worthwhile, they do add to costs. Meanwhile, U.S. policies have actually undermined energy security by restricting access to new areas – while doing nothing meaningful to promote energy conservation. As a result, the U.S. now imports 60% of our oil. Natural gas imports are also growing.

All these factors together mean that the days of cheap energy are over. This does not mean that we can't have reliable and affordable energy. I absolutely believe this is still possible. But I repeat, it will take strong political leadership, with a clear vision of the realities of the energy market, and with a commitment to act … for the greater good.

The present energy debate

Like me, you have probably followed the Congressional energy debate during the past few months. I have several concerns about its tone and content.

First, it punishes the energy industry, instead of solving the problems. I'll give you some examples. One proposal would cap gasoline prices during emergencies. But in the past, we have seen that temporarily higher prices help attract supplies from elsewhere and reduce demand. This restores the supply/demand balance and prices then go back down. Passage of this proposal would create shortages and long lines during times of supply disruption, such as those caused by weather.

Tax proposals are another problem. Some would raise taxes on domestic production. Others would discriminate by targeting only the largest oil and gas companies. These proposals would cut into the funds needed for investment by the very companies that can lead the way on energy development.

Another proposal would allow lawsuits against producing nations. This appeal to nationalism is opposite what we should be doing – which is working together to encourage production. We should not antagonize or threaten these countries.

My second key concern is that the proposed legislation focuses on today and on the far-distant future … but ignores the decades in between. It assumes to know the long-term answers today. It also assumes that we can quickly and painlessly switch over to alternative sources – even though they are not available now, and may not be the right long-term solutions.

There is no recognition that fossil fuels – oil, natural gas and coal – keep our economy moving. They power our cars, heat our homes, generate electricity, and run our factories. This will still be true many years from now. Our total demand is too high. The job of building a new energy infrastructure is too big. We can not change course this fast. It will not happen, despite any well-intended legislation.

In reality, we need oil and gas to bridge the gap and carry us through a transition to new energy sources. Again, this will take decades. So Congress needs to start thinking about that, and to consider where the oil and gas that we need will come from.

Unfortunately, some of the proposed legislation would make the current situation worse – such as by further restricting drilling access. And there is too much that it would not do. Such as, it would not clear the permitting roadblocks we face in trying to build infrastructure. Or do enough to reduce demand growth.

To address these shortcomings, I am offering some specific suggestions.

Four tenets of a sound energy policy

The fundamentals of a sound U.S. energy policy must incorporate four major tenets. These are:

- Diversifying our energy sources,
- Lowering their carbon intensity,
- Improving our energy efficiency, and
- Encouraging investment in new technology.

I'll go through each in more detail.

Diversifying our energy sources

Step one is diversifying our sources in all areas. This step has three parts:

- First is encouraging development of both conventional and unconventional fossil fuels. These have a great deal of remaining potential – both here and overseas. Some can be recovered through traditional methods, and some will require new technology.
- Second, we must focus our biofuels efforts on sources that are efficient and sustainable over the long term – and that do not threaten food supplies.
- And third, we should encourage development of alternative and unconventional sources.

I'll explain each suggestion in detail, starting with conventional oil and natural gas.

Encouraging conventional supplies

Although the U.S. has only 3% of the world's remaining proved reserves, this is due, in part, to policy actions. We could add to our reserves by drilling in new areas that are currently off limits. Altogether, these areas are estimated to hold 80 billion barrels of recoverable oil and natural gas equivalent. How much is that? It would exceed all our current proved oil and gas reserves.

The critics always claim that since one area or another only offers a few months or years of supply, it should not be developed. My response is, why transfer 4.4 trillion dollars in potential national wealth – the market value of these resources – to other countries through imports? We could instead keep that money at home and gainfully employ thousands of Americans.

All the industry needs is access. Otherwise, we must accept U.S. oil import dependence at the current rate of 60% – or even higher in the future. We should end the federal drilling moratoria. And yes, we should meet strict environmental performance standards. Industry technology and operating practices have made quantum leaps in the years since these moratoria were enacted. Our national vulnerability no longer allows us the luxury of ignoring so much energy potential. Unfortunately, instead of opening access, even today some members of Congress are trying to limit it further.

Also, the process to obtain permits to build critical infrastructure is broken. We need more LNG terminals, electric transmission lines and refinery expansions. But there are endless roadblocks to building them. Where infrastructure is clearly needed to serve the national interest, federal pre-eminence is needed over local or special interests.

This pre-eminence issue brings up another point. We do not just produce generic gasoline. We are required by state mandates to produce 16 localized "boutique" gasoline blends for particular markets. Now multiply that by the three different octane grades of gasoline. And by the need for different winter and summer blends. The result is a large number of different fuels, each with its own specifications. We are now also seeing boutique biofuel blends required in some states.

These boutiques raise gasoline prices for consumers. Another problem is that if a refinery that makes a boutique blend goes down, we may not be able to ship in blends from other areas. This causes shortages and price spikes. We could fix this by having the federal government set uniform national fuel requirements.

Biofuels production

Moving to biofuels, there is a lot of excitement over their potential. In fact, the major biofuel produced today – corn ethanol – is a good starting point. We use about 6 billion gallons a year, generally in reformulated gasoline to improve air quality.

The Senate has proposed to mandate the use of 15 billion gallons annually. We support the use of ethanol at this level, and recommend letting the market decide where certain concentrations are desirable – such as E-85 in the Midwest for flex-fuel vehicles.

But levels exceeding 15 billion gallons, which some are suggesting, should not be mandated before better technology and infrastructure are ready. We also understand that higher ethanol production would significantly raise food prices. For these reasons, corn-based ethanol may be better viewed not as a long-term solution, but as a good bridge.

The goal should be to develop second-generation renewable sources – such as cellulosic ethanol – that are viable over the long term, both economically and environmentally. We need biofuels that offer efficient conversion technologies on a large scale. They should be compatible with existing infrastructure. We should not over-commit to any one source, while overlooking potential break-through technologies. Good policy will in fact be a balancing act.

Given our concerns over climate change, we should also structure our standards for renewable fuels to consider both their energy intensity and carbon intensity.

And finally, the U.S. currently has a 54-cent-per-gallon tariff on imported ethanol. This penalizes lower-cost and less carbon-intensive imports, such as from Brazil. This tariff should be phased out.

Encouraging alternative and unconventional sources

Now, let's move to the alternative and unconventional energy sources that will be essential in the future. Keep in mind that new technologies take time to commercialize, and usually cost more than conventional supplies. Here again we are at risk of government coming down too strongly on the side of politically expedient sources. It should let the market decide which are the best technologies. In effect, let it choose the winners. That is the best way to avoid getting locked into old technologies, or to sources that are not economical.

There is something that government can do to help encourage development. It could provide energy-price insurance that enables developers to bear the risk of starting up new ventures. Back during the "energy bust" of the 1980s, a lot of companies lost their investments in alternative energy projects. So they are skittish about making new investments now.

The government could establish a baseline, such as a 60-dollar oil price, and provide guarantees at this level for new alternatives. This would offer the fiscal certainty that would enable new projects to be built.

The insurance could be made available for up to a million barrels per day of alternative oil or liquid fuel production over the next 10 years. It would also cover 3 billion cubic feet per day of alternative natural gas production. The insurance would be for second-generation biofuels, coal gasification, coal-to-liquids, oil shale, methane hydrates and similar sources.

Together, these unconventional fossil fuels offer several times the domestic energy resource potential of our conventional oil and gas.

To ensure efficiency, this price protection would be auctioned, with the winners being those projects with the lowest energy-price requirements – and the lowest carbon intensity. The beauty of this proposal is that if oil prices remain high, there will be no actual outlays needed. The mere existence of the insurance would encourage development. And the market and consumers would ultimately pick the winning technologies.

Lowering the carbon intensity of energy supplies

Step two in this four-part plan would be additional action to lower the carbon intensity of our energy supplies. We can no longer ignore rising concern over the impact of fossil-fuel use. We must show leadership that inspires the rest of the world to join us.

We need to reduce our carbon footprint by establishing a baseline – and a system of incentives and penalties to ensure that we meet this baseline. The first step would be to

create a mandatory framework that would lower our greenhouse gas emissions, and set a price for carbon avoidance. This could be done by either a tax or a cap and trade system. This would influence investment decisions across the entire economy. We should also offer incentives for development of carbon capture and sequestration.

This would allow us to use our domestic fossil fuels, such as coal and oil shale, while protecting the environment. Since the ability to sequester carbon is a national priority, no one industry should be singled out to pay for it, as is currently proposed. Companies are ready to begin. But they need government to establish national legal and regulatory frameworks for liability and permitting issues. And it should provide access to federal lands that offer the potential for underground carbon storage.

Next, we should encourage the use of renewable sources – such as solar and wind – by extending their investment tax credits by 5 years at a time. This would help provide the financial certainty needed for investment.

We should also encourage greater use of nuclear power. It meets higher percentages of total electricity demand elsewhere than in the U.S. To help us catch up, the government should fulfill its commitment to dispose of waste generated by nuclear power plants. It should sponsor research into advanced technology that uses the fuel more completely – while reducing waste volumes and half-life – and lowering proliferation risks.

Improving energy efficiency

Now, let's move to the third tenet – increasing energy efficiency. This single action is the most effective way to reduce our carbon footprint, stretch our supplies and improve energy security.

Starting in the transportation sector, we must slow down our demand growth. We could do this through new vehicle technology, raising the proportion of fuel-efficient vehicles in the fleet, and reducing growth in miles traveled. There are also steps we could take to encourage the use of more economical cars and trucks.

For example, less-efficient vehicles could be assessed a surcharge at the time of purchase. Those with better mileage could come with a rebate. This would help assure manufacturers that consumers really would buy enough of the economical models. Over time, we could raise the efficiency levels on which the "feebates" are based.

There are also opportunities to slow down growth in electricity use. This is important, because electricity makes up 40% of U.S. energy consumption – up from 25% in 1970. Electricity costs are rising partly because of the tight natural gas market.

Gas is an environmentally preferred fuel for power generation. We need new gas supplies from the proposed pipelines from Alaska and the Mackenzie Delta in Canada, and from new LNG supply sources and terminals. But these projects have been delayed due to hyper-inflation in costs, local politics and special interests. Meanwhile, we're using gas-fired generation plants very heavily during peak-demand periods.

We could relieve some of this pressure by improving the efficiency of electricity use. The states should enact regulatory and fiscal incentives that would encourage utilities to reduce electricity demand. The utilities could do this by offering more transparent pricing that shows consumers the cost of power as they use it.

For example, one technology that would help, called "smart meters," already exists. We only have to install them. We could also offer real-time pricing that encourages consumers to reduce their electricity use during periods of peak demand.

We should require greater use of Energy Star labeling to make the efficiency of consumer products more visible. Also, long-lived equipment like refrigerators, air conditioners and furnaces, should have federal energy-use standards that grow tougher over time. Additionally, we need continuing improvement in the energy efficiency of manufacturing.

Encouraging investment in new technologies

The fourth tenet of our proposed national energy policy is encouraging investment in new technologies. This is important at all levels. We need it for maximizing recovery of conventional resources, successfully operating more complex projects in harsher environments, and for improved environmental performance.

Better technologies will also allow us to develop new alternative and unconventional sources. They will enable us to lower our carbon intensity and improve the efficiency of energy use across the entire economy. Both the public and private sectors need to increase spending on energy technology research and development. Government technology investments should be made in a transparent and market-based manner, with the incentives going to the best ideas.

There is another government investment needed to drive technological development. And that is support of education. We have a tremendous need for qualified personnel in the energy industry. In fact, half of our technical workforce will reach retirement eligibility in the next five years. We need more university students majoring in engineering, geology, geophysics and the other technical disciplines. And better secondary education to prepare them. So we need no less than a national commitment to education as well, for a number of reasons, including our energy supply security.

Concluding thoughts

Let me conclude by reiterating the four major tenets of a comprehensive energy policy:

- Diversifying our energy sources,
- Reducing their carbon intensity,
- Improving our energy efficiency, and
- Encouraging investment in new technology.

Obviously, these points call for a broader approach to legislation than Congress is taking.

As the debate continues, we should urge our legislators to develop an energy policy that will work in the years immediately ahead, as well as over the longer term. It should avoid

catering to special interests, including the oil and gas industry. However, it should *not* blame or penalize the one industry that offers the greatest near- and long-term potential to increase our energy supply.

The reality is that meeting tomorrow's demand will require the continued use of the resources that meet our needs today. These are oil and natural gas, coal and nuclear – with initially small but growing contributions from unconventional and renewable sources – like wind, biofuels, solar and others – some of which may not have been invented yet.

And to develop these energy solutions, we'll need people, technological expertise and financial capacity – in short, the strengths already found in the oil and gas industry. We should use these strengths, and not drain them away through punitive legislation.

America has the potential to bridge the energy gap, if we make the right choices. But we still need political leadership on the part of government, and a national commitment to securing our energy future. That's what I'm asking of Washington today.

Thank you.

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