

United States House of Representatives
Select Committee on Energy Independence and Global Warming
Hearing on “Future of Oil”
Wednesday, June 11, 2008
9:30 a.m.
1300 Longworth House Office Building
Testimony by
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Thank you Chairman Markey, Ranking Member Sensenbrenner and the rest of the members of the House Select Committee on Energy Independence and Global Warming. I am Karen Harbert, Managing Director and Executive Vice President of the Institute for 21st Century Energy, an affiliate of the U.S. Chamber of Commerce.

INTRODUCTION

U.S. national and economic security depends on keeping America strong at home and abroad. Keeping America strong requires access to reliable, affordable and diverse sources of energy. Energy is the lifeblood of the U.S. economy - it fuels our competitiveness in the world economy and maintains our quality of life. Energy underpins our innovative high-tech economy, our resilient manufacturing base, our bountiful agricultural sector, and our courageous U.S. military. The solution to our energy security challenge requires a long term view and durable policy and fiscal commitments. Our energy challenges did not occur overnight and the solutions will not materialize overnight.

As the world’s largest producer and consumer of energy resources, the U.S. must play a leading role in addressing the world’s energy challenges and ensuring a secure energy future. To achieve this goal, America needs a comprehensive, common sense energy policy. We need to be honest with the public and policy leaders about what it is going to take to address one of the greatest threats of the 21st century — our growing energy insecurity.

At the Institute for 21st Century Energy, an affiliate of the U.S. Chamber of Commerce, we believe an affordable, diverse, and secure energy supply is fundamental to our future security and the expansion of economic opportunity and prosperity. We are fostering a well-informed discussion on our energy realities and working to build consensus on sensible and sustainable energy solutions to the grave challenges we face.

CONTEXT

Global energy consumption will increase by roughly 57% by 2030, with 70% of that growth coming from the world’s emerging economies – 30% from China alone, 15%

from India. The International Energy Agency estimates that to meet world energy consumption in 2030, over \$20 trillion in investment is needed.

Electricity growth is expected to be particularly steep, rising more than 100% over the next 25 years. However, 1.6 billion people in the world today still lack access to electricity.

Our world in 2030 will likely look entirely different. China today has 30 million cars on the road and by 2030, China could have over 300 million cars on their highways. How these cars are manufactured and powered will have a significant impact on the global marketplace. Oil consumption in India has increased sixfold over the last 25 years and China, once a net exporter of oil, is now a net importer.

TRENDS

However, some recent energy trends are of concern.

Most energy is derived from fossil fuels found in a small number of producers. Resources are often located in places that are geographically hard to reach, geologically difficult to develop, politically unstable, or unfriendly to new foreign investment. The world's dependence on a few countries is neither responsible nor sustainable over the long term. Record high oil prices indicate limited spare oil production capacity in the world market due to a lack of investment in new supply and high levels of demand growth in many parts of the world.

Access to reserves is limited. Roughly two thirds of the world's oil and gas reserves are in countries that provide limited access or are completely closed to foreign investment. National Oil companies own between 50-80% of the world's proven oil reserves.

Energy sector exploration and development costs have risen. Investment is more costly than some companies originally conceived.

Upstream investment has risen but not the share devoted to exploration. Upstream oil and gas investment doubled from 2000 to 2006. However the percentage of this investment allocated to exploration has averaged around 12% during the same timeframe due to a shift towards production as companies move to capitalize on higher prices.

Increased manipulation of natural resources in countries with large resource bases manifests itself by:

- Limiting access to the resources for commercialization
- Renegotiating contracts or expropriating assets
- Renationalizing assets
- Cutting off supply
- Subsidizing prices in order to offer "cheap" petroleum to citizens and "friends"

Shortage of qualified staff and available equipment will constrain new investment. The U.S. energy industry employs well over one million people today yet nearly half of this workforce is expected to retire in the next 10 years.

WE ARE NOT RUNNING OUT OF RESOURCES, JUST ACCESS TO THEM

While some have suggested that we are running out of oil and gas resources, we are actually running out of access to energy resources for commercialization – thereby limiting supply. We are also lacking data off of our shores and in many producing countries that could provide certainty and a clear picture of proven reserves to enable robust investment.

Open investment climates and stable regulatory frameworks for investment in the energy sector are needed to ensure sufficient supply of energy for a growing global economy. Market-based pricing of energy resources worldwide will also encourage responsible and efficient consumption. Energy projects are complex, capital intensive and take years to bring new resources on line. Therefore, the investment needed to unlock these untapped natural resources needs to be mobilized now.

It is important to remember that the U.S. is still the largest producer of energy in the world, yet it imports approximately 60% of its oil. The top ten suppliers to the U.S. are Canada, Mexico, Saudi Arabia, Venezuela, Nigeria, Iraq, Algeria, Angola, Russia and the United Kingdom. We import 15% of our natural gas principally from Canada, Trinidad and Tobago and Algeria.

Here in the United States we have significant reserves that the Congress and the Executive Branch have put off limits for exploration. 80% of the Outer Continental Shelf is off-limits for exploration and production. The OCS is estimated to contain 420 trillion cubic feet of natural gas and more than 85 billion barrels of oil. If all U.S. imports of oil and natural gas were to cease, the natural gas located on the OCS off the lower 48 states alone would satisfy all domestic industrial and commercial needs for almost 30 years. This amount of oil would provide a 35-year supply of gasoline for 81 million cars and heating oil for the millions of residential homes in the U.S. for over 100 years.

It is important to recognize that our most important energy partner in the world is Canada, a stable, reliable ally. They are the number one supplier of oil to the United States. The Canadian provinces of Alberta, British Columbia and Saskatchewan provide the vast majority of our natural gas imports, and Canada provides more than 80% of all natural gas entering the United States. There are a number of new oil and gas projects on the horizon in Canada.

Mexico, our second largest supplier also has great potential to increase its output. However, provisions in its constitution prohibit private investment in the oil and gas sector, limiting the country's production and ability to access new technologies that would spur output. Mexico ranks fourteenth in world proven oil reserves with 12.9 billion barrels.

Beyond the North American market, much of the world's untapped hydrocarbon resources are controlled by governments and national oil companies with limited access afforded to international energy companies. New resources are concentrated in the Middle East, North Africa, Russia and Central Asia.

Saudi Arabia is estimated to have over 260 billion barrels of oil reserves and is making significant investments to increase its daily production by almost 30%. Iraq has tremendous reserves as do the United Arab Emirates and Kuwait. In Africa, Nigeria and Libya with combined reserves estimated at 75 billion barrels will be important suppliers to the world market. Continued violence in Nigeria poses a significant challenge for current and prospective investors.

Resource estimates for the Central Asia-Caspian region vary widely because many areas of the region have not been fully explored. The Energy Information Agency (EIA) indicates that proven oil reserves are somewhere between 17 and 72 billion barrels. Russia has vast oil and gas reserves. Its proven oil reserves are conservatively estimated at about 60 billion barrels and the world's largest natural gas reserves of about 1680 trillion cubic feet. However, Russia does not make its reserve data public so there is uncertainty over these figures.

There are significant challenges in both Russia and Central Asia to tap these reserves, including problems with the investment and business climates, corruption, rule of law, and transparency. Each country faces its own challenges in improving the environment that will encourage more energy investment and business.

WHAT TO DO

To cope with the full spectrum of energy challenges, America must develop a comprehensive plan to deal with growing demand and constrained supply. The current level of energy insecurity poses an unacceptable risk to our economy and national security.

To start, there must be recognition that we operate in a global economy and an international energy market. Thinking in terms of energy interdependence and not isolation will lead to sounder and more realistic policies.

The overall approach must embrace the following concepts:

- **Increase and Diversify Supply**
- **Increase Suppliers**
- **Improve Energy Efficiency**
- **Accelerate Technology Development and Deployment**
- **Increase use of alternative and renewable sources of energy**
- **Improve Environmental Stewardship**
- **Modernize and protect critical infrastructure**

To address our growing energy crisis, we must allow for increased domestic oil and gas supplies, recognize the role of nuclear and clean coal, emphasize energy efficiency and renewable energy, update and expand our ageing energy infrastructure, be better environmental stewards, and develop and deploy the clean energy technologies of the future. These are clear but challenging, even difficult things we have to start doing now as a nation. They won't deliver a quick fix - there is none - but they will deliver results over time. The longer we delay, the longer it will take to solve our energy problems.

Transforming the way we produce, distribute, and consume fuel and power will be anything but easy or cheap and will require unprecedented political commitment and compromise. Still, the American track record of technological innovation should give us all hope. By unleashing our entrepreneurial power, we can make widespread use of carbon capture and storage technologies to allow us to use our 250 years of coal supply. We can create a second generation of biofuels that will not conflict with growing food demands. We can build new safe, emissions free nuclear plants and we can responsibly drill on our lands and off our shores.

Energy infrastructure is every bit as important as energy supply. Since 1990, our electricity demand has increased by 25%, while construction of transmission facilities has decreased by 30%, according to the U.S. Department of Energy. As the demand for energy grows and greater supplies are needed, we must ensure we have an adequate infrastructure to produce, transport, deliver, and store that energy.

Finally, we must develop and implement strategies to better inform the public and our policymakers about America's energy needs and choices. We have to change the terms of the energy debate in our country to make it more understandable, broaden and deepen it, and elevate it with the facts. We can no longer base critical policy decisions on supposition, contradiction, and ignorance.

As we divine the solutions to the growing demand for energy it is important that we consider the trade-offs, the costs, and the feasibility of what we are suggesting. We don't see enough of that in Washington or on the campaign trail. We all need to bring more facts, more reality, and more good American common sense to this critical challenge facing our future. There is no single solution, no single fuel, no single country that can provide adequate supplies of energy—America must embrace all possible sources.

The decisions we make in the next few years will be with us for generations, and we owe it to those future generations to make the right far-sighted decisions. The stakes are enormous and our competitiveness and security compel us to take common-sense action now. The Institute for 21st Century Energy looks forward to being a constructive and integral part of this important national debate.