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U.S. ENERGY SECURITY: WEST AFRICA AND LATIN AMERICA

HEARING

BEFORE THE

SUBCOMMITTEE ON INTERNATIONAL ECONOMIC POLICY, EXPORT AND TRADE PROMOTION

OF THE

COMMITTEE ON FOREIGN RELATIONS
UNITED STATES SENATE

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U.S. ENERGY SECURITY: WEST AFRICA AND LATIN AMERICA

TUESDAY, OCTOBER 21, 2003

U.S. SENATE,
SUBCOMMITTEE ON INTERNATIONAL ECONOMIC POLICY, EXPORT AND TRADE PROMOTION,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.

The subcommittee met at 2:36 p.m., in room SD–419, Dirksen Senate Office Building, Hon. Chuck Hagel (chairman of the subcommittee), presiding.

Present: Senators Hagel and Coleman.

Senator HAGEL. Good afternoon. This is the third subcommittee hearing this year on energy security. Prior witnesses have given the committee an overview of U.S. energy security policy and how that policy is affected by events around the world.

Because U.S. energy independence is not achievable in the near term, America needs a comprehensive energy policy that recognizes the realities of our interconnected world and the linkages between political stability and energy security. Those realities vary from region to region. We cannot take a one-size-fits-all approach to this effort.

Our first hearing in April of this year on energy security focused on an overview of global energy security issues. Our second hearing focused specifically on Russia and the Caspian Sea region. Today's witnesses will testify on the impact of recent developments in West Africa, specifically in Liberia and Nigeria, and in Latin America, especially in Venezuela and Mexico.

Both Latin America and West Africa are regions rich in resources but bedeviled by instability and conflict. Both regions can also play even greater roles as major suppliers of energy to the United States over the years to come. Approximately 30 percent of America's crude oil and petroleum imports come from Latin America, primarily Mexico and Venezuela.

This energy relationship cannot be separated from our bilateral relationships, including trade and immigration. While the U.S. imports crude oil and electricity from Mexico, we also are a net exporter of natural gas to Mexico.

The political unrest in Venezuela and the instability in the Venezuelan oil market underscore the need for diversification of U.S. energy supplies.

I will ask today's witnesses to comment on how the oil strikes against President Chavez in Venezuela have affected U.S. energy policy and how the geostrategic implications of continued political volatility in Venezuela could affect our economic and political interests in South America.

Other countries in Latin America hold promise with regard to energy production, particularly in the natural gas sector. Brazil and Chile are examples of potential suppliers of natural gas, and they could fit into an overall global energy security strategy.

West Africa holds significant potential for future energy development. Nigeria has the ninth largest proven natural gas reserves in the world and could significantly increase its crude oil production. Nigeria is the greatest energy force in West Africa at this time, but other countries in the region, Cameroon, Equatorial Guinea, and Gabon, to name a few, are also potential suppliers.

Sao Tome, off the West African coast near Gabon and Nigeria, has what may be billions of barrels of crude lying off of its coast. However, a military coup seized control of the government for a week in July. West Africa will only realize its energy potential when it addresses the political instability and conflicts that plague the region.

In both Latin America and West Africa, political instability and corruption will stymie long-term development efforts. Rule of law reforms must accompany energy development efforts in order to attract investment, promote prosperity, and ensure peace.

Today we have two panels of expert witnesses to discuss these important issues. On the first panel, we will first hear from Deputy Assistant Secretary of Energy for Political and International Affairs, John Brodman, who will testify on how the Energy Department views energy security issues as they pertain to Latin America and West Africa. Then we will receive testimony from Matthew McManus, Acting Director of the Office of International Energy and Commodity Policy, who will discuss energy issues in the Western Hemisphere and Africa and their relationship to U.S. energy security and commercial opportunities.

On the second panel, we will hear from the president of Goldwyn International Strategies, David Goldwyn; the chairman of PFC Energy, Robin West; and a senior associate at the Carnegie Endowment for International Peace, Dr. Marina Ottaway.

Thank you all for coming. We appreciate your time, your efforts, and we look forward to your testimony. Welcome.

[The opening statement of Senator Hagel follows:]

OPENING STATEMENT OF SENATOR CHUCK HAGEL

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Thank you all for coming and welcome.

Senator HAGEL. I have been joined by the distinguished Senator from Minnesota. Senator Coleman, would you like to offer a statement before we hear from the witnesses?

Senator COLEMAN. Just very briefly, Mr. Chairman. First, thank you for holding this very, very important hearing. I have an interest from two perspectives, one representing a farm State, an interest in reducing reliance upon foreign oil and increasing the use of renewables. I bring that perspective to the table, but also as chair of the Western Hemisphere Subcommittee within Foreign Relations, concern about both the challenges and opportunities, concern about the situation in Venezuela which you referenced in your opening statement, concerns most recently about the political situation in Bolivia, some challenges regarding energy production in Colombia, and though perhaps not part of this hearing, I look forward to some discussion about some of the opportunities in Trinidad that have been discussed recently.

So again, this is a very, very important hearing, and I look forward to the testimony. Thank you, Mr. Chairman.

Senator HAGEL. Senator Coleman, thank you very much.

Gentlemen, we are prepared for your testimony. We will begin with you Secretary Brodman. Thank you.

STATEMENT OF JOHN R. BRODMAN, DEPUTY ASSISTANT SECRETARY OF ENERGY FOR INTERNATIONAL ENERGY POLICY, OFFICE OF POLICY AND INTERNATIONAL AFFAIRS, U.S. DEPARTMENT OF ENERGY, WASHINGTON, DC

Mr. BRODMAN. Thank you, Mr. Chairman, Senator Coleman. I am pleased to appear before you today to discuss the administration's efforts to address our Nation's energy security with a particular focus on West Africa and Latin America. I have submitted for the record a much longer written statement and I believe I can keep my oral remarks today to less than 10 minutes.

Senator HAGEL. All the written statements will be included in the record. So that will be fine, Secretary Brodman, and other witnesses today, if they would like to do the same, we will treat your statements the same as Secretary Brodman. Please proceed.

Mr. BRODMAN. Thank you.

President Bush's National Energy Plan recognizes that the United States cannot address its energy concerns alone, that our energy security is intricately linked to international markets as a result of our increasing dependence on external sources of supply. We recognize that energy policy has a strong role to play in assuring that our energy supplies represent a diverse set of energy resources from a diverse set of energy suppliers. Therefore, security of supply is the driving force behind our policy engagement on energy issues with many countries.

While our policy of supply diversity has been successful to some degree, the development of many frontier oil provinces carries with it its own set of political, economic, and security risks. Our policy of diversifying supplies relies on commercial investment in energy projects. We do not tell our companies where to invest or where to buy oil. It is up to them.

And there are a considerable number of obstacles to realizing this commercial investment directly related to economic, political, and security risks. We have seen that an unfavorable business climate may keep needed energy resources locked away from development for a long time.

The emerging threats to energy security in many new producing countries and regions and, indeed, as recent developments in Venezuela and Nigeria have demonstrated, in older producing regions as well are somewhat different than those we have faced in the past. These new threats to energy security, clearly recognized in the National Energy Plan, call for a continued and possible enhancement of the balanced and sustained engagement with the oil-producing countries that we have been pursuing to help them manage and utilize their revenues in a way that promotes political stability and sustainable economic growth.

The Western Hemisphere and Africa are important sources of our imports of oil and natural gas and their importance is likely to grow in the future. Even though their proven reserves and production will never allow them to replace the Middle East in importance to world energy markets, they will nonetheless be an important source of additional supplies for years to come.

We have learned from experience that it is the marginal barrels that are the important factor in determining conditions in the oil market. Over the past decade, non-OPEC oil production has on average more than kept pace with the rise in world oil demand, thereby limiting OPEC's share of the market. This trend is expected to continue in the years ahead, and Africa and Latin America together could contribute 5 million to 7 million barrels a day of additional oil to the market in the next 10 to 15 years.

Turning to our hemisphere and to Latin America, as you know, the United States, Canada, and Mexico are working together to create ways to facilitate the development of a true North American energy market that will deliver reliable, affordable energy to the citizens of all three countries. The President's National Energy Policy also recommends ongoing energy consultations with other countries in Latin America to improve the energy investment climate. The energy sector requires capital inflows to achieve adequate growth, especially in the oil and natural gas sectors.

Latin America, Mexico, and the Caribbean currently account for 10.5 million barrels a day of global oil production which could rise to 13 million barrels a day or more in the next decade. If we add Canada to this equation, 52 percent of U.S. crude oil imports and 54 percent of U.S. petroleum product imports come from the Western Hemisphere. Of the top five exporters to the United States, three, Canada, Mexico, and Venezuela, are in our hemisphere. These three countries account for a large percentage of the 314 billion barrels of proven oil reserves in the region, a level of over 10 times the current U.S. oil reserves.

Nine other countries, Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guatemala, Peru, and Trinidad and Tobago, have oil and gas reserves of varying sizes. While not large by international standards, the oil reserves of these nine countries can provide an important source of energy, and the region is also richly endowed with natural gas and hydroelectric power potential.

The hemisphere's economic future and energy security is contingent upon the availability of ample energy supplies. Therefore, the countries in the hemisphere must have in place a set of policies that support increased energy production, energy integration, diversification of supply, and increased foreign investment. The Department of Energy has been working with its neighbors through various mechanisms to foster a climate that will produce these results.

The loss of Venezuelan oil supply during December, January, and February was a serious blow to U.S. oil supplies. There is a wide range of estimates about Venezuela's ability to restore oil production and export of oil. Many analysts are also questioning whether current production can be sustained. The strike-related loss of revenue and the political climate in Venezuela make it highly unlikely that Venezuela will be able to generate internally or attract from the outside the revenues it needs to sustain or expand oil production capacity in the immediate future. Experts have not seen evidence of the investment such as drilling activity necessary to sustain production. The lack of clarity in the information regarding Venezuela's production, exports, and future prospects is an important element that is adding to the current uncertainty and instability in the marketplace.

In Mexico, on the other hand, there are positive signs for the long term. In the recent past, the current administration has come out in favor of greater private sector participation in Mexico's oil and gas development. While this is just the first step, and recognizing that there are immense political obstacles and hurdles to be overcome for Mexico to reach this goal, it is nevertheless the first positive sign of an opening of the Mexican hydrocarbon sector since nationalization occurred more than 60 years ago.

Now, with regard to Africa, the President has recognized the importance of the United States' relationship with Africa and the National Energy Policy outlines some specific recommendations for continued engagement that include actions to promote a more receptive environment for U.S. oil and gas trade and investment and to support more transparent, accountable, and responsible use of oil resources in African producer countries to enhance stability and the security of trade and investment environments.

West Africa is a conflicted region that is suffering the effects of corruption, political instability, border disputes, ethnic and religious strife, governance issues, and poverty. Conflicts produce risks that have a destabilizing impact on the investment climate, on the social and economic development aspirations of the African people, and on our energy security. Finding affordable and effective ways to help these countries overcome these barriers is one of the new challenges to our energy security aspirations.

Democratization and the development of responsible governing institutions are particularly important in reducing oil-related conflicts and promoting African supply stability. Accountability and transparency are necessary to ensure that oil revenues benefit the population and support economic and social development. Managed effectively, revenues from expanding oil and gas production could be the engine for national and regional economic development and political stability in West Africa.

Africa is currently producing a little more than 8 million barrels of oil per day. Africa currently supplies the United States with about 12 percent of our oil import requirements, and production in Africa could rise to 11 million to 13 million barrels per day in the next 10 years, and even higher in subsequent years if the geology and investment climates are favorable.

West Africa is one of the world's fastest growing sources of oil and gas. Oil production generates a large share of government revenue in many African countries. There are also several potential producers who will soon begin producing new oil supplies and several prospective oil-producing countries which are currently or soon hope to be exploring for oil.

Africa is important to us because it is an important source of the marginal barrels and because African oil is a key engine for economic and social development in Africa.

Before concluding, I would just like to say a word on natural gas. Our dependence on imported liquified natural gas is expected to rise and much of this could come from Africa and Latin America. Significant increases in liquified natural gas imports from West Africa and Latin America, along with new supplies from the Middle East, Russia, and North Africa are likely to meet our rising demand.

In closing, Mr. Chairman, I believe that my written statement covers all the topics you requested for us to discuss today in greater detail than this short summary. Therefore, at this point I would like to end my prepared remarks and thank you for the opportunity to testify before you today. I welcome any questions that the committee might have.

[The prepared statement of Mr. Brodman follows:]

PREPARED STATEMENT OF JOHN R. BRODMAN, DEPUTY ASSISTANT SECRETARY OF ENERGY FOR INTERNATIONAL ENERGY POLICY, OFFICE OF POLICY AND INTERNATIONAL AFFAIRS, U.S. DEPARTMENT OF ENERGY

Mr. Chairman and Members of the Subcommittee. I am pleased to appear before you today to discuss the Administration's efforts to address our nation's energy security with a particular focus on Latin America and West Africa. Before discussing these two regions, however, I would like to say a few words about the evolution of our approach to energy security, and the challenges facing us today.

Energy security, like beauty, is in the eye of the beholder. What is it? How do you define it or measure it? How much is enough? While the answers to these questions depend in large measure on your perspective, our energy security concerns are a dominant factor in U.S. energy policy for many reasons:

1. Many of our long-standing concerns about energy security stemming from developments in the Middle East are still with us;

2. Energy security is often an entry point for government interference or involvement in energy markets;

3. There are many new challenges in the area of energy security itself, some stemming predominantly from our growing concerns with terrorism;

4. Oil producing countries, old and new, large and small, are increasingly facing new challenges and new threats, often from internal sources of instability, which can have an impact on our energy security; and

5. There is concern that our growing dependence on oil and gas imports may have considerable influence on our foreign policy.

President Bush recognizes that the dynamics and necessities of our energy marketplace, in terms of addressing energy supply and demand and ensuring energy security to promote economic growth, are the key focus of our national energy policy.

U.S. energy policy is founded on the belief that open markets ensure optimal production and supply of energy. President Bush's Administration also recognizes that open markets largely reflect the situation here and now, and that the government has a role in assuring that technologies are developed to ensure the most efficient use of energy, to facilitate the use of alternative fuels and energy carriers such as hydrogen, fusion and nuclear, and to develop new, secure energy supplies to meet the energy needs of today and the future.

Also, from an energy security point of view, U.S. Government energy policy has a strong role to play in assuring our energy supplies represent a diverse set of energy resources from a diverse set of energy suppliers. President Bush's National Energy Plan, issued in May 2001, embodies these fundamental principles and recommends actions that will help achieve these objectives. The Plan also recognizes that the United States cannot address its energy concerns alone, that our energy security is intricately linked to international markets as a result of our increasing dependence on external sources of supply.

In the past, disruptions in supply were largely the result of sovereign political decisions and conventional wars. As we shift toward new sources, there are increased threats and risks stemming from corruption and governance issues, ethnic/religious strife, border or territorial disputes, poverty and other issues. These new threats to security of supply may require new policy approaches to our energy security.

President Bush recognizes these new international challenges, and the National Energy Plan calls for strengthening our global alliances through such important mechanisms as our existing bilateral relationships with key countries and regions around the world. Secretary Abraham has made energy security one of his top priorities, and security of supply is the driving force behind our policy engagement on energy issues with most countries.

The Western Hemisphere and Africa are important sources of our imports of oil and natural gas, and their importance is likely to grow in the future. Even though their proven reserves and production will never allow them to replace the Middle East in importance to world energy markets, they will nonetheless be an important source of additional supplies for decades to come.

ENERGY SECURITY POLICY

What have we learned? In the last thirty years, developments in the world oil market dominated our energy security concerns, and we have been impacted by six serious interruptions of supply:

- The Arab oil embargo
- The Iranian revolution
- The Iran/Iraq war
- The Iraqi invasion of Kuwait, the first Gulf war, and the subsequent embargo
- The recent strike in Venezuela, and
- Regime change in Iraq

We have devoted a great deal of effort over the years to analyzing the differences between import dependence on the one hand, and vulnerability to supply disruptions on the other. In the short term, we learned to allow market forces to allocate supplies, and to depend on the use of excess production capacity and strategic reserves to augment supplies if required. We learned that oil is a fungible commodity, and that the marginal barrels are the determining factor in the marketplace. In the longer term, we strove to improve our energy security through diversity, in both the types of energy we use and in the sources of supply, and through efficiency gains, which limit the economic damages of price shocks on our economy.

We developed over lime, with varying degrees of success, a flexible energy security policy that was based on a combination of policies. This combination of policies is a mix of:

- Reliance on market forces
- Opening markets to free trade and investment in energy resources
- Energy efficiency
- Diversification of supplies
- Science and technology, research and development for the long term
- Good relations with the rest of the world
- A strong military to protect our interests, and
- Strategic petroleum reserves, both as a deterrent and as a supply of last resort.

At the heart of this flexible, multiple policy approach was and is a desire to promote and protect resilient international oil and energy markets through the application of sustained policies that transcend political partisanship and stand the test of time. The goal was to reduce the threat and incidence of disruption, and to mitigate the effects of a disruption if it did occur.

It would appear that many of the threats to energy security that we have experienced in the past, remain with us today. Looking forward, there are also several new threats to energy security today that we will have to learn to cope with, especially in oil producing developing countries. Thirty years ago oil was produced in commercial quantities in just over 60 countries around the world, and the share of the top ten producers in overall world supply was greater than 80 percent. Today, oil is being produced in commercial quantities in over 90 countries, and the share of the top ten producers has fallen to about 60 percent. While some of this increase in the number of producers can be attributed to the breakup of the former USSR into separate countries, there are also many new producers, in Africa, Latin America and elsewhere.

Now what does that mean for energy security? In the first place, we have always favored a strategy that promotes diversity of supplies, both among the different forms of energy (oil, gas, coal, renewables, etc.) and in the sources of supply for any one form. In this sense, this new diversity is generally viewed as a good thing. While you can argue that more oil from diverse sources might raise the risk of disruption simply because there are more producers, you can also argue that the disruption will likely be smaller in the first place, and more likely to be offset by compensating increases from the other sources.

While our policy of supply diversity has been successful to some degree, the development of many frontier oil provinces carries with it its own set of political, economic and security risks. Our policy of diversifying supplies relies on commercial investment in energy projects. We don't tell our companies where to invest or where to buy oil. It is up to them, and there are a considerable number of obstacles to realizing this commercial investment, directly related to economic, political, and security risks.

An unfavorable business climate may keep needed resources locked away from development for a long time.

The emerging threats to energy security in many new producing countries and regions, and indeed, as recent developments in Venezuela and Nigeria have demonstrated, in older producing regions as well, are somewhat different than those we have faced in the past. As a result, they may also require new policy responses. In the past, supply disruptions came from sovereign political decisions, revolutions, and conventional wars. Today there are increased risks from non-traditional, and often internal, sources of conflict, such as:

- Corruption and a lack of transparency
- Governance issues
- Federal, state, and local jurisdictional disputes
- Ethnic/religious conflicts
- Border and territorial disputes
- Energy sector revenue management issues
- Local content requirements
- Lack of managerial capacity
- Political instability
- Environmental issues
- Poverty and the distribution of income
- Lack of "rule of law" and dispute settlement procedures

These threats to energy security, clearly recognized in the National Energy Plan, may not always lend themselves to conventional security solutions. These new threats call for a continuation (and possible enhancement) of the balanced and sustained engagement with the oil-producing countries that we have been pursuing, to help them manage and utilize their revenues in a way that promotes political stability and sustainable economic growth. For this reason, it may be that sustainable development is the real frontier battleground for energy security in the 21st century. The lack of good governance is also a fertile breeding ground for terrorism, and we may have not yet grasped the full implications of terrorism for the energy sector.

Speaking rhetorically, it may be reasonable to ask why and whether oil consumers or developers should be responsible for promoting sustainable economic development in oil producing countries? We may need to be more engaged on sustainable development issues with energy producers in order to minimize many of these new, internal threats to stability, and to promote, protect and defend our own security of supply, and our own security in commercial energy and trade relationships.

CURRENT U.S. ENERGY POLICY WITH REGARD TO OUR HEMISPHERE

President Bush's Administration is committed to working with Canada, Mexico and other countries, particularly in our hemisphere, to strengthen and create energy partnerships. We are fortunate to have secure and reliable North American partners that supply a significant part of our energy requirements.

A key recommendation of the National Energy Policy is the formation of the North American Energy Working Group. President Bush, Canadian Prime Minister Chretien and Mexican President Fox directed their Energy Departments to work together to create ways to facilitate the development of a true North American energy market that will deliver reliable, affordable energy to the citizens of all three countries. An overarching goal of the Working Group is to foster communication and cooperation among the three governments on matters of common interest.

The National Energy Policy recommends ongoing energy consultations with Brazil and other countries in Latin America, to improve the energy investment climate for the growing level of energy investment flows between the United States and this region. During the U.S.-Brazil Presidential Summit of June 2003, DOE and Brazilian energy officials agreed on a number of mechanisms to strengthen the energy cooperation between the United States and Brazil.

Investment Climate in Latin America and Prospects for Improvement

As a region, Latin America's Gross Domestic Product contracted by 1.3 percent in 2002, with deep recessions in Argentina, Uruguay, and Venezuela. Foreign direct investment fell from $69 billion in 2001 to $42 billion in 2002 (40 percent decline). Demand for exports was depressed due to sluggish growth in Europe and the United States. Despite generally sound economic fundamentals, there was lower investor confidence due to concerns about the political direction in several countries and overall debt dynamics. This slowed capital flows, hindering economic recovery.

Political and economic reforms are still seen as the most important factors influencing investment in the region. The energy sector requires capital inflows to achieve adequate growth, especially in the oil and natural gas sectors.

Privatization in Bolivia has attracted companies interested in commercializing the region's second largest natural gas reserves. Liberalization in Brazil's oil sector has attracted necessary investment and technology to explore and produce deep-water oil reserves—enough so that Brazil now produces 1.5 million barrels of oil per day, an increase of over 500,000 barrels per day in the last five years. Prior to the recent economic crisis, privatization efforts had transformed Argentina into a net oil exporter. On the other hand, countries that have placed new limits on private investment are now confronting diminished capacity, antiquated infrastructure, and declining production rates. Vast energy resources in these countries may remain under-utilized or untapped and economic growth will stagnate.

Unfortunately, several countries in the Hemisphere continue to weather severe economic problems. Venezuela's economic downturn was propelled by both a loss of business confidence and the devaluation of the Bolivar, which lost almost half of its value since being allowed to float freely in February 2002. Reports of the partial recovery of daily oil production levels are encouraging, although not the whole answer for the economies of Venezuela and the region.

Colombia continues to weather difficult political and economic conditions. However, improved U.S. and Latin American economic outlooks for the second half of 2003 are likely to have positive implications for the Colombian economy. Additionally, recent higher world oil prices provided a significant boost to Colombian export earnings, as oil is Colombia's top export product.

Argentina's economy continues to suffer. The most pronounced of President Duhalde's crisis management measures was to abandon the country's 1991 Convertibility Law, which had pegged the Argentine Peso 1:1 to the U.S. dollar for eleven years. After almost four years of recession, the Argentine economy ground to a halt in December 2001, as Buenos Aires defaulted on its approximately $140 billion debt. Civil unrest swept the nation as citizens were locked out of the country's banks and unemployment reached a record high of 18 percent.

We are encouraged by the efforts of many of our neighbors in the region to work with private investors in developing a solution to problems in the energy sector. We hope the countries in the hemisphere will continue to strengthen their public dialogue on energy sector issues.

Prospects for Increasing Energy Production in Latin America

Latin America, Mexico and the Caribbean accounts for 10.5 million barrels a day of global oil production (includes natural gas liquids and alcohol fuels), which is estimated to increase to 12.8 million barrels per day by 2010. Fifty two percent of U.S. crude oil imports, and fifty four percent of petroleum product imports come from the Western Hemisphere. Of the top five exporters to the United States, three—Canada, Mexico, and Venezuela—are in our hemisphere. These three countries account for a large percentage of the 314 billion barrels of proven reserves in the region (a level of over ten times the current U.S. oil reserves).

Nine other countries (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guatemala, Peru and Trinidad and Tobago) have oil and gas reserves of varying sizes. While the oil reserves of these nine countries are clearly not as significant as reserves in the Persian Gulf, they provide an important source of energy to the domestic economy and reduce the region's dependency on imported oil. The region is also richly endowed with natural gas and hydroelectric power potential, and some countries, primarily Colombia and Venezuela, have been developing their coal reserves for export. Peru is also developing its huge Camisea gas field, which is expected to yield benefits in the form of increased LNG exports to the West Coast of the United States.

The United States' economic future and energy security is contingent upon the availability of ample energy supplies. If the region expects to increase the reliability and security of its energy supply, reduce long-term dependence on imported oil (outside of the Western Hemisphere), and maintain its economic vitality and viability, it must have in place a set of policies that support increased energy production, energy integration, diversification of supply, and increased foreign investment.

Consequently, the Department of Energy has been working with its neighbors to improve their technical and managerial skills in their energy sector. Through various mechanisms, we are promoting a reliance on market forces and the elimination of monopolistic controls, emphasizing the importance of regulatory reform, fostering the implementation of clear and transparent trade practices, and stressing the importance of foreign investment in meeting the hemisphere's future energy needs.

We are also encouraging major oil producing countries in our region to maintain responsible production policies to support a growing hemispheric economy and help reduce oil market price volatility.

By promoting these policies and efforts, we hope to continue to see energy production grow to meet the future energy needs of the United States and other countries of the region. Over the next few decades, oil and natural gas will continue to play a central role in the world economy and international energy markets. We must find more oil and gas supplies, and these supplies must be reliable and made available at prices that permit sustained economic growth.

Examples of possible prospects for increasing production include:

- *Argentina* is the fourth largest oil producer in Latin America, with 2.9 billion barrels of proven reserves. Argentina's oil production was as high as 900,000 barrels per day in the late 1990s; however, recent estimates put production at about 800,000 barrels per day as a result of the 2002 financial crisis and the government's economic policies, (particularly a 20 percent tax imposed on oil exports, as well as a briefly imposed oil export cap). Argentina's oil sector is completely privatized, although the largest company, Repsol-YPF, remains the dominant player. The economic difficulties faced by Argentina have adversely affected oil production.
- *Colombia* has around 1.84 billion barrels of proven oil reserves. Colombia's oil production has fallen over the last three years after hitting a high in 1999 at 830,000 barrels per day. The government has taken positive steps to make the investment climate friendlier to foreign oil companies, but security issues remain a significant problem. Rebel groups have attacked the production and transportation facilities of oil companies operating in the country, which has hampered Colombia's ability to maintain production levels at 1999 levels.
- *Ecuador* is counting on foreign investment to boost oil production for the new 450,000 bid heavy oil pipeline that will start pumping in June, and will enable the country to significantly boost production and will double the country's transport capacity from the Amazon jungle to its coastal port.
- *Mexico's* current (first quarter of 2003) total oil production is 3.8 million barrels per day (3.3 million barrels per day of crude), making it the fifth largest oil producer in the world. Mexico ranks fourteenth in the world for proven oil reserves, with 13 billion barrels. Oil production (crude oil and natural gas liquids) is forecast to grow through 2010. Natural gas production is forecast to grow significantly through 2010, when it is expected to nearly double to 3.2 Tcf. With 8.8 Tcf of gas reserves, Mexico ranks 40th in the world for proven gas reserves.
- *Venezuela* is a key oil producing country with the Western Hemisphere's largest conventional proven reserves. Venezuela has experienced a great deal of turmoil in its energy sector recently, with increasing government intervention and labor unrest. In the past few years under President Chavez, cuts in the state oil company, Petroleos de Venezuela, S.A, (PDVSA), a lack of foreign direct investment and a policy of strict adherence to OPEC quotas have hindered the country's long-term expansion and production.

The Outlook for Venezuela

The loss of Venezuelan oil supply during December, January and February was a serious blow to U.S. oil supplies. The Administration monitored the situation closely. We also encouraged other oil producers to activate their spare production capacity in response to the market signals that were generated by the Venezuelan loss. OPEC's decision to increase its production was a positive development. We are continuing our close monitoring of the Venezuelan situation and are prepared to act quickly should a need arise.

Venezuela is a significant source of oil for the U.S. and we have kept a close eye on events in that country. Over the past few months, the Department of Energy has met on several occasions with officials from Venezuela's Ministry of Mines and Energy and PDVSA. In February and again in July, Deputy Secretary McSlarrow met with Minister Ramirez and PDVSA President Ali Rodriguez. There have also been ongoing DOE staff level meetings and exchanges of data with PDVSA representatives to discuss current production and export levels in an attempt to improve the transparency of information coming out of the country. The worst effects of the strike in Venezuela appear to be over. Venezuelan oil production and exports have been significantly restored.

The increase in oil supplies from Venezuela, as well as from other producers, has helped relieve pressure on crude and product markets over the past several months.

However, crude and product inventories remain at historically low levels, due in part to the Venezuelan disruption.

Production—There are a wide range of estimates about Venezuela's ability to restore full production and export of oil. Venezuelan government sources claim that production is at 3.1 million bpd. On the other hand, most industry experts place production around 2.5 million bpd.

EIA is using 2.35 million bpd for its calculations since that is what can be confirmed based on available data. Industry analysts cite field damage and lack of maintenance resources as preventing the restoration of the remaining 500,000 bpd. Before the strike, Venezuela produced about 3 million bpd and exported 2.5 million bpd.

Many analysts also question whether current production can be sustained. Venezuela's oil fields have natural depletion rates up to 25 percent per year, which has, in the past, required PDVSA to invest heavily to maintain production capacity. Experts have not seen evidence of the investment—such as drilling activity—necessary to sustain production.

Exports—Unofficial EIA data from the last few weeks show that U.S. crude imports from Venezuela continue to be above one million barrels per day—higher than levels seen in January and February but still below pre-strike levels of 1.5-1.6 million barrels per day.

Refining—Reports indicate that several refineries are operational and running, but the amount and quality of refined products being produced, by Venezuela, particularly gasoline, are unknown. Venezuelan domestic demand for gasoline has dropped due to economic constraints, which may allow for more exports.

There have been reports of gasoline shipments to the U.S. but it is possible that the gasoline came from storage or was imported to Venezuela during the strike. Venezuelan gasoline exports to the U.S. have not yet consistently returned to pre-strike levels of around 60,000 bpd (100,000 bpd with imports from PDVSA's Caribbean refineries).

Technical Consultations—The Department of Energy has had long-standing technical and policy cooperation with Venezuela. We believe it is important to maintain that relationship. We have made initial efforts to resume technical level cooperation. We have not yet set dates for policy level consultations.

CURRENT U.S. ENERGY POLICY WITH REGARD TO AFRICA

The President has recognized the importance of the United States' relationship with Africa, and the National Energy Policy outlined some specific recommendations for continued engagement, that include actions to:

- Use the U.S.-Africa Trade and Economic Cooperation Forum and the U.S.-African Energy Ministerial process; deepen bilateral and multilateral engagement to promote a more receptive environment for U.S. oil and gas trade, investment, and operations; and promote geographic diversification of energy supplies, addressing such issues as transparency, sanctity of contracts, and security; and
- Support more transparent, accountable, and responsible use of oil resources in African producer countries to enhance the stability and security of trade and investment environments.

In June 2002, DOE co-sponsored the Third U.S.-African Energy Ministerial Conference in Casablanca, Morocco, where Secretary Abraham and ministers or representatives from nearly 40 African countries reaffirmed a commitment to good governance and stable regulatory structures, and discussed additional steps to encourage private sector investment in the energy sector. At the Ministerial, we met with government and industry representatives to discuss ways to improve energy trade and facilitate energy sector development in order to better serve U.S. and African economic growth and development.

Routinely, DOE meets with a number of African government officials on a variety of energy issues. In late 2002, we organized a Gulf of Guinea Business Roundtable to discuss energy issues with U.S. oil and gas company representatives doing business in the region. Also, over the last year or so, we have been engaging more actively in various trade policy mechanisms, including the African Growth and Opportunity Act (AGOA) process.

I would also like to highlight some of our specific activities with African countries:

- Through an interagency agreement with USAID, DOE implemented a comprehensive energy program with Nigeria, which included energy sector reforms and power and natural gas development activities. In cooperation with the Department of State and USAID, DOE is initiating a similar formal bilateral energy program with the Angolan Government.

- In terms of natural gas development and reduction of flaring, DOE is working with Nigeria and South Africa, and routinely advocating our support for the West African Gas Pipeline Project, which will transport Nigeria gas to markets in Benin, Togo and Ghana. USAID is assisting the four nations involved in completing a series of cross-border agreements and harmonization of their respective regulatory environments.
- USAID has been actively involved in designing a global development alliance for the West Africa Power Pool whose purpose is to produce an abundant, reliable, efficient and affordable energy supply, while attracting private sector investment, by means of institutionalized regional cooperation among the fifteen member states of the Economic Community of West Africa (ECOWAS).
- We are active participants, and a member of the steering committee, in the World Bank's Gas Flaring Reduction Initiative, which involves several African countries.
- We participated in and spoke at the Africa Growth and Opportunity Act (AGOA) Economic Forum, which was held in January in Mauritius, and emphasized issues related to small- and medium-sized enterprises, local content, and capacity building opportunities.
- We are participating in the negotiations for the U.S.-South African Customs Union Free Trade Agreement with Botswana, Lesotho, Namibia, South Africa, and Swaziland, among other energy-oriented activities with African countries.

Investment Climate in West Africa and Prospects for Improvement

Democratization and the development of responsible governing institutions are particularly important in reducing oil related conflicts and promoting African supply stability. Accountability and transparency are necessary to ensure that oil revenues benefit the population and support economic and social development. Managed effectively, revenues from expanding oil and gas production could be the engine for national and regional economic development and political stability in these countries. However, this will not happen if energy development is accompanied by corruption, the disruption of other economic sectors, and a disenfranchisement of the citizenry.

We have an interest in helping African nations solve these problems and in helping them to become fully reliable energy suppliers to international markets. Substantial foreign direct investment is needed to develop African energy resources both onshore and offshore. Broadly, we support this process by encouraging the reforms needed to improve the investment climate. For instance, we have negotiated a bilateral energy cooperation framework with Nigeria, we advocate on behalf of U.S. energy concerns, and we support the World Bank's involvement in independent monitoring arrangements in the Chad-Cameroon Pipeline Project and other regional energy infrastructure projects. The G-8 countries agreed in Evian on an action plan to fight corruption and improve transparency, which will enable us to help oil-producing West African states to improve transparency in the management of their oil revenues to ensure they support broad-based, sustainable development.

Prospects for Increasing Production in West Africa

West Africa is currently producing about 4 million barrels of oil per day. Production in West Africa could rise to 7 million barrels per day or more by 2010, and even higher in subsequent years if the geology and investment climates are favorable. West Africa is one of the world's fastest growing sources of oil and gas. Oil production generates a large share of government revenue in countries such as Nigeria, Angola, Gabon, Equatorial Guinea, Republic of Congo, and Cameroon. Much oil remains to be discovered and developed in some of these countries. Additionally, emerging potential producers, such as Mauritania, and Sao Tome and Principe, will soon begin producing significant new oil supplies. Chad began producing oil for the first time this summer and production could reach 150,000 bpd in 2004.

Other current prospective African oil producing countries include Senegal, The Gambia, Liberia, Sierra Leone, Benin and Togo, all of which are currently, or soon hope to be, exploring for oil. So, the prospects for increasing oil and gas production in West Africa are very high. While Africa as a whole holds only about 6 percent of the world's proven oil reserves, and while it will never replace Middle East oil, West Africa will nevertheless be the source of about 3-4 million barrels per day of additional oil supplies over the next ten years. This is important to us because it is the incremental or marginal barrels that have the most impact on the world market and our energy security.

One of the largest infrastructure projects in Sub-Saharan Africa is the $3.5+ billion, 650-mile Chad-Cameroon oil pipeline project. This project has the potential to bring up to 250,000 bpd of oil to the market and promote development of other reserves in the region. The project is led by ExxonMobil and includes ChevronTexaco. The oil is located in landlocked southern Chad and is being transported by the pipeline to the coast of Cameroon.

Rising U.S. Energy Stakes in Western Africa

Energy from West Africa plays an increasingly important role in our energy security as we diversify our sources of oil supply. Currently, more than 12 percent of imported U.S. oil is from Africa. However, Africa's oil exports to the U.S. are set to rise. African oil is a key engine for economic development in Africa.

Nigeria, an OPEC member, has proven oil reserves of 24.0 billion barrels and currently produces nearly 2.2 million barrels per day. The largest U.S. oil producing companies in Nigeria are ExxonMobil and ChevronTexaco, but many other companies are involved as well.

Angola, a non-OPEC member, is the second largest Sub-Saharan African oil exporter to the U.S. Total oil production in Angola in 2002 was over 900,000 barrels per day, with production projected to top 1 million barrels per day in 2003. Angola's total proven reserves are 5.4 billion barrels, and rising with new discoveries. ChevronTexaco, ExxonMobil, Marathon Oil, Occidental, Devon Energy Ocean Energy and ConocoPhillips are U.S. oil companies with holdings in Angola. Only Chevron and Exxon are currently operators.

Equatorial Guinea's oil production is currently about 200,000 bpd. It is a non-OPEC producer and has proven reserves of 12 million barrels. The U.S. plans to reopen an embassy in Equatorial Guinea within the next year. Major U.S. oil companies operating in Equatorial Guinea are Amerada Hess, ChevronTexaco, ExxonMobil, and Marathon Oil.

Gabon is Sub-Saharan Africa's third largest oil producer and exporter, producing about 294,000 bpd in 2002. While Gabon's oil production has decreased in recent years, its proven oil reserves are 2.5 billion barrels.

Republic of Congo (Brazzaville) has estimated proven oil reserves of 1.5 billion barrels. The majority of its crude oil production is located offshore, with Total as the dominant operator. Congo produced about 249,000 bpd in 2002.

Natural Gas—With regard to natural gas, the U.S. consumed more than 22.5 trillion cubic feet in 2002. Currently, the natural gas market in the U.S. is tight, with inventory levels lagging behind normal levels. This shortfall is reflected in spot natural gas prices and the expectation that demand will remain at a high level relative to domestic natural gas supply capability. Our dependence on imported liquefied natural gas (LNG) is expected to rise, and much of that could come from Africa and Latin America. As such, Secretary Abraham will be convening the LNG Global Summit in November, which will include major and emerging LNG producers and explore ways to facilitate increased exports to the U.S.

By 2025, total natural gas consumption is expected to increase to almost 36 trillion cubic feet, or 26 percent of U.S. delivered energy consumption. Such a demand level represents an increase of about 59 percent from the expected 2003 level. U.S. domestic gas production is expected to increase more slowly than consumption. As a result, U.S. dependence on imported natural gas is expected to rise. Significant increases in LNG imports from West Africa and Latin America, along with new supplies from the Middle East, Russia and North Africa are likely to meet our rising demands.

The use of natural gas, increased LNG exports and the associated increase of revenues from gas development to governments, will help to eliminate gas flaring and provide opportunities for enhanced socio-economic development. DOE is working with various countries and organizations in Africa to promote the development and utilization of natural gas resources, which, in turn, will directly contribute to the reduction of gas flaring and venting.

Nigeria has the 9th largest natural gas reserves in the world and the largest of any country in Sub-Saharan Africa. In 2001, the most current data available, Nigeria vented and flared an amount equal to 44 percent of its gross natural gas production and reinjected an amount equal to 10 percent of its gross natural gas production. Nigeria has an LNG plant with three trains operational, two additional ones due to come online by the end of 2005, and a sixth train being considered. In addition, many companies have active proposals to develop additional LNG projects in Nigeria.

The West African Gas Pipeline (WAGP) is a gas transmission project designed to connect Nigeria's gas reserves, including some flared gas, to markets in Benin, Togo, and Ghana (with Ghana being the primary market for the gas). The governments of these four countries, ChevronTexaco, and Shell are partners in the project. When completed, the open access pipeline will help to bring some of the regions gas resources to commercial markets for electric power and industrial uses.

Angola and Equatorial Guinea have substantial reserves of natural gas, and both countries are pursuing LNG projects to utilize the gas.

The Status of the Conflict in West Africa

West Africa is a conflicted region that is suffering the effects of corruption, political instability, border disputes, ethnic/religious strife, governance issues, and poverty. These conflicts produce risks that must be overcome if the region is to attract the investment it needs to sustain and expand energy resource development.

The recent effect of the political and ethnic instability in the Niger Delta was a temporary loss of about 800,000 bpd of Nigerian crude oil production and an upward pressure on oil prices during the lead up to the Iraq war earlier this year. This represented 37 percent of Nigeria's daily oil production of nearly 2.2 million barrels per day. Today, 272,500 barrels per day of crude oil remains shut-in in Nigeria due to ongoing civil strife in the Delta.

Nigeria supplied 621,000 barrels per day of oil to the U.S. in 2002. This represents over 5 percent of U.S. imported oil in 2002. Also in 2002, Nigeria was the fifth largest foreign supplier of crude oil to the U.S.

Angola currently produces about 930,000 barrels per day of oil, is the second largest Sub-Saharan African exporter of oil to the U.S., and is not a member of the Organization of Petroleum Exporting Countries or OPEC. Until a little over a year ago, Angola was immersed in a nearly 30-year civil war. However, because most of Angola's oil production is offshore and was removed from the largest population centers and closest proximity to the fighting, oil production was relatively unaffected in Angola during the war. A final peace agreement has been successfully implemented and the U.S. Government is supporting the peace process and rebuilding of Angola.

I visited Angola earlier this year and engaged in a dialogue on identifying possible areas for bilateral and multilateral cooperation. We want to establish a formal framework that will facilitate enhanced cooperation on such issues as policy and regulatory reforms, natural gas development, electrification, and infrastructure development. An interagency agreement has been signed between DOE and USAID to assist the Government of Angola in developing a national energy strategy.

Conflict and political instability plague some countries in the region that have not even begun exploring for or producing oil. For example, on July 16th of this year, there was a military coup in the small country of Sao Tome and Principe. The coup leaders demanded better government, pay and facilities. In some ways this coup may have been precipitated by the expectation that the country will soon realize significant revenue increases from signing bonuses received, and from oil production that may result from development of the offshore Joint Development Zone with Nigeria. Sao Tome highlights how the large natural resource rents that often accompany oil development projects in developing countries can, in certain circumstances, become a source of instability.

These conflicts in West Africa have a destabilizing impact on the investment climate, on the social and economic development aspirations of the African people, and on our energy security. Finding affordable and effective ways to help these countries overcome these barriers is one of the new challenges to our energy security aspirations.

CLOSING

Mr. Chairman, I believe that my statement covers all of the topics you requested for today.

At this point, I would therefore like to end my prepared remarks and thank you for the opportunity to testify before you today. I welcome any questions that the Committee might have.

An appendix of charts regarding Western Hemisphere and African Oil and Gas Production and Resources. Also appendixed is a chart on U.S. Petroleum Imports by Source.

Western Hemisphere

(excluding the United States)

- **Proven Oil Reserves** as of 1/1/03: **291.2 Billion Barrels (24% of the world total)** (includes Canadian oil sands).
- **Proven Natural Gas Reserves** as of 1/1/03: **319.0 trillion cubic feet (6% of the world total)**
- **Total Oil Production** (2002): **13.4 MBD (18% of the world total)** (includes natural gas liquids and alcohol fuels)
- **U.S. Oil Imports from the Western Hemisphere** (2002): **6.0 MBD (49% of total oil imports)**

Source: Energy Information Administration

Africa

(including North Africa)

- **Proven Oil Reserves as of 1/1/03: 77.4 Billion Barrels (6.4% of the world total)**
- **Proven Natural Gas Reserves as of 1/1/03: 418.2 trillion cubic feet (7.6% of the world total)**
- **Total Oil Production (2002): 8.1 MBD (10.6% of the world total) (includes natural gas liquids and liquids from coal)**
- **U.S. Oil Imports from Africa (2002): 1.4 MBD (12.3% of total oil imports)**

Source: Energy Information Administration

Note: Combined crude oil and product imports
Source: Energy Information Administration *Petroleum Supply Annual*

Senator HAGEL. Secretary Brodman, thank you.
Mr. McManus.

STATEMENT OF MATTHEW T. McMANUS, ACTING DIRECTOR, INTERNATIONAL ENERGY AND COMMODITY POLICY OFFICE, ECONOMIC AND BUSINESS AFFAIRS BUREAU, U.S. DEPARTMENT OF STATE, WASHINGTON, DC

Mr. MCMANUS. Mr. Chairman, we are pleased that you have invited us today, you have picked out two very important regions of the world that provided 60 percent of our imports alone in 2002. An effective energy security policy must, as outlined in the President's National Energy Policy, look for and promote diverse production in energy from a wide range of geographical regions, including these two. And I am happy to provide you just a few concrete examples of what we are doing at the State Department to advance these goals.

First, we have made strengthening our relations with Canada and Mexico a real pillar of our energy policy. We have established a North American Energy Working Group to serve as a forum for exchanging information and pursuing joint strategies. In an unprecedented step, the three governments jointly published a North American energy picture, that we have asked our staffs to provide you, that measures the energy reserves, trading flows, and energy infrastructure for all of North America. This is the first time that the three governments have looked at the resources of all of North America at one time and cooperatively. We plan to build on this energy picture as a common basis to explore new ways that the three North American nations can work together to expand interconnections and maximize trade. Our group will meet again in December.

Now, looking at the North American resource base—and we include Canada in the Western Hemisphere—if you look at their heavy oil reserves, they have dramatically shifted the distribution of world oil reserves. The Department of Energy now characterizes Canada's heavy oil as proven, meaning that with 180 billion barrels of oil, Canada holds the world's second largest oil reserves. This is not just record keeping, as Canada's heavy oil production now exceeds 1 million barrels per day. Looked at another way, at the chart on my right, inclusion of Canadian heavy oil increases North America's energy share of world oil reserves—in yellow it is shown without heavy oil—from 13 to 26 percent of world oil reserves, and it decreases the Middle East share in red from 66 to 57. And here you can see the relative change in simply the heavy oil from Canada, oil that we now have proven in the Western Hemisphere.

Given the grave importance of that really tectonic shift, we have annual energy consultations with the Canadians, an energy consultative mechanism that the State Department chairs. We bring together many U.S. Government agencies. We met July 17 in Ottawa, and it is a terrific way to stay in touch on the many important issues with our single largest oil and gas, as well as electricity, supplier.

Mexico also in North America is one of our leading energy and trading partners, and its production, as Secretary Brodman reflected, is at recent high levels. Like Canada, our energy trade with Mexico is a two-way street, with oil flowing to the United States and, as the chairman mentioned, refined products and natural gas flowing to Mexico.

On our side of the border, we are doing everything we can to speed and support integration. For example, in April the State Department approved PEMEX's application for a Presidential permit to cross the international boundary for a new diesel fuel pipeline that will bring 10,000 barrels a day of diesel fuel from a refinery in Monterey, Mexico.

As Secretary Brodman has said, traditionally Venezuela in South America and the United States have enjoyed reliable and strong energy ties. Venezuela's reliability was, unfortunately, damaged with the oil disruption at the beginning of this year, and while production and refinery operations and exports to the United States have all recovered to a large degree, it will take more time to accurately determine the sustainability of this recovery. The United States will continue to work with the Organization of American States to be supportive of Venezuelans as they resolve their political differences finding a constitutional, democratic, peaceful, and electoral solution to their crisis, as called for in OAS Permanent Council Resolution 833.

You have also mentioned the important role of Brazil. In our National Energy Policy report, we recognize the important role of offshore production in Brazil, and for the first time, later this year we will host formal bilaterals, much as we do with Canada, with the Government of Brazil to take into account their growing role in world oil reserves.

Senator Coleman also mentioned the important developments in Trinidad and Tobago. They have the largest single LNG facility in the Western Hemisphere. They have become our No. 1 supplier of LNG, and we think it reflects that when you have a very good investment climate, investors will come.

Turning to Africa, only last week the Chad-Cameroon pipeline was inaugurated, which will bring, at peak capacity, an additional 250,000 barrels per day to world markets. And that pipeline is an example of a cooperative effort between governments, international financial institutions, the oil companies, NGOs, and civil society. It will balance economic benefits, transparency, humanitarian, and environmental concerns. We assure you that our Ambassador in Chad is deeply engaged with local governments to ensure that the unique capacity building and transparency measures incorporated in this project are carried forward. The administration recognizes Africa's important role not only diplomatically but in energy, and our Secretary of State is there today.

Nigeria has been, in fact, the fifth largest supplier of crude oil to the United States, and we also recognize that Nigeria's oil-producing Niger Delta remains volatile with intermittent communal violence and labor disputes that have disrupted production in some areas. Our mission in Nigeria remains committed to supporting democracy, economic reform, and poverty alleviation in Nigeria, and we have dedicated a new embassy position to working with oil companies, NGOs, and indigenous groups on these issues and corporate responsibility.

Existing and new producers in Africa, such as Angola, Gabon, Equatorial Guinea, Sao Tome, and Chad will continue to develop new oil and gas reserves in coming years, and U.S. energy firms are key in Africa's ongoing emergence as an energy supplying region.

Equatorial Guinea is emerging as a major oil producer in the Gulf of Guinea. We opened an embassy office in Malabo only this month that will enhance our dialog with the government and signal our commitment to broad engagement with Equatorial Guinea, including human rights.

We have a strong interest in assisting oil-producing countries overall on transparency to channel receipts from their energy resources into economic development that will benefit their populations over the long term. At its Evian Summit in June, the Group of Eight countries endorsed a comprehensive action plan on fighting corruption and improving transparency to help developing countries acquire the tools to strengthen domestic institutions and enhance transparency and accountability.

In summary, new energy resources from existing producers such as Canada, Venezuela, Angola, combined with those from emerging producers of oil and gas, such as Equatorial Guinea, Chad, among others, are helping to meet our energy security goals by diversifying world oil supplies, and the State Department remains deeply engaged in each case. As noted throughout the testimony, we are working with host governments, both in Washington and through our embassies overseas, to build and support open and stable business environments for U.S. firms to play a role in developing these energy resources. And we are doing so in a manner that promotes corporate responsibility, which encourages the very best practices to promote human rights, to promote transparency and accountability, and to make sure that energy development advances overall development.

Thank you very much, Mr. Chairman, committee members, and I too would welcome your questions.

[The prepared statement of Mr. McManus follows:]

PREPARED STATEMENT OF MATTHEW T. MCMANUS, ACTING DIRECTOR OF INTERNATIONAL ENERGY AND COMMODITY POLICY OFFICE, ECONOMIC AND BUSINESS AFFAIRS BUREAU, U.S. DEPARTMENT OF STATE, WASHINGTON, DC

Mr. Chairman, distinguished Committee members, I am pleased to be here today with the Department of Energy to discuss the important role West Africa and Latin America play in our energy security. We are particularly pleased that the Subcommittee has chosen these key regions to discuss: they are important both in an energy security sense and for the commercial opportunities they present for U.S. firms. Just to highlight at the outset the importance of the Western Hemisphere and West Africa to U.S. energy security, nearly 60 percent of 2002 U.S. imports of crude oil and oil products came from these two regions. As I will outline in my testimony, these regions will continue to play important roles as significant contributors to the diversity of supply called for in our energy policy.

The President's National Energy Policy noted the importance of the Western Hemisphere and Africa to global energy production. Given the role Canada plays in our energy security and the importance of our North American Energy Framework, I have taken the liberty of including Canada and expanding my testimony to cover the Western Hemisphere rather than just Latin America. The National Energy Policy directs the Secretaries of State, Commerce and Energy to put a particular focus on regulatory harmonization and integration of markets, as well as to work with our foreign partners to improve commercial conditions and investment climates. We are working with colleagues at the Departments of Energy and Commerce to implement these directives, in West Africa and the Western Hemisphere and across all regions. I am pleased that we have successes to report, as well as areas for additional work for our agencies.

As Under Secretary Larson testified in April, we approach international energy policy aware of a number of hard facts that must be at the nexus of an effective energy security and foreign policy. These hard facts include net import levels of roughly half of our energy needs, higher dependence by our trading partners on oil imports from one region of the world, and the reality that a disruption anywhere affects all market participants.

Taken together, these facts mean that one key element of an effective international energy policy must be to promote increased and diversified production of energy from a range of foreign suppliers in many regions, as outlined in the President's National Energy Policy. Today's hearing on the Western Hemisphere and West Africa will enable us to report to you how we are promoting the diversification that is central to our strategy in these two key regions of the world.

RELIABILITY THROUGH DIVERSIFICATION

Energy investments are costly, risky and require longterm commitments. For that reason, neither companies nor countries can afford to have all of their eggs in one basket. Recognizing this reality, our energy policy seeks to encourage in countries around the world like-minded free market policies toward energy and investment, emphasizing the expansion and diversification of energy supplies.

Let me provide you with just a few concrete examples that demonstrate what we are doing to achieve these goals.

NORTH AMERICA: ENERGY INTEGRATION

We have made strengthening our energy cooperation with Canada and Mexico a top priority of U.S. energy policy. We established a North American Energy Working Group (NAEWG) in 2001 to serve as a forum for exchanging information and pursuing joint strategies. Last year, senior energy experts from the three North American governments released a North American "Energy Picture" report that, for the first time, jointly measures energy stocks, trading balances, and energy flows in the continent. This marks the first time we have truly looked at the North American market as a unified one. These NAEWG meetings enable us to harness the work of five sub-groups addressing the science and technology of energy, energy efficiency, electricity regulation, natural gas regulation, and critical infrastructure protection. This is not a negotiation, for each country makes its own sovereign energy policies. But we do see the NAEWG as an excellent forum from which to learn from one another, and from which to evaluate the barriers that still impede a truly unified market.

CANADA

I would like to take a few minutes to describe how Canada, our most important energy supplier, factors into the energy security equation, as we are trying to take a hemispheric approach to energy in the Americas. I start with Canada because it remains our leading supplier of imported electricity, natural gas and petroleum. All three flow across the border in both directions. The Canadian energy sector is developing its heavy oil reserves, with production expected to reach nearly one million barrels per day by year-end. These heavy oil reserves are anchoring Canada as a pillar of hemispheric energy security.

Canada's heavy oil is important to our energy security. DOE's Energy Information Administration compiles an annual reference citing various private sector compilations of overall energy reserves. This year, they have included the *Oil and Gas Journal's* new estimate that characterizes a significant portion of Canada's heavy oil as proven reserves. This one change, recognizing the commercial viability of oil sands, raises Canada's proven reserves estimate to some 180 billion barrels, making it the world's second largest holder of reserves after Saudi Arabia's 264 billion barrels and just ahead of Iraq. And 175 billion of those 180 billion barrels are in oil sands. Over time this number will rise as advances in technology make even more heavy oil reserves recoverable at prevailing market prices.

As a point of illustration, the shift in Canadian reserves is telling, as it alters overall distribution of world oil reserves. Including Canada's heavy oil reserves raises North America's share of the world's proven reserves from 6 to 18 percent (and the Western Hemisphere's from 13 to 26 percent), while those in the Middle East fall from 66 to 57 percent. This comparison is presented graphically at the end of my testimony.

And given this big shift, I also wanted to provide a brief overview of some of the commercial projects we see there, and some that may be over the horizon, and to note that many of these projects involve partially or majority-owned subsidiaries of U.S. energy concerns. Suncor and Syncrude (Canadian companies with major U.S.

investors) have decades-old projects in the oil sands which, with production costs now down to about $10 per barrel, are strongly economic. They have contributed much of the pioneering technical development that made this gigantic resource viable. More recently, ChevronTexaco, Shell and others have undertaken multi-billion dollar investments that can be expected, perhaps by the end of this decade, to lift production to two million barrels per day. This should make up for expected reduced traditional oil field production in Canada. The main constraint to bringing these resources to market will not be their availability, but pipeline and refinery capacity.

World-class oil and natural gas projects are also underway in the Canadian Maritimes, which until recently had no oil or gas production, but is now the fastest-growing source of natural gas for New England, the region of our country most dependent on home heating oil. In 2000 Nova Scotia began producing natural gas and shipping it southwest by pipeline to the Boston area.

Newfoundland began producing oil from its offshore continental shelf less than a decade ago, and it is showing increasing promise as a long-term component of North America's energy supply picture. Using technology and experience from Europe's North Sea developments, Newfoundland's oil output has been growing by 20 to 30 percent per year, and is at about 135,000 barrels per day from the first field, Hibernia. Production could double in the next six years as new fields come online.

Major U.S. companies, or U.S. divisions of major multinationals, involved in various facets of the offshore energy sector (exploration, production, pipeline systems, offshore support services, etc.) in Maritime Canada include: ExxonMobil, BP, Shell Oil, Bechtel, Chevron, El Paso Pipeline, Hunt Oil, Marathon, Rowan Offshore, and Global SantaFe. The State Department offers these firms our support, through our Embassy in Ottawa and Consulates in Calgary and Halifax, in dealing with occasional regulatory difficulties.

Given the importance of our energy partnership with Canada, the State Department has for years chaired an interagency bilateral "Energy Consultative Mechanism" between the two federal governments, allowing each side to work towards common ends and to address issues of concern. Canada hosted the latest meeting of the Mechanism in Ottawa on July 17, where we discussed their oil sands production and our natural gas summit, as well as our shared electrical grid and numerous other topics. We have had numerous discussions with our Canadian colleagues since the August 14 blackout in Toronto, Ottawa, Washington and Detroit.

MEXICO

Mexico is one of our leading energy and trading partners, and has, with other major producers, increased production in recent months to help global oil markets meet the challenges arising from recent events in Iraq and Venezuela. Mexico is generally among our top five foreign oil suppliers. In February of this year, crude oil imports from Mexico exceeded those of both Saudi Arabia and Canada, and Mexico has maintained higher than normal oil exports to the United States since then.

Our energy trade with Mexico is not a one-way street. We import crude oil and electricity from Mexico. But we also supply Mexico with over 10 percent of its refined petroleum products, and we remain a net natural gas exporter to Mexico.

Mexico has taken steps to liberalize transportation, distribution, and storage of natural gas, and has successfully attracted domestic and foreign investment there and in other parts of its energy sector. Some of you may have already met Mexico's new Energy Minister, Felipe Calderon who, as a member of the Mexican Congress and a leader in President Fox's National Action Party (PAN) party, participated in meetings of the U.S.-Mexico Inter-parliamentary Union in the 1990's. Minister Calderon was appointed September 2 and is expected to continue the sector's liberalization.

In recent months, integration has increased at the border. For example, PEMEX applied for a Presidential Permit to cross the international boundary to Brownsville, Texas, with a petroleum products pipeline that initially allows imports of about 10,000 barrels per day of diesel from a refinery in Monterey, Mexico. The pipeline will ultimately have a capacity of up to 100,000 barrels per day. The State Department issues such permits, and this one was signed in April after a thorough consideration of public comments and inter-agency review.

Mexico is also proceeding with plans to permit numerous LNG import terminals in Baja California and along its Gulf Coast. Although not all of these projects will ultimately be constructed, industry analysts believe several will be operational by around 2007. Foreign investors, including U.S. companies such as Sempra Energy, ChevronTexaco, and Marathon, are actively pursuing these projects, which will serve both the Mexican and U.S. natural gas markets.

Since 1992, Mexico has allowed private sector participation in the generation of electricity for self-supply, small production, cogeneration and independent power production (IPP). U.S. firms are major investors and suppliers in this new market. Mexico projects an overall annual growth rate in electricity demand through 2010 of 5.6 percent, and somewhat higher (6.5 to 7.6 percent) in industrial regions. Privately financed generating capacity is expected to grow at 14.2 percent annually, and Mexico expects to add over 28,000 Megawatts of new capacity by 2010. IPPs could play a major role in attracting the required investment in new generation and transmission infrastructure.

The reliability of North American energy trade is also enhanced, of course, by geographic proximity. But more important than geography alone are the rule of law and the predictable investment conditions created by NAFTA, integrated pipeline networks, close cooperation among our governments and energy companies, and long-term stable supply relationships.

LNG: A BRIGHT NEW INDUSTRY FOR TRINIDAD AND TOBAGO

Recent natural gas finds in Trinidad's waters have reinforced that country's position as a reliable supplier of liquefied natural gas (LNG) to the U.S. and global LNG markets. In fact, the country is home to the single largest LNG facility in the hemisphere, a clear signal that, with the right investment climate, investors will come. Currently, Trinidad and Tobago supplies about two-thirds of the U.S. LNG market, some 2.4 percent of total natural gas imports and 0.4 percent of total natural gas consumption. Trinidadian gas exports (98 billion cubic feet in 2001, valued at just under $400 million) contribute a significant portion of gas used in the Northeast. Trinidad hopes to triple its share of the U.S. market by the end of the decade.

Several discoveries in 2001 increased Trinidad's substantial proven reserves to around 30 trillion cubic feet, with total potential reserves estimated at 90 to 100 trillion cubic feet. Low exploration, production and transportation costs make Trinidadian gas competitive with most other foreign sources of gas.

VENEZUELA: HISTORIC, STRAINED, BUT RECOVERING OIL SUPPLIER

Venezuela and the United States have also enjoyed historically strong energy ties. Traditionally, Venezuela has been one of our most reliable oil partners, and maintained an oil policy built upon a reputation of reliability, which was of great mutual benefit to Venezuela and consumers of its oil exports. Through World Wars, politically inspired embargoes, and global dislocations, Venezuela found that its national interest was best advanced through maintaining that reputation of reliability.

This reliability was, unfortunately, seriously eroded with the oil disruption at the beginning of this year. Venezuela's turmoil came at a difficult period for the world economy. It is up to the Venezuelans to work to restore that reliability with world petroleum markets. While production and refinery operations have recovered significantly, many industry experts assess that the sustainability of the recovery is questionable due to the lack of skilled manpower, deferred maintenance activities, and lack of capital investment. Many argue Venezuela will experience an actual decline in capacity if these trends are not reversed.

Commercial aspects of the relationship continue to run deep. In the 1990s, Venezuela opened parts of its energy sector to international firms, most of them American. These firms, such as ConocoPhillips, ChevronTexaco and ExxonMobil as well as independents like Harvest International, Sampson and Anadarko remain hard at work there. In fact, foreign energy firms are producing an increasing share of Venezuela's oil. U.S. firms are also working with Venezuela as it begins to tap its large LNG potential in projects such as Plataforma Deltana. Venezuela's vast heavy and extra heavy oil reserves also deserve special mention in this regard. Joint-venture projects with major international partners are now on stream, and as the commercialization of Venezuela's heavy oil potential deepens, it seems likely that the private sector will book more and more of these reserves as proven, as in the case of Canada, and tip the Hemisphere's reserve balance yet further.

The investment relationship with Venezuela is a two-way street. In fact, Venezuela is one of the top ten overall foreign investors in the U.S. through CITGO, a major refinery and petroleum products marketer here. These reciprocal energy investments bring benefits to both parties. We will continue to maintain a robust, if possibly more difficult, energy dialog with Venezuela.

The United States will continue to work to help Venezuelans resolve their political differences. The key to reversing the severe economic and political decline in Venezuela, and the key to recapturing their oil sector reliability, is a continued dedication to finding a constitutional, democratic, peaceful and electoral solution to the crisis, as called for in Organization of American States (OAS) Permanent Council Resolution 833 of December 16, 2002. The international community, including the OAS and the Friends of the OAS Secretary General's Mission for Venezuela, of which the United States is a member, stand ready to support Venezuelans' efforts to resolve their differences. Venezuela's newly instituted National Elections Council has the responsibility of determining when a recall referendum will be scheduled.

BRAZIL: DEEP WATER RESOURCES, NEW GAS FINDS

On April 29, Petrobras confirmed the largest gas discovery ever in the Brazilian continental shelf, with reserves of about 70 billion cubic meters, compared to prior total proven natural gas reserves of about 231 billion cubic meters. The discovery was made in the BS-400 block of the Santos basin, offshore from the State of Sao Paulo and Brazil's largest national energy consumer market.

As of summer 2002, the Campos Basin offshore of Rio de Janeiro State produced an average 1.26 mbd of oil and 18.42 million cubic meters of natural gas per day. At that time Petrobras was forecasting oil production by 2005 of 1.6 mbd in the Campos Basin and 1.9 mbd countrywide.

The National Energy Policy report recognized Brazil's growing importance to the global energy picture, and its excellence in producing deep water hydrocarbons.

NIGERIA

The Administration recognizes Africa's role as a major energy supplier. For example, Nigeria has been the fifth largest supplier of crude oil to the U.S., with exports to the U.S. averaging nearly 600,000 bpd in 2002. Overall Nigerian crude oil production averaged 2.118 million barrels per day (bbl/d) in 2002. Approximately 65 percent of Nigerian crude oil production is light and sweet, making it particularly suited for U.S. refineries since it yields high volumes of gasoline. Nigeria has the potential to increase its crude oil production significantly in the next few years as recent deep-water discoveries come on stream.

U.S. firms are playing an important, and very positive role in supporting development in Nigeria. On October 15 Secretary Powell presented ChevronTexaco with the 2003 Corporate Excellence award for the company's work in Nigeria. ChevronTexaco has done far more than drill for oil and gas. The company's riverboat clinic brings badly needed healthcare to thousands of people in the Niger Delta. Like many parts of Africa, HIV/AIDS has cast its shadow over Nigeria. The company's AIDS prevention program recently prompted Nigerian President Obasanjo to designate Chevron Nigeria's managing director as co-chair of the country's public-private sector alliance to fight HIV/AIDS. We applaud Chevron Nigeria's commitment to its employees, and to the people of the delta.

Nigeria also has an estimated 124 trillion cubic feet (Tcf) of proven natural gas reserves (9th largest in the world). However, due to a lack of infrastructure, Nigeria currently flares much of the natural gas it produces and re-injects only about 12 percent to enhance oil recovery. Nigeria is beginning to develop its gas resources with its most ambitious natural gas project, a $3.8 billion LNG facility on Bonny Island completed in September 1999. This facility is slated to expand to more than double its current capacity over the next three years. Plans for additional LNG facilities are being developed. In February 2001, Nigeria and ChevronTexaco, Conoco, and ExxonMobil announced an MOU to conduct feasibility studies for an LNG facility, West Niger Delta LNG, expected to be on stream by 2005. An MOU for a third LNG plant in Nigeria was signed in September 2001 with Phillips and Agip. This facility, planned to begin operating in 2007, will be the world's first offshore LNG plant.

The West Africa Gas Pipeline (WAGP), being developed by a consortium led by ChevronTexaco, is an important regional gas development project that will bring needed energy supplies to West Africa and reduce wasteful flaring. The project received $1.55 million in technical assistance from the United States Agency for International Development (USAID). USAID assisted the pipeline countries in developing market mechanisms for natural gas and for building capacity of local government and regulatory agencies to ensure they could actively and effectively participate in the WAGP project. The $500-million WAGP will initially transport 120 Mmcf/d of gas from Nigeria to Ghana, Benin and Togo beginning in June 2005. The World Bank estimates that Benin, Togo and Ghana can save nearly $500 million in energy costs over a 20-year period as WAGP-supplied gas is substituted for more expensive fuels in power generation. Ghana estimates that it will reduce its imports by 15,000-20,000 barrels of crude oil per day by using WAGP gas in its power plants.

Nigeria's oil producing Niger Delta remains politically volatile, with intermittent communal violence and labor disputes disrupting production in some areas. Ethnic violence involved well-armed militants, and the Nigerian military forced foreign operators to shut-in some 800,000 barrels per day during parts of March and April. Although overall production has returned to near previous levels, we remain in close contact with the Nigerian government, the local communities, and the firms operating in the Niger Delta region as they work to address recurring problems. Our mission in Nigeria remains committed to supporting democracy, economic reform, and poverty alleviation in Nigeria.

EMERGING AFRICAN PRODUCERS

Existing and new producers, such as Angola, Gabon, Equatorial Guinea, Sao Tome, and Chad will continue to develop new oil and gas resources in coming years, and U.S. energy firms are key in Africa's on-going emergence as an energy-supplying region. From the large firms, such as ExxonMobil and ChevronTexaco, to the smaller oil firms such as Amerada Hess, Marathon, Devon Energy, Vanco, Kerr-McGee and others, U.S. companies bring the most advanced technologies, resources and capital to assist African countries in developing their energy resources.

The Angolan petroleum industry now produces up to 900,000 barrels per day, a figure that will increase substantially in the coming years as new fields are brought on-line. During 2003 more than 350,000 barrels per day of Angola's production has come to the U.S. Current production is concentrated off-shore of the northern province of Cabinda. ChevronTexaco is the largest operator in Angola with shallow and deep-water fields in and around Cabinda. We continue to engage the Angolan government on the humanitarian situation, and urge the Angolan military and rebel groups to take necessary steps to protect internationally recognized human rights in the Cabinda region.

Production from the Cabinda fields will be eclipsed by deepwater production further south in the Kwanza Basin scheduled to come on-line by 2007. ExxonMobil, BP, Norsk Hydro, and Agip have all made significant discoveries in concessions in this area that are under development. BP made the first significant ultra-deep water discovery in this area in 2002 and other ultra-deep water concessionaires remain optimistic.

Our Embassy is actively working with the Angolan government to support the development of a comprehensive national energy strategy. USAID recently completed an assessment of Angola's energy policies and institutions to assist in identifying critical policy questions and possible solutions. The State Department is following on this effort by providing $200,000 in Economic Support Funding to the Department of Energy to support the energy strategy effort with Angola.

Gabon, sub-Saharan Africa's third largest oil producer, currently produces about 300,000 barrels of oil per day, although this is expected to decline over the next five years. Gabon is an eligible beneficiary under the Africa Growth and Opportunity Act (AGOA), and its duty-free exports to the United States in 2001 were valued at $938.8 million, almost all of which were oil or energy-related products. Over 45 percent of Gabon's oil output is exported to the United States.

Equatorial Guinea is emerging as a major oil producer in the Gulf of Guinea. On average, Equatorial Guinea produced 179,000 barrels per day of liquids (including crude and natural gas liquids) in 2002. By 2010 Equatorial Guinea should have

515,000 barrels per day of oil and natural gas liquids, given current trends, and will also be a supplier of LNG. ChevronTexaco, Amerada Hess, ExxonMobil, Marathon Oil, and Devon Energy are some of the U.S. firms with investments in exploration, production, and service activities in Equatorial Guinea. We opened an Embassy office in Malabo this month that will enhance our dialog with the government and signal our commitment to broad engagement with Equatorial Guinea.

Sao Tome and Principe, though it currently has no oil and gas production, is another promising emerging producer in the Gulf of Guinea. Sao Tome's petroleum reserves span both its own Exclusive Economic Zone (EEZ) and a Joint Development Zone (JDZ) with Nigeria. The JDZ is estimated to hold substantial reserves, possibly as much as 6-10 billion barrels. ExxonMobil has already made investments in Sao Tome, and now that recent political turmoil has been resolved with the return to the island of President Menezes, more U.S. firms are likely to bring their capital and technological expertise to the table.

Oil began flowing this summer through the $3.7 billion Chad-Cameroon Pipeline, the largest single private U.S. investment in Africa led by ExxonMobil, with the participation of ChevronTexaco. The Pipeline is a good example of sustained cooperative efforts among various entities—governments, international financial institutions, the oil consortium developing the project, NGOs and civil society—to balance economic benefits, transparency, and humanitarian and environmental concerns. Our Ambassador in Chad is deeply engaged with the government of Chad to ensure that the unique capacity building and transparency measures incorporated into this project are implemented.

While the unique circumstances mean that some aspects of the Chad-Cameroon project may not translate directly to other projects, many invaluable lessons are being learned. According to projections released by the World Bank, total receipts for the project are expected to reach $12 billion over a 28-year period. Chad could earn $2.5 billion over the life of the project with annual revenues of up to $200 million. Chad's Revenue Management College, an independent body that will help assure that oil wealth is used to benefit the citizens of Chad, is now established to monitor and assess the effectiveness of Chad's oil revenue expenditures. The College is a unique feature of this project that we worked closely with the World Bank to see put in place. Its aim is to ensure transparent use of Chad's oil revenues to alleviate poverty and to enhance its economic development.

Some concerns remain regarding adequate administrative capacity and oversight of the use of pipeline revenues, but the project has established channels for discussion and resolution of problems that are inclusive and sensitive to impacts on the local population.

PROMOTING TRANSPARENCY AND A GOOD INVESTMENT CLIMATE

We have a strong interest in assisting oil-producing countries to channel receipts from their energy resources into solid and sustainable economic development that will benefit their populations over the long term. Democratization and the development of responsible governing institutions are particularly important in reducing oil related conflicts and promoting supply stability from oil and gas producers around the world. Substantial foreign direct investment is needed to develop energy resources both onshore and offshore in the Western Hemisphere and Africa.

The Administration has demonstrated a clear commitment to encouraging the reforms needed to improve the investment climate. Transparency and accountability are central to good governance and to ensure that oil revenues benefit local populations and support development. We have an interest in helping nations solve these problems, not just out of altruism, but also in our own self-interest. We are prepared to explore new partnerships to help countries make good on commitments to good governance, transparent business practices, sound economic policies and market-based regulation. Countries with these attributes make better hosts to the huge investments needed to develop energy resources, and they make more reliable contributors to our own energy security.

At its June Evian Summit the Group of Eight (G-8) countries endorsed a comprehensive action plan on "Fighting Corruption and Improving Transparency" to help developing countries acquire the tools to strengthen domestic institutions and enhance transparency and accountability. The initiative focuses on host government commitments to fight corruption, and to enhance transparency, especially in their budgets—both on revenues and expenditures—and procurement processes, because these are the channels through which resources are used and controlled. The G-8 approach recognizes that government commitment to transparency and good governance is central to ensuring sound and accountable use of their energy sector resources. The G-8 countries have therefore resolved to target assistance on countries with a commitment to improved performance on transparency.

The Action Plan also commits the G-8 to:

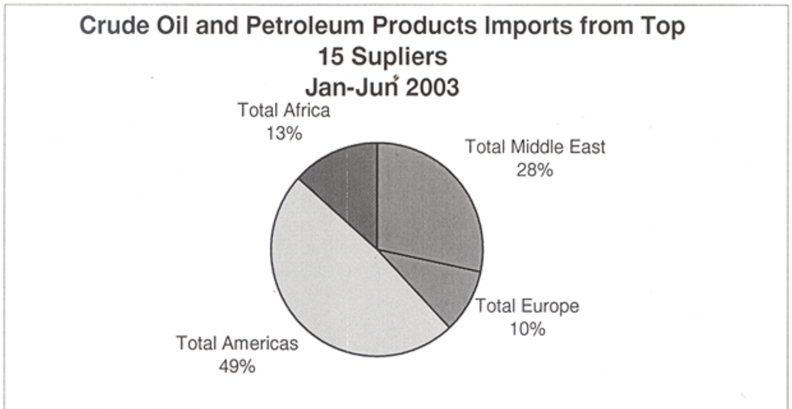
- Deny safe haven to corrupt leaders and their assets by among other things denying visas to corrupt officials;
- Push for accelerated implementation of the OECD Anti-Bribery convention;
- Encourage the World Bank and other IFIs to insist on increased transparency in the use of funds by borrowing countries.

In addition to these commitments, the G-8 countries agreed to support voluntary compacts between governments and companies to disclose revenue flows and payments from the extractive sectors, including oil, gas and mining. The G-8 committed to support those governments that wish to implement such voluntary partnerships through capacity building assistance and by encouraging IFIs to provide technical assistance. We support an approach based on voluntary compacts between willing "pilot" developing countries and the companies operating in those countries, and civil society aimed at establishing a strong relationship among partners in public expenditure transparency. Our philosophy is that, to be effective, this approach must focus primarily on how governments allocate and use the resources associated with these key sectors. In most cases, their own state-owned enterprises have active control over much of the activity in these sectors.

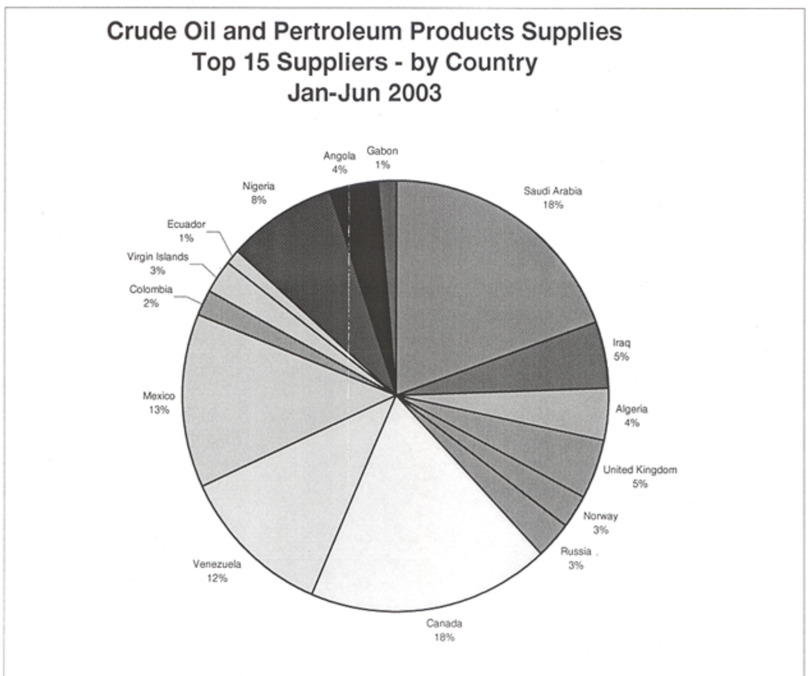
WESTERN HEMISPHERE AND AFRICA—HELPING TO MEET OUR ENERGY SECURITY GOALS

New energy resources, from existing producers such as Canada, Venezuela, Nigeria, and Angola combined with those from emerging producers of oil and gas such as Peru, Equatorial Guinea and Chad, among others, are helping to meet our energy security goals by diversifying global energy supplies. As noted throughout my testimony we are working with host governments, both in Washington and through our Embassies overseas, to build and support open and stable business environments for U.S. firms to play a role in developing energy resources throughout the world. We are building on the National Energy Strategy goal of maintaining a diverse global energy market that enhances economic growth and stability.

Appendix 1: Current Petroleum Imports (EIA Data)



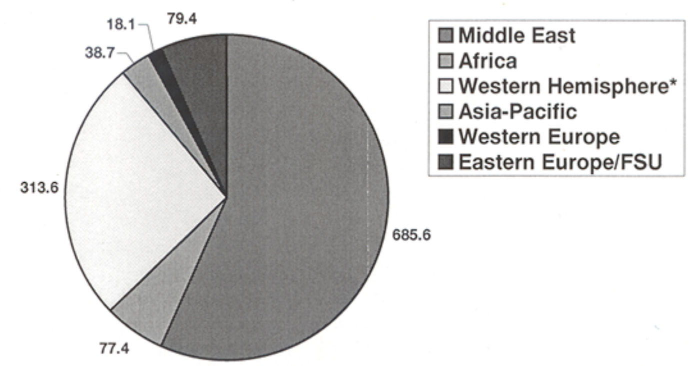
Crude Oil and Petroleum Products Imports from Top 15 Supliers Jan-Jun 2003



Crude Oil and Pertroleum Products Supplies Top 15 Suppliers - by Country Jan-Jun 2003

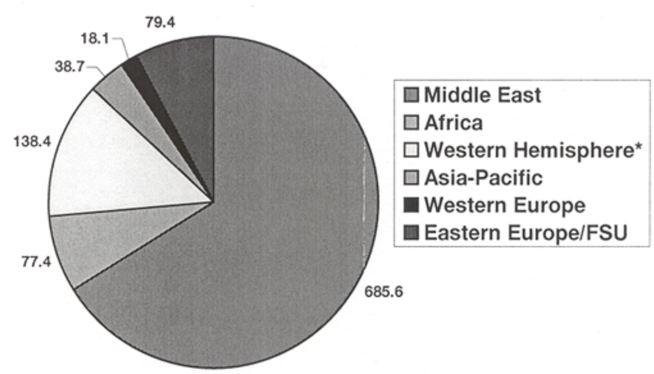
Appendix 2

World Oil Reserves, Billion Barrels-- 1/1/03
(Source -- Oil and Gas Journal)



*Includes Canadian "oil sands" and bitumen

World Oil Reserves, Billion Barrels-- 1/1/03
(Source -- Oil and Gas Journal)



*Excludes Canadian "oil sands" and bitumen

Appendix 3

World Oil Reserves (billion barrels) -- 1/1/03
Source: Oil and Gas Journal

Middle East	685.6	57%
Africa	77.4	6%
Western Hemisphere*	313.6	**26%**
Asia-Pacific	38.7	3%
Western Europe	18.1	1%
Eastern Europe/FSU	79.4	7%
	1212.8	100%

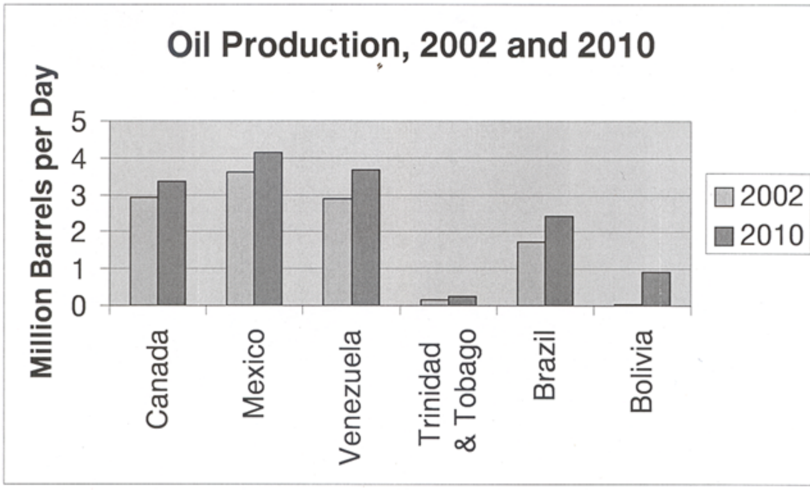
*Note: Includes Canada's oil sands and bitumen reserves

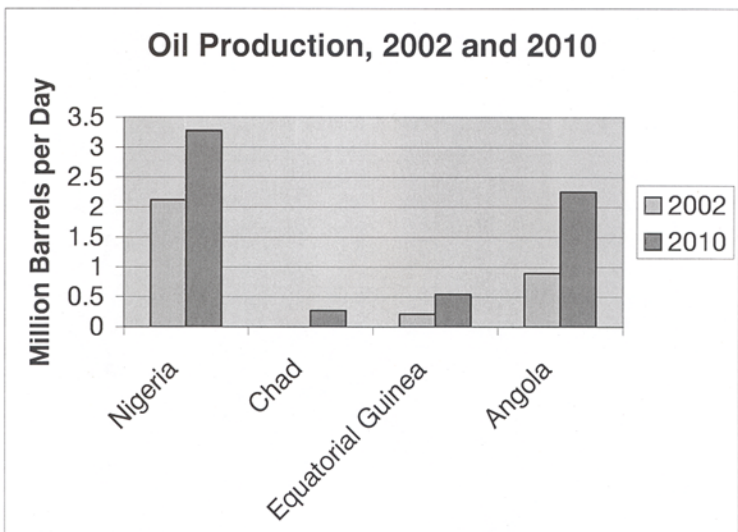
World Oil Reserves (billion barrels) -- 1/1/03
Source: Oil and Gas Journal

Middle East	685.6	66%
Africa	77.4	7%
Western Hemisphere*	138.4	**13%**
Asia-Pacific	38.7	4%
Western Europe	18.1	2%
Eastern Europe/FSU	79.4	8%
	1037.6	100%

*Note: Excludes Canada's oil sands and bitumen reserves

Appendix 4
Current Production and Forecasts – Source: EIA





Senator HAGEL. Mr. McManus, thank you.

Senator Coleman, I would propose that we alternate here for maybe 7 minutes at a time, and we have another panel. So if that is agreeable, I will begin the questions.

Senator COLEMAN. Thank you, Mr. Chairman.

Senator HAGEL. Thank you, and we appreciate very much your attendance because, as was noted, Senator Coleman is the chairman of the Foreign Relations Subcommittee on the Western Hemisphere. So thank you.

Let me begin with you, Mr. McManus. How would you rate the energy issue in the rating evaluation of what is important when the State Department in our foreign policy lays out an agenda of a relationship, human rights, religious freedoms, trade, transparency, all other important parts of a foreign policy, American foreign policy? Where does energy fit in that list of priorities?

Mr. MCMANUS. I think we look to advance our energy policy by keeping our principles, which is why we are working through the G–8 on enhancing transparency, which is why we have added a new position to our embassy in Nigeria to work on corporate responsibility, and why with the Department of Energy we maintain a dialog with countries throughout the world, even countries such as Venezuela where there are larger political issues at stake. So I think that it is a fundamental part of our overall foreign policy, and it is well implemented and integrated into our policymaking system.

Senator HAGEL. Secretary Brodman, would you care to comment on that at all?

Mr. BRODMAN. Yes, thank you, Mr. Chairman. I think that many of the new challenges that we see emerging today to our energy security really come from the kinds of things that we have not seen in the past. As you know, in the past our supply disruptions came primarily from sovereign political decisions, revolutions, and conventional wars, but today they are just as likely to come from corruption and the lack of transparency, from governance issues, from ethnic and religious conflicts, from border and territorial disputes, from political instability and other internal sources of conflict, and from the failure of the revenues from oil development to trickle down to support the economic and social development aspirations of the people directly involved.

In many ways I think the new challenges to our energy security today really go beyond energy policy per se to touch on the things that Mr. McManus mentioned. I think resolving a lot of these issues really gets down to the United States helping these countries to manage the revenues they earn from oil, gas, and other natural resource development in a way that will support sustainable social and economic development. I really think that this is the new frontier for our energy security in the 21st century, especially when we look to Latin America and Africa.

Senator HAGEL. How much of a role do multilateral institutions/organizations play in our overall effort here, as you have just described, both of you, in your testimony, to help these developing nations through these political crises, border problems, all the other specifics that you mentioned, focusing on trying to help them develop some stability and security, as you just noted, managing assets—and many of these countries have tremendous assets, as you have each laid those numbers out fairly clearly. World Bank, United Nations, how much of a role do they play, can they play, should they play in this effort? I would like to hear from both of you. Thank you.

Secretary Brodman.

Mr. BRODMAN. Thank you. I believe they are playing an increasing role and there are a lot of very innovative activities going on, being undertaken I think by the World Bank, by regional development banks, by the United Nations, and by other organizations such as the International Energy Agency and the newly evolving International Energy Forum, which is a forum for improving the dialog between oil-producing and oil-consuming countries.

I think one excellent example of the role that international institutions can play is the role that the World Bank played in the development of the Chad-Cameroon pipeline to bring newly discovered oil from Chad to market, the fund that that organization set up to channel the revenues from oil development projects in Chad into sustainable economic development projects within the country, to make sure that the country as a whole benefits from the development of those natural resources.

The World Bank has also been highly instrumental in doing accounting to help oil-producing countries get a better handle on the disposition of revenues that come from natural resource development and I think in this sense in supporting the efforts that we have undertaken in the G–8 and in other places to improve the transparency of transactions in natural resource development in developing countries. In many countries around the world, for years a large portion of the revenues coming from natural resource development have never adequately been reported or reflected in published budget figures, and they have just been a potential source of funds for corruption and other activities that have proved problematic across the board.

Strictly speaking now on the energy technical side, we have a number of activities underway in the International Energy Agency to reach out to developing countries to help them improve their data collection and their understanding of world energy markets and the forces at work that do impact their ability to develop their resources and to sell them gainfully in the world market.

As I mentioned before too, we are strong supporters of this new International Energy Forum which is an outgrowth of the producer/consumer dialog discussions that have been going on for the last 10 years.

Mr. MCMANUS. I think many of the larger OPEC oil producers do not qualify for the IMF standard financial packages, and as Secretary Brodman said, it is therefore more important that when they focus their energies on a Chad, that they can make that a model. In Chad, they have set up a revenue college where 5 percent of the revenues from the Chad-Cameroon pipeline will go to the local population. Ten percent will go into a trust fund for future generations, and some 90 or 80 percent will be earmarked for health, education, and welfare. The World Bank role there for really developing countries I think is critical and probably where they have their highest valued use.

Senator HAGEL. Thank you. Rather than start a new question, Senator Coleman?

Senator COLEMAN. Thank you, Mr. Chairman.

A question to both gentlemen. I agree with the sentiment of the importance of the United States helping countries manage resources so you can truly sustain economic development, but I want to explore how we do that and some of the challenges of that. Let me use Bolivia as an example.

Over the weekend, President de Lozada faced protests, ultimately stepped down, and it seemed to me that this issue was in part at the heart of some of the challenges he faced, that indigenous and other Bolivians who objected to a natural gas export plan sensed that the energy resources were somehow not getting down to the benefits of that, not getting down to the folks at kind of the bottom rung of the economic ladder. And I have very deep concerns over the prospects of Evo Morales and his message and the impact that will have on the opportunity for Bolivians.

So the question I have is using Bolivia perhaps as an object lesson here. Are there things that we could have done differently in working with Bolivia? Is there a role that the United States should be playing in situations like that or is the concern that we would be seen as meddling in the internal affairs of another country, and so we have to step back but then get the results we get? Can you help me try to understand the Bolivian situation as kind of an example here?

Mr. MCMANUS. Well, first of all, we very much regret the loss of life, and we commend ex-President Sanchez de Lozada for his commitment to democracy and the constitutional transfer to Vice President Carlos Mesa who is now the President. We think the events of the last week have really underscored the needs for all Bolivians to work together to strengthen their democratic institutions through more peaceful dialog and constitutional means. We hope that it will be the responsibility of all Bolivians to take the steps to end the political polarization and to guarantee respect for human life and rule of law.

I would not want to delve into such a sensitive issue because there was loss of life, but on a practical matter, Senator, I think you have identified a lot of countries in our hemisphere would rather not have the U.S. come in and tell them how to allocate revenues. In the case of Bolivia, there were no gas exports.

I think looking to Trinidad that you had pointed out earlier, you have the investment climate. Companies will come. What we do is our market is open to Trinidadian gas. Our market is open to any Latin American country that can produce gas at a market price and bring it to one of our few LNG import terminals.

Senator COLEMAN. Secretary Brodman.

Mr. BRODMAN. I agree with everything my colleague has said here, but I think the Bolivian situation points out a problem that many energy-rich or potentially energy-rich developing countries face and that is the problem of managing expectations of the wealth that will be created from energy development. As you know, in many countries just the expectation that there will soon be substantial revenues from natural resource development has led to sometimes irresponsible spending sprees and over-commitments and over-promises on the part of governments that they subsequently have a hard time delivering on. Rapid energy sector development sometimes in the past has also come at the expense of other sectors of the economy which have tended to become ignored.

Now, these are all areas that I think the United States can help developing countries manage if we are asked. But of course, we cannot come in and help countries unless they ask us and if they want our assistance. But in many cases, we find that it is easier for us to provide help and assistance through these international organizations that have been developed and through some of the programs they have to help countries manage these kind of expectations.

In the case of Bolivia, we have worked closely with Bolivia in the past on development of their natural gas resources for export by pipeline to Brazil in particular, and in this most recent past, I agree with everything my colleague has said here. There is not much I think that the Department of Energy in particular can say or add to that.

Senator COLEMAN. Mr. McManus, you mentioned Trinidad and talked about the investment climate, and really that parallels, Mr. Brodman, your comments about you need investment to sustain production. So it is clear that there has to be a climate in which folks are willing to invest. I am trying to sort out what is it that we do to foster that. In Colombia, security becomes an issue, and I have talked to the folks involved there. Clearly in both of your comments you talked about rule of law, transparency.

Are there ways in which this Congress could be investing in efforts regarding rule of law, upholding rule of law, teaching rule of law, those other things that would then be helpful in generating the kind of investment climate that you both referenced?

Mr. MCMANUS. I think from the executive branch one of the things we have done in the Latin American energy sector under the Summit of the Americas was to have a Hemispheric Energy Initiative, which is co-chaired by the U.S. Secretary of Energy and I think most recently met at a ministerial where Secretary Abraham went to Mexico City. In that context, we are trying to work as an equal with our 33 democratic partners in the hemisphere to share best practices and to hold up countries like Trinidad that have the investment climate and companies will come and to work on transparency and to work on regulatory sharing. So it is Argentines who had done a lot of privatization earlier who can talk to their colleagues in Uruguay or Brazil and not simply the Americans, and we have involved the Organization of American States in that effort as well and international experts. That has been quite a fruitful process.

Senator COLEMAN. Thank you.

Mr. BRODMAN. I would just like to add that we have similar activities going on in the Energy Working Group of APEC, the Asian Pacific Economic Cooperation Group, and in Africa we have a U.S.-Africa energy ministerial process.

But I would like to also point out that many of the things we are talking about here go strictly well beyond what we have in the past referred to as energy policy. Helping countries with the whole process of economic development really requires a sustained engagement that can be very expensive in the long run. As you know, the Department of Energy is not a development assistance organization, but we have in the past been able to receive some funds from the Agency for International Development to work with countries on a number of the issues that we are talking about here to try and promote responsible energy development and responsible use of energy resources to promote sustainable economic development and political stability.

Senator COLEMAN. I thank you. Thank you, Mr. Chairman.

Senator HAGEL. Senator Coleman, thank you.

Gentlemen, would you each respond to this question? NAFTA. Has NAFTA encouraged, inhibited, attracted, impaired, had any impact at all on our energy relationships with Mexico and Canada since NAFTA has been in effect?

Mr. BRODMAN. Mr. Chairman, I am not sure I could quantify my answer in any exact way, but I believe NAFTA and just the negotiation of NAFTA itself was a very important milestone in creating the kind of environment that we see today between Canada, the United States, and Mexico. Mexico and Canada are our two most important trading partners, and I think if we take those two countries together, they are responsible for a large portion of the energy that we import and export. I think a lot of the activities that we have underway today in the North American Energy Working Group are in fact an outgrowth of the North American Free Trade Agreement.

There are a number of challenges still ahead of us that I think will have to be undertaken in a broader context, such as the WTO, especially in the area of energy services trade, and those kinds of things. But I think NAFTA overall has had a very positive development on the relationship and the development of trade in energy between our three countries.

Senator HAGEL. Thank you.

Mr. McManus.

Mr. MCMANUS. Well, I was fortunate 13 years ago to have been a negotiator on the NAFTA energy chapter, and the first word of chapter 8 I believe is that each party will respect each party's constitution. So oil and gas is largely hived off in NAFTA for reasons of sovereignty, obviously, for Mexico, but with Canada we have a much broader free trade agreement that does touch on security of supply. On the margins in NAFTA, it does provide liberalization and independent power projects. But I would say fundamentally it had not altered the energy landscape, and that was very much at the insistence of the Government of Mexico.

Senator HAGEL. Thank you.

You each touched upon the Venezuelan situation, political problems, instability, the issues that have confronted President Chavez. Could you each respond in a little more detail to the question have those difficulties impaired our energy policy relationship with Venezuela? Have they forced us to take a more lateral approach or a more roundabout approach? How has that changed our policies and how do you foresee that Chavez government issue prolonging additional progress, and any other dimension that you want to add to the question?

Secretary Brodman.

Mr. BRODMAN. Mr. Chairman, I think the Venezuelan strike, while it was not completely unexpected, was a severe blow to the United States for the first few months that it was ongoing primarily because Venezuela is such an important source of crude oil that is nearby, and it was very difficult for us to replace Venezuelan oil, which takes about 10 days to deliver from ports in Venezuela to ports in the United States, with alternative supplies of oil which can take up to 45 days to deliver from the Persian Gulf, for example, to ports in the United States.

So I think one thing that we have clearly learned from Venezuela is the importance of having a diverse set of energy suppliers supplying energy to the United States. I think as the situation unfolded, it became very clear to us that it was also important that the world and other producing countries try and maintain spare production capacity so that they are able to make up for these unexpected losses of supply that occur really more frequently than I think we would like them to, but always with a major surprise.

The fact of the matter is other producers were able to increase their production and exports to the United States, and while we did suffer a major dip in our imports and in our stock levels for the first couple of months following the Venezuelan strike, by late February/early March, our imports of oil from other sources had been able to recover.

Now, where we go from here in Venezuela I think depends a lot on what happens in Venezuela itself. But unfortunately, we have also learned from disruptions that have taken place in other countries that oftentimes production never recovers fully once a country has undergone a serious internal problem like Venezuela has. We have seen it in Iran in the case of the Iranian revolution. We have seen it in Iraq, as a matter of fact, after the Iran-Iraq war really, and I am not talking about the effects of the first Gulf War and the subsequent embargo on Iraqi production, but I am talking about the failure of Iraq to maintain its production capacity as a result of the Iran-Iraq war. And we have seen it in a number of other countries too where an internal event, such as that that occurred in Venezuela, really created a climate that made continued and enhanced natural resource development much more difficult than it had been in the past.

Senator HAGEL. Mr. McManus.

Mr. MCMANUS. I would just add to that. I think for Venezuela to fully recover their reliability as an oil supplier, they will have to solve their political situation in a constitutional, democratic, peaceful, and electoral solution. That is why we are working with the OAS. That is one of the many reasons why we are working with the OAS and the OAS is working with Venezuela so they will do that. But as John says, the ball is largely in their court.

The great energy policy victory would be that other producers were able to compensate for a disruption in any one region of the world. Oftentimes people talk about a disruption from the Middle East. I think Venezuela has shown that you can have a disruption from any one region in the world, and in this case it was Middle East suppliers led by Saudi Arabia that largely compensated for a Western Hemisphere supplier. So we need to engage with all of our major suppliers, and I understand Secretary Brodman is off the plane from Saudi Arabia hours ago.

Senator HAGEL. Well, let me probe this a little deeper, specifically Chavez. Have we put in place, have we changed procedures, have we changed policy, have we adjusted in dramatic ways our energy policy, our relationship with Venezuela to deal with his government, to deal with him, deal with the instability after what happened?

Mr. MCMANUS. We have to deal with the sovereign Government of Venezuela. So we continue at a lower level a dialog between technical people of both governments on energy. They are our third largest supplier. They are a major investor in the U.S. through Citgo. So the dialog between the two governments is ongoing, and we are able to have a full exchange of views with them, including our concerns about their lack of reliability in December and onward.

Senator HAGEL. So we speak directly.

Mr. MCMANUS. Absolutely.

Senator HAGEL. Secretary Brodman, would you like to add anything to that?

Mr. BRODMAN. I would agree fully with what my colleague from the Department of State has said.

We do engage with the Venezuelan Government in technical consultations on a regular basis, and we make all the points about the need for stability and we are very frank with them about our concerns.

Senator HAGEL. Gentlemen, September 11, 2001. How has that changed over the last 2 years, or has it, our energy relationship with West African countries? Has it had any effect? Have we changed? We obviously have frozen our immigration policies. We have focused entirely on security issues, not inappropriately. I suspect as a result of that over the last 2 years, we have let a number of things drift, and we have deferred some tough decisions that we are going to have to get back to like immigration reform. Has it affected our relationship with many of these developing West African nations?

Mr. BRODMAN. Senator, I believe that in many cases U.S. oil companies have been involved in the exploration and development of oil in West Africa for a number of years. I think in some countries our companies' involvement in West Africa has gone back 45 or 50 years and even more. Oil investment and development decisions are very long term in their nature. Developing an oil field sometimes takes 5 or 6 years and production will go on for as long as 20 or 30 years. I think many of the developments of West African oil and gas that we see coming to fruition today and those in the pipeline actually got started and were well underway by the time 9/11 took place. I am thinking here in particular of Angola and the new offshore developments in Nigeria.

For many of our international oil companies, ExxonMobil, for example, ChevronTexaco, Conoco, Phillips, West Africa is one of their single largest and most important focuses of attention for investment right now of any other place in the world. I do not see that being affected itself by September 11.

On the other hand, we have heard from large numbers of developing, oil-producing countries that the new security procedures in the United States are inhibiting the growth and the kind of relationships I think we would like to develop with these oil-producing countries in building long-term, secure relationships.

For example, many of the countries in West Africa used to send students oftentimes on scholarships, supported by energy development projects, to universities in the United States for their education. Today many of these programs are thwarted by the inability of these countries to get visas for the students to come to the United States. So as a result, many of the students are going to universities in France or Britain or in Japan or other places in the world. If this continues for a long time, then there will be a whole new generation of young people in these producing countries that will, I think, more naturally look to the countries they are familiar with where they got their education to do business in the long term.

So we have heard a lot of anecdotal evidence of that sort, but I think overall much of the investment and development that we see going on in Africa right now actually got started well before 9/11 and will continue on its own merits.

Senator HAGEL. Secretary Brodman, thank you. I appreciate your taking us into the future a little bit here based on what has worked in the past and what has helped develop a culture, a relationship, a base, an understanding. I appreciated your comments about that. Thank you.

Mr. McManus.

Mr. MCMANUS. I would just agree with that and our National Energy Policy, which came out in May of 2001, was very centered on what we needed to do to advance transparency in Africa. We have redoubled our efforts with your help, as you know, on the African Growth and Opportunity Act, which on December 31, 2002 was expanded so that we can address more countries in the region. The President visited in July and the Secretary of State is there today. So I think Africa remains a real core priority of ours.

Senator HAGEL. Gentlemen, thank you. I know we could stay at this for quite some time. Secretary Brodman, you have made a valiant effort to come forward here with probably little awareness of what country you are in or time zones.

We appreciate your effort. You both have made very important contributions to our effort. We will talk again. In the interest of the second panel, unless either one of you have an additional comment, I would again say your full statements will be placed in the record and the committee thanks you for what you are doing for our country as well.

Mr. BRODMAN. Thank you, Mr. Chairman, and I am sure I am speaking on behalf of my colleague here when I say that the Department of State and the Department of Energy are fully supportive of you and your efforts to improve the energy security of the United States. Thank you.

Senator HAGEL. Well, thank you. You know, Secretary Abraham learned everything he knows up here in the Senate.

Sometimes he will not acknowledge that, but he did. Give the Secretary our regards. Thank you, gentlemen.

As the first panel is making its way toward the exit, our second panel is welcome to step up to the table. Thank you.

Ladies and gentlemen, thank you. I have introduced each of you not, I suspect, in the glorious fashion that you deserve, but nonetheless to stay with the point here, we appreciate very much your each giving us some time this afternoon and putting your thoughts together in a statement, which we look forward to hearing, and then an opportunity to exchange some views as well. You are not strangers to this effort. You have all testified before. For that, we very much appreciate it.

Since the order that I have been given reads Mr. West as the first presenter, then I will stay with the order as they have given it to me. Mr. West, again I remind all who are present you are chairman of PFC Energy here in Washington, DC and an experienced hand at all this. So welcome back. Thank you. Please proceed.

STATEMENT OF J. ROBINSON WEST, CHAIRMAN, PFC ENERGY, WASHINGTON, DC

Mr. WEST. Thank you, Mr. Chairman. I have submitted a substantial statement. I would like to hit a few high points from that.

The first is the discussion of energy security, and we define energy security as sustainable, reliable supplies at reasonable price. A lot of people assume energy security means interruption of supply, and there is really a very important difference between the two, and we will come to that.

Also, I would submit that energy security means natural gas too. A lot of energy security discussion is about oil where, in fact, I think the U.S. economy is much more vulnerable on natural gas, and frankly I think there is much more that the U.S. Congress can do about it.

A couple of points also in terms of oil——

Mr. West, excuse me just for a moment. I will get back to you on that point, as you suspect I would, as to why you said what you did. But I just want to let you know that I would be interested in getting your colleagues' answer to that as well. So please proceed.

Mr. WEST. OK.

A couple of points. One, energy independence for the United States we believe is a meaningless concept. U.S. production of oil is falling, and even if there is some greater energy efficiency, this is a fundamental trend that will continue.

Also, the concept of diversity. We think diversity of supply is important, but we think what is also important—and it was highlighted a bit in the earlier discussion discussion on Venezuela, for example—is that the role of the swing producer is central to the orderly operation of the international oil markets and cannot be ignored. I think some people over-emphasize the importance of diversity and under-emphasize having a producer which maintains excess capacity. Without it, there would be cyclical booms and busts which would destabilize economies in countries. Saudi Arabia is that swing producer. It is, in effect, the central bank of oil. It provides liquidity and stability in the market. In the case when Venezuelan production collapsed, it was Saudi Arabia which really played a critical role.

A couple of other points. Again, I will try and be brief. In terms of looking at the various regions, Mexico is an area that has enormous potential and it has a role to play in the United States. It is an important supplier, but there is a contradiction in their policy. You discussed NAFTA. NAFTA has encouraged a great deal of inward investment and more economic activity. But it was earlier pointed out investment in the energy sector is precluded, and the government of President Fox has been unable to liberalize their investment framework in oil and gas, and this has really damaged Mexican production.

On the other hand, Venezuela was discussed. But the fact of the matter is that as Senator Coleman pointed out, investment sustains production. The Venezuelans themselves are unable to make those investments. So Venezuela now is moving to the point where it is starting to welcome international investment, and there are a number of large American and foreign companies which are investing in Venezuela, and they have found the Venezuelan Government to be quite a reliable partner. In our view, if the local players can restrain their actions to within constitutional means, we believe that the perceived risk of Venezuela is higher than the real risk. But Venezuela is important and is very important to U.S. energy security.

In terms of turning to West Africa, a lot of things are going wrong in West Africa but some things are going right. The investment environment and the oil sector logistics in West Africa are the opposite of a number of other areas that are widely discussed such as Russia. The terms and conditions for investment are very competitive. There is a high geologic potential for oil and gas. As a result, more capital has flowed into West Africa in recent years than from the international companies than has gone into Latin America or Russia or the Middle East. West Africa has a very important role in attracting capital.

There are a lot of political problems there. There is very, very poor governance, which one of my fellow panelists will be discussing. But also there is the physical attribute that the production is occurring offshore, so it is somewhat isolated. But there clearly are problems.

Nigeria is key, but Angola and Equatorial Guinea are ramping up production and will play an important role as well.

I would like to turn to natural gas because I think it is an important area that has been largely neglected.

As I said, I believe that there really is a looming crisis in terms of energy supplies in this country and that gas supply production is falling simply due to growing demand and limited geologic potential. There is much discussion of Canada as an important supplier but its growing supplies are not necessarily assured partly because of what was discussed earlier. They are going to require natural gas to produce their tar sands and their unconventional oil.

The star in gas in the Western Hemisphere is Trinidad and Tobago. They have proven to be a very good partner. They have managed it well. They have an attractive regime. It has been well managed, and they play an important role in providing natural gas primarily to New England.

Venezuela is in the early phase of being an gas exporter to the United States, and it is going to play an increasing role in that area.

West Africa also. Nigeria is already moving some gas here, and Equatorial Guinea and Angola will play that role.

One point that Mr. McManus said on natural gas is that our market is open. That is not true. Our market is not open and it is not open because we do not have the physical facilities to accept the gas we are going to need. I would respectfully submit that there is actually very little that political officials can do about the international oil markets. Oil is a global market. It is efficient. It works pretty well. Gas works very differently, and it is actually within the power of the administration, of Federal officials and very importantly State officials, in terms of permitting the infrastructure to come. If the United States does not want the lights to go out and schools to go dark, at some point then some action really is going to have to be taken if Latin America and West Africa are going to play a constructive role.

So on that point, I would like to stop.

[The prepared statement of Mr. West follows:]

PREPARED STATEMENT OF J. ROBINSON WEST, CHAIRMAN, PFC ENERGY, WASHINGTON, DC

Good afternoon. Senator Hagel and distinguished members of this Subcommittee, it is a pleasure to come before you today to address such a timely and critical issue. My name is Robin West and I am the Chairman of PFC Energy. PFC Energy is a strategic advisory firm, based in Washington, DC. We work with most of the companies in the global petroleum industry on various aspects of their international oil and gas investments and market strategies.

KEY CONCEPTS UNDERPINNING OUR UNDERSTANDING OF ENERGY SECURITY ISSUES

There are a number of key conceptual points concerning global energy security issues that our firm believes are essential for getting to the heart of the matter.

The definitions of supply security of oil and natural gas are the same: sustainable, reliable supplies at reasonable prices. However, an important distinction must be made between security of crude oil supplies and security of natural gas supplies, because these two commodities represent entirely different security challenges globally, and particularly for the United States. Oil is a global commodity. Global oil markets equilibrate. Gas is not a global commodity. By the word "gas" I refer here always to natural gas, the same fuel that is burned on stoves in our homes, and not gasoline, the oil product used in automobiles.

Vast natural gas resources in various parts of the world remain stranded because natural gas cannot be transported as easily as crude oil. Global gas markets do not always equilibrate. Basically, if oil prices go up or down in Houston, they will go up or down in Singapore and Rotterdam. This is not true for natural gas, where prices vary widely from market to market.

- There is a misplaced concern with "dependence" on foreign oil suppliers. We will always depend on imported oil. Interdependence among nations is not a bad thing. "Energy independence" for the U.S. is a meaningless concept. U.S. production of oil is falling due to the maturity of U.S. oil fields. U.S. reliance on imported oil has already surged by 1.2 million barrels per day in the last five years, and is likely to continue at a similar pace in the next ten years, bringing U.S. net imports to 13 million barrels per day, equivalent to the combined 2002 production of the entire North Sea and Saudi Arabia. Greater energy efficiency can help slow down the increase in imports, but the direction is inevitable in the medium term.
- The proper way to frame concerns about "dependence on foreign oil" is to talk about vulnerability to oil supply disruptions. In this regard, diversity of supply clearly enhances security of supply.
- But the role of diversity in providing security, though extremely important, can be exaggerated. Given the highly skewed distribution of oil reserves in various

geographic regions, there is a limit to how much diversity can achieve in terms of security of supplies and there is an even more critical limit to the ability of some producers to replace others as strategic suppliers of crude oil.

- The role of a swing producer is central to an orderly operation in the international oil markets. The excess capacity that Saudi Arabia maintains at high cost allows the world markets not to panic at every incident, civil war or revolution. Without it, there would be cyclical booms and busts which would destabilize economies and countries. Saudi Arabia is the guarantor of last resort, the Central Bank of the oil market that provides liquidity and reassurance in difficult times.
- The domestic pressure on natural gas supplies and prices poses a greater threat to energy security and the U.S. economy than the rising cost of crude oil. U.S. demand for natural gas is outstripping supply. Demand will rise even further when the economy rebounds. Complacency rose with the recent unusually warm winters and slowing economy. This past winter, which was colder than the norm, should be a wake up call that gas supplies, not oil, are actually a greater threat to the nation's ability to provide a reliable supply to consumers at a reasonable price.

Given the differences between oil and gas as global commodities, U.S. government officials can do little about oil security, but they can do a great deal about U.S. gas security, which relies on government-regulated infrastructure. This Administration deserves credit for addressing some of these problems, but Congress must focus on these issues as well if it is serious about energy security.

THE SIGNIFICANCE OF LATIN AMERICA AND WEST AFRICA TO U.S. ENERGY SECURITY

Oil Issues

The global oil markets are a unified single entity, however, in reality they are an aggregate of several "basins" linked together by consumers and producers reaching out to other basins to secure supplies and expand markets. There are two large "net consuming" basins: The Atlantic Basin and the Asia Pacific Basin. By "net consuming" basin we mean that they consume more than they produce and have to reach out to other basins to make up for regional short falls. The key "net producing" basin that swings to make shortfalls in the "net consuming" basins is the Persian Gulf region, with Saudi Arabia as the principal supplier in that area. Hence, its critical role as the world's swing producer. But regional supplies mailer and in terms of diversity and proximity of supplies, regional producers are extremely important. In fact, they are the first line in defense of our oil security needs. In the Atlantic Basin, where the U.S. is the largest net crude oil importer, key regional suppliers outside of the U.S. are located in North West Europe (Norway and the UK), Latin America and West Africa. In the context of this testimony, therefore, for the U.S., other than the European producers, Latin American and West African producers make up our first line of defense in oil security.

Four important factors related to these regional crude oil suppliers have a critical influence on future output:

- Investment activity as a result of investment regimes created by these producers and its impact on future oil supplies
- Attempts by crude oil producers to secure captive refining capacity in the U.S. to ensure market share for their crude oil
- The perceptions of political risk within these countries and its impact on current supplies and future investment activity
- Cooperation between regional producers and OPEC and its impact on regional supplies and prices

The U.S. does not only depend on crude oil to meet our petroleum needs. We import sizable amounts of derivative products. Here the regional markets, and in our case the Atlantic Basin, is even more critical for domestic prices of products. An examination of the dynamics of this market with special reference to Venezuela is also important in assessing our energy security.

LATIN AMERICA

The important producers in Latin America are Mexico, Venezuela, Brazil, Colombia, and Ecuador. Most of these Latin American countries have long been important exporters of crude oil to the U.S. In fact, a sizable portion of the region's oil sector was developed by U.S. oil companies as early as the 1920s. U.S. company control over the sector in these countries contributed to domestic resource nationalism and colored relations with the U.S. The region has also been a trend seller in global oil politics, from the nationalizations of the Mexican sector in 1938 to Venezuela's lead in the creation of OPEC in the early 1960s.

Oil revenues and the expenditures that they financed profoundly shaped the domestic political economies of the region creating groups of have's and have-nots. The funds were—and still are—one of the key sources of political competition in these countries. Economic and political reform efforts have been enhanced or hampered by production trends at home and oil price trends globally.

The hike in oil prices in the 1970s, along with greater control over the sector that countries gained (notably, Venezuela, Ecuador and Colombia nationalized the local producing assets), greatly boosted government revenues. This was particularly true of Mexico (which had retionalized its sector much earlier) and those in the Andean region of the continent. But higher oil revenues severely distorted the domestic economies, leading to sharply higher and unsustainable spending, generating large budget deficits when prices fell in the mid-1980s and the resort to excessive external debt financing. The debt crisis that the region suffered in the 1980s—the region's "lost decade"—can partly be blamed on the hike in oil prices, mismanagement of higher revenues and ultimately a stagnation or decline in oil production from the region. As the region embraced "neo-liberalism" in the 1990s as a means out of the debt trap, many reformist politicians proposed liberalizing the oil sector to reinvigorate supplies.

A decade later, and after attempts at reforming the sector, the region in general has made little progress in expanding regional crude oil supplies in the aggregate. National oil company officials, labor unions and volatile domestic politics have slowed the entry of foreign investment and hampered the expansion of supplies. There was a brief period at the end of the 1990s when it appeared that these countries would succeed in raising supplies but local politics in general have led to recent setbacks in production. The notable exception is Brazil, where the partially privatized Petrobras used its considerable technological prowess and good indigenous management skills (unshackled from government control) to raise output in a physically challenging sector.

Looking forward, there are grounds for hope that regional supplies will grow for a number of reasons. First, lagging production and in some cases fears of sharply lower output due to under-investment, strikes by oil workers and civil unrest in some countries, have forced governments to redouble efforts to liberalize the sector. Second, with energy security reemerging as a national issue in the U.S. following the attacks on the World Trade Center and the Pentagon, and fears of over-dependence on the Middle East oil in the U.S., Latin American countries see a competitive opportunity in gaining market share in the U.S. Third, democratic politics have brought to fore politicians that want to break the political power of the old entrenched bureaucratic elite and labor leaders and want to forge new alliances with foreign companies as means to increase production. Nonetheless, there is considerable uncertainty about whether foreign oil companies will overcome their perceptions of country risk despite improving contractual terms and greater access to the physical resources.

A closer examination of individual country attempts to raise output produces a more complex picture, but the generalities mentioned above hold true. Local trends in the important Latin American producing countries are the following:

Mexico has enormous potential in both oil and gas, but there are very limited upstream investment opportunities for private firms. The U.S. imported 1.49 million barrels a day from Mexico in 2002 making it the second largest source after Saudi Arabia and ahead of Canada. Moreover, Mexico's importance lies more in the potential upside that the country's resources suggest rather than current supplies only. Pemex, the national oil company, remains in full control over the oil assets of the country protected by constitutional prohibitions against privatization or other types of participation of foreign oil companies.

There is a growing contradiction between the economic development model Mexico has developed since joining NAFTA and the investment regime existing in the oil sector. This is even more true in the gas sector but that will be discussed below. Countries attempting to integrate into the world economy and spawn an efficient and competitive industrial sector often will find it necessary to privatize their resource sectors to maximize output and lower input costs. Success in building an industrial sector reduces the relative importance of the primary sectors both in terms of employment and government revenues, especially since the government can diversify its tax revenues now that other productive sectors have been created. Mexico has been very successful in attracting foreign investment into its manufacturing sector and has greatly expanded exports of manufactures to the U.S. and other countries. However, because of limited reforms in taxation and labor policy and strong nationalist concerns regarding the hydrocarbon sector, the current government of Vicente Fox has been unable to liberalize the investment framework in both the oil and gas sectors. Whether future governments in Mexico will rectify this anomaly and open up the country to foreign investment (and achieve the production successes seen in the U.S. both for the onshore gas and the deepwater oil sectors) depends on continued growth of the non-oil industry and a political power shift away from vested interests stymieing changes in the hydrocarbon sector. More oil out of Mexico will certainly enhance our "first line of defense" and enhance our energy security.

Venezuela's oil sector is at the very heart of the country's politics and the two go hand in hand. With the virtual bankruptcy of Venezuela in 1992—a culmination of the extravagant and corrupt economic policies of President Carlos Andres Peres—the region's most important oil producer adopted neo-liberal economic policies to diversify the economy away from oil. The national oil company PDVSA, under the stewardship of Luis Giusti, accelerated its move to expand oil output (partly through inviting foreign oil companies to invest in specific types of oil producing regions) and to increase captive refining capacity overseas (namely through PDVSA's U.S. subsidiary, CITGO) in order to grab market share in the U.S. The country also signaled less cooperation with OPEC in managing the global oil price during the 1990's. Giusti's move to increase oil supplies was designed to position Venezuela as the key supplier to the U.S. But his move proved ill timed given the economic situation within his own country.

The situation came to a head in 1998, when OPEC members in the Persian Gulf refocused their sales effort on the Atlantic Basin after demand collapsed in Asia due to the Asian financial crisis. The rising barrels from the Persian Gulf met rising Venezuelan production and competition. This was one reason that oil prices collapsed in 1998 with what seemed like little prospect for OPEC to manage prices back up to acceptable levels.

Low oil prices triggered a financial collapse in Venezuela and with growing disparities in income over the last several decades and the pain of economic reform falling mainly on the Venezuelan underclass, it was no surprise that in the 1998 elections Hugo Chavez emerged a victor. After his election, Chavez's attitude towards OPEC changed dramatically, and he promoted cooperation and higher oil prices. As a result, by 1999 Venezuela's cooperation with OPEC led to a strong recovery in oil prices which has been sustained to this day. While this stabilized the economic situation in Venezuela, the growing "class war" between the old and new government elites and some degree of economic mismanagement made the restoration of economic stability temporary.

In early 2003, a large number of employees of PDVSA struck against the Chavez government in solidarity with the opposition. That crippled oil supplies into the Atlantic Basin. It showed the importance of regional supplies and the dislocations caused by the stoppage at a particularly difficult time as the U.S. embarked on a war in the Persian Gulf. Moreover, given the fact that a large number of CITGO's and other U.S. refineries were dedicated to buying Venezuelan crude, switching to other suppliers at short notice proved particularly difficult. Luckily Saudi Arabia was able to make up some of the short fall but not without a temporary sharp increase in world oil prices. With the loss of personnel—Chavez fired 18,000 workers for striking—PDVSA's ability to produce at pre-strike levels continues to be stymied, and even though production has risen, Venezuelan output remains constrained and prospects are growing for future declines without substantial investment, probably from international companies.

The weakening of PDVSA presents a strong opportunity for several players. The government is once again attempting to attract foreign investment in oil in its sector. It is hampered by foreign oil company perceptions of country risk (violence), an unfavorable hydrocarbon investment law, and anxiety that the return of the "ancien regime" to power if Chavez is removed from office may disqualify interested investors. An increase in Venezuela's production in the future is uncertain as the domestic political situation of recall referendums, coup attempts and considerable civil strife plays out. However if all the political competitors restrain their actions to within constitutional means, for international companies investing in Venezuela, the perceived risk of operating in that country may be greater than the actual risk.

Political risk also clouds the supply picture of the two other Andean suppliers: Colombia and Ecuador. In Colombia, the oil sector has become enmeshed into the ongoing civil war between guerrilla groups and militias and the government. For a while in the 1990s, there was great hope that foreign oil companies would rapidly expand production in Colombia. There was a period of success with the expansion of the Cusiana field. However, the expansion of the Cupiaga field, the next big development proved to be disappointing. Moreover, initial success in expanding production led to more onerous investment terms which along with the violence in the country soured foreign company interest. In fact, guerrilla attacks consumed huge resources of the foreign companies as they attempted to maintain production and protect their personnel and their facilities, in particular, the Cano Limon pipeline.

President Uribe is attempting to revive investment in the sector by offering better terms to foreign oil companies. His hope is that with growing oil revenues he will be able to dedicate more resources to fighting the narco-guerrillas and transform the investment environment for foreign oil companies. However, a more forceful stance towards the guerrillas has led to more violence and scared off potential investors. As a result, Colombia is caught in a Catch-22 with investors seeking a more stable and peaceful investment environment and the government hoping it will be the savior of the political and economic system of the country.

In Ecuador, a new government hopes to accelerate new investment in oil rich areas and build a new pipeline to boost exports. The OCP pipeline will not only sharply increase export capacity but also enable Ecuador to improve the relative quality of its crude to the market and thereby increase its yield.

Brazil is one of the remarkable success stories in the world oil industry. It has been able to become self sufficient in meeting its domestic oil consumption requirements through its own rapid oil production growth and is on the verge of becoming a net oil exporter. The new oil production has been developed in the very challenging deepwater offshore. Brazil's Petrobras is recognized as a world leader in deepwater technology. Although Brazil exports some gasoline to the U.S., its resource size and its own potential needs will prevent it from being a large net addition to the Atlantic Basin's supplies.

WEST AFRICA

In contrast to Latin America, oil supply is surging in West Africa, notably Nigeria, Angola, and Equatorial Guinea. Industry capital and technology is pouring in to explore and produce in the offshore. Production will be rising at an annual average rate of 6% in the next five years, and total production will grow from 3.6 million barrels per day in 2001 to over six million barrels per day by 2007.

The investment environment and oil sector logistics in West Africa are the opposite of those in Russia, a region often described as the key for America's energy security. Terms and conditions are very competitive, which, combined with its high potential for oil, has attracted massive investment from international oil and gas companies—far more industry investment in recent years than Russia, the Caspian or the Middle East. As a result, production is swelling. Unlike the Caspian or Russia, West African oil can be easily loaded and moved anywhere by ship.

However, there are serious concerns about the political stability of the region. Unrest in Nigeria has been in the headlines recently. The problem in West Africa is that governments are weak, unstable and deeply corrupt. Billions of dollars of oil revenues are squandered or stolen. The populations resent their politicians, who live in great wealth, while they exist in poverty. The condition of the people is appalling and political systems are ineffective.

Despite the growing political instability in the region, foreign oil companies have flocked to the region partly because of the location of the assets. The growth in oil production in the region has occurred "offshore". Investors consider this safer because they are not located near or among local communities, and as a result, these companies seem confident that they will avoid the problems encountered in onshore areas such the Niger Delta area of Nigeria. In the Niger Delta, local communities are using a variety of methods to extract oil rents directly from the foreign operating companies to compensate for the lack of services provided by governments. Although companies have attempted to improve local community relations through a variety of means including development and aid projects in association with nongovernmental organizations, the problems they face with local political violence continues almost unabated. The companies remain confident, however, that they will not encounter this from the offshore sector. To some extent this confidence may be misplaced as political activists learn new means of pressuring the companies and reach their facilities offshore.

This is true at least in Nigeria, where some offshore facilities have already been a target, meaning the potential for production disruption exists for both onshore and offshore operations. Nigeria is set to see its production capacity to increase by 700,000 b/d by 2007, with much of the ramp up coming from deepwater blocks miles offshore. This will mitigate some political risk for companies and fear of production disruptions for global oil markets. The new production will target the U.S. market as well as Europe and Asia.

In Angola and Equatorial Guinea, the threat of production disruptions is less pronounced. Both countries' production is largely offshore, and its governments are stable—even with a civil war in Angola. But these governments face increasing pressure for revenue distribution beyond the elite structures. Production and oil revenues are increasing fast in the next five years, and their populations want to see the benefits. This in itself is not too terrible a challenge, but Angola and Equatorial Guinea both face possible succession issues in the next few years—and its political leadership could be less stable than it has been over the past decades.

With the cease fire in 2002, the ruling MPLA government in Angola no longer has the civil war with UNITA rebels as its raison d'etre. Although the government maintains strong control right now, the country is preparing for the first post-peace elections in 2005. The country's production will double to 1.8 mb/d by 2007 from 0.9 million b/d now, largely due to a handful of deepwater projects coming onstream.

Likewise, in Equatorial Guinea, President Obiang has maintained strong control since 1979 by preventing power centers from emerging. But at some point Obiang will have to cede power, making way for individuals and groups to jockey for power. Equatorial Guinea will see its oil production rise to 340,000 b/d from less than 200,000 b/d now. This increase in oil production, combined with its LNG plans, deepens the country's dependency on the hydrocarbon sector for revenues.

Overall, West Africa will add diversity to oil markets in the next five years, with most of the increase coming from the offshore areas, where the political instability of the regime will not matter much. However, oil companies operating in these countries will be pressured to increase the transparency of their dealings with local governments.

The long term stability of supply may be effected by our ability to combat corruption, which is fundamental to governance. Should the appalling levels of mismanagement and theft continue there is a possibility of civil unrest, if not actual dissolution, particularly in Nigeria.

NATURAL GAS SUPPLIES FROM LATIN AMERICA AND WEST AFRICA

Latin America and West Africa could prove critical as the "first line of defense" in the area of natural gas. As noted above, the looming crisis in terms of energy supplies in this country is more related to faltering domestic gas supplies being outstripped by demand rather than availability or price of crude oil. Increasing imports of natural gas is critical and depends on the development of foreign resources and the ability to get the resources to the U.S. market. Canada is critical in this regard. PFC Energy believes that although Canada is an important supplier of gas to the U.S., further supplies are not assured because of issues related to the development of Canadian tar sands and unconventional oil and the construction of major pipelines into the U.S.

Latin American suppliers, particularly from three countries—Mexico, Venezuela and Trinidad and Tobago—will play a very important role in supplying gas to the U.S. Mexico has a dual role to play. For one, it has to reform and open its gas sector to foreign investment. The fact that it has not is another sign of the deep contradiction between its economic planning and energy policy. To reiterate: a country that needs cheap and efficient supplies cannot run an energy policy that retards development of its oil and gas sector and actually leads to the importation of expensive gas from its North American neighbor. When this is rectified, Mexican industry will benefit from cheap and efficient supplies of this essential industrial input, and the energy industry can capture rents north of the border far in excess of what it currently earns. The second role Mexico can play is to be the transshipment point for liquefied natural gas (LNG) supplies from other Latin American countries or even other regions to the U.S. Because U.S. environmental and local policies obstruct the construction of LNG import facilities within the U.S., Mexico could provide the location of these regas terminals and then the gas could be shipped by pipeline to the U.S.

Venezuela is in the early stages of becoming an important exporter of gas to the U.S. After delaying LNG export projects for virtually a decade, the government's acute financial needs have pushed it into negotiating deals with foreign companies. The gas will come from two areas: North Paria and the Deltana Platform. The gas will be liquefied onshore or sent to Trinidad for liquefaction. Regas facilities will have to be found in Mexico, the Caribbean or the U.S.

The real success story in terms of regional gas has been Trinidad and Tobago. A U.S. company, Amoco developed the assets. Amoco, which merged with BP in 1999, built on a trend of falling costs in the LNG industry to achieve new benchmarks in competitively priced LNG. This gas from Trinidad's Atlantic LNG competes in the U.S. market and has been arriving in growing volumes at the existing U.S. import terminals. These LNG imports can play a key role in meeting peak demand in the Northeast. The expansion of Trinidad's LNG facility has fueled overall growth in Atlantic basin LNG trade and benefits the U.S. by contributing to a more robust LNG marketplace.

There is additional potential LNG supply from Peru and Bolivia, but these are not near-term solutions. Plans for supply of LNG from Peru and Bolivia face significant hurdles to market and are considered high risk endeavors at this time. While possible volumes for export exceed 25 tcf, internal and cross border political problems continue to stymie investment decisions and have caused several iterations in shareholder structures in both the Camisea (Peru) and Pacific LNG (Bolivia) projects. It is unlikely that these issues will be resolved to the satisfaction of international buyers who will be looking for reliable supply into the market place in the near term, which will mean that other more proven projects in the Pacific Basin will supply the U.S. and could force the west coast Latin American projects out to the latter half of the decade.

West Africa will take on additional importance to the U.S. owing to the projections of growing demand for LNG into the U.S. market. Nigeria holds more than 124 tcf of proven gas reserves. LNG projects in Nigeria and those proposed for Angola are further driven by the push to end the gas-flaring that accompanies oil production in these countries. The U.S. has been receiving Nigerian LNG since 2000 and could become the market for proposed additional LNG from Nigeria, Angola and Equatorial Guinea.

Even with strike issues that have impacted the oil sector out of West Africa, the natural gas export sector has been left unscathed because most of the projects affiliated with export also support the domestic market and the existing LNG facilities are not located near the most troubled areas. This does not mean that these projects are immune to rampant corruption or civil unrest, just that these facilities have so far been less vulnerable to disruptions than oil.

CONCLUSION

A key point to be made in conclusion is that the Atlantic Basin contains large sources of oil and gas. However, fractured and unstable political systems increase perceptions of country risk among foreign investors leading to slower development of these supplies. Moreover, local impediments—lack of funds, national oil company or bureaucratic blockages—stymie the efficient development of supplies.

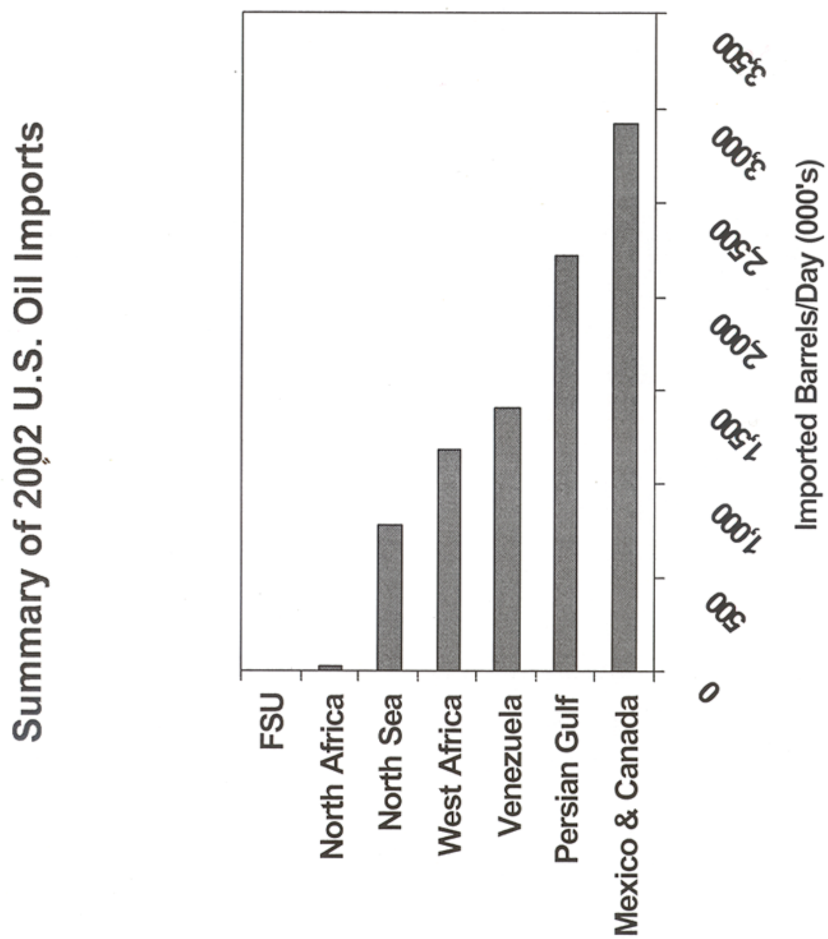
The U.S. must do the following:

With natural gas, the U.S. will not have affordable gas for all its needs, from home heating to industrial production, unless new sources are able to reach the market. The most economic solution for the U.S. will be found when both LNG and pipeline imports have access to our market.

Today, permitting of both LNG infrastructure and gas pipelines remains a significant obstacle to expanding gas supply. The federal permit process for onshore LNG infrastructure should be driven by deadlines (both for FERC and the applicant) so that the review is completed in a timely, resource-efficient manner. Federal authorities need the political mandate and resources to coordinate better with authorities issuing state and local permits. In addition, politicians and public policymakers should help to make the case that importing LNG is safe. The LNG industry has an impeccable safety record, but if misconceptions about this issue persist, securing reliable natural gas for the U.S. will be all the more difficult.

Political leadership has the opportunity and the need to re-examine the process and laws by which environmental choices are traded off against energy choices to make indirect decisions about the future.

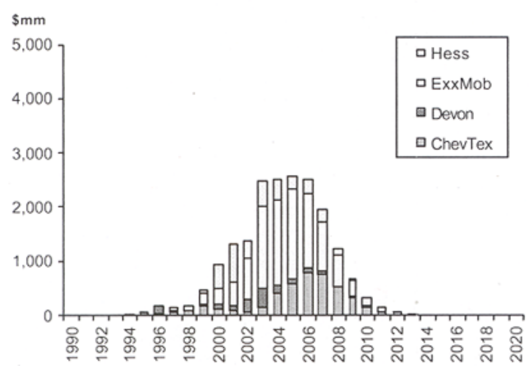
In conclusion, there are limited policy options for energy security and oil. Fighting corruption will lead to greater stability in producing countries. It is on natural gas however, that Congress and the Administration, as well as the state and local governments, must focus their attention. Foreign gas supplies are ample but U.S. infrastructure is very constrained. The permitting process is often disorganized and unfocused. This is a situation which Congress can and should rectify.


Summary of 2002 U.S. Oil Imports
FSU
North Africa
North Sea
West Africa
Venezuela
Persian Gulf
Mexico & Canada
0
500
1,000
1,500
2,000
2,500
3,000
3,500
Imported Barrels/Day (000's)

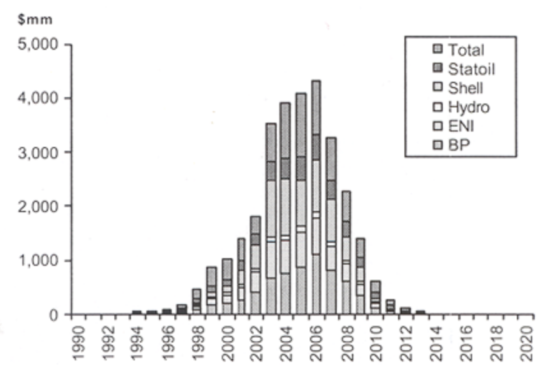
West Africa – Modeled Foreign Investment Required to Develop New Deepwater Reserves

The shallow water reserve base of West Africa is mature and on a regional basis peaking in productive capacity – capacity growth will be driven by new deepwater reserves and $billions of investment from European and American Oil Companies

American Companies



European Companies



Senator HAGEL. Mr. West, thank you. We will make sure that your entire statement is included in the record. We, as always, appreciate your contributions and look forward to our questions.

Mr. Goldwyn, let me remind everyone who you are. You are president of Goldwyn International Strategies here in Washington, DC, and welcome. We appreciate your being here.

STATEMENT OF DAVID L. GOLDWYN, PRESIDENT, GOLDWYN INTERNATIONAL STRATEGIES, LLC, WASHINGTON, DC

Mr. GOLDWYN. Thank you, Mr. Chairman. Thank you for the opportunity to testify.

There is no question that Latin America and West and Central Africa are important to U.S. energy security. You have heard from the government witnesses and they have talked about how important it is for the United States to have access to reliable, diverse, affordable, ample supplies of oil and gas. Latin America and Africa are critical suppliers to that effort. I think the United States has energy security and even national security interests in making sure that these nations fulfill their potential as suppliers. But I would submit to you today that our key suppliers in each of these regions are at risk and that U.S. policy today does not address, much less redress, the risks that we face.

Let me talk a moment about what I mean by energy security. I agree energy security is more than just access to supplies of oil. In a global market, the United States can pretty much buy what it needs by bidding it away from other consuming nations. The greatest risk to our energy security, I believe, is the volatility of the price of oil. If we can buy oil at $50 a barrel, but we see our airline, trucking, and travel industry suffer, we are not very secure. And if a major supplier goes off line and only Saudi Arabia has the excess capacity to replace that production, in my view we are not secure. And if oil drops to $10 and our domestic producers go bankrupt, we are not secure. And if that low oil price forces non-OPEC but high-cost producers out of the market, pushing us further into dependence on Middle East oil, that does not enhance our energy security either. So volatility is a serious threat.

Prices are volatile because too many producers are unstable. If you look back 30 years—and I think you have heard all the examples today—and ask what caused the greatest price spikes, it is not embargoes. It is internal unrest. It is war. It is strikes. The Iranian revolution, the Iran-Iraq war, the two Persian Gulf wars, the Venezuelan strike, and recent strikes in Nigeria.

Our old system of energy security does not address today's threats. Our old system was one of deterrence. We buildup big reserves; we will deter an embargo. That worked pretty well, but we cannot deter today's threats. We cannot defeat them by military force, and since the threats to the producers' stability are largely internal, their problems can still become our problems if they stop producing. I think we have to use diplomacy and trade and the creative intervention of the international financial institutions to overcome these threats.

The risks, just to make clear what they are, are that these nations will either fail to fulfill their production potential so in 10 years they will not be there if we need them, or that they will produce supply dislocations, or both. Either scenario, whichever way it happens, increases the volatility of the price of energy, damages the U.S. economy and makes us more dependent on Middle East oil.

Let me start with Latin America. Latin America is more important than Africa right now in terms of how much oil it provides to the United States. Venezuela and Mexico, as you pointed out, Mr. Chairman, are the two most important suppliers, but they and the entire region are in pretty deep trouble.

Mexico is still deadlocked over the desirability of foreign investment, particularly in the energy sector, and as a nation, Mexico is de-industrializing. It does not have the energy to compete for manufacturing with other developing countries. And if Mexico has economic problems, we have economic problems, and we have other kinds of problems as well. None of the things that have been talked about today, not a new energy minister, not multi-service contracts, not even a record high level of investment for PEMEX are very likely to change this in Mexico because they are so politically deadlocked. And that is a problem.

Venezuela is recovering from a crippling strike and it is undergoing a major reorganization of the national oil company. The national government is trying as best it can, I believe, to make sure they muster the capital and the management that PDVSA needs, but it is very unclear whether they will succeed, and if they continue to reject all of the workers who have been fired from PDVSA back into the fold, then it is going to be very hard for them to get the management talent they need to not just sustain production, but to increase it and increase it is what we need them to do. Industrial actions continue to plague the refining sector, and Venezuela's civil society remains in turmoil over the potential referendum and the potential recall of President Chavez. So Venezuela's future remains in question.

I will just touch briefly on the other countries. Colombia you have talked about. They still suffer from war and terror. Bolivia has just seen a reform-minded President resign over a gas pipeline to provide the United States with LNG. The main reason that he lost power, part of it was because it was going to Chile instead of going to Peru, but the other reason is they did not trust the government to spend the money. Other than Trinidad and Tobago, there are no bright spots in Latin America right now.

Let me turn to Africa. Africa could supply 25 percent of our oil in a decade, but energy security that depends on Africa is going to depend on the United States and others promoting political development in those countries or they will not be the countries we want them to be a decade from now. Internal unrest is a serious threat to the ability of all those African nations to maintain investments and exports.

Nigeria is well documented. The unrest in the delta remains unresolved. We have had sabotage, hostage-taking, major strikes, and work stoppages. And 800,000 barrels of oil off the market last March, adding pressure to already high oil prices, and production is not even back today. There is also organized theft of quite a lot of oil. The numbers range from 45,000 to 200,000 barrels a day. That oil is going partially into the pockets of the government and partially funding militias in the delta and some of it is ending up in Cote d'Ivoire as well. So this is a regional stability problem, and until the political issues are addressed, oil interruptions from Nigeria are going to be a continuing part of our future.

Angola's oil industry has been isolated from the war. But they have not isolated or insulated themselves from corruption or starvation or under-development or repression of their political opposition. And if Angola does not address its problems, Angola is going to end up being a pariah nation too.

The fate of the new producers, Chad, Equatorial Guinea, and Sao Tome, remains uncertain. They are going to have a large ramp-up in oil revenues, and that will pretty soon make these countries immune to any kind of influence, including positive influence. So we have got a window right now to address these issues of transparency and development. If we address them, then I think we have a chance to make progress. If we do not, they will be faced with either coups or unrest or sanctions depending on their behavior. It is a lot more important that the governments of those nations respect their own people than that they supply us with oil, but if we do nothing now, they may fail to do either one.

The threats to each of these nations are different, but poor governance is at the root of all of them. All the oil-producing nations fail to address poverty, fail to address corruption, fail to invest in development, and they have allowed the non-oil sector to atrophy. They have also let national oil companies become so big they are immune to reform. So when we are talking to governments about reform, we are probably talking to the enemy a lot of the time. And as a result, all of our major suppliers are under-performing as producers and face continued instability.

So what should we do? I have given you a longer list in my written testimony, but let me suggest four steps in Latin America and six steps in Africa.

In Latin America, the first thing we have to do is re-engage diplomatically. Latin America has dropped off the diplomatic map other than do you support us on Iraq, and I am trying to think of what the other one is. So the first thing we have to do is start dealing with the region, start dealing with them as countries, and Free Trade of the Americas is the No. 1 critical first step.

The second step, with Mexico, is to revisit the migration agenda. If they are going to help us, we have to help them. This is about giving Mexico the courage, the political courage, to reform. Part of that means letting President Fox succeed at something. A deep friendship with Mexico I think, is more important than a loyalty test over Iraq.

With respect to Venezuela, we need a fresh approach for our Venezuela policy. Today's policy is one I call a policy of wishful thinking. The administration wishes the Chavez regime would go away, but it will not. So as a result, they have pretty much ignored them. I do not think we have an energy policy, positive or negative, other than talking at an expert level to the Venezuelans about how is it going, we hope you get these problems fixed. So there are a number of things I think we can do. We need to engage them. We need to work on improving their electoral institutions, and we need to talk about the serious energy sector problems, and talk to Venezuelans about these problems. I think we need to add a little bit of diplomacy to the relationship.

And fourth, I think we need to deal with energy poverty and other poverty in Latin America, and that is using the international financial institutions to foster development and better governance.

In Africa, the main thing we need to do is use governments to press their governments to be transparent about what they take in and be transparent about what they spend. We cannot do it alone. This has to be multilateral, and I think the G–7 is the vehicle. I think the summit next year is the venue, and I think if the United States steps up to the plate, we can do some good. But we have to create an environment where it is worth it for African governments who are frankly now benefiting from this kind of corruption to want to reform. There has got to be something in it for them. This is why I think we need to think of some new policies.

One is what I call debt for transparency. I think we ought to think about offering debt relief to places like Angola and Nigeria in particular in exchange for enforceable commitments to be transparent about their public finances and if they commit to a verifiable development plan.

We ought to think about infrastructure for development. The World Bank has been moving away from investment in infrastructure. I think it ought to be the carrot. If you want a pipeline, electric power, telecommunications, we will help you get bank financing, but you commit to transparency. You commit to a plan of development.

Conditional trade finance I think is the third one. We did pretty well getting all countries to say there have to be environmental standards in order to finance some of our projects if you want our trade finance. We could apply the same principles to transparency and I think make progress.

We could raise the standards for access to Western banks. We could use the G–8 Financial Action Task Force to say that banks in Nigeria and Angola, correspondent banks, have to declare who the owners are so we can trace where the money goes. And we might think about tagging oil the way we have tagged diamonds to eliminate illicit smuggling in oil.

We could give better policy advice, and one of the things I think we ought to consider is whether the Bank, the Fund, ourselves ought to be encouraging countries—and Bolivia might be one of them—to promise to commit some of their revenues from oil or gas either directly to the people or to put it into pension funds or to put it into education so people trust that the money will go there, so you do not create these governments who frankly have no need for their people because they do not tax them to collect the revenue.

The next thing we could do is practice more assertive diplomacy. All of this is about getting political leaders in the regions to have the political will to change. They care what we think. They care if it is important. Contrary to what the government witnesses told you earlier, energy is never high on the agenda for any serious talk by a Secretary of State unless we are talking to Saudi Arabia or it is Iraq or there is some kind of a war going on. There is just too much other stuff going on. And it is delinked from foreign policy and I think that happens to our detriment. Secretary Powell has actually done great work with Angola on transparency and seen results, but we need to apply it to Sao Tome and we need to apply it to Nigeria, we need to apply it to other places.

Sorry. I have gone on for a long time, but I think we are going to be stuck with relying on hydrocarbons for the next two decades and our national security is going to depend on making sure we have people other than OPEC to rely on and countries other than Saudi Arabia to have excess capacity. This is going to require the practice of diplomacy, so we need to seriously re-engage. We have lots of tools we could use. We are not using them. It is not helping our energy security now, and I think there is clearly more that can be done.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Goldwyn follows:]

PREPARED STATEMENT OF DAVID L. GOLDWYN, PRESIDENT, GOLDWYN INTERNATIONAL STRATEGIES, LLC, WASHINGTON, DC

Mr. Chairman and Members of the Committee, it is an honor to speak with you today about the importance of Latin America and West Africa to US energy security.

Latin America and West Africa are and will remain critical to US energy security. US energy security depends on access to diverse, reliable, abundant and affordable supplies of oil and gas. The oil exporting nations of Latin America and Western and Southern Africa provide 43 percent of US oil imports. They hold 12 percent of global oil reserves and 7.3 percent of global gas reserves. They are far closer to the US market than the Middle East. Most welcome foreign investment. The leaders of these nations are often a threat to their own people, but they do not harbor or finance groups that threaten US interests. The non-OPEC producers in these regions exert counter-pressure on OPEC's monopoly power.

Our key suppliers from these regions are at risk. The risks are that they will either fail to fulfill their production potential or expose the global economy to supply dislocations due to internal unrest, or both. Either scenario increases the volatility of the price of energy, damages the US economy and makes the United States more dependent on Middle East oil.

Our major suppliers in this hemisphere, Venezuela and Mexico, face serious challenges to their development of oil and gas for export. US policy towards these countries today is a combination of benign and malign neglect. Our policies are not advancing our energy security interests. The producing nations of West and Central Africa are poised to significantly increase oil and gas production in the next decade. Our key suppliers there, Nigeria and Angola, have weak governments and corrupt systems, and they face political instability that can impact their ability to supply the US market. They are about to get a lot wealthier very soon, as new deepwater discoveries come to market. The United States and its allies have a chance to help these governments move off the path of corruption and internal destruction, but the chance will not last long. New West African exporters, such as Equatorial Guinea and Sao Tome face a brief window of opportunity to avoid the so-called "curse of oil" if the US exercises the leadership to move them in the right direction.

US policy today does not utilize the leverage we have or the incentives we can provide to meet the challenges we face in this region. This afternoon I will address why Latin America and West Africa matter, why each region's potential to remain a key supplier is at risk and what steps the US can take to address these risks and enhance our energy security.

LATIN AMERICA IS CRITICAL TO US ENERGY SECURITY

Latin America is critical to US energy security. The most important exporters, Venezuela and Mexico, consistently rank in the top four sources of US oil supply. Venezuela averaged 1.37 million barrels per day in 2002; Mexico averaged 1.28 mbpd. Many other countries are significant producers but more modest exporters or net importers. I refer to Brazil, Ecuador, Colombia and Argentina. As the populations of these latter countries grow, the energy they produce will increasingly be consumed internally. The US has two primary energy security interests at stake in the region. One is to maintain and increase hydrocarbons investment in Mexico and Venezuela so they remain significant exporters. The second is to encourage investment in the other oil producing countries in the region so they can help meet their own demand.

In the past two decades US policy in Latin America and elsewhere has been reasonably successful in fostering diversity of supply by encouraging open markets, liberalized trade regimes, privatization or commercialization of national oil and power companies and decontrol of energy prices. The so-called Washington Consensus has led to major deregulation of power and downstream markets, a welcoming environment for investment in natural gas, and in the case of Brazil's offshore, and more recently Colombia, better terms for foreign investment in the upstream oil sector as well. US and other international oil companies have billions invested in Venezuela, Colombia, Argentina and Ecuador. Unlike Mexico, each of these countries welcomes foreign investment in their upstream sector. Power markets, gas markets and downstream crude oil product markets are being deregulated across the region. US offshore drilling technology and an investment-friendly regime have made deepwater Brazil a major source of international exploration activity in recent years. Latin America is also critical to the US electric power sector, as an important supplier of liquefied natural gas (LNG). Trinidad and Tobago is the top LNG exporter, with Venezuela poised to increase its production as well. The countries of the region are also among our most reliable suppliers. None participated in the Arab oil embargo of 1973-74. Venezuela is a founding member of OPEC, but has never used oil as a political weapon.

If we look to the future, we are going to need Latin America to maintain some diversity of supply. South and Central America possess approximately 9.1% of the world's proven oil supplies, with 6.4% in Venezuela alone. Mexico holds another 1.04% of proven oil reserves. In aggregate that is more than Africa (7.3%) or the former Soviet Union (6.2%). The region is also a major refining center, with nearly 8% of the world's refining capacity. The region's proximity to US markets makes Latin American oil and products easy to access in a crisis. Regional refineries are designed to serve the specialized needs of US markets. In the future, Latin American nations could be a reliable source of natural gas for the US market. This will depend on whether plans to create new pipelines to bring stranded gas to market and projects to develop LNG gasification plants come to fruition.

From a US energy security or national security perspective, the policy objectives should be quite clear: maintain stable democratic governments, strengthen partnerships with key suppliers, and support the rule of law, including contract sanctity and the preservation of a secure investment climate. Regrettably, many countries in the region are suspicious of the benefits of the Washington Consensus. They have not rejected market solutions, but the appetite for further deregulation has waned. Many of the regions' economies have degraded seriously and the climate for investment has suffered as a consequence. The ability of our suppliers to sustain their roles as partners in energy security is at risk. US policy today is to ignore these countries and hope for better leadership. It is not working. For the sake of our energy security, as well as the fate of the people of the region, this policy needs to change.

A REGION IN CRISIS

The hemisphere has undergone a period of economic and political crisis in the past few years. The majority of the reasons are internal to these countries. Persistent corruption, economic mismanagement and under-development have put the region's governments under heavy pressure. Per capita income in the region has shrunk for two years in a row. Unemployment is up. The Washington Consensus of open markets, liberalized trade regimes and democracy has not produced prosperity or security. Poverty has not been reduced. Income distribution has not improved. Populist regimes have taken power in Venezuela, Brazil, Ecuador and Peru. All of the oil producing countries have avoided serious economic reform thanks to record high oil prices. With prices widely predicted to decline to $25 WTI levels or lower in the next year, financial pressure will only increase on regional governments.

In the past two years, Argentina has endured a collapse of its economy, taking Uruguay and Paraguay down with it. Mexico remains deadlocked over the desirability of foreign investment, particularly in the energy sector, while it imports gas from the US and risks a power shortage that could undermine its modest economic growth. As a nation Mexico is deindustrializing; it lacks the energy to compete for manufacturing with other developing countries. Mexico's proven reserves declined in 2002, but even a historic new allocation to PEMEX for exploration and production is only likely to help Mexico maintain its production levels or grow them slightly. Under-funding and underinvestment remain persistent problems in Mexico's hydrocarbons and power sector. The victory of the PRI in Mexico's midterm elections only complicated the chance for President Fox and minority PAN supporters to effect legislative reforms in the energy sector. The prevalence of currency controls and political uncertainty has slowed investment in Venezuela, Ecuador and Argentina. Security concerns, and until recently uncompetitive economic terms, have slowed investment in Colombia to the point where it may become a net oil importer.

Venezuela has the most fragile government in the region. Despite enormous oil wealth, poverty and income inequality have grown dramatically in Venezuela. In 1998 President Chavez won a populist victory that was in large part a rejection of the ruling elite's failure to address poverty. Before President Chavez, Venezuela was a country with weak civil institutions. Only the military and the national oil company had strong professional cadres committed to the long-term development of the country. We have seen a deep erosion of those institutions. The first erosion was from new constitutional reforms that did not provide adequate protection of minority rights. The second was by the militarization and politicization of the government civil service and of the national oil company, PDVSA. The third erosion was by a clumsy coup attempt, foolishly applauded by the US, and by a general strike that brought the country's economy to its knees. Without a doubt the single greatest factor in high world oil prices this January and tight gasoline markets in the US this winter was the strike in Venezuela, not the threat of war in Iraq.

Today the strike in Venezuela is over, the country has outperformed most industry expectations of its ability to restore crude oil and product exports, and US companies have resumed investments in both offshore and heavy oil production. But much uncertainty remains. Venezuela's new hydrocarbons law, which allows PDVSA a majority share in any new oil development, is about to be tested. With so many competing sources for revenue in Venezuela, it remains to be seen if PDVSA will have the capital to invest to stop the decline in Venezuelan oil reserves. Industry experts are skeptical about PDVSA's plans to grow its exports, both because of OPEC quotas, and questions about PDVSA's post-strike managerial capability and capital needs. If Venezuela does not invest and grow, its economy will be further damaged and its role as a long-term supplier to the US could be impaired. Venezuela's energy leaders, including PDVSA President Ali Rodriguez and Energy Minister Ramirez, are campaigning hard to prove that Venezuela will remain a reliable supplier.

Apart from the fate of its energy sector, Venezuela's economic and social crises continue. A campaign for a recall referendum is likely to begin this fall, but there are numerous legal and technical obstacles that make a referendum resulting in a change of leadership unlikely. The failure of the opposition to stage a referendum by next April could accelerate the polarization of the conflict in Venezuela Reconciliation efforts by the OAS and the Friends of Venezuela appear stalled. The situation cries out for diplomatic attention.

US POLICY

US policy towards the region has been a combination of benign and malign neglect. We have ignored the region in most cases, opposed IMF help to Argentina when it began its slide into crisis, and hammered Chile and Mexico when they did not toe the US line in UN fora. Most importantly, the US response to the April 2002 coup attempt in Venezuela was an unmitigated diplomatic fiasco. Our credibility in the region was severely damaged, and our ability to play a constructive role in fostering reconciliation in Venezuela, perhaps the most important issue in the region today, was deeply impaired.

For a time, it was understandable that hemispheric relations would take a back seat to the tragedy of September 11. But since that time, other than the counterterrorism efforts in Colombia, Latin America has dropped off the diplomatic map. Our partners in the region often accuse the US of being fickle or inconstant, only interested episodically in partnership when it comes to issues external to the region: opposition to communism, opposition to Castro or opposition to Iraq. It should be axiomatic that to secure true allies, and engage countries on security, economic, social and political issues, you must treat them with respect and engage them on the merits of the bilateral relationship.

Today this is not the case. Imperiousness goes down uniquely poorly in Latin America and they are getting a heavy dose. Regional cooperation on counter-narcotics and trade, acceptance of IMF restructuring programs, and historic support for US efforts in Haiti, Bosnia and Kosovo seem to count for naught. The President of Mexico is snubbed for insufficient loyalty. Brazil is held at a respectful distance. And, Argentina was left to twist in the economic wind.

All this is bad for US diplomacy and worse for energy security. To keep markets open for trade and investment, the US must engage when regional economies drop into crisis. To foster reform in countries with inefficient state-owned industries, the White House and State Department must engage our partners at senior levels. Noble efforts by technical agencies, such as Energy and Commerce, are laudable. But true reform takes high-level engagement. US companies, customarily the partners of choice for the hemisphere's producers, could be harmed if the countries of the hemisphere believe they must look to Europe or elsewhere for respect and support.

WHAT THE US SHOULD DO

US relations in the hemisphere are at low ebb, but they can recover quickly. For better or worse, US power and influence are indispensable to conflict resolution in the region. Our hemispheric partners will welcome a new page in our relations. I suggest four steps.

First, the US must reengage on hemispheric issues. Strong support for the Free Trade Agreement of the Americas is the critical first step.

Second, the US must revisit the migration agenda with Mexico. The US has a powerful interest in ensuring that President Fox and his reform agenda succeed. US interests in Mexico, and our deep friendship, transcend a loyalty test over Iraq. Mexico's ability to create jobs for its citizens, to grow a diverse industry and to sustain its role as a key energy supplier to the US depends on the success of its economic reform.

Third, the US must take a fresh approach to its Venezuela policy. Today's policy is one of wishful thinking. The Administration wishes the Chavez regime would just go away, but it is here to stay. To the region, it appears that regime change is our policy in Venezuela as well as the Middle East. The US cannot facilitate reconciliation by isolating or ignoring the regime in power. Venezuela needs support for civil society and reconciliation. The Administration should engage Venezuela at a high political level to talk seriously about our common concerns and disagreements. The US Congress should engage Venezuela's legislature directly and offer the support of the National Democratic Institute and International Republican Institute to strengthen Venezuela's frail electoral institutions. The US Energy and Commerce Departments should intensify and accelerate their expert level talks and resume their Strategic Dialogue to talk frankly and in detail about the problems that must be overcome and the solutions that can be brought to bear. There is a need for training, for much better and more current data on crude and product supplies, and for cooperative research. We have a common interest in restoring and expanding production and in helping revive PDVSA.

The US needs to engage Venezuela's neighbors in a collective effort to build a process that will enable all sectors of society to participate in political life. Through the IMF and World Bank, the US and its partners need to provide clear and direct economic advice and assistance to Venezuela to restore its fiscal house to order.

Fourth, the US must craft a way to use the leverage of the IMF, the World Bank and the Inter-American Development Bank to foster energy security and better governance. These institutions must use their support for energy sector reform and investment in the infrastructure of oil, gas and power to elicit more transparency in how those governments spend the revenue they earn. The US will directly benefit from the development of an integrated regional gas and power infrastructure. An external push is needed to finish, or in some cases start, the process of energy sector reform. An infrastructure fund tied to conditions of transparency and fiscal integrity could kick-start growth in the region again.

WEST AFRICA IS CRITICAL TO US ENERGY SECURITY

West and Central Africa are increasingly important to US energy security. In this case I am speaking about Nigeria, Angola, Chad, Equatorial Guinea, Gabon, Sao Tome and Principe and the Gambia. Today these countries supply 13-14% of US oil imports. Sub-Saharan Africa holds approximately 3 percent of the world's oil reserves, and 3 percent of the world's natural gas reserves. In ten years they could supply up to 25% of our imported oil. Nigeria produces 2.12 million bid and exports 1.85 million bid. It exports 621,000 b/d to the US which makes it our fifth largest supplier. Angola produces 900,000 b/d and exports 866,000 b/d. It exports 332,000 b/d to the US which makes Angola our ninth largest supplier, and our third largest non-OPEC supplier outside of the Western Hemisphere. According to EIA estimates, this year Cameroon, Chad, Equatorial Guinea and Gabon are projected to export approximately 500,000 b/d in aggregate, with 221,000 b/d going to the US.

These countries will not replace Middle East oil, but that is beside the point. The marginal barrels of oil set the price, and the ability of these mostly non-OPEC countries to compete with OPEC, when all of them are half the hauling distance to the US of the Middle East, is indispensable. The countries of West Africa are open to foreign investment and have offered competitive commercial terms and a relatively stable investment climate, despite enormous internal turmoil.

West Africa is one of the honest oil prospects in the world today. Advanced offshore finding and drilling technologies have uncovered large commercial oil deposits off Nigeria, Angola, Equatorial Guinea and perhaps Sao Tome and the Gambia. The use of Floating Production, Storage and Offloading platforms (FPSOs) has reduced the environmental footprint of drilling and reduced production costs. Offshore oil is also less risky and therefore more attractive.

As in Latin America, US energy security policy objectives should be to maintain stable governments and open markets, strengthen partnerships with key suppliers, and promote the rule of law and contract sanctity. But unlike Latin America, energy security will require that the US and others promote political development in West and Central Africa. Only Nigeria is a true democracy and it is riven by civil unrest. The rest of the exporters are at a rudimentary stage of political development. Internal unrest is a serious threat to the ability of these nations to maintain investment and exports.

US policy in this area is headed in the right direction, but at present is insufficient to accomplish its aims.

A REGION IN CRISIS AND TRANSITION

Effective management of oil revenues is the most important factor in Africa's economic development, bar none. Africa attracts only one percent of the world's trade and investment, but 90% of that amount is in the oil sector. West African oil producers have the chance to use the rapid increase in wealth they will soon earn for development. It is in US interests to see that they do. If they fail, as all of their resource-rich predecessor governments in Africa (other than Botswana) have failed, we will see civil unrest or war, strikes, and dislocation, as well as poverty, death and economic degradation. Today, oil prices are high and revenues are good. Foreign investment is flooding into the energy sector to develop strong exploration prospects. Nigeria has had a historic democratic succession. Angola has welcomed a limited, but important, audit of some of its oil revenue and has just completed a very positive Article IV consultation with the IMF. Chad will see the first oil from the Chad-Cameroon pipeline this year, and the World Bank supervised system for monitoring Chad's oil revenues and ensuring that they are spent on development may prove to be a model for other countries in channeling oil revenue into development Equatorial Guinea, Sao Tome and others are welcoming and receiving engagement with the US on human rights and development issues.

But our major exporters are at risk. Nigeria's unrest in the Delta region is unresolved. Foreign workers have been held hostage for weeks at a time. Sabotage of oil pipelines has killed hundreds of Nigerians. A major strike in March knocked 800,000 barrels of oil per day off the market, adding pressure to already high oil prices. Production was shut down for months for security reasons; it is not fully back even today. Labor unions, accurately foreseeing the reduction in personnel needed to maintain offshore oil operations, are also threatening to shut down operations. Furthermore, the organized theft of 100,000 to 200,000 barrels per day in the Niger Delta, reportedly involving armed militias and criminal groups that use some of the proceeds to acquire weapons, is an indication that oil mismanagement can threaten regional stability. The Nigerian government has no credible plan at this time to foster development and reconciliation in that troubled region. Oil interruptions from Nigeria are likely to continue or worsen unless these issues are addressed.

Angola has enjoyed the benefit of an isolated oil-producing region and has insulated production from civil war. Angola has not insulated itself from corruption, starvation, underdevelopment, and repression of political opposition. The Angolan government may indeed be willing to tackle these problems, but it is unclear if they will be able to. If Angola fails, and if it remains a nation that ranks 161 out of 173 on the Human Development Index, Angola could well turn itself into a pariah nation.

Sao Tome, while not yet a producer, saw a coup attempt against its President—only weeks after he had followed Secretary Powell to the stage of the Corporate Council on Africa Summit, espousing the need for transparency in the use of potential oil revenues.

The new producers, Equatorial Guinea, Chad and Sao Tome in particular, are about to face a choice. They will soon begin to see large revenues from the investments in their nations. Their governments may invest in their people, develop their nations, and earn the trust and recognition and support of the West, or they may follow the path that Nigeria and Angola have followed, and earn the same opprobrium.

Today the US can have a major influence on these nations. We are major investors and consumers. Nigeria and Angola have large external debts that are leverage for US policy. US influence at the IMF and World Bank can be wielded to ensure that these nations are democratic and stable. But the window of opportunity is short China is the fastest growing purchaser of Angolan oil. China will not use its economic leverage to push for democratic reform and transparency. A large ramp-up in oil revenues could make many of these producers immune to positive influence. A forceful US policy with multilateral support is essential. If we fail, these states can be faced with war, coups, or sanctions or other pressures that could threaten their ability to supply the world market. It is more important that they respect their own people than that they supply us with oil. But if we do not act, they may not do either.

US POLICY

After September 11, 2001, West Africa became a priority because regional instability, failed states and maritime security were viewed as a potential security threat. US policy in Africa is headed in the right direction. The State Department is focused on the key anchor states. It is maximizing the use of subregional organization like ECOWAS and SADC. It is focused on combating AIDS and promoting stability and good governance. The pursuit of an AGOA II will be a major positive step.

After an initial period where the Administration suspended any bilateral or multilateral diplomatic efforts they inherited, the Administration has retained the US-Africa Energy Ministers process created when I was at the Energy Department, renewed the bilateral energy dialogs with Angola and Nigeria, and engaged rather than isolated Equatorial Guinea and committed to open a Special Embassy Post there this year. Technical assistance programs by the US Department of Energy, the US Trade and Development Agency, the Department of Commerce and USAID are helping build capacity in these fragile states. The Millennium Challenge Account is an innovative concept which, when it is funded and ready to disburse funds, may magnetize good behavior.

But despite these efforts, the US has not yet wielded the leverage or the leadership to crack the so-called "curse of oil." In Nigeria and Angola in particular, oil has created "rentier" states. Many scholars have written extensively about this issue. The newly published study by Catholic Relief Services, titled "Bottom of the Barrel," provides a very useful synthesis of the literature on the problems oil wealth can produce and some creative ideas about how to redress them. The governments of Angola and Nigeria get their revenues from their share of oil proceeds and not from the taxation of their citizens. They do not need the consent of the governed to stay in power. The revenue is easy to capture and control and therefore to steal or to waste. Even leaders with honest intentions, such as President Obasanjo, have little influence over a deep and pervasive corrupt system that extends to the customs officers and drivers of delivery vehicles.

WHAT THE US SHOULD DO

To ensure that the West African energy producers of today are reliable, stable energy producers of tomorrow, US policy must be geared to encourage or to pressure producing governments to spend the money they earn on their people, to do so wisely, and to conduct their own public finances in a transparent manner. The key steps are: 1) enhance revenue and expenditure transparency, 2) provide more creative economic policy advice, 3) use our leverage, and 4) exercise more assertive diplomacy.

Enhance Transparency. It is broadly accepted that making public the aggregate amount of taxes, royalties and other payments earned by producing governments, and accounting for where the money is spent would empower their publics to demand accountability. The debate has largely been over who bears the burden of disclosure and how best to ensure that all the entities that compete for oil development—such as national oil companies and state owned enterprises—must meet the same burden. The UK-led Extractive Industries Transparency Initiative (EITI) proposes a voluntary system. The Publish What You Pay Campaign proposes mandatory rules for publicly listed companies, which regrettably would not cover the bulk of the world's oil producers. I believe that the burden must fall on the producing governments, and that Western governments should use their considerable leverage to extract disclosure and transparency commitments from producing governments. As long as the playing field is level, and aggregate industry wide figures are published, US industry is unlikely to object to revenue disclosure. In most countries companies would like nothing better than for the public to know how much revenue the government is taking in, so that the burden of nation-building would rest more with national authorities and less on the local operators. The US should lead a G-7 effort to create a new set of incentives and pressures on developing nation oil producers to disclose the revenues they earn and how they spend them.

Give Better Policy Advice. The US needs to consider whether we can give oil producers better economic advice than we have to date on how to manage revenues. We need to say more than "open your markets, deregulate your prices and introduce competition" if we want to produce real economic development in Nigeria, Angola and other nations. The Chad-Cameroon example of creating a college of leaders to supervise a national development may work, but in the end it relies on the good graces of a state that may or may not respect the rule of law. There is new thinking by the IMF and the New America Foundation on the benefits of distributing some large portion of oil revenues directly to a population. The theory holds that this method empowers people, creates economic demand and undercuts the power of the state by forcing them to seek money through taxation and the consent of the governed. It is a theory that is being considered for Iraq. It is possible that the IMF and World Bank should be advising Nigeria and Angola to consider this mechanism as a means of enhancing both economic and political development. I would urge Congress to commission some serious analysis of its own on this issue.

Use Our Leverage. The key sources of leverage over oil producing nations today are: 1) renegotiation of sovereign debt, 2) help financing energy infrastructure, 3) access to trade financing, and 4) access to Western banks and capital markets. The US should muster the G-7 to lead a coalition to use this leverage to "extract" transparency and development commitments from oil producers.

Debt for transparency. The greatest source of influence that the West has over Nigeria and Angola is their sovereign debt. The US should consider a G-7 initiative to forgive the debt of developing oil producers that make enforceable commitments to publish the aggregate amounts of their tax, royalty and other resource payments and public expenditures, to commit to a plan of development, and to accept IMF monitoring of their commitments. Such an offer might offend the sovereign sensibilities of many nations, but it would create a domestic debate in those nations over the costs and benefits of transparency.

Infrastructure for Development. A second great need of African nations is for electric power and telecommunications. Many of these projects can be financed commercially, but most must be publicly financed. The World Bank has been reluctant to make a strong commitment to infrastructure finance for fear of interfering with private markets. They also rightly insist on policy reform before they are willing to invest in project finance. But a new fund, with new capital contributions by the Bank's members, could provide a magnet for financing infrastructure for those nations willing to make a commitment to development and transparency. The Chad-Cameroon pipeline is an example of how this may work, but Chad-Cameroon was a unique case: the oil was landlocked, Exxon-Mobil refused to finance the pipeline without World Bank support, and Chad was not wealthy enough to publicly finance the project on its own. But a fund that would help finance infrastructure along with private capital could incentivize countries to swap transparency for development.

Conditional Trade Finance. The US, the World Bank and others have made great strides on conditioning trade finance on enforcement of environmental standards. The need for impact statements and remediation plans has changed some projects for the better and stopped others altogether. A G-7 effort to have all G-7 nations condition trade finance on some commitments to transparency and use of revenues could be a powerful tool to press developing nations to adopt honest practices.

Raise the Standards for Access to Western Banks. One new concept, well documented by Jonathan Winer, a former State Department colleague of mine, bears examination. This is a proposal to use the successful G-8 Financial Action Task Force (FATF) to create new standards for access to Western banks and to mimic the Kimberly Process for deterring trade in conflict diamonds to deter illegal trade in oil. In briefest summary, the proposal would beto require national banks in countries like Nigeria and Angola to disclose their ownership and document the validity of their transactions before they gain access to correspondent Western banks. This would deny capital access to illegitimate banks and track outflows from governments known for corruption. A second proposal would "tag" oil sales to ensure that all legitimate sales were traceable to their owner. This would not harm legitimate

Western operators or national oil companies, but could help deter those in or out of government who divert the proceeds of oil sales for their own benefit.

More Assertive Diplomacy. Achieving better governance in Africa depends on the leaders of African countries having the political will to change. They care a great deal about how the US and others perceive them and whether their behavior has political price. US high level diplomacy is a powerful tool we must exercise. With Angola, Secretary Powell has put transparency high on the agenda and he is getting results. We have many interests in Nigeria and their internal problems and the issue of their relations with their neighbors is not making it to the top of the agenda. The US must also be willing to step in with forceful diplomacy when internal forces threaten democratic African oil states. The US rhetorical response to the recent coup attempt in Sao Tome was strong and helpful, but in the aftermath US and UK leadership have been absent. The coup attempt was an effort by those in the military and external forces to allocate the proceeds Sao Tome may earn from its 40% share in the Joint Development Zone with Nigeria President Obasanjo's offer to "protect" Sao Tome was as unwelcome as it was unwise. Wedged between those in Nigeria and Angola who would compete for control of its oil, Sao Tome cries out for a US or UK commitment to preserve its independence! The US should put a USAID mission on the ground in Sao Tome, help Sao Tome build the capacity to manage its potential wealth, and warn its neighbors not to interfere. Sao Tome could be a prime case for the EITI. The US could lead an effort to get Sao Tome to pledge its signing bonuses and future revenues to the World Bank in exchange for a line of credit for development today.

CONCLUSION

The global economy is likely to rely on hydrocarbons for transportation fuel and power for at least the next two decades. Our national security will depend on securing diverse supplies of oil and gas and on ensuring that the governments who supply us do not use our money to harm us. As a bilateral matter this will require serious diplomatic engagement with our key suppliers and concern about their political stability. Where we can, we need to use our leverage to encourage better governance in oil producing nations so they will be stable and humane. We have many tools we can use. We are neglecting these tools, and basic tenets of diplomacy, to our detriment. A little Congressional sunshine on these issues may help the Administration to see the light. I commend you for your efforts here today.

Senator HAGEL. Mr. Goldwyn, thank you.

Dr. Ottaway, welcome. Nice to have you. Let me remind everyone who you are: senior associate, Carnegie Endowment for International Peace here in Washington, among other achievements. We are glad you are here and we look forward to your testimony.

STATEMENT OF DR. MARINA OTTAWAY, SENIOR ASSOCIATE, DEMOCRACY AND RULE OF LAW PROJECT, CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, WASHINGTON, DC

Dr. OTTAWAY. Thank you, Mr. Chairman. Being the last speaker, I will try to avoid repeating what other people have said, and I will depart somewhat from my prepared remarks.

I think there is widespread agreement among the witnesses that the main threat to energy security in both Latin America and in West Africa is really the problem of political instability. I would like to point out that the instability that threatens our oil supply takes two forms.

One is the instability that directly affects the oil fields. For example, we see that in West Africa very clearly in the case of Nigeria where the entire oil-producing area of the delta is a bubbling caldron at this point with almost daily incidents that affect oil production.

But there is perhaps an even more insidious kind of instability that affects all oil-producing countries which is the potential for instability that comes from the misuse of oil revenue and from the tremendous income inequalities that develop in these countries. If you look at the case of Venezuela, that is a good reminder of it. The problem there is not that the oil fields themselves are threatened, but it is the overall political situation that has developed in the country that affects the supply of oil.

When you look at West Africa I do not think we should be complacent to think that, because in Angola the oil fields are mostly offshore, instability is not going to be a problem that affects oil supplies. The oil fields are not going to be threatened. They are too far offshore. We are unlikely to see any real problem. That is why Angola was capable of greatly increasing oil production during a war. But if the political situation in Angola itself becomes unstable, if the resentment of the population about the misuse of oil revenue increases, which is very likely to happen now that the war is over and people are going to focus more on that kind of issue, then I think the supplies from Angola can also be threatened. So I think it is important to keep this in consideration.

The second point that I would like to make is that while certainly the United States is committed to promoting democracy and transparency in these countries, the conflicting interests of the United States sometimes lead to the implementation of policies that clearly are not very helpful in terms of promoting democracy and transparency. Let me give you one example of that.

One problem that we have particularly in Nigeria now that the United States wants two very different things from Nigeria. The United States wants oil supplies and the United States wants Nigeria to play a major role as a peacekeeper in West Africa. I think they are both important goals, and it is quite understandable that the U.S. Government would want them both. But the two work at cross purposes with each other because one of the tendencies that we have right now, because we need Nigeria to help in Liberia, to help in other unstable countries in West Africa, is not perhaps to put sufficient pressure on President Obasanjo on the domestic political reforms that are badly needed in the country. In a sense, it is very difficult to rely on a country to help police the region and at the same time to slap him on the wrist too often on issues of domestic governance. There is a built-in conflict here that we need to sort out.

There are other policies that we are trying to promote in Nigeria and promote in the entire region, as a matter of fact, which can work at cross purposes to our goal of reducing corruption and improving transparency. In the name of democracy, we have been promoting decentralization in Nigeria, for example, and I am sure we do the same thing in Angola now that the war is over. I do not want to sound as if I were defending centralization because there are big problems with that too. But one of the unexpected consequences or unwanted consequences of decentralization in Nigeria has been the decentralization of corruption so that instead of having very corrupt management of oil revenue at the level of the Federal Government, now you also have the problem of a very corrupt management of oil revenue at the level of the 36 state governments.

So essentially this is an issue that requires more rethinking about how we can both promote decentralization and at the same time try to combat the problems that arise when governments are not sufficiently monitored and when there are not sufficient checks and balances. I would argue that the policy of decentralization has really not been very helpful in the case of Nigeria, and that is a policy which is supported by the United States and by the international financial institutions. So, again, there are conflicts in what we are doing.

There is certainly need to think seriously about what can be done by the United States, by again the international financial institutions, other countries to improve the management of oil revenue by particularly African countries, but all developing countries essentially. I would caution about jumping to conclusion too quickly about the fact that we know what the solution is. I hear too much about the Chad model because the Chad model, while it sounds fairly promising on paper, is still untested. We really will not know how the Chad model works until oil production in Chad is fully on stream and there is more of a track record of whether these organizations that have been set up, whether the participation by NGOs, both domestic and international, is really improving the management of oil revenue or it is not.

I also hear a lot about following more the example of Alaska, trying to distribute part of the oil revenue directly to citizens. Again, I think the countries have to be studied one by one in terms of what would work in the particular situation. There are many such countries in Africa totally dependent on oil—Chad is certainly going to be one of them; Angola is another one. And even Nigeria, which has in many ways a more diversified economy, falls in that category—where the government has virtually no revenue except what comes from oil. Under those circumstances, it is difficult to distribute oil money to citizens. Oil revenues are really not quite sufficient even to pay for the basic tasks of government. So I do not think one can jump to conclusions that the solution for these countries is to distribute part of the oil revenue directly to citizens. I think the cases have to be considered one by one.

The last point that I would like to make concerning transparency is the fact that in many of these countries there is a role that the oil companies can play and have to play in many ways in promoting transparency, and not in the sense that I think it is the role of the oil companies to reform these governments, but that the oil companies are in a position to provide information about how much money is being paid to these governments, and just having those figures would help tremendously the domestic process of monitoring how the money is being spent and is being allocated. So I think, unfortunately, whether or not they like it—and I know this is an extremely sensitive issue on which there has been a lot of resistance—the oil companies may have to step up their efforts in this area of helping make available the information on which then efforts to promote transparency of the governments can be based.

Thank you.

[The prepared statement of Dr. Ottaway follows:]

PREPARED STATEMENT OF MARINA OTTAWAY, SENIOR ASSOCIATE, DEMOCRACY AND RULE OF LAW PROJECT, CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, WASHINGTON, DC

SECURING OIL FROM WEST AFRICA AND LATIN AMERICA: THE CHALLENGE OF INTERNAL TURMOIL

A key factor in protecting United States energy security is gaining and maintaining access to diversified sources of oil and gas from different regions in order to minimize the likelihood of severe disruption. West Africa and Latin America are already important sources of diversity in the US oil supply. In particular, Venezuela accounted for over 13 percent of US imports of crude oil in 2002, while Nigeria and Angola accounted for 6.4 percent and 3.5 percent respectively. Furthermore, oil exploration and development of extractive capacity in West Africa are increasing rapidly. Angola's production alone is expected to increase from an average of 696,000 barrels per day in 2001 to over a million barrels per day in the next few years and it could go as high as 3.2 million by 2020, according to some estimates.

US continued access to these important sources of oil, however, is threatened by the political instability that affects all three countries. Oil supplies from Nigeria are routinely disrupted by politically motivated incidents that close down pipelines and, more rarely, production facilities. In December 2002 a general strike sent Venezuela's exports plummeting.

The problems of oil producing developing countries are related at least in part to the negative impact of oil exploitation. Some analysts have talked about the "curse of oil" that afflicts countries where oil is the major, often the only, asset and thus dominates the economy. These countries suffer from a typical set of problems. Other economic sectors, including agriculture and manufacturing, are usually neglected; unemployment levels are high as a result, and the oil industry, which is capital intensive, does little to alleviate the problem; and income disparities tend to be very wide, as a privileged few profit from the oil revenue, often through corruption, while the rest of the country stagnates. Even more serious are the political problems associated with oil wealth in poor countries. The first is corruption, an endemic problem when large amounts of revenue start pouring suddenly into countries with weak institutions and systems of accountability. Indeed, a lot of the oil revenue of countries like Nigeria and Angola has never been accounted for, disappearing in the hands of politicians and their cronies without ever appearing in the state books. Finally, the population of oil producing countries often develops a sense of entitlement to wealth—if the country is rich in oil, the population should also be rich. The expectation that oil revenue can take care of all problems is usually unrealistic, particularly in countries with a large population.

The distortions created by oil revenue are not the only cause of the problems that produce instability in countries such as Nigeria, Angola and Venezuela, but they are an important part of it. As a result, these countries cannot achieve stability without addressing the problem of how oil revenue is used and accounted for. If the United States wants to secure undisrupted access to oil from these countries, it must help them find a more transparent and more beneficial way to use oil revenue. Oil companies also have to play a role. While in recent years oil companies have become much more aware of the disruption their presence causes and have taken some steps, many problems persist and need to be addressed.

Nigeria and Angola

Both Nigeria and Angola are deeply troubled countries. Political problems have proven, and continue to prove, extremely disruptive to oil production in Nigeria. In Angola, the oil industry has been somewhat insulated from the civil war that raged in that country since it attained independence in 1975 because most oil deposits are off-shore. Indeed, Angola became an important oil producer in the midst of war. After the death of UNITA leader Jonas Savimbi in early 2002, the war has largely ended and the country is struggling toward stability. Paradoxically, oil may well become a new source of domestic strife, as Angolans turn their attention from wartime survival to the present socio-economic problems and discover how much of the oil revenue has been misused or, worse, has disappeared without a trace.

With or without oil, Nigeria would be a very troubled, difficult to govern country, but oil has created additional complications. At the root of all problems is the extreme ethnic diversity of the country. There are over three hundred ethnic groups, but most importantly three dominant blocs. Northerners have historically dominated the military, the Yorubas from the west have been prominent in the business sector, and Ibos from the east have provided disproportionate numbers to the civil service and business. The tensions among the three major blocs exploded in the civil war of 1967-69, which started when the Ibos of the eastern region seceded from Nigeria and set up their own state of Biafra. Biafra was eventually defeated and Nigeria was reunited, but the underlying problem of achieving stability in such diverse country remains.

In fact, the political picture has become even more complicated recently. The division between Muslims, that dominate the north, and Christians, more numerous in the rest of the country, has become politicized, as Muslims in Nigeria follow the worldwide trend toward greater assertiveness. Several northern states have recently incorporated aspects of the Islamic sharia into their legal systems. Another very important source of tension is the increasing militancy of the population of the oil producing Niger Delta. This population, composed of many small ethnic groups, has long paid the price of oil exploitation, losing land and suffering from the consequences of high levels of air and water pollution. However, very little of the oil revenue has been invested to alleviate its problems. Until recently, all oil revenue has gone to the federal government, which doled it out to states and localities. Oil producing areas, which have little political clout, were short-changed. While the distribution of oil revenue has become much more equitable in the last few years under President Obasanjo and control has been decentralized, many militant ethnic-based organizations continue to operate throughout the delta. These groups cause considerable disruption of oil production by sabotaging pipelines and occasionally even taking over oil platforms. To their activities must be added the problems caused by "entrepreneurs" who tap into the pipeline to siphon off and resell oil. This highly dangerous business has repeatedly caused fires and explosions, killing or seriously injuring hundreds and forcing the temporary shut-down of pipelines.

An additional source of instability in Nigeria is the ever-present threat that the military, which has governed the country through most of its existence, will seek to seize power again. Nigeria's return to civilian government with the election of 1999 remains fragile and a renewal of military rule is a possibility. The new government has taken some steps to address the country's economic and social problems, particularly in the Niger Delta, but the challenges are immense and popular confidence in the government is low.

Even this abbreviated sketch should make it clear that many of Nigeria's problems are not caused by the misuse of its oil riches, and would not go away completely even if oil revenue was used better and more equitably and if oil companies implemented more effective remedies for the ills their operations produce. But whether oil is the cause or not, Nigeria's problems can disrupt oil flows and cannot be ignored.

The Angola situation is somewhat less complicated. Although the country has experienced almost thirty years of civil war, the conflict was a bilateral one between the ruling MPLA and the insurgent UNITA, and did not have the intricacy of Nigeria's multiple layers of conflicts. Furthermore, it did not seriously affect the growth of the oil industry because fields are located mostly off-shore. The civil war ended after the death of Unita's leader Jonas Savimbi in February 2002. Angola is moving toward elections and there is a real possibility that elections results will be respected, rather than precipitating a new conflict as they did in 1992. This does not mean that Angola will soon be a democratic country. Elections are unlikely to be truly free and fair, given UNITA's present weakness, the MPLA's strong grip over the country and the oil revenue, and the virtual absence of any other viable political party. But elections will at least be a step in the right direction.

With the return of peace, however, the enormity of the socio-economic problems the country faces is becoming more evident and it is more urgent to address them, lest they become source of new conflicts. Many of these problems are related to oil and the misuse of oil revenue. Thus, oil production in the future will be at the center of political conflict in Angola, while during the civil war it was not. The first problem that needs addressing urgently is the fact that the country's economy is dead, except for the oil sector. This is the result of war—agriculture has been completely undermined by the fighting and above all by mines both sides planted in large numbers, making it impossible for peasants to tend their fields in many areas. Furthermore, the urban economy was initially choked by the government's socialist policies, which put all enterprises under state control. While those policies have now been abandoned, the pace of economic restructuring has been painfully slow and stagnation continues. Unless the economy revives and creates jobs, the cities will become unstable. Economic revival depends on restructuring and investing oil revenue in the development of economic sectors that can become viable on their own after the start up period. Unfortunately, many oil-producing countries succumb to the temptation to use oil revenue to subsidize consumption or invest in enterprises that seem prestigious but never become viable.

The second problem Angola needs to tackle immediately is that of establishing accountability for oil revenue. Oil royalties so far have been spent financing war and lining the pocket of government officials. Large amounts have never been accounted for—for example, increase in oil prices during the Gulf war were never reflected in the Angolan official oil revenue figures.

Failure to address these problems is likely to create further instability in Angola. This could affect oil production. While the oil installations are not particularly vulnerable to sabotage because of their off-shore location, sabotage of installations is not the only form disruption of oil production can take. The strikes of December 2002 and early 2003 in Venezuela, discussed briefly below, show that political action, particularly strikes, can have a dramatic effect on oil production. An additional problem in Angola is that one of the major oil producing areas is the Cabinda enclave, where an independence movement has been operating persistently, although without much success, since Angola became independent.

VENEZUELA

The problems experienced by the oil industry in Venezuela, when a politically motivated strike beginning in December 2002 cut oil production from over 3 million + barrels a day to under 400,000 a day, are a reminder that oil supplies can easily be disrupted by political unrest. Equally importantly, the crisis that led to the strikes, which is far from resolved, shows the economic and ultimately political problems that can emerge in a country overly dependent on oil revenue.

Venezuela, for forty years considered to be the most democratic and stable country in Latin America, has been in turmoil for over a decade now. At the heart of the crisis is the breakdown of the social and political pact on which democracy was based as the country outgrew its ability to live off oil revenue without having developed sufficient sources of alternative revenue. Venezuela's stability was based on a power-sharing agreement among major political parties, backed up by oil revenue that allowed the government to keep the population relatively prosperous. As the population increased and oil revenue failed to keep pace, the pact started unraveling. An impoverished population became increasingly distrustful of the old political class. The resentment only increased when drastic economic reforms enacted to wean the country away from dependence on oil and revive the economy were introduced suddenly without explanation.

The crisis stretched for several years, through two attempted coup d'etat and eventually led to the demise of the old political class and the election of a populist former army officer, Hugo Chavez in 1998. Under his leadership, the government slipped toward semi-authoritarianism, and the opposition became more willing to resort to direct action rather than the ballot box, leading to the December 2002 crisis. At the time of this writing, there is a good chance that Chavez's presidential mandate will be terminated by a recall referendum and that new elections will be held. Even if this happens, the crisis will not be over—and Venezuela will not become again a dependable source of oil for the United States—unless a new social compact is negotiated that addresses the grievances of the large impoverished segment of the population.

TAKING STEPS

Neither the US government nor the oil companies have the capacity, let alone the obligation, to address all the problems these countries face. On the other hand, it is in the interest of both to do something to help make these oil producers into more reliable sources of energy and easier environments in which to operate. The chance that the US government and the oil companies will have a positive impact is greater in Angola and by far most remote in Nigeria. I will deal with the case of Venezuela separately, because the situation in that country is very different.

In general, the measures the US government can attempt fall into two categories: first, support for the attempts to resolve the conflicts created by oil in a democratic fashion, through negotiations and compromise, rather than through violence. While support for a democracy writ large in Nigeria and Angola is a good thing in itself, it is unlikely to have much impact on oil-related conflicts. Even in a best case scenario, it will take many years before the political systems of Nigeria and Angola function democratically. But the problems of how to distribute oil revenue among levels governments and regions, of how to use it, and how to ensure that it will be used productively have to be addressed immediately. The government needs to engage the governments of Nigeria and Angola and the groups with a stake in the distribution and use of oil revenue these issues.

It is also important that in encouraging this process the US does not try to impose solutions based on models that are either unproven or modeled on countries with very different characteristics. For example, there has been much talk recently of the advantages of the "Chad model" or the "Alaska model." The Chad model takes control over oil revenue out of the hands of the executive, giving it instead to a broad coalition of government officials and NGOs, under international supervision. While it has appealing features, it is also cumbersome, gives much responsibility to non-elected domestic groups and to foreign bodies. Most importantly, the system is still untested and will remain such until Chad's oil fields go into full production and generate a steady revenue stream. The Alaska model puts part of the oil revenue into a trust fund, the dividends of which are distributed directly to the citizens. This works well for Alaska, where state and localities also have revenue from taxes. It may not be a realistic model for countries where oil is the only source of public revenue and thus has to finance the entire budget, including all public services such as education, health, and the provision of basic infrastructure. The US should help countries design a system to allocate and control oil revenue that fit each country's requirements but not try to impose specific solutions.

The second step the US can and should take is much easier in theory, although it requires political will: working simultaneously with the governments of the oil producing countries and the oil companies to ensure that the information about how much revenue the government is receiving becomes public domain. Transparency will help stop the corrupt diversion of oil revenue to private bank accounts. It will also facilitate an apportioning of funds among regions and levels of government based on real figures rather than myths. Finally, it may also help curb the unrealistic expectation of the population that oil revenue can make everybody rich. The Extractive Industry Transparency Initiative, launched by British Prime Minister Tony Blair in June as a result of NGO pressure, deserves full US support. The initiative would make it mandatory for oil companies and other extractive industries to disclose how much they pay to the producing countries. Information about oil revenue is not a sufficient condition to ensure transparency in how the recipient government spends that money, but it is a precondition for it. Oil companies should be required to make that information public, but certainly have no responsibility for monitoring the expenditure.

The case of Venezuela is different. The problem there is not the absence of mechanisms of accountability or even less the incapacity to manage a democratic political system—only a few years ago Venezuela was considered, and in fact was, a consolidated democracy. Rather, the problem is the breakdown of the social and political pact that ensured the country's stability. It is in the interest of the US to help as much as possible in the renegotiations of such a pact. This is much more important than trying to support Chavez's ouster in a referendum or specific candidates in the next elections. Who wins is less important than whether the winner represents a new consensus rather than another deep division in the body politic.

Major oil producing countries in West Africa and Latin America can make an important contribution to US energy security, since they are not affected by the difficult problems of the Middle East. However, they have considerable problems of their own, which the US cannot ignore.

Senator HAGEL. Dr. Ottaway, thank you very much. Each of you have presented excellent statements. Again, I remind you that I will assure that each of your full statements are included in the record.

Mr. West, let me get back to you and your opening comments about things that Congress can do. Obviously, you ended up with some of that referencing natural gas and you made some important points that we should be listening to. But let me open that up and go back to your statement and allow you to answer the question, what do you mean, what can we do, what should we be doing, the Congress.

Mr. WEST. I think natural gas is the area, to me, which Congress should be focusing on. Again, the oil markets and the gas markets work very differently, and I believe that there are all kinds of problems, but there are diverse suppliers and there is massive infrastructure available to move oil in this global market. Natural gas works differently given its physical characteristics. It can only be moved by pipeline or by a super-cold ship or change the form completely into methanol or something.

The fact is that the world is awash with natural gas. There are vast resources of natural gas, but they are in places like Russia, Iran, West Africa, Latin America. So how can you move it here? You need infrastructure. The fact of the matter is that there was a lot of concern in the spring that there was going to be a big natural gas shortage this winter because storage numbers were quite low. Now storage numbers are back within the range. But there has been an uptick in the price, and the general floor price of natural gas has moved up to about $3.50. The net effect is that the price of gas is moving up. This is going to affect a lot of industries, and we simply cannot get the natural gas in North America unless we change the infrastructure, whether it is pipelines, moving Alaskan gas in. There is a possibility of opening up some areas of the western overthrust belt. That is I believe in the energy bill. There may be some tax incentives.

But I think one area is also, when you get into these international issues, the permitting of liquified natural gas facilities. This is a critical issue. Four terminals in the continental United States were built in the 1970s, and none were built since then. The natural gas business has been completely deregulated. My view is government officials—if they do not have a form to fill out, then no form will be filled out. And they do not know how to do this.

The administration is focusing more on this. I think they deserve credit, but there is a complete lack of understanding on LNG. There is a perceived in LNG, which I do not think is realistic, but this is deemed threatening to neighborhoods, to communities where this LNG will be brought in. So there are opposition groups now forming against this, which I do not think are really necessary or reflect the facts.

So you have got the Federal Government and you have State governments. You have unclear permitting and you have an unclear understanding, but throughout all this, there is a fundamental need. Over 20 terminals have been proposed; 20 terminals are not going to be built. But a number of these terminals are going to be built, and I think we should do everything we can to facilitate it. I think it should be a national priority.

Senator HAGEL. Would either of you like to respond to anything Mr. West said or the question itself?

Mr. GOLDWYN. Sure. I would like to agree. I think for electric power, I think for diversity of supply, natural gas is the future. For the environment, we are going to use cleaner fuels. Natural gas is going to be key, and if we cannot get it into the country, then we are not going to have affordable prices, and if we cannot get it into the country, we are not going to have diversity of supply because we will not have as many choices in terms of suppliers.

It was in the National Energy Policy to try and assert Federal jurisdiction—nicely worded—to try and help with some of this permitting and planning and it has not happened. I think something needs to be done. I think not just the heavy hand of the Federal Government over State governments saying this is where you need to put this plant. I think there are ways you can be creative and work with local communities so either they get some of the benefit of having an LNG plant in their area or at least there is a little bit more of a cooperative effort to try and site these things.

But the other thing I think the Federal Government can do, the Department of Energy can do is have an education program to take some of the fear out of LNG. People think it is going to be a magnet for terrorist attacks or that somebody can put a match near it and the thing is going to blow up. And it is just not the case. But people do not know and they do not understand, and that is a role the Federal Government can play, is to educate people about what the reality is.

Senator HAGEL. Thank you.

Dr. Ottaway.

Dr. OTTAWAY. This is not my field.

Senator HAGEL. Well, thank you. We will get into some specific areas that I wanted to pursue with you here in a moment, doctor.

Mr. WEST. Mr. Chairman, can I make one point?

Senator HAGEL. Yes.

Mr. WEST. I agree with everything Mr. Goldwyn said, but I wanted to expand it. High natural gas prices are going to affect more than just electricity. It will have a huge impact, for example, on American agriculture which relies on the production of ammonia and urea for fertilizer. It is already having a big impact on the chemical industry in the United States. This is a big deal. There are whole industries that are built on the concept of cheap natural gas, and that is a thing of the past.

Senator HAGEL. As a United States Senator who represents an agriculture State, I am well aware of your comment, and you are right.

Staying with this current theme, I would be interested—and you touched on it very briefly, Mr. West—in each of your sense of the current energy bill that is now in the conference committee between the House and Senate, especially in regard to the areas that you have talked about, production and pipelines, incentives. Now, it is floating, as we all know, and what we will get as the final product no one is quite sure. But we are getting close I believe to something here that will get out of the conference committee. What you know now, the general themes addressed in the two bills and what we will most likely come up with, I would appreciate each of your evaluations of that, beginning with you, Mr. West.

Mr. WEST. It seems to me there are two things. There are some financial incentives and there is also accelerating the permitting process. I do not disagree with either of those, but I think in the end we have a fundamental problem. Mr. Goldwyn said, well, we can always bid up the price of oil and get oil even if it is at $50 a barrel. It is important to understand that if we have a very cold winter, a prolonged cold snap, you cannot bid up the price of natural gas. There will be no natural gas. This is entirely different than oil. So I just think we have got to go beyond the bill.

This is a very serious problem. Alan Greenspan spoke about this in the spring when the storage level was very low. I like to quote a joke about a lobster man from Maine. They asked, have you been a lobster man all your life? Not yet. Do you think the fog will clear? Always does. Is there going to be a natural gas shortage in the United States? The answer is yes. The only question is when.

Senator HAGEL. Mr. Goldwyn.

Mr. GOLDWYN. Mr. Chairman, it is a little hard to tell what is in the bill because I guess both sides of the aisle have not had a chance to look at it, so it is a little hard to comment on it. But from what I understand from previous versions, I think the current bill does virtually nothing to address our energy security. I think the measures to try and promote the building of an Alaska gas pipeline are important and positive.

I think from my understanding, steps to try and create a more reliable electric grid, to reduce our vulnerability there are absolutely marginal.

In terms of international energy, I do not think there is anything in the bill that does anything to try and promote the diversity of supply or enhance stability.

I think there are ample subsidies and tax credits on both sides, too many for me to probably take a stab at, but I think that since most of them are directed internally—and as Mr. West has very accurately said, we are not going to solve this problem by energy independence—I am not sure that a lot of those are really a productive use of the taxpayers' funds. I think there are some funds for promotion of alternatives and renewables which are an important and positive thing, but also not a short-term solution. I hate to be sort of glib about it, but my general sense is we would be better off without it.

Senator HAGEL. Without the bill from what you know of it.

Mr. GOLDWYN. Yes, sir.

Senator HAGEL. Well, I appreciate you both being very delicate regarding ethanol, not knowing exactly where you come out on that. But thank you for skirting around that.

Dr. Ottaway, before we get into some of your universe, is there anything that you would like to respond to on what you have heard?

Dr. OTTAWAY. No.

Senator HAGEL. Doctor, let us talk a little bit about your testimony, your thoughts. One of the things, as you noted I am sure as you listened to your colleagues' presentations—Mr. Goldwyn talked about these new threats, challenges that we face in the world today across the spectrum, but specifically in regard to our energy challenges. I believe he said something to the effect that great militaries are not going to be able to address those issues. He was referencing trade, diplomacy, specifically some of the things that you have talked about.

Would you take that and define that, the threats that we know are out there, the threats that we will most likely continue to face in some variation of new forms? But we are getting a sense, as we start this new century, of what is ahead here, and yes, militaries are important and laser-guided munitions are important, but that is not going to deal with the kind of threats that not just the United States but the world is facing today. Since this is your general area, I would like to hear more about what you think we should be doing and we are not doing in the way of developing policy in the United States to deal with these new threats, not just from the deterrence perspective, but let us take some initiative.

Dr. OTTAWAY. Well, I think in general the most important threat on the political level, not on the military level, comes from the domestic instability of a large number of countries. I would argue that practically all African countries and a good number of countries in Latin America are extremely vulnerable to domestic political unrest because of the kind of economic conditions that exist, and not only chronic conditions of under-development but also what has been a great increase in income inequality which has developed during the last 15 years, which is, for example, one of the problems that is at the root of the popularity of Chavez in Venezuela. What brought Chavez to power originally was a resentment by a large segment of the population that had fallen below the poverty line in the previous 15 years concerning what was going on.

So that being the case, I think the steps that we can take are unfortunately long-term steps because one of the problems that we are dealing with here is that we are dealing with sort of short-term threats that exist here and now, the solution for which are long-term solutions. I think the only thing we can do is to try and give sustained attention to the issues of development and to the issues of democratic transformation of these countries beginning now but to stay these countries all along. Unfortunately, because of the large number of countries involved, we tend to pay attention to these issues in the short term while there is a crisis and then again to forget about it.

I think, for example, one example is the contrast between what we are seeing in the case of Nigeria and we are seeing in the case of Angola. In the case of Nigeria, because there has been this direct threat to the oil installations, direct loss of production, siphoning off of oil and so on, as we heard from the previous panel, the U.S. Embassy, for example, has in place personnel to try and deal with those issues, to try to work with the NGOs, with the oil companies, with the governments of the oil-producing areas and so on to try and address those issues.

Angola can also be threatened by instability at some point, because you have the same conditions of an enormously impoverished population while oil revenue keeps on growing. Particularly now that the war is over, there is really no good explanation for the population what is happening to this money. Unfortunately, because we are not seeing direct threats to the oil installations, there is not that much attention being paid to that issue. I think there is certain complacency to say, well, you know, Angola is not democratic, but it is stable and there is no threat to the oil installations, so we do not pay much attention to the problem. I think because the problems are so difficult to address and are so long-term, we cannot wait to address them once the acute phase has started. What we need to do—and I realize that this is very difficult, is to pay sustained attention to these problems of economic development and political transformation before the situation reaches a critical phase.

Senator HAGEL. With that, I suspect in your opinion you would include things that Mr. Goldwyn referred to, trade, diplomacy, humanitarian, all the other efforts that——

Dr. OTTAWAY. And development assistance, yes.

Senator HAGEL. Thank you.

Robin West, would you like to respond to any of this?

Mr. WEST. Yes. One point I would like to make is I think that in fact—and Dr. Ottaway wrote an excellent paper which if one is interested in the subject, I commend to you, on what is the role of the oil companies. But it is important to recognize in places like Mexico and Venezuela, the international oil company has had little or no presence.

In West Africa, I think that it is the international oil companies, sometimes encouragement from other parties, but they are becoming some of the most productive agents for change. They actually have much bigger presence in the country than any foreign government, and in some cases they are trying to put pressure because they feel sensitive from pressure in their home countries. But they actually have been a conduit to help try and move some of this. There are limits to what they can do, but I think in recent years that they tried to be constructive.

Dr. OTTAWAY. If I can add on that point, I think the oil companies have taken almost a disproportionate share of the burden for local government in a place like Nigeria, for example. The oil companies end up running entire towns, providing whatever education is provided, and so on.

Where there is more reluctance, understandably so, on the part of the oil companies is to deal with the national government and particularly to make available internationally some of the figures about oil production and oil payments and how much money is being paid into the coffers of these governments. That is one area where I think there is room for improvement. I do not expect the oil companies to end up becoming a substitute government for countries like Nigeria. I mean, that will not be very desirable. It is not their role.

Senator HAGEL. Thank you.

Mr. Goldwyn, any thoughts on all this?

Mr. GOLDWYN. Just two. I think one is that I agree with Dr. Ottaway that you need a case-by-case approach. I think in each of these countries, we have got to ask ourselves, do we have any leverage and what is it and how do we use it? Is it bilateral? Is it multilateral? I think there is some urgency because a lot of these countries, particularly in West Africa, are going to be very, very rich very soon, not now, but if you look at the curve of how much revenue they are going to get, it is like this now and then it goes off the roof. We have 3 years, 4 years, or there will be no touching these governments.

So I think you have got to look at the leverage you have got now. Some of that is debt. Some of it is their need for capacity building. Right now some of it is their need for development assistance, but it is not really a money issue. It is creating a political environment where the people who have been on the wrong side of this question for a long time have a political motivation to change. That is part reputation and that is part monetizing future revenues for development now, and it is letting them be successful political leaders. So I think that is where our focus ought to lie is to use that sort of leverage.

On the publish what you pay oil revenue question, it is an important issue, and I have to say I have struggled with it myself. I think if we could get to a place where governments, the U.S. Government and other governments, push producing governments to say we want companies to report aggregates of payments to the IMF and the IMF will publish those aggregates, I think you would find companies willing to do that. They are not going to violate confidentiality agreements. They are not going to take on the job of renegotiating anything with the government. It is not in their interest to do it. But if governments push governments for that kind of transparency and there is a level playing field so national oil companies like Saudi Aramco or PDVSA are also required to have their payments published, I think that is a formula. I think if you build that policy, the oil companies will come along because they will be respecting the will of the governments in which they are guest operators.

Senator HAGEL. Thank you.

Mr. West, you wanted to respond?

Mr. WEST. Yes. Two points. One is that my firm is doing an analysis for CSIS on West African oil revenues. In fact, we understand basically what the contracts are and the timing of the contracts and what production comes from the contracts. So we can get a pretty good idea of what the aggregate amounts of money that are flowing now.

The second thing that is important to understand is how the contracts work in West Africa. Mr. Goldwyn is absolutely correct, that production will be surging, but there is a cost recovery factor that in fact the governments in the early days do not get that much money. It is in the out-years when they get a lot of free cash-flow. So understanding the nature of the contracts becomes very important to following the money.

Senator HAGEL. Dr. Ottaway.

Dr. OTTAWAY. That is very important politically. Mr. West said something that is interesting; that is, his organization can get a pretty good fix on those figures. The population of the country cannot, and there is a great deal of misconception very often because nobody knows how much money is coming in. Very often people at the popular level develop this idea that there is a huge amount of money, and therefore everybody should be rich in the country. That is a mentality that has played havoc with the politics of a lot of oil-producing countries, that there is an exaggerated expectation of what oil revenue could do and how much is really coming and so on.

Senator HAGEL. I have been informed we are going to have a vote here shortly, but let me get to a point you made, Mr. West, in your testimony. You were talking about West Africa and I believe you said something to the effect that a lot of things are going right there. We heard not all the problems, but we have heard today about a lot of problems. Tell us a little bit about what you perceive is going right.

Mr. WEST. Well, what is right is the investment environment and the fact is that the operations are offshore so there is less physical security issues. There is a world market in exploration rights. The governments and the companies understand that so that a lot of capital has flowed in. The point I tried to make is that there is more industry capital that has flowed in in recent years to West Africa than there has been to Russia, Latin America, or the Middle

East. Most people are surprised when you say that. So the international companies have come in. They have stayed offshore. From a pure oil operations investment standpoint, it has worked pretty well. From a government standpoint, I am in complete agreement with my two committee members.

But you have other situations. There are other countries where you have very dubious governments and you also have very unstable operating regimes. So the glass is half full at least in West Africa.

Senator HAGEL. Does anyone else want to respond to that question?

Dr. OTTAWAY. No.

Senator HAGEL. Unless the three of you have any additional comments, I am going to adjourn our subcommittee hearing, but I want to again, on behalf of the committee, thank you for your testimony. It is important. We will, as we often do, be back to you for more assistance and get your counsel on these big issues. These are issues that are as important as any we are dealing with and will deal with for many years to come. So your contributions are important and we appreciate it very much. Thank you.

[Whereupon, at 4:33 p.m., the subcommittee adjourned, to reconvene subject to the call of the Chair.]