**Remarks as Prepared**
**Assistant Secretary Harbert**
**Association of International Petroleum Negotiators**
**Washington, D.C.**
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Thank you Tim for the introduction.

I would like to offer a warm welcome to all of you here today. I know that many of you are visiting from all over the world, and I hope that you will enjoy Washington and all she has to offer especially the cherry blossom season.

I am pleased to be here today to provide a perspective on world's energy issues, opportunities and challenges.

Our foremost concern is energy security and the effective, efficient, transparent operation of increasingly global energy markets.

We believe that all countries are best served by strong, stable energy markets. We also believe that strong, stable and prosperous economies are based on a market-oriented approach aimed at encouraging investment, market-based pricing, competition, energy efficiency, and conservation.

Our economies are growing, our energy demand is growing, and the need to work toward our shared goal of enhanced energy security is growing.

By 2025, world energy consumption is expected to grow by over 50 percent and world oil consumption will grow to 103 million barrels per day in 2015 and as much as 119 million barrels per day in 2025.

International Energy Agency figures indicate that investment of some $17 trillion will be needed by 2030 to meet projected energy needs, mostly in production and refining.

Emerging economies are expected to account for nearly two-thirds of the increase in world energy use, surpassing energy use in the mature market economies for the first time in 2020. In 2025, energy demand in the emerging economies is expected to exceed that of the mature market economies by 9 percent.

Much of the growth in energy demand among the emerging economies is expected to occur in emerging Asia, which includes China and India; demand in this region is projected to more than double between 2000-2025.

And as traditional energy resources become scarce and more difficult to develop, energy security will become an even more critical component of economic security and national security.

The challenges of energy security and environmentally responsible economic development must enter into the calculations of every nation in today's world.

And while our definitions and specific priorities might vary, all countries including both mature market economies and emerging economies, still share a number of goals; sufficient, affordable, and reliable energy supplies, produced and used in an environmentally responsible manner, and sustained global economic growth.

To accomplish these goals we must face these eight challenges:

The world market has limited spare oil production capacity, about 1 million barrels, mainly from Saudi Arabia

Significant new supplies of energy resources are needed to sustain robust global economic growth, particularly in developing Asia.

Many undeveloped hydrocarbons resources are concentrated in areas increasingly difficult to access due to geographic, political, and investment barriers.

National Oil Companies are increasingly advantaged over international oil companies.

The goal to improve the standards of living in developing nations is challenged by almost 2 billion people lacking access to a reliable affordable supply of energy. Meeting this burgeoning demand will further stretch world supply.

We must address environmental and climate change challenges in ways that support – and do not impede – diverse, abundant, affordable, and cleaner energy for economic growth and poverty reduction.

To ensure the most effective and efficient transit of energy, constraints to transit must be removed by improving current infrastructure, developing new options, and maintaining secure transportation routes.

Potential energy supply disruptions that jeopardize our countries' economic growth.

With all these challenges, in a world that can expect to see a massive jump in demand for energy over the next two decades, what steps must be taken to ensure energy security?

The U.S. goals to achieve a more diversified world energy market to improve global energy security include:

- Expanding energy production to meet the needs of a growing global economy;

- Using technology to diversify the types of energy we consume, improve energy efficiency, and lessen the environmental burden of energy consumption;

- Improving investment climates in resource rich countries and pursuing market-based pricing; and,

- Modernizing and protecting global energy infrastructure.

I would like to take this opportunity to emphasize the importance of the business, financial, and investment communities in helping us meet these challenges.

A stable and welcoming business climate naturally attracts the investment to develop resources, and therefore helps benefit the entire economy indeed, elevates and benefits an entire society.

Free markets, free economies, entrepreneurship, regulatory certainty, and the rule of law, these are the essential ingredients for true prosperity to grow. These are principles that this audience can truly appreciate.

We must recognize that attracting the significant capital required for energy projects requires a respect for intellectual property rights, protection for the sanctity of contracts, and the establishment of a level playing field where laws and regulations are clear, and consistently applied.

If we in government are not dependable, we can hardly expect the private sector to function with confidence or effectiveness.

In the U.S., we don't tell our companies where to invest or where to buy oil. It is up to them. Just as it is up to them to assess risks and determine the economic feasibility of investment, whether in infrastructure, exploration, or new technologies.

Neither do we set the prices that consumers pay. We feel the market does a better job of establishing and changing prices than any government entity could.

Our approach is to allow the private sector to lead the effort in building and securing the necessary energy infrastructure. Our government's job is to create the framework of laws and rules that will allow companies to form partnerships with confidence in the security of their arrangements and to operate in a competitive market and free trade environment.

That is why we are working with producer and consumer countries to encourage optimal efficiency in energy production and use; to attract higher

levels of private investment; and to employ forward looking policies that proactively address the energy challenges of today and tomorrow.

So that takes us to Brazil, India and China:

Brazil is the world's tenth largest energy consumer and the third largest in the Western Hemisphere and energy demand is projected to increase by 2.5 percent per year over the next 25 years.

Brazil has made great strides over the past decade to increase its total energy production.

Over the past 30 years, Brazil has also become a world leader in the use of renewable energy. In total, Brazil's reliance on imports of foreign energy has dropped from 46 percent in the 1970s to just 10 percent in 2003.

Brazil's development of domestic ethanol and biodiesel resources to lessen reliance on imported petroleum is a testament to the potential impact of renewable energy resources to revolutionize a country's transportation sector.

However, investment remains a key issue of concern in Brazil. The investment required to expand Brazil's energy system from now to 2030 is projected to be nearly $450 billion.

The Brazilian public sector alone will not be able to provide that much financing and private sector financing will only be forthcoming if Brazil's regulatory regime becomes more transparent and consistent.

DOE is working with the Brazilian government and the private sector to encourage an open dialogue about the necessary conditions to attract adequate levels of financing, an issue with which I am sure most of you are aware.

Shifting to the emerging economies of Asia, India's demand for oil is expected to have an increasing impact on regional and world oil markets. Oil

accounts for roughly 34 percent of India's total energy consumption, behind coal. Future oil consumption in India is expected to show strong growth.

Provision of adequate levels of clean and affordable energy to India's growing economy continues to be a high priority for us as is evidenced by President Bush's recent trip to India in March to sign a historic agreement that brings India into the nonproliferation mainstream and addresses its growing energy needs through increased use of nuclear energy in cooperation with the international community.

Perhaps saving the most significant growing energy consumer for last, we come to China.

China's presence in world energy markets has increased dramatically in the past decades. Over two decades of reforms in China have resulted in large increases in per capita incomes.

China's 11th Five-Year Plan (2006-2010) set an 8 percent growth rate for 2006 and 7.5 percent annually from 2007-2010. The Plan also calls for the 20 percent reduction of energy consumption per GDP unit by 2010. China is planning to quadruple its GDP by 2020 while only doubling its energy consumption.

Today China is the world's second largest energy consumer after the United States, although per capita energy consumption is still only one-eighth that of the United States.

Chinese oil companies are on an active investment hunt in Kazakhstan, Venezuela, Sudan, Iraq, Iran, Peru, and Azerbaijan. Upstream investments also include Sudan and Indonesia.

Recognizing the strong demand rise as a potential bottle-neck to its economic development, the Chinese government has begun looking deeply into energy policy making, seeking advice from other countries and reviewing energy policy priorities.

On the environmental side, China is the largest coal producer and consumer in the world and the second largest emitter of green-house gas.

We are working with our counterparts in China to help them view the energy efficiency as among the country's priority issues.

In addition to cooperation on investment, energy policies, environmental practices, etc., we are engaged with each of these countries, along with many other countries, to research, develop, demonstrate, and accelerate deployment of new technologies that will provide critical energy resources for the next generation.

We believe the key to overcoming the energy challenges of today, is to provide transformational technologies that will fundamentally change how we produce and consume energy. Many of these technologies will provide access to new energy resources or allow us to utilize resources like coal in environmentally responsible ways.

The Energy Policy Act of 2005 (EPAct 2005) and just recently rolled out the Advanced Energy Initiative (AEI) in his 2006 State of the Union address are bold steps toward expanding the use of advanced sources of energy.

The Advanced Energy Initiative works to diversify energy sources for homes and businesses by accelerating research in clean coal technologies, clean and safe nuclear energy, and revolutionary solar and wind technologies that will strengthen our nation's energy mix and lead to lower energy costs. Diversification is not a threat to your business.

By working together to accelerate the development of energy technologies that will bring greater resources to bear, we are doing what we can to ensure the security of adequate levels of clean, reliable and affordable energy for the future.

Sometimes the best contribution government can make is to get out of the way and let the private sector do what it does best: to make the

investments in new energy resources, in new technologies in new energy development projects, and in modernizing energy infrastructure.

For our part, we will continue to foster an inclusive dialogue between the public and private sectors to ensure the commercial and regulatory frameworks for these investments are open, stable and transparent in the major energy producing and consuming countries around the world.**