

## **CERAWeek Speech**

### ***Challenging Opportunities: The US, Russia and the World's Energy Journey***

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#### **INTRODUCTION**

Good morning everyone and thank you very much for inviting me to join you today at the 32<sup>nd</sup> annual CERA week. It is a great gathering of our industry from around the world.

I'd like to thank Dan Yergin for inviting me to CERA again. It's always a pleasure.

I'd also like to congratulate Ernest J. Moniz on his nomination Monday to be the new US Energy Secretary. Dr. Moniz was scheduled to be here but could not make it. We know him well from his work at the MIT Energy Initiative.

Whenever I come to a conference such as this, I'm reminded of the contrast between the comfortable places where we discuss and consume energy and the sometimes inhospitable places where we produce it.

This is a fact that bears repeating. In order that people can live in comfort, the natural resource industries need to go to remote, challenging and often hostile environments to access the necessary sources of energy for society.

There is not a nation on earth where people aren't relying on us every day to deliver the energy they need to do their jobs, heat their homes, get their children to school, and countless other needs. That's how people emerge from poverty, economies grow and the standard of living rises.

So in the brief time I have with you today, I'd like to spend a few minutes on each of three connected themes:

- The global energy journey — what are the opportunities and challenges ahead?
- The key role that will be played by two countries — the United States and Russia;
- And finally, BP's part in this journey — how do we see ourselves fitting into this picture?

If there is an overarching message it is this: in business we often talk of challenges and opportunities. What we face today in energy is a series of challenging opportunities — from the shales of America to the snows of Siberia.

The opportunities are plentiful, but they are also complex and difficult. And from BP's perspective, and many other companies in our industry, the message is that we have learned from recent events and we plan to address those opportunities safely, responsibly and reliably.

## **1. THE GLOBAL ENERGY JOURNEY**

So to start briefly with the global picture, there's quite a contrast between demand and supply. For many years it's been clear demand is rising — and that trend has stayed consistent — but there has been a lot of change in where the supply is coming from.

We estimate that global energy demand is likely to grow by more than a third between now and 2030. According to the projections we make in our *Energy Outlook 2030* publication, emerging economies such as China and India are likely to account for almost all that growth — over 90 percent of it.

Non-fossil energy — nuclear, hydro, biofuels and other renewables — will grow faster as a group than any fossil fuel. But they start from a very low base and will only provide, on a combined basis, about a fifth of all energy in 2030.

Gas will be the fastest growing fossil fuel at around two percent annually. It's clean, cheap and increasingly available.

Oil will grow more slowly, at less than one percent per year. But that still means the world will need around 16 million barrels a day more in 2030 than today. Let us pause on what that means — that increase alone is nearly the combined daily 2011 production of Russia, Canada and the United Arab Emirates.

Turning to supply, many in the industry used to worry about whether demand on this scale could be met — we weren't among them, by the way — but there hasn't been much talk about "peak oil" lately.

Thanks to new frontiers such as shale and the deepwater, our industry is now producing an enormous amount of previously unreachable oil and gas. At current consumption rates, the data suggests the world has 54 years' worth of proved oil reserves and 64 years' worth of proved gas reserves in place — and more will be found.

So we are working in a world with ever more diverse sources of supply — and diversity of course increases energy security by avoiding over dependence on any one source.

However this diversity comes at a price. Many of the new supplies are in places that are hard-to-get at: shale oil and gas, tight oil and gas, heavy oil, the deepwater — and, in due course, the Arctic Circle.

And the physical and technological risks are not the only ones. Other factors range from fiscal regimes and other policy-related issues, to geo-political tensions and even the risk of terrorism.

We at BP were brutally reminded of that fact a few weeks ago, when four of our employees and colleagues from other companies were murdered in the terrorist attack on the In Amenas gas plant in Algeria.

Our thoughts are very much with the loved ones of those who died, from BP, Statoil, JGC and other organizations. And our sincere gratitude goes to all who have offered support and sympathy. In particular I would like to thank the Algerian Energy Minister, Youcef Yousfi, who is here today. His personal involvement during the crisis was outstanding and greatly valued.

BP and Statoil staff and the contracting companies, are incredibly resilient and committed people and we will go on. We will never forget but we will go on with our mission of providing energy to the world. We have spent over 100 years producing energy in tough surroundings and we will not be deterred.

But the new opportunities bring new challenges, and we need constantly to develop our technology, capability and risk management.

## **2. TWO ENERGY GIANTS**

The process of reaching out for new resources is going on all over the world, but nowhere more so than in the country that produces the most oil and gas — Russia — and the country that is exhibiting the most spectacular growth in production — here in America.

When Colonel Drake drilled the first modern oil well in Pennsylvania in 1859, he gave birth to a new industry – and one where the US has held the technology edge ever since.

Forty years ago this year, however, there was an oil shock and a future of scarce energy or even “resource wars” was predicted.

BP never subscribed to those fears, and in the last five years, the situation has been transformed.

US crude oil production has soared from an average of five million barrels per day in 2008 to over 7 million barrels per day at the beginning of this year, according to the US Energy Department.

Deepwater Gulf of Mexico exploration and production scarcely existed 20 years ago. In 2011, it provided about 18 percent of US daily crude production. Alaskan oil was widely expected to run out in late 1990s, yet it is still producing.

North Dakota, which was on hardly anyone's radar screen a few years ago, has seen its production soar from just over 100,000 barrels per day in 2006 to over a three-quarters of a million last December. Not only has that state now surpassed Alaska as America's second-largest oil producer, it also pumps more oil per day than the OPEC nation of Ecuador.

Why is this happening? Resources below ground are a prerequisite, but favorable conditions above the ground are also essential.

Almost uniquely among the nations of the world, the US allows private citizens to own the mineral rights beneath their property, "from the Earth's core to the sky." In most states, this gives private individuals a personal stake in energy development. It incentivizes entrepreneurs to compete with each other to develop the technologies to access the wealth that lies underground.

So it isn't surprising that the world-changing technologies of the last two decades were all either developed or advanced in the US: horizontal drilling, hydraulic fracturing — pioneered incidentally by Amoco in the 1940s — to deepwater equipment and of course the 3D and 4D seismic we and others have used to great effect in the Gulf of Mexico and in countries such as Angola and Azerbaijan.

Here is another fact that certainly needs repeating. This industry is not only transforming the energy of America but also the economy of America. Energy has rightly been called the number one job-creating sector in the US economy, with oil and gas employment rising a remarkable 27 percent since 2008.

Texas alone has added 180,000 mostly high-paying energy jobs in the last decade, according to a report last week in the *Wall Street Journal*. Oklahoma added another 40,000 and the Intermountain West a further 30,000.

And jobs are being created well beyond traditional energy regions, including what some used to call Rust Belt states like Pennsylvania and Ohio. It is a great renaissance. BP has just returned to exploration in Ohio, for example. Increased reserves and lower natural gas prices are also attracting new US investments in manufacturing. Oil and gas taxes are pouring into the Federal Treasury and into many state governments.

Import dependence is falling. In fact, with the abundance of domestic natural gas, a number of LNG export projects are now in the queue, awaiting federal government approval. Just last month, BP signed a 20-year LNG export agreement with Freeport LNG here in Texas.

This sector is turning around America's balance of trade, helping it compete internationally, creating jobs and breathing new life into its economy. Colleagues — America should be very proud of its energy industry today.

But this is not the only land of opportunity. Many other growing regions are represented here today — including many from Russia

Russia is the biggest country in the world. It also has the largest combined oil and gas reserves, as well as the highest combined production of oil and gas. And in our view, its potential has yet to be realized.

There is enormous scope for increasing Russia's production — through enhanced recovery in brownfield developments in the Western Siberian and the Volga Urals fields. And also through exploration and production in greenfield developments in Eastern Siberia and the Yamal Peninsula. Russia also has the potential to develop its own shale and tight oil.

What Russia and the US have in common is that each will require energy investment on an epic scale, undertaken by energy partners who are not daunted by the obstacles and have the resources, experience, capability and appetite for the task.

### **3. BP'S COMMITMENT**

And I would certainly put BP in that category.

BP has been an integral part of the American energy story for nearly a century and a half, with a family tree that contains many illustrious American ancestors. One was Standard Oil of Indiana, which began in 1889 with a single refining facility in Whiting, Indiana, near Chicago.

As I mentioned, we have contributed technology — from early fracturing techniques to 4D seismic processed via massive supercomputers. In fact, we are in the midst of building the world's largest commercial supercomputing research facility right here in Houston.

Overall, we have invested \$55 billion in the US over the last five years, more than any other energy company, and more than we have invested in any other country.

We have 21,000 US-based employees, and support ten times that many as a result of our US business activities. That's nearly a quarter of a million jobs across the US — a supply chain we hope to sustain. Also, about 40 percent of our shares are held in the US.

Last year we produced 675,000 barrels of oil equivalent each day in the US, more than 20 percent of our global total.

And we also support lower-carbon energy. Over the past eight years, BP has invested around \$8 billion on alternative energy. Over half has been in our wind farms, which have more than a thousand turbines spinning, as well as advanced biofuels facilities here in the US.

Our commitment to American energy development has never wavered, even after the Deepwater Horizon spill.

Among the many responsible parties, we alone stepped up from the outset, acknowledging our role, waiving the liability cap and committing ourselves to help restore the environment and economy of the Gulf Coast region. We did not wait for a court to determine fault in order to do what we believed to be the right thing.

To date, BP has spent over \$24 billion in response, clean-up, and restoration costs and in payments on claims made by individuals, businesses, and governments. We have spent or provisioned more than \$40 billion.

We have learned from the accident and shared the lessons. We have a powerful safety and operational risk team working alongside our businesses. We have re-structured our business to continue driving systematic and reliable operations worldwide.

We have returned to activity in the Gulf, where we are the largest deepwater leaseholder, with seven big deepwater rigs operating.

As you know, almost three years later, we and our contractors are currently on trial in New Orleans. We are vigorously defending the company, but we are determined to make our case in the courtroom and not in the press. We believe the law and the facts are on our side, and we have faith in the legal system.

And in terms of investment in the US, the wheel is turning full circle — back to Indiana. At Whiting, we are about to complete the modernization of our refinery to process Canadian crude — the largest economic investment in Indiana's history.

And it's not just Whiting. Tomorrow, we're dedicating a new \$400 million reformer that we started up earlier this year at the Toledo, Ohio refinery we operate with Husky. The completion of this two-year project will not only help the refinery meet future environmental regulations, but also build on our track record of cutting emissions at the plant nearly in half since 2000.

We've been a part of America's energy history — and we plan to be a part of America's energy future.

But we are a global company and select investments carefully from a world of opportunities. We have gas plays in Asia and the Middle East, and deepwater possibilities in the Atlantic and Indian Oceans, from Africa to South America, the South China Sea and the Great Australian Bight.

And of course one of our largest investments is in Russia.

Our TNK-BP investment has been hugely successful — although at times adventurous! Between 2003 and 2011, TNK-BP's proved reserves base grew almost 50 percent while production increased more than 40 percent. The company paid well over \$100 billion in taxes in Russia. It is a testament to the powerful partnership of Russian oil and gas professionals and BP colleagues working together.

It became clear, however, that the joint venture was ultimately unsustainable — and we have managed to turn that challenge into an opportunity. Rosneft is acquiring TNK-BP and we will take a nearly 20 percent stake in Rosneft.

I am very excited because I think this is an example of creating the right conditions above ground to develop the resources below.

Having integrated TNK-BP, Rosneft will be Russia's biggest oil company and the largest oil producing globally. But more important, it has a real commitment to many of the factors needed to develop Russia's potential: skills, technology, risk management and a drive for efficiency.

The US and Russia are both huge producers and places where things are moving fast. After decades of false starts, the US seems to have hit upon a successful energy policy mix, and Russia is well on its way. I trust both countries will maintain an open, welcoming environment for energy development.

## **CONCLUSION**

So I close on a note of optimism. History in our business has favoured the optimists. The resource wars that were predicted when I joined the industry never came to pass. In fact the world's energy companies have produced more oil in the last 40 years than was thought to exist on the entire globe in 1979.

And in terms of our own company, if I may end on this note, we have faced challenges in recent years — in America, Russia and elsewhere. But as I said at the beginning, this is not a business for the faint-hearted or the easily discouraged. And we are neither.

Two years ago, when I stood here in this very spot, I said I was determined that we would emerge from the Deepwater Horizon accident as a safer, stronger, more sustainable company. I said we would meet our

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commitments and that we would apply what we had learned throughout our organization

We have made good on those promises. We are honoring our commitments. We have set new standards. We continue working very systematically on safety and our record is improving. We have strengthened our portfolio and invested for growth — here in the US, in Russia, and around the world.

We look forward to working with you for many decades to come as we tackle together the challenging opportunities we all face in this great industry.

Thank you very much.