



The exploration imperative – Bob Dudley speech to the World Petroleum Congress

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Title: **group chief executive**
Speech date: **5 December 2011**
Venue: **World Petroleum Congress**

Thank you, Deputy Minister Dupont, fellow panelists and distinguished guests from across our global industry.

It is an honor to speak to you at this Congress, particularly as this is the first time the World Petroleum Congress has been convened in the Middle East.

This is appropriate, not only because of the past, but because of the challenging future that lies ahead. In the next two decades, this region's contribution to oil and gas production will go up, not down. And its demand for energy is expected to rise at double the rate seen in the world as a whole.

BP is no stranger in this part of the world. Our company was the first to discover oil in the region.

Early in the last century, a team of geologists led by a man named George Reynolds spent more than seven years searching for oil in what was then called Persia. They battled not only dry holes, but stifling heat, swarms of mosquitoes, diseases, and torrential rains.

In 1908, Reynolds' British backers, led by William Knox Darcy, were running short of funds. They authorized one last effort and on 26 May 1908, the team hit oil at Masjid-i-Suleiman.

At this point, the speaker usually would say 'the rest is history'. But it wasn't. Infrastructure had to be put in place. A pipeline needed to be built. A refinery had to be constructed. All of those efforts took time and faced their own obstacles.

Exploring for oil and gas has always been difficult, expensive and full of risk. But we persevere because the people of the world need our product. We fuel rising living standards in regions such as the Middle East and Asia, where millions of people are being lifted out of poverty, at the same time as maintaining economic activity in countries that industrialized earlier.

So refusing to explore is not an option. That would condemn humanity to a future of shortages, poverty and conflict.

To avoid that future, we must explore. I call it the exploration imperative, and it will probably be the greatest challenge our business faces in the coming decades.

In BP, we have a long history in the field of exploration and we plan to be part of that future.

So in the brief time I have today, I would like to briefly discuss four things with you.

First, how we are preparing for the future by applying the lessons of the past – specifically those of the accident in the Gulf of Mexico.

Second, the challenges involved in meeting future energy demand.

Third, the challenges of the energy market right now – at this time of economic uncertainty.



And fourth, and finally, the role of partnership between IOCs and NOCs in meeting the challenges of both the present and the future.

We have been invited to more than 25 countries to share what we have learned and taken part on more than 100 engagement events.

And there is evidence that governments and regulators are prepared to trust BP. We have been granted 69 new exploration licenses in 11 countries since October 2010 – a record year.

We are also back at work in the Gulf of Mexico, where the US regulator has granted us our first exploratory drilling permit since the accident.

More generally, we have reached a turning point, with production coming back on stream. We look forward to 15 new upstream projects starting up in the next three years; and we aim to increase our operating cash flow by around 50% over that timeframe – this is calculated under certain assumptions, including an oil price of \$100 a barrel.

1. GoM

So first a brief update on the response to last year's tragic accident in the Gulf of Mexico.

That accident was a complex event that involved multiple parties and had multiple causes. That is the conclusion supported by the findings of all the official investigation reports. And we continue to co-operate with all ongoing official inquiries and proceedings.

The response has two dimensions. One is the practical response in the Gulf of Mexico itself. The other is the way we implement the lessons in the way we work.

In the Gulf of Mexico, we and others have been working for 18 months to clean the beaches, support the seafood industry, promote tourism, pay legitimate claims, and help revitalize the local economy. We have more to do, but I am glad to report that this year's tourism season was the region's best in years. The clean up has been exhaustive but is nearly complete. We're supporting environmental research and we have committed \$1 billion for early restoration.

Our responsibilities, however, extend far beyond the Gulf of Mexico and we are acting to embed the lessons learned across BP.

We continue to build our safety and operational risk organization, which reports directly to me. This organization includes people with decades of process safety experience; not only in BP, but in other high-hazard sectors - in organizations such as NASA, DuPont, Lockheed Martin, the UK Atomic Authority and various Naval organisations.

The function has hundreds of specialist personnel deployed across our operating businesses to guide, advise, and if necessary, intervene.

In many areas we have developed new voluntary standards that exceed the industry norm.

For example, we have decided that a BP-contracted rig will not drill a deep water reservoir from a dynamically positioned drill ship unless it has two sets of blind shear rams.

2. The energy future

Those new exploration licenses, and the potential new supply they represent, are important for BP – but they are also important for a world that remains hungry for fuel and power.



Earlier this year, BP published a projection of world energy trends, Energy Outlook 2030. The numbers are stark.

Total world energy demand is projected to increase by up to 40 percent by 2030. That would be the equivalent of adding another United States and another China to demand. Our latest data shows demand holding up at this kind of level out in time.

Meeting energy demand on this scale will require all forms of energy, fossil fuels as well as alternatives.

The fastest growing fossil fuel will be natural gas, rising by over two percent annually. And if we can use gas to displace older, coal-fired generation, that will be a big step forward.

When it comes to the supply of oil, we see a paradox. Even as oil loses market share, the absolute level of demand will continue rising, from around 85 million barrels per day now to over 100 million by 2030. And since existing fields are declining and will only yield just over 50 million barrels by 2030, our industry needs to add roughly a Saudi Arabia's worth of production capacity every five years.

This is a major challenge that will require us to use all of the enhanced recovery techniques we have developed – in BP's case in Alaska for example – as well as working at the new frontiers of exploration - including the Arctic, heavy oil, and the deepwater.

3. The current supply challenge

However, the supply challenge is not only a long term one. At this present moment it is also important that supply keeps pace with demand.

Few people have realized it, but in nominal terms, the annual average oil price in 2011 will turn out to have been the highest in the history of our industry. Even in real terms, adjusted for inflation, it is the highest oil price ever, with the exception of 1864.

Food, metals and other commodities have fallen in price since the Spring of this year, in the midst of economic uncertainty, but oil has stayed high.

While demand from Asia and other regions continues to grow, this price also mirrors restrictions on the supply side as demand growth adjusts from last year's extraordinary 3.1% back towards the long term trend of around 1.0% a year.

We tend to look at how economic growth affects demand and therefore price; but of course, the price of oil also has the potential to affect economic growth and therefore demand. I think this is important in the current situation of a fragile global economy, and I think right now we are probably walking a fine line.

Of course it is impossible to say which price exactly will affect the economic recovery. But we do know which regions would be affected most.

The US is likely to be most affected because it has no tax 'buffer' between crude prices and prices at the pump: High oil prices translate almost one for one into higher gasoline prices for consumers, and this leads to lack of demand for other goods.

Looking at the annual average, US consumers are on track to spend roughly \$200 billion more on oil this year than they did in 2010 due to higher crude oil prices.



The risk therefore is that the world's largest economy and largest oil consumer – the US – could be hit by lack of supplies and a high price of oil, with consequences for the recovery elsewhere in the world, and hence for us all.

And we live in an interconnected world where a downturn in the US affects demand for goods and services from China, India and indeed this region – particularly if energy demand is affected.

Of course every region has its challenges. In most energy-producing countries, in particular in this region, the break-even price for government budgets has also gone up because they need more money to balance their budgets, and pay for social spending.

So to my mind, it makes sense for all parties – today and into the future – to do all we can to underpin supply.

For our part in BP, we're very much committed to continuing towards making supplies as plentiful as possible.

4. IOC/NOC partnership

That of course depends on Oil Companies being granted access to opportunities that can lead to discovering new resources. As I said earlier, we've had a good year and I am very encouraged by the increasing readiness on the part of governments and NOCs to work with IOCs – provided we can bring something of value to the relationship.

And for our part, we constantly strive to build and enhance the strengths that we bring to those partnerships.

I'll give two brief examples, Iraq and India.

In Iraq, the immediate goal has been to nearly triple production in the supergiant Rumaila field from one million barrels per day to nearly three million – but the wider objective – as the country recovers from conflict – is to build capacity in Iraq's energy industry, to provide jobs and skills. To accomplish this, we partnered not only with PetroChina but also with the Iraqi South Oil Company.

BP brings its experience working in large fields. PetroChina brings access to drilling, manufacturing and engineering resources. The Iraqi South Oil Company brings an eager workforce of 5,000 people with experience in the field.

Result: we hit our production target ahead of schedule earlier this year, the first company to do so.

In India, the situation is different. This is a country where energy demand is growing by 6% a year, a country that wants to produce more of its energy at home and a country that wants to increase its use of natural gas.

Here we are partnering with Reliance Industries, taking a 30% stake in 21 production sharing contracts and creating a joint venture company to deliver that gas to consumers. This will be one of the largest inward investments into India.

When we listed our major strengths for shareholders in October we talked about exploration and deepwater production, about managing giant fields, and about integrated gas supply chains, running a world-class downstream business, and about using the power of technology and developing relationships. The work we're doing with Reliance in India plays to our strengths because it involves each of these areas of expertise.

I'm grateful for the support we receive from governments. As you know it's not always plain sailing. We work with complex legal, regulatory and political systems and we do occasionally encounter



bureaucratic obstacles – but I hope we will continue to have your support in addressing those issues and enabling much needed projects to get up and running.

Conclusion

Looking ahead, I am optimistic, both about our company and broadly about our industry, and about our ability to meet the challenges that lie ahead.

Thirty years ago, the world's population was 4 ½ billion people – today there are 7 billion of us. Thirty years ago, the world's proven oil reserves amounted to roughly 670 billion barrels. Since then, we have produced around 780 billion barrels, and proved reserves have grown to about 1.4 trillion barrels.

Clearly, we are good at what we all do in this industry. All of us have our individual capabilities and strengths. We will each make our own contribution.

IOCs and NOCs have separate heritages, but a common future.

Together, we can pioneer new avenues of partnership.

Together, we can develop new technologies.

Together, we can build value and energy security for the world.

Together, we can pursue the exploration imperative.

So thank you to our Qatari hosts for hosting this congress. Thank you all very much.