

## **Investing in Oil and Gas Production**

### **How Much Stability is Needed?**

Ladies and Gentlemen,

I am very pleased to have this opportunity to speak at the conference this morning.

BP has been a long term supporter of the Energy Charter process since its inception fifteen years ago. In our view the multilateral framework provided by the Charter Treaty can do much to strengthen international energy trade and investment. As the energy business becomes ever more global, the value of the Charter process can only increase.

For this reason, I am especially pleased that a BP colleague was invited earlier this year, to chair the newly formed Industry Advisory Panel of the Charter Conference. My understanding is that this group has made a promising start, in terms of bringing greater practical experience into the Charter deliberations.

We congratulate the Charter Secretariat for this and other recent initiatives and trust that we can all look forward to a successful Conference in December.

It is clear that the world needs continuing large scale investment in oil and gas supplies. Previous speakers have already done much to reinforce this point. I would like to move from here to think about the context within which this investment can occur.

We all agree that stability is beneficial for investment. Yet the fact is that much about the energy environment is distinctly uncertain.

Most fundamental of course is price. Expected future oil and gas prices are the most important input into our investment appraisal. Without a projection of future cash flow we have no basis on which to assess cost and risk. But if any reminder were needed about how difficult it is to predict prices, recent experience has underlined the uncertainties for us all.

It is only eighteen months ago that OPEC felt it needed to reduce production in order to maintain its target price range. Nobody was able to predict the sudden surge in Chinese and Indian demand that pushed oil and gas prices on a sharp upward path – that was carried forward again by the recent hurricanes.

At present it seems that higher prices might persist for some time. And yet it is only seven years ago that the price was at \$10 and falling – and many of us were worrying much more about survival than expansion.

So how can we handle these fundamental uncertainties? I would like to make a few basic points.

The first is the *long term* nature of our business. Let me give an example.

Around the end of this year we expect to see oil complete its long journey from Azerbaijan down the Baku-Tbilisi-Ceyhan pipeline to the Turkish Mediterranean. It is a huge engineering achievement and has set new standards in many areas including community consultation and environmental and social impact assessment.

The completion of the project has also caused many of us to look back at the history – and to realise that it has already been a fifteen year story since BP and others first realised the potential of Azerbaijan and the pipeline route. We hope that oil will now flow through the line for fifty or more years into the future.

These are long time scales and require long term judgements of price and investment risks. Although immediate prices will affect perceptions, we are obliged to take a sober long term view. It is important that governments and other decision makers also understand the long term nature of the energy supply business.

Another example of great current interest is refining capacity.

The damage to refinery infrastructure from hurricanes Katrina and Rita has removed perhaps 10% of available US refining capacity from service for several months. This has spiked gasoline prices in the US and pulled prices higher throughout the global market - including in Europe. The market is tight and it is well known that almost no new refineries have been built in Europe of the US for the best part of three decades.

So the questions are asked 'does Europe have enough refining capacity' and 'is now the time to invest in new refineries'? Again the investor is required to take a balanced and long term perspective.

Refinery economics are driven by margins and margins are now high by historical standards. In fact they are higher than they have been at any time over the last twenty years - when they were completely inadequate to encourage investment in new refineries. Yet the fact is we would need to ask ourselves whether today's margins will last for the next twenty years in order to justify a new refinery in Europe.

Which evidence should we take - the woeful experience of the last twenty years - or projecting forward on the basis of the last few months for the next twenty? It is a judgement that - at the every least - requires considerable caution.

Does this mean incidentally that there is no refinery investment in Europe? The answer is a resounding no.

There has been very large scale investment where you would expect to see it - in incremental capacity increases and - in particular - quality upgrading. As a result, European refiners are already meeting all requirements for low or no (10 ppm) sulphur diesel and gasoline several years ahead of the regulatory timetable.

Refineries have also invested heavily in areas such as clean air and ever more stringent environmental standards. These costs are essentially an expression of public policy choices - to invest scarce resources to meet one set of societal expectations rather than another.

The choices are complex. Further removal of sulphur from fuel requires a lot more additional energy in the refining process and results in additional CO<sub>2</sub> emissions. There are no longer any 'free lunches'. Policy makers need to be aware of these complexities and take them into account in the policy process.

I have taken some time to emphasise the long term and complex nature of our business. My second point is to underline the increasing *global character* of our industry.

At the most obvious level, surging demand growth in China and India has driven the fundamental tightening of the entire global oil market over the last two years. Hurricanes in the US have spiked gasoline prices in Europe and Asia and not only for domestic consumers. The growing level of global interaction is clear to all.

More fundamentally the global dimension is most relevant to security of supply. It is important to be clear that there is no physical shortage of oil in the world to meet demand.

The notion of 'peak oil' is a myth.

Global discovered reserves of oil amount to 1,200 billion barrels, along with some 6,300 trillion cubic feet of natural gas. In addition there are extensive resources remaining to be found and developed. The US Geological Survey estimates the discoverable volumes at another 960 billion barrels of oil and almost 5,000 trillion cubic feet of gas.

Even these figures exclude the substantial volumes of heavy oil known to exist in areas such as Canada and Venezuela. And it would be surprising if human innovation did not extract even more oil from existing and new reservoirs by further improving the technology.

In simple words: we believe that there is enough oil and gas to satisfy the demands of the world over this century. The security challenge is that the remaining reserves are heavily concentrated in a limited number of countries.

Given the expected growth in import requirements of each of the main consuming regions - the United States, China, Japan and Europe - reliable long term access to these resources is an issue of strategic competition.

According to IEA data, by 2020 over 65% of the world's daily demand for oil will be traded internationally. The four main importers (US, China, Japan & EU) will account for the overwhelming bulk of these trade movements.

On the supply side, more than three quarters of the trade requirements will be met by a small handful of countries. These are the oil producing states of West Africa (Nigeria and Angola), the five producing states of the Persian Gulf (Saudi Arabia, Iran, Iraq, Abu Dhabi and Kuwait) and of course Russia. It is this concentration of demand and supply that will focus concerns over security of supply and require a considered and long term international approach.

There are main four observations I would like to draw from this analysis.

My first is that it makes sense for Europe to continue to explore and utilise its own natural resource base with maximum efficiency. The UK North Sea is in long term decline but, given a stable and attractive taxation regime, is still capable of pulling in major investment interest – as shown by the last UK licensing round. The same is true for Norway.

It is important that the respective governments continue with policies that foster maximum efficiency and do not put at risk the remaining potential of these continuing important sources of supply.

Secondly it is important to highlight the vital role played over the last few years by Russia in meeting the growth in world demand. Russia already supplies Europe with 5.3 million barrels per day of oil and 2.2 million barrels per day of oil equivalent in natural gas. The scale of the resource base identified in East Siberia and Sakhalin, also suggests that increasing amounts of Russian oil and gas will in future flow directly to the Chinese and East Asian markets.

The overall scale of Russian reserves – both developed and undeveloped – implies that the volume of trade will continue to grow. These figures alone confirm that there is a strong case for seeing Russia not just as a large country of which we know little but as an essential partner in European energy and wider security.

Russia has made a remarkable transition over just twenty years from the early days of 'glasnost' and 'perestroika'. The transition is incomplete - but Europe has every interest in the development of a coherent programme of engagement to sustain this progress.

In addition to Russia the EU also should continue to strengthen its political and economic ties with the Caspian, Middle Eastern and West African producing countries.

My third observation is that the global character of the industry underlines the merit of the Energy Charter concept of a multilateral framework for energy relationships. It may also be the moment to begin to think more carefully about including a wider range of consuming and producing interests in the global mechanisms for emergency management.

Finally it is worth noting that we will see little investment in new refineries in Europe or the US - but that is not to say there will be no new refineries in the great consumer growth markets of the world. The announcement two weeks ago by BP of a \$3 billion greenfield refinery project in India - under a strategic joint venture with the Hindustan Petroleum Corporation - is a case in point.

Thus far I have focused on the long time scales and global reach of our industry and the implications for policy and decision makers.

I want to add the fundamental point that *markets work*.

Over the last few years we have seen a series of major uncertainties in the international oil and gas markets. Surging demand in China has been accompanied by major limitations on supply from Venezuela, Nigeria and Iraq. There has been a damaging fire in India and more the recent succession of hurricanes on the Gulf Coast of the United States.

And yet - through all these events - the fact is that there has been virtually no physical interruption in supply to any customer anywhere in the world - except where a direct result of hurricane damage. Rapid price signals have resulted in instant readjustments to production and distribution, ensuring full coverage of physical requirements. It has been a remarkable achievement.

It may also be worth reflecting that the only actual interruptions to European customers at any time in recent decades have been as the result of rather different factors - this summer for a few hours from an irresponsible press scare in the UK and on previous occasions from industrial action in the UK and France. The markets have done their job.

Which leads me to my final reflection. If this business is long term and global in character - and markets can be relied on to do their job - then what can governments and policy makers do to ensure

that markets work and that energy can flow on a secure and uninterrupted basis?

Emergency stocks are there to respond to just that – emergencies. This summer there was a physical shortage of gasoline in the US as a result of the hurricanes. The release of strategic stocks under IEA procedures gave the market the right signal, helping to cover the shortfalls by adjusting crude slates and trading of additional quantities of European gasoline into the US markets.

It matters not at all that the majority of the authorised release was not utilised in practice. This was a productive and appropriate response to an actual emergency.

As I said, it was the right signal at the right time. But let us be clear that this is not the same thing as the notion of using stocks to cover volatility. Volatility in the markets reflects real market signals and drives a market response. Intervention by government agencies distorts market signals and even implies that they can play the market (and OPEC) better than the market itself.

The market, however, knows that government agencies must replenish their stocks to meet emergency cover requirements, potentially at a much higher price.

It is a one way ticket that in practice may only enhance volatility and result in additional and unnecessary costs for the consumer. It is not an attractive place to go.

But there are some much more productive things to do and Energy Commissioner Piebalgs has set out many of them in his response to recent events.

First we must focus on energy efficiency. High prices tell us that energy is a valuable commodity and should be used efficiently and effectively. We completely agree.

Second we should look to diversify our energy pool where it is economic to do so and where there is a prospect of material scale. All the major oil companies are already making significant investments in alternatives such as solar, wind, hydrogen and biofuels - and also in technologies such as carbon capture and sequestration that are capable of providing significant climate change benefits.

However, the costs will remain relatively high and oil and gas will continue to provide the largest part of transport and liquid fuel demand for decades to come. In particular we should be clear that biofuels and especially ethanol are not panaceas for energy security and will incur a significant cost to the consumer and taxpayer. But

technology will continue to develop and - in due course - widen the diversity of available options on a cost effective basis.

Thirdly, much can be done to focus research and development activity on a material scale into the most promising areas including energy efficiency.

And finally we must look again - as I have argued earlier - to the basic mechanisms of international energy market security.

Here the EU has set a valuable precedent through its energy dialogue with Russia and now with the Caspian countries, with North Africa and with OPEC. The Energy Charter provides another important part of this fabric, as do the various dimensions of IEA activity and the WTO. Speaking for my company, we fully support and seek to provide constructive input to all these processes. It seems to us that the way forward is in greater and more active collaboration in all these areas.

It is an uncertain world and energy has to deal with perhaps greater uncertainty than almost any other industry - and it has to do so on a long term basis and at global scale.

Yet there are also many positive attributes that can give confidence for the future. We can see the huge strides made in technology and the clear capability and enthusiasm of our companies and people.

And we have the huge benefit of a global market with a proven track record of covering an immense range of circumstances without breakdown of supply.

Through dialogue and cooperation our aim should be to allow the markets to function and to direct investment, technology and expertise to the places where it is most needed and valued.

Ladies and gentlemen - thank you for listening.