Governance, innovation and service delivery

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This is the original text of a speech prepared by David Eyton, Group Head of Research & Technology. Due to the UK air travel restrictions at the time, Reyad Fezzani, CEO BP Solar, kindly stepped in and delivered a modified version of the speech at Stanford

Good afternoon, ladies and gentlemen. It is a pleasure to be here. I apologize to those of you who expect oilmen to look like Daniel-Day Lewis. This is about as rough as I get.

This is not the first time a representative from BP has spoken here at Stanford.

Back in May of 1997, our chief executive at the time, Lord Browne, came here to Palo Alto to deliver a speech on climate change. In so doing he became the first energy industry executive to acknowledge the risk of global warming. He argued that while the science surrounding the issue in 1997 was uncertain (and remains so today) there was enough evidence that combustion of fossil fuels could be contributing to global warming for precautionary action to be taken.

Today people of the world want affordable, secure and sustainable energy, and major technology advances are still required to deliver all three of these objectives at the same time and in most parts of the world. Whilst BP remains the largest oil and gas producer in the United States, with 29,000 employees here, it has also made great progress in reducing its emissions and developing alternative energies in the 13 years since Lord Browne delivered those remarks.

Today, BP has one of the largest wind portfolios in America: with two GW spinning by the end of this year, and a 20GW land position.

We are the largest blender and marketer of biofuels in the United States. Building on our sugar cane position in Brazil, we are planning to begin construction of a 36 million gallon-a-year facility in Jennings, Florida – making ethanol from lignocellulose, a material that comprises much of the mass of plants.

We are involved in three major Carbon Capture and Storage projects – in Algeria, Abu Dhabi, and here in California.

And, BP's solar business has been operating for 30 years, with sales last year of 162 MW. Taken together, our solar, wind, CCS and biofuels investments are delivering a more sustainable energy future.

That said, fossil fuels will still dominate the energy landscape for many decades to come. Even under the International Energy Agency's most ambitious scenario – which stabilizes atmospheric carbon dioxide emissions at 450ppm – the scale of the oil and gas business will be similar in 2050 to the one we have today.

Why do I mention all of this?

To the theme of this conference, BP's experience internationally relates largely to oil and gas. BP has always operated at the frontiers of the energy industry – both technically and geo-politically. And as time goes by, new supplies continue to get harder to find, more difficult and more expensive to extract, and are often located in politically less stable parts of the world. Indeed, political risk is likely to be increased by competition for resources.

Since my job is to ensure that BP has the technology it needs to contribute to the world's energy demands, let me start by describing to you the nature of technical risk we manage – and then I'll describe how that relates to our conversation today.

One of the goals set by President Obama last year was to reduce America's dependence on foreign oil. How? Three things: one, reduce demand; two, increase the use of renewables; and three, find other domestic sources for oil.

Today, arguably the most promising domestic targets to increase production are within US territorial waters in the Gulf of Mexico.

Exploration in the Gulf began in the early 1930s. It took the industry 40 years to develop the technology to move from the shoreline to 1,000 feet water depth. It took just 12 years to move from 1,000 feet to 5,000 feet. Last September, we discovered a giant field 35,000 feet beneath the sea: and in so doing set a new world record.

So, what might it take to develop these resources? Fortunately we have done something like this before, albeit a little shallower. In 1999, BP discovered Thunder Horse, about 200 miles off shore, where the water is 6,000 feet deep – with waves approaching 100 feet high. Today, Thunder Horse is the largest producing field in the deepwater Gulf of Mexico. It has the world's largest semi-submersible floating production facility, weighing 125 thousand tonnes (about the same as an aircraft carrier) with a deck space equivalent to three football pitches. It produces from reservoirs at a depth of 28 thousand feet below the sea and can withstand a Category Five Hurricane.

The depth and scale of Thunder Horse meant that a whole new generation of high pressure well equipment, subsea wellheads, flexible flowlines and equipment on the platform had to be researched, developed, tested and installed at a cost of many billions of dollars.

Our new discovery, known as Tiber, has its own set of challenges. But we enter the process of appraisal and development knowing that we have been in this situation before, and that we have the ingenuity, technical capability and support of a whole industry based largely in Houston to overcome them

Why do I describe all this? America has a stable set of rules, the territorial protection of U.S. law and a mature oil and gas industry. Now try taking on a challenge analogous to Tiber in a developing country with limited capacity in any or all of these respects. One could argue that the risks are then greater above ground than below it.

Over the last two decades, we have operated in Angola as it was coming out of a civil war; in Russia after the collapse of communism; in Azerbaijan as it was emerging from the Soviet Union; and in Colombia where guerrilla groups were active; among others.

Recently, we have returned to Iraq, where the emphasis has now moved on from competition for oilfields to competition for water, for pressure maintenance in the oil reservoirs.

So, how do we do business in the developing world? How do we sign 30-year contracts and expect future governments to abide by them? BP's business model involves taking huge risk over many years and backing this bet with our capital. No company wants to go into a country, spend billions or dollars and then have them say, "thank you. You can leave now." And this has happened to us. During the last century, BP was asked to leave Iran, Iraq, Nigeria and Venezuela.

I would say we've generally learned four lessons.

The first lesson we've learned is the importance of mutuality. Many countries with major new oil and gas discoveries lack the kind of expertise and technology that I just described as being deployed in the Gulf of Mexico.

Governments realize that if they are going to extract those resources and profit from them, they need to partner with somebody who knows what they are doing. And most realize that abandoning a contract carries risks for them, too.

What we need is a legal system – to have confidence that a deal can be enforced. There also has to be order, enforced by the police and/or an army. And lastly, we need a fiscal or regulatory regime which describes how the money flows and the rules of the game. These can be difficult in less well developed countries, but if we have them we can probably do a deal, and provided that we are sure we can keep our people safe, then we can begin operations.

I would argue that mutuality is not simply about a deal, but structuring the relationship so that you are adding value over a long period of time. Absent this, the local community will turn around and kick you out.

The second lesson we have learned is that if you don't find the capacity you need in regions of promise, you have to commit yourself to building that capacity – even if it takes decades. In any case, it can often be a decade between the signature of contract and first production.

A good example is Indonesia – in West Papua – where we have developed an offshore gas field and linked it to a liquefied natural gas plant onshore where there was no industry at all, just local villages and the jungle.

In the colonial days of old, companies would fly in a group of ex-pats, put a big fence around them, and have them manage everything. That's not what we do today. Our license to operate in a country is only as good as the community's attitude towards us. We help build the capacity in the country for the local people to do the work themselves.

The amount of capacity-building we have to undertake depends in particular on the quality of the education system: does it turn out educated people, in what disciplines and in what quantity?

So in West Papua, we signed a contract in 2000 and began to produce gas just recently. In the decade in between, we built up local capacity: building roads and hospitals; improving local education and training people to work at our sites; and creating a microfinance program to help local residents build up their own wealth. In short, everything needed to create a supportive local community, which can share in our success. We have estimated that in places like West Papua, the multiplier effect of our direct investments can be a factor of ten – the money we spend locally gets spent again and again in the communities in which we operate.

The third lesson we've learned is that the degree to which you can have a positive and direct impact on the people who work for you is a huge part of your success in a country.

Having spent time in Trinidad, I was struck by how much the nation's attitude toward us was a direct reflection of how our employees felt, because everybody in the country was known to somebody who knew our employees. When you upset your employees, you upset the entire nation. Your people truly are your greatest ambassadors.

Also, local people know how to get things done. When my wife and I first arrived in Trinidad, we had the hardest time getting our phone connected. A native Trinidadian that we had befriended said, "what's the problem?' My wife said, "The phone company won't come and connect the phone." She said, "Don't worry – I'll call a friend of mind in my church." Ten minutes later, the phone was connected. Every country has its own way of doing things, but the local rule always holds, and local connections matter most.

Finally, the fourth lesson we've learned is that no matter how much you think you know, you never know everything: you have to have the humility to ask for help.

When operating in countries for the first time, there are always institutions, NGOs, diplomats, and others who know about those places and how to do business there.

There is also some codified best practice. We are supportive of governments who seek to join and adhere to the principles of the Extractive Industries Transparency Initiative. It is a coalition of governments, companies, civil society groups, investors, and international organizations who have come together to strengthen governance by improving transparency and accountability in oil, gas, and mining. It sets out a standard for governments to disclose what they receive. Azerbaijan is now proudly an EITI-compliant country.

In some instances, the challenges are so great that we form independent advisory committees, also known as 'blue ribbon' panels.

For example, in Azerbaijan, we had to build a pipeline from Baku to Tbilisi through Georgia and Turkey at a time when there were quite a few tensions there. We listened to and learned from a wide range of international, national and local stakeholders. The independent panel, under Jan Leschly's chairmanship, advised us on the things that might not naturally occur to us, including the effects on the local community and political, economic and social conditions. We also sought advice from scientists who had a thorough understanding of that country's geology. Today the pipeline is carrying one million barrels per day to the Mediterranean.

The same thing happened in West Papua, where we had to move a village in order to be able to build the plant. That is an extremely difficult thing to do well. This time, the independent panel was chaired by former US Senator George Mitchell and included local community leaders. All parties worked together not just to move part of the village, but to rebuild it better. The project is operational today, and the local residents seem happy with the results.

The lesson is: unless citizens feel some kind of ownership in the project, you are not going to be successful.

In conclusion, let me say that the idea that energy companies can simply exploit the natural resources of nations is an idea whose time has passed – if indeed, it was ever real to begin with. Our primary job is to win their permission and trust, to operate as guests in their country, and leave something of value with them.

No matter what field or discipline you are in, that formula will take you a long way.

BP recently celebrated its 100th anniversary. In fact, one company that became part of the BP family dates all the way back to 1847. In other words, when we first started selling petroleum products, Abraham Lincoln had yet to be elected President and the Quing Dynasty ruled China!

I'd like to think that we couldn't have been as successful if we hadn't learned something about mutual respect, trust and understanding of each other's needs – which are all supplies the earth truly can never get enough of. And BP is keen to continue building them in the 21st Century, together with all the talented people in this audience today. I look forward to your questions.