Value-Driven Partnerships for a Diverse Energy Future

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Jeroen van der Veer is Chief Executive of Royal Dutch Shell plc. He joined Shell in 1971 and worked in manufacturing and marketing in the Netherlands, Curaçao and the United Kingdom. In 1992, he became a Managing Director of Shell Nederland. Three years later he became President and Chief Executive of the Shell Chemical Company in the United States. He was appointed a Group Managing Director in 1997.

Jeroen was born in the Netherlands, and is married with three daughters. He has two degrees – one in mechanical engineering from Delft University and another in economics from Rotterdam University.

He is a Non-executive Director of Unilever.

This text forms the basis of a speech delivered by Jeroen van der Veer at the International Oil Summit in Paris on April 2nd, 2009. It may differ from the spoken word.

With long-term energy demand going up, the world will need more diverse energy, even though fossil fuels will continue to dominate the energy mix for decades. To produce hydrocarbons effectively, efficiently and responsibly, value-driven partnerships between national oil companies and international oil companies are key. Against that backdrop, and given our skills and capabilities, Shell's primary responsibility continues to be to deliver oil and natural gas, with a growing role for natural gas. In addition, we are stepping up our efforts in the area of sustainably sourced biofuels, because they fit our downstream capabilities and could make a substantial contribution to reducing CO_2 emissions.

Short-term volatility

These are very tough times for governments and companies alike. The speed and scale of the downturn has taken all of us by surprise.

The recession could slow down investments by the oil and gas industry in new projects. This would amplify the already cyclical nature of our industry.

And, in addition to the short-term volatility, there is also growing long-term volatility. This volatility is related to the dual challenge of increasing energy supplies and reducing greenhouse gas emissions.

Meeting both challenges at the same time will not be easy, as higher energy use will cause higher CO_2 emissions, unless we can find ways to produce more energy and implement more CO_2 solutions at the same time.

So the oil and gas industry faces both short-term volatility and long-term volatility.

I will discuss both, and then will present some thoughts on what can be done in response.

I'll round off by saying something about the contribution Shell intends to make – as a company and as a value-driven partner for National Oil Companies.

Long term volatility: Three Hard Truths

Today, global oil *demand* is roughly 3% lower than last year.

The oil *price* is back to where we were in 2004, but industry costs have doubled since then.

At the same time, many producing fields are in decline. And we know that when the economy recovers, so will energy demand.

And when that happens, three hard truths about today's energy system will become apparent again.

Let me remind you of them.

The first hard truth concerns energy demand. Despite the drop in energy demand in 2008 and 2009, it is still likely that global energy use will double during the first half of this century.

The current slowdown in energy growth should still be seen in the context of a huge surge from 2004-2007, particularly from emerging economies.

So, the ups and downs of economic volatility and the current crisis may impact the details of this hard truth, but the trend remains in place.

In meeting the world's energy needs, there's no doubt that oil and gas remain the main staples of the world's energy diet for a long time to come.

So you would expect our industry to be fully committed to investing in projects that will deliver the supplies of the future.

That brings us to the second hard truth. It concerns the supply side. It is that "easy oil and gas" – or conventional oil and gas that are relatively easy to extract - will not be able to grow at the pace with which demand is growing. Many existing fields are maturing, the required investments are huge and access to resources is limited in many countries.

Even if investments were kept up according to pre-recession plans, once energy demand picks up again, it will be difficult for the upstream industry to bring on line new supplies at the pace required.

According to a survey by Barclays'

"The current slowdown in energy growth should still be seen in the context of a huge surge from 2004-2007, particularly from emerging economies."

Capital of over 350 upstream companies, investments will actually fall by 12% in 2009. And this is probably too optimistic.

A supply crunch by mid-next decade seems possible and could be severe. This would result in new price spikes, putting another drag on economic recovery. Then the "boom-to-bust" story could begin all over again.

The logical consequence of lagging conventional supplies is that we need all the energy we can get, from all the possible sources. We at Shell call that "Diverse Energy".

However, even if we develop and deploy all the energy we can together – including unconventional oil and natural gas, including alternative energy, including nuclear and including more coal – it will still be a struggle to match demand, unless we learn to use energy in radically more efficient ways.

The third hard truth is that more energy means more CO_2 emissions. We are currently on a path to atmospheric CO_2 concentrations that scientists consider unsustainable.

The response

So what is the place of oil in this increasingly volatile world? And what role does Shell see for itself, as a company and as a partner?

It would be good for international society to continue investing in a diverse energy mix, in cap-and-trade mechanisms that put a price on CO_2, and in CO_2 Capture and Storage as a vital technology for taking CO_2 out of the fossil fuels chain.

Given the high costs still associated with CCS and renewables, government support will be necessary to come to a commercial business model.

What about the place of oil in the world's increasingly diverse energy mix?

It very much depends on climate policies.

There is a clear desire internationally to reduce the CO_2-intensity of mobility.

Some governments may feel pressure to attempt a rushed displacement of oil in the transport sector, without understanding the true cost of electrification.

So the race is on to reduce the CO_2-intensity of liquid fuels on a wells-to-wheels basis.

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We can make room for oil in transport through a combination of biofuels, lighter-weight vehicles, more efficient engines, and, in the longer term, by adding CCS to liquid hydrocarbon fuel production.

If we can make progress in these areas, liquid fuels will be able to compete with vehicle electrification on environmental grounds for decades, not to mention cost and convenience.

If producer nations agree they have an interest in making room for oil in transport, they should actively support CO_2 Cap and Trade mechanisms, CO_2 Capture and Storage and biofuels.

Shell's contribution

The 3 Hard Truths force all of us to make choices. We explained Shell's choices at our strategy update on 17 March.

That's where we announced we would give priority to biofuels over wind and solar in our efforts to build a commercially attractive renewables business.

We were criticised for that decision by some environmental groups and commentators.

So let me try to explain the rationale behind our continued focus on oil and natural gas, and our position on alternative energy.

We recognise of course that a much higher share of the world's energy must in the future come from non-hydrocarbon fuels.

But our scenarios work makes it clear that oil and gas will continue to be the world's primary source of energy for decades to come.

Clearly we must produce, process and distribute oil and gas in a responsible manner.

I think it's fair to say that Shell has high standards and a lot of experience operating in sensitive areas. The Sakhalin II project in Russia is a good example.

In Sakhalin, we re-routed offshore pipelines to protect sensitive whale feeding grounds. And when we laid onshore pipelines, crossing a thousand rivers and streams in the process, we took great care to protect sensitive salmon spawning areas, sometimes tunnelling under streambeds or performing work in the cold of winter, when crews would have less impact.

We're also redoubling energy efficiency efforts at our refineries, chemical plants and production facilities.

And we're helping consumers with energy-saving products and tips.

For instance, in a recent Fuel Save Challenge in the Philippines, drivers reduced fuel consumption by as much as 24%, just by changing their driving habits.

And in the Netherlands, we have just introduced Fuel Save, a new Euro 95 petrol, that saves up to a litre per tank, (based on a 50-litre fill-up.) In the Netherlands, one litre per tank adds up to around 110 million litres of petrol saved each year.

Finally, Shell is continuing efforts to increase production of natural gas. We think long-term demand for natural gas will grow, in part because it is the cleanest-burning fossil fuel.

We are the world's leading LNG producer and have projects underway that we expect will increase our capacity by about 40% between 2008 and 2011.

Indeed, we are increasingly becoming a gas company. In 2008, about 45% of our upstream production was natural gas. And that proportion is likely to rise in the years ahead.

Alternative energy

Now let me say something about alternative energy.

We have looked very seriously at wind, solar, biofuels, hydrogen and CO_2 capture and storage. Today, the largest of these activities is in Wind and we have 550 MW of capacity.

We will now focus on operating our existing wind farms with increasing reliability and safety, and generally speaking, we're doing a good job.

As regards solar, we sold our conventional Silicon solar business several years ago. However, we have a stake in a 20 MW solar thin-film manufacturing company in Germany. And our company in Japan, Showa Shell, is a player in solar.

We think hydrogen is still an interesting option, but for the very long term.

Biofuels

For the next few years, Shell will focus on biofuels. Why is that?

First of all, sustainably sourced biofuels could make a substantial contribution to reducing CO_2 emissions.

Second, they are a natural fit with our downstream capabilities in transport fuels.

We believe biofuels could grow from just 1% of the world's transport fuel mix today to as much as 7–10% over the next few decades.

We are the largest distributor of first generation biofuels: 6 billion litres distributed in 2008.

So we can bring our weight and influence to implement sustainable practices and grow a sustainable biofuel supply chain. If sellers want to supply Shell, they must commit to working with us to develop a more sustainable supply chain.

We will track their performance against the social and environmental safeguards we're writing into their contracts.

We also have a leading portfolio of next generation biofuels. This portfolio is comprised of research positions in conversion technologies and feedstocks, for example algae, and small-scale projects in production of these advanced biofuels with even more attractive lifecycle CO_2 profiles.

We think commercial volumes of next-generation biofuels could be on the market in five to 10 years. To get there, we are investing in partnerships targeted at technical breakthroughs and cost-reducing innovations.

So in the area of alternative energy, Shell will focus on fuel from biomass,

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because we are good at it, and we think it has a lot of potential to address CO_2 emissions from energy.

CO_2 Capture and Storage

At the same time, we will also continue to be active in CO_2 capture and storage.

We have made progress with several potential projects including in Canada, where we are taking part in the Weyburn-Midale CO_2 monitoring and storage project; and in Germany where the first injection of CO_2 was carried out in June 2008 at the CO_2 SINK project - the first European scientific project to demonstrate onshore CO2 storage in a saline aquifer.

Shell is also a partner in the Gorgon LNG project in Australia; should this project be approved by the government and JV partners, it could also become one of the world's largest CCS endeavours.

NOC-IOC partnerships

This brings me to my next theme: value-driven partnerships between National Oil Companies (NOCs) and International Oil Companies (IOCs).

As long as hydrocarbons are needed to meet the world's energy needs, we will need to extract them effectively, efficiently, and responsibly, using all the skills and capabilities of all industry players.

By combining the best of our technologies and skills, the oil and gas industry can achieve a higher production peak in the future, and push the peak back by years or decades.

Enduring, value-driven partnerships between NOCs and IOCs can help us to generate more economic value over the long term for both parties, while sharing risks and rewards fairly, including when the going gets tough.

We all have our value propositions. As regards Shell, I think it's fair to say that we bring to the table: technology, global learning, global contract leverage, experience in developing deep local supply chain capacity and in developing national staff.

In addition, Shell is a company that "stays and delivers". Let me give you a few examples.

In Russia, when the going got tough over Sakhalin II, we found a mutually acceptable solution, moved forward and completed the project – embracing Gazprom as a proud partner for the long-term. Now it's on stream, producing oil and Liquefied Natural Gas (LNG).

In Nigeria, despite the difficulties, we stay and continue to deliver energy supplies. We continue to invest in new projects, local communities and building local skills and supply chains. And we found ways to use our financial strength to support funding in our upstream joint venture.

And of course we have been in countries like Oman, Brunei, Malaysia and the Emirates for many decades, working together to provide value to the nation. And becoming partners of choice for the long term.

Saudi-Aramco and Shell jointly own petrol stations in the United States, and are currently expanding the huge Port Arthur refinery there. We are also partners with shareholdings in Showa Shell in Japan.

In Qatar, the Pearl GTL project will supply customers across the globe with remarkably high-quality liquid products. Pearl will diversify Qatar's market for natural gas from LNG and bring benefits for generations to come.

Also, we are drilling in Libya now, and working to upgrade an LNG plant there.

What all these partnerships have in common is a willingness to share risks and rewards fairly, and to stick together in good and bad times.

So enduring, value-driven partnerships contribute to sustainable development and growth, and create a true sense of stability in 'good times and in bad'.

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Summary

Let me summarise my main points:

In light of the world's growing long-term demand for energy, the world will need to produce "diverse energy" from all possible sources.

Hydrocarbons will remain a key component in the world's energy mix.

At the same time, concern over greenhouse gas emissions is growing.

Against this backdrop, the oil and gas industry is in a race to reduce the CO_2 wells-to-wheels intensity of oil.

Progress in this area is important in order to make room for liquid fuels in the transport sector.

Producer governments could help by promoting CO_2 cap-and-trade mechanisms, CO_2 capture and storage, and biofuels.

Royal Dutch Shell remains an oil and gas company with a growing interest in natural gas and biofuels. We will continue to pursue CCS projects that help reduce the CO_2-intensity of fossil fuels.

And Shell remains interested in enduring, value-driven partnerships with NOCs as a way of:

- mobilizing the industry's full set of skills and capabilities;
- distributing risks and rewards fairly across the globe;
- promoting the most efficient, effective and responsible management of the world's hydrocarbon resource base;
- and thereby extending the economic life of what are ultimately finite resources by years and decades.

Thank you

Figure 1: Motiva refinery expansion, Port Arthur, USA

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