



**Performance through adversity:
Keeping our eyes on the energy and
climate challenge**

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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 Confederation of British Industry's (CBI) Annual Conference in London on November 24th, 2008. It may differ from the spoken word.

In this speech on “performance through adversity”, Jeroen discusses why we should continue to address the energy and climate challenge, despite the immediate challenges posed by the financial crisis. The energy challenge can be summarised as: more energy, less carbon dioxide. Shell takes this challenge seriously and intends to be among the industry's leaders in responding to it. In this speech, Jeroen explains what policy frameworks Shell believes must be put in place internationally as a matter of urgency, and what Shell is doing to deliver affordable and sustainable energy for a growing world population.

Introduction

We have been asked as speakers to address the theme: ‘performance through adversity’.

Of course, in Shell we know something about this theme.

Our company faced a little adversity in 2004, survived it by improving our performance, and now we are back on track.

It's hard work - your reputation arrives on foot, but leaves in a Ferrari, with a Shell fuel that makes it go even faster.

In the grand scheme of things, Shell's adversity was an isolated event, a local storm.

The credit crisis is a real storm, affecting the global financial system and, now, the real economy.

But the same leadership principles apply.

Imagine you are the captain of a ship that's caught in the middle of a storm.

Your first concern is to save the ship – of course. But that isn't enough. When the storm dies down, you don't want to discover that you have been blown way off course.

So “performance through adversity” is about surviving the storm *and* staying the course.

The financial crisis is bigger than most of us could have imagined. Many ships have been damaged and some were lost.

But the storm will die down again and the financial system will survive.

Of course, in Shell we have taken and are taking our measures. And we constantly review our planning in

connection with financial risk.

It really is all hands on deck and overtime on the bridge.

However, today, I will focus on that other great challenge – the energy and climate challenge.

The energy challenge may have been pushed off the front pages. But it's still there - it is simply hiding behind the fears of recession.

It will return to prominence, and when it does, I promise you it will return with a vengeance.

So in the next 20 minutes, I'd like to

- discuss learnings from the financial crisis,
- then discuss the energy and climate challenge and what to do in response.
- and, finally, I will explain what you can expect of Shell.

Financial crisis

If there is one thing we should learn from the financial crisis, it's that the world is not flat – at least not as flat as the Netherlands.

We live in an interconnected world, but markets cannot function without governments.

And of course, sometimes governments try to over-regulate us; I know that – you know that. Okay, then we raise our voice.

The financial market is probably the most globalised of all markets, the most laissez-faire of all economic sectors.

But self-regulation clearly didn't work.

And I think that we probably all agree that pure laissez-faire is not the

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future.

I believe that over the past few months, governments have done a pretty good job.

The UK government in particular deserves praise for its leadership role: a good example of performance through adversity!

Looking further ahead, while there is good reason to be concerned about the economic slow-down, I also think there is still some room for optimism.

There is a need for new public services, and new financial and IT products. Banks certainly will need new risk products.

Today's crisis may well be the first step in the direction of a smarter global financial system, with a better understanding of risk, more international coordination, and more effective governance.

If we now turn to energy, the obvious question is, do we first need a crisis to create a smarter energy system or will we manage climate risk better than we did subprime mortgage risk?

Three Hard Truths

The answer matters.

The problems of the financial crisis are huge, but they're not as big as the problems awaiting us if we fail to build a cleaner energy system.

Let me summarise the energy challenge in five words: More energy, less carbon dioxide.

This challenge stems from three hard truths:

First, demand for energy will continue to surge.

A period of economic slowdown may moderate demand growth for a while, but the longer-term trend is still upwards. That's because 3 billion energy consumers will be added to the world's population during the first half of this century.

And all those people like to have electricity. They all want to drive in at least a Tata. A Tata uses less petrol than a Hummer. But it takes energy to move the wheels, whichever car you drive.

Second, energy supplies – from all

sources – will struggle to keep up with demand.

Third, the environmental stress from producing and using all this energy is increasing.

This is our reality. Where do we go from here?

Blueprints

To answer that question, our scenario team developed two future outlooks for the period up to 2050. One is called Blueprints – the other one is called Scramble.

In Scramble, governments focus on securing energy supplies. The risk of climate change is largely ignored until problems become severe.

In Blueprints, cross-border coalitions of countries, cities and companies address all three hard truths simultaneously. There is growing international alignment on CO₂ pricing.

Shell prefers a Blueprints approach because it provides a more stable business environment, with faster take-up of new technology, higher energy efficiency, and lower greenhouse gas emissions.

Beyond Blueprints?

But I want to emphasise that Blueprints is not a Goldilocks outcome.

In Blueprints, as we do with all our scenarios, we started with today's reality. And in this case, we substantially increased the speed of technological change that we've seen historically.

But even in an ambitious scenario like Blueprints, we do not see a downward trend in CO₂ emissions from energy before 2020.

The reason is that the world is already locked in for the short term – think of the many coal-fired power plants currently being built in China, power plants that are not equipped with CO₂ Capture and Storage technology and will remain with us for at least 40 years.

And, against the latest scientific evidence, even Blueprints ends at higher atmospheric stabilisation levels of greenhouse gases than scientists are

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recommending.

This suggests that technology change needs to happen even faster than we've foreseen in Blueprints.

Governments and society at large will have to decide what more can be done and at what price – taking into account all three hard truths.

To understand where the greatest cuts can be made at the lowest cost, Shell is working with other companies and NGOs in an effort to develop a global "CO₂-abatement curve".

The results of this exercise will be published before next year's climate conference in Copenhagen. So, hopefully, it will help governments make informed decisions.

Blueprints policy framework

What kind of policy framework is needed to make Blueprints work, or do even better than our scenario models indicate?

I think there are a number of key ingredients – and I hope that the Copenhagen climate conference will deliver on them.

By far the most important ingredient is the deployment of worldwide cap-and-trade systems. Cap-and-trade is the foundation on which the rest of the policy structure rests.

And let's remember that the emphasis is on the cap. It's the cap that drives down the emissions and it's the trade that enables us to do so at the lowest cost. Fundamentally it's about government telling industry to reduce its emissions and fining them if they don't.

Shell has supported the European Union's Emissions Trading Scheme from the beginning. For instance, we co-signed a letter to Tony Blair 2 years ago, urging the tougher end of the caps on ETS phase 2.

Secondly, as part of these CO₂ cap-and-trade systems, we need full support for CO₂ Capture and Storage, or CCS. CCS is the only technology we currently possess that could reduce CO₂ emissions from fossil fuels in large quantities any time soon.

We need an international CCS project

mechanism that delivers a fully convertible certificate for one ton of CO₂ stored underground. This could be established under the Clean Development Mechanism or as a separate instrument.

We also believe that CCS should be a priority in multilateral technology funds that focus on the needs of developing countries, such as the World Bank's recently established Clean Technology Fund and Strategic Climate Fund, which the G-8 countries have said they would support.

Of course, there is more to be done.

In buildings and appliances, we should adopt robust energy efficiency standards. The potential for cost-effective savings are substantial.

According to the European Commission, 30% less energy use in this sector would equal a reduction of 11% of the EU's total final energy use.

We also need to boost renewables by adopting simple, credible targets for wind and solar energy.

And in the transport sector, we need to promote 1) vehicle efficiency, 2) public transport and 3) sustainable fuels that emit less CO₂ on a well-to-wheels basis.

You probably don't expect an oil man to say this, but it is a fact that high taxes on transport fuels have promoted vehicle efficiency in Europe.

The European vehicle fleet is 40% more efficient than its US counterpart, which saves Europe nearly 3,5 million barrels of oil imports each day – or the equivalent of the UK's and France's combined daily oil consumption.

The UK government deserves credit for their international and domestic efforts on energy security and climate change. I believe the establishment of the independent Committee on Climate Change was a brilliant idea. It's a unique model that takes a lot of the politics out of the debate and I would hope other countries would create similar bodies to assist governments and hold them to account on their national CO₂ reduction efforts.

But it is probably also true that the

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UK faces a more acute energy challenge than some other EU member states. In the next 25 years, 25 gigawatts worth of coal-fired and nuclear power will be phased out. And if the right measures are not taken, there is a risk that the lights will go out and the UK ends up with the wrong CO₂ footprint.

So it's quite right to place energy and climate at the top of the UK national agenda – and keep it there.

Shell's contribution

Energy and climate will certainly also remain at the top of Shell's agenda.

Delivering energy remains vitally important. Between 1.6 and 2 billion people on our planet still aspire to gain access to electricity.

That's why the Shell Foundation, a charity, is helping to increase access to modern and affordable energy in the developing world. In one of its initiatives, the Shell Foundation finances and supports a small enterprise in a rural part of India that uses the waste from rice production to provide electricity for the first time to thousands of people.

And to help supply the world's growing energy needs, Shell itself is investing in long-life projects that will help us to grow production by 2-3% per year in the next decade.

That's also why we're investing in further growing our leading Liquefied Natural Gas portfolio.

And we're building the Pearl Gas-to-Liquids project in Qatar – the largest single equity investment in a single project by a UK plc ever! Already, over \$1 billion of orders of goods and services for this project have been placed in the United Kingdom.

To promote energy security for the UK, Shell is continuing to invest hundreds of millions in the North Sea. Last year, we produced almost a fifth of the UK's oil and gas production. This year, Shell UK brought four new North Sea fields on stream.

As regards the other part of the challenge, we said nearly 10 years ago that climate change needed to be tackled and we've been reducing our emissions

and developing our product portfolio accordingly.

We have quite a lot of technologies for making fossil fuels cleaner. For instance, we have an excellent coal gasification technology that facilitates CCS.

We are involved in several CCS developments and our clean coal technology was selected for a project under consideration in the UK.

And we recognise the potential of CCS for reducing the CO₂-intensity of petrol from oil sands in Alberta.

Oil sands on a well to wheel basis are about 15% more CO₂-intensive than conventional petrol. The CO₂ emissions from all the oil sands production in Canada taken together is about a quarter of CO₂ emissions from burning coal in the UK alone. So oil sands are not off the scale environmentally. It's a problem that has to be dealt with - just like the UK's coal.

We also need to remember the consumer. More than 20 million customers cross Shell's doorstep around the world every day. Shell is determined to help them reduce their energy consumption through innovative products and services.

We already offer a range of "Fuelstretch" tips encouraging drivers to reduce the amount of fuel they use by driving more efficiently.

Here in the UK, as some of you will know, motorists can trade in their loyalty points for carbon offsets at double the value for the other uses of their loyalty points. And, by the way, these offsets are under the official CDM programme for CO₂ reductions that have actually been realised, audited and certified.

On the renewables side, Shell blends in more biofuels worldwide than any other company. Of course we've long recognised the potential sustainability issues associated with first generation biofuels, and so we've been a leader in developing a set of standards for sustainable sourcing of these fuels.

And we lead the development of a commercially viable next generation portfolio of fuels. We have what we

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think is an excellent technology pipeline. We have partnerships with companies in Europe and North America that are all aimed at producing biofuels from non-food biomass or from crop residue.

We're also one of the world's top 20 wind companies, with a substantial number of projects in North America. I realise a lot of people here in the UK were disappointed by our decision not to proceed with the London Array windfarm. We were disappointed too that the project did not pass our economic hurdles. But when it comes to investing hundreds of millions of pounds in decades-long projects, we have to be commercial, whether it is fossil fuels or renewables.

In Germany, we've just finished construction of a pilot plant for thin-film solar panels together with our partner Saint Gobain. It will have an initial capacity of 20 MW, enough to power around 6,000 European households per year with clean energy.

We have Hydrogen projects in America, China, Europe and Japan.

I don't think we need more evidence that Shell is serious about the energy and climate challenge and serious about being an industry leader in managing climate risk.

We believe that if we make the right choices, we can turn the CO₂ challenge into a commercial opportunity for our company.

Conclusion

I realise there is a financial crisis that affects all of us, and we at Shell have taken our own actions.

However, this is no reason to ignore the energy and climate challenge.

Dealing with this challenge provides work for decades, and we must continue this work through the financial crisis and other future crises.

I'm confident the technology is or will be there to help, as it has always done in the past, when society needed to overcome major hurdles.

What is more difficult to predict is consumer behaviour and political actions by future governments.

Are people prepared to pay more for green?

Will governments have the courage to make laws and set rules that consumers don't like?

Can we collaborate in order to get the required speed to address the energy challenge?

And that brings us back to the point about leadership.

Who needs to lead? All of us do.

Governments need to set policy frameworks to co-operate internationally.

Industry needs to respond with its own energy efficiency measures, reducing its own CO₂ footprint and enabling its customers to reduce theirs by coming up with improved low-CO₂ products.

And we as individuals need to change our habits.

We were recently reminded that the market is the servant of society.

It is vital now that we create a cross-border CO₂ market that helps us to build a cleaner, smarter energy system.

Thank you

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