



World Energy Congress 2016

Bob Dudley, group chief executive





Good morning everyone.

It's a pleasure to be here for one of our industry's truly great global occasions.

My thanks to the World Energy Council – you have picked a stand-out venue this year.

This is one of the world's most historic cities, and that's as true in energy terms as any other you could mention.

Istanbul has been the meeting point of east and west for centuries. And that tradition is going from strength to strength when it comes to energy.

In BP we passed a milestone of our own a few years ago: a century in business here in Turkey.

We have seen some changes in global energy in that time. Our industry has had highs and lows over the years and continues to do so.

But the sweep and clock-speed of change have taken on a different pace in the 21st century.

Our world has become much more competitive, with abundant supply now keeping prices low.

At the same time, we are more aware than ever of the impacts from climate change and the need to reduce carbon emissions.

Both of which mean that businesses are faced with hard decisions – and the choices they make will determine whether they succeed or fail.

So in my remarks today I want to look at these three challenges – three 'C's:

- the challenge of competitiveness
- the challenge of carbon
- and the challenge of choice



And in doing so, I want to highlight the vital strategic role that Turkey is playing in the world of energy.

Let me start then with the competitiveness challenge and the fundamentals of supply and demand.

As we are all very aware right now, we are going through a time where supply has outstripped demand.

Technology has continued to unlock new sources of supply – notably shale oil and gas in the US.

At the same time, global demand growth has slowed from the extraordinary pace of the past 20 years.

As a result, energy is abundant – prices have come down – and the pressure is on to become more competitive at lower prices.

These are profound changes that mean we need to be competitive in a way that's different from the past.

In previous cycles, as an industry, we have let costs drift up when prices are high, then cut back when prices fall.

From now on, the challenge is to build - and sustain - businesses that are good through all cycles.

We can't lose our discipline on costs at any time, or let capital expenditure slide out of tight control.

There are a number of ways we can prevent that happening.

The first is through a constant focus on simplification, cutting out waste, improving efficiency and driving up reliability.

Safety is really important here. It is the result of disciplined, rigorous, systematic working – and that approach also yields other benefits.



In BP we have seen our numbers on efficiency and reliability go up at the same time as safety has improved.

They go hand-in-hand.

The second is being innovative with our business models. We need to be open to new ways of working.

One recent example in BP is the deal we have done with Det Norske in Norway.

We have combined the strengths of both companies in a new business called Aker BP.

It will bring together Det Norske's streamlined operating model and our technical skills, international experience and knowledge of the Norwegian offshore, built up over decades.

The third step is to take full advantage of the latest revolution in technology.

The digital revolution is being described as the next Industrial Revolution and you can see why.

Things that used to take months – like the analysis of seismic data – are taking hours as a result of supercomputing.

That means we can find answers to problems in seconds, with a huge impact on productivity.

Virtual reality is also taking performance up a level at a time.

We have trained crews onshore in the latest state-of-the art simulators, leading to teams drilling wells 40% ahead of schedule and 40% under budget in one recent project – and all drilled to the usual rigorous safety standards.

The fourth competitive step is an area where you could say that we need to be *less* innovative rather than more.

I'm talking about standardisation – making the most of what's already proven to work well.

Standardisation has huge potential to lower costs and that applies to individual components as well as procurement specs and even whole projects.

And fifth, let's not forget the human side of things. Relationships are more important than ever.

We need respect on all sides when negotiating costs down across the supply chain in a way that is sustainable for everyone.

And in terms of relationships with governments, it's a time to work together to ensure that investment continues to flow. That requires mutual trust, flexibility and contractual arrangements that share risks and rewards equitably.

Let me turn to the second challenge now, which is the carbon challenge.

Energy is only one of the many important sectors for the climate challenge, but as energy companies, we have a major part to play in the transition to a lower carbon economy.

We have a responsibility to provide more energy, because global demand is still growing.

We think the most likely path says demand will be about a third bigger than today by 2035.

And yet at the same time, we need to be reducing emissions of greenhouse gases.

Momentum for action has been growing for some time and the agreement reached in Paris at the UN climate conference could be an important milestone.



We welcomed the agreement in BP. We are playing our part and we encourage governments to play their part by putting a price on carbon and encouraging lower carbon solutions.

In BP we have actually been a part of the momentum for some time, and we are generally recognised as one of the first major oil and gas business to publicly acknowledge the need for action on climate change.

For more than 15 years we have supported the Carbon Mitigation Initiative at Princeton University in the US which has been a leader in research into the science of climate change and potential policy solutions.

And we have invested a substantial amount in low carbon businesses.

Not everything has worked commercially, but you always gain something from experience and today we have two significant renewables businesses.

One is in Wind in the US and the other Biofuels in Brazil.

Together they add up to the largest operated interest in renewables among the oil and gas majors.

We also have interests in a wide range of clean tech start-ups through our venturing activities.

We're also a member of the Oil and Gas Climate Initiative or OGCI - a collaboration between 10 major oil and gas companies to lead on the development of carbon-lowering actions.

One example of such collaborative action is looking at the potential of carbon capture use and storage – CCUS for short.

We know CCUS has the potential to play a major role in the future as part of the solution to meeting higher energy demand with lower emissions, and will be essential in a tightly carbon-constrained world.

And across the industry a number of pilot projects are underway, including those where CO₂ is used to enhance oil recovery.



However, we are still a long way from a world in which the potential of CCUS is close to being realised, but we want to do something about that in the OGCI and it will be a major focus of activity.

Reducing methane emissions is another area of interest. By sharing best practice and technological advances that reduce emissions we can bring down total emissions much faster.

We look forward to sharing more details on all of our activities soon.

Just to recap then, we have the two challenges ahead of us, carbon and competitiveness. And they lead to a third challenge – choice.

Responding to these challenges means making some tough choices to be resilient to low prices and resilient to low carbon.

If you are here tomorrow, Tufan Erginbilgic, BP's downstream chief executive, will be talking about some of the choices we are making on his side of the business, such as:

- new fuels and lubricants with better fuel economy;
- our new petrochemicals technology that is lowering the carbon footprint of thousands of everyday items.

He has a really long list and we are only just getting started.

On the upstream side of the business we have had to make choices in our portfolio - about investments and divestments. Part of the competitiveness challenge is that we cannot cut everything. We need to keep investing for future growth and that means making big choices to sanction big projects.

In BP, our recent investment decisions have included:

- an expansion of our Tangguh LNG plant in Indonesia;
- the massive Khazzan tight gas project in Oman;
- natural gas projects in Egypt and Trinidad;

- and the Shah Deniz 2 project in Azerbaijan which will produce gas for the 3,500-kilometre Southern Gas Corridor pipeline system.

Those projects have one thing in common. They are all natural gas projects.

This is one very important shift that I'd like to emphasise.

While renewables are growing fast – faster than any other fuel – and are going to be increasingly important part of the mix, it will take time to grow from a base of around 3% of the energy mix today.

Even if renewables were to grow faster than any fuel has done they are unlikely to contribute more than 15% of the total energy mix by 2035.

That is why there has to be an increasing role for natural gas as a substitute for coal, allowing us to limit carbon quickly and at scale, while meeting the energy needs of developing countries.

Oil has a continuing role as a transport fuel, for its huge advantages – its high energy density, that small molecule of energy along with its affordability. And industry will continue to make great leaps forward in engine and fuel efficiency.

We've all heard of Big Oil. But this is now the age of Big Gas.

Big Gas ticks all the boxes – it's competitive and it's lower carbon.

In BP we are already around 50% natural gas now and heading towards 60% by the end of the decade as new gas projects come on stream.

Turkey is surrounded by natural gas supplies to the north, to the east and the south, and it has one of the world's biggest energy markets in Europe to the west.

In BP we're very proud of our involvement in the Trans Anatolian or TANAP pipeline across Turkey that will be transporting 16 billion cubic meters of gas on its way to consumers here and in Europe.



This will increase Turkey's strategic importance as a corridor for gas - as well as a corridor for oil.

We're also very pleased to work in many other activities and relationships here in Turkey, from our network of nearly 700 retail stations to the Baku-Tbilisi-Ceyhan pipeline that moves about 75,000 barrels of oil.

So, in conclusion, those are the three Cs that sum up the challenges for today's industry – competitiveness, carbon and choice.

There are two different ways to look at these challenges.

One is to carry on doing what you've always done and hope things turn out well.

The other is to see the opportunities and to look for ways of make the most of them by doing something new.

As an industry we have a history of doing the latter. It's certainly been our way.

We started out over a century ago in the Middle East.

We pioneered exploration and production in Alaska and the North Sea.

We developed a very effective trading business and we were one of the first to invest heavily in alternative energy.

More recently we have focused on earning back trust after the tragic Deepwater Horizon accident in 2010.

It has taken \$61bn to meet our obligations in the aftermath.

We have had to restore trust day by day by delivering safe, reliable operations, and looking more widely, there is a long-standing issue of trust in the oil and gas industry.

We're not alone in that.

Trust is in short supply in the world. There is a lack of trust across society, in corporations, but also in governments, and big institutions such as the EU, the UN – even in sporting bodies.



But our industry has a real image problem in some countries at least, and has done for some time.

That can make a tough job even more difficult.

The world is going to need energy from all sources, and oil and gas will be required to provide much of that energy for decades to come.

Over a billion people around world still don't have access to electricity – and that's in parts of the world where the population is growing strongly.

Our industry has a key role in providing heat, light and mobility around the world - and in lifting people out of poverty - and we will continue to do so.

So, in order to tackle the three challenges and win back trust, we need to do several things as an industry.

Let's do a better job of delivering and talking about the prosperity we have brought to countries, about the community development projects we undertake, about the work we are leading to address emissions, and about our commitment to the transition to a low carbon economy.

Let's continue to build relationships and partnerships that enable countries to grow and prosper while limiting carbon emissions.

Let's adapt our business models to succeed in this new and changing environment.

Let's harness technology and innovation.

And let's tell our story more effectively to make sure that the best young talent around the world gets excited by the work and opportunities ahead in our sector.

Above all, we should be confident and proud of the service we deliver to the world and not apologise.

We should be excited about the great transition that is underway.

And we should be optimistic about the essential role that our industry is going to play in it.

Thank you.