

The Paris climate agreement and the future of fossil fuels

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Hello everyone and thank you all for joining us. It's good to be here in Berlin and to hear your views on this subject.

Let me start by recognising the part that Germany played in the Paris agreement and Chancellor Merkel's personal commitment to tackling climate change.

I was in Paris last December. It was a historic event and a historic agreement.

It was something we had encouraged in BP – and indeed in the Oil and Gas Climate Initiative, of which BP is a member. The OGCI brings together companies responsible for more than 20% of the world's oil and gas production.

But now it's time for us all to focus on how the agreement can be implemented. And this calls for realism – realism about:

- the scale of the challenge
- the shape of the solution
- and the role of the fossil fuel industry

Realism about the challenge

The challenge arises because the world is continuing to develop and grow.

Our analysis indicates that energy consumption is likely to rise by around a third by 2035 - on current and expected trends. That's like adding one more China and two more India's.

That is actually slower growth than we saw in the past 20 years - 1.4% a year on average versus 2.3% then.

We also expect carbon emissions to grow more slowly - by around 20% by 2035 - compared to 50% since 1995.

But to meet the ambition agreed at Paris, emissions need to fall rather than rise – and fall significantly.

Realism about the solution

So this is a really tough challenge. And we can only start to solve it if we are very candid about where we are starting from.

The starting point is set out in our BP Statistical Review of World Energy. In 2014, 32% of the world's energy came from oil, 30% from coal, and 24% from gas. That is a total of 86% from fossil fuels.

On the non-fossil fuel side, 7% came from hydro-electricity, 4% from nuclear power and just 3% from other renewables, including wind and solar.

So we live in a world that is still dominated by fossil fuels. And the system cannot be dismantled overnight.

If we are going to reduce emissions, we need to do two things at some scale. First we need to save energy by using it more efficiently – there is huge potential for that, and second we need to switch towards lower carbon energy – in particular coal to gas.

Gas emits only about half the carbon of coal when burned for power and the OGCI has calculated that we could cut energy-related emissions by 10% by switching all the world's coal-fired power stations to state-of-the-art gas-fired plants.

So fossil fuels have a big role in this process. Under the International Energy Agency's scenario for achieving the two degree ambition, oil and gas would still make up 45% of the energy mix in 2040 - with carbon capture and storage also widely deployed.

Coal's share would have fallen to around 15%, bringing the total proportion of fossil fuels to 60%.

So much for projections; the really big question is how to make this shift happen in practice. It requires policy-makers to make big choices that bring significant costs with them.

Although they have made rapid progress, lower carbon technologies generally have higher costs than fossil fuels at present and in most cases they cannot deliver commercial returns at scale, without government support.

If businesses expect that disparity in costs to persist, then they cannot voluntarily or unilaterally invest billions in low-carbon solutions – at least not at the scale required to reduce emissions - and still create value for their owners – the shareholders.

To resolve this, we need a policy framework that makes lower carbon options not only environmentally sustainable but economically sustainable.

We believe that framework can have two elements – transitional incentives to support emerging technologies and a carbon price to facilitate deployment at scale.

There is a place for transitional incentives such as feed-in tariffs and quotas. But their role should be simply to bring down the costs of new technologies and help them get off the ground.

To do this, they need to be highly targeted on technologies with demonstrated potential for large scale carbon reduction and cost savings. And they need to be genuinely transitional. Otherwise they can distort markets and damage competitiveness.

Such measures in some EU member states have been well-intentioned and have accelerated the deployment of renewable energy. But they have also arguably contributed to making Europe's energy costs much higher than those of competitors in the US and China. And I believe the best long-term answers will have to be the most affordable answers.

And in BP's view, the most affordable long-term answer is to put a price on carbon – whether via a carbon tax or an emissions trading system such as the EU's.

We think this has several advantages. First, a well-designed carbon price is efficient.

It doesn't favour particular ways to reduce emissions - only the most economical ones in each situation.

Second, it's flexible - the cap or tax can be set to target a particular level of emissions reduction. And protection can be offered where competitiveness is at stake because of unequal international competition.

Third, it's comprehensive, potentially covering the whole economy with a single policy instrument, provided overlapping policies in specific sectors are removed.

Eventually, all technologies must be weaned off transitional support and be able to compete on the basis of a carbon price alone. This is the only solution that is economically sustainable.

Realism about what industry can do

So let me end with a few thoughts on what the oil and gas industry can contribute to the process. We have a role in at least three major means of reducing emissions:

- increasing energy efficiency
- replacing coal with gas
- and renewable energy

And each of these can be accelerated by carbon pricing.

Efficiency

Taking energy efficiency first, the IEA estimates that no less than half of the reductions that are needed by 2030 to stay below the 2°C threshold will come from energy efficiency. And Europe is well-placed to lead here.

It takes only two-thirds of a barrel of oil's worth of energy to generate \$1000 of GDP in the EU, compared to a barrel in the US and one and a third in China.

We saw a good example of increasing energy efficiency yesterday here in Berlin with the European launch of our best ever anti-dirt fuels – Ultimate with Active technology.

Our new fuels help drivers go further on a tank of fuel – which also means fewer emissions, because if you travel the same distance and burn less fuel to do that, then you emit less CO₂.

Natural gas

And while oil is being used more efficiently, gas can be used to reduce emissions at scale, as it replaces coal in power plants. This has happened in the US where 30% of energy now comes from gas. But in the EU the figure is 22% and the use of gas has actually fallen in recent years.

So I welcome the EU's recent communication on gas and its determination to access new supplies and to complete the internal market.

In BP, we are shifting our portfolio from a 50/50 split between oil and gas towards 40/60 as new gas projects come online around the globe.

One of the biggest is the Shah Deniz 2 project in Azerbaijan and the associated pipelines that will supply around 16 billion cubic metres of gas a year to customers in Georgia, Turkey, Bulgaria, Greece and Italy. That's good for sustainability - and good for security as it diversifies supply.

Renewables

Lastly, our companies can diversify too. Where renewables make commercial sense, there will be businesses willing to provide them. And today BP has the largest operated renewables business among our industry peers.

BP Wind Energy has interests in 16 wind farms across the US, generating enough energy to power the homes in a city the size of Dallas.

And in Brazil, we operate three sugar cane ethanol mills. We estimate that around 700,000 tonnes of CO₂ were avoided last year as a result of the ethanol produced. That's equal to over 300,000 fewer European cars on the road for a year.

So that is our view in summary. Many in the sector, including ourselves, have been taking constructive steps for some time.

But an issue like global warming requires global leadership. We've seen some of that in Paris last December. We now need to see similar leadership manifested in the implementation of these ambitious but necessary objectives.

If governments put the right policy frameworks in place as the architects, then businesses can go to work as the builders and deliver solutions.

Thank you very much.