



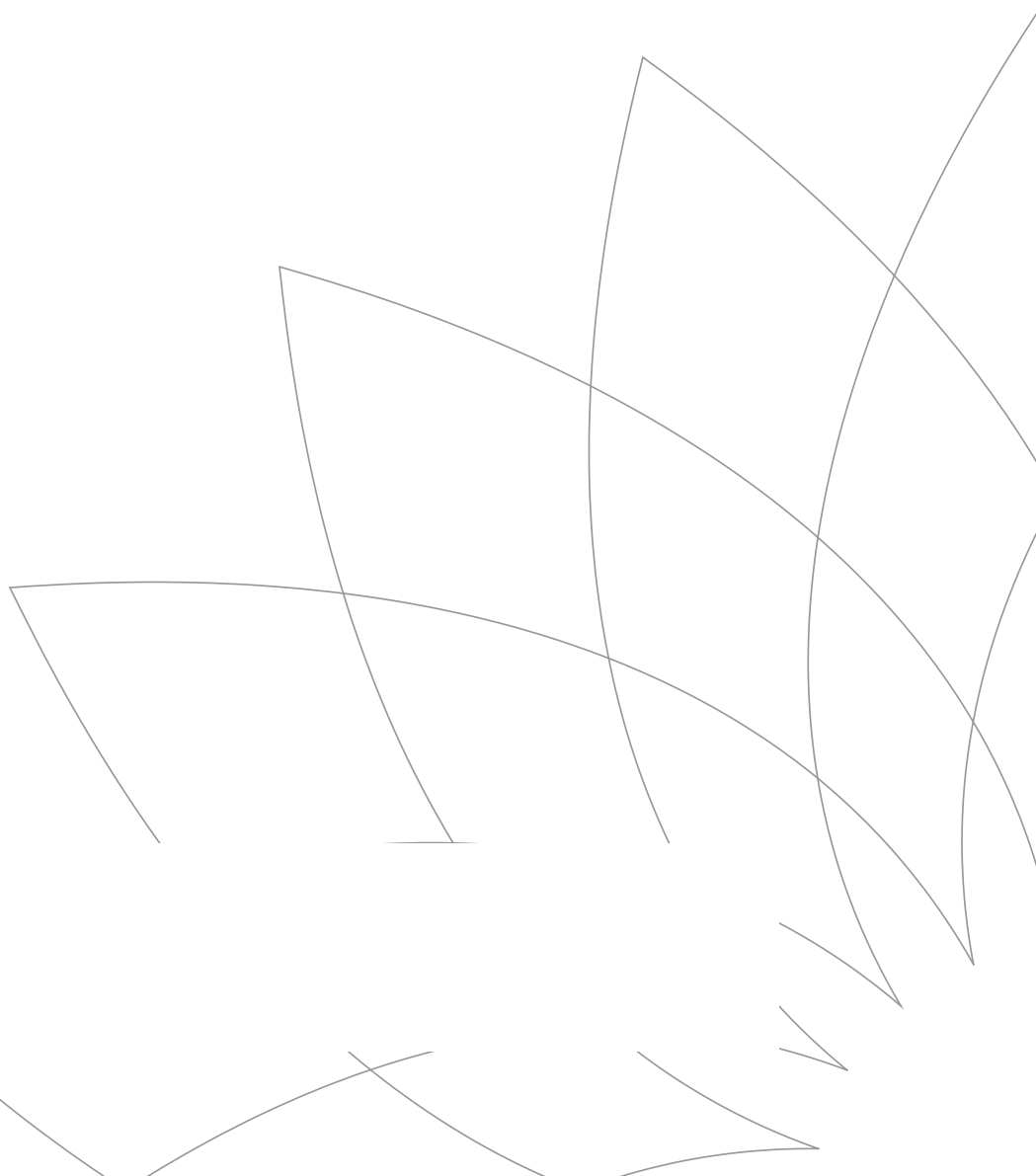
# CERAWeek 2018

Bob Dudley

Group chief executive

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Good afternoon everyone. It's great to be back at CERA.

Dan and the team at HIS Markit do such a great job.

We're welcomed to town, see old friends and make new ones

and we always learn a lot while we're here.

That alone makes it worth the trip – but we also get a lot of business done.

That's important because we have a whole lot to do.

The world is growing fast, it's changing even faster and it's calling for more from us every day - not just more energy, but energy that's better, cleaner and helps towards the Paris goals.

That's the dual challenge. Deliver around a third more energy by 2040 to power growing prosperity and lift two-and-a-half billion people out of low incomes.

And at the same time, that energy has to help reduce greenhouse gas emissions to something like half of what they are today.

Some might think there's no way that can be done with oil and gas in the mix.

They think our industry has had its day and now it's time for different forms of energy to take over.

I don't think that's the best answer.

Our industry can and must be part of the solution.

The world is depending on all of us.

I don't say that in a boastful way.

We've proven we can adapt and change over the years and we've overcome many big challenges along the way.



## Reshaping for the future

In fact, we've just recovered from one of the most protracted oil price downturns there has ever been by changing how we do business in two fundamental ways.

We got much more disciplined on costs and we're making dramatic improvements in efficiency through the use of digital and data.

As a result, we're leaner, fitter and better balanced at 60 dollars than we were at a hundred - and we're a more modern, more agile industry.

## The most diversified fuel mix in history

I really believe we're better positioned for the energy transition because of that.

By the way, we'd better be because it's already happening.

Our latest BP Energy Outlook says we could be heading for the most diverse fuel mix there's ever been - quarter-shares each for oil, gas and coal, and the other quarter coming from renewables and nuclear.

## Oil and EVs: plateau not peak

One implication of this transition is a declining share for oil.

There's a common misconception about that.

If you believe some of the things you read, the way to a low emissions world is through electric vehicles killing off the oil industry.

That has generated a lot of talk about oil demand peaking – but importantly, this does not imply a steep decline.

Think plateau not peak.

Yes, at some point oil will stop growing. But the pace of any subsequent decline is likely to be very slow, with the world needing a lot of oil for a long time to come.

You can see why that's the case when you look at a really extreme scenario.

That's what our chief economist, Spencer Dale, did in the Outlook, when he modelled what would happen if there was a worldwide ban on all new sales of traditional combustion engine cars by 2040.



Even in that extreme case, oil demand overall could still be higher in 20 years' time than it is now, up at around 100 million barrels a day.

And there's another remarkable side to that calculation.

It shows even a worldwide ban like that barely moves the dial on greenhouse gas emissions.

Emissions would still go up 7% by 2040 – not far off the 10% rise projected if the world continues on the course it's on today – and much higher than the near-50% fall thought necessary to be on course for the Paris climate goals.

Just to be clear, I'm not trying to discredit EVs.

They have a really important role to play, particularly in urban areas where they can improve air quality, and we see tremendous business opportunities for BP. Not just in EVs but in the broader revolution in mobility that's underway.

The important point here is that EVs are not the silver bullet that everyone is looking for.

## More gas, less coal

The reality is that there is no silver bullet to reduce emissions.

But as our chief economist likes to say, if you want to make a really serious difference on carbon emissions from energy start by talking about the power sector, then go on talking about the power sector, then talk some more about the power sector.

We've seen that already here in the US.

Replacing coal with gas in power generation has helped to bring US emissions levels back down to where they were in the early 1990s.

That shows what gas can do – and the same needs to happen in the power sector more widely, particularly in Asia.

CCUS can also drive emissions down, in the power sector and elsewhere, and we are seeing more support from both sides of the Atlantic.

## A lower carbon mindset is more than just renewables

And in case anyone thinks I'm just an apologist for oil and gas, let me give you another projection from our Outlook.



Renewables are growing faster than any fuel in history...5 times faster than gas.

That makes them a really exciting investment prospect – particularly where you can partner wind and solar with gas to counter the intermittency issues.

Yet even in one of the most aggressive growth scenarios for renewables, a course consistent with meeting the Paris goals, the world could still be sourcing around 40% of its energy from oil and gas.

What we take from this, and 20 years of low carbon experience going back to our Beyond Petroleum days, is that a race to renewables will not solve the dual challenge.

Instead, we need to be agnostic about fuels and focused on a race to lower emissions.

## BP's approach: lower carbon across the business

We've also learned another thing.

We can make alternative energy work.

We're one of the top generators of wind power here in the US and combined with our biofuels business in Brazil that makes us the largest operator of renewables among our peers.

And now we're back in solar in a new way.

But to really help make a difference on this important issue we need to do more than that - so we're infusing a lower carbon mindset in everything we do, right across the whole of BP.

We have a really simple but not simplistic framework to describe this approach.

We call it R - I - C, or RIC.

The R is for reducing emissions in our operations, which means producing oil and gas more efficiently and clamping down on methane leaks.

We're targeting sustainable reductions aggressively – and we'll be disclosing our targets next month so everyone can see what we're aiming to do.

We're also looking at how we design new projects, as we've just done in Oman at our giant Khazzan gas project.



We built a single, state-of-the-art processing plant there which minimises the potential for leaks from processing gas at each of the well sites.

So that's the R, reduce emissions.

The I in RIC is for improving our products in ways that can help our customers limit their emissions.

That means producing more natural gas as an alternative to coal in the power sector, producing more renewable fuels and developing more advanced fuels and lubricants that help engines run more efficiently.

And the C is for creating lower carbon businesses – expanding our existing ones and making a wide range of smart investments in promising technologies and ideas with the potential to be big breakthroughs.

We're backing up our actions with about a half-a-billion dollars of investment every year, and we're prepared to spend much more as we find and help develop real opportunities that are scalable.

So, **Reduce** emissions, **Improve** our products and **Create** new business models.

We believe this is the right approach for us, for our customers, our partners and our investors. But I'm not standing here saying it's right for everyone.

## Everyone has a role to play

All of our competitors are actively engaged in the transition in different ways:

- Statoil is doing offshore wind and carbon capture.
- Total has invested in solar, batteries and electricity.
- Exxon is pursuing algae and carbon capture.
- Shell is working on wind, biofuels and electric power.
- ENI are working on solar and power.
- and Saudi Aramco is working on multiple technologies.

That's just a few examples.



We're all trying lots of exciting new things and partnering in different ways.

There's no one solution and I'm personally really encouraged that we are all so engaged.

But as much as we are doing, we need others to act as well.

We need all sectors of the economy to bring emissions down – and consumers as well.

We need a big drive on energy efficiency in all kinds of areas – that's where the greatest reductions are going to come from.

And we need governments to put a price on carbon.

Do that and you incentivise lower carbon activities of all kinds, right across the economy, including energy efficiency and carbon capture.

That would enable us to do a whole lot more. But as I hope I've made clear, we're not waiting for that. We're busy pursuing low carbon right now and we've got some really interesting plans to announce soon.

I've already mentioned targets, but we'll have other things to share as well.

It's a little early to say more at this stage, so for now let me stop there and hand over to Dan...

Thank you.