A bright future

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Thank you, Louise, and good morning everyone. It's a great privilege to be here and I'd like to take the opportunity to thank Louise and her team for the great work they do on behalf of the industry.

It is also great to see our partner here in the audience, His Excellency Abdel Vetah Minister of Energy and Mines Mauritania.

Today I want to take on three myths about our industry three things that are often talked about negatively, but which I believe are in fact very positive.

1. The first is that low oil prices are all bad news.

2. The second is that the low-carbon transition is a particular challenge.

3. And, the third is that the oil industry is not attractive to the brightest and best young people.

Lower oil prices

So myth number one is about oil prices. It is a subject everyone has a view on, although of course if any of us could actually predict oil prices we would never need to work again.

We have now had three years when prices have rarely gone above $70, following three years when they rarely went below $90.

And we all know how the atmosphere changes: long faces when prices go down - and smiles all round when they go up. And that is totally understandable, day to day.

I also fully understand that low prices can be catastrophic on a personal basis when jobs are lost. In oil towns from Aberdeen to Luanda and Baku to Houston, there has been a lot of pain.

However, on a wider and longer-term basis, I think this correction has been welcome.

Firstly, it has been good for billions of consumers. Affordable energy lifts people from poverty and stimulates economies.

However, I think this change has also been very good for our industry.

It has forced us to confront inflation and waste. Those issues were obscured in a $100 world, but they were brutally exposed in a $50 one.

As an American general once said: “If you don't like change, you will like irrelevance even less.”

We face a choice between evolution and irrelevance - and we are evolving. We have embedded new levels of capital discipline in projects and new levels of efficiency in operations. We have not just applied new technology, but the newest technology, and not just from our industry.

Perhaps most important, we have improved collaboration along the supply chain. Our partnerships are deeper, longer-term, and more interdependent.

Put all those drivers together and you get a dramatic outcome, with costs plummeting around the industry. In BP’s case, Upstream unit costs are down around 46% on 2016 versus 2013 and at the lowest level overall since 2006.

We are now building some ultra-competitive operations like the giant Khazzan field in Oman where costs are around two-thirds below our average.

One of the most common questions is ‘Are these improvements sustainable?’

We believe they largely are. The savings made through new technology are certainly unlikely to be reversed. And where we have created better working partnerships, I cannot imagine those being undone either. We estimate that around three-quarters of the savings that we have made to date are sustainable - and we aim to push that proportion higher.

In BP’s Upstream, we are driving efficiency and progress through a modernization and transformation agenda that has three strands.

The first is agility - simplifying processes, being able to adapt quickly.

The second is mindset change - understanding the pace and scale of change.

The third is digital innovation. I know Bob Dudley talked about this on Tuesday, so I will limit myself to two points. First, I think we need to realise the full potential of technology to support safety. We can reduce a lot of risks to people by using drones, crawlers and robots.

The second point is that the combined impact of supercomputing and artificial intelligence is helping us see our world through new eyes. We can uncover resources. We can compare wells instantly. We can pinpoint corrosion risks by applying machine learning to

40 years' worth of data. Who would have thought 10 years ago that Upstream folks would come to conferences like this to compare algorithms and petaflops?

This is major change and I am not sure we would have moved so far and so fast without the urgency created by the 2014 crash.

Lower-carbon transition

Let me move on to myth number two - about the low carbon transition and the role of the Upstream. This connects to today's theme of global energy policy and security.

Again, there is no denying this is a challenge, commercially. Gas will take market share from coal. But wind and solar will take share from gas. Electric vehicles will take share from conventional ones. And biofuels will take share from crude.

But the big picture is a sustainable environment. A positive outcome for humanity. This is something for everyone to support.

And what is more, our industry needs to be part of the world's strategy for sustainable energy development. We are not talking about an overnight switch from traditional fuels to renewables. We are looking at a gradual transition to a lower-carbon mix over several decades. BP published its 2018 Energy Outlook on Tuesday with several scenarios for the future. In the scenario that assumes that policies, technology and social preferences evolve as they have recently, more than half of energy demand in 2040 is met by oil and gas. And in the fastest transition, which is broadly in line with achieving the goals of the Paris Agreement, the world still gets 40% of its energy from oil and gas in the year 2040.

And the oil and gas will be used in a highly efficient way. Oil will be used in advanced engines and hybrid cars. And gas will help reduce emissions. That's what happens when it is used to replace coal in a power plant or as LNG in a ship or truck. It will also be used in tandem with renewables to provide power.

We also have work to do to reduce emissions of methane from the gas production process. Again, technology helps, such as digital planning and infra-red cameras that can pinpoint sources of emissions. We can also design emissions out at new facilities. Khazzan is also an example of this because it has a central processing facility which eliminates the need for equipment at each well-pad.

A young person's career?

Finally let me take on the notion that the industry is sitting on a demographic timebomb because baby-boomers are retiring and millennials see this as a sunset industry.

I'm a little more optimistic.

First, if the world is going to get 40% or more of its energy from oil and gas in 2040, then there's a career in energy for today or tomorrow's graduate or apprentice.

Second, that career can go beyond oil and gas as the transition unfolds – into wind, or solar, or carbon capture, or vehicle charging. What could be more rewarding than to help steer the world through this unique period of transition? If you want to make a difference, it's hard to think of a bigger one.

Third, new technology is providing opportunities for a new generation of skills from artificial intelligence to bioscience, materials to robotics.

And we are making sure people see this stuff by sharing it on social media and inviting students into our learning centres.

One of our recent recruits just won the Oil & Gas UK Graduate of the Year Award and I'd like to show you their 90 second film about her.

Jo Reynolds film

How could anyone watch that and call this a sunset industry?

However, if we are to recruit and retain highly skilled young people, we need to respect what they want. They want to work collaboratively. They want to work flexibly. They want to be heard - which can happen through upward mentoring whereby younger people coach older ones.

What a great value proposition - working with the latest technology to meet the world's demand for energy and manage the transition to a sustainable economy. I'd apply!

Conclusion

So, to conclude, we will always face challenges, but those of the last few years have been good for us and prepared us for a new road ahead.

It is a road where we should not question progress, but lead it. Our industry led the world into the age of affordable energy. Now it is time to lead the world into the age of sustainable energy.