Advancing the energy transition

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1. Introduction

Thank you Casey and good morning everyone.

It's a pleasure to join the conference again this year – it is a great gathering of our industry and it's always a good debate.

So, thank you to Energy Intelligence and the New York Times for the invitation.

And let me add my congratulations to Patrick on his recognition.

It's been my pleasure to work alongside Patrick on many occasions, including our involvement with the Oil and Gas Climate Initiative, or OGCI.

2. Lower carbon for longer

But on to why I'm here today, which is to talk about the energy transition.

I'm going to do that from a BP perspective. Not just because I serve the company, but because we have a lot of history in this area.

We've learned a lot of lessons over the years. Our successes, and frankly more often our mistakes, have informed and shaped BP's broader corporate strategy.

Today we are focused on our dual mission of delivering the energy that the world needs while advancing the low carbon world that we all want.

Although, as I'll explain, we're pursuing both in a very different way than we once did.

A good place to start is 20 years ago, when BP caused something of a stir in the industry.

As you may recall, our chief executive at the time, John Browne, gave a speech at Stanford University – home to some of the world's leading research on climate science.

John used the occasion to acknowledge the threat of climate change – out loud and in public.

And that wasn't all – he committed BP to real and meaningful action to help address the challenge.

It was ground-breaking at the time, and it wasn't just words.

We put our money where our mouth was.

We set a target to bring our own emissions down by 10% by 2010.

We hit that target 9 years early.

We set up an alternative energy business and made a number of big investments.

In solar.

In hydrogen.

Carbon capture and storage.

Wind and biofuels.

All part of our commitment to make a difference – at the same time as making a profit, so we hoped.

After all, a sustainable business has to be profitable.

We anticipated governments would adopt policies that would make low carbon energy more competitive.

Unfortunately, policy changes didn't happen at the pace we expected, despite the excitement around the Kyoto Protocol and the Earth Summit in Johannesburg.

Then came the financial crash in 2007/8 and a big change of focus for the world – from green energy to cheap energy.

But we stuck with it.

Although many of our original investments didn't pan out, a couple did, and we continue to invest in them.

Today we're the biggest operator of renewables among the supermajors.

We like our portfolio of wind farms in the US and biofuels in Brazil. We continue to invest in those businesses and they're profitable – but it's fair to say they don't - as yet - make a material difference to the bottom line.

Two decades after John's speech, the world has refocussed on the climate challenge, as evidenced by the Paris Agreement.

This time the global commitment to action feels different, and the national pledges are a good start. But frankly we need even stronger and clearer signals to create the confidence to invest in and grow low carbon businesses at scale.

We think a carbon price is key to that and have been calling for it since the late 1990s.

Not all agree, but it's by far a better way to go than regulation, which however well-intentioned, can often distort the market.

Thankfully, even without the predictability provided by pricing or policy, technology has steadily advanced on its own, making wind and solar increasingly competitive – and more economic than coal in some places.

3. Different approach, stronger commitment

While BP's commitment to lower carbon energy hasn't changed, how we go about our business has.

The showcase speeches, advertising campaigns, and billion dollar bets of the past have been replaced by a quieter, but still steadfast commitment to helping address the climate challenge, while pursuing lower carbon more organically, in every corner of our business.

- Our fuels team is producing gasoline that cleans the engine while you drive, so your car will go farther on the same tank of fuel.
- Castrol is making lubricants that work harder for longer, with even less friction, making engines increasingly efficient.
- Air BP will soon be supplying biojet fuel made out of household waste.
- Our new upstream facilities are among the best in the world at limiting methane emissions, and across that business we are focussed on reducing emissions.
- In Petrochemicals we're producing PTA with a carbon footprint around 30% lower than conventionally produced supplies.
- Target Neutral is a unique service we offer. Over the past decade it has offset around 3 million tonnes of CO_2, the equivalent of taking 1.5 million cars off European roads for a whole year.

- Our integrated supply and trading team is the biggest marketer of natural gas in North America and is now getting into renewable natural gas – tapping into landfills and farms to capture biomethane produced from organic waste.

- Some of our most exciting work is in our venturing space. Here's just one example: We've invested in a company that can produce concrete with between 30 and 70% less CO_2. We think that has enormous potential when you think of concrete as the single most-used substance on the planet, apart from water.

- And that's all on top of our two major renewable energy businesses that I mentioned at the outset.

All told, we are currently looking at well over 100 actions that we're taking, or products we're producing, or efficiency gains we're making that all help to reduce carbon emissions.

So, rather than bolting on a whole series of low carbon businesses, as we have in the past, we're building low carbon into what we do, across the business – and in ways that will generate value over the long-term.

We're making smarter, and in many cases, smaller bets, and making more of them across a wider range of technologies and business models.

We think that's the way to go given how tough it is to pick winners in this rapidly evolving space.

Through these venturing and partnership activities we are building our understanding so that we can avoid large speculative investments, and instead give ourselves as much optionality as possible to back winners as they emerge.

It doesn't generate headlines in the same way that bigger acquisitions do, but based on our experience and given all the uncertainties that still exist, we know it to be a sound strategy. And, we have handed off a number of these venturing opportunities to our business to scale-up.

4. Oil and gas are part of the solution

At the same time, we are just as committed to our traditional oil and gas business.

Despite the attraction of renewables, the world can't run on them alone at the moment, and won't for some time.

Of all the energy used by the world right now, 3% comes from renewables.

That might go up anywhere between 10% and 30% or more in two decades' time, depending on the speed of the transition.

And even if it grows at the slowest predicted rate that means it will penetrate the energy system faster than any fuel in human history. That's remarkable.

So, renewables are clearly coming of age.

And yet even with the most aggressive growth forecast for renewables the world will likely be looking elsewhere for nearly two-thirds of its energy needs over the next two decades.

And as we all know, that's because global demand for energy continues to grow as prosperity increases and the world's population rises, giving us a dual challenge. We must meet the increased energy demand while also transitioning to a lower carbon future.

That's something often forgotten here in London, Brussels or Washington, when we're looking at charts and tables discussing what the world should use for heat, light and mobility.

And let's not overlook the economic contribution the industry makes, through jobs, investment, dividends, and taxes.

Just as the global economy now depends on oil and gas, governments and communities benefit from the revenues they generate.

This need not be to the detriment of achieving the Paris goals to limit climate change.

If you take the fastest transition case in BP's Energy Outlook, which follows the IEA 450 scenario, it projects a share of 48% of the worlds energy mix for oil and gas in 2035.

That takes into account the important role that carbon capture use and storage, or CCUS, will play in achieving deep emissions reductions in existing power infrastructure and energy intensive industries using oil, gas and coal.

The OGCI - of which BP is part - has earmarked around $500 million to accelerate the scale-up of CCUS technologies that are already proven, reliable and ready.

But let's also recognise that oil today is not the same as the oil in the family car when you were growing up. The engine's not the same either.

Technology is having a huge impact on the amount of energy it takes to produce oil and gas and the amount of useful energy we get out of it.

In the next couple of decades the global car fleet is expected to double, going up to nearly 2 billion vehicles.

Over the same time period, however, fuel demand for cars only goes up by about 25%.

Most of that difference is accounted for by gains in fuel efficiency from better conventional engines, from hybrids and – to a small degree – from some pure-play electric vehicles.

Natural gas is another big lever for lowering greenhouse gas emissions - provided that methane is controlled.

You only have to look at the situation in the US where GHG emissions are back down to where they were in the 1990's.

As you well know, that's largely because the shale revolution has produced abundant, cheaper gas, which has been displacing coal in the American energy mix.

We are making a strategic shift to more gas ourselves in BP, and six of our seven new major upstream projects coming onstream this year are gas.

With a further eight gas projects planned by 2020.

In fact, we're growing our gas production more than any other major.

Be it gas, oil or renewables, our focus remains the same.

Safety above all else.

Value over volume.

And on being increasingly competitive in the midst of all this exciting change.

5. Conclusion

Let me finish by reminding us what society's goal is here…

To limit warming below 2^{o}C.

This shouldn't be about a race to renewables alone; it's about a race to lower greenhouse gas emissions.

That's a big lesson we've learned over the last 20 years.

It's taught us that to lower emissions you not only have to deliver renewables in abundance, you also have to shift from coal to gas, reduce fugitive methane, deliver more oil efficiently and make CCUS competitive.

We need to do all this simultaneously while still fuelling the global economy.

The expectations on us are greater than at any time I can recall.

People expect us to help drive emissions down, further and faster.

I'm proud to say we've been focussed on that in BP for more than 20 years.

At the same time, they also expect us to keep the lights on.

To keep their homes warm, and hospitals open.

They expect the freedom to travel and explore the world – or to have the world in the palm of their hand, thanks to the energy that powers their smartphones and the internet.

It's a given.

We've been doing that for more than 100 years and we're not going to let them down.

It's our job to deliver what the future requires and also what today demands.

These aren't mutually exclusive positions.

We can and must do both.

Thank you.