



BP: Investing in a cleaner, better energy future

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Introduction

Thanks Christyan. It's great to be here. I want to thank everyone at J.P. Morgan for the invitation to speak this morning.

As you know, we released our third-quarter results last week. This is the seventh quarter into the five-year plan we laid out in February last year, and we are making good progress.

We have real momentum across the business and are delivering strong operational and financial results in support of the broader strategy. I'll come back to that in a bit more detail later, but first I want to provide some broader context. To fully understand BP's strategy it's helpful to see it in the context of the energy transition that's underway and the shift to a lower-carbon global economy.

Energy transitions, past and present

First, in looking to the future, it's often helpful to look at recent history.

On a fundamental level, the global energy mix has always been in transition, to some degree or another.

Before industrialisation, we all depended largely on traditional biomass, for example wood, as the main source of energy. That started to change with the introduction of steam power, mechanization and so on.

So the first major global energy transition did not significantly begin until the 1870's. That's when coal really helped usher in the age of electricity, mass production and assembly lines.

At the start of this transition, oil accounted for only 1 percent of global energy consumption. After World War I, that rose to 15 percent, driven by naval demand and Middle Eastern supply. It would take over 100 years, from the start of this transition, for oil to make up around 50% of global energy consumption.

Incidentally, in the years prior to World War I, Winston Churchill — then serving as First Lord of the Admiralty — became convinced that the British Royal Navy should switch from coal to

oil-powered ships. In 1914, just months before the war began, Churchill persuaded the British government to secure oil supplies through purchasing a majority stake in Anglo-Persian Oil, which later became BP.

A few decades on, following World War II, a new period of industrialisation and expanded mobility increased the growth of all fuels.

More recently, over the last three to four decades, the rise of China and other emerging markets accelerated the pace of global economic growth.

Over that same period, the developed world began making progress on energy efficiency. As a result, while global GDP increased by 135 percent, global energy consumption increased by only 63 percent.

Looking back over this period, there are pointers and lessons for the future energy transition:

- First, access to reliable, affordable energy is essential to reducing poverty and raising living standards.
- Second, energy transitions tend to unfold over decades, rather than years.
- Third, energy transitions cannot be driven by one industry, let alone by one company. Everybody has a role to play — governments, industry, consumers, and society as a whole.

The dual challenge

Which brings me to the current transition.

Today, more than one billion people around the world still don't have access to electricity, with the global population also expected to grow by around two billion people – that's over three billion people that are expected to drive further economic and energy demand growth.

In fact, we project that global energy consumption could increase by around a third by 2040, driven by this rising population and rising prosperity.

Over that same period, the world needs to reduce carbon emissions roughly by half, in order to meet the Paris climate goals.

The latest U.N. climate report suggests even bigger emissions reductions are needed to keep global temperature increases below 1.5 degrees.

Yet on current trends, we project that emissions could actually rise, by 10 percent, out to 2040 – that’s based on what we call our ‘Evolving Transition’ case in our Energy Outlook.

At BP, we call this the dual challenge — providing the energy essential to human prosperity while also reducing greenhouse gas emissions to meet society’s goals.

Cleaner and better

So what should we do about it?

Well, renewables like wind and solar have been the fastest-growing form of energy for many years now. They clearly have an important role to play in helping us bring emissions down.

However, to meet the Paris climate goals, broadly represented by the ‘Even Faster Transition’ scenario in our Energy Outlook, non-renewables still account for around 70 percent of global energy consumption in 2040, with oil and gas accounting for more than 40 percent.

The International Energy Agency’s equivalent scenario has oil and gas, accounting for even more of the mix at around 50 percent — with carbon capture, use and storage, or CCUS, assumed to be widely used in both.

So renewables alone won’t be sufficient. The world needs to make many different types of energy — including oil and gas — cleaner and better.

That means, in the case of oil and gas, focusing on “advantaged” barrels — the barrels that are the lowest in terms of cost, risk and emissions. And it means working to promote CCUS, because CCUS at scale is expected to play an important role in low-cost / low carbon scenarios.

Make no mistake, even in energy scenarios consistent with the Paris climate goals, the world will need significant amounts of oil and gas for decades to come.

Again, we would expect that, given the projected rise in global prosperity and population.

Therefore, the world also will need significant amounts of oil and gas investment – particularly bearing in mind that reservoir production declines over time, typically at a rate of 3 to 5 percent a year, and substantial investment is needed just to ‘stand still’.

With that perspective, I think it’s right to be concerned about commentary pushing for oil and gas divestment.

Consider just a few numbers:

- Under BP’s Even Faster Transition scenario — again, a scenario which sets a trajectory consistent with meeting the Paris climate goals — the world consumes more than 80 million barrels of oil and other liquids per day in 2040. That’s compared to around 97 million barrels today.
- However, if there were no new investment in oil production, and assuming existing production declined at a rate of 3 percent a year, global liquid supplies would be around 45 million barrels a day in 2040.
- In other words, no new oil investment would produce a massive undersupply. This would drive up prices, dampen economic growth, and potentially destabilize financial markets.
- All of which would make both sides of the dual challenge even harder, slowing the rise in prosperity and reducing the funds available for investing in advancing the lower-carbon transition.

There are two other issues with the divestment argument that I think misunderstand the way our industry operates.

One relates to balance sheets and the timescales at which they turn over, the so-called 'Stranded Assets'.

Very roughly speaking, there's enough flexibility in our portfolios to reshape the businesses and balance sheets in around 8 to 10 years, providing flexibility and resilience for the future.

And, as I mentioned earlier, even for an energy transition that many of us are trying to accelerate, it's likely to be gradual - happening over a decade or longer. So with the right strategy and execution, there is time enough to anticipate changing trends and legislation and adjust the portfolio.

The other issue that has been proposed is around scenario planning. To be absolutely clear, scenarios play a hugely important role in BP.

We know we can't predict the future – and we know any single point forecast will be wrong. So we consider a broad range of possible outcomes – including a pathway consistent with Paris – and we actively manage the portfolio accordingly.

We're transparent about that. It's part of building the trust of society, governments and investors that gives us the license to operate.

What we don't do is the sort of scenario planning that requires so many simplifying assumptions about demand, sources of supply, technological developments, and future portfolio that it would render any analysis inconclusive.

So, is that kind of scenario testing, as some are calling for, even feasible? Could we disclose the results without releasing commercially confidential information? And, crucially, is it even useful for investors?

We think the answer to each of these questions is no. While you may get precise results, they will almost certainly be inaccurate — just plain wrong — and actually confuse investors about the future, and impair our ability to adjust to it.

This then comes back to the dual challenge, and role we see that we have to deliver more energy with fewer emissions – but done in a way where we collectively collaborate and innovate, with action on a range of fronts from many different players. That includes:

- governments – which can shape regulation on the price of carbon;
 - consumers – who can adjust their personal energy use;
- and,
- companies like BP – which can make large scale investments.

BP's strategy

Here's how BP is approaching the dual challenge, and it all comes back to strategy.

We recognise that the global energy transition is essential to human welfare, and we want to plan and build our businesses around the stable, predictable and efficient policy frameworks that only governments can provide.

Our strategy embraces the transition and low-carbon future, for example through our support for a price on carbon, and is underpinned by a clear set of four strategic priorities that shape how we continue to create value in this rapidly changing world:

- growing advantaged oil and gas in the Upstream;
 - pursuing market-led growth in the Downstream;
 - supporting low-carbon investments and technology ventures across multiple fronts;
- and,
- modernizing the whole of BP to make us safer, more efficient and more competitive.

Embedded within our strategy is BP's approach to lower-carbon and reducing emissions. We call it "Reduce-Improve-Create," or "RIC" for short.

We call it that because BP is working to reduce emissions in our operations, improve our products to help our customers can reduce their emissions, and create low-carbon businesses.

For example:

- Since 2000, our U.S. onshore business, which we've just renamed BPX, has reduced its total greenhouse gas emissions by more than 2 million metric tons of carbon dioxide equivalent, with methane reductions accounting for most of the decline. That's comparable to the annual electricity-related emissions of more than 300,000 typical American homes.
- Meanwhile, using advanced technology and carbon offsets, BP's Castrol business offers a growing number of carbon-neutral lubricants and engine oils.
- BP also is one of the largest operators of renewable energy businesses among our peers. In 2017, we created a joint venture with Europe's largest solar energy developer to form Lightsource BP.

In terms of emissions targets, BP is aiming for:

- 3.5 million metric tons of sustainable greenhouse gas emissions reductions by 2025;
- zero net growth in operational emissions out to 2025;
- and a methane intensity of 0.2 percent.

As you know, BP recognised these issues some time ago. More than two decades ago, we became one of the first energy companies to publicly recognise the threat of global climate change and pledge to help address it.

Our experience has taught us two things above all:

- First, as I mentioned before, no single company or industry can tackle the dual challenge alone.
- Second, to really make a difference, we need to infuse this throughout each of our businesses.

That's why BP is so focused on collaboration, and it's why we've adopted the RIC framework to drive our lower-carbon strategy.

BP investor proposition

This is how we see the way forward to lowering emissions while also growing to meet increasing demand – and at the same time creating value for you, our shareholders.

You'll also see that reflected in our investor proposition, which we laid out almost two years ago.

Central to this proposition is our goal of growing operating cash flow within a disciplined capital frame, leading to growing sustainable free cash flow and distributions to shareholders over the long-term.

This proposition is built on three key elements:

The first is safe, reliable, and efficient operations. Nothing else is more important – it's a core value for us, and it's our number one priority.

Done right, a safe business doesn't just protect people – it improves operating performance and drives improving financial performance. We've seen plenty of evidence of the benefit of focusing on this over the past couple of years – process safety events have declined, while plant reliability in the Upstream and availability in the Downstream has increased.

In fact in the Upstream, while history shows us that our underlying production base declines around 3-5% every year, over the past couple of years we have been able to mitigate this, in fact growing the base by 1% last year. All reservoirs will decline over time, but this shows the significant value to the business if you can reduce it.

The second element of our proposition is our distinctive portfolio, and how we continue to actively manage it to be resilient and flexible to a changing world. It's built on quality and optionality with a strong set of distinctive assets, brands and relationships.

In the Upstream, we have a balanced portfolio of oil and gas assets and, as I mentioned earlier, the focus on growing those that are 'advantaged', so either low-cost or high-margin, improving the likelihood that the barrels we produce are resilient and competitive in terms of demand in a sustainable scenario. Over the period 2016 to 2021, we expect to start-up around 900 thousands barrels per day of new production, of which around 80% of these projects are feeding a growing demand for gas.

Just a quick word on the role of gas: Not only can it help us reduce power-sector emissions in the short and medium term, by displacing coal, but it's also a perfect partner for renewables, for example supporting, or providing backup, to solar or wind developments.

Across the Downstream, and indeed our Alternative Energy and new, low-carbon businesses, we remain focused on market-led growth. Key to this is understanding the markets we operate in, and consumer preferences around the products we sell. Strong market positions, brands and distinctive offers are an integral part of how we understand changing demand patterns for fuels, products as well as demand for new forms of energy – from our position in rapidly growing markets in India and China, through to the understanding the impact of evolving technologies, embracing both disruptive and complimentary advancements, and adapting our offers in more developed markets.

Taken together, safe and reliable operations, and a strong and balanced portfolio, create the foundation for value generation. But to execute our strategy, and grow free cash flow and returns, it remains vital we maintain a focus on disciplined investment. We have held a capital frame of \$15 to 17 billion over the past couple of years and expect to continue to do so over the medium-term. This frame supports the growth strategy we have laid out, but has inbuilt flexibility to adapt as opportunities arise. It's also based on learnings about capacity to execute and our own capabilities – with a focus on cost and execution and ensuring we protect and enhance returns.

Turning briefly to our third quarter results, which highlight the progress we have made over the past seven quarters on this plan. Our underlying profit last quarter was the highest in five

years, and double that of the same quarter last year. Equally important is the progress we are making in growing underlying operating cash flow, with around \$20 billion dollars generated year to date, and around \$3bn of free cash flow generated, after funding our capital program and payment of dividends to our shareholders.

And it is this underlying performance and progress that underpinned our confidence in the acquisition of BHP's Lower 48 unconventional assets in the Permian, Eagle Ford and Haynesville basins in Texas and Louisiana in a \$10.5 billion transaction. This transaction closed on October 31st, marking BP's biggest acquisition in nearly 20 years, and it truly transforms our business in the US Lower 48.

Putting all of this together, we have a clear strategy and strong momentum – and we are delivering our objective of growing sustainable free cash flow and distributions to shareholders over the long term.

Conclusion

To summarise. It's clear we are in the midst of an energy transition to a lower carbon economy.

And that presents a 'dual challenge' of providing energy to the world, and a growing population, but doing so in a way that is transformative in terms of reducing emissions.

We believe we have a key role to play in that transition, alongside governments, industry, consumers and society as a whole.

I'd go further than that, and say we are very active in it, and see real opportunities to add value to our proposition.

Our strategy encompasses this challenge and is intended to be flexible and resilient to change. It's delivering, as evidenced by progress we have made over the past several quarters, and it's giving us real momentum in investing in a cleaner, better energy future.

On that note, let me stop there. Thank you for listening this morning, and I'll now hand back to Christyan for questions.