



INSIGHT BRIEFING

Plotting pathways to net zero in the oil & gas sector

The energy industry is navigating a critical path this decade defined by its response to a triad of global challenges:

- Building a resilient recovery from the CV-19 pandemic;
- Achieving the UN sustainable development goal of universal access to energy for all populations; and
- Charting an ambitious course to decarbonise in order to tackle the threat from the climate emergency, as we draw closer to COP26.



BY NICK COTTAM

This was the premise for [IP \(International Petroleum\) Week 2021](#), the respected industry event hosted virtually by the London Energy Institute in February.

Environment Analyst attended the annual convention of oil & gas business leaders, consultants and industry commentators to gauge the progress being made on the industry's pathway to delivering net-zero carbon emissions and how plans and pledges are being turned into action.

The main contributors and IP Week speakers featured in our special Insight Briefing are:

- **Matt Haddon** - global service leader, corporate sustainability and climate change, **ERM**
- **Bernard Looney** - CEO, **BP**
- **Patrick Pouyanné** - CEO & chairman, **Total**
- **Corinne Le Quéré** - professor of climate, University of East Anglia, UK
- **Ben Taylor** - global climate change and sustainability services (CCASS) strategy and markets leader, **EY**
- **Nigel Topping** - UK government's high level climate action champion for UN climate talks, **COP26**
- **Christer Tryggstad** - senior partner and global energy perspective (GEP) lead, **McKinsey & Co.**

A decade of delivery - from promise to action

Green companies (the new wave) are making an impact but greening companies (the old guard) will have to do the heavy lifting on the road to carbon net zero. Speaking to the virtual audience at the start of day two of this year's IP Week event for the oil and gas sector, **BP CEO Bernard Looney** gave the example of **Tesla** which produced half a million cars last year out of a global production line of over 70 million, with 27 million of them from the factories of **Toyota**, **VW**, **Nissan** and **Renault**. "We want Tesla to grow," said Looney with absolute sincerity "but what we really need is for the 27 million to electrify. We have to back companies with plans to get to net zero."

The BP boss dismissed any suggestions that he was being self serving. BP had the resources and scale to make the transition from fossil fuels, he said. "We've been in renewables for 15 years. We can apply decades of experience to big projects and we're in 66 countries." If nothing else the pandemic has been a great leveller. CEOs and their advisers, have more often than not been addressing events like IP Week from their homes, as they grapple with the challenges of COVID-19, the UN SDGs and climate change. That has meant a drastic reduction in event-linked carbon emissions and, arguably, a

renewed focus, an even greater sense of urgency, about getting on and making the transition to combat climate change.

Re-invent or die

These days nobody argues with the need for the oil & gas sector to reinvent itself; it's just a question of how to do it and how fast. **BP**, for example, and its partner, the German utility **EnBW**, will pay £462m a year for the option to develop two offshore wind farms in the Irish Sea, capable of powering more than 3.4 million UK households with clean electricity. **Total**, announced CEO and chairman **Patrick Pouyanné**, will invest more than 20% of its capex on renewable energy businesses. "We will require more than \$60bn worth of projects to be financed," he said, "and to do that we need to generate cash flow from our oil & gas business."

Like BP and other oil & gas majors, Total believes it can bring both scale and experience, not to mention an abundance of technical expertise to the transition table. If the right policies are in place to create demand – for example for green hydrogen or solar energy – then Total had the scale to drive down costs, said Pouyanné. It was also one of the world's leading LNG companies he



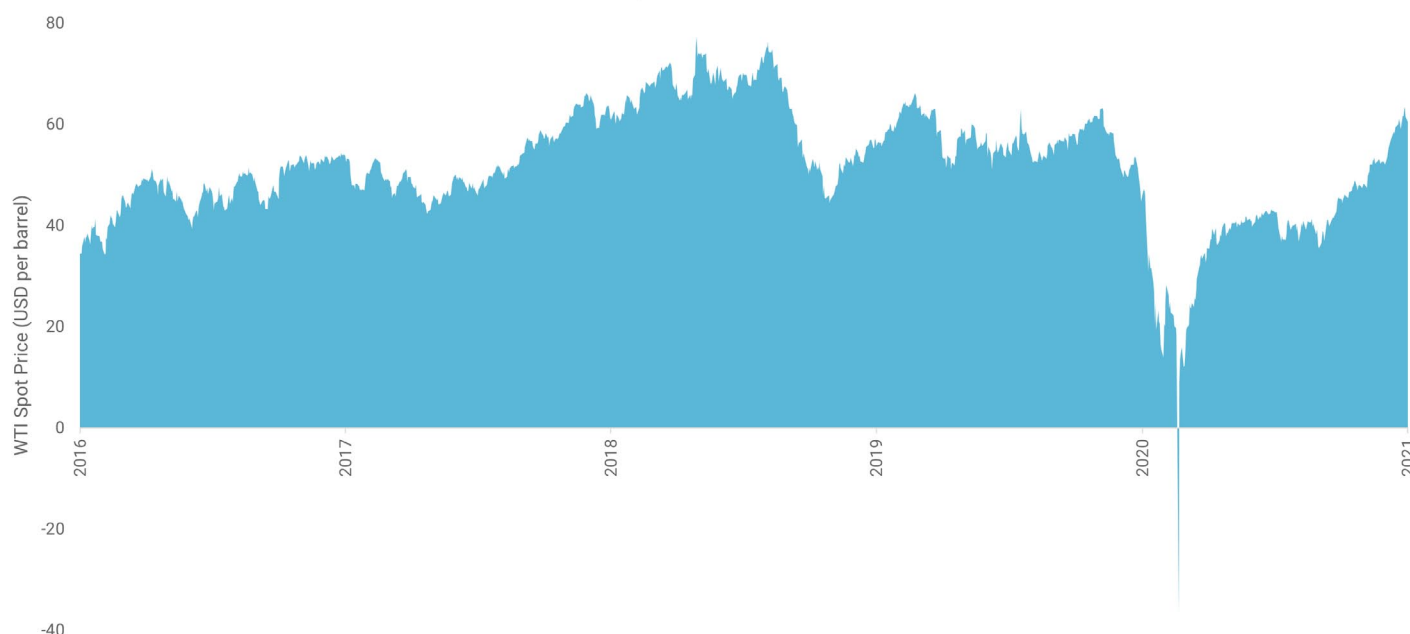
We have to back companies with plans to get to net zero

Bernard Looney, BP

reminded his virtual audience, and while gas was the new coal it would remain part of the energy mix at least for the foreseeable future.

How long, though, does an energy company have to show investors and other audiences that it is on the road to transition and indeed that it can continue to make money along that road? "Investors will judge you by what you've achieved by 2025," said **Matt Haddon**,

Figure 1: Crude oil price trend 2016-21



Credit: Environment Analyst

ERM's global lead for the low carbon economy transition. In other words, ensure that you are one of Bernard Looney's greening companies and get some tangible results way before that 2050 net-zero target.

Manage those global risks

Haddon had three questions for the oil & gas sector:

1. How did the transition accelerate in 2020?
2. What can we learn from companies that are juggling balance, bravery and business models going forward?
3. How can you help your company move from promise to action?

In a short cameo presentation, his second consecutive appearance as a speaker at IP Week, Haddon set out to show how climate change, like COVID, had climbed dramatically up the global risk register. In a year when oil consumption fell by 8% and **Exxon** tumbled out of the S&P 500, the World Economic Forum's [Global Risk Report](#) ranked climate action failure, extreme weather and biodiversity loss among the main global risks through to 2030, he noted (EA 19-Jan-21).

As the global economy sets out to get back on the road to growth, Haddon quoted **BlackRock** CEO **Larry Fink** for noting that capital markets are starting to factor in environmental, social and governance (ESG) issues as part of their corporate valuations. They want to know not only that **BP** and **Total** and the like are reducing their carbon emissions but also that they can protect profits and produce dividends by investing in renewable energy. "We've told investors that we are going to deliver 8-10% on these projects and if we can't we'll walk away from them," stated Bernard Looney.

The value of ESG

Another speaker, **EY** partner **Ben Taylor**, noted that linking ESG to value provided a holistic view on how to protect value. In this context, data becomes key and standards and taxonomies are critical, he said. Both Ben Taylor and Matt Haddon highlighted the growing importance of the Task Force on Climate-related Financial Disclosures (TCFD) which according to Haddon is starting to become the international norm (EA 27-Nov-20). Companies using TCFD were finding a

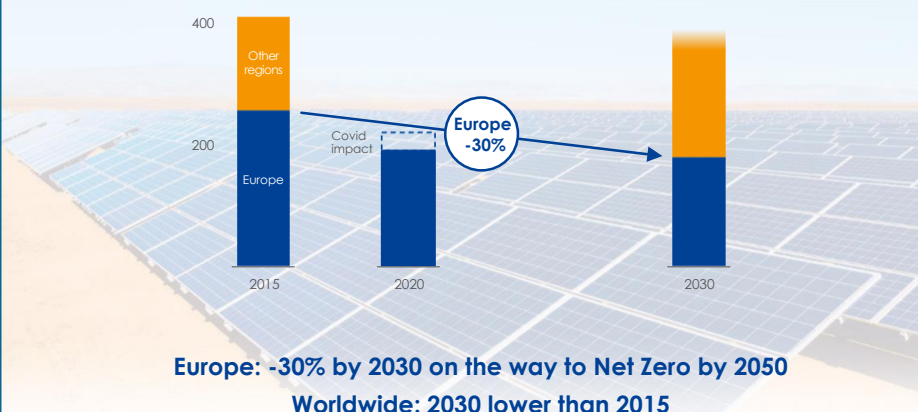
Transforming Total into a broad energy company : TotalEnergies

	Gases <ul style="list-style-type: none"> • Grow LNG (#2 player) and develop renewable gas (biogas / clean H₂) • Promote natural gas for power and mobility
	Renewables & Electricity <ul style="list-style-type: none"> • Accelerate investments in low carbon electricity primarily from renewables • Integrate along the electricity chain (production, storage, trading, supply)
	Liquids <ul style="list-style-type: none"> • Focus investments on low cost oil and renewable fuels (biofuels, SAF...) • Adapt refining capacity and sales to demand in Europe
	Carbon Sinks <ul style="list-style-type: none"> • Invest in carbon sinks (NBS and CCUS)

Reducing emissions while growing

Commitments to reduce Scope 3 emissions of our customers, in absolute value

Scope 3 emissions*
MtCO₂e



Total shares the ambition to get to Net Zero by 2050 together with society for its global business (Scope 1+2+3)

3 major steps to get Total to Net Zero

2020*
vs 2015

1	Net Zero on Operations by 2050 or sooner (Scope 1+2)	-15%
2	Net Zero in Europe by 2050 or sooner (Scope 1+2+3)	-12%
3	60% or more Net Carbon Intensity reduction by 2050 (Scope 1+2+3)	-8%

common language to articulate what they are doing today and what they can invest in tomorrow, according to Haddon. "This is about managing risk, not black and white compliance."

Nobody at IP Week doubted that there are Herculean risks to be managed. "The planet has a fever," noted **Corinne Le Quéré**, professor of climate change science at the **University of East Anglia, UK**. Out of control fires, changing patterns in rainfall, hurricanes that are growing in intensity, and the loss of precious coral were among the climate risks faced by business and the world at large. While carbon emissions decreased by 7% during 2020 this was because of enforced behavioural rather than structural changes. "We have not seen such a rapid drop since World War II," said Le Quéré "but we need a drop of the same order [every year] to get to net zero" [see image below].

Implementation is key

Christer Tryggestad, a senior partner with **McKinsey & Company**, believes there are grounds for optimism. More than 50% of the world's carbon emissions are in countries that have made a commitment to net zero, he said, and when you add in the US now Biden has made the commitment you get to two-thirds of global emissions. "The vast majority of these commitments have only come in the last 12-15 months but we have to remember

they are only ambitions. We now have to see how they are being implemented."

Tryggestad used the latest McKinsey [reference case](#) to look at how things were shaping up on the road to net zero. "Another example is around green hydrogen. When we first looked at what had been announced for green hydrogen 18 months ago we got to 3.2GW of energy by 2030. In our latest case, launched in January of this year, we get to 40GW." The demand for oil and gas had taken another hit because of the pandemic, he said, but in the medium term the impact on carbon reduction would be relatively small compared with increased demand for EVs and the drive to improve fuel efficiency in automobiles.

For **Nigel Topping**, high level climate action champion for the COP26 gathering in Glasgow later this year, revolution was in the air and change was coming like a juggernaut. "By December," he said "somewhere between 70 and 90% of the world's economies will be committed to net zero. The question for COP26 is what are we going to do over the next five years."

Topping was good value for his passion alone. Dismissing a previous IEA prediction that we're still going to be buying combustion engines into the 2070s, he was unequivocal that "the combustion engine is dead in the early 2030s".

"Fleet owners are all going fully electric by 2030 – the question is how do we manage these disruptions, the only way being to pre-



Investors will judge you by what you've achieved by 2025

Matt Haddon, ERM

competitively agree the pathways," Topping added.

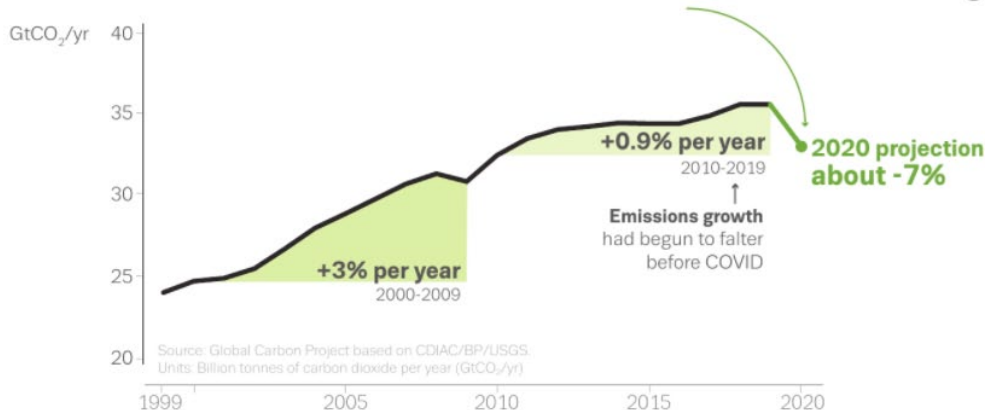
Act now with practical pathways

Action supremo Topping didn't dwell on the tension between the developed and the developing world; on issues such as climate justice and the affordability of clean energy for the 800 million or so people who still live without electricity, but he did inject a note of

Global Carbon Budget 2020

COVID lockdown causes record decrease in CO₂ emissions for 2020

2020 fossil emissions decrease of 2.4 billion tonnes is largest ever recorded



CO₂ emissions
cuts of 1 to 2 billion tonnes are needed each year between 2020 and 2030 to limit climate change in line with Paris Agreement goals

Source: The Global Carbon Project

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It is heads' down now
and focus on execution

Bernard Looney, BP

urgency into the proceedings. “The focus is on short-term action and we are now seeing the pathways being agreed in sector after sector.”

Electric cars, sustainable aviation fuel, ammonia for shipping – COP26 had to be a forum for agreeing those pathways, he urged. “You have to look at the demand side. With sustainable aviation fuel we're at .01% now but what's the S curve that gets us to 100% in the 2040s? **Maersk** who thought they would have their first net-zero ship by 2040 have just announced that it will be in two

years' time. **Ford** has committed \$1bn to their plant in Cologne and will only sell EVs in Europe by 2030.”

BP's Bernard Looney reminded us of another painful lesson from the pandemic: we live in a world without boundaries. If the vaccine for climate change involves helping those most in need to decarbonise then BP would be doing its bit. “This is no longer a conversation confined to the developed world. It is heads' down now and focus on execution,” he said.

Takeaways for action

With this in mind, **ERM's Matt Haddon** offered a handful of takeaways for energy companies “moving from promise to action”. Measure your own carbon footprint, he said and don't take regulatory filings as your actual footprint. Use TCFD to evaluate different pathways for a decarbonising economy and what they mean for the financial performance of your

business. Be clear on how different plans will influence your access to capital and the price of capital, he said.

Haddon urged firms to set a net zero goal with near term targets; for example harnessing renewables for your own energy needs. Pursue carbon removal techniques – eg. carbon capture and storage (CCUS) and nature-based solutions – at scale. Finally, he warned, stop routine flaring because without taking this basic step O&G companies would have no credibility.

It was a call to arms conclusion by Haddon which seemed to capture the mood of an IP Week where practical intent triumphed over lofty rhetoric this year.

FURTHER INFORMATION

- Visit: www.IPWeek.co.uk
- Watch ERM's Matt Haddon in action at IP Week [here](#)



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The combustion engine will be dead in the early 2030s

Nigel Topping, COP26

