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‘SPOTLIGHT ON’ A Sustainable Future Series brought to you by



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Committed to advancing the low carbon agenda in Oman

**“We all want energy that is reliable and affordable, but that is no longer enough. It must also be cleaner. To deliver that, trillions of dollars will need to be invested in replumbing and rewiring the world’s energy system. It will require nothing short of reimagining energy as we know it”
– Bernard Looney, bp chief executive.**

Earlier this year, bp set ambitious aims to reduce emissions, scale up renewables and invest more in low carbon - essentially to become a net zero company by 2050 or sooner, and to help the world get to net zero.

Within 10 years, bp aims to have increased its annual low carbon investment, building an integrated portfolio of low carbon technologies and more. bp is making active changes globally to reduce emissions, improve its products towards lower emissions and create a low carbon business.

It was also during this phase of my life that I used to have these random conversations with Gaurav during work breaks about doing something of our own. But whenever these conversations would start taking shape, some family members would always advise us to not leave a flourishing career and risk it to start something new, especially when a person has just hit their 30’s. They would say, ‘Experiments in career are for college life not when you have a family’.



What does bp mean by net zero?

bp's new ambition to be a net zero company by 2050 or sooner covers the greenhouse gas emissions from its operations worldwide, currently around 55 million tonnes of CO₂ equivalent (MteCO₂e) a year, and the carbon in the oil and gas that it produces, equivalent currently to around 360 MteCO₂e emissions a year – both on an absolute basis. Taken together, delivery of these aims would equate to a reduction in emissions to net zero from what is currently around 415 MteCO₂e a year, an equivalent of removing around 90 million cars from the road per year.

“It directly addresses all the carbon we get out of the ground as well as all the greenhouse gases we emit from our operations. These will be absolute reductions, which is what the world needs. If this were to happen to every barrel of oil and gas produced, the emissions problem for our sector would be solved. But of course, the world is not that simple; the whole energy system has to be transformed and everyone has a contribution to make – producers and sellers of energy, policy makers and everyone who uses energy.” - Bernard Looney



Reimagining energy in Oman

bp was awarded the concession to develop Khazzan by the Oman Government in early 2007. Following a significant development project, bp announced first gas from Khazzan, ahead of schedule, in September 2017. The second phase of field development, Ghazeer, was sanctioned in 2018 and brought online, safety and four months ahead of schedule, in October 2020.

Comprising the Khazzan and Ghazeer gas fields, Block 61 has an estimated 10.5 trillion cubic feet of recoverable gas resources, and the capacity to deliver approximately 35% of Oman's total gas demand. Block 61 ownership comprises of bp (60%), OQ (30%) and Petronas (10%)

From the start, Khazzan was designed to be an efficient operation. A central processing facility reduced

the need for equipment at each well site, which lowered the potential for methane emissions. Khazzan's gas was also used to power the facility as well as generate electricity on site to power some of the equipment. By recycling waste heat from the gas turbines, bp achieved twice the efficiency of a typical oil and gas asset.

As part of bp's pledge to advancing the low carbon agenda, the company introduced the new 'green completions' - a reduced flaring technique. Historically, hydrocarbons produced during well testing for new completions would be flared. In green completions, the hydrocarbons are routed to the production facility instead, reducing greenhouse gas emissions.

In bp's onshore US operations, the technique has been successfully used for over a decade. Although bp Oman was able to leverage expertise from colleagues in the United States, it was not as straightforward as simply transferring the technology.

Daniel White, bp Oman Completion, Intervention and Integrity Engineering Manager explains: "Khazzan wells typically produce at higher rates and pressures than in the US onshore, so it was imperative that we had more stringent process-safety requirements."

bp has now successfully completed 21 wells in Oman using green completions. Since adopting this approach in 2019, 201,000 tonnes of CO₂e emissions were saved – equivalent to removing 44,000 cars from the road for a year.

"bp has set the bar high with its commitment to advancing the low carbon agenda in Oman" concludes Daniel. "We're taking positive steps towards a safer, more resilient and competitive future – confronting one of the most pressing issues of our time with a solution that not only delivers lower emissions but also makes good business sense".

