bp selects Johnson Matthey's LCH™ technology for its first low carbon (blue) hydrogen project

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- Johnson Matthey's **LCH™** technology selected for bp's H2Teesside project, which aims to be one of the UK's largest low carbon (blue) hydrogen facilities.
- H2Teesside targets 1.2GW of hydrogen production by 2030 – over 10% of the UK Government's hydrogen target of 10GW by 2030.
- The selection marks a significant milestone for bp's H2Teesside project as it continues its development and commences its detailed design.
- The licence is the 8th sustainable technologies project contributing to JM's milestone of winning more than ten additional large-scale projects across Catalyst Technologies and Hydrogen Technologies by end of 2023/24.

Johnson Matthey (JM), a global leader in sustainable technologies, and bp have signed a licensing and engineering agreement for Johnson Matthey's **LCH** technology at bp's proposed flagship low carbon (blue) hydrogen facility in Teesside, H2Teesside.

Industry in the Tees Valley accounts for 64% of total local CO_2 emissions, compared to 24% nationally[1]. H2Teesside would help power and decarbonise local industry here, as well as new businesses attracted to this low carbon hydrogen produced at scale.

Due to its proximity to domestically sourced North Sea natural gas, established pipe corridors, and planned carbon capture transportation and storage infrastructure that is being developed by the bp-led Northern Endurance Partnership, the area is uniquely placed for H2Teesside to help lead a low carbon transformation, supporting jobs, regeneration, and the revitalisation of the surrounding area.

H2Teesside will use JM's innovative **LCH** technology, which couples a gas-heated reformer with an autothermal reformer (GHR-ATR). **LCH** offers the lowest natural gas usage commercially available today and can capture up to 99% of carbon dioxide produced. This means for H2Teesside it would deliver the lowest levelised cost of hydrogen (LCOH) and the most carbon efficient technology available today for low carbon (blue) hydrogen production.

H2Teesside, alongside NZT Power and BOC Teesside Hydrogen, was selected by the UK Government as Track-1 Capture Projects to proceed to negotiations for government

[1] Tees Valley Net Zero Cluster Plan Key Findings, Tees Valley Net Zero Project Board (Net-Zero-TV-Key-Findings-Document-8.pdf (teesvalley-ca.gov.uk))

funding from the Department for Energy Security & Net Zero (DESNZ), for the East Coast Cluster as part of Phase 2 of the cluster sequencing process for CCUS.

Alberto Giovanzana, Managing Director – CT Licensing at Johnson Matthey, said: "bp's H2Teesside project will be at the forefront of the UK's efforts to decarbonise, and we're proud JM's innovative LCH technology will be at the heart of it. We championed the use of low carbon (blue) hydrogen as a part of our efforts to achieve net zero emissions and have proven ourselves as a trusted partner with this licence representing our fifth major LCH project globally."

Will Harrison-Cripps, H2Teesside Asset Development Lead at bp, said: "H2Teesside, which aims to be one of the first low carbon hydrogen production facilities in the UK, is a key part of our plans to help Teesside transform into the UK's leading hydrogen hub, providing a diverse range of customers with low carbon hydrogen produced at scale. We are pleased to be working with Johnson Matthey, using their innovative technology to accelerate the pace of hydrogen deployment as we work towards commercial operations in 2028 and supporting the East Coast Cluster decarbonise a range of industries in Teesside."

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About Johnson Matthey
Johnson Matthey is a global leader in sustainable technologies. For over 200 years we've used advanced metals chemistry to tackle the world's biggest challenges.

Many of the world's leading energy, chemicals and automotive companies depend on our technology and expertise to decarbonise, reduce harmful emissions and improve their sustainability.

And now, as the world faces the challenges of climate change, energy supply and resource scarcity, we're actively providing solutions for our customers. Through inspiring science and continued innovation, we're catalysing the net zero transition for millions of people every day.

For more information visit www.matthey.com.

About bp
bp intends to invest up to £18 billion in the UK's energy system by the end of 2030, demonstrating bp's firm commitment to the UK, and helping the country to deliver on its bold ambitions to boost energy security and reach net zero. As one of the largest oil and gas producers in the UK, bp intends to continue investing in North Sea oil and gas, while working to drive down operational emissions. bp is also in action on a range of lower carbon energy investments in the UK, which are expected to bring jobs and develop new skills and capabilities.

For further information

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