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Press Release

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Five years of net-zero: is the energy transition keeping pace with our climate ambitions?

With the 12th June marking five years since the UK laid out legislation to reach net-zero emissions by 2050, Sandy Bonner, President at Bilfinger Region UK, reflects on progress made and how to keep the country's energy transition on track.

Parallels can be drawn with the backdrop of today, in the midst of a general election, and the 12th June 2019: when Theresa May took to the steps of Downing Street near the end of her premiership, to announce the UK becoming the first major economy to set net zero emissions targets in law.

One thing that's changed dramatically since is the UK's relationship with energy. Monumental progress has been achieved towards decarbonisation, from rapidly scaling renewable generation to major R&D advancements that unlock hydrogen's potential.

The scaling of carbon-free generation globally creates new challenges, while we are yet to truly overcome barriers like the transmission and expansion of green hydrogen. Five years on from the net-zero 2050 target, how can we keep the energy transition on track?

Scaling wind by retaining and growing skills

The UK's power generation via gas and coal has fallen by nearly two fifths since 2019 (-36.8%). Meanwhile, wind generation has increased by 44% in the last five years to help make up the gap. Wind represented 36.2% of the UK's generation over the past week, compared to just 15% from gas¹.

¹ Data sourced from <https://grid.iamkate.com/> on 6/04/2024



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The expansion of wind is a UK success story. Offshore wind now generates over 13 GW of clean energy from more than 40 operational offshore wind farms. This represents over 25% of the government's 2030 target of 50 GW, with more than 40 offshore wind projects in various stages of planning, development, and construction, set to provide an additional 38 GW of capacity.

The continued expansion of offshore wind will form a key part of meeting the UK's future generation needs, with consumption expected to almost double to 450 TWh by 2035. Navigating skills shortages will be a key challenge for wind to navigate to continue its expansion and operation at scale.

The fight for talent globally will become fiercer as offshore wind capacity expands all over the world. The UK is second only to China for global offshore capacity under construction, with Taiwan, Germany and USA following in succession². The talent and expertise developed in the UK over the past two decades will be targeted by projects around the world.

Growing the workforce and broadening skills will help to mitigate against the export of talent. We are working closely with industry to develop skills transfer programmes, that harmonise the overlapping skills between oil & gas and offshore wind, which will be key to growing the renewables workforce as fossil-fuel assets are decommissioned. Standardising training between offshore wind and oil and gas sectors can help alleviate the resource strain. Recognising this, Bilfinger continues to explore ways to reduce mobilisation and training requirements, overall reducing costs. While we must invest in and be able to demonstrate employee competency, many scopes of work and mobilisations can be efficiently combined across our areas of expertise such as rope access, rigging, inspection, protective coatings and other maintenance activities.

Unlocking the potential of hydrogen

The UK has largely backed electrons to complete the energy transition so far. But molecules, in the form of hydrogen, will be crucial in decarbonising the most complex corners of our economy, such as energy intensive manufacturing.

² WFO, 2024 | [Global offshore wind report 2023](#)



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Unlike offshore wind, hydrogen is still a relatively nascent industry. Almost all hydrogen (96%) produced globally in 2019 came from carbon-intensive processes such as steam methane reforming³. And green hydrogen produced via zero-emission electrolysis was limited to low-scale, early pilot projects.

Billions-of-pounds has since been invested in scaling green hydrogen production across the UK. And we're increasingly supporting projects across the entire hydrogen value chain from production, storage and transportation to utilisation. For example, our German colleagues are building a demonstration plant for the drying of green hydrogen, using our experience in natural gas drying. This will allow large quantities of green hydrogen to be dried efficiently and cost-effectively for pipeline transport⁴.

But to grow a robust hydrogen supply chain and to kick-start large-scale projects, an ambitious coalition between government, industry, private finance and academia is needed in the UK – a position backed by industry body Hydrogen UK⁵.

Twenty-five years to go: Bilfinger UK's Role in Leading the Energy Transition

Achieving net-zero emissions must be delivered. While the challenges of reaching this goal are multi-faceted and complex, the need to adapt and innovate is imperative, as well as nurturing the necessary talent to deliver the change we need at scale. Building collaboration and investment to scale industries like hydrogen and offshore wind will be crucial in keeping the energy transition on course.

Establishing long-term collaboration agreements and partnerships can ensure access to trained resources. By fostering strong relationships with government bodies, industry partners, and academic institutions, Bilfinger UK aims to create a robust ecosystem that supports the rapid scaling of renewable energy technologies. Additionally, a Tier 1 contractor can simplify project planning, reduce resource bottlenecks, and improve maintenance efficiency while providing a single point of contact/accountability to clients. We help clients navigate the complexities of

³ World Energy Council, 2019 | [Innovation insights brief 2019](#)

⁴ Bilfinger | [Efficient solution for the industrial drying of hydrogen](#)

⁵ Hydrogen UK, 2024 | [Hydrogen UK launches report showcasing industry's vision for competitive hydrogen supply chains in the UK](#)



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large-scale energy projects, which not only streamlines operations but also generates significant administrative cost savings, typically around 20 to 30%.

Bilfinger UK's commitment to a Just Transition is evident in its proactive approach to supporting the government's ambitious carbon neutrality goals while exploring, and addressing, emerging challenges and leveraging opportunities for efficiency and reliability. With the right strategies standing as a trusted Tier 1 partner, and focusing on collaboration, innovation and workforce development, we are poised to play a pivotal role in shaping a more sustainable future.

Bilfinger is an international industrial services provider. The aim of the Group's activities is to increase the efficiency and sustainability of customers in the process industry and to establish itself as the number one partner in the market for this purpose. Bilfinger's comprehensive portfolio covers the entire value chain from consulting, engineering, manufacturing, assembly, maintenance and plant expansion to turnarounds and digital applications.

The company delivers its services in two service lines: Engineering & Maintenance and Technologies. Bilfinger is primarily active in Europe, North America and the Middle East. Process industry customers come from sectors that include energy, chemicals & petrochemicals, pharma & biopharma and oil & gas. With its ~30,000 employees, Bilfinger upholds the highest standards of safety and quality and generated revenue of €4.5 billion in financial year 2023. To achieve its goals, Bilfinger has identified two strategic thrusts: repositioning itself as a leader in increasing efficiency and sustainability, and driving operational excellence to improve the organizational performance.

You can find additional information, photographs and videos at

