D6.012 Website Articles – Get to know Helical Energy.

Helical Energy is a pioneering force in the low carbon hydrogen sector, contributing significantly to the evolution of sustainable energy solutions. Initially focused on biomass syngas generators, Helical's expertise in hydrogen technology led them to a pivotal role in the design and construction of essential components for RECYCLE's technology. This groundbreaking technology focuses on the production of low carbon hydrogen through chemical looping reforming, presenting a promising avenue for advancing the UK's efforts towards a low carbon economy.

In a recent interview, Mark Wickham, the CEO of Helical Energy, shared insights into the company's involvement in the RECYCLE project. With over 30 years of experience in biogenic gas fuel gasification, fluid bed combustion and heat recovery equipment design, Wickham expressed confidence in the project's potential. He emphasised how the RECYCLE project's technology is "*a perfect fit with the UK's goal of decarbonising the economy*, *especially with the potential for negative carbon emissions using biofuel-based methane and carbon capture*". Leveraging their extensive expertise in hydrogen technologies, Helical Energy is committed to making substantial contributions to the development of this low carbon intensity technology.

Looking ahead, Helical Energy is optimistic about the future of the RECYCLE project. There is a belief that it could emerge as the preferred technology for low carbon hydrogen production, potentially scaling up to the size of existing steam methane reforming plants in the coming decades. Wickham anticipates the next step for the technology as the development of a 10MW commercial demonstration plant. Proposed enhancements include a refractory lining in a cold pressure vessel reactor - a feature they believe could contribute to the technology's success before scaling up to an industrial size within the next decade.

Wickham acknowledges that the RECYCLE project has not been without its challenges, particularly in timescale and cost due to unforeseen design issues. However, the consortium's collaborative teamwork, marked by excellent communication and shared goals, has facilitated swift decision-making, crucial for this fast-track project. Consequently, what were initially perceived as challenges have transformed into opportunities for innovation and improvement within the project.

Occupying a central role in the RECYCLE project, Helical Energy continues to design and construct essential components for the technology, aiming to play a central role in the development of low carbon hydrogen technologies. Through their efforts in the RECYCLE project and beyond, they continue to significantly contribute to the progress of the UK's efforts towards a low carbon economy.