

PRESS RELEASE

£2million pilot led by Scottish researchers to develop UK's first wind turbine blade recycling project gets go-ahead

A major project to develop wind turbine blade recycling in Britain for the first time has been given the go-ahead after winning a UK Government grant.

The £2million three-year project involves a consortium led by Aker Offshore Wind and Scottish researchers, with the aim of ensuring a more sustainable future for the global wind industry and the wider composites manufacturing industry – accelerating the drive towards net zero emissions and waste and creating new skills and job opportunities in the UK.

The pilot will now get underway to develop a commercially viable solution, overseen by industry lead Aker Offshore Wind, trade body Composites UK, and researchers at the University of Strathclyde's Advanced Composites Group and Lightweight Manufacturing Centre, which is a part of the National Manufacturing Institute Scotland Group.

Other academic and industry partners include Nottingham University, global waste management firm SUEZ, composite distributor GRP Solutions and composite part manufacturer Cubis.

The project is set up to commercialise a revolutionary method developed by the University of Strathclyde to separate the glass-fibre and resin components in composites and recover the glass-fibre component which can then be reprocessed, moulded, and reused in other industries, such as the motor trade and the construction industry.

Innovate UK, the UK Government's innovation agency, has awarded £1.3 million to the project, with Aker Offshore Wind contributing more than £500,000 to make the project a reality.

At present, when giant turbine blades reach the end of their working lives, there are only two options for managing the waste: send them to a landfill or to waste-to-energy plants where they are combusted at significant energy cost.

The environmental benefits from this project cannot be understated as waste from wind turbine blades alone are expected to reach around 2 million tonnes globally by 2050, and UK volumes of composite waste already exceed 100,000 tonnes per year.

Aker Offshore Wind has pledged its support to trade body WindEurope's call for a Europe-wide landfill ban on decommissioned wind turbine blades by 2025 and considers this project a crucial step towards setting a new standard for the industry.

With thousands of turbines being erected and built as part of the transition away from fossil fuels, the project partners applied to the UK Government for support to position the UK as the global leader in blade recycling and provide a futureproofed solution for turning waste into new resources.

The pilot project will now put this into action, with the aim to make recycling of composite parts the norm and ensure the wind industry is a driving force for a new circular economy.

UK Government Minister for Scotland Malcolm Offord said:

“Offshore wind is playing an important role in our plans to reach net zero, particularly in Scotland. It’s great news that this funding will support the development of wind turbine blade recycling, helping prevent blades ending up in landfill and furthering our green ambitions.

“In line with the goals agreed at COP26, the UK Government is investing in research and innovation projects right across the UK to help create a greener future.”

Sian Lloyd-Rees, managing director of Aker Offshore Wind UK, said:

“This project will be an important piece in our drive to accelerate the move to net zero waste and emissions and demonstrates Aker Offshore Wind’s commitment to sustainability across the lifecycle of a wind project; all while investing in Scotland and the UK to build a more sustainable future for decades to come.

“At COP26 we heard the urgent call for action and this planned innovation will answer that call to secure tangible solutions for circular business models. The Innovate UK grant will make blade recycling a firm reality, building on the expertise of the researchers at Strathclyde University and our decades of experience at Aker Offshore Wind to create a commercially-viable green solution.”

Malcolm Forsyth, sustainability manager at Composites UK and overall project leader, said:

“This project is a vital step towards establishing a commercial recycling route for composite materials in the UK and beyond, covering both wind turbine blades and several other applications in the construction and transport sectors.

“Composite materials combining glass-fibre and polymer resin systems, have a huge role to play in enabling the UK economy to transition to net zero and we need effective recycling at end of life to ensure that composite materials achieve high levels of circularity in future.

“Composites UK and all the project partners are very excited that this break-through technology scale-up project has now been funded by the UK government and will make the recycling of glass-fibre composites a commercial reality in the UK in the years to come.”

Strathclyde Principal Professor Sir Jim McDonald said:

“Wind energy is a key component of the transition to net zero and it is essential that the technology and materials that provide renewable energy are as sustainable as they can be.

“As we have seen at COP26 in Glasgow, a global move to renewable, sustainable sources of energy will help to make some of the biggest advances in the quest to tackle climate change. At Strathclyde, we have developed novel processes for recycling and reusing wind turbine blades, which will help to reduce waste in the renewables sector and wider industry. “This project, and our partnership with Aker Offshore Wind, are examples of the research and industrial engagement which has placed Strathclyde at the forefront of innovation in renewable energy and composites sustainability.”

NOTES TO EDITORS

A floating offshore wind image is available [here](#).

About Aker Offshore Wind: www.akeroffshorewind.com

Aker Offshore Wind is an offshore wind developer focused on assets in deep waters and specialized on floating energy systems. With global operations, the current portfolio consists of development projects and prospects located in Asia, North America and Europe. Aker Offshore Wind effectively deploys cost effective technologies from decades of offshore energy development. The company is majority-owned by Aker Horizons, an investment company dedicated to creating value and reducing emissions from renewable energy and decarbonisation technologies.

About Composites UK: www.compositesuk.co.uk

Composites UK is the trade association for companies working in the UK’s fibre-reinforced polymer composite supply chain. Its focus is to encourage and promote its 360 member companies through furthering knowledge, lobbying government via the Composites Leadership Forum, facilitating networking and supporting industry growth.

About University of Strathclyde: www.strath.ac.uk

The University of Strathclyde is a leading international technological university based in the centre of Glasgow. Inspired by our founding principle as ‘a place of useful learning’, our mission is to make a positive difference to the lives of our students, to society and to the world.

The National Manufacturing Institute Scotland (NMIS) is operated by the University of Strathclyde and is part of the High Value Manufacturing Catapult. It is supported by Scottish Government, Scottish Enterprise, Highlands and Island Enterprise, Skills Development Scotland, Renfrewshire Council and Scottish Funding Council.

The NMIS Group includes the University of Strathclyde’s Advanced Forming Research Centre (AFRC), Lightweight Manufacturing Centre and the NMIS Digital Factory all with teams of industry experienced engineers and researchers working with companies across the manufacturing community in Scotland, the wider UK and beyond. All current NMIS facilities are located within the Advanced Manufacturing Innovation District Scotland in Renfrewshire. www.nmis.scot

About Innovate UK: www.innovateuk.ukri.org

Innovate UK drives productivity and economic growth by supporting businesses to develop and realise the potential of new ideas. We connect businesses to the partners, customers and investors that can help them turn ideas into commercially successful products and services and business growth. We fund business and research collaborations to accelerate innovation and drive business investment into R&D. Our support is available to businesses across all economic sectors, value chains and UK regions. Innovate UK is part of UK Research and Innovation.

About SUEZ recycling and recovery UK:

SUEZ recycling and recovery UK is a business unit of the global SUEZ group. In the UK, SUEZ employs over 5,600 people, operating across hundreds of sites, and handles in excess of 10 million tonnes of waste materials every year – a significant proportion of the UK's total waste. Through collection, treatment, recycling and logistics operations, it serves more than 30,000 business customers and millions of householders throughout the country.

About GRP Solutions:

GRP Solutions Ltd has a highly experienced team of composite and adhesive experts, dedicated to setting the standard in composite distribution. Working with world class suppliers the company prides itself in offering the very best solutions and service to customers. Growing from strength to strength, GRP Solutions provides customers across every sector of the UK with the most comprehensive range of composite solutions and services. Further information can be found at: www.grp-solutions.com