

New low carbon innovation centre for Edinburgh

Work has begun on a new low carbon innovation centre built at Shawfair just outside Edinburgh.

The building will be carbon neutral when operational and will be the global centre of Research and design and manufacturing for two key technologies.

The £25 million investment will be home to Danfoss Editron which develops electric and hybrid powertrain systems for heavy duty vehicles and to Digital Displacement – a technology conceived at the University of Edinburgh which will radically reduce energy consumption in hydraulic machines.

Danfoss, a Danish family-owned company, estimates that global adoption of these two technologies could reduce the lifetime CO₂ emissions of excavators alone by 80 Megatonnes (Mt) by 2030 – equivalent to the entire annual CO₂ emissions of Scotland and Denmark combined.

The new centre will be completed in 2022 and will be carbon neutral when operational. The building will recover energy used during production and testing, with a heat pump available as a backup if required, whilst the building's electricity consumption will also be covered by a green power purchase agreement. The facility is being developed by Buccleuch Property.

Brian Kennedy, Director of Operations, from Danfoss Scotland said: "This building will be Danfoss's first carbon neutral manufacturing facility and demonstrates the company's

commitment to become CO₂ neutral in all global operations by 2030, at the latest.

“Danfoss believes that energy efficiency, electrification and increasing integration between energy use and supply are the key steps to a sustainable future. With this building and these technologies, we believe we are contributing to this goal.

“Scotland is the natural home for this facility. Digital Displacement is a Scottish invention and brings with it a skilled and growing workforce which we aim to increase further in the years ahead.”

Jon Beasley, Business Development and Programmes Director for APC, said: “I’m incredibly proud to be part of this landmark moment for Danfoss.

“It is great to see how an APC-funded project, to create next-generation low-carbon technologies, has catalysed additional investment from an overseas parent company who recognise the UK’s innovation capability and the growth opportunities that presents.

“It demonstrates that with the right support, the automotive sector can prosper, delivering jobs, inward investment and huge progress towards net zero.

“The Danfoss technology we are supporting with APC funding is a brilliant example of a project that accelerates the UK’s ambitions to remain a leader in net zero automotive innovation and engineering, that focusses on the heavier duty segment of the industry.”

Earlier in 2021 Danfoss bought Artemis Intelligent Power which had developed the Digital Displacement® pump technology. Artemis grew from University of Edinburgh research into wave and tidal energy.

