

CASE STUDY: LEVENMOUTH

Located on the Fife coast, Levenmouth is paving the way as a leading community for offshore renewable energy development.

The area plays host to the Levenmouth Demonstration Turbine (LDT) operated by ORE Catapult. It is the world's most advanced open-access offshore wind turbine for research – it has supported over 150 research projects and technology demonstrations since 2017 and is pivotal to a world-leading programme trialling clean domestic heating for the future.

By engaging with key groups in the area through the STEM (Science, Technology, Engineering, and Mathematics) Ambassador programme, as well as the existing infrastructure, ORE Catapult has helped young learners engage with STEM subjects, driving forward innovation throughout the offshore renewable energy supply chain.

HYDROGEN – FUEL OF THE FUTURE

ORE Catapult's Levenmouth Turbine will provide the power to generate hydrogen that will be utilised in SGN's hugely innovative H100 project, trialling the use of green hydrogen as a domestic fuel for heating and cooking in local homes.

**THIS WORLD-FIRST
HYDROGEN-TO-HOMES
ZERO CARBON NETWORK
AIMS TO DEMONSTRATE A
100% GREEN HYDROGEN
SUPPLY, INITIALLY TO
300 LOCAL HOMES,
SHOWCASING THE UK'S
LOW CARBON FUTURE.**

MEETING LOCAL NEEDS

Levenmouth is an area that significantly suffered from deindustrialisation following the closure of its coal mine in the 1970s, as well as facing many of the other challenges seen in coastal communities across the UK.

Since 2016, ORE Catapult has worked in partnership with the local secondary school, Levenmouth Academy, to enhance its STEM educational programmes and provide greater visibility of career opportunities in offshore renewable energy.

RESULTS

Through the partnership with Levenmouth Academy, ORE Catapult has sponsored a STEM teacher to deliver extensive science and engineering-based classes, including the areas of robotics, drones, and programming. All these transferable skills are in high demand in the offshore renewable energy supply chain.

ORE Catapult has also invested in new VR kit to enhance STEM teaching resources, supporting STEM clubs and activities.

The long-term partnership with Levenmouth Academy also led to the creation of the Aspire Bursary in 2020, which provides an outstanding pupil with financial assistance, and guidance from an ORE Catapult mentor to support them studying STEM-related subjects at university.

The STEM engagement programme in Scotland is led by Project Engineer for Energy Transition, Lorna Bennet, who won an Outstanding STEM Ambassador award at the 2022 STEM Inspiration Awards. Lorna and her team teach students about the importance of STEM subjects and the possibilities they open up, showcasing the wide variety of routes they can take towards a career in offshore renewable energy.

The programme has also helped develop an immersive hybrid-reality offshore wind turbine for education and training in local schools and training centres. ORE Catapult hopes to inspire the next generation of renewable energy professionals and help to regenerate the area of Levenmouth in the process.

FIND OUT MORE ABOUT ORE CATAPULT'S
IMPACT ON THE OFFSHORE RENEWABLE
SUPPLY CHAIN AT

<https://ore.catapult.org.uk/spotlightsupplychain/>

