

World's first green submarine among winners of the UK's biggest clean maritime competition

- green submarine and shipping charge-points powered by offshore wind turbines will receive share of £23 million research and development (R&D) competition
- Maritime Minister supports the opening of the UK's greenest cruise terminal at Southampton Port
- comes as UK sets out intention to eliminate all emissions from shipping by 2050

The first ever green submarine study has been named as one of 55 winning projects of a £23 million government-funded R&D competition, announced today (15 September 2021) by Transport Secretary Grant Shapps, in Greenwich, as part of the [greenest ever London International Shipping Week](#).

The [Clean Maritime Demonstration Competition](#), announced as part of the [Prime Minister's 10 point plan for green industrial revolution](#), is supporting the development of innovative technology to propel the government's commitment to have zero emission ships operating commercially by 2025 – creating hundreds of highly skilled jobs across the nation and establishing the UK as world leaders in clean maritime.

A fully automated net positive submarine fleet, powered entirely on green hydrogen, could help cleanse the oceans of toxic pollution by collecting microplastics on its pilot route between Glasgow and Belfast. While transporting cargo shipments, the fleet could secure significant emission savings of 27 tonnes of carbon dioxide (CO₂) emissions in the first year of operation, with an overall mission to reduce 300 million tonnes of CO₂ emissions as the fleet grows.

Also among the winners is an all-electric charge-point connected to an offshore wind turbine. The charge-points will be able to power boats using 100% renewable energy generated from the turbine. This offers potential savings of up to 131,100 tonnes of carbon dioxide equivalent (CO₂e) emissions a year – the equivalent of removing over 62,000 cars from our roads.

Similar to roadside electric vehicle chargepoints, these will be operated by semi-automated control, meaning that sailors can moor up by the wind turbine chargepoint, plug in, charge up, then sail on.

Announcing the winners in Greenwich, the heart of British maritime, on the state-of-the-art Royal Navy ship, HMS Albion, the Transport Secretary outlined how this is the latest in a string of government initiatives aimed at cutting emissions in the sector as part of London International Shipping Week – including joining other nations in supporting a world-leading absolute

zero target for international shipping emissions by 2050.

Transport Secretary Grant Shapps said:

As a proud island nation built on our maritime prowess, it is only right that we lead by example when it comes to decarbonising the sector and building back greener.

The projects announced today showcase the best of British innovation, revolutionising existing technology and infrastructure to slash emissions, create jobs and get us another step closer to our decarbonisation targets.

This comes as Maritime Minister Robert Courts supports the opening of the UK's greenest cruise terminal. The Horizon Cruise Terminal at the Port of Southampton, Europe's leading cruise turnaround port, is the first of its kind, using an innovative mix of solar panel roofing and clean energy shore power plug-in charging for ships – pioneering the way towards greener cruising.

Maritime Minister Robert Courts said:

As the cruising sector bounces back from the pandemic, it's important that our environmental commitments are at the heart of everything we do.

Building state-of-the-art green infrastructure at cruise terminals helps us move towards cleaner cruising, creating more spaces for these ships to dock and putting us on track to hit net zero by 2050.

Maritime UK chair Sarah Kenny said:

We have always been an island of maritime pioneers and today's competition shows this will long continue with potential to rule the green waves of the future.

Through increased investment and closer collaboration with government our industry can rise to the challenge of steering the UK's vessels in a green direction.

We still have a very long way to go, but today marks an important step towards our journey to net zero.

Founder and Chief Executive Officer of Oceanways, Dhruv Boruah, said:

We would like to thank our Transport Secretary Grant Shapps MP for selecting Oceanways to support the Department for Transport's mission to decarbonise shipping and aid our Prime Minister's commitment to build back better. Time is running out and it is imperative we don't settle for 1% more efficiency in an existing system, but instead, radically rethink to create innovative solutions.

It's not just #JetZero. Oceanways has assembled a world-class team to pioneer #SubZero by creating the new market of net positive underwater transport systems with zero-emission cargo submarines as an innovative tool to decarbonise shipping and clean up our ocean.

Paul Cairns, Managing Director of MJR Power & Automation, said:

We are delighted to have been selected as one of the winners of the Clean Maritime Demonstration Competition, which will enable us to demonstrate our world-leading technology for offshore charging of vessels, and our commitment to supporting decarbonisation of marine operations.

The support of DfT and [InnovateUK](#) is crucial to delivering net zero greenhouse gas emissions by 2050 and we are proud to be recipients of their support.

Simon Edmonds, Deputy Executive Chair and Chief Business Officer, Innovate UK, said:

As the UK prepares to host COP26 in the maritime city of Glasgow, it is great that we can announce funding for these fantastic projects in the marine sector that will help the UK meet its net zero goals.

From this competition we saw a very high level of demand, we have seen the very best of British ideas from all over the country. It is clear that not only does the UK have a great maritime history, but also a bright and greener future, too.

The initiatives follow on from the government's previous commitments outlined in the world-leading [Transport decarbonisation plan](#) to explore the establishment of a dedicated function for creating zero-emission shipbuilding and R&D for autonomous vessel sailings under the function of UK Shore.

Based in DfT, UK Shore will unlock the necessary industry investment in clean maritime technologies, tackling supply- and demand-side barriers, as well as

developing infrastructure and consumer confidence in clean maritime technologies.