The Pembrokeshire Demonstration Zone is a new wave energy site located off the South Pembrokeshire coastline.

The zone comprises a 90 sq km area of seabed with water depths of approximately 50 metres and a wave resource of 19 kW/m. It is located between 13-21kms offshore and has the potential to support the demonstration of wave arrays with a generating capacity of up to 30MW for each project.

The zone is managed by Wave Hub Limited, the operating company for the Wave Hub test site in Cornwall. Our aim is to help marine energy developers from around the world test in open sea conditions to drive research and innovation, overcome the final hurdles to full commercialisation and foster a growing marine energy industry in the regions we are active in.

We are working closely with Marine Energy Pembrokeshire to develop the zone. This is a partnership between technology developers, the supply chain, academia and the public sector with the common goal of establishing Pembrokeshire as a “centre of excellence” for sustainable marine energy generation.

We are focused on the following activities during 2016:
- Gain a full understanding of the industry requirements for a wave energy demonstration zone
- Complete a technical feasibility study and identify an appropriate delivery model
- Prepare a strong business case for securing funding to enable the zone to be developed
- Actively engage with key stakeholders

Pembrokeshire

The zone is located in an area with a number of factors that make it ideal for marine energy development:
- A 400kV transmission line and substation located coastally at the Pembroke Power station
- World class deep water port facilities and support services provided through the UK’s third busiest port complex
- An excellent energy sector supply chain and workforce
- Experience in constructing and deploying Wales’ first tidal stream device
- Access to expert academic and research facilities
- An EU Structural Fund Programme for West Wales and the Valleys that has prioritised marine energy
Support Services and Facilities

The site is ideally located to offer access to a range of facilities and services to support technology development.

Pembrokeshire is already home to a supply chain with decades of experience delivering to the UK’s energy sector.

The Milford Haven waterway is the third largest natural harbour in the world and offers unrestricted deep water access.

Marine Energy Pembrokeshire

- Provides a single point of access for technology developers
- Has a working group containing all wave and tidal developers with an interest in Wales
- Has links to relevant Government departments
- Regularly meets to discuss and share best practice and development opportunities
- Provides sector representation
- Assists with stakeholder engagement and community support

Pembrok Port

Pembrok Port (owned and operated by the Port of Milford Haven) is an established deep water port with a history of handling extraordinary projects in a global context.

The port is an existing major service provider for the UK’s energy industry and has the skills set, supply chain and infrastructure necessary to support renewables projects.

Pembrok Port has proven experience in the marine renewables sector and has worked in partnership with Tidal Energy Ltd to accommodate the fabrication and deployment of the DeltaStream prototype onsite. They know that flexibility is paramount and can facilitate each process from component delivery and device fabrication to deployment and decommissioning.

On site capacity:

- Short steaming distance to demonstration zone
- Experience in accommodating extraordinary vessels and projects
- 24 hour security and CCTV
- Operational around the clock with controlled site access
- Options of laydown spaces on and away from quay
- Industrial build sheds with internal heights up to 12m
- Specialist supply chain experienced in the energy sector
- Onsite specialist barge and workboat availability
- Customised boat builders specialising in steel, aluminium and GRP
- Office facilities, workshops and storage available with an 11kV power supply onsite
- Flexibility of site layout – can be adapted to fit project needs
- Uncongested road network to M4 corridor

Pembrok Port is currently investing in a Masterplan to adapt part of the site for use as a specialist facility for testing, manufacture and export of marine renewable devices.