

Investigation of the tidal resources in the area of Milford Haven

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Rationale

The objective of this work is to investigate the potential resources of tides in the Milford Haven area for tidal energy extraction and how the tidal circulation behaves inside Milford Haven.

Changes on the tidal currents due to tidal energy extraction can affect the hydrodynamics and hence change the tidal circulation patterns affecting sediment transport and morphodynamics. This can also have implications for navigation, ecology and the associated industry.

Methods

A numerical tidal model will be run for the Milford Haven area and an ADCP will be deployed in order to compare the measured data with the model results and hence validate the model results for future consultations.

The ADCP will be deployed in the Milford Haven area over the next 6 months for data collection. During this period data will not only be collected for the purpose of model calibration, so a wide variety of other data will also be gathered.

Outcomes

This project will be instrumental in assisting the marine renewable sector by providing knowledge that will be of direct relevance to companies interested in deployment in Milford Haven, both in the proposed tidal demonstration zones and at separate sites.

Also, it will improve the understanding of the local tidal hydrodynamics which will reduce future consenting burden. Model outputs will inform developer assessments of tidal energy availability for device trials.

