

# Atlantic Marine Energy Test Site CASE STUDY

**Client:** Sustainable Energy Authority of Ireland (SEAI)

**EIA Consultant:** ARUP Ireland

**Survey Periods:** Dec 2010  
Mar 2011

**Aims:** Conduct shore based marine traffic survey on the exposed west coast of Ireland for an offshore wave test berth located 15km offshore.

**Marico Marine has been contracted to conduct marine traffic survey operations in preparation of the Environmental Impact Assessment for the Belmullet Offshore Wave Test Berth proposed by the Sustainable Energy Authority of Ireland.**

The Atlantic Marine Energy Test Site (AMETS), is planned for installation off Annagh Head, west of Belmullet and will focus on wave powered technologies. The site will enable deployment of wave energy devices to test and measure electricity generating performance and suitability of proposed equipment for open ocean conditions.



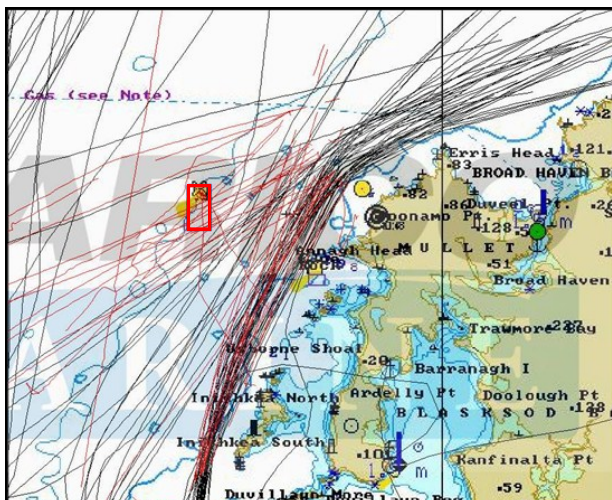
*Construction of survey station on cliff tops near Belmullet*

The location of the site presents several challenges to set up and mobilisation of marine traffic survey operations: The radar scanning height needed to be increased on this exposed and remote headland, hence the erection of a 10m scaffold tower; with wind speeds during December's survey period of up to 50 knots, both the tower's robustness and overall site safety was a prerequisite. Additionally, public perception issues of radiation emissions from the radar station were accommodated by sectoring the radar path to prevent radiation being transmitted inshore.

The first survey was concluded successfully in December 2010, with the site being subsequently cleared of the radar scanning equipment, tower, the survey operations office and staff accommodation. Marico's marine traffic survey team will return to the site in March 2011 to conduct the next phase, from which ARUP will undertake the navigation risk assessment which will be prepared with input from stakeholder and public consultation meetings.



*Radar scanners, AIS and data logging equipment employed in survey operations*



*Two weeks radar (Red) and Automatic Identification System (black) vessel tracks plotted on a chart of Belmullet area.*

To date there are only a handful of full scale wave energy test sites in the world. Development of a full scale site at Belmullet is perceived to be a major step forwards in Ireland's objective to become a world leader in wave energy supply. The SEAI anticipates that the test site will operate for up to 20 years and assist Ireland goals of generating sustainable energy

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