

Lease Application for Galway Bay Marine & Renewable Energy Test Site

FREQUENTLY ASKED QUESTIONS

Lease Application for Galway Bay Marine & Renewable Energy Test Site

The Marine Institute has applied for a foreshore lease for a marine and renewable energy test site in Galway Bay. The site will be located at the existing wave energy test site offshore of An Spidéal, Co. Galway and will provide researchers and those involved in developing ocean energy devices with a leased area in which to test and demonstrate prototype ocean energy converters and related technologies. Facilities on the site include a power and data cable to bring power from the shore to the devices on test and the remote monitoring and data collection at the site.

It is proposed that the upgraded test site will operate for up to 35 years, with devices on site intermittently. The test site will be structured into four berths - three for testing devices, and one for the Smartbay subsea observatory and related scientific instruments for monitoring the site. The lease application sets a maximum limit of three devices to be deployed at the test site at any one time for a period of testing no greater than 18 months, with the exception of a floating wind turbine which has a maximum period for testing of 12 months. Only one floating wind turbine can be tested on the site at any one time. Three test bays are proposed on the site to allow for testing of components, for example moorings or part of devices.

The project aims to enable developers of ocean energy converter technology to test and modify their equipment in an open ocean national test site facility, and to encourage the growth of an indigenous ocean energy and marine technology industry in Ireland.

FREQUENTLY ASKED QUESTIONS

- Q. What level of noise will be generated at the test site?**
A. Industry norms show that a typical single wind turbine will produce a sound pressure level of 50-60 dB(A) at a distance of 40m from the turbine.* This noise range would be similar to a boat engine.
- Q. What will I hear if I am standing on the nearest beach?**
A. A typical single wind turbine will produce sound pressure level of 35-45 dB(A) at a distance of 350m which is the equivalent noise level to normal conversation.* The test site is more than 1km from the shore.

Based on previous tests, there will be minimal audible noise on shore when devices are being tested.

Most noise is generated at times of high wind and high wave activity. During calm periods the devices will be virtually motionless, and therefore there will be little or no audible noise from the test site. During windy periods noise reaching the shore would not exceed the natural background noise of the wind and the sea.

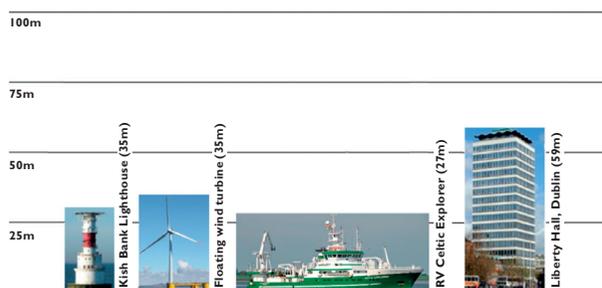
* http://www.seai.ie/Renewables/Wind_Energy/Good_Practice_Wind/TCS_11_Dealing_with_Noise.pdf
<http://www.industrialnoisecontrol.com/comparative-noise-examples.htm>

- Q. How will the Marine Institute monitor noise levels?**
A. The Marine Institute will monitor noise as part of the environmental monitoring plan (EMP) for the test site. The EMP will be based on recommendations from statutory agencies on the application and its potential impacts on the environment.
- Q. Is there a noise level at which the Marine Institute will not allow a device on the site?**
A. Yes. The conditions of any foreshore lease that might be granted would define the levels of noise pollution above which the Marine Institute would be required to remove a device from the site. Those levels will be defined by the relevant statutory authorities
- Q. How high will the floating wind turbines be?**
The maximum height of a wind turbine on the test site will be 35m above sea level.

The wind turbine which is visible on the Galway inner relief road at Supermacs headquarters is 27m high and

is a good example of the approximate height of any test turbine that would be trialled at the site.

The wind turbines planned for Moycullen and the Sceirde Rocks are 140 m high, are approx. four times the maximum height which would be permitted on test in Galway.



Q. How many devices will be at the test site at any one time?

A. The application sets a maximum limit of three devices to be deployed at the test site at any one time. Therefore, the conditions of any lease that might be granted would only permit a maximum of three devices to be the test site at any one time.

The environmental assessment only considered the impacts of one floating wind turbine at the test site. Therefore, the conditions of any lease that might be granted would only permit one floating wind turbine at any one time.

Q. How long will a device remain on the site for testing?

A. The lease application proposed that wave and tidal devices may be tested on the site for up to 18 months. A floating wind turbine may be tested on the site for a maximum period of up to 12 months.

Q. Why does the Marine Institute want to test wind turbines in the water?

A. As we look towards 2030, and even out to 2050, Ireland will need to expand our renewable power generation to reduce our carbon emissions. The government's Offshore Renewable Energy Development Plan has identified technologies still at the research, development and demonstration stage, such as wave and tidal devices and floating offshore wind systems that could assist in meeting this need. The Galway Bay test site is a crucial part of the national renewable ocean energy technology testing infrastructure, therefore floating wind turbines have been included in the application to allow this technology to be tested in an ocean environment.

Q. What types of technologies will be trialled on the test site?

A. The devices that could be tested on the site are described in the foreshore lease application in Chapter 4 of the Environmental Report. The conditions of any foreshore lease that might be granted will limit the testing of technologies to those described.

Q. Why has the Marine Institute applied for a 35 year lease for the test site?

A. The provision of the test site is required to meet one of the key initiatives set out in the Offshore Renewable Energy Development Plan and Harnessing Our Ocean Wealth. It will help underpin the Government's stated objective of producing 50GW from ocean energy by 2050, 35 years from 2015.

The application for a 35 year lease for the quarter scale test site is to make sure the operational lifespan of all the national ocean energy testing facilities are consistent. The test site is an integral component of Ireland's Ocean Energy Strategy and is being developed in accordance with the national Offshore Renewable Energy Development Plan (OREDPP); Lir National Ocean Test Facility building was officially opened in in Cork last year and provides small to medium scale laboratory testing of ocean and maritime systems. The Atlantic Marine Energy Test Site (AMETS) in Belmullet was granted a 35 year foreshore lease in 2015 to facilitate testing of full scale wave energy converters in an open ocean environment.

Q. Can the size of the test site be increased?

A. The area of the Galway Bay Marine and Renewable Energy Test Site will be the same as the existing test site at 670m long by 560m wide, the coordinates of which are defined in the foreshore lease application. The conditions of any foreshore lease that might be granted would not permit the area of the site to be increased.

Q. Could the test site be passed on or sold?

A. The conditions of any lease that might be granted would expressly forbid that the lease could be passed on or sold.

Q. Where can I find information on the lease application?

A. The application, and the relevant maps, plans, reports and drawings are available on the Department of Environment, Community and Local Government's webpage at the following address: <http://www.environ.ie/planning/foreshore/applications/marine-institute-spiddal>

A copy of the application, and the relevant maps, plans, reports and drawings, are also available for inspection at: Salthill Garda Station, Salthill, Galway City (24 hours)

Spiddal Public Library, An Spideal, Co. na Gallaimhe (Tuesdays, Thursdays and Fridays from 10.30 to 13.00 hours and 13.30 to 17.00 hours, Wednesdays from 14.00 to 17.00 hours and 17.30 to 19.30 hours, Saturdays from 11.00 to 15.00 hours, Closed on Mondays, Sundays and public/bank holidays)

Comhlacht Forbartha An Spideal Teo, An Spideal, Co. na Gallaimhe (08.30 to 16.30 hours Monday – Friday)

Q. How was the consultation communicated to the public?

A. Advertisements were taken in the national press in May 2016 including Irish Times, 19th May 2016, Connacht Tribune, 19th May 2016, The Irish Skipper, 28th May 2016 (monthly publication), The Marine Times, 31st May 2016 (monthly publication), Irish Times, 17th May 2016 and on extended deadline for submissions in Connaught Tribune and Galway Advertiser in week commencing 20th June

There were press releases from the Marine Institute and local radio interviews on the process over April – June period. A public information meeting was held 19 January and 14 June 2016 on the planned upgrade and foreshore lease application.

Q. HOW CAN I CONTRIBUTE TO THE CONSULTATION?

A. To make a submission on the lease applications you should do so in writing, giving reasons, **no later than 5pm 2nd August** (quoting ref: FS 006566), to the Foreshore Unit, Department of the Environment, Community and Local Government, Newtown Road, Wexford or foreshore@environ.ie.

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