

01 June 2016

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Ref: FS 006566



*Foras na Mara*  
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**Re: Galway Bay Marine and Renewable Energy Test Site  
Foreshore Lease Application – Response to Observations**

Dear Mr. O'Neill,

I refer to your letter dated 13<sup>th</sup> May 2016 in relation to observations made by the **National Parks and Wildlife Service**.

The Marine Institute welcome that *“the Department of Arts, Heritage and the Gaeltacht would note that the construction and operation of the renewable energy test site is unlikely to have a negative interactions with Natura 2000 nature conservation sites due to the nature and locations of the works”*

The Marine Institute welcome that the range of mitigation measures proposed by the Marine Institute in “Appropriate Assessment Stage I Screening Report: For the Marine and renewable Energy Test Site in Galway Bay” meet the approval of the National Parks and Wildlife Service.

As has been the practice at the test site for the past ten years, a detailed description of the ocean energy device will be forwarded to the Competent Authority prior to deployment. Henceforth, this description will include the likely sound pressure and frequency of noise likely to be generated once operational or during installation, and a consideration of the potential collision risk posed to marine mammals.

An acoustic hydrophone is deployed on the Galway Bay Observatory which constantly records the underwater soundscape within the test site. This instrument, along with the future Acoustic Array planned for the test site, will provide real-time monitoring of any ocean energy devices at the site and facilitate appropriate mitigation strategies where necessary.

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*Marine Institute*  
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I refer to your letter dated 13<sup>th</sup> May 2016 in relation to observations made by **Inland Fisheries Ireland**.

The Marine Institute are seeking consent to only install one interlocking modular gravity foundation to a maximum footprint of 56m<sup>2</sup> within the test site for mooring/anchoring purposes, and is considered to form part of the long term infrastructure of the test site. This foundation will be deployed in a specific testing berth at the test site.

New interlocking modular gravity foundations will not be required each time a new prototype is to be installed. Any new prototype device requiring anchoring/mooring to the gravity base foundation will be deployed in the aforementioned specific testing berth.

It has been noted in the Environmental Report in PI 18 that “*consideration should be given to leaving any long-term structures in place (e.g. interlocking gravity base frames in situ for >12 months) if significant functional communities have been established on them, as these communities would function as artificial reefs and serve as shelter, habitat and food source for fish and larger species.*” The decision to leave the gravity foundation in situ on completion of the life span of the test site (35 years) will be taken in consultation with the Competent Authority as part of the Decommissioning Plan to be approved by the Minister.

The gravity base foundation is one of two types of likely anchoring systems for devices which would be suitable for use at the test site; the other being drag embedment anchors (including vertical load anchors) which will be specific to the individual device(s).

In accordance with the Galway Bay Test and Demonstration Site Procedures Manual the device developers are required to remove the device and any associated equipment (including anchors) from the test site and reinstate the test site to its original condition as it was prior to deployment. Therefore, anchoring systems will not start to ‘accumulate’ on the seabed within the area of the test site, over the site’s lifespan.

Whilst the current application is in respect of infrastructure installation at the test site, the environmental impacts of the various types of devices that might be deployed at the test site have also been examined, on a receptor by receptor basis, for defined worst-case scenarios. Therefore, it is anticipated that each and every subsequent device to be tested that falls within the scope of the devices assessed in the Environmental Report and supporting appendices will not require a separate foreshore licence prior to deployment.

Any device that falls without the scope of the devices assessed in the Environmental Report and supporting appendices will require a separate environmental assessment to be undertaken and appropriate consents obtained from the Minister.

The Marine Institute welcomes that IFI broadly support the range of mitigation measures proposed by the Marine Institute in Section 6.7 of the Environmental Report, and, specifically in relation to IFI comments where IFI’s interests are concerned:

- Site specific geophysical and geotechnical surveys to establish a baseline and identify suitable locations for infrastructure have been undertaken in the past under various licences. Any future surveys of this nature, if required, would require new site investigation licence applications as is standard practice.

It is acknowledged that such surveys can generate disturbance, particularly through sound emission with high dB levels. An acoustic hydrophone is deployed on the Galway Bay Observatory which constantly records the underwater soundscape within the test site. This instrument, along with the future Acoustic Array planned for the test site, will provide monitoring services for any future survey activity at the site and appropriate mitigation strategies can be developed where necessary.

- Salmon smolt out-migration from the adjacent Lough Corrib SAC occurs during the period March – June and it is considered likely that smolts hug the north shoreline of Galway Bay on out-migrations.

In each relevant case, IFI will be consulted in advance regarding the installation timing of test site infrastructure components.

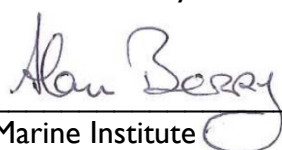
The Marine Institute, through SmartBay, are supporting an IFI research project monitoring tagged salmon and trout in Galway Bay; providing marine support servicing the array of acoustic fish tag receivers across Galway Bay. One of the receivers is co-located on the Galway Bay Observatory in the test site. This information will provide valuable information identifying the migration periods and paths of both salmon and trout smolt.

I refer to your letter dated 13<sup>th</sup> May 2016 in relation to observations made by the **Underwater Archaeology Unit** of the Department of Arts Heritage and the Gaeltacht. The Marine Institute has no comments to make on this observation.

I refer to your letter dated 16<sup>th</sup> May 2016 in relation to observations made by the **Sea Fisheries Protection Agency**. The Marine Institute has no comments to make on this observation.

I refer to your letter dated 24<sup>th</sup> May 2016 in relation to observations made by the **Department of Agriculture, Food and the Marine (DAFM)**. The Marine Institute has no comments to make on this observation.

Yours sincerely,

  
Marine Institute