

Prescribed Body Consultation - Consolidated Observations

Contents

Marine Survey Office (MSO)	2
Marine Institute (MI)	2
Inland Fisheries Ireland (IFI)	4
Dun Laoghaire-Rathdown County Council	9
Department of Agriculture, Food and the Marine (DAFM)	11
Water and Marine Advisory Unit (WMAU)	11
Development Applications Unit, Underwater Archaeology	15
NPWS – Development Application Unit – Nature Conservation	16
Sea Fisheries Protection Authority (SFPA)	16
Cllr. Mitchell, Wicklow County Council	16
Fingal County Council	17

Marine Survey Office (MSO)

22nd October 2019

Emailed response from [REDACTED], MSO:

RE: FS007029 Innogy -Application for Site Investigation works -Dublin Array (Kish and Bray Banks)

Good afternoon [REDACTED]

I refer to the above and can confirm that this office raises no objections at this juncture.

Kind regards.

Marine Institute (MI)

Innogy Renewables Ireland Ltd has submitted an application for a Foreshore Licence to carry out site investigations in the western Irish Sea off the coast of Dublin and Wicklow in the vicinity of the Kish and Bray Banks. The location of the proposed site investigations area is shown in the following drawing submitted by the applicant:

☐ Drawing No 1330-B-01 application , “Foreshore Licence Map 1 Foreshore Licence, Geophysical Survey Area and Metocean Monitoring” , Ver 3 dated 30/08/2019

The overall aim of the site investigations is to collect the necessary data and information required to inform the Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS) and preliminary design for a proposed wind farm array and ancillary infrastructure in the vicinity of the Kish and Bray Banks. The possible installation of a windfarm and associated infrastructure in the area in the future would be the subject of a separate Foreshore Lease / Licence application and is not the subject of this current application.

It is proposed that the site investigations will include:

Geophysical Survey - involving the use of multibeam echo sounder, magnetometer, sub-bottom profiler and side scan sonar

Geotechnical survey – involving cone penetration testing as well as vibrocoreing and drilling of boreholes. The exact location, quantity and type of geotechnical samples collected would be subject to the results of the geophysical survey. The following indicative numbers, may be collected

- 48 vibrocores – approximately 150mm diameter and penetration depth of up to 6m
- 15 cone penetration tests – in intertidal areas, approximately 4cm diameter and depth of up to 15m
- 3 boreholes – approximately 10cm diameter and depth of up to 20m

Ecological Survey – It is anticipated that benthic grab samples will be collected at up to 30 sampling sites in the survey area. The exact location would be subject to the results of the geophysical survey. Drop down video will also be collected.

It is also intended to deploy of 2 No. buoy mounted Floating Lidar (FLidar)units and up to 2 Wave Rider Buoys incorporating wave and current devices in the survey area.

The indicative location of the geotechnical sampling sites, benthic grab samples as well as the proposed location for the deployment of the LIDAR buoy and Wave Rider Buoys is shown in the following drawings submitted by the applicant:

- Drawing No. 1330-B-02-application, “Foreshore Licence Map 2 Indicative Benthic Sampling Stations” , Ver 3 dated 30/08/2019
- Drawing No. 1330-B-03-application, “Foreshore Licence Map 3 Indicative Vibrocore Sampling Stations” , Ver 3 dated 30/08/2019

- Drawing No. 1330-B-04-application, “Foreshore Licence Map 4 Poolbeg / ShellyBanks Intertidal Area” , Ver 3 dated 30/08/2019
- Drawing No. 1330-B-05-Pre-application, “Foreshore Licence Map 5 Shanganagh Cliffs Intertidal Area” , Ver 3 dated 30/08/2019
- Drawing No. 1330-B-06-Pre-application, “Foreshore Licence Map 6 Shanganagh Park Intertidal Area” , Ver 3 dated 30/08/2019
- Drawing No. 1330-B-01-application, “Foreshore Licence Map 7 Overall Survey and Sampling” Ver 1, dated 30/08/2019.

Additional details of the proposed survey including survey methods, equipment to be used, proposed survey schedule etc are provided in the following document submitted by the applicant: *“Planning Report for in support of the Foreshore Licence Application for Geophysical, Geotechnical, Environmental, Archaeological Metocean Survey of Dublin Array Wind Farm and Export Cable Route Corridors. Revision 6: 17th September 2019.*

The above report also includes an AA Screening report and Natura Impact Statement (NIS)

The applicant has indicated that, subject to the granting of a Foreshore Licence, the geophysical survey would commence in late July 2020 and would take approximately 4 weeks to complete, the marine geotechnical and benthic surveys would commence in September 2020 and would take approximately 4 - 8 weeks to complete while the intertidal geotechnical and benthic surveys would commence in August 2020 proposed would take approximately 1 - 2weeks to complete at each location.

It is intended that the FLidar units would be calibrated over a 6 month period beginning in July 2020 with the deployment of the FLidar Units and Wave Rider Buoys for a minimum period of 2 years, commencing in December 2020.

There are no licenced aquaculture sites within the proposed site investigation area on the Foreshore. The nearest licenced aquaculture site (T32/027A) is located in Clogga Bay circa 43Km south of the Bray Bank and therefore impacts on aquaculture are not considered likely. Additionally, there are no designated Shellfish Growing Waters within the proposed site investigation area. The nearest Shellfish Growing Waters area is located circa 10Km to the north of the Kish Bank. There is commercial fishing activity within the proposed site investigation area on the Forehsore and therefore some interaction with fishing activity may occur. It is considered that that such interaction will be limited and overall will not be significant. It is noted that a Fisheries Liaison Officer has been appointed and that the applicant’s engagement with the fishing industry has already commenced and that it is intended to maintain this engagement by way of a Fisheries Liaison Working Group. This a positive and welcome initiative. The appointment of the Fisheries Liaison Officer and continued liaison with the fishing sector during the course of the site investigations should be a condition of any licence that may be granted.

On the basis of the above and considering the nature, scale and location of the proposed site investigations the Marine Institute is satisfied that the site investigations as proposed will not have a significant impact on the marine environment in the survey area and will not have a significant impact on other legitimate uses / users of the area and therefore has no objections to a licence being granted. It is recommended that the following specific conditions should be attached to any licence that may issue.

1. The Licensee shall use that part of the Foreshore the subject matter of this licence for the purposes as outlined in the application and for no other purposes whatsoever.
2. The Licensee shall ensure that the works are carried out and completed in accordance with the plans and particulars lodged with the application.

3. The Licensee shall appoint a Fisheries Liaison Officer who will consult with the SFPA and relevant fishermen's groups in order that appropriate actions can be taken to avoid or minimise interactions with ongoing fishing activity in the area during the course of the site investigations.

Inland Fisheries Ireland (IFI)

Overview:

This application is in respect of a series of surveys to be conducted in the Kish Bank – Bray Bank area off the coast of Dublin and Wicklow, as per maps provided in application.

Applicant information (from documentation provided):

Extract from licence application.....

innogy Renewables Ireland are applying for a Foreshore Licence to undertake surveys and data collection to provide supplementary environmental information to inform the Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS) and preliminary design for a proposed wind farm array and ancillary infrastructure in the vicinity of the Kish and Bray Banks, approximately 10km off the coast of Dublin.

In the late 1990s the Kish and Bray banks were identified as an area of potential for offshore wind farm development due to good wind resource, bathymetry and geomorphology potentially suited to foundation installation, and proximity of the site to the energy demand centre of the Greater Dublin area. Studies were subsequently undertaken to further investigate the potential of the site. These studies included geophysical and geotechnical surveys, wind, wave and tidal current measurements, ecological surveys and desk-based studies to understand the environmental baseline and human activities and usage of the area.

Two Foreshore Lease applications were submitted for a proposed offshore windfarm on the Kish and Bray banks in 2006. Supplementary environmental information was provided in 2009 and 2012/13.

Further site investigations are now proposed to supplement the data available for the project design and to provide additional information concerning the prevailing baseline environmental conditions.

The principal objectives of the surveys are to:

- Obtain additional measurements of wind speed and direction;
- Provide further measurements of wave and current across the site;
- Produce up to date detailed bathymetric mapping;
- Provide further information concerning the nature of the seabed;
- Obtain supplementary detailed seabed morphology information;
- Acquire additional shallow and deep geological cross-sections of the array site;
- Determine the presence of any marine archaeological features in the area, i.e. identifying wrecks and anomalies of archaeological potential and sediment layers which may be of archaeological interest.

This licence application is solely for the purposes of the completion of the surveys.

Ends.....

The proposed survey works will include the following:

1. Geophysical Survey

To include bathymetric, side scan sonar, magnetometry & sub-bottom profiling

2. Geotechnical Survey

To include borehole and Cone Penetrometer Tests of the seabed , to include, indicatively, 49 vibrocore samples, 15 seabed CPTs and 3 boreholes (at each of 3 candidate landfall locations)

3. ecological survey

Benthic invertebrate assessment using imagery and grab samples in approx. 30 locations

4. wind resource and metocean Survey

Deployment of up to 2 wave rider buoys and 2 LiDAR buoys

The applicant identifies survey timelines as follows:

Item 1 – July 2020 for approx. 4 weeks

Item 2 And 3 (marine area) September 2020 for 4-8 weeks

Item 2 and 3 (intertidal area) August 2020 approx 1-2 weeks at each location

Item 4 – from July 2020 – long-term deployment for 5 years

These dates (Above) appear to differ significantly from those provided in the MDM report of 9.2019 provided as accompanying document:

Extract from MDM Planning Report of 9.2019

Survey Schedule

2.11 The proposed geophysical survey and seabed sampling works will likely be carried out between 1st March and 31st October within the two years following award of the Foreshore Licence. The total duration of these elements of the survey campaign is expected take to be 4 to 5 months and some works may be carried out concurrently where practicable to reduce the time present in the survey area. The metocean monitoring equipment is likely to be deployed during Q3 2020; the equipment will remain on site for a minimum of two years. An indicative schedule is shown below in Table 1, assuming licence determination by June 2020.

Table 1 of the MDM report appears to be more consistent with the foreshore application information.

The applicant identifies the potential sound-emitting capacities of instrumentation proposed for the surveys (Table 3 of MDM report).

All survey works that involve the use of acoustic instrumentation will follow the Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters, 2014. Measures to be implemented include but are not limited

to:

- A qualified and experienced marine mammal observer (MMO) shall be appointed to monitor for marine mammals
- Pre-start monitoring: If marine mammal species are detected within 500m distance of the sound source, seismic survey shall not commence.
- Periods of peak sensitivity to survey operations for marine mammals will be avoided where possible.
- Ramp-up Procedures will be used - a controlled build-up of acoustic energy output shall occur in consistent stages to provide a steady and gradual increase over the ramp-up period.

The applicant proposes appointment of a Fisheries Liaison officer

The proposed survey area also includes the entirety of the Foreshore Lease application areas associated with;

- i. Bray Offshore Wind Ltd, application to occupy the Bray Bank for the purpose of constructing an offshore wind farm (FS006463), and
- ii. Kish Offshore Wind Ltd, application to occupy the Kish Bank for the purpose of constructing an offshore wind farm (FS006462)

The proposed survey area is located approximately 22 km from the proposed survey area associated with the Foreshore Licence application at Braymore Point (application reference FS006973).

The proposed survey area is located approximately 0.5 km from the development location associated with the Foreshore Lease and Foreshore Licence application at Codling Banks, County Wicklow (application references FS006460 and FS006241 respectively).

The nearest non-offshore renewable energy development is Dublin Port Company Alexander Basin redevelopment (FS005699) and associated maintenance dredge (FS006980) located approximately 100m and 300m respectively from the proposed survey area.

The proposed licence area lies within spawning and nursery grounds of whiting, haddock and cod. The area also lies within the extensive nursery grounds for mackerel and horse mackerel which includes the entire Irish Sea and a large area of the Celtic Sea. Due to the extent of the area of spawning and nursery activity and the limited spatial and temporal extent of the proposed surveys no impacts are predicted. See Figure 12 of the Planning Report.

IFI comment:

Sound generation:

The applicant has identified the relevance of sound generating equipment to be used and the potential for this equipment to disperse sound energy into the aquatic environment. Mitigations are proposed in regard to marine mammals but no mitigations are proposed in regard to other marine life. IFI has an interest in a range of fish species using the waters to be impacted. Likewise, the SFPA has a significant interest in the commercially-fished species using this area. For IFI, migratory fish species such as Atlantic salmon, migratory brown trout (sea trout, sea- and river lamprey will all be using the area in their inward migration to freshwater and outmigration to the open sea. IFI also has an interest in the leisure angling aspect, with both shore angling along the relevant coastline and small boat fishing a feature in the waters identified in the application.

The applicant also identifies that much of the basic survey work has already been previously undertaken. In such circumstances it is of concern that a repeat survey is proposed, with its potential to impact adversely on a range of biological issues, including those of relevance to IFI.

IFI would propose that the applicant engage with Foreshore division with a view to identifying those surveys and survey elements that do NOT require to be repeated. Much of the surveying for ground condition, surely, is likely to yield same results as previously – where surveys are penetrating bed depths to assess condition etc.

Where Foreshore Divn is satisfied that certain surveys require to be repeated, mitigation measures in regard to the timing of works and also in regard to levels and duration of noise generation and potential for adverse impact on fish species should be agreed with Foreshore Divn DHPCLG and form part of any foreshore licence. IFI would point out that the mitigation measures and guidance of NPWS in regard to marine mammals are not transferrable to fish species. The fish remain invisible to any shore- or boat-based observer. Mitigation measures should aim to reduce the sound generated, in intensity and duration. Seasonality of the sampling and a short sampling window may also provide some mitigation.

These mitigations should cover:

- Reduction in the number of sound-requiring test types to be employed
- Use of soft-start and ramp-up procedures for any sound-generating surveys undertaken – both on a day-to-day basis and on re-start after any stoppages within any day
- duration of noise-generating surveys to be reduced to the minimum necessary to collect results of sufficient quality
- Agreed timing of works so as not to interfere with migration times of fish life stages or with scientific studies currently in place in the proposed survey area

The IFI comments above do not cover commercial marine fish and the advice of SFPA should be sought in regard to impacts on the eggs/larvae and adult life stages of commercially-important fish species in the area of proposed works.

Cumulative impacts:

The applicant does clearly identify the proximity of its proposed works to other foreshore application/grant areas. IFI would also point to the proximity of the application area to other projects proposing or actually deploying similar study methods, including the extensive use of sound-generating- and emitting- instrumentation. IFI is of the view that the potential exists for cumulative effects or impacts to arise to biota (plankton, fish, marine mammals etc.) in the receiving waters. IFI considers that this potential for cumulative impacts is one that requires consideration by Foreshore Divn. The potential for data sharing, however commercially unusual or contrary this might seem, must be considered in the context of reducing adverse environmental impact.

Lidar safety issues:

In regard to the Lidar units to be deployed, the applicant indicates that:

7.9 FLiDAR units may carry up to 4 No. 100 Ah lead acid batteries, or a lesser number if gel batteries are utilised. Larger units may have capacity for up to 1,000 litres of diesel or 60 litres of methanol to provide back-up to solar power.

IFI would welcome information on any 'security contingencies that the applicant has made, should any damage or leakage occur to any of these units, with possible release of harmful materials to the sea.

Clarification on timing of works:

IFI would welcome clarity on the actual proposed sampling dates/periods in the light of differing times provided in the applicant documentation. IFI would propose that timing is agreed with IFI's Eastern Region RBD IN ADVANCE of any surveying.

██████████ (IFI ██████████) and ██████████ (IFI ██████████, Dublin)

Inland Fisheries Ireland

18.11.2019

CC ██████████ MLVC; ██████████ SFPA

Dun Laoghaire-Rathdown County Council

Re Innogy - Site Investigation - Dublin Array at Kish and Bray Banks

Dear Sir Madam,

Dun Laoghaire Rathdown County Council (DLR) wishes to make the following observations on this application.

General

DLR supports initiatives that assist the Council and Government facilitating the development of Offshore Wind.

Observation 1:

DLR note that the following environmental aspects should be considered:

- Intertidal and benthic communities (including designated reef features)
- Protected Sites (Natura 2000 and proposed National Heritage Areas (pNHAs))
- Protected Habitats and Species
- UNESCO Biosphere
- Fish and fish spawning areas
- Birds (including marine, summer and wintering bird species and their foraging/roosting areas)
- Marine mammals
- Archaeology
- Marine Activity
- Recreational Resource
- Waste Management

Observation 2:

A number of Natura 2000 sites occur in the area of the Foreshore Licence Survey Boundary including the OWF (Off Shore Windfarm) Lease Application Area Boundary and Geophysical Survey Area Boundary that are relevant to this Foreshore Licence application. These are provided in Table 1.

Table 1. Relevant Natura 2000 **Name**

sites located within Dún

Laoghaire-Rathdown County
Council area to the Foreshore
Licence Application. **Site code**

000210	South Dublin Bay SAC
003000	Rockabill to Dalkey Island SAC
004024	South Dublin Bay and River Tolka Estuary SPA
004172	Dalkey Islands SPA

DLR note that the designated features of these Natura 2000 sites include coastal and marine habitats and species that may be affected by the proposed surveys.

Therefore, it is important that the licence application addresses all designated features under the Habitats Directive assessment process.

A suitably qualified ecologist (MMO) should be retained for the duration of the proposed project to implement the proposed mitigation measures outlined in the NIS.

A Monitoring programme should be provided and agreed with the competent authority and to the relevant Planning Authorities to ensure that the mitigation has been provided and to provide report updates.

Observation 3:

It will be important that the surveys comply with DAHG (2014) "Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters" to maintain sufficient distance between the proposed sources of underwater noise and marine mammals.

Observation 4:

Baseline Information

A number of surveys have been carried out in Dublin Bay related to cetaceans/birds, DLR can provide references to published reports if needed.

Observation 5:

The applicant should check the location of all underground assets in the area of the investigations with utility providers.

Observation 6:

The submitted documentation indicate that the application area, within the southern cable route corridor, will adjoin the coastline generally from Killiney Bay to Bray, with two possible landfall options at Shanganagh Cliffs and Shanganagh Park.

There are a number of different land use zonings in this area, including,

- 'A', to protect and/or improve residential amenity
- 'F', to preserve and provide for open space with ancillary active recreational amenities
- 'GB', to protect and enhance the open nature of lands between urban areas

Specific Local Objective 93 runs adjacent to the coastline in this area and states,

To promote the development of the S2S Promenade and Cycleway as a component part of the National East Coast Trail Cycle Route. It should be noted that these coastal routes will be subject to a

feasibility study, including an assessment of the route options. Any development proposals shall be subject to Appropriate Assessment Screening in accordance with the requirements of the EU Habitats Directive to ensure the protection and preservation of all designated SACs, SPAs, and pNHAs in Dublin Bay and the surrounding area.

Please be aware of the Natura 2000 sites and proposed National Heritage Areas (pNHAs) sites. Please also note the recently released 'Draft National Marine Planning Framework' by the Department of Housing, Planning and Local Government.

Department of Agriculture, Food and the Marine (DAFM)

Further to your email dated 22nd October 2019, please find observations below from this Department.

The following conditions should be included in any licence.

- There are seed mussel beds in the area these beds are commercially important to the bottom grown mussel sector. The promoters are advised to seek advice from BIM in relation to the operation.
- Due to the location within and in close proximity to SACs and Natura2000 sites, best practice must be followed rigorously during the campaign to ensure the sampling, seismic and other potentially disruptive activities do not adversely impact the local environment, flora and fauna as well as safe navigation and operations.
- The appointment of the Fisheries Liaison Officer and continued liaison with the fishing sector during the course of the site investigations should be a condition of any licence that may be granted.
- The applicant is to consult with the Irish Bottom Mussel Forum regarding the level of activity with mussel seed beds.

Water and Marine Advisory Unit (WMAU)

21/01/2020

ENGINEERING REPORT.

RE: FORESHORE LICENCE APPLICATION BY INNOGY RENEWABLES IRELAND LTD – SITE INVESTIGATION FOR DUBLIN ARRAY

I'm writing in response to your email dated the 022/10/2019 requesting observations in relation to the above.

The following documents were submitted as part of the application:

- Completed Application Form
- Dublin Array Planning Report

- Planning Report Annex A - Survey Area Co-ordinates
- Planning Report Annex B - Foreshore Licence Drawings
- Planning Report Annex C - Equipment Specifications
- Planning Report Annex D - Marine Archaeology
- Planning Report Annex E - AA Screening and Natura Impact Statement
- Innogy Renewables - Certificate of Incorporation
- Innogy Renewables - Constitution

APPLICATION BACKGROUND

INNOGY Renewables Ireland have applied for a Foreshore Licence to undertake surveys and data collection to provide supplementary environmental information to inform the Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS) and preliminary design for a proposed wind farm array and ancillary infrastructure in the vicinity of the Kish and Bray Banks, approximately 10km off the coast of Dublin. The possible MW output of final development is Circa 600 MW (subject to technical and environmental assessments).

In the late 1990s the Kish and Bray banks were identified as an area of potential for offshore wind farm development due to good wind resource, bathymetry and geomorphology potentially suited to foundation installation, and proximity of the site to the energy demand centre of the Greater Dublin area. Studies were subsequently undertaken to further investigate the potential of the site. These studies included geophysical and geotechnical surveys, wind, wave and tidal current measurements, ecological surveys and desk-based studies to understand the environmental baseline and human activities and usage of the area.

Two Foreshore Lease applications were submitted for a proposed offshore windfarm on the Kish and Bray banks in 2006. Supplementary environmental information was provided in 2009 and 2012/13.

BRIEF DESCRIPTION

The site investigations proposed is to supplement the data available for the project design and to provide additional information concerning the prevailing baseline environmental conditions.

The principal objectives of the surveys are to:

- Obtain additional measurements of wind speed and direction;
- Provide further measurements of wave and current across the site;
- Produce up to date detailed bathymetric mapping;
- Provide further information concerning the nature of the seabed;
- Obtain supplementary detailed seabed morphology information;
- Acquire additional shallow and deep geological cross-sections of the array site;
- Determine the presence of any marine archaeological features in the area, i.e. identifying wrecks and anomalies of archaeological potential and sediment layers which may be of archaeological interest.

This licence application is solely for the purposes of the completion of the surveys.

The Type of surveys proposed include:

- Geophysical Survey
- Geotechnical Survey

- Ecological Survey
- Wind Resource and Metocean Survey

Section 1.3 of the application form and Section 7 and Annex C of the Planning Report gives a details of the proposed Site Investigation works. It should be noted that contracts for the survey work and supply of metocean equipment have not yet been awarded. Consequently only typical details of survey and deployment/maintenance and recovery methodologies and equipment have been provided.

The works are proposed to take up to 5 years with an indicative dates as follows:

Geophysical Survey

Start date – late July 2020

Duration – approximately 4 weeks

Marine Geotechnical & Benthic Survey

Start date – September 2020

Duration – approximately 4 – 8 weeks

Intertidal geotechnical & Benthic Survey

Start date – August 2020

Duration – approximately 1 – 2 weeks at each location 7

Metocean Equipment

Calibration of FLiDARs

Start date– July 2020

Duration – 6 months

Long term deployment of FLiDAR and Wave Rider Buoys

Start date – July 2020

Duration – up to 5 years

ENVIRONMENTAL ISSUES

Part of the proposed survey area lies within the following Natura 2000 sites: South Dublin Bay and River Tolka Estuary SPA [004024], South Dublin Bay SAC [000210] and Rockabill to Dalkey Island SAC [003000]

As part of the duties as a consent authority, DHPLG through the MLVC are to prepare an Appropriate Assessment Screening Report for this application in accordance Birds and Habitats Regulations 2011.

NAVIGATION

When the survey works/investigations are scheduled the applicant will arrange for the publication of Local Marine Notices giving a general description of the operations and approximate dates for commencement and completion. The Mariner Notice will be prepared to ensure that other foreshore users are made aware of the operations. All vessels taking part in the survey/investigation works must comply with full certification requirements.

The survey work will be of a temporary nature, there will be a temporary deployment of wind and current measuring buoys. These buoys will comply with standard navigational safety requirements with regard to lighting, positioning and mooring. The impact on marine traffic will be minimal and will be over a very limited period. The proposed works will cause minimal disruption to marine users.

LICENCE MAP

The location for all of the proposed survey works are shown on Drawing 1330-B-01 entitled "**Foreshore Licence Map 1**" dated **30/08/2019** attached to the application. This map should be attached to any licence issued.

CONCLUSIONS/RECOMMENDATIONS

I have no objection to the granting of a Licence subject to the following conditions:

- 1 The Licensee shall notify this Department of the date of commencement of the Site Investigation/Survey operations at least 2 weeks prior to commencement.
- 2 At the end of each calendar year, the Licensee shall inform the Department of the work completed to date and the works planned for the coming year.
- 3 All works must be completed in accordance with the drawings and documents submitted in support of the application.
- 4 During the course of the Site Investigation/Survey operations the Applicants shall ensure that;
 - (a) All necessary precautions are put in place to protect the public in accordance with relevant Health and Safety Legislation;
 - (b) Existing public access arrangements to the general foreshore area are not impeded by any vessels, plant or materials used in connection with the site investigations/surveys, and where relevant this access should be made safe and guaranteed by the provision of appropriate signage/notices/barriers etc. to the satisfaction of the Department of Housing Planning and Local Government;
 - (c) Procedures are adopted to ensure that the site investigations/survey operations are not injurious to fishing, navigation, adjacent lands or the public interest
- 5 All vessels/floating plant shall have appropriate certification from the Marine Survey Office.
- 6 On completion of the Site Investigation/Surveys the Licensee should ensure that all equipment and materials are removed and the foreshore is reinstated to its original condition, to the satisfaction of the Department of Housing, Planning and Local Government.

- 7 Marine notice, lighting and markings to be carried out in consultation with the Maritime Safety Directorate, Department of Transport, Leeson Lane, Dublin 2.
- 8 All relevant Site Investigations and Marine Surveys to comply with the NPWS (2014) "Guidance to Manage the risk Marine Mammals from Man-made Sound sources in Irish Waters" including the employment of a Marine Mammal Observer as appropriate.

██████████
Engineer Inspector (WMAU)

Development Applications Unit, Underwater Archaeology **Department of Culture, Heritage and the Gaeltacht**

Outlined below are heritage-related observations/recommendations of the Department under the stated heading(s).

Archaeology

It is noted that the proposed site investigation area is located in an area of high underwater archaeological potential. The Wreck Inventory of Ireland Database (WIID) lists numerous wrecks for the Kish and Bay Bank areas and approaches to Dublin Bay, which are subject to statutory protection under section 3 of the 1987 National Monuments (Amendment) Act. Given the location of the proposed site and the nature of the works it is possible that underwater archaeology may be impacted by these operations. It is therefore recommended that the following be attached as conditions to the foreshore licence:

It is recommended that the geophysical surveys be carried out in advance of deployment of metocean monitoring equipment and the geotechnical works taking place. The geophysical data for all proposed geotechnical investigation locations and grab sample locations etc. should be assessed by a suitably qualified archaeologist to ensure that the proposed works do not negatively impact on locations where there is known or potential archaeology. A report summarising the assessment of the geophysical data should be forwarded to this office for review prior to deployment of metocean monitoring equipment and the geotechnical works taking place. Where archaeological material/features are shown to be present, preservation *in situ*, avoidance, preservation by record (archaeological excavation) or archaeological monitoring may be required. The applicant shall be prepared to be advised by the Department of Culture, Heritage and the Gaeltacht in this regard.

A number of wrecks have been discovered on the Kish Bank that have yet to be added to **Wreck** Inventory of Ireland Database and the Wreck Viewer. Prior to the investigation works proceeding the location of these wrecks should be reviewed by the developer and appropriate exclusion zones should be put in place to ensure they are avoided by proposed works. Detailed charts showing the location of all exclusion zones should be forwarded to this Department for review well in advance of works proceeding.

The proposed geophysical surveys, archaeological dive and intertidal surveys should be licenced under the National Monuments Acts 1930-2014. The dive and intertidal surveys should be accompanied by a hand-held metal detection survey which should also be

licenced under the National Monuments Acts 1930-2014. The proposed marine geophysical surveys shall be carried out in compliance with the with the Department's guidelines "*General Requirements for a Geophysical Survey for Archaeological Purposes*".

The results of the geotechnical investigations should be assessed by a suitably qualified archaeologist and this assessment should feed into the overall archaeological assessment of the proposed wind farm project.

Should a remotely operated vehicle (ROV) survey be carried out for archaeological purposes as part of the planned investigation works, a methodology for deployment of the ROV for should be agreed with the National Monuments Service of this Department in advance of the ROV survey proceeding.

It is recommended that a 100m exclusion zone shall be established around the furthest known extent of all known wrecks. The developer shall inform DCHG in the event that proposed works shall impinge on such exclusion zones.

An exclusion zone of 300m should be established around the wreck site (new) located at 53 16.200N, 05 56.500W.

Detailed charts showing the location of the magnetic anomalies, the wreck sites and the sidescan sonar anomalies (debris etc) and their associated exclusion zones in relation to the proposed investigation works should be supplied to this office for review.

If any clarification is required on any of the above do not hesitate to contact this office. An officer from this office would also be available to meet to discuss the above.

It should be borne in mind, that if significant archaeological remains are found, further archaeological mitigation might be required.

Development Applications Unit

NPWS – Development Application Unit – Nature Conservation

The National Parks and Wildlife Service have no comment to make.

Sea Fisheries Protection Authority (SFPA)

Please note for the file that the SFPA has no comments to make outside of the application process for the Dublin Array site investigation works.

Cllr. Mitchell, Wicklow County Council

This application is for exploratory works seemingly connected to an earlier application 6463 from 2009. I understand the latter has not been decided. The present application does not have photomontages nor any information on the visual effect.

The previous details of the scheme stated it would have 145 windmills 160m high the nearest being 9km from the shore. the Visual Impact documents stated that it will have a significant effect at Greystones Harbour, described as 'adverse moderate' as it will have an angle of view of 62 degrees.

The effect on the Cliff Walk is 'adverse major'. This is because the Bray Bank is long, narrow and parallel to the coast.

In 2005 the Codling Windfarm obtained a foreshore licence for 220 turbines which are 15km from the shore at the nearest point, Greystones & Kilcoole. That plan had a 25 degree angle of view from Greystones. The Kish/Bray documents state the combined The effect of both schemes on Greystones would be 'significant'. The Codling project produces much more power than the Bray one but has a limited visual effect.

Also the Bray one is to use Dublin port while the Codling will use Co. Wicklow and says it will create 20 to 30 jobs there. The Bray one has a severe visual effect but produces much less power than the Codling one.

We are all aware of the need for more sustainable energy and using Offshore wind is a good way of using this resource as there is plenty of wind in Ireland.

However there needs to be proper consideration of the effect on communities locally. For these reasons I am opposed to the Dublin Array but would generally favour the Codling as it has a much more limited visual aspect but is considerably larger. Thus the Bray Bank FS007029 application should be refused.

Local areas which will suffer this visual intrusion should receive some benefit. While the Codling windfarm may use Wicklow Port, and provide jobs and revenue, Greystones, Kilcoole and Newcastle need to get a significant benefit from this large project and this should be built into the permissions as a condition.

Fingal County Council

I have been advised by [REDACTED], [REDACTED], Planning & Strategic Infrastructure Department that Fingal County Council have no comment in respect of above mentioned proposed project.