An Roinn Tithíochta,
Pleanála agus Rialtais Áitiúil
Department of Housing,
Planning and Local Government

Investigative Foreshore Licence Application (Offshore Renewable Energy)

Please indicate project category as appropriate:

Wave:	
Tidal:	
Wind:	X
Other:	**Please specify:**

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Applicant Name and Address:

Full Name of Applicant (not Agent): [redacted]
Company/Organisation: Oriel Windfarm Limited
Address: Digital Office Centre, Balheary Road, Swords, Co. Dublin
Eircode: K67 E5A0

Applicant Contact Details:

Phone No: +353 (0)1 963 0313
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Nominated Contact (Where different from above):

Name: (As above)
Address:
Phone No:
E-mail address:

Applicant's Legal Advisor:

Name: A & L Goodbody
Address: International Financial Services Centre, North Wall Quay, Dublin 1, D01H104
Phone No: 01 6492000
E-mail address: [redacted]@algoodbody.com

Part 1: Proposal Details (Attach additional documents as required)

1.1	**Provide background information on the project including reason and objectives of the site investigations, the site selection process and any proposals for future works at the site.** Oriel Windfarm Limited (Oriel) is an Irish renewable energy company developing the proposed Oriel offshore wind farm ("Oriel Wind Farm" or "the Project") located in the North West Irish Sea, 22km off the coast of Dundalk, County Louth. The proposed Oriel offshore windfarm will include wind turbines mounted onto a foundation installed into the seabed, an offshore substation and interlinking cabling between the turbines and the substation and an export cable between the substation and the shore. Oriel was granted a Foreshore Licence in October 2005 (reference MS51/53/57) from the then Department of Communications, Marine and Natural Resources (DCMNR), giving permission to carry out a technical work plan to investigate the suitability of an area to the East of Dundalk Bay for the construction of an

	offshore wind farm. This included geotechnical site investigation, an engineering assessment and marine surveys for the completion of an Environmental Impact Statement (EIS). Following the completion of this work Oriel applied for a Foreshore Lease to construct an offshore generating station in February 2007 (reference number MS53/59 FS006459). In Autumn 2008 the Marine Licencing Vetting Committee (MLVC) made a recommendation to grant a lease following two months of public consultation and various requests for further information. The project received a grid connection offer from EirGrid, the Irish Transmission Systems Operator, in April 2011. For a number of reasons, the development of the project was delayed. In May 2019 Oriel obtained a Foreshore Licence reference no. FS 006840 for additional site assessment surveys in the offshore wind farm area and the export cable corridor. Oriel undertook both onshore and offshore surveys to support further engineering design of the wind park, the cable routes and the preparation of an EIAR and an NIS for submission with an application for development consent. Oriel now proposes to undertake detailed geotechnical and geophysical investigations, ecological surveys and metocean surveys. The purpose of the geotechnical investigation is to investigate the stability of the soil for the design of foundations and the detailed routing of the inter array and export cables. The purpose of the geophysical survey is to characterise the layers of sediment/rock underneath the seafloor and to achieve a detailed seabed morphology and seafloor mapping. This Foreshore Licence application is for permission to undertake these survey works on the proposed development site. Oriel proposes to apply for a licence for a duration of 36 months.
1.2	**Possible MW output of final development:** The output of Oriel Windfarm will be circa 375MW
1.3	**Type of surveys proposed (e.g. geophysical, geotechnical, archaeological or benthic.** The proposed survey works will include the following: **1. Geophysical Survey** • Multibeam Echosounder (MBES) system for detailed bathymetric mapping. • Side Scan Sonar (SSS) to achieve detailed seabed morphology and seafloor mapping. • Magnetometer to detect geomorphological anomalies and ferrous obstructions. • Sub-bottom Profiling (SBP), both single and multi-sourcings, to identify and characterise the layers of sediment/rock underneath the seafloor. • Intertidal geophysical surveys including seismic, electrical resistivity and electromagnetic methods.

There may be the use of an ultra-short baseline (USBL) system to monitor the position of towed equipment. The USBL system consists of a multi-element transducer mounted on the hull of the vessel and a transponder attached to the towed equipment (e.g. side-scan sonar). USBL equipment is widely used by offshore commercial and research vessels where positional accuracy of towed survey equipment is critical. The emitted pulses will be short pulse width 'pings', approximately in the range of 20-35kHz and with a source level of up to ~200dB re 1μPa @1m (peak).

The geophysical survey will comprise transects with a total length of circa 84km and a distance of 1km between each transect. The seismic source will detect the geological strata to a depth of 40m below the seabed (bsb).

2. Geotechnical Survey

27 no. deep investigation locations at proposed structure locations (25 wind turbine locations and two options for the offshore substation location). Each deep investigation location will require up to 3 drilled boreholes with a target depth of 50 m below the seabed.
In situ testing will include the option of either down-hole wireline piezocone penetration testing (PCPT) associated to P-S wave logging or down hole wireline seismic cone penetration testing (SCPT) over full length of the borehole.

41 no. shallow investigation locations along proposed inter-array and export cable routes. Each location will require one vibrocore or gravity core with a target depth of 3 m below the seabed.

Up to 6 no. deep investigation locations in the intertidal area. Each location would be a drilled borehole with a target depth of up to 50m.

Up to 12 no. shallow investigation locations in the intertidal area. Each location would be an excavated trialpit or borehole with a target depth of 3 m below the beach. Excavated locations to be backfilled immediately on completion of the investigation. Cores and CPTs may be taken from the boreholes or trialpits.

3. Environmental Monitoring/Ecological Sampling

CPODs

Environmental monitoring may include the deployment of up to 6 no. FPODs or CPODs devices for Static Acoustic Monitoring of Cetaceans. The devices would provide acoustic assessment of the presence/absence and species types of cetaceans (whales and dolphins).

Water Quality Sondes

Up to 6 no. sondes may be deployed for water quality monitoring through the water column – these would be used to monitor a range of parameters including turbidity, salinity, temperature, pH, DO, EC.

Benthic and intertidal

Benthic survey techniques may include drop down video (DDV) and deployment of a mini Hammond or Van Veen grab to obtain samples of 1-5kg in mass each. Manual digging may be used in the intertidal zone to collect the samples. Samples would be analysed to determine the benthic faunal community present and sediment geochemistry.

	Fish and Shellfish GPS Tracking Up to 6 sondes may be deployed for the tracking of fish or shellfish within the windfarm and export cable corridor. **4. Metocean Survey** All metocean survey works will occur at one location within the marine survey area which will be determined following the appointment of a suitable contractor. The data will be collected via a floating weather station, which will include a wave rider and a wind measurement LiDAR current profiler. The wave rider will be used to collect wave height and current data across the site, while the LiDAR system will be used to measure the wind characteristics within the site.
1.4	**Survey methodologies and equipment to be used for each survey type proposed:** Contracts for the Survey works have not yet been awarded however details of survey methodologies and typical equipment envisaged for the surveys is given the supporting document.
1.5	**Describe the nature and scale of any structure to be erected on the foreshore for testing the suitability of the site. Is the structure proposed to be temporary or permanent?** This application is for survey activities only. No permanent structure shall be erected as part of these works however as described in the supporting documentation up to 6 no. of FPODs or CPODs and up to 6 no sondes for fish and shellfish tracking and up to 6 no turbidity monitoring devices will be temporarily installed as part of the survey works. A floating weather station may also be temporarily moored on the site.
1.6	**Provide information on proposed mooring, marking and lighting arrangements for any proposed deployment of instrument arrays.** All works are to be carried out from the vessel/rig. As described in the supporting documentation up to 6 no. of FPODs or CPODs and up to 6 no sondes for fish and shellfish tracking and up to 6 no turbidity monitoring devices will be temporarily installed as part of the survey works. These will be moored to the seabed with clump weights and be marked with surface fishing buoys. The floating weather station which may be temporarily moored on the site will include a wave rider and a wind measurement LiDAR current profiler. This equipment will be mounted on specifically designed floating buoys which are moored to the seabed using an anchor chain and clump weights. All equipment, including the moorings, will be removed following completion of the survey. Lighting and markings for the LiDAR buoy will be agreed in advance of deployment with the Commissioners of Irish Lights and the Marine Survey

	Office. Oriel will also apply to the Commissioners of Irish Lights under Section 653(2) of the Merchant Shipping Act of 1894 to Oriel Wind Farm Ltd to temporarily establish the Aid to Navigation. The LiDAR buoy will be yellow in colour and include navigation lighting and a marker cross.
1.7	**Has the applicant held or does the applicant hold any previous Foreshore Licences, Leases or applications over the area sought or over any other area? (Give details including Department's file reference number(s)).** Oriel was granted a Foreshore Licence in 2005 to carry out a technical work plan to investigate the suitability of an area to the East of Dundalk Bay for the construction of an offshore wind farm. Reference Number: MS51/53/57 Oriel applied for a Foreshore Lease in 2007 to construct an offshore wind park of up to 330MW potential, consisting of 55 turbines with a tower height of up to 100m and a rotor diameter of up to 120m. Reference Number: FS006459 In May 2019 Oriel obtained a Foreshore Licence for initial surveys in the offshore wind farm area and cable corridor. Oriel undertook both onshore and offshore surveys and commenced the engineering design of the wind park, the cable routes and the preparation of an EIAR, a NIS and an application for the wind farm. Reference no. FS 006840
1.8	**Indicative timing of the investigation works: (i) Start date (ii) Duration (iii) Any other information relevant to timing.** It is anticipated that the surveys will commence in Q2 2022 subject to the grant of the Foreshore Licence. Approximate durations of the various surveys are listed below. These durations may be subject to change due to weather conditions. To enable proper planning and management of the surveys, and to allow for weather conditions, an overall foreshore licence duration of 36 months is therefore sought.

Survey	**Time**
Geophysical Survey	4 weeks
Geotechnical Survey	3 to 8 months
Metocean Survey	≤ 24 months
Environmental Monitoring /Ecological Sampling	≤ 24 months

1.9	**Describe any likely interactions with activities of the public or other foreshore users during the investigative works (e.g. fishing, aquaculture, sailing, and surfing). Describe any measures proposed to minimise inconvenience to other users.** During the site investigation (SI) works there will be limited interactions with members of the public as the site area is not within an area that is heavily utilised by members of the public and will be of minimal extent and duration. Oriel will liaise with the Commissioners of Irish Lights, the Port of Dundalk and Warrenpoint Port. In order to ensure all foreshore users and other public are kept up-to-date with activities and to minimise inconvenience to them the following mitigation measures will be adopted: • The site investigations will be of a limited extent and duration. • When the works are scheduled, Oriel will arrange for the publication of local marine notices giving a general description of the operations and approximate dates for commencement and completion. • When the works are scheduled, Oriel will arrange that the Sea Fisheries Protection Authority be notified so that small fishing vessels may be informed of the works taking place. • Oriel will ensure that all vessels taking part in the investigation works comply with marine certification requirements. • Arrangements will be made for the publication of a formal Marine Notices through the Marine Survey Office in the Department of Transport and the notice will provide vessel and contact details together with a general description of operations and approximate dates of marine survey commencement and completion, deployment timing and location of fixed monitoring equipment. • Any works undertaken on the beach will only be undertaken following the completion of a risk assessment and appropriate safety precautions provided. These include measures such as the erection of temporary safety signage and temporary fencing around the works area. • A Fisheries Liaison Officer will be employed, who will maintain continual engagement with the local commercial fisheries boats, companies and organisations to ensure that they are fully consulted and informed prior to and during the works on timing and any necessary restrictions.
1.10	**Describe any consultations undertaken to date with other foreshore users.** Oriel undertook an extensive public consultation campaign during the original Lease application process for the project during 2006 and 2007, to ensure that all members of the public and the many interested and relevant bodies were

kept fully informed of its proposals. This included a widespread engagement with statutory and public stakeholders.

Since the reactivation of the project in 2018 Oriel has undertaken extensive additional consultation on the proposed project including the following:

1. A public consultation campaign during the 2019 investigative licence application process including formal consultation to comply with legislative requirements and additional engagement with stakeholder groups including fisheries organisations, port and harbour authorities, the Commissioners of Irish Lights, Louth County Council and local public representatives.

2. Statutory consultation with a list of key stakeholders as part of the scoping process for the preparation of a new EIAR during 2019 to 2021 including government departments, environmental organisations, planning authorities and marine regulators.

3. Extensive engagement with the commercial fishing groups active in the area before, during and after the survey works undertaken during 2019 and 2020.

4. Public consultation events during February and March 2021 where details of the project were provided using an online consultation portal, webinar, meetings with public representatives and community groups were held. Information about the project was also disseminated in the local media and through the Public Participation Networks. Direct meetings were held with a number of local community groups, recreational marine users including sailing associations, and local public representatives. Over 200 persons joined a public webinar event and 138 meetings have been held with stakeholders to date (November 2021).

Oriel intends to continue engaging with stakeholders by rolling out an extensive stakeholder identification and consultation plan linked to the stages of the consent process. This plan will include formal consultation to comply with legislative requirements and additional engagement with stakeholder groups including fisheries groups, marine recreational users, harbours and port authorities and marine regulators. Oriel's intention is to ensure that all members of the public and the many interest groups and relevant bodies are kept fully informed and engaged during the project assessment and consents processes.

Local groups and associations will be contacted during each phase of the project consent process to provide information on the project and opportunities for participation in the consent process. Meetings will be arranged with these groups on request. A series of public open days will be scheduled at locations around the coast to coincide with key project milestones. These measures will ensure that these groups remain informed of the latest project developments and can also provide feedback on relevant issues of concern.

1.11	**Describe any consultations undertaken to date with other consent authorities e.g. planning authority, Commission for Energy Regulation etc.** Oriel has provided briefings to the Commission for Regulation of Utilities on the plans for the project. Oriel has also previously engaged in consultation with An Bord Pleanála in the context of its existing Foreshore Lease application under the Foreshore Act 1933 and its associated planning application for the onshore grid connection.
1.12	**Describe briefly any consultations undertaken with relevant authorities (e.g. county council, port/harbour authority etc) or State Agencies e.g. National Parks & Wildlife Service (NPWS), National Monuments Service (NMS) of Department of Arts, Heritage and the Gaeltacht:** Oriel undertook extensive consultation with all relevant authorities during the original Lease application process for the project during 2006 and 2007 and during the Licence Application in 2019. To inform preparation of an EIAR and NIS to support Oriel's forthcoming application for development consent, Oriel and its EIA consultants have engaged with statutory consultees including relevant authorities and State agencies. This engagement has included a number of meetings with officers of NPWS to confirm the scope of the EIAR and NIS, the baseline surveys and to report on findings obtained from these surveys to date. Oriel has also provided the scope of the EIAR to the NMS and reported on underwater archaeology to the NMS from the 2018 survey. The Oriel project team has also met with officers of Louth County Council, Warrenpoint Port, Dundalk Harbour and Drogheda Port. An email was sent to the Development Applications Unit (DAU) of the National Parks and Wildlife Services (NPWS) on 24th August 2021 notifying it that this application was to be submitted and requesting that the DAU revert with any input or comment. A copy of this email can be found in Appendix A of the supporting document.
1.13	**Describe briefly any support received or under application with the Sustainable Energy Authority of Ireland (SEAI) or other State Agency:** Not Applicable.

Part 2: Proposed Site. (Attach additional documents as required)

2.1 **Delineate the proposed site in red on a latest edition map at a scale of 1:10 000 or larger scale if more appropriate and available, indicating:**

(i) the entire area;

(ii) the hectarage involved below the line of high water of medium tides clearly marked in RED and

(iii) the area of foreshore involved in metric measurements (i.e. hectares, metres squared or square kilometres etc). 53.002km^2

See Drawing no's FL001, FL002 & FL003

2.2 **Geographic co-ordinates of the area under application, where the area can also be identified on the Ordnance Survey map, specify Ordnance Survey co-ordinates also.**

Point	WGS 1984 UTM Zone 29N		ITM	
	Latitude	Longitude (-)	Easting	Northing
1	53.85539	-6.24635	715369	790973
2	53.85600	-6.24564	715414	791042
3	53.85857	-6.24225	715630	791334
4	53.86063	-6.23091	716370	791581
5	53.92220	-6.10834	724249	798640
6	53.94778	-6.09222	725231	801514
7	53.94667	-6.04111	728589	801482
8	53.92028	-6.02750	729564	798571
9	53.88694	-6.04833	728298	794824
10	53.88806	-6.09028	725538	794873
11	53.85071	-6.23159	716353	790477
12	53.85230	-6.24922	715188	790625

2.3 **Delineate proposed site on relevant Admiralty Chart.**

See Drawing no FL001

2.4	**Relevant Local Authority:** Louth County Council.
2.5	**Location name and nearest townland name:** Dundalk Bay, Dundalk, Co. Louth.
2.6	**Distance from nearest other developments, including any offshore renewable energy developments on the foreshore:** • Cooley point foreshore licence for potential offshore wind development - adjacent, less than 1km. • Clogherhead foreshore licence for potential offshore wind development - approximately 1km. • Braymore point foreshore licence for potential offshore wind development - 5.3km. • North Irish Sea Area foreshore licence for potential offshore wind development - 16.96km.
2.7	**Distance from shore:** The survey area extends from to the shoreline at Dunany Point to 15km northeast of Dunany Point.
2.8	**Distance from nearest aquaculture operation:** There are 37 sites licensed with the Department of Agriculture and Marine for aquaculture in County Louth. Thirty six of these sites are located in Carlingford Lough and the remaining site is on an inland watercourse. The closest site to the application area for the Foreshore Licence is 6.9km. There are four new aquaculture licence applications in the Dundalk Bay Area according to the Department of Agriculture and Marine.
2.9	**Distance from any other sensitive location e.g. fish spawning ground, designated Shellfish Growing Waters,** The site is within the Dundalk Bay Shellfish Waters.
2.10	**Any other site details considered relevant:** There are several shipwrecks within and close to the site as identified on the National Monuments Service Wreck Viewer mapping tool. There is a CIL Navigation Buoy within the cable route corridor. The survey, investigation and monitoring works are designed to avoid these sites.

Part 3: Nature Conservation Considerations (Attach additional documents as required)

3.1	**Distance from nearest Natura 2000 sites (i.e. Special Protection Area (SPA) or Special Area of Conservation (SAC):** The survey works will be 1km to west of Dundalk Bay SPA with the exception of the export cable corridor which lies just south of the SPA and adjacent to Dunany Point pNHA.
3.2	**Name and location of Natura 2000 sites in or around the project area:** Dundalk Bay SPA – 120m from closest point of proposed export cable corridor and 8km from closet point to proposed offshore wind farm area. Dundalk Bay SAC – 5m from closest point to foreshore licence area. Dunany Point pNHA – overlaps with proposed export cable corridor in the intertidal zone. See Drawing no. FL004.
3.3	**Describe potential impacts of the site investigations on Natura 2000 sites.** Refer to the document "Supporting Information for Screening for AA" prepared by Hartley Anderson Limited.
3.4	**Describe any measures proposed to mitigate possible impacts on Natura 2000 sites and other key marine receptors.** Please refer to the measures detailed in Section 3.5 (Environmental Protocols) of the document "Foreshore Licence Application for Marine Survey: Supporting Information" prepared by Arup and Chapter 7 of the Non-Statutory Environmental Report prepared by Arup.
3.5	**Describe any other projects or plans for the area, anticipated or developed, that in combination with this proposal, may have a significant effect on a Natura 2000 site:** A number of early concept offshore wind farm areas are located close to the proposed Oriel survey area. None of these have received consent, and the timing of any potential works for these is uncertain and is highly likely to be outside of the proposed Oriel survey schedule. Please refer to Section 4.3 of the document "Supporting Information for Screening for AA" for further details.

Part 4: Navigational Safety Considerations.

4.1	**Distance from shipping lanes at nearest point. Illustrate on the appropriate marine charts accompanying the application.** There are no designated shipping lanes or traffic separation zones in the area. There is a marked and maintained shipping channel into Carlingford Lough. The entrance to this channel is marked by the Hellyhunter navigation buoy 6.6km from the site. There is also a marked and maintained shipping channel into Dundalk Port as shown on Drawing No. FL006. The entrance to this channel is marked by the pile light in Dundalk Bay 12.9km from the site. The approach to this shipping channel crosses the survey area.
4.2	**If a safety zone for passage of shipping (including fishing and leisure boats) is sought, supply details and give reasons.** A safety zone of 500m is required around the drilling vessel whilst on site. This is due to the restricted manoeuvrability of drilling vessels while using DP2 station holding and the use of subsea equipment while drilling work is underway. These safety zones will be identified in the formal Marine Notices as referred to in response to Item 1.9 above. Vessels in the area will be requested to provide adequate 500m clearance to geophysical survey vessels when surveys are underway, as the survey vessels will have restricted manoeuvrability if towing survey equipment. Again, the locations of the geophysical surveys will be identified in the formal Marine Notices as referred to in response to Item 1.9 above.
4.3	**If any temporal/spatial restrictions are sought on the use of any type of fishing gear or leisure activity within the area, provide details and justification for such restrictions and indicate location(s) on appropriate marine charts.** Temporal spatial restrictions for fishing gear or leisure activity within the foreshore licence are as defined in the response to Section 4.2. This will comprise of a 500m safety zone around the drilling vessel and the geophysical survey vessel whilst they are operating within the foreshore licence area.

Declaration and Consent:

The details provided here are correct to the best of my knowledge.

I understand that no works will be commenced, by me or my agents on the proposed site, without the prior written consent of the Minister. The granting or refusal of any foreshore investigation licence will not give rise on the part of the applicant to any expectation whatsoever for, right or entitlement to a grant of any future foreshore permission in respect of all or any part of any area of foreshore.

By submitting this application form, I agree that the details provided (with personal contact details redacted) are to be published on the Department of Housing website and also that the full information provided including contact details are to be processed and retained by the Department of Housing, Planning and Local Government and shared with all appropriate Prescribed Bodies (as part of the Prescribed Bodies Consultation process) in furtherance of consideration for a foreshore Consent under the Foreshore Act 1933 (and Foreshore Amendment Act 2011).

I give consent to the Minister and his servants to copy this application and to make (a redacted) copy available for inspection and copying by the public. This consent relates to this application, to any further information, or submission provided by me or on my behalf and to the publication of the licence document

Signed ~~for~~ and on behalf of the applicant:

[redacted]

Name of Signatory (block letters):

[redacted]

Position Held:

ENVIRONMENTAL CONSENTS MANAGER

Date 18th November 2021

Return completed applications to:

Marine Environment and Foreshore Section
Department of Housing, Planning and Local Government
Newtown Road
Wexford
Y35 AP90

Enquiries to: Foreshore@housing.gov.ie (Other contact details to be included in Guidance materials)
Email a copy of application documents: Foreshore@housing.gov.ie