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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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.** Clarus Offshore Wind Farm Ltd., a subsidiary project company of DP Energy Ireland (DPEI), is investigating the feasibility of developing an offshore wind farm off the west coast of Ireland, Clarus Offshore Wind Farm. Clarus Offshore Wind Farm is a key part of a wider portfolio of offshore wind projects that DPEI is developing with joint venture partner Iberdrola. Clarus Offshore Wind Farm Ltd. is applying for an Investigative Foreshore Licence to undertake a full suite of site investigations at a Cable Investigation Area associated with the potential Clarus Offshore Wind Farm. The duration of the Investigative Foreshore License sought is requested to extend over a minimum of 5 years. The proposed site investigations have been designed to help assess potential export cable corridors and cable landfall areas associated with the potential Clarus Offshore Wind Farm, under Investigative Foreshore Licence application FS006886. The results of these site investigations will be used to select optimal export cable route(s), cable landfall option(s) and to provide baseline data for environmental appraisal. The Cable Investigation Area / Foreshore Licence Application Area covers 93,622 hectares (ha) and is illustrated on Foreshore Licence Map 1. The area under investigation for the wind turbine array (the Array Investigation Area) lies beyond the 12 nautical mile limit (i.e. outwith the State foreshore). Under existing legislation, an Investigative Foreshore Licence is required for site investigation works within the State foreshore, i.e. inside the 12 nautical mile limit. DP Energy conducted a feasibility assessment for potential offshore wind farm sites around the east, south and west coasts of Ireland. This feasibility assessment considered: proximity to grid connection; water depths; wind speeds; environmental designations / protected areas; commercial fisheries; aquaculture; seabed substrate; archaeology & shipwrecks; pipelines; cables; other existing and planned developments; shipping and navigation; port facilities; and waste disposal sites. This feasibility assessment resulted the identification of this site off the coast of counties Clare and Kerry for the potential Clarus Offshore Wind Farm.

1.2	**Possible MW output of final development:** The potential MW output of the potential Clarus Offshore Wind Farm is subject to the findings of site investigations. However, the possible MW output of the final development is currently anticipated to be up to 1 GW.
1.3	**Type of surveys proposed (e.g. geophysical, geotechnical, archaeological or benthic).** **Geophysical:** Geophysical studies to determine seabed conditions (and ultimately installation methods and cable protection measures) along the potential export cable route(s) and landfalls. Investigations to include, for example multibeam echosounder (MBES), side scan sonar (SSS), and sub-bottom profiler (SBP). **Geotechnical**: To evaluate the nature and mechanical properties of the superficial seabed sediments and intertidal sediments in the Foreshore Licence Application Area. Following review of the geophysical data, a limited number of export cable and landfall options will be selected for geotechnical sampling. Investigations to include for example grab sampling, cone penetration testing, vibrocores and boreholes. **Archaeological**: A desktop study will be undertaken to inform the approach to assessment of onshore and offshore cultural heritage features. Offshore magnetometer/gradiometer surveys are proposed as part of this Investigative Foreshore Licence Application to identify any additional cultural heritage features. **Wind Resource and Metocean**: To evaluate wind and wave conditions, proposed survey methodologies include deployment of LiDAR buoy and Waverider buoys. An acoustic doppler current profiler (ADCP) will be used to assess tidal currents in the area. **Ecological Surveys**: These include benthic and intertidal surveys as well as potential Marine Mammal Acoustic Monitoring and boat-based bird and marine mammal surveys to complement aerial bird and marine mammal surveys underway.
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, high-level information on those surveys proposed is set out in Section 1.3 above. Detailed information on the survey methodologies and equipment to be used for each survey type is set out in the document submitted in support of this application as 'Schedule of Survey Works'. Indicative equipment for use on the survey work is set out below. Exact details of the vessels and equipment to be used for site investigation will not be known until award of contracts. All vessels taking part in the proposed site investigations will comply with full certification requirements and will be of an adequate size and navigation ability to ensure the works are carried out in a safe manner. **Geophysical:** Multibeam echosounder (MBES)**:** MBES is a remote sensing acoustic device typically attached to a vessel's hull. The purpose of an MBES is to map the water depth to seabed (bathymetry). Multibeam Echo Sounder Seafloor Backscatter will also be recorded. The exact equipment for use will be known following the appointment of survey contractor. The R2 Sonic 2024 or the Kongsberg EM2040 may be taken as typical examples. Continued overleaf…

	Side Scan Sonar: A Side Scan Sonar will be used to provide detailed imagery of the seabed. This imagery will inform seafloor sediment / bedrock and geomorphology mapping as well as identifying any shallow geohazards. The side scan sonar will be a dual frequency hydrographic sonar with a lowest operating frequency of not less than 100 kHz. The higher frequency of the side scan sonar will be between 300 and 900 kHz. Sub-bottom profiler: The Innomar parametric SES-2000 or similar will be used for the shallow investigation, in order to achieve appropriate resolution (1 to 5cm). For the deeper penetration, a boomer sub bottom profiler or similar is to be used to achieve high quality data at the required depth. Additionally, for the deeper penetration, both single channel seismic and multi-channel seismic data is to be acquired. Magnetometry/Gradiometry: The marine magnetometers will be of the Caesium Vapour type and capable of recording variations in magnetic field strength during survey to an accuracy of±0.5nT. **Geotechnical**. The number and locations of samples below will be determined by experienced contractor after contract award. Vibrocore Samples: Up to 130 vibrocores at representative locations are proposed within the Foreshore Licence Application Area. Indicatively, a high-performance corer (HPC) or a modular vibrocorer is proposed to be used for this activity. Map 2 showing indicative locations is provided in the document submitted in support of this application as 'Schedule of Survey Works'. Cone Penetration Tests (CPTs): Up to 130 CPTs are proposed, co-located with vibrocores. A Seacalf seabed cone penetrometer test (CPT) system or similar and a deck mounted CPT is proposed to be used for this activity. Map 2 showing indicative locations is provided in the document submitted in support of this application as 'Schedule of Survey Works'. The exact equipment for use will be known following the appointment of survey contractor. A deck mounted CPT is proposed to be used for this activity. A Seacalf seabed CPT system may be taken as a typical example of equipment that could be used. Boreholes: There is potential for approximately six boreholes to be drilled in the potential landfall areas. The boreholes will be drilled from a jack-up barge (JUB) using a percussion and a rotary corer. The number of legs used by the JUB is dependent on seabed conditions, current strength and wave action. **Wind Resource and Metocean Survey:** Floating LiDAR buoys: Up to two LiDAR buoys may be deployed. Marker buoys will be placed next to any LiDAR buoys. Acoustic Doppler Current Profilers (ADCP): Up to five ADCP's may be deployed. The ADCPs will be deployed via a vessel on-board crane and will sit on the seabed. Waverider buoys: Up to two Waverider buoys may be deployed. The buoys are typically yellow in colour and include an amber LED with a programable ODAS flash sequence with three nautical mile visibility. Continued overleaf…

1.4 cont.	**Archaeological:** Offshore magnetometer surveys are proposed as part of this application to identify any additional cultural heritage features to those identified during initial desktop study. **Ecological:** These include benthic and intertidal surveys as well as potential Marine Mammal Acoustic Monitoring and boat-based bird and marine mammal surveys to complement aerial bird and marine mammal surveys underway. Subtidal benthic floral and faunal survey will include grab sampling and drop-down video. It is likely that three grab samples will be taken at each station; two for faunal analysis and one for sediment and chemical analysis. Up to 65 stations will be sampled within the Foreshore Licence Application Area. Station locations will be subject to results of the geophysical and archaeological surveys. A Day or Hamon Grab are proposed to be used for this activity. Map 2 showing indicative locations for grab samples is provided in the document submitted in support of this application as 'Schedule of Survey Works'. Intertidal floral and faunal surveys at proposed cable landfall locations (to include transects, quadrats and core sampling). The locations of these surveys will be determined when the preferred export cable route and landfall has been identified. Marine Mammal Acoustic Monitoring and boat-based bird and marine mammal surveys may also be used to complement aerial bird and marine mammal surveys underway.
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?** A jack-up barge (JUB) will be temporarily located within the Foreshore Licence Application Area to acquire geotechnical boreholes. Exact details of the vessel to be used will not be confirmed until award of the contract. The number of legs used for the operations is dependent on seabed conditions, current strength and wave action. Wind Resource and Metocean Survey: Deployment of up to two floating LiDAR buoys or similar, five acoustic doppler current profilers (ADCP) with marker buoys next to the LiDAR buoys and two Waverider buoys. It is not proposed as part of this Investigative Foreshore Licence Application to erect any permanent structures within the Foreshore Licence Application Area. At the end of the site investigations, all equipment will be removed, return of the seabed to its original condition.
1.6	**Provide information on proposed mooring, marking and lighting arrangements for any proposed deployment of instrument arrays.** Commissioners for Irish Lights (CIL) standard navigational safety requirements will be adhered to with regards to positioning, mooring, marking and lighting of all equipment deployed under the Investigative Foreshore Licence.

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)).** The applicant's parent company, DP Energy Ireland, has set up a number of Special Purpose Vehicles for the development of offshore renewable energy projects off the coast of Ireland. These include: Inis Ealga Marine Energy Park Ltd., Shelmalere Offshore Wind Farm Ltd., Clarus Offshore Wind Farm Ltd., and Latitude 52 Offshore Wind Farm Ltd. Investigative Foreshore Licence Applications have been submitted as follows by each of those Special Purpose Vehicles. 1) Inis Ealga Marine Energy Park Ltd.: An Investigative Foreshore Licence Application (FS006859) for site investigation activities relating to a potential offshore wind farm, Inis Ealga Marine Energy Park, off the coast of counties Cork and Waterford was submitted to the Department in October 2019 and went through public consultation from 11th March 2020 to 4th June 2020. That application is progressing through the Foreshore Consent Process and is expected to go to assessment by the Department's Independent Environmental Consultants shortly. A separate Investigative Foreshore Licence Application (FS007404) was submitted 30th July 2021 to carry out Site Investigation Works for an additional potential export cable corridor in connection with Inis Ealga Marine Energy Park. This cable corridor was identified for site investigation due to the precedence established by the Celtic Interconnector development (ABP consent application ref. A04.310798) and feedback to DPEI from stakeholders requesting greater consideration of those areas already under development for other projects such as the Celtic Interconnector. Public Consultation associated with this application FS007404 took place from 21st October 2021 to 19th November 2021. 2) Shelmalere Offshore Wind Farm Ltd.: An Investigative Foreshore Licence Application (FS007261) for site investigation activities relating to a potential offshore wind farm off the coast of counties Wicklow and Wexford was submitted to the Department on 30th November 2020. Public consultation associated with this application is underway from 29th October 2021 to 27th November 2021. 3) Latitude 52 Offshore Wind Farm Ltd.: An Investigative Foreshore Licence Application (FS007232) for site investigation activities relating to a potential offshore wind farm off the coast of counties Wicklow and Wexford was submitted to the Department on 11th December 2020.

1.8	**Indicative timing of the investigation works: (i) Start date (ii) Duration (iii) Any other information relevant to timing.** The intention is to commence the proposed site investigation activities as soon as feasible following award of an Investigative Foreshore Licence, with a staged programme of site investigations to capitalise on suitable weather windows over this time period, likely during Spring and Summer. This phased approach will progress the overall development towards detailed design stage. The exact mobilisation dates for the site investigation activities will not be known until an Investigative Foreshore Licence has been secured and the process of procuring the contractor is complete. While a multi-year licence is sought (minimum of five years), most survey periods will be a period of weeks, with the exception of the metocean devices (LiDAR, ADCPs and Wave Buoys) which may be deployed for longer. The time spent at each individual location will be a maximum of hours for other site investigation activities such as Boreholes, CPTs, Vibrocores, Gravity Coring, Grab Sampling etc. Further information on the typical durations for each site investigation activity is set out in the Schedule of Survey Works submitted in support of this Investigative Foreshore Licence Application.
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.** **Beach Access:** Until the preferred survey contractor is procured, the geophysical survey is complete, and a preferred cable landfall location is identified, it is not possible to determine if access to and from the shore will be restricted during any of the subsequent site investigation activities. However, it is possible that survey of locations within the intertidal area will be required for the geotechnical boreholes. Any restrictions on the beach will be limited in duration (i.e. one to two weeks) and the beach will be left in a pre-impact condition. To minimise inconvenience, to reduce any potential environmental effects and to ensure all foreshore users are kept up to date with the site investigation activities, the following measures will be adopted: • Clarus Offshore Wind Farm Ltd. will ensure that all vessels taking part in the investigation activities comply with marine certification requirements; • Clarus Offshore Wind Farm Ltd. will issue a Notice to Mariners to the Maritime Safety Directorate and nearby ports and harbours requesting that vessels keep a safe distance from the site investigation activities and to inform other maritime users of the schedule of activities; • Clarus Offshore Wind Farm Ltd. has appointed a Fisheries Liaison Officer (FLO) to act as a first point of contact with fishers on behalf of the project. Clarus Offshore Wind Farm Ltd. has been working with its FLO since their appointment in 2020 to build relationships with fishers and to bolster the publicly available information on the type and extent of fishing within the site. Engagement with fishers continues and will continue ahead of and during any survey effort. • Clarus Offshore Wind Farm Ltd. is committed to fully engaging with all stakeholders at all stages of the project and DP Energy's Community and Stakeholder Liaison Manager, who has been working on the project since 2020, will continue to lead on this. • Each period of the site investigations will be of a limited extent and duration and any effects will be very localised.

D1.9 Cont.	**Other users in the area – including fishing, recreational and commercial vessels.** Areas of relatively high shipping activity in the area are within the Shannon River and Estuary and an area within the middle of the application running adjacent to the coast. See Map 21 in the document entitled Environmental Supporting Information submitted in support of this application. Due to the restricted manoeuvrability of the survey vessels, other vessels will be requested to remain at 500m radial distance from them for safety purposes. Fishers with static gear may be requested to temporarily remove gear from specific locations by the Fisheries Liaison Officer appointed to the project ahead of the geophysical surveys taking place. The design of the survey scopes will seek to avoid or reduce environmental effects as well as to minimise inconvenience to all other users through careful design and good industry practice. The following measures will be incorporated into survey design: • In line with ICPC recommendations, geotechnical and environmental sampling locations will be positioned a minimum of 250m from third party assets, for example pipelines. All asset owners will be contacted prior to survey to determine if proximity agreements are required. Deployment of equipment on the seabed will be kept to a minimum. • All survey vessels will follow relevant International and National Statute • Notice to Mariners will be issued to the Maritime Safety Directorate, local fishing organisations, Shannon Foyes Port Company and relevant harbour masters • A Fisheries Liaison Officer has been appointed. Each period of the site investigations will be of a limited extent and duration and any effects will be very localised.
1.10	**Describe any consultations undertaken to date with other foreshore users.** DPEI has commenced engagement with the fishing community and with other foreshore users and coastal communities both through the Fisheries Liaison Officer appointed to the project since 2020 and via DP Energy's Community and Stakeholder Liaison Manager also working on the project since 2020. Meetings have been held and are ongoing with Tarbert Development Association, Shannon Estuary Business Alliance, Ballylongford Enterprise Steering Committee, Ballylongford Oysters, Ballylongford Enterprise and local councillors. DP Energy have appointed a Community Liaison Officer (CLO) to further engage with communities potentially affected by or who may have interest in the project as it develops. DP Energy will continue to work to keep members of the public, any interest groups and relevant bodies informed and engaged ahead of and during the proposed surveys. DP Energy have also contracted a STEAM (Science, Technology, Engineering, Arts and Maths) education service provider to conduct 'Climate Change and Engineering' workshops with a specific focus on offshore wind to 5th and 6th class in primary schools in the vicinity of the potential Clarus Offshore Wind Farm.
1.11	**Describe any consultations undertaken to date with other consent authorities e.g. planning authority, Commission for Energy Regulation etc.** DPEI have met with Commissioners of Irish Lights (CIL) to inform and receive feedback relating to the potential Clarus Offshore Wind Farm. Direct consultation with Eirgrid, CRU and DECC (formerly DCCAE) has also been undertaken on Clarus Offshore Wind Farm as part of discussions on the wider portfolio of offshore wind projects under development by DP Energy Ireland.

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:** Consultations with the Sea Fisheries Protection Agency, Bord Iascaigh Mara and The Marine Institute have been led by the Fisheries Liaison Officer appointed to the project. An Ecology Survey Scoping Exercise is currently underway to inform the methodologies to be utilised for the onshore and offshore ecology survey effort scheduled to commence for the potential Clarus Offshore Wind Farm in 2022. Statutory and non-statutory stakeholders will be invited to partake in the Ecology Survey Scoping exercise. These will include: National Parks & Wildlife Service, Birdwatch Ireland, Bat Conservation Ireland, Irish Whale & Dolphin Group, The Irish Basking Shark Group, SEAI, Clare County Council, Kerry County Council and others.
1.13	**Describe briefly any support received or under application with the Sustainable Energy Authority of Ireland (SEAI) or other State Agency:** N/A

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).** Please see Foreshore Licence Map 1 and Foreshore Licence Map 2 submitted in support of this Investigative Foreshore Licence Application.
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.** Please see Foreshore Licence Map 2 table of coordinates below.

Point Number	IRENET95 ITM		WGS1984	
	Easting	Northing	Long	Lat
1	442598.34	639386.59	52.4832	-10.3175
2	446030.55	642326.65	52.5106	-10.2684
3	446609.57	650567.49	52.5847	-10.2636
4	447549.00	654329.03	52.6188	-10.2515
5	449128.43	657869.66	52.6510	-10.2298
6	450997.21	660702.02	52.6770	-10.2035
7	453275.52	663215.90	52.7002	-10.1710

Point Number	IRENET95 ITM		WGS1984	
	Easting	Northing	Long	Lat
8	459848.28	668971.28	52.7536	-10.0762
9	471554.74	679184.29	52.8483	-9.9069
10	472137.38	680393.42	52.8593	-9.8988
11	472032.42	678283.21	52.8403	-9.8995
12	473644.20	675242.76	52.8133	-9.8744
13	496553.04	669802.53	52.7693	-9.5330
14	497285.52	667131.49	52.7455	-9.5213
15	491356.81	666173.74	52.7357	-9.6088
16	491120.72	666071.14	52.7348	-9.6122
17	490956.96	666061.93	52.7346	-9.6146
18	490760.50	666119.66	52.7351	-9.6176
19	488206.73	667119.59	52.7436	-9.6557
20	471207.99	662205.54	52.6957	-9.9054
21	467367.39	660307.89	52.6777	-9.9614
22	470321.78	652768.65	52.6107	-9.9148
23	472842.44	652354.00	52.6075	-9.8774
24	473270.53	650602.37	52.5919	-9.8705
25	472537.85	649683.16	52.5835	-9.8809
26	471667.52	649697.00	52.5834	-9.8938
27	469106.35	650353.17	52.5887	-9.9318
28	464576.84	648420.30	52.5702	-9.9978
29	468838.38	645080.61	52.5413	-9.9337
30	472915.70	646563.60	52.5555	-9.8741
31	482637.52	647758.89	52.5685	-9.7313
32	485726.53	649558.06	52.5853	-9.6863
33	486560.48	650798.90	52.5966	-9.6745
34	493452.38	651899.63	52.6079	-9.5731
35	496563.58	650784.52	52.5985	-9.5269
36	497614.47	651624.90	52.6062	-9.5116
37	498296.05	652169.95	52.6112	-9.5017
38	498972.77	653228.47	52.6209	-9.4921
39	499036.61	653577.41	52.6240	-9.4912
40	503086.71	651496.97	52.6061	-9.4308
41	502896.31	651383.86	52.6050	-9.4336

Point Number	IRENET95 ITM		WGS1984	
	Easting	Northing	Long	Lat
42	501482.58	650745.62	52.5990	-9.4543
43	502467.18	650058.48	52.5930	-9.4395
44	503039.96	649933.90	52.5920	-9.4311
45	503473.78	649891.58	52.5917	-9.4246
46	503992.26	649859.83	52.5915	-9.4170
47	504563.64	649859.83	52.5916	-9.4086
48	505050.36	649880.98	52.5919	-9.4014
49	505526.51	649923.31	52.5924	-9.3944
50	505992.08	649976.21	52.5929	-9.3875
51	506616.36	649965.63	52.5929	-9.3783
52	507029.03	649965.62	52.5930	-9.3722
53	507240.65	649859.81	52.5921	-9.3691
54	507607.14	649846.34	52.5920	-9.3636
55	507599.02	649760.58	52.5913	-9.3637
56	500781.87	647772.31	52.5722	-9.4637
57	499178.46	648902.47	52.5821	-9.4877
58	493511.36	648348.68	52.5760	-9.5711
59	489644.58	649352.92	52.5842	-9.6285
60	486022.70	645996.06	52.5533	-9.6808
61	483112.10	643835.14	52.5333	-9.7229
62	476199.84	642247.64	52.5175	-9.8241
63	474083.10	642152.56	52.5162	-9.8553
64	470284.30	642456.22	52.5180	-9.9113

2.3	**Delineate proposed site on relevant Admiralty Chart.** Please see Foreshore Licence Map 1 submitted in support of this Investigative Foreshore Licence Application.
2.4	**Relevant Local Authority:** Clare County Council and Kerry County Council
2.5	**Location name and nearest townland name:** The Foreshore Licence Application Area is located 35km west of Shannon. The nearest towns to northern and southern extent of the Foreshore Licence Application Area are Doonbeg in Co. Clare and Ballybunion in Co. Kerry, respectively. The extent of the Foreshore Licence Application Area in the Shannon Estuary reaches to Moneypoint Power Station on the north bank to Talbert on the southern bank.

2.6	**Distance from nearest other developments, including any offshore renewable energy developments on the foreshore:** Ballybunion metocean buoy – Within the Foreshore Licence Application Area. The Ballybunion North cardinal marker is a CIL Type 1 buoy, broadcasting AIS MetHydro data. The buoy has a nominal range of 6 km and Racon morse 'M'. It also monitors local weather & sea state in real time. Sceirde (Skerd) Rocks wind farm (FS006361) – More than 46km north of the Foreshore Licence Application Area in Bertraghboy Bay. A proposed 400MW offshore wind farm still in the planning stages. A Foreshore Lease was applied for in May 2008, with a grid connection application to Eirgrid for 392MW in July 2011. The project was designated a 'Relevant Project' in May 2020. The developer, Fuinneamh Sceirde Teoranta, was acquired by Macquarie's Green Investment Group in September 2021. ESB Moneypoint ecological survey - Ballymacrinan Bay (FS007141) – The scope of work proposed in the Investigative Foreshore Licence Application describes an ecological survey consisting of the collection of nine grab samples for infauna and granulometric analysis to help characterise subtidal habitat and benthic communities. The sampling is required solely for compliance with an Environmental Protection Agency (EPA) Industrial Emissions Licence, with a survey of the habitats and communities of Ballymacrinan Bay required to be conducted every two years. Survey activities will occur over a two-day period. The application for Investigative Foreshore Licence stated that works would commence between the 1st of July and 31st October 2020. As the Licence was approved on the 6th of October 2020, it is likely that the survey works have now concluded. As the surveys are required bi-annually, the next surveys will likely be carried out in a similar period in 2022. Cross Shannon Cable Project (FS007083) - Eirgrid is developing a submarine cable that will link the electricity substation at Kilpaddoge in North Kerry to the Moneypoint generating station in Clare. This project overlaps the Foreshore Licence Application Area in the upper Shannon Estuary. Development consent was granted by An Bord Pleanála in June 2021 and the cable is planned to be constructed in 2022, to be fully operational later in 2023. ESB Moneypoint One and Moneypoint Two Projects – ESB is proposing to develop an offshore wind farm approximately 16km off the coast of Co. Kerry and Co. Clare. The development is set to be installed in two phases with the first phase, Moneypoint One (located with the Foreshore Licence Application Area) covering an area of 70km^2 with an estimated capacity of 400MW. Moneypoint Two (located approximately 15km from Foreshore Licence Application Area) is expected to have a capacity of 1GW-1.5GW and cover an area of 200km^2. The Moneypoint Offshore Wind website (https://www.moneypointoffshorewind.ie/) indicated that in January 2021, ESB submitted an Investigative Foreshore Licence Application; although as of November 2021 this is not publicly available. Note: Equinor (previous project partner) announced in November 2021 that they have withdrawn from the Moneypoint project. ESB has put the project on hold, however, do intend to continue with the development once another investor has agreed to continue the development (Buljan, 2021).

2.6 cont.	WestWave Wave energy Test Site – ESB. Within the Foreshore Licence Application Area. The proposed WestWave energy test site is located off Killard, Co. Clare. It is a 5MW pre-commercial project to build the first full-scale, operational wave farm off the west coast of Ireland. The proposed development will include near-shore and offshore wave energy converter devices. As of 04 November 2021, there were no Investigative Foreshore Licence Applications relating to this project published on the Department of Housing, Local Government and Heritage website (https://www.gov.ie/en/collection/f2196-foreshore-applications-and-determinations/#2008). Ilen Floating Wind Farm – Simply Blue Energy. COWF are aware that the Ilen project is a proposed co-developed floating offshore wind and wave energy installation to be located off the west coast of Co. Clare. The floating wind farm element is reported to have a potential capacity of 1.1 GW, while the wave energy element has a proposed capacity of 30 MW. An Investigative Foreshore Licence Application was intended to be submitted in December 2020, although as of November 2021 this is not publicly available. Currently the status of the project is at concept/early planning stage (4C Offshore, 2020). As such, there is potential for these surveys to overlap spatially and temporally with surveys proposed as part of this Investigative Foreshore Licence Application for the Clarus Offshore Wind Farm. Project Saoirse Wave Energy - Simply Blue Energy is developing Project Saoirse approximately 4-6 km off the west coast of County Clare, which will consist of a 5MW wave energy conversion array of approximately 15-16 WEC units. The installation for this project is planned to be in 2026. The proposed development will overlap with the Clarus Offshore Wind Farm Investigative Foreshore Licence Application Area. Publicly available information suggests that an Investigative Foreshore Licence Application for the project was submitted in December 2020; although as of November 2021 this is not publicly available. Mainstream Renewable Power - COWF are aware of that Mainstream Renewable Power is preparing to apply for an Investigative Foreshore Licence to conduct site investigation works to assess a potential wind farm off counties Clare and Kerry. At present, the application is not available on the DHLGH foreshore applications website. However, the Mainstream Renewable Power website indicates that public consultations are ongoing for multiple sites (Mainstream Renewable Power, 2021). While no publicly available information is available on this development, it is thought it could potentially overlap the Foreshore Licence Application Area for the Clarus Offshore Wind Farm. Loop Head Wave Power Station - There is limited publicly available information on this project. A presentation by Marine Renewable Energy Ireland and University College Cork (October 2018) suggests that the proposed project could have an initial capacity of 300MW. The wave energy converters could be installed over the period 2022 to 2032 with an export power cable to the Moneypoint Power Station. At present (November 2021) there are no associated Investigative Foreshore Licence Applications available on the DHLGH foreshore applications website.

2.6 cont.	Shannon Estuary Tidal - There is limited publicly available information on this project. However, in 2020 DesignPro Limited submitted an Investigative Foreshore Licence Application (FS007081) to deploy and test a 60KW hydrokinetic turbine in the Shannon Estuary as part of a European Funded Horizon 2020 project. The deployment location is off the pier at Inishmurry (Cahiracon, Co. Clare). This site is outside of the Foreshore Licence Application Area, further east in the River Shannon estuary, approximately 17km away. At present (November 2021), there are no Investigative Foreshore Licence Applications available on the DHLGH foreshore applications website. Inis West One and Two, Inis West Offshore Wind - COWF are aware of two further proposed developments by Inis West Offshore Wind in collaboration with Warwick Energy off the Coast of Co. Clare; Inis 1 and Inis 2. Both projects have an estimated capacity of 1000MW (2000 MW in total). Information available from Wind Energy Ireland suggest that Inis 2 overlaps the Foreshore Licence Application Area. 4C Offshore (2021) reports that as of 10 October 2021 an Investigative Foreshore Licence Application has been submitted; but as November 2021 this was not publicly available.
2.7	**Distance from shore:** The Foreshore Licence Application Area is bounded by the high-water mark along both County Kerry and County Clare. See Foreshore Licence Map 1 submitted in support of this Investigative Foreshore Licence Application.
2.8	**Distance from nearest aquaculture operation:** There are two aquaculture sites which (partially) overlap the Foreshore Licence Application Area: Shannon Estuary Oysters and Ballylongford Bay Mussels. See Map 11 within the document entitled Environmental Supporting Information submitted in support of this Investigative Foreshore Licence Application which illustrates the locations of aquaculture sites in relation to the Foreshore Licence Application Area.
2.9	**Distance from any other sensitive location e.g. fish spawning ground, designated Shellfish Growing Waters,** The Foreshore Licence Application Area is located within the finfish spawning and nursery grounds of the following commercially important species: - Atlantic Cod (Nursery) - Haddock (Spawning and Nursery) - European Hake (Nursery) - Atlantic Herring (Spawning) - Horse Mackerel (Nursery) - Atlantic Mackerel (Nursery) - Megrim (Nursery) - White-bellied and black-bellied Angler (Nursey) - Whiting (Nursery) See Map 9 within the document entitled Environmental Supporting Information submitted in support of this Investigative Foreshore Licence Application which illustrates the spawning and nursery areas of these species in relation to the Foreshore Licence Application Area. Continued overleaf…

2.9 cont.	The continental shelf west of Ireland includes fishing grounds Slyne Head, Aran Islands and Loop Head and supports fisheries for *Nephrops*, monkfish, megrim, rays, haddock, whiting and hake. Further west are the West of Achill and West of Blaskets fishing grounds, dominated by anglerfish, megrim and whitefish. Pelagic fisheries for species such as scad, mackerel and blue whiting also occur along Ireland's Atlantic margin. Inshore potting activity is also recorded along the Co. Clare coast. Some key fishing grounds overlapping with the Foreshore Licence Application Area include Doughmore Bay and the Loop Head grounds. There are several fisheries occurring along the west coast which overlap with the Foreshore Licence Application Area. These include trawling for whitefish or flatfish, set net fishing targeting whitefish with gillnets, bait with trammel nets or crayfish with tangle nets, potting for brown crab, spider crab, lobster and shrimp, line fishing/trolling for tuna, mackerel or whitefish, and pelagic trawling for scad, herring, mackerel or sprat. A number of these fisheries occur over an extensive area while others are more spatially restricted. Further detail on commercial fishing activity in and around the Foreshore Licence Application Area is provided in the document entitled Environmental Supporting Information submitted in support of this Investigative Foreshore Licence Application. DP Energy have also compiled a pre-survey fisheries analysis to inform the ongoing fisheries engagement process. The Foreshore Licence Application Area is located within the West Shannon Ballylongford designated shellfish waters. The Foreshore Licence Application Area is also located in the vicinity of the West Shannon Carrigaholt, West Shannon Rinevella and West Shannon Poulnasherry Bay designated shellfish waters. See Map 8 of the document entitled Environmental Supporting Information submitted in support of this Investigative Foreshore Licence Application which illustrates the designated shellfish waters in relation to the Foreshore Licence Application Area.
2.10	**Any other site details considered relevant:** Based on information from the National Monuments Service: Wreck Viewer, there are 10 shipwrecks within the Foreshore Licence Application Area and a further 10 in close proximity to the Foreshore Licence Application Area. See Map 4 of the document entitled Environmental Supporting Information submitted in support of this Investigative Foreshore Licence Application for an illustration of the position of known shipwrecks in relation to the Foreshore Licence Application Area.

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 following Natura 2000 sites lie within or partly overlap the Foreshore Licence Application Area:

- Lower River Shannon Special Area of Conservation (SAC) (Site Code: IE002165)
- Kilkee Reefs SAC (Site Code: IE002264)
- Carrowmore Dunes SAC (Site Code: IE002250)
- Mid-Clare Coast SPA (Site Code: IE004182)
- River Shannon and River Fergus Estuaries SPA (Site Code: IE004077)

A full appraisal of these Natura 2000 sites is set out in the document entitled 'Supporting Information for Screening for Appropriate Assessment' submitted in support of this application.

3.2 Name and location of Natura 2000 sites in or around the project area:

The table below lists all Natura 2000 sites with marine components located within 15km of the Foreshore Licence Application Area.

Designation	Site Code & Name	Distance from Foreshore Licence Application Area
SAC	IE002165 Lower River Shannon	Within Foreshore Licence Application Area
SAC	IE002264 Kilkee Reefs	Within Foreshore Licence Application Area
SAC	IE001021 Carrowmore Point to Spanish Point and Islands	1 km
SAC	IE002250 Carrowmore Dunes	Within Foreshore Licence Application Area
SAC	IE002263 Kerry Head Shoal	1.5 km
SPA	IE004189 Kerry Head	6 km
SPA	IE004114 Illaunonearaun	8 km
SPA	IE004182 Mid-Clare Coast	Within Foreshore Licence Application Area
SPA	IE004077 River Shannon and River Fergus Estuaries	Within Foreshore Licence Application Area
SPA	IE004119 Loop Head	0.1 km
SPA	IE004161 Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle	7 km
SPA	Tralee Bay Complex	15 km

3.3	**Describe potential impacts of the site investigations on Natura 2000 sites.** An assessment of potential effects on Natura 2000 sites is provided in the document entitled 'Supporting Information for Screening for Appropriate Assessment' submitted in support of this application. That document concludes that through following the implementation of the mitigation measures set out within, the proposed site investigations will not, by itself or in combination with other plans or projects, have an adverse effect on the integrity of any European Sites and there is no reasonable scientific doubt as to that conclusion.
3.4	**Describe any measures proposed to mitigate possible impacts on Natura 2000 sites and other key marine receptors.** Measures proposed to mitigate potential effect are set out in the document entitled 'Supporting Information for Screening for Appropriate Assessment and Natura Impact Statement' submitted in support of this application and are as follows: • The contractor for the proposed site investigations will follow the Department of Arts, Heritage and the Gaeltacht (DAHG) 'Guidance to Manage the Risk to Marine Mammals from Man-made sound sources in Irish Waters' (DAHG 2014); specifically Section 4.3.4 Geophysical Acoustic Surveys and Section 4.3.2 Drilling. • Clarus Offshore Wind Farm Limited will co-ordinate with any developers that are granted an Investigative Foreshore Licence within the region on the timing of site investigations to minimise cumulative impacts. • Geophysical data and the existing biotope maps for the area will be used to identify potential reef and priority habitats, and position geotechnical and environmental stations to avoid intrusive sampling in these areas. If geophysical interpretation is inconclusive, drop down camera will be used to visualise the seabed prior to sampling.
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 detailed assessment of in-combination effects with other projects and plans for the area is set out in the document entitled 'Supporting Information for Screening for Appropriate Assessment' submitted in support of this application. The assessment concluded that there exists the potential for cumulative effects between the site investigation activities proposed under this Investigative Foreshore Licence Application and other site investigation works licenced or planned within the region. Through the implementation of the mitigation measures set out in Section 3.4 above, (incl. 'Clarus Offshore Wind Farm Limited will co-ordinate with other developers in the region granted an Investigative Foreshore Licence to minimise cumulative impacts), there will be no significant in-combination effect with site investigation works.

Part 4: Navigational Safety Considerations.

4.1	**Distance from shipping lanes at nearest point. Illustrate on the appropriate marine charts accompanying the application.** See Map 5 within the document entitled 'Environmental Supporting Information' submitted in support of this Investigative Foreshore Licence Application for illustration of shipping density for all vessels in 2018 and 2019 in relation to the Foreshore Licence Application Area. Note: 2020 data has not been included on this figure. This data set was reviewed however was considered not representative due to impacts of Covid on vessel traffic) Cargo vessel density is high within the Shannon Estuary, with vessels following a route from Limerick towards the open sea and around the southwest coast of Ireland. The proposed site investigation activities are temporary in nature, involving survey vessels plus potential deployment of metocean equipment.
4.2	**If a safety zone for passage of shipping (including fishing and leisure boats) is sought, supply details and give reasons.** No safety zones are sought; although Notice to Mariners will request that vessels remain at least 500m radial distance from the survey vessels for safety purposes.
4.3	**If a temporal /spatial restriction 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.** No formal restrictions are sought. As for Section 4.2, a Notice to Mariners will be issued in advance of any site investigation activities with a request that vessels remain a safe distance from the survey vessels. In addition, ongoing engagement with users of the foreshore will be undertaken in advance of and throughout the duration of the site investigation activities.

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:

Name of Signatory (block letters): Edwina White

Position Held: Consenting & Environment Manager, DP Energy

Date: 19th 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