

Investigative Foreshore Licence Application (Offshore Renewable Energy)

Please inc	dicate 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.

SSE wish to assess the suitability of an area of interest with potential for a circa 800MW offshore wind development. The main area which SSE would like to investigate is located off the coastline of counties Cork, Waterford and Wexford, approximately 25km offshore.

The proposed area to survey has been chosen following a phased site selection process which included regional resource and constraints analysis and an assessment of renewable generation capacity requirements. In addition, a preliminary shipping and navigation assessment was undertaken to ensure navigational risks were understood should the proposed area be taken forward for development. This assessment has informed the position, size and shape of the proposed area to survey.

To ensure alignment with the Government's plan, the findings and recommendations of the strategic environmental assessment which underpin the Department of Communications, Climate Action and Environment's (DCCAE) Offshore Renewable Energy Development Plan have been used as a basis for the survey area selection process.

The proposed geophysical, geotechnical and environmental surveys of the area of interest will enable:

- Detailed mapping of nearshore shallow geological and seabed character;
- Reconnaissance level mapping of seabed relief and features (i.e. archaeology);
- Greater understanding of wind resource and metocean conditions; and
- Baseline environmental mapping.

The knowledge gained from the proposed surveys would be used to minimise uncertainty in ground conditions at an early design stage and optimise any future development proposal. Survey information would also be used to assess the suitability of the area of interest for a renewable energy project from an environmental, economic and wider stakeholder prospective.

Depending on the results of the proposed site investigations, other consents and permissions required to develop, install, operate and ultimately decommission an offshore wind energy project may be sought at a future date. Data acquired during the proposed surveys would be used to inform environmental assessments in support of any required applications by providing information on the current situation and allowing impacts to be predicted, and subsequently appropriate mitigation to be developed. It may also be used at a later date to provide a baseline against which to monitor post construction effects of construction/operation/decommissioning.

1.2 Possible MW output of final development: Circa 800MW

1.3 Type of surveys proposed (e.g. geophysical, geotechnical, archaeological or benthic. The proposed survey works will include the following:

1. Geophysical Survey

The geophysical survey acquisition methodologies will comprise multi-beam echo sounding (MBES), side scan sonar (SSS), magnetometry, and sub-bottom profiling (SBP). All geophysical survey activities are non-intrusive and will not interact with the seabed.

2. Geotechnical Survey

The geotechnical survey techniques that may be used during the proposed marine survey include grab sampling, seabed cone penetrometer tests (CPT), vibrocoring (VC), and boreholes. The exact location, quantity, type, and penetration of the geotechnical samples will be determined following interpretation of geophysical survey but indicatively may comprise of the following:

- 40 vibrocore samples;
- 20 seabed CPTs; and
- 12 boreholes (2 at the landfall location and 10 in the prospect area).

It should be noted that the geotechnical samples will be acquired across both the foreshore and offshore prospect area. As it is uncertain how many of the geotechnical samples would be acquired in the foreshore, as a worst-case, the assessment assumes that all 40 vibrocores and 20 CPTs would be located within the foreshore.

3. Wind Resource and Metocean Survey

To evaluate wind and wave conditions, proposed survey acquisition methodologies include deployment of a LiDAR buoy and up to 3 Waverider buoys. An acoustic doppler current profiler (ADCP) will be used to assess tidal currents in the area.

4. Topographic survey

A topographic survey will be undertaken to ensure that there are continuous height measurements between the landfall and the export cable route and to delineate hard features that will present an obstacle to cable installation. One of two techniques will be selected to acquire the data; either a traditional topographic survey using levels and reference points, or a drone.

5. Environmental Survey

The aim of the environmental survey is to map the distribution and extent of marine benthic habitats in the application area. This will comprise a benthic sampling programme (using grab sampling) and video or still photographs. The sampling locations will be determined based upon interpretation of the geophysical data and selected to sample different habitats. It is currently estimated that 40 grab stations will be selected across the survey area. It is likely that three grab samples will be taken at each station; two for faunal analysis and one for sediment and chemical analysis. Each grab samples a volume of approximately 0.1m^3 . For the purposes of assessment, it has been assumed that all 40 stations will be within the foreshore, although this is unlikely.

See Supporting Document for more details.

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 likely to be used is provided in point 1.3 above and within 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?

A jack-up barge (JUB) will be temporarily located within the nearshore 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. For the application area, four legs are the most likely scenario.

Further details are provided in the Supporting Document.

1.6 Provide information on proposed mooring, marking and lighting arrangements for any proposed deployment of instrument arrays.

An overview of mooring, marking and lighting arrangements for the proposed deployment of a LiDAR buoy, Waverider buoys and a seabed mounted acoustic doppler current profiler (ADCP) is provided in the Supporting Document.

Whilst exact details of the surveys and instruments to be used will not be confirmed until award of contracts, all site investigation works and sensor deployments within the licence area will comply with navigational safety requirements set out by the Commissioners of Irish Lights (CIL).

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)).

SSE Renewables (Ireland) Limited does not hold other Foreshore Licences, Leases or applications. However, other companies in the SSE Group of companies do.

SSE Generation Ireland Limited hold the following leases at Tarbert:

- Lease dated 20th December 1967 between the Minister for Transport and Power of the one part and The Electricity Supply Board of the other part
- Lease dated 18 August 1976 between the Minister for Transport and Power of the one part and The Electricity Supply Board of the other part.

SSE Generation Ireland Limited holds the following lease at Great Island:

- Lease dated 2 January 1968 between The New Ross Harbour Commissioners of the one part and The Electricity Supply Board of the other part.
- Property comprised in Folio 152L, County Wexford.

Sure Partners Limited hold the following lease at Arklow Banks:

- Lease dated 11 January 2002 between the Minister for the Marine and Natura Resources and Sure Partners Ltd.

1.8 Indicative timing of the investigation works: (i) Start date (ii) Duration (iii) Any other information relevant to timing.

The survey works will likely be carried out between April and October within the five years following award of the Foreshore Licence to minimise the risk associated with poor winter weather conditions. SSE would like the Foreshore Licence to start on 01 August 2019.

The geophysical survey is expected to take up to 2 months. The geotechnical survey will be undertaken once geophysical works have been completed and the necessary archaeological assessment of data has been carried out. The geotechnical survey will take up to 3 months. The proposed environmental surveys (benthic sampling programme) are expected to be undertaken with the geotechnical surveys.

With regards to the wind resource and metocean surveys, the LiDAR buoy, Waverider buoy(s) and (ADCP) will be deployed within the 5-year Licence period. Depending on the quality of the data acquired, the sensors are expected to be deployed for the following durations:

- LiDAR 12 36 months;
- Waverider(s) 12 months; and
- ADCP minimum 1 month.

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.

Until the preferred survey contractor is procured, the geophysical survey is complete, and a preferred landfall is selected, it is not possible to determine if access to and from the shore will be restricted. However, it is possible that a location within the intertidal area will be required. 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.

Other users in the area including fishing, recreational and commercial vessels. Areas of relatively high shipping activity in the area are the approaches to Waterford/Dunmore East, and East-West traffic passing parallel to the southern Irish coastline mainly heading to or from the Tuskar Rock Traffic Separation Scheme (TSS).

The design of the survey scopes will seek to avoid or reduce environmental effects and minimise inconvenience to all other users through careful design and the incorporation of Good Industry Practice. The following embedded mitigation measures will be incorporated into survey design:

- Geotechnical and environmental sampling locations will be positioned a minimum of 250m from third-party assets e.g. 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, Waterford Port Company, and harbour masters at Dunmore East, Kilmore Quay, Duncannon, Dungarvan and Youghal.
- A Fisheries Liaison Officer will be appointed.
- Geotechnical borehole works in the intertidal/nearshore will not be conducted during July and August.

More details on the other sea users and measures taken to reduce disruption is provided in the Supporting Document.

1.10 Describe any consultations undertaken to date with other foreshore users.

At this stage SSE has not had consultations with other Foreshore Users. However, SSE will undertake formal consultation to comply with legislative requirements and additional engagement with stakeholder groups who may be affected by the proposed survey works. SSE's intention is to ensure that all members of the public, any interest groups and relevant bodies are kept fully informed and engaged prior to and during the proposed survey works.

1.11	Describe any consultations undertaken to date with other consent authorities e.g. planning authority, Commission for Energy Regulation etc.		
	At this stage SSE has not opened up any consultation with other consenting authorities.		
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: At this stage SSE has not opened up any consultation with the authorities listed above.		
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).

See Figures 1-1, Figure 1-2 and Figure 1-3 (Drawings P2278-A2-LOC-001, P2278-A2-LOC-002, P2278-A2-LOC-003,) in Supporting Document.

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.

Id	IRENET95	IRENET95	WGS84	WGS84
	EASTINGS	NORTHINGS	Latitude (DMS)	Longitude (DMS)
	(m)	(m)		
1	687231.9	607851.4	52° 12' 55.843" N	6° 43' 24.415" W
2	688718.3	589483.3	52° 3' 0.758" N	6° 42' 23.372" W
3	671938.4	570789.6	51° 53' 4.673" N	6° 57' 18.028" W
4	676807.1	572125.2	51° 53' 45.550" N	6° 53' 2.405" W
5	681549.8	554837.9	51° 44' 23.805" N	6° 49' 9.031" W
6	662883.1	549716.5	51° 41' 46.742" N	7° 5' 25.251" W
7	659583.6	561577.5	51° 48' 11.837" N	7° 8' 9.738" W
8	643037.9	572455.6	51° 54' 9.308" N	7° 22' 28.486" W
9	640344.1	585091.0	52° 0' 58.901" N	7° 24' 44.060" W
10	639359.3	597733.0	52° 7' 48.228" N	7° 25' 30.460" W
11	643310.1	598654.9	52° 8' 16.995" N	7° 22' 2.317" W
12	644366.4	585431.6	52° 1' 8.817" N	7° 21' 12.957" W
13	646586.7	574936.4	51° 55' 28.555" N	7° 19' 21.636" W
14	658470.3	567102.7	51° 51' 11.044" N	7° 9' 4.489" W
15	664716.5	568761.1	51° 52' 2.223" N	7° 3' 37.005" W
16	684562.2	590844.5	52° 3' 47.135" N	6° 46' 0.251" W
17	683302.1	606689.7	52° 12' 20.450" N	6° 46' 52.420" W
18	685102.1	607578.3	52° 12' 48.208" N	6° 45' 16.838" W

2.3	Delineate proposed site on relevant Admiralty Chart.			
	See Figure 1-1 (Drawing P2278-A2-LOC-001) in Supporting Document.			
2.4	Relevant Local Authority:			
	County Councils of Cork, Waterford and Wexford			
2.5	5 Location name and nearest townland name:			
	Bannow, County Wexford			
2.6	Distance from nearest other developments, including any offshore renewable energy developments on the foreshore:			
	The application area intersects the application area for the proposed survey for the IFC-1- Ireland - France Subsea Cable (FS006766) and the Greenlink Interconnector installation application area (license reference not available) and is located approximately 40km from the foreshore investigation licence application area at Inis Ealga floating wind project (license reference not available).			
2.7	Distance from shore:			
	The application area intersects the coastline.			
	The prospect area is located approximately 25km off the coast of counties Cork, Waterford and Wexford			
2.8	Distance from nearest aquaculture operation:			
	There are no aquaculture sites in the immediate proximity.			
2.9	Distance from any other sensitive location e.g. fish spawning ground, designated Shellfish Growing Waters.			
	The application area is within the spawning or nursery grounds for the following species:			
	Anglerfish, Blue whiting, Atlantic Cod, European hake, Herring, Lemon sole, Ling, Atlantic mackerel, Norway lobster, Plaice, Sandeel, Sprat, Whiting, Haddock, Atlantic horse mackerel and Megrim.			
	The application area lies 5km south east of the Bannow shellfish waters, 11km east of Dungarvan Harbour and 10km east of Waterford Harbour (Checkpoint/Arthurstown/Creadan Head)			
2.10	Any other site details considered relevant:			
	There are 49 shipwrecks within and close to the site as identified on the National Monuments Service Wreck Viewer mapping tool. These are shown on Drawing P2278-A2-OTHR-001 in the Supporting Document.			

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):

Area Type	Site Code & Name	Distance
SAC	IE000764 Hook Head	0km
SAC	IE000707 Saltee Islands	1km
SAC	IE000696 Ballyteigue Burrow	0.17km
SAC	IE000697 Bannow Bay	1km
SAC	UK0013116 Pembrokeshire Marine/ Sir Benfro Forol	70km
SAC	IE002137 Lower River Suir	30km
SAC	IE002162 River Barrow and River Nore	16km
SAC	IE002170 Blackwater River (Cork/Waterford)	32km
SAC	IR003000 Rockabill to Dalkey Island	154km
SAC	UK0012712 Cardigan Bay/ Bae Ceredigion	117km
SAC	UK0030396 Bristol Channel Approaches / Dynesfeydd Môr Hafren	119km
SAC	UK0030397 West Wales Marine / West Gorllewin Cymru Forol	83km
SAC	UK0030398 North Anglesey Marine / Gogledd Môn Forol	205km
SAC	UK0030399 North Channel	278km
SPA	IE004118 Keeragh Islands	0km
SPA	IE004020 Ballyteigue Burrow	0.7km
SPA	IE004002 Saltee Islands	5.5km
SPA	IE004193 Mid-Waterford Coast	0km
SPA	IE004033 Bannow Bay	1km

See Supporting Document - Appendix A - Appropriate Assessment (AA Screening) for more information

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

See Table in Section 3.1 above.

3.3 Describe potential impacts of the site investigations on Natura 2000 sites.

Visual disturbance and underwater sound changes.

See Supporting Document - Appendix A: Stage 1 Screening for Appropriate Assessment (AA Screening) and Appendix B: Stage 2 - Natura Impact Statement (NIS) for information on potential effects.

3.4 Describe any measures proposed to mitigate possible impacts on Natura 2000 sites and other key marine receptors.

The survey contractor will follow the Department of Arts Heritage and the Gaeltacht (DAHG) 'Guidance to Manage the Risk to Marine Mammals from Manmade sound sources in Irish Waters' (DAHG 2014); in particular Section 4.3.4 (ii) applicable to MBES, SSS and SBP surveys.

All embedded mitigation is described in the Supporting Document (Section 2).

The AA screening (Appendix A) concluded that there could be potential for likely significant effects on the Keeragh Islands SPA and therefore the NIS (Appendix B) has proposed the following mitigation measures:

- It is recommended that the survey vessels stay at least 750m away from the base of the Keeragh Islands during the period February to September.
- It is recommended that the survey of the application area from the coast to 4km offshore occurs during the period August through to February.

The AA screening (Appendix A) also concluded that there could be potential for likely significant effects on the Mid-Waterford Coast SPA and therefore the NIS (Appendix B) has proposed the following mitigation measures:

- It is recommended that the survey of the application area from the coast to 2km offshore occurs during the period August through to February.
- It is recommended that borehole works are conducted as late in the breeding season as possible and no earlier than August.
- Geotechnical boreholes should be located a minimum of 100m from known breeding habitat e.g. caves, rock crevasses and sea cliffs.

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:

There is potential that if the surveys associated with the Greenlink Interconnector cable installation, Ireland - France Fibre Cable and Inis Ealga windfarm were to be carried out at the same time as the proposed marine surveys at Celtic Sea, a cumulative effect from underwater noise on marine mammals could arise. The assessment provided in the Supporting document concluded that the significance of the cumulative effect will be slight and that there will be no significant effect on the conservation objectives of any Natura 2000 sites.

Part 4: Navigational Safety Considerations.

Distance from shipping lanes at nearest point. Illustrate on the appropriate marine charts accompanying the application. A desk-based shipping and navigation review has identified that the offshore area of interest is located outside of the main commercial shipping flows (shown in the Supporting Document in Figure 3-6). However, part of the proposed survey area is crossed by the following traffic: - Vessels to / from Waterford / Dunmore East; and East-West traffic heading to / from the Tuskar Rock Traffic Separation Scheme (TSS). There is also fishing vessel and recreational vessel activity in the area (shown the Supporting Document in Figure 3-7 and 3-8, respectively). 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. 4.3 If 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. No formal restrictions are sought; details of temporary vessels surveys and deployment of any buoys and/or and ADCP in the area will be notified to mariners (including fishermen) with requests to maintain a safe distance.

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:	elegania de la composição de la composição La composição de la composição
Name of Signatory (block letters):	
_PETER CAMPBELL	
Position Held:	
_Project Manager	
Date _19 th March 2019	

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