



Investigative Foreshore Licence Application (Offshore Renewable Energy)

Please indicate project category as appropriate:

Wave:

☐

Tidal:

☐

Wind:

☒

Other:

Please specify:

DATA PROTECTION

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Applicant Name and Address:

Full Name of Applicant (not Agent):

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Company/Organisation:

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

<p>1.1</p>	<p>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.</p> <p>The AFLOWT project – Accelerating market uptake of FLoating Offshore Wind Technology – which was recently awarded Interreg North West Europe (NWE) funding, has a main objective of demonstrating a high survivability cost competitive Floating Offshore Wind (FOW) technology.</p> <p>SEAI is a partner in the project, which involves seven other organisations working together as a consortium. SEAI’s main role is as test site owner, having responsibility for consenting the offshore elements of the site (including the technology) and for the management of the onshore and offshore builds.</p> <p>The project seeks to demonstrate floating offshore wind technologies at the Atlantic Marine Energy Test Site (AMETS) off the west coast of Co. Mayo, Ireland. AMETS was granted a Foreshore Lease in November 2015 to test for wave energy devices. Due to depth and weather conditions the site is also suitable for floating wind technologies, hence it was deemed suitable for this project.</p> <p>It is proposed to apply for a licence to deploy test and demonstration floating wind technologies at the AMETS site along with subsea cable and ancillary equipment.</p> <p>This application constitutes a Foreshore Licence application for the undertaking of site investigation (SI) activities. These SI are required in order to inform the detailed design of the FOW components and mooring system.</p> <p>Two SI activities are proposed including:</p> <ul style="list-style-type: none"> - Sub-Bottom Profiling (SBP) - Cone Penetration Testing (CPT) <p>These SI activities are required in order to provide the project team with more information on the make-up of the various layers of sediment and / or rock under the seafloor at the AMETS site and the soils / sediments and stratigraphy of the seabed.</p> <p>Further information on techniques, equipment and timing of the SI are included in the report which accompanies this application “Report to Accompany Foreshore Licence Application for Site Investigation”.</p>
<p>1.2</p>	<p>Possible MW output of final development:</p> <p>Up to 10 MW</p>

1.3	<p>Type of surveys proposed (e.g. geophysical, geotechnical, archaeological or benthic.</p> <p>Geophysical survey as follows:</p> <ul style="list-style-type: none"> - Sub-Bottom Profiling (SBP) <p>Geotechnical survey as follows:</p> <ul style="list-style-type: none"> - Cone Penetration Testing (CPT)
1.4	<p>Survey methodologies and equipment to be used for each survey type proposed:</p> <p>SBP methodology & equipment:</p> <ul style="list-style-type: none"> - SBP is based on acoustic methods. It is an effective method of determining the composition of the seafloor using sound pulse techniques; a method for obtaining high-resolution characterisation of sediments and rock under bodies of water. It involves non-intrusive techniques based on the principles of seismic reflection i.e. the emission of a seismic wave into the subsurface, and the reception of the energy reflected by the various interfaces. - A Knudsen Chirp 3260 is expected to be employed. This system operates a chirper system in the 100 to 400 kHz frequency range. However, it is anticipated to be used in the low frequency combination of 3.5 / 12 kHz for the SI works proposed. The equipment will be hull mounted on a Marine Institute (MI) vessel. <p>CPT methodology & equipment:</p> <ul style="list-style-type: none"> - CPT involves pushing an instrumented device into the seabed at a constant speed with continuous measurement of a range of reactions. No significant underwater acoustic signal results from the operation of CPT. - A seabed CPT is expected to be employed. This instrument typically uses a wheel drive system to push the CPT rods (string) into the seabed. Wheel friction is imposed by hydraulic force. A self-tensioning electric winch with heave compensation feeds the umbilical for power supply and data communication. The system is therefore operated by a single direct force being applied to the rods (string) rather than by a hammering, coring or drilling action. The instrument typically weighs in the region of 10-20 tonne and is deployed by lowering it directly onto the seabed from the stern of the vessel using a crane or A frame. <p>Final details of equipment and methodologies will be confirmed following appointment of consultants to undertake the SI.</p>
1.5	<p>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?</p>

	None.
1.6	<p>Provide information on proposed mooring, marking and lighting arrangements for any proposed deployment of instrument arrays.</p> <p>Exact details of survey vessels and equipment will be confirmed upon appointment of suitable consultants. All SI works will comply with navigational safety requirements as established by the Commissioner of Irish Lights (CIL).</p>
1.7	<p>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)).</p> <p>SEAI holds a Foreshore Lease for the AMETS site as follows:</p> <ul style="list-style-type: none"> - Lease granted 25th November 2015 between the Minister for Environment, Community and Local Government and SEAI (FS005726)
1.8	<p>Indicative timing of the investigation works: (i) Start date (ii) Duration (iii) Any other information relevant to timing.</p> <p>SI benthic works are proposed to be undertake in April 2022 subject to suitable weather windows and vessel availability. Geotechnical and geophysical surveys will be undertaken in 2022/2023. Duration is anticipated to be in the order of 1 month, again subject to an appropriate weather window.</p>
1.9	<p>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.</p> <p>Users in the area include fishing, recreational and commercial vessels. SI activities will be undertaken from vessels that will seek to minimise inconvenience to all other users.</p> <p>No interaction with foreshore users is anticipated.</p>

1.10	<p>Describe any consultations undertaken to date with other foreshore users.</p> <p>A meeting was held on the 25th of September 2019 in Belmullet to give an update on the overall project and planned development. Representatives from the following organisations were present:</p> <ul style="list-style-type: none"> • Marine Institute • Mayo Co. Co. • BIM • NPWS • SEAI • SAIPeM • Western Development Commission • Bord na Mona • Udaras na Gaeltachta <p>Further meetings are planned with fishing organisations, via BIM, and with NPWS in coming months.</p>
1.11	<p>Describe any consultations undertaken to date with other consent authorities e.g. planning authority, Commission for Energy Regulation etc.</p> <p>A meeting was held on the 25th of September 2019 in Belmullet to give an update on the project and planned development. Representatives from Mayo Co. Co. were present.</p> <p>Separately a meeting has also been held with ESB Networks on grid connection for the site. (to note planning application for the substation has already been granted and planned route has already been described) – ref of planning app</p>
1.12	<p>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:</p> <p>A meeting was held on the 25th of September 2019 in Belmullet to give an update on the project and planned development. Representatives from the following organisations were present:</p> <ul style="list-style-type: none"> • Marine Institute • Mayo Co. Co. • BIM • NPWS • SEAI • SAIPeM • Western Development Commission

	<ul style="list-style-type: none"> • Bord na Mona • Udaras na Gaeltachta <p>Further meetings are planned with fishing organisations, via BIM, and with NPWS in coming months.</p>
1.13	<p>Describe briefly any support received or under application with the Sustainable Energy Authority of Ireland (SEAI) or other State Agency:</p> <p>The Sustainable Energy Authority of Ireland has been the sole funder of the development of AMETS to date.</p> <p>SEAI's budget is received from the Department of Communication, Climate Action and the Environment (DCCAE) and a percentage of funding for the AFLOWT project is from Interreg North-West Europe.</p>

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

2.1	<p>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:</p> <p><i>(i) the entire area;</i></p> <p><i>(ii) the hectarage involved below the line of high water of medium tides clearly marked in RED and</i></p> <p><i>(iii) the area of foreshore involved in metric measurements (i.e. hectares, metres squared or square kilometres etc).</i></p> <p>Please see 'Appendix A – Lease Map Certified' which demonstrates the above requirements.</p> <p>It is proposed to undertake SI in Test Area A, Test Area B and along the cable route corridor.</p>																								
2.2	<p>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.</p> <p>A Foreshore Licence to sought to undertake SI in both Test Area A, Test Area B and along the cable route corridor; coordinates as outlined below.</p> <p>Test Area A Coordinates</p> <table><tr><th colspan="3">Refer Figure 2-1 in accompanying report, Foreshore Lease FS005726</th></tr><tr><th>Latitude</th><th>Longitude</th><th>Point</th></tr><tr><td>54° 17' 25"</td><td>-10° 18' 16"</td><td>1</td></tr><tr><td>54° 17' 23"</td><td>-10° 16' 31"</td><td>2</td></tr><tr><td>54° 16' 37"</td><td>-10° 16' 13"</td><td>3</td></tr><tr><td>54° 16' 2"</td><td>-10° 15' 31"</td><td>4</td></tr><tr><td>54° 15' 39"</td><td>-10° 15' 30"</td><td>5</td></tr><tr><td>54° 15' 59"</td><td>-10° 18' 15"</td><td>6</td></tr></table>	Refer Figure 2-1 in accompanying report, Foreshore Lease FS005726			Latitude	Longitude	Point	54° 17' 25"	-10° 18' 16"	1	54° 17' 23"	-10° 16' 31"	2	54° 16' 37"	-10° 16' 13"	3	54° 16' 2"	-10° 15' 31"	4	54° 15' 39"	-10° 15' 30"	5	54° 15' 59"	-10° 18' 15"	6
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Test Area B Coordinates

Refer Figure 2-1 in accompanying report, Foreshore Lease FS005726

Latitude	Longitude	Point
54° 13' 58"	-10° 9' 21"	7
54° 13' 58"	-10° 8' 15"	8
54° 13' 17"	-10° 8' 15"	9
54° 13' 17"	-10° 9' 21"	10

Cable Route Corridor Coordinates

Refer Figure 2-1 in accompanying report, Foreshore Lease FS005726

Latitude	Longitude	Point
54°16'9"	-10°15'39"	A
54°15'29"	-10°14'29"	B
54°15'2"	-10°12'58"	C
54°14'30"	-10°11'30"	D
54°13'47"	-10°9'45"	E
54°13'44"	-10°9'21"	F
54°13'39"	-10°8'15"	G
54°13'40"	-10°7'41"	H
54°13'30"	-10°5'31"	I
54°13'9"	-10°4'18"	J
54°12'37"	-10°3'47"	K
54°12'34"	-10°3'47"	L
54°13'4"	-10°4'26"	M

		<table><tr><td>54°13'24"</td><td>-10°4'26"</td><td>N</td></tr><tr><td>54°13'33"</td><td>-10°7'42"</td><td>O</td></tr><tr><td>54°13'33"</td><td>-10°8'15"</td><td>P</td></tr><tr><td>54°13'36"</td><td>-10°9'21"</td><td>Q</td></tr><tr><td>54°13'40"</td><td>-10°10'9"</td><td>R</td></tr><tr><td>54°13'57"</td><td>-10°10'36"</td><td>S</td></tr><tr><td>54°14'41"</td><td>-10°12'19"</td><td>T</td></tr><tr><td>54°15'2"</td><td>-10°13'21"</td><td>U</td></tr><tr><td>54°15'22-</td><td>-10°14'39"</td><td>V</td></tr><tr><td>54°15'53"</td><td>-10°15'31"</td><td>W</td></tr></table>	54°13'24"	-10°4'26"	N	54°13'33"	-10°7'42"	O	54°13'33"	-10°8'15"	P	54°13'36"	-10°9'21"	Q	54°13'40"	-10°10'9"	R	54°13'57"	-10°10'36"	S	54°14'41"	-10°12'19"	T	54°15'2"	-10°13'21"	U	54°15'22-	-10°14'39"	V	54°15'53"	-10°15'31"	W
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2.3	Delineate proposed site on relevant Admiralty Chart. Please see 'Appendix A – Lease Map Certified' which demonstrates the proposed site on relevant Admiralty Chart.																															
2.4	Relevant Local Authority: Mayo County Council																															
2.5	Location name and nearest townland name: The AMETS site is offshore from Belderra Strand. The nearest townlands include An Geata Mór / Binghamstown, Cross (Boyd) and Ballymacsherron.																															
2.6	Distance from nearest other developments, including any offshore renewable energy developments on the foreshore: The application area is approximately: <ul style="list-style-type: none">• 3.5 km to the south of the Mayo County Council Frenchport application per foreshore reference number FS006451 (determined 9th August 2016).• 18.5 km to the south of the Shell E&P Ireland Ltd application per FS005190 (determined 22nd June 2010).																															

	<ul style="list-style-type: none"> • 18.5 km to the south of the Shell E&P Ireland Ltd application per FS005191 (determined 15th January 2010). • 39 km to the north of the America Europe Connect 2 Ltd subsea fibre optic cable, proposed to be located to the south of Achill Island per foreshore reference number FS006889 (in consultation). • 40 km to the north of the Mayo County Council Mulranny Pier application, proposed per foreshore reference number FS006798 (in consultation). <p>The above list is not exhaustive but provides a representative list of nearest foreshore applications in the immediately surrounding area.</p>
2.7	<p>Distance from shore:</p> <p>SI at Test Site A is located approximately 16 km from shore (Belderra Strand).</p> <p>SI at Test Site B is located approximately 6 km from shore (Belderra Strand).</p> <p>SI along the cable route corridor will reach closest to the shore at approximately points J and M (please see 'Appendix A – Lease Map Certified'), which are 1.136km and 1.164km respectively from shore (points K and L /Belderra Strand).</p>
2.8	<p>Distance from nearest aquaculture operation:</p> <p>From Test Area B to Elly Bay site: 9.908 km.</p> <p>Please see 'Appendix B – AMETS Distance Summary' for location of nearest aquaculture infrastructure.</p>
2.9	<p>Distance from any other sensitive location e.g. fish spawning ground, designated Shellfish Growing Waters,</p> <p>Test Site A and Test Site B intersect with Cod, Horse Mackerel, Herring, Mackerel, Megrim, and White Belly Angler Monk fish nurseries and Herring, Horse Mackerel and Megrim spawning areas.</p> <p>Please see 'Appendix B – AMETS Distance Summary' for location of fish nurseries and spawning areas.</p>
2.10	<p>Any other site details considered relevant:</p> <p>There are four shipwrecks within approx. 5 – 30 km of test sites A & B. None will be impacted by the SBP and CPT surveys.</p> <p>Please see 'Appendix B – AMETS Distance Summary' for location of the shipwrecks.</p>

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):

All SAC's within a 15 km radius of the proposed project and SPA's within a 20 km radius of the proposed project site are listed in table 8.1 below.

Table 8.1. SAC's within 15 km and SPA's within 20 km of the AMETS

Site name	Site code
West Connacht Coast SAC	002998
Mullet/Blacksod Bay Complex SAC	000470
Erris Head SAC	001501
Broadhaven Bay SAC	000472
Duvillaun Islands SAC	000495
Iniskea Islands SAC	000507
Mullet Peninsula SPA	004227
Blacksod Bay/Broadhaven SPA	004037
Termoncarragh Lake and Annagh Machair SPA	004093
Duvillaun Islands SPA	004111
Iniskea Islands SPA	004004
Inishglora & Inishkeeragh SPA	004084
Illanmaster SPA	004074
Stags of Broad Haven SPA	004072

Table 8.1 extracted from Appropriate Assessment Screening, attached as Appendix 1 in Report to Accompany Foreshore Licence Application for Site Investigation.

<p>3.2</p>	<p>Name and location of Natura 2000 sites in or around the project area:</p> <p>From Appropriate Assessment:</p> <p>“West Connacht Coast SAC, Duvillaun Islands SAC, Iniskea Islands SAC and Mullet/Blacksod Bay Complex SAC ... are considered to be within the zone of influence of the proposed project”.</p> <p>West Connacht Coast SAC is a large coastal site largely comprised of two dynamic coastal water areas of the west coast of Ireland and a range of associated shallow marine habitats. Test Site B is located within the West Connacht Coast SAC.</p> <p>Duvillaun Islands SAC comprises a group of uninhabited islands, rocks and reefs, situated at the southern tip of the Mullet Peninsula</p> <p>Inishkea Islands SAC. The Inishkea Islands are two low-lying, exposed and wind-swept islands separated by a narrow channel. They lie 5km off the Mullet Peninsula</p> <p>Mullet/Blacksod Bay Complex SAC is large coastal site, which comprises much of the Mullet Peninsula, the sheltered waters of Blacksod Bay and the low-lying sandy coastline from Belmullet to Kinrovar.</p>
<p>3.3</p>	<p>Describe potential impacts of the site investigations on Natura 2000 sites.</p> <p>The Screening assessment states “No impact predicted” on any marine mammal, bird or habitat in a SAC or SPA within the zone of influence of the proposed project.</p> <p>See Table 9.4 from the Appropriate Assessment for the Summary of impact prediction (direct, indirect and cumulative).</p> <p>In addition, Section 11 of the report: <i>Screening Matrix of the Appropriate Assessment</i> highlights:</p> <p>“No component of the proposed project has the potential, alone or in combination with other projects or plans, to give rise to any impact on a Natura 2000 site.”</p> <p>Finally, Section 13 Screening Statement concludes;</p> <p>“The conclusion of this assessment is that the proposed project will have no impact on the features of interests or conservation objectives of any Natura 2000 site/s, Annex I habitats or Annex II species and that further Appropriate Assessment is not required.”</p>

<p>3.4</p>	<p>Describe any measures proposed to mitigate possible impacts on Natura 2000 sites and other key marine receptors.</p> <p>The proposed site investigations will be from Marine Institute owned and operated RV Celtic Explorer (or similar spec).</p> <p>This vessel has been designed to meet the noise requirements of the review and recommendations for underwater noise for research vessels report (ICES. 1995).</p> <p>All operations from Celtic Explorer follow the guidelines to manage the risk to marine mammals from man-made sound sources in Irish waters (NPWS, 2014).</p>
<p>3.5</p>	<p>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:</p> <p>A review of Mayo Co. Co. planning applications on 11th September 2019 did not indicate any additional projects or plans for the area within the vicinity of the proposed SI's that could be considered to lead to cumulative impacts in combination with the proposed SI's.</p> <p>Also please refer to Section 11. Screening Matrix of the Appropriate Assessment:</p> <p>"No component of the proposed project has the potential, alone or in combination with other projects or plans, to give rise to any impact on a Natura 2000 site."</p>

Part 4: Navigational Safety Considerations.

4.1	<p>Distance from shipping lanes at nearest point. Illustrate on the appropriate marine charts accompanying the application.</p> <p>No commercial shipping lanes intersect either test site locations.</p> <p>Nearest Fishing Port: from Test Area A to Belmullet Port is 11.15 km.</p> <p>Nearest Commercial Port: from Test Area A to Westport is 60.05 km</p> <p>Nearest Ferry Route: from Test Area A to Clare Island Ferry is 51.21 km</p> <p>Please see 'Appendix B – AMETS Distance Summary' for location of nearest fishing port, commercial port and ferry route.</p>
4.2	<p>If a safety zone for passage of shipping (including fishing and leisure boats) is sought, supply details and give reasons.</p> <p>n/a</p>
4.3	<p>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.</p> <p>n/a</p>

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): [REDACTED] [REDACTED]

Position Held: Head of Department, Research and Technology, SEAI

Date: 18th February 2022

Return completed applications to:

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

Email a copy of application documents: Foreshore@housing.gov.ie