2022

Valentia Island Energy Ltd

VI Energy

NON-STATUTORY ENVIRONMENTAL REPORT

AQUALICENSE

AQUALICENSE

Disclaimer

This publication was prepared by Aqualicense Limited ("Aqualicense") to meet the particular requirements of Valentia Island Energy Ltd ("the Client") and the terms and conditions set out in the contract between both parties. It is not intended for, and should not be relied upon by, any third party. Aqualicense is not responsible for any loss occasioned, or claimed to be occasioned, in part or in full, as a result of any legal entity's action or inaction based on a matter contained in this publication or inferred from it.

Copyright Notice

This entire publication is subject to the laws of copyright. All rights are reserved by Aqualicense Limited having its registered office at 22 Church View, Arklow, County Wicklow, IRELAND.

This publication may not be reproduced or transmitted in any form or by any means, electronic or manual, including photocopying, to any third party without the prior written permission of Aqualicense Limited.

©Aqualicense Limited 2022.

Rev No	Created By	Reviewed By	Sig Off Date
REV 0.1	[redacted]		13.06.2022
REV 1.0			17.06.2022

(Map © Crown Copyright and/or database rights. Reproduced by permission of The Keeper of Public Records and the UK Hydrographic Office.*www.GOV.uk/UKHO* Licence 36065. pg. 12.

TABLE OF CONTENTS

1. INTRODUCTION 1

2. BRIEF DESCRIPTION OF PROPOSED DEVELOPMENT 1

3. SUMMARY OF WORKS 1

4. ADDITIONAL RELEVANT CONSENTS & GOVERNMENT POLICIES 2

5. PUBLIC PARTICIPATION 3

6. ENVIRONMENTAL ASSESSMENT 4

6.1. CARBON BALANCE ASSESSMENT 4
6.2. MARINE GEOLOGY, SEDIMENTS, AND COASTAL PROCESSES 4
6.3. MARINE WATER QUALITY 5
6.4. SUBTIDAL & INTERTIDAL ECOLOGY 5
6.5. FISH & SHELLFISH ECOLOGY 5
6.6. OFFSHORE ORNITHOLOGY 5
6.7. MARINE MAMMALS, BIRDS & REPTILES 5
6.8. MARINE ARCHAEOLOGY 6
6.9. COMMERCIAL FISHERIES 6
6.10. NAVIGATION & SHIPPING 6
6.11. OTHER MARINE USERS 6
6.12. AVIATION, MILITARY, & COMMUNICATIONS 7
6.13. POLLUTION (NOISE, VISUAL ETC) 7
6.14. EIA SCREENING 7

7. CONCLUSION 8

7.1. IS THIS PROJECT IN THE PUBLIC INTEREST 8
7.2. SUMMARY OF COMMITMENTS 8

APPENDIX 1. **EIAR SCREENING 11**

1. INTRODUCTION 11

1.1. INTRODUCTION 11
1.2. SCOPE OF WORK 11

2. PROPOSED SURVEY ACTIVITY 11

2.1. SURVEY ACTIVITY LOCATION 11
2.2. THE PROPOSED PROJECT 12
2.3. ENVIRONMENTAL REVIEW 13
2.4. APPROPRIATE ASSESSMENT 14
2.5. FORESHORE LICENCE APPLICATION DOCUMENTATION 14

3. REQUIREMENT FOR ENVIRONMENTAL IMPACT ASSESSMENT 14

3.1. EIA LEGISLATION 14
3.2. EIA SCREENING 15
3.3. REQUIREMENT FOR MANDATORY EIA 15
3.4. CRITERIA TO DETERMINE SIGNIFICANCE 15
3.5. CONCLUSIONS 22

FIGURES

FIGURE 1: FORESHORE LICENCE AREA. 12

TABLES

TABLE 1: ENVIRONMENTAL REVIEW 13
TABLE 2: SURVEY TIMEFRAME AND LOCATIONS 16

1. Introduction

The purpose of this document is to provide the Department with an overview of the environmental assessments that will follow on from the granting of the Foreshore License and the survey works to which the licence relates. It has been prepared specifically to help inform the Marine Licence Vetting Committee review / reporting process. It also provides a narrative in relation to the Public Interest and this project. The report should be read in conjunction with the following reports, also included in the wider application pack.

- Other Marine Users Report.
- Schedule of Works Report, Methods Statement and Programme of Works Report.
- Natura Impact Statement, Supporting Information for Screening for Appropriate Assessment and Risk Assessment for Annex IV Species Reports.
- Foreshore Licence Application form.

2. Brief Description of Proposed Development

The overall Valentia Island Energy Ltd Project relates to an offshore floating wind farm located off the southwest coast of County Kerry, Ireland, more specifically the settlements of Portmagee, Caherciveen and Dingle. The project consists of potential development areas inside and outside of 12NM, resulting in a phased development.

Phase 1 – This phase consists of two (2) separate arrays occupying an area of c. 96 km² (Array A) and 138 km² (Array B) respectively. The sites will hold c. 92 turbines, with c. 56 located in Array A, and the remaining c.36 in Array B. The arrays will utilise floating turbine technology and is estimated to generate c. 920 MW.

Phase 2 – This phase of the project is located outside the 12 nm limit in an area occupying c. 161 km². This will also use floating turbine technology using c. 62 turbines, with an estimated power output of 620 MW.

The Foreshore Licence Area reflects the area being applied for under the Foreshore Licence Application. This area measures 47,407.8 ha or c. 474 km² and is the area within which all surveys will be conducted, as shown in the figures in the aforementioned reports.

3. Summary of Works

Geophysical surveys will be conducted to assess the seabed features and subsurface character of the seabed sediment and bedrock within the investigation area.

The geophysical surveys will comprise of the following elements:

- Multibeam Echosounders (MBES)
- Side Scan Sonar (SSS)
- Sub-bottom Profiling (SBP)/Ultra-High resolution seismic (UHRS)
- Marine Magnetometry/Gradiometer.

Geotechnical surveys and sediment sampling will also be conducted to investigate the viability of the proposed site location.

The geotechnical and sediment sampling will comprise of the following elements:

Cone Penetrometer Tests (CPT'S).

- Boreholes.
- Vibrocore/ Gravity Sampler.
- Grab Samples.

Metocean surveys will also be conducted to focus on understanding the average and extreme conditions faced within the investigation area. Metocean surveys will comprise of the following elements:

- Floating LiDAR.
- Acoustic Doppler Current Profiler (ADCP).
- Wave Buoy.

An indicative timeframe of all proposed geophysical and geotechnical survey work and the methodology and equipment detail for each survey type can be found in the 'Method Statement and Programme of Works'.

4. Additional Relevant Consents & Government Policies

This development meets several key requirements related to the offshore production of renewable wind energy and use of Ireland's marine area, particularly the Offshore Renewable Energy Development Plan. Work has commenced on the development of Ireland's second Offshore Renewable Energy Development Plan (OREDPII), the goals of which include quantification and sustainable development of Irelands ORE resource potential, contribution to the reduction in Irelands greenhouse gas emissions, to improve the security of Irelands energy supply and the creation of job opportunity in the green economy. In addition, Irelands Climate Action Plan (Climate Action and Low Carbon Development (Amendment) Bill 2021) specifically includes commitments to support and increase the output goals of ORE in support of decarbonisation and energy security with the objective of reaching 5GW of offshore wind energy by 2030.

Additional policies include the National Marine Planning Framework, and the Maritime Area Planning Bill, which was published in July 2021. The bill underpins Ireland's ambitions for the ORE sector to establish an up-to-date licensing and regulatory regime to provide security to developers and provide a pathway to realising the potential for investment in offshore renewable energy.

As outlined in the National Development Plan 2018 – 2027, regular Renewable Electricity Support Scheme (RESS) auctions will be established to deliver competitive levels of offshore wind. The RESS will a support the delivery of up to 5 GW of additional offshore renewable electricity generation by 2030. The Government's commitment to support the offshore renewable energy sector has, in this case, resulted in Irish developers committing to support realisation of the target to generate up to 80 per cent of Irelands electricity from renewable sources by 2030.

Within all recent legislation and regulation adopted by Ireland in relation to the marine spatial area ORE has been a priority and the realisation of an economy underpinned by renewable, consistent wind resource is a consistent theme.

Europe

On a European and Global scale, Ireland has also signed up to meet targets to produce renewable energy that will reduce our carbon emissions by transitioning from fossil fuels, such as the EU 2030 Climate Target Plan and the Paris Agreement, established by the United Nations Framework Convention on Climate Change. Ireland stands out as being one of the best offshore wind resources in Europe. As such our contribution to European goals is of paramount importance. Installation of 180GW of offshore wind is required to meet the European carbon reduction targets while 450 GW of offshore wind is required for Europe to minimise global temperature rise of 1.5 degrees.

5. Public Participation

Even before the project is up and running, stakeholders are influencing its outcome. They can also be extremely useful advocates, sponsors, and agents of change.

The project will take an informed and proactive approach to managing stakeholder relationships by mapping, analysing and prioritising stakeholders to build solid engagement plans based on insightful information allowing Projects to adjust course as needed to keep social acceptance on track.

Stakeholder engagement and Public Participation are also required under EU and Irish law when applying for a licence in respect of a project that is likely to require an Environmental Impact Assessment Report. The requirement to facilitate the involvement of the public in planning decisions became obligatory under the European Union's Directive 2003/35/EC, more commonly known as the Public Participation Directive (the PPD) which, in turn, stems from the international obligations found in the Aarhus Convention. The Public Participation Directive was transposed into the Foreshore Act, 1933, by the European Communities (Foreshore) Regulations 2009 (S.I. No. 404 of 2009).

Additionally, the consultation requirements of Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment were transposed into Irish law via the European Union (Environmental Impact Assessment) (Foreshore) Regulations 2012 (S.I. No. 433 of 2012).

There are also specific requirements relating to public consultations and consultations with state bodies set out in the Strategic Environmental Assessment Directive (the SEA Directive), the Water Framework Directive, the Integrated Pollution Prevention and Control Directive – all of which must be complied with in Ireland.

Apart from the fact that consultations are a mandatory requirement under European Union and Irish law, it is generally accepted that the stakeholder engagement process not only benefits those who are consulted but also the project developers.

For this project we have employed a Fisheries Liaison Officer, Project Manager and Public Relations Officer. The purpose of this stage of the engagement process is to identify potential stakeholders, make initial contact with them, set out pre-agreed project details, seek feedback, compile a list of

categories of interest and prepare a log of engagement to support the investigatory licence application.

Stakeholder engagement, at this stage, offers opportunities to make meaningful connections with potential and actual stakeholders and to create communicative relationships. ORE is currently in its infancy in the Irish context, so this early engagement is paramount in terms of garnering support from stakeholders that will strengthen the Client's position during the licencing process.

Valentia Island Energy Ltd has commenced and will continue this work for the remainder of the planning and development phases, the output of which is a Stakeholder Engagement Strategy, List of Stakeholders (both statutory and non-statutory), a Qualitive and Quantitate Analysis Report of the stakeholder Engagement and a Log of Engagements with the aim of positive engagement in support of integration of the local industry and community into the project outcomes. It will also inform and communicate practical information in relation to the proposed survey works location and timeframe so as to ensure the least amount of impact on fishers and marine activity.

6. Environmental Assessment

The following section outlines the methodology used for the identification and evaluation of potential likely significant environmental effects and, also presents the methodology for the identification and evaluation of potential cumulative and inter-related impacts. It considers the relevant regulations and guidance required for the impact assessment methodology. The methodology was outlined during a desktop study in preparation for submission of the application for a Foreshore License to carry out survey works. The Valentia Island Energy Ltd project is cognisant of the surrounding marine environment and its inhabitants and as such will limit/mitigate any potential impacts caused as a result of all survey work which will be conducted. Additional details regarding the methodology to be employed for the survey element of the Valentia Island Energy Ltd project are available in '*Appendix 1– EIAR Screening*'.

6.1. Carbon Balance Assessment

The planning application for Valentia Island Energy Ltd will contain a carbon balance assessment. The carbon balance assessment will be informed by the guidance produced by the Institute of Environmental Management and Assessment (IEMA), (2017b), EIA guide to Assessing GHG emissions and evaluating their significance. The carbon balance assessment will be produced to give an indication of Valentia Island Energy Ltd.'s impact on carbon dioxide (CO2) emissions against the total potential carbon savings attributed to the project. The scope of the assessment will be produced in consultation with regulators and relevant consultees. Additional details regarding the carbon balance assessment are available in the associated '*Appendix 1– EIAR Screening*'.

6.2. Marine Geology, Sediments, and Coastal Processes

Data regarding marine geology, sediments, and coastal processes was identified during a desktop study in preparation for submission of the application for a Foreshore License to carry out survey works. The report covered sections regarding the existing environment, baseline and future data sources, data validity, preparation for field survey data and cumulative considerations in addition to the required stakeholder consultation. Consideration was also given to the Design Parameters

relevant to the physical environment for Valentia Island Energy Ltd. Additional details regarding marine geology, sediments, and coastal processes are available in the *'Appendix 1– EIAR Screening'*.

6.3. Marine Water Quality

Baseline data for marine water quality will be obtained from sources such as the Environmental Protection Agency (EPA), Marine Institute, National Parks and Wildlife Services (NPWS), and Bord Iascaigh Mhara (BIM) and will be bolstered by collection of field data during the survey works. Full characterisation of Irish waters to one nautical mile (nm) has been undertaken as required by the Water Framework Directive (WFD) (2000/60/EC) and the Marine Strategy Framework Directive (MSFD) (2008/56/EC). Bathing Locations were also identified during the desktop study. Further details regarding the bathing locations identified are available in the associated '*Other Marine Users Report*'.

6.4. Subtidal & Intertidal Ecology

Benthic baseline data for Valentia Island Energy Ltd was established during a desk study in preparation for submission of the application for a Foreshore License to carry out survey works. In addition to the survey data, a number of literature sources were used to develop the baseline. Surveys will be undertaken in accordance with 'Handbook for Marine Intertidal Phase 1 Biotope Mapping Survey'. (Wyn, 2006) and Guidance on Marine Baseline Ecological Assessments & Monitoring Activities for Offshore Renewable Energy Projects (DCCAE 2018). Additional details regarding subtidal and intertidal ecology are available in the associated '*SISAA*', '*NIS*' and '*Risk Assessment for Annex IV Species*' Reports.

6.5. Fish & Shellfish Ecology

Data sources over a ten-year period (2008-2018) were used to establish baseline conditions for fish and shellfish. The data was assessed during a desk study in preparation for submission of the application for a Foreshore License to carry out survey works. Additional details regarding fish and shellfish ecology are available in the associated '*SISAA and NIS Reports*'.

6.6. Offshore Ornithology

Detailed information on offshore and migratory ornithological receptors of relevance to Valentia Island Energy Ltd was assessed during a desk study in preparation for submission of the application for a Foreshore License to carry out survey works. Ornithology information relevant to impacts upon ornithological receptors seaward of the Mean Low-Water Spring (MLWS) in addition to migratory geese and swan species intertidal species in the vicinity of proposed coastal landfall locations was identified. Additional details regarding offshore ornithology are available in the associated '*SISAA and NIS Reports'*.

6.7. Marine Mammals, Birds & Reptiles

Baseline data regarding marine mammals, bird, and reptiles within and surrounding the investigation area was identified during a desk study in preparation for submission of the application for a Foreshore License to carry out survey works. Marine mammals, birds, and reptile surveys will then be carried out to assess the trends and distributions of such species within and surrounding the investigation area, in conjunction with a marine mammal (and bird) observer. Additional details regarding species

of conservation concern are available in the '*SISAA, NIS and Risk Assessment for Annex IV Species Reports*'.

6.8. Marine Archaeology

Archaeological features were identified in a desktop study and acknowledged in the design of surveys to be conducted by Valentia Island Energy Ltd. These features were identified in preparation for submission of the application for a Foreshore License to carry out survey works. All marine archaeology survey work that is conducted within the investigation area will pursue a best practice approach as outlined in The United Nations Educational Scientific and Cultural Organisation (UNESCO) Convention on the Protection of Underwater Cultural Heritage, and any additional marine guidance deemed relevant to Valentia Island Energy Ltd.

In addition, shipwrecks were identified during a desktop study in preparation for submission of the application for a Foreshore License to carry out survey works. More details are available in the associated '*Other Marine Users Report*'.

6.9. Commercial Fisheries

Data regarding inshore and offshore fisheries activities, species spawning and nursery grounds and details regarding aquaculture sites was identified during a desktop study in preparation for submission of the application for a Foreshore License to carry out survey works. Commercial fisheries were identified using data available from the Irish Marine Atlas (2020). In order to provide a robust fisheries baseline, data will be collected from a combination of publicly available sources as well as consultation with fishermen.

6.10. Navigation & Shipping

Marine vessel density and shipping navigation routes were obtained during a desktop study. (EMOD.net, EU Vessel density map Detailed method). (The European Marine Observation and Data Network, 2019). This data was obtained in preparation for submission of the application for a Foreshore License to carry out survey works. The Screening report seeks to outline and confirm the navigational impacts and receptors of relevance to the proposed Valentia Island Energy Ltd project located in Irish Territorial Waters. The output of the Screening process will feed into the Navigation Risk Assessment (NRA) as part of the Environmental Impact Assessment Report (EIAR) should it be required for the survey element of the project.

6.11. Other Marine Users

Data regarding inshore and offshore marine user activity was identified during a desktop study in preparation for submission of the application for a Foreshore License to carry out survey works. The scope of assessment in relation to other marine users for the survey element of Valentia Island Energy Ltd was established in a Screening report. The report covered sections regarding the existing environment, baseline and future data sources, data validity, and the required stakeholder consultation. Consideration was also given to the Design Parameters relevant to Other Marine Users for Valentia Island Energy Ltd.

6.12. Aviation, Military, & Communications

The site selected for the Valentia Island Energy Ltd project underwent a rigorous site selection process. Key to this process was avoidance of aviation, military and/or communications infrastructure or operations that might be hindered by the development of the project. It is noted that any airports or subsea cables in proximity to the site will be either avoided or accommodated by the proposed survey works.

6.13. Pollution (Noise, Visual etc)

Valentia Island Energy Ltd is cognisant of the surrounding marine environment and its inhabitants and as such will limit/mitigate any potential pollution impacts as a result of all survey work which will be conducted. The proposed site investigation will result in a temporary increase in vessels using the area. This will increase the risk of accidents and resultant fuel spills. Given the nature and size of the vessels it is unlikely that any spillage would be significant. However, in the event of an accidental spillage i.e., pollution event the survey contractor's emergency response procedures would be adopted to contain and remediate. In summary, the following factors are carefully evaluated and considered as potential environmental impacts:

- Physical disturbance to marine benthic habitats and communities
- Disturbance from vibration and underwater noise associated with surveys
- Injury due to collision (survey vessels/sampling equipment)
- Pollution event
- Visual and noise disturbance

6.14. EIA Screening

An Environmental Impact Assessment (EIA) Screening report was conducted as part of the application to outline the main potential impacts which may result in significant environmental effects due the survey works within 12 NM for the Valentia Island Energy Ltd. The Valentia Island Energy Ltd also outlines how they propose to assess such impacts should a Foreshore Licence be granted. It must be noted that Valentia Island Energy Ltd is cognisant of the surrounding marine environment and its inhabitants and as such will limit/mitigate any potential impacts caused as a result of all survey work and investigations which will be conducted. The screening concluded that the survey works to be carried out by Valentia Island Energy Ltd would not have significant, adverse effects on the surrounding environment. Additional details regarding Valentia Island Energy Ltd.'s approach to Screening is available '*Appendix 1– EIAR Screening*'.

7. Conclusion

7.1. Is this Project in the Public Interest

Section 2 and 3 of the 1933 Foreshore Act, as amended, states that a lease or licence of state foreshore may be granted "If, in the opinion of the Minister, it is in the public interest". As foreshore is a finite and valuable national resource and public amenity, it is important that each plan and project is fully assessed to ensure, that if consented to, it is a sustainable and proper use of that finite and valuable resource. In assisting the Minister to establish if a particular plan or project is in the public interest, Valentia Island Energy Ltd ("the Applicant") considered and assessed the following:

1. **Does the project fall under any Government policy or programme?** *Yes, Valentia Island Energy Ltd.'s Offshore Renewable Energy (ORE) project reflects Ireland's increased climate and energy ambition, the Programme for Government includes the objective that 5GW of offshore wind energy generation will be installed by 2030. This application is necessary to assess the potential to develop offshore wind energy generation in the Valentia Island Energy Ltd investigation area.*

2. **Does the project fall under any EU Directive or programme?** *Yes, Valentia Island Energy Ltd's ORE project falls under the EU Offshore Renewable Energy Strategy and the EU 2030 Climate Target Plan.*

3. **Is there a public use element to the project?** *The project will produce energy that will be provided to the national grid in Ireland and therefore the population of Ireland as a whole (especially those proximate to the site) will benefit from clean sustainable energy.*

4. **Does the project impact on existing public access/use and amenity of the foreshore?** *No, Valentia Island Energy Ltd.'s ORE project will have no significant short- or long-term impact on public access/use and amenity of the foreshore as the arrays are sufficient distance from the shore and cable landing sites will be carefully considered to minimise impact.*

5. **Does the project impact on any potential future use of foreshore?** *No, Valentia Island Energy Ltd is not aware of any planned public infrastructure project for this area of foreshore.*

6. **Does the plan or project contribute to the sustainable economic development of the local area or wider economy?** *Yes, the site investigation, although a short-term duration will contribute to the local area and wider economy through products and services and opportunity employment that will be procured or resources as proximate to the site as possible.*

Having considered and assessed the relevant issues above, while taking note that the state-owned foreshore is finite resource which must be utilised sustainably, Valentia Island Energy Ltd is satisfied that the proposed survey project is in the Public Interest.

7.2. Summary of Commitments

In consideration of the above and the associated reports, this project would be satisfied to commit to the following (typically required by the MLVC) and any other specific measures raised in the review process:

- The works shall be conducted in accordance with documents and drawings submitted by Valentia Island Energy Ltd to perform the necessary survey works.
- Valentia Island Energy Ltd shall notify the Department of Housing, Local Government and Heritage at least two weeks prior to any survey works commencing.
- Valentia Island Energy Ltd shall submit, to the Department, the "as deployed location" for all monitoring devices for survey works.
- Valentia Island Energy Ltd shall adhere to "Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters" including the employment of a Marine Mammal Observer as appropriate during survey works.
- Valentia Island Energy Ltd shall appoint a Fisheries Liaison Officer who shall consult with the SFPA, relevant fishermen's groups and charter boat skippers in order that appropriate actions can be taken to avoid or minimize any interactions with ongoing fishing/angling activities in the area during the course of the investigations.
- At the end of each phase and/or calendar year, Valentia Island Energy Ltd shall inform the Department of the survey work completed to date and the survey works planned for the coming phase/year.
- On completion of the survey works Valentia Island Energy Ltd shall ensure that all equipment and materials are removed, and the foreshore is reinstated to its natural condition to the satisfaction of the Department of Housing, Local Government and Heritage.
- Valentia Island Energy Ltd shall ensure that all vessels/floating plant have appropriate certification from the Marine Survey Office.
- Valentia Island Energy Ltd shall, through consultation and agreement with the Department of Transport, Marine Survey Office, and Commissioners of Irish Lights, arrange for the publication of a Marine Notice through the Maritime Safety Policy Division. Navtext and radio broadcast warnings frequency to be agreed in advance with the Irish Coast Guard.
- Marking and lighting of moored instruments shall be carried out in consultation with the Marine Survey Office and Commissioners of Irish Lights. Lighting and marking shall be compliant with International Association of Aids to Navigation (IALA) requirements. Information regarding the position of any markings which create a hazard to navigation shall be promulgated to the mariner via publication of a marine notice.
- Valentia Island Energy Ltd shall ensure all appropriate measures are taken for the duration of survey activity to ensure the safety of navigation is maintained. Any hazard to safe navigation shall be easily identifiable to all mariners operating within or in the vicinity of the license area.
- In order to ensure the preservation of potential archaeological sites, wrecks and features the applicant is required to engage the services of a suitability qualified underwater archaeologist to monitor all disturbance survey works associated with the Site Investigation. The archaeological monitoring shall be licensed under the National Monuments Acts 1930-2004.

- A detailed method statement shall accompany the licence application for archaeological monitoring and shall include details on the proposed survey works, duration of works, archaeological monitoring team proposed and a find's retrieval strategy.
- Should archaeological material be found during the course of the survey works, the archaeologist shall have the survey work in that area suspended, pending a decision as to how best to resolve the archaeology. The applicant shall be prepared to be advised by the Underwater Archaeology Unit (UAU) within the Department of Housing Local Government and Heritage with regard to any necessary action (e.g., avoidance, preservation in situ or excavation). The Application shall facilitate the archaeologist in recording any material found.
- Valentia Island Energy Ltd shall ensure that appropriate methods of operation are adopted in order to ensure that no spillages of fuel, hydrocarbons, cement, or other hazardous substance occur to the foreshore or surface waters during the survey works. In the unlikely event of a spill occurring all relevant statutory bodies, including BIM, shall be notified as soon as possible.
- Valentia Island Energy Ltd shall ensure that contractors, and their subcontractors, will be made aware of all conditions and project specific requirements and will be required to have briefings on these to ensure all parties are aware of these requirements.

Appendix 1. EIAR Screening

1. Introduction

1.1. Introduction

Valentia Island Energy Ltd is an offshore windfarm project, located off the southwest coast of Ireland, more specifically Valentia Island in county Kerry. This offshore renewable energy site will take a phased approach to development which includes the use of floating turbine technology.

This project is currently in the planning stages and is, therefore, subject to change. The application for a Foreshore Investigatory Licence is not an application for development. If granted, this licence will allow the project team to further refine the site choice and to carry out surveys considered necessary to accurately assess the viability of the project across a spectrum of technical, environmental, social, and economic factors.

1.2. Scope of Work

It is proposed to conduct survey activities within the jurisdictional 12 NM limit should a Foreshore License be granted to the Applicant. The purpose of this screening report is to identify in accordance with Section 4(4) of the Planning and Development Act, 2000 (as amended) whether there is any legal requirement or otherwise for an Environmental Impact Assessment (EIA) to be undertaken in relation to proposed survey activities.

The report should be read in conjunction with the following reports, also included in the wider application pack:

- Other Marine Users Report.
- Schedule of Works Report, Methods Statement and Programme of Works.
- Natura Impact Statement, Supporting Information for Screening for Appropriate Assessment and Risk Assessment for Annex IV Species Reports.
- Foreshore License application forms.

2. Proposed Survey Activity

2.1. Survey Activity Location

The proposed survey activities are located generally off the coast of Caherciveen, Portmagee and Dingle, all located of the west coast of county Kerry. The Investigation Area reflects the area being applied for under the Foreshore Licence Application. This area measures c. 474 km², or 47,407.80 ha and is the area within which all surveys will be conducted, as shown in the figures in the aforementioned reports. The investigation area in which survey works are proposed to be conducted are visualised in *Figure 1*.

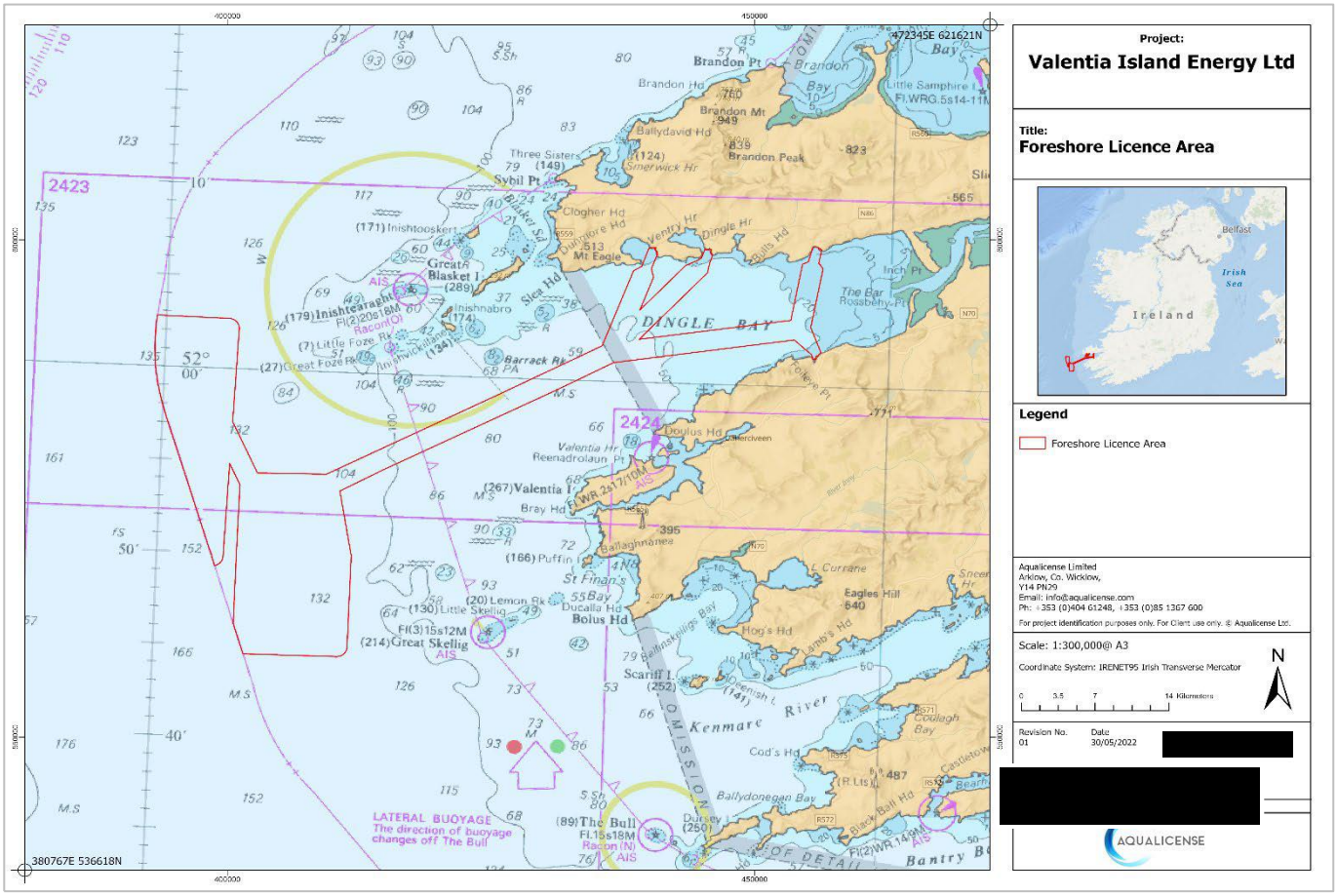

Figure 1: Foreshore Licence Area.

2.2. The Proposed Project

This screening report has been prepared to assess the potential effects of the proposed survey activities. The works are within the site boundary which is outlined in red above and will be carried out under conditions outlined in the Foreshore Licence, should it be granted. It is noted that the application for a Foreshore Investigatory Licence is not an application for development of the windfarm – which is dealt with under the separate foreshore lease - but for the survey works only.

2.2.1. Future Expansion Plans

A further development site situated adjacent to Phase 1 and is proposed but cannot currently be included in this screening report due to the fact that the proposed area lies outside the current jurisdictional limit of 12 nautical miles (NM) of the Department. Survey activities will also be conducted during phase two (2) of the project and as such will be assessed separately.

2.2.2. Site Pollution

Valentia Island Energy Ltd is cognisant of the surrounding marine environment and its inhabitants and as such will mitigate any potential pollution/emission impacts as a result of all survey work which will be conducted. The proposed site investigation will result in a temporary increase in vessels using the area. This will increase the risk of accidents and resultant fuel spills. Given the nature and size of the vessels it is unlikely that any spillage would be significant.

However, in the event of an accidental spillage i.e., pollution event, the survey contractor's emergency response procedures would be adopted to contain and remediate. In summary, the following factors are carefully evaluated and considered as potential environmental impacts:

- Physical disturbance to marine benthic habitats and communities
- Disturbance from vibration and underwater noise associated with surveys
- Injury due to collision (survey vessels/sampling equipment)
- Pollution event
- Visual and noise disturbance

2.3. Environmental Review

An environmental review was undertaken with regard to the proposed survey activities and the outcome of this review is summarised in Table 1 below.

Table 1: Environmental Review

Key Constraints	Description/Details
Ecology Designated ecological sites	The closest designated Natura 2000 (European) sites were identified in a desk-top study, for additional information regarding identified sites, refer to the 'Supporting Information for Screening for Appropriate Assessment' report. Due to the separation distance between the designated areas and the location of survey activities it can be concluded that the project whether individually or in combination with other plans and projects, will have no significant impacts upon Natura 2000 sites. However, as adverse effects on Annex II qualifying interests cannot be ruled out from all impacts of the proposed surveys, (i.e., disturbance from vibration and underwater noise associated) Stage 2 appropriate assessment is, therefore, required to determine if adverse effects on site integrity can be excluded in view of the conservation objectives of the Blasket Islands SAC (IE002172) and Kenmare River SAC (IE 002158).
Seascape & Landscape Assessment	The survey activities and vessels used during the project will not impact scenic vistas within the vicinity of the Investigation Area.
Shipwrecks & Archaeology Assets	Shipwrecks within the Investigatory Licence Application Area and within the vicinity were identified. Data from INFOMAR and the National Monuments Service (INFOMAR, Geological Survey of Ireland, 2020) (The joint Marine Institute and GSI seabed survey programme) were used to identify shipwrecks relevant to survey works. Survey works will be planned while accounting for these shipwrecks and will ensure that none are damaged or disturbed during the process. Any RMP's, Architectural Conservation Areas, Record of Protected Structures or heritage assets located within the boundary or wider vicinity of the Investigation Area will not be impacted as a result of survey works.
Marine Geology	The marine geology of the survey location has been assessed in a desk-top study to establish data for the marine geology of the site. This data will be utilised to ensure that there will be no significant effect on marine geology (suspended sediment, habitat disruption etc.) during the duration of survey works,
Water Quality	The waterbodies surrounding the site have been assigned an ecological status with regard to the WFD programme for 2013-2018. The status of each identified water body will not be impacted upon as a result of survey works.

Air Quality and Climate	The survey site is located in a coastal region of Ireland. The air quality within and surrounding the Investigation Area will not be impacted as a result of survey activities.
Population & Human Health	There are no densely populated areas associated with the survey works and as such there will be no negative impact to population or human health. Precautions will be taken to ensure that any developments or commercial activities/ regions within the vicinity of the Investigation Area are not impacted upon.

2.4. Appropriate Assessment

This Natura Impact Statement has examined and analysed, considering the best scientific knowledge, with respect to the above European sites, the potential impacts of the proposed survey, and whether the predicted impacts would adversely affect the integrity of these European site. Mitigation measures set out in the reports ensure that any significant impacts on the conservation objectives of the European sites will be avoided during the proposed project such that there will be no risk of adverse effects. Therefore, in view of best scientific knowledge, the nature of the predicted impacts from the proposed survey are considered not likely to result in significant effects (alone or in-combination) on the Conservation Objectives of any Natura 2000 site deemed within the Zone of Influence.

The full Natura Impact Statement (NIS) and Supporting Information for Screening for Appropriate Assessment (SISAA) are provided with this submission.

2.5. Foreshore Licence Application Documentation

The Foreshore Licence Application reference number for the project is FS007365. This licence, if granted, will allow Valentia Island Energy to carry out necessary site investigation surveys which will enable the project to confirm the most suitable site and design for offshore wind energy production predominantly off the coast of Caherciveen, Portmagee and Dingle, all located of the west coast of county Kerry.

The applicant recognises that an application for a Foreshore Investigatory Licence is not an application for development. If granted, the licence will allow the project team to further refine the site choices and to carry out surveys considered necessary to properly assess the viability of the project across a spectrum of geophysical, technical, environmental, social, and economic factors.

3. Requirement for Environmental Impact Assessment

3.1. EIA Legislation

- Environmental Impact Assessment (EIA) is the process for anticipating the effects on the environment caused by a proposed development or project at a particular site. Where effects are unacceptable, design or other measures can be taken to avoid or reduce these effects to acceptable levels.
- The initial EIA Directive has been in place since 1985 (85/337/EEC). This Directive along with three amendments was amalgamated into Directive 2011/92/EU in December 2011. Proposed changes to the Directive were adopted by the Council of the European Union in May 2014 (Directive 2014/52/EU), with a 3-year period to transpose the changes. These changes formed the first revision of Directive 2011/92/EU.

- The EU (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018) transposed the requirements of Directive 2014/52/EU into planning law in Ireland and came into effect from the 1st of September 2018.

3.2. EIA Screening

Screening is the first stage of the EIA process, whereby a decision is made on whether or not a mandatory EIA is required.

EIA Screening for the project was undertaken with consideration of the following legislation and guidance:

- Planning and Development Act, 2000 as amended.
- Planning and Development Regulations, 2001 as amended.
- Guidance on EIA Screening, European Commission, 2001.
- Environmental Protection Agency (EPA), Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, Draft, 2017); and
- EPA Advice Notes for Preparing Environmental Impact Statements (EPA, Draft, 2015).

3.3. Requirement for Mandatory EIA

- A mandatory EIA is required for projects that comes within the classes of development specified by Annex I or Annex II of the EIA Directive, as incorporated into Irish legislation in Schedule 5 of the Planning and Development Regulations, 2001 (as amended). As such, the survey element of the project was considered in terms of mandatory EIA requirements.
- An EIA is required under Part 2 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended) under Item 3(i)
- *'Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts.'*

However, this application focuses only on the survey activities of the Valentia Island Energy Ltd project, which under the Planning and Development Regulations, 2001 (as amended) have not been assigned a category in terms of mandatory EIA requirements.

3.4. Criteria to Determine Significance

Annex 3 of the EIA Directive is transposed in Schedule 7 of the Planning and Development Regulations, 2001 and identifies screening criteria for assessing whether a project would or would not be likely to have significant effects on the environment. For the purpose of this screening assessment, a schedule of all survey activities has been produced in to support the EIA screening recommendation, see *Table 2*.

The criteria in Schedule 7 are grouped under three headings:

- Characteristics of the Proposed Project.
- Location of Proposed Project.

- Types and Characteristics of Potential Impacts.
- The purpose of this exercise was to assist in determining if the proposed Project would be likely to have significant effects on the environment.

Table 2: Survey Timeframe and Locations

	Survey	Purpose	Samples / Area	Timing
Geophysical	**Multibeam Echosounder (MBES)**	Water depth and seabed topography.	**Array sites** Over entirety of array area within 12 nautical mile limit. **Cable routes** Along each route with a 500m track size.	4-6 months per survey with additional time for interpretation and analysis. Note: many survey types can be run concurrently.
	Side Scan Sonar (SSS)	Map seabed features and / or obstructions.		
	Magnetometer	Map any metallic obstacles or hazards, including UXO.		
	Sub-Bottom Profiling (SBP)	Identify character of the shallow geology.		
Geotechnical	**Boreholes**	Deep subsurface sampling – required at the centre of each floating mooring system.	**Array sites** 1 borehole (or CPT) per turbine (at centre of mooring arrangement) = 92 samples **Cable routes** None	4-6 months per campaign, with additional time for lab analysis.
	Cone Penetrometer Tests (CPTs)	Strength profiles of seabed substrate.	**Array sites** 1 borehole (or CPT) per turbine (at centre of mooring arrangement) = 92 samples **Cable routes** Every 1km along route up to MHWS	
	Vibrocore / Gravity Sampler	Subsurface sampling typically to 6 - 12m depth.	**Array sites** None **Cable routes** Every 1km along route up to MHWS	

	Survey	Purpose	Samples / Area	Timing
	Grab Samples	Description of uppermost seabed, ground truthing of geophysical interpretation.	To be determined following geophysical surveys and dependent on the quality of the shallow substrate sample collection from other survey types.	1 month additional to overall schedule if grab samples are required.
Environmental	**Benthic Survey – Grab Samples, Possible Video Deployment**	Habitat characterisation.	**Array sites** 39 samples **Cable routes** Approx. 1 every 2 km along each cable route.	2 -3 weeks depending on site layout / cable length.
	Echolocation Click Detectors (POD's)	Marine mammal surveying.	**Array sites** 4 PODs An additional 4 PODs are located outside of the array site	Up to 12 months pre-construction and/or baseline
Metocean	**Floating Lidar**	Wind speed characteristics (plus range of metocean measurements).	**Array site** 2 floating Lidars	12 – 36 months total deployment.
	Wave Buoys	Wave height and spread.	**Array site** 4 wave buoys	
	Acoustic Doppler Current Profilers (ADCP's)	Subsurface wave and current measurements.	**Array site** 2 ADCPs	

3.4.1. Additional Project Characteristics

Sub criteria associated with each of the above criteria have been taken into account and have been considered in the context of the proposed Project in the sections below. The purpose of this exercise was to assist in determining if the proposed Project would be likely to have significant effects on the environment.

The sub criteria noted the in the tables below are as reflected in S.I. 296 of 2018 European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, Article 97.

PROJECT CHARACTERISTIC	DESCRIPTION
Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of Section 172(1A) (b) of the Act and/or development the subject of any development consents for the purposes of the Environmental Impact Assessment Directive by or under any other enactment	Constraints within the vicinity of future survey activities have been assessed to identify potential cumulative impacts on the marine environment. For details of all proposed developments and marine infrastructure identified, see *'Other Marine Users'* report.
Nature of any associated demolition work	There will be no demolition works associated with the proposed survey activities.
Use of natural resources, in particular land, soil, water and biodiversity	The use of natural resources is not required during the survey phase of the proposed project. The survey activities with regard to biodiversity, soil, and water is not expected to have significant impacts. SACs and SPAs within the vicinity have also been identified, see *'SISAA'* Report. It was concluded that there would be no significant effects on these sites as a result of survey activities. However, as adverse effects on Annex II qualifying interests cannot be ruled out from all impacts of the proposed surveys, (i.e., disturbance from vibration and underwater noise associated) Stage 2 Natura Impact Statement is, therefore, required to determine if adverse effects on site integrity can be excluded in view of the conservation objectives of the Blasket Islands SAC (IE002172) and Kenmare River SAC (IE 002158).
Pollution and nuisances	There are emissions associated with the project. However, it was considered that these would not result in significant effects. Noise and Air emissions will be considered under the Foreshore Licence, where an approach will be adopted to confirm that emissions are managed & mitigated as per best practice for the industry. With regard to the Habitats Directive, a Stage 1 AA Screening Report has been undertaken. The report concluded that the project whether individually or in combination with other plans or projects, will have no impacts upon the Natura 2000 (European) sites. The integrity of these sites will be maintained, and the habitats and species associated with these sites will not be adversely affected
The risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge	The risk of any accidents during the survey phase would be managed in accordance with relevant health and safety legislation, adherence to mitigation measures and best practice construction management. On this basis, it was considered that the proposed project does not pose a significant risk of accident or disaster including those caused by climate change.

The risks to human health (for example due to water contamination or air pollution)	The risk to human health during the survey phase would be managed in accordance with relevant health and safety legislation, adherence to mitigation measures and best practice survey management. The survey activities will be conducted in line with the relevant legislative requirements.

LOCATION CONSIDERATIONS	DESCRIPTION
Relative abundance, availability, quality, and regenerative capacity of natural resources (including soil, water, and biodiversity) in the area.	The survey works were considered to have limited impact on the abundance, availability, quality, and regenerative capacity of natural resources in the surrounding environment. Survey works will require minimal excavation & impact to local seabed sediment. The SISAA report concluded that the project whether individually or in combination with other plans or projects, may have impacts upon two Natura 2000 (European) sites; Blasket Islands SAC (IE002172) and Kenmare River SAC (IE 002158). A Natura Impact Statement (NIS) was carried out for both sites. This NIS has examined and analysed, considering the best scientific knowledge, with respect to the above European sites, the potential impacts of the proposed survey, and whether the predicted impacts would adversely affect the integrity of these European site. Mitigation measures set out in NIS document *(see section 5.2.1 and 5.2.2)* ensure that any impacts on the conservation objectives of the European sites will be avoided during the proposed project such that there will be no risk of adverse effects. Therefore, in view of best scientific knowledge, the nature of the predicted impacts from the proposed survey *(see NIS Section 4)* are considered not likely to result in significant effects (alone or in-combination) on the Conservation Objectives of any Natura 2000 site deemed within the Zone of Influence. The integrity of these sites will be maintained, and the habitats and species associated with these sites will not be adversely affected. Water quality assessments will be conducted prior to and upon completion of survey activities to ensure the integrity of the water quality is not affected within the Investigation Area.
Wetlands, riparian areas, and river mouths	There are no wetlands or disturbance to riparian habitats or river mouths associated with the project. Any such habitats identified will remain undisturbed.
Coastal zones and the marine environment	The survey works will be conducted in the Irish Foreshore (marine environment). There will be limited survey works close to the foreshore at the proposed cable landing locations. This will be managed as outlined in table 3.

LOCATION CONSIDERATIONS	DESCRIPTION
Mountain and forest areas	There are no mountain or forest areas associated with the project.
Nature reserves and parks.	There are no nature reserves or parks associated with the project.
Areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive	The proposed Project is located within two (2) Natura 2000 site. Dingle Peninsula SPA Iveragh Peninsula SPA A Stage 1 AA Screening Report has been undertaken. No survey activities will take place within the intertidal and shallow wetland habitats of these SPAs. Also, as the effect of the surveys will be very localised, temporary in nature and will have an imperceptible effect within the vicinity of each survey location. It has been determined there would be no likely significant effect on Dingle Peninsula SPA (IE 004153) or Iveragh Peninsula SPA (IE 004154) and, as such, no further consideration of effects is undertaken for this site Please see *'Supporting Information for Screening for Appropriate Assessment'*, *'Natura Impact Statement'* and '*Risk Assessment for Annex IV Species*' reports for further detail
Areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure	There are no known failures to meet environmental quality standards recorded for the site Investigation Area or in the immediate vicinity. Adherence to mitigation measures and best practice survey management will reduce the potential for impact to the surrounding environment during the survey works. Noise and Air emissions are considered not significant and will be managed under the conditions outlined in the Foreshore Licence, if granted, where Best Available Technology (BAT) will be adopted to confirm that emissions are managed & mitigated in lines with best practice for the industry. With regard to the Habitats Directive, a Stage 1 AA Screening Report has been undertaken. The report concluded that the proposed Project whether individually or in combination with other plans or projects, will have no impacts upon the Natura 2000 (European) sites. The integrity of these sites will be maintained, and the habitats and species associated with these sites will not be adversely affected On this basis, it is considered that the proposed Project would not contribute to the failure of any environmental quality standards.
Densely populated areas	There are no densely populated areas associated with the survey works.
Shipwrecks & Archaeological Assets	Shipwrecks within the Investigatory Licence Application Area and within the vicinity were identified. Data from INFOMAR and the National Monuments Service (INFOMAR, Geological Survey of Ireland, 2020) (The joint Marine Institute and GSI

LOCATION CONSIDERATIONS	DESCRIPTION
	seabed survey programme) were used to identify shipwrecks relevant to survey works. Survey works will be planned while accounting for these shipwrecks and will ensure that none are damaged or disturbed during the process. For any archaeological assets located in the vicinity of the Investigation Area, there will be no impacts or disturbances to such sites during survey works. The survey activities and vessels used during the project will not impact scenic vistas within the vicinity of the Investigation Area.

CONSIDERATION OF THE TYPES AND CHARACTERISTICS OF POTENTIAL IMPACTS
• Magnitude and spatial extent of the impact (for example geographical area and size of the affected population). • The nature of the impact. • Transboundary nature of the impact. • The intensity and complexity of the impact. • The probability of the impact. • The expected onset, duration, frequency, and reversibility of the impact. • The cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of Section 172. • Cumulation with other existing development and/or development the subject of a consent for proposed project for the purposes of Section 172(1A) (b) of the Act and/or development the subject of any development consents for the purposes of the Environmental Impact Assessment Directive by or under any other enactment. • The possibility of effectively reducing the impact.

The proposed site area for the project is c. 47,407 hectares and there are no transboundary impacts expected to be associated with the project. There may be some short-term negative impacts associated with certain survey elements of the project, however, it is considered that with the implementation of mitigation measures and survey best practise, these are effectively reduced and are considered not significant.

Impacts associated with the survey phase of the project are not considered significant, within minimum changes to the receiving environment in terms of land use, heritage designations (cultural and natural), soils and geology, noise, population and human health, landscape, visual and amenity.

All survey works will be considered under the conditions outlined in the Foreshore License, if granted, where the best available technology will be adopted to confirm emissions are managed & mitigated in line with best practice for the industry.

3.5. CONCLUSIONS

An Environmental Impact Assessment Report is required for projects that comes within the classes of development specified by Annex I or Annex II of the EIA Directive, as incorporated into Irish legislation in Schedule 5 of the Planning and Development Regulations, 2001 (as amended). The proposed project was considered in terms of mandatory EIA requirements.

A variety of environmental factors have been assessed throughout this report and as discussed it is evident that an EIAR for survey works is not required. Each individual factor that was considered concluded that an EIAR would not be necessary as there would not be an adverse impact on the surrounding marine environment, hence there is no requirement for an EIAR for the survey elements of the project. In addition, all cumulative impacts that may impact the environment in combination with survey works have been identified in a desk-top study and mitigation measures have been put in place to ensure that the environment is not adversely affected.

The identification and subsequent assessment of potentially significant effects were based upon an understanding of the environmental conditions likely to be encountered within the Investigation Area and Cable Routes. This understanding was developed utilising the information gathered and presented

within *'Other Marine Users'* (OMU), '*Schedule of Works'* (SoW), '*Method Statements and Programme of Works'* (PoW) '*Supporting Information for Screening for Appropriate Assessment'* (SISAA), '*Natura Impact Statement'* (NIS) and '*Risk Assessment for Annex IV Species'* and will be supplemented by new surveys where required.

The assessment concluded that the survey works do not have the potential to have significant effects on the environment and, therefore, an EIAR is not required.