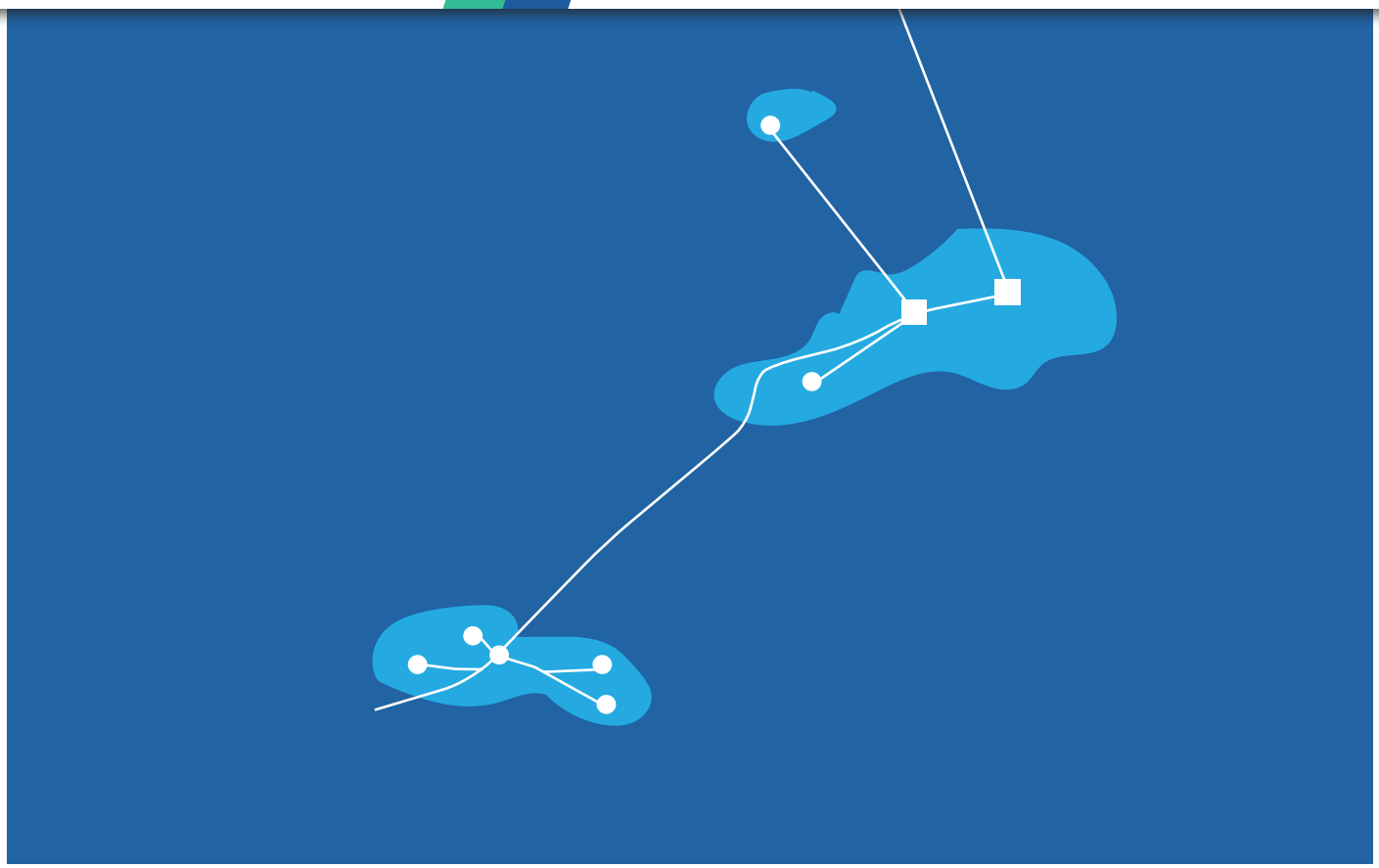
KINSALE ENERGY

Kinsale Area Decommissioning Project

Response to Request for Further Information



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Hartley Anderson
FOR ENVIRONMENTAL MANAGEMENT & SCIENCE

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Section 1

Introduction

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1 Introduction

On 11th April 2022 the Department of Environment, Climate and Communications (DECC) wrote to PSE Kinsale Energy Limited (KEL) requesting further information on its application to decommission certain of the Kinsale Head/ Ballycotton gas field facilities and the application by PSE Seven Heads Limited for the decommissioning of certain of the Seven Heads gas field facilities.

KEL has considered the points raised in the DECC letter and encloses herein a detailed response to this request for further information.

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Kinsale Area Decommissioning Project

Section 2

EIAR Addendum No. 3

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2 EIAR Addendum No. 3

2.1 DECC Query:

Reasoning and justification for the screening out of certain effects on receptors (light, heat and electromagnetic radiation) – it should be confirmed that no substantial heat emissions or electromagnetic radiation (or sufficient emissions to result in significant effects) is expected from the proposed works in the project description section, and to clarify that associated effects are therefore screened out of assessment.

2.1.1 Response:

The effects of light were considered in the EIAR (Table 6.2, pages 156, 157, 162, 164, 167) and were screened out for further assessment on the basis that incremental lighting would be temporary and not add significantly to existing lighting levels. This source of effect was assessed further in Appendix D of the EIAR, for example, page D.3, which provides the justification for it not being taken forward into the main assessment of the EIAR.

There are no sources of heat or electromagnetic radiation resulting from the proposed activities which are considered to result in a potential source of significant effect for relevant receptors in the Kinsale area. Consequently these were not considered in the EIAR or subsequent addenda.

2.2 DECC Query:

Competency of experts responsible for the preparation of the EIAR Addendum No. 3 – a list of contributors / experts who have prepared EIAR Addendum No. 3 should be provided, in line with those prepared for the EIAR and Addenda No. 1 and No. 2.

2.2.1 Response

This EIAR addendum was prepared by a team of competent experts on behalf of Kinsale Energy, which are tabulated below, and are a subset of those involved in the preparation of the EIAR.

Name	Qualification	Relevant Experience	Contribution to EIAR
Hartley Anderson Limited – Offshore/marine environmental consultants			
Dr JP Hartley	BSc (Hons) Zoology with Marine Zoology, PhD	Dr JP Hartley is a marine environmental consultant scientist with over 35 years of environmental assessment (EIA, SEA, HRA), applied marine research and environmental management experience in Ireland, the UK and internationally. He is technical Director of the independent environmental consultancy Hartley Anderson Ltd, which he co-founded. He is joint project director for the UK Offshore Energy Strategic Environmental	All Sections, in particular 4-6.

Name	Qualification	Relevant Experience	Contribution to EIAR
		Assessment programme from 1999 to date. He is a regular contributor to university Masters programmes. He has served on a range of marine scientific research and management steering groups for Renewables, Aggregate, Climate Change and Environmental Monitoring.	
Dr DM Borthwick	MA (Hons) Geography, PhD	Dr DM Borthwick has over ten years of experience in environmental assessment for offshore energy involving work at the strategic (SEA) and project (EIA) levels, including screening and Appropriate Assessment under the Habitats Directive. He has led or participated in Environmental Impact Assessments for offshore projects (oil and gas and carbon dioxide transport and storage) in the North Sea. He has technical expertise in geology, substrates and coastal processes, seascape, marine archaeology and climate, Geographic Information Systems (GIS) marine spatial data and analysis.	All Sections, in particular 1-3.
Mr KM Carey	BSc Zoology, MSc Applied Geospatial Information Systems	KM Carey has five years Geographic Information System (GIS) applied experience in map production and data management for a range of marine environmental assessments, including national scale SEA and project specific EIA and permit applications.	All document maps/figures and support to colleagues with spatial inputs

2.3 DECC Query:

Non-Technical Summary (NTS) not provided – an NTS to reflect EIAR Addendum No. 3, in line with the NTS's prepared for the EIAR and Addenda No. 1 and No. 2 should be provided

2.3.1 Response

See below.

Non-Technical Summary

Introduction and background

PSE Kinsale Energy Limited (Kinsale Energy) is progressing the decommissioning of the Kinsale area gas fields and facilities (incorporating the Kinsale Head gas fields and facilities and the Seven Heads gas field and facilities), which have come to the end of their productive life; gas production from the wells ceased on 5th July 2020. In keeping with lease obligations, Decommissioning Plans and related Environmental Impact Assessment Report (EIAR) and Appropriate Assessment (AA) screening reports were prepared and were submitted to the Department of Environment, Climate and Communications (formerly the Department of Communications, Climate Action & Environment), and a further application has been submitted to cover the remaining works to be consented as part of the decommissioning programme; the decommissioning of

the Kinsale Head and Seven Heads pipelines. Together the decommissioning of the entirety of the Kinsale area gas fields and facilities is collectively referred to as the Kinsale Area Decommissioning Project (KADP).

Document purpose

At the time of previous Consent Applications for Kinsale Head and Seven Heads, Section 5 of the Dumping at Sea Act 1996 did not yet apply to "offshore installations" and there were ongoing studies by third parties that might have identified a future re-use of one or more of the offshore pipelines. Accordingly, previous Consent Applications did not address the offshore pipelines and umbilicals. As all studies on potential reuse of the pipelines and umbilicals have now concluded and no further use has been identified for any of the offshore pipelines or umbilicals, these are now the subject of the following consent applications:

Kinsale Head Consent Application no. 3 includes for the following facilities:

- To leave *in situ* all infield pipelines and umbilicals associated with the Kinsale Head gas fields
- To leave *in situ* the 24" export pipeline (offshore and onshore section) and to fill the onshore section with grout
- To use engineering materials to protect the pipelines and umbilicals *in situ*

Seven Heads Consent Application no. 2 includes the following:

- To leave *in situ* all infield pipelines and umbilicals associated with the Seven Heads gas field
- To leave *in situ* 18" Seven Heads export pipeline and umbilical
- To use engineering materials to protect the pipelines and umbilicals *in situ*

In order to accurately record the status of the pipelines and confirm the completion of the pipeline decommissioning activities, pre- and post-rock placement surveys are proposed as part of the Decommissioning Plans. In anticipation of the need to undertake such surveys, and now that greater definition is available on their scope and the types of equipment likely to be used than covered in the EIAR for KADP, the application for consent is accompanied by this addendum to the EIAR, an addendum to the Screening for AA Report and a Pre-survey Fisheries Assessment Report.

Description of the Project

The survey campaign has the following principal objectives:

- To inform the rock placement activities with the most recent set of pipeline inspection data (e.g. freespan location and seabed at pipeline/umbilical ends)
- To confirm the success of the rock placement activity which includes freespan areas and pipeline/umbilical ends

- To provide information on the status of the pipelines for charting purposes post-decommissioning

A range of equipment will be used to undertake a pre-rock placement survey of the pipelines and umbilicals which includes High-Resolution Geophysical Survey (HRGS) equipment primarily using acoustic sources to generate data (e.g. side-scan sonar, multibeam echosounder). The survey will be undertaken along a 100m corridor of all the pipelines and umbilicals and use two vessels. One vessel will conduct the surveys of all offshore infield pipelines and umbilicals and the export pipeline up to approximately 3km from the shore, and a separate inshore vessel will be used to conduct the final portion of the survey due to water depth restrictions. These survey operations are planned to take place between Q2 and Q4 in 2022 but could be moved to 2023 if subject to delays.

Rock placement will occur at key positions along pipeline and umbilical routes using a dynamically positioned fall pipe vessel; these positions will be informed by the above pre-rock placement survey. This vessel will collect multibeam echosounder data over the areas of rock placement which can be combined with the above pre-rock placement survey data to provide data on the final position and status of the decommissioned pipelines and umbilicals. It has been assumed for the purposes of assessment that this survey will take 14 days including transits and is anticipated to be completed by Q4 2022. However, these works may be undertaken between Q2 and Q3 2023 due to the potential for delays.

Environmental Characteristics of the Area

The area has a mild maritime climate with mean air temperatures varying between approximately 6-9°C in winter to 15-16°C in summer. The predominant winds over the open waters south and west of Ireland are from the west and southwest and sea fog is most frequent in summer.

The Celtic Sea is particularly susceptible to rough seas due to strong to gale force southwesterly winds. Swells are mostly from a south-west and west direction throughout the year. Surface water temperatures range from 8-10°C in winter to 15-16°C in summer, while bottom temperatures show less variation and remain at around 8-10°C throughout the year.

The seabed are characterised by a range of relatively impoverished heterogeneous benthic habitats. No habitats listed in Annex I of the Habitats Directive have been revealed by surveys undertaken in the area.

The waters off southern Ireland support a diversity of fish and shellfish, including a number of commercially valuable species. The Kinsale area overlaps or abuts reported spawning grounds of eleven commercially important fish and shellfish species (herring, sprat, cod, whiting, plaice, lemon sole, haddock, megrim, mackerel, horse mackerel and *Nephrops*). Mackerel, cod, whiting, lemon sole, blue whiting, ling, hake and *Nephrops* use the area as a nursery area at low intensity, while it is a high intensity nursery area for monkfish. The most abundant fish species in the region are haddock, poor cod, Norway pout and whiting, while cod, monkfish, hake, plaice and dab are also abundant. A number

of elasmobranch species are present in the region, including the spurdog and the lesser spotted dogfish.

Five species of marine reptile have been recorded in the seas around Ireland; a significant majority of the sightings are of the leatherback turtle.

Gulls commonly found in the area include herring gull, lesser black-backed gull, great black-backed gull, black-headed gull and kittiwake. Other resident birds include guillemot, razorbill, puffin and black guillemot. The Old Head of Kinsale (25km from the export pipeline) is the largest seabird colony on the south coast. Seasonal visitors to the area include various terns, skuas and shearwaters. Highest densities of gannets occur off the south coast in spring and summer.

The common dolphin and harbour porpoise are frequently recorded off the south coast, both close to shore and further out to sea; common dolphin are often observed in large groups and are by far the most abundant marine mammal in the region. Small groups of bottlenose dolphins are occasionally observed in the region, mostly closer to shore, with regular sightings of a small community of individuals in the Cork Harbour reported until recent years.

Minke whale are seasonal visitors, appearing in spring and observed in increasing numbers throughout the summer to a peak in autumn. Fin whales and, to a lesser extent, humpback whales are also seasonally present from late summer to winter and feed on aggregations of small pelagic fish off the south coast; sightings peak in autumn. Small groups of Risso's dolphins are occasionally seen, mostly commonly in summer months and near to the coast, while there are also a few records of small groups of killer whales.

While grey and harbour seals are found around the coast of Ireland, their occurrence offshore of the south coast and in the Kinsale area is very low. The closest conservation site for marine mammals is Roaringwater Bay and Islands Special Area of Conservation (SAC), approximately 76km to the west of the Kinsale area, where both harbour porpoise and grey seal are designated features.

Wrecks over 100 years old and archaeological objects are present underwater in the study area. Other uses of the area include fisheries, offshore energy (oil and gas exploration and offshore wind), ports and shipping, military activity, subsea cables, marine disposal, and recreation and tourism.

Consideration of Potential Effects

Effects likely to arise from the survey programme have been identified on the basis of the nature of the project (including its location, physical and operational characteristics, residues, emissions and wastes), the characteristics of the environment, and the understanding of impact pathways. Defined consequence and likelihood criteria were used to screen for the potential effects of the survey activities. Two sources of potential effect were screened in for further consideration; underwater noise and accidental events.

Underwater noise

The planned survey campaign will use acoustic survey methods to obtain information on the pipelines, umbilicals and surrounding seabed around all of the Kinsale Head, Seven Heads, Ballycotton and South-West Kinsale/Greensands field areas. Man-made noise in the marine environment is widely recognised as a potentially significant concern for marine fauna, especially for marine mammals, with attention also given to effects on fish and invertebrates. Potential effects of anthropogenic noise on receptor organisms range from acute trauma to subtle behavioural and indirect ecological effects (e.g. effects on prey species).

The waters off the south coast of Ireland support a high diversity of cetaceans, and there may be temporarily high localised densities of some species (primarily common dolphins) in the wider Kinsale-Ballycotton-Seven Heads area during the period April-December. However, considering the acoustic characteristics of the potential sources and their propagation, the relevant evidence of effects on marine mammals from vessel noise, seismic survey and the proportionally lower potential for effects of the proposed equipment to be used in the survey campaign, in addition to the small spatial footprint and short duration (see Section 2.2) of the planned pre- and post-rock placement surveys, the risk of behavioural disturbance to any species of marine mammal (including on species listed in Annex IV of the Habitats Directive) is considered to be extremely low, and significant effects are not considered to be likely.

The high frequency signals generated by the proposed survey equipment are above the hearing range of fish. The risk of injury and behavioural disturbance to fish is considered to be extremely remote or extremely low respectively and significant effects are not considered to be likely. Exposure to seismic survey noise during fish spawning or while fish are on their way to spawning grounds can impact on a fish's spawning success. The Kinsale area and proposed timing of the survey campaign overlaps reported spawning and nursery areas for a variety of fish species; however, given the low risk of behavioural disturbance to fish, significant disruption of spawning or nursery activity is not anticipated, and significant effects are not considered to be likely. Similarly, no impacts on commercial fisheries in the wider Kinsale-Ballycotton-Seven Heads area will occur.

While seabird responses to approaching vessels are highly variable, flushing disturbance would be expected to displace most diving seabirds from close proximity to the survey vessel and any related survey equipment, thereby limiting their exposure to the highest sound pressures generated. Similarly, any behavioural disturbance of seabirds due to the survey activities is most likely to be temporary displacement associated with the physical presence of the vessel, comparable to that experienced by routine shipping traffic. While acknowledging limited data and the importance of the survey area to several species of diving birds (i.e. guillemot and razorbill), the lack of reported effects of seismic survey on diving birds, the comparatively lower amplitude and higher frequency source characteristics of the potential sources in the planned surveys, in addition to the small spatial footprint and short duration of the planned surveys, leads to the conclusion that significant negative effects on diving birds are considered to be highly unlikely.

Underwater noise generated by the survey and rock placement vessels may be detectable by leatherback turtles, although their low density and limited seasonal presence in the area dictates that very few individuals are likely to be exposed to noise levels beyond that of the background for the region. Considering this low likelihood of exposure, the perceived limited sensitivity of the receptor, and the moderate intensity nature of the noise source, significant impacts on marine turtles are considered extremely remote.

Accidental events

The risks of oil spills (including all types of liquid hydrocarbon) associated with the proposed surveys are extremely small. Given the duration of the proposed surveys refuelling at sea is not planned or expected to occur. With regard to oil discharges (e.g. from machinery space drainage), the survey vessels will operate to international MARPOL requirements, and the vessels will implement a Shipboard Oil Pollution Emergency Plan (SOPEP) in accordance with guidelines issued by the Marine Environment Protection Committee of the International Maritime Organisation. Kinsale Energy will ensure that such plans are in place prior to any work taking place as part of standard contractor management, and the survey activities will be communicated through notices to mariners and the vessels will display appropriate navigational lighting.

Cumulative effects

The potential for cumulative effects was identified in relation to the proposed Celtic Interconnector Ireland-France subsea cable, though the timing of any works and the nature and scale of potential effects associated with the Kinsale decommissioning activities covered by this application are such that cumulative effects are not considered likely. There is the potential for interaction between the timings of the Emerald and Inis Ealga wind farm site investigation surveys, but the duration and scale of the survey campaigns are such that there is considerable scope to avoid interactions. A site survey covering a potential appraisal of the Barryroe field was completed in late 2021 and there is presently no published timetable for when an appraisal well could be drilled. Kinsale Energy will maintain a dialogue with the developers of both wind farms, and further proposals in relation to the Barryroe field, to ensure that activities do not proceed in a manner which could lead to cumulative impacts.

Conclusion

The overall conclusion of the Environmental Impact Assessment Report addendum is that, in view of the predicted scale, intensity and duration of the survey activities, the surveys will not result, directly or indirectly, in likely significant adverse effects on the environment, alone or cumulatively with other existing or approved projects. No residual effects are predicted to occur.