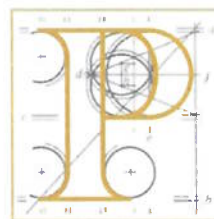


Our Case Number: ABP-319866-24



An
Bord
Pleanála

Irish Coast Guard Department of Transport
2 Leeson Lane
Dublin 2
Dublin 2

Date: 15 August 2024

Re: Proposed development known as North Irish Sea Array ("NISA") Offshore Wind Farm
Located off the coast of Counties Dublin, Meath and Louth (www.northirishsearraysid.ie)

Dear Sir / Madam,

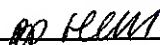
An Bord Pleanála has received your submission in relation to the above-mentioned proposed development and will take it into consideration in its determination of the matter.

The Board will revert to you in due course in respect of this matter. Please be advised that copies of all submissions/observations received in relation to the application will be made available for public inspection at the offices of the costal planning authority and at the offices of An Bord Pleanála when they have been processed by the Board.

More detailed information in relation to marine infrastructure development can be viewed on the Board's website: www.pleanala.ie.

If you have any queries in the meantime, please contact the undersigned officer of the Board or email marine@pleanala.ie quoting the above mentioned An Bord Pleanála reference number in any correspondence with the Board.

Yours faithfully,


Ellen Moss
Executive Officer
Direct Line: 01-8737285

OA15

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64 Sráid Maoilbhríde
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64 Marlborough Street
Dublin 1
D01 V902

Ellen Moss

From: Conor Kelly (IRCG) <Conor.Kelly@transport.gov.ie>
Sent: 01 August 2024 15:56
To: Marine Observations
Cc: Niall Ferns (IRCG); Eugene Clonan (IRCG)
Subject: Application to An Bord Pleanála under Section 291 of the Planning and Development Act 2000 (as amended) for permission for North Irish Sea Array (NISA)
Attachments: NISA_Planning_Application_Response_Letter_IRCG.docx.pdf

Caution: This is an **External Email** and may have malicious content. Please take care when clicking links or opening attachments. When in doubt, contact the ICT Helpdesk.

Dear Sir / Madam

Please find in the attached letter to this email, the observations of Irish Coast Guard with regards to the planning application for North Irish Sea Array (NISA).

The Irish Coast Guard is a prescribed body under S.I. 100/2023 – Planning and Development (Maritime Development) Regulations 2023, however it remains a division of the Department of Transport.

Please note the Irish Coast Guard submission has been incorporated into the submission of the Minister for Transport in respect of the planning application for North Irish Sea Array. The submission through the Department of Transport is identical to Irish Coast Guard's submission.

It would be appreciated if you could please acknowledge receipt of same for our records.

Your Sincerely
Conor

Conor Kelly
Operations & Training Officer
Preparedness, Response & Planning Section
Irish Coast Guard

An Roinn Iompair
Department of Transport

Lána Líosain, Baile Átha Cliath, D02 TR60
Leeson Lane, Dublin, D02 TR60

T +353 (0)1 678 3478
Conorkelly@transport.gov.ie www.gov.ie/transport

**An Roinn Iompair
Department of Transport**



Mr. Miche6l O'Toole
Director,
Irish Coast Guard,
Department of Transport,
2 Lesson Lane,
Dublin 2

1st August 2024

Marine / Climate Section,
An Bord Plean6la,
64 Marlborough Street,
Dublin 1,

RE: APPLICATION TO AN BORD PLEAN6LA UNDER SECTION 291 OF THE PLANNING AND DEVELOPMENT ACT 2000 (AS AMENDED) FOR PERMISSION FOR NORTH IRISH SEA ARRAY (NISA)

North Irish Sea Array (NISA)

Dear Sir / Madam,

The Irish Coast Guard (IRCG) is a division within the Department of Transport. The Irish Coast Guard's role is to discharge Ireland's Search and Rescue (SAR) obligations by implementing the National SAR Plan for all incidents occurring in the maritime domain, or as otherwise requested by SAR authorities in other domains (aviation or inland). Under the Framework for Major Emergency Management, the IRCG is nominated as one of the State's Principal Emergency Services along with An Garda S6och6na, the Fire Service and Ambulance Service.

In addition, the Coast Guard, under the National Maritime Oil/HNS Spill Contingency Plan, coordinates the State's response to major pollution incidents as a result of maritime casualties as part of implementing the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC). The OPRC is an international maritime convention establishing measures for dealing with marine pollution incidents arising from a maritime casualty at a national and local level and in co-operation with other countries.

Under the Sea Pollution Act, 1991, Authorised Officers within the Coast Guard are warranted to intervene as necessary in marine casualties to prevent or minimise damage from pollution where these casualties pose a threat of major harm to the Irish coastline and related interests. The Coast Guard provides a Maritime Assistance Service and responds to vessels in need of assistance requesting a Place of Refuge.

Under the Sea Pollution (Amended) Act, 1999, Harbour Authorities, Local Authorities, Offshore Units & Oil Handling facilities are required to submit an Oil Pollution Emergency Plan to the Coast Guard for approval.

Irish Coast Guard, as a prescribed body under S.I. 100/2023 – Planning and Development (Maritime Development) Regulations 2023, is not a separate legal entity but a division of the Department of Transport.

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The Irish Coast Guard has also made a submission on the planning application for North Irish Sea Array (NISA), through the Minister for Transport. The submission through the Department of Transport is identical to Irish Coast Guard's submission.

Irish Coast Guard raises one observation in relation to Search & Rescue (SAR) other issues for consideration in relation to response emergency preparedness associated with the planning application for North Irish Sea Array (NISA).

Observation 1 – In relation to Search and Rescue and other issues for consideration in relation to response emergency preparedness for Layout Option 1 & Option 2

The Irish Coast Guard has concerns in relation to carrying out Search & Rescue in the two proposed layouts (Option 1 & Option 2). IRCG requests that both layouts should be further revised, in line with search & rescue guidelines.

IRCG makes the following observation regarding the proposed layouts:

1. The final positioning of the Wind Turbine Generators (WTG) is unclear because there is Limit of Deviation of 500 metres for each WTG. The proposed layouts could change significantly which will impact Search & Rescue and Emergency Response. Irish Coast Guard are unable to guarantee that search and rescue operations can be carried out safely because the final position of all WTGs is unknown at this time.
2. The layouts only have one consistent line of orientation. No justification was provided to IRCG in prior consultation on using one line of orientation. IRCG request developers should start with a layout option with at least two consistent lines of orientation. The layout of a wind farm or other ORED should also be as regular as possible e.g. a grid pattern, and take into consideration any lateral movement of floating devices. This regularity will also benefit the safer navigation of surface rescue craft or helicopters both within and outside a wind farm. Developers are urged to communicate their proposal to the IRCG as early as possible. Regarding SAR access to windfarms, a SAR helicopter should be able to fly from one side of a windfarm to the other, or Helicopter Refuge Area in the case of larger layouts.
3. The site is irregular design. IRCG request that the layout is as regular as possible e.g. a grid pattern. Turbines are positioned together in the North and South of the development with large gaps in-between. The layout could change significantly given the 500-metre limit of deviation for each turbine.
4. The layout design is non-linear. A 'non-linear' or 'non-uniform' layout is one where there are no or few consistent lines of orientation, i.e. 'straight' rows and/or columns of turbines on at least two axes through, and on the periphery of, a windfarm. Search patterns used by the IRCG are in accordance with international standard practice contained in the International Aviation and Maritime SAR Manual (IAMSAR). All search patterns are essentially linear in that they are composed of patterns of (normally parallel) straight lines to ensure that a search-area is covered to a consistent 'coverage factor'. Therefore, non-linear ORED layouts may not necessarily provide an effective and 'safe' search-unit environment for SAR resources, or for when SAR helicopters have to operate at low altitude e.g. because straight-line paths cannot be flown without encountering physical obstacles on a desired track. This also degrades the effectiveness of a search due to crews needing to focus more of their

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visual attention on flight safety and manoeuvring around obstacles (which also changes the coverage factor), rather than looking out for SAR objects and survivors.

If SAR resources are required to conduct a search and/or rescue inside non-linear wind-farm layouts, there is a likelihood that these layouts will also significantly reduce the overall Probability of Detection (POD) of a search because resources may not be able to conduct a search at the optimum Sweep Width and Track Spacing for a particular SAR object. The presence of turbines may also reduce the searchable space and may expand or otherwise vary the distances between 'sweeps' through a wind farm and so may affect the desired sweep width and increase the likelihood of not sighting a SAR object. While it may be possible to achieve a high POD by conducting a bespoke search, this would require significantly more time resulting in a commensurate reduction in the possible search area before the aircraft had to depart for fuel. In addition, non-uniform layouts present a flight safety hazard that may detract from the mission and/or preclude the use of SAR helicopters altogether.

5. The proposed Search & Rescue (SAR) Access Lanes could be ineffective and unusable for SAR because turbine positions could change by up to 500 metres from the positions in the planning application. SAR access lanes should be a minimum of 500 metres in width. If weather conditions are such that a SAR helicopter has to fly under Instrument Meteorological Conditions (IMC) flight rules, using instrument navigation techniques and electronic systems, the aircraft will not be able to enter any wind turbine lane that is less than 500 metres wide (measured between blade tips, that are transverse to the turbine lanes, unless the blades can be rotated away from the lane to increase the spacing to 500 metres or more). The overall shape, size and geographical coverage of a wind farm, and any proximity to other wind farms, there shall be no Offshore Renewable Energy Installations, or other structures, in the wind farm or on the boundary that present an obstacle or risk to SAR helicopters flying along SAR access lanes.

Draft Standard Operating Procedure 07-2024 Offshore Renewable Energy Installations (OREI): Guidance and Operational Considerations for SAR and Emergency Response

Emergency Response

Windfarm Effects on SAR Operations

The early generation of wind farms were small in both overall size, number of installed turbines and geographical coverage, and so SAR resources had little apparent difficulty in responding to incidents within or around them.

Later generations of wind farms will be of greater scope in terms of distance from shore, size and number of turbines in use, and the turbine height, the geographical space occupied by them e.g. tens of miles in width and breadth and with turbine heights increasing, wind farms can have a significant impact on the conduct of not only maritime navigation but equally on aeronautical navigation and the establishment of safety altitudes. This presents new problems for SAR resources, in particular for SAR helicopters.

There is a greater possibility of having to operate amongst turbines to conduct searches and/or rescues from the sea surface, but also increases the transit altitudes required to provide safe separation between the turbines and aircraft when blades and/or nacelles may also be covered wholly or partially by cloud. Where

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weather forces aircraft to deviate their course to avoid a wind farm laterally, the longer transit distances/times can increase response times, cause reduced on-scene endurance and impact casualty outcome.

Search patterns used by the IRCG are in accordance with international standard practice contained in the International Aviation and Maritime SAR Manual (IAMSAR). All search patterns are essentially linear in that they are composed of patterns of (normally parallel) straight lines to ensure that a search-area is covered to a consistent 'coverage factor'. Therefore, non-linear ORED layouts may not necessarily provide an effective and 'safe' search-unit environment for SAR resources, or for when SAR helicopters have to operate at low altitude e.g. because straight-line paths cannot be flown without encountering physical obstacles on a desired track. This also degrades the effectiveness of a search due to crews needing to focus more of their visual attention on flight safety and manoeuvring around obstacles (which also changes the coverage factor), rather than looking out for SAR objects and survivors.

If SAR resources are required to conduct a search and/or rescue inside non-linear wind-farm layouts, there is a likelihood that these layouts will also significantly reduce the overall Probability of Detection (POD) of a search because resources may not be able to conduct a search at the optimum Sweep Width and Track Spacing for a particular SAR object. The presence of turbines may also reduce the searchable space and may expand or otherwise vary the distances between 'sweeps' through a wind farm and so may affect the desired sweep width and increase the likelihood of not sighting a SAR object. While it may be possible to achieve a high POD by conducting a bespoke search, this would require significantly more time resulting in a commensurate reduction in the possible search area before the aircraft had to depart for fuel. In addition, non-uniform layouts present a flight safety hazard that may detract from the mission and/or preclude the use of SAR helicopters altogether.

There is also a significant visual-distraction effect caused by the presence of the turbines, rotating blades and the relative movement of a SAR helicopter or rescue vessel/lifeboat moving through the array. Wind turbines may also cause the temporary blocking of SAR objects from sighting by SAR units i.e. the turbine, or group of turbines, may come between the SAR unit and a SAR object at the moment that it might be sighted. This is more likely in rough sea states where SAR objects might also be temporarily hidden by sea swell and waves whilst a SAR unit passes and has a 'detection opportunity'. While this may be compensated for by reducing the aircraft speed, this will again adversely impact the achievable search area. A 'non-linear' or 'non-uniform' layout is one where there are no or few consistent lines of orientation, i.e. 'straight' rows and/or columns of turbines on at least two axes through, and on the periphery of, a windfarm. It should be noted that, upon notification of a person, vessel or aircraft in difficulty, a search is always required until they are located and rescued, regardless of whether the casualty has activated an emergency beacon or not.

Layout

Layouts – General Comments

The IRCG requires earliest possible discussions with developers on proposed turbine/device layout options for any ORED, before decisions are made on the final layout design. Developers should discuss proposed layouts with IRCG at least 12 months prior to submitting a planning application. Failure to do this may result in the IRCG formally objecting to a project. OREI Guidance Document contains information on the IRCG's proposals for layouts.

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To assist the IRCG in evaluating the safety and effectiveness of Emergency Response (SAR, Maritime Casualty & Pollution Incidents) within a proposed layout, developers are requested to provide the IRCG with detailed plans and drawings. In addition, to enable the fullest possible assessment of a layout proposal, developers are encouraged to offer computer models, artist impressions, computer generated images and animations of the layout, or scale models of the ORED, as soon as they have firm ideas for layout proposals and options. This will enable the IRCG to carefully consider a layout's SAR implications and compliance.

If provided, computer modelling simulations, that can be controlled by the user, and which include the ability to 'fly-through' a layout and show SAR objects e.g. life rafts, persons in the water and vessels, and change the displayed environmental conditions to imitate e.g. reduced visibility, rough sea states, low cloud (of varying coverage) and night-time, are most useful. Such simulations should allow the IRCG to move through a layout at surface level and at variable altitudes and speeds so as to simulate surface craft and aircraft operating amongst and through a layout. Turbine or device 'model' simulations should be as close to the type and size of turbine proposed to be built.

Layouts for SAR Operations

With the previous paragraphs in mind, for wind farms and surface located OREDs, **developers should start with a layout option with at least two consistent lines of orientation** (which may include perimeter turbines with smaller spacing than internal turbines) and then be refined as appropriate for the project. **The layout of a wind farm or other ORED should also be as regular as possible e.g. a grid pattern** and take into consideration any lateral movement of floating devices. This regularity will also benefit the safer navigation of surface rescue craft or helicopters both within and outside a wind farm. Developers are urged to communicate their proposal to the IRCG as early as possible. Regarding SAR access to windfarms, a SAR helicopter should be able to fly from one side of a windfarm to the other, or Helicopter Refuge Area in the case of larger layouts.

Other issues for consideration by the developer

Reference Documents: Environmental Impact Assessment Report Chapter 17 – Shipping & Navigation

Reference Documents: Environmental Impact Assessment Report Volume 9 Appendices - Appendix 17.1

Navigational Risk Assessment

Reference Documents: Environmental Impact Assessment Report Chapter 20 – Infrastructure & Other Users

Part of IRCG's remit is pollution response, including Hazardous & Noxious Substances (HNS). The turbines in the northern western area of the proposed layout are very close to the Gas Interconnector Pipeline located on the seabed between Ireland and Scotland.

On Page 47 of the Navigational Risk Assessment – 7.7 Subsea Pipelines – The distance measured between the Gas pipeline and array area is measured at 400 metres.

On page 44 of Environmental Impact Assessment Report Chapter 20 – Infrastructure & Other Users – the distance from the Gas Pipeline to the Array Area is measured at 0.5km. With a limit of deviation of 500 metres on all turbines, the distance between the turbines and the gas pipeline could be further reduced. There is a risk that the pipeline could be ruptured or damaged during construction within the wind farm.

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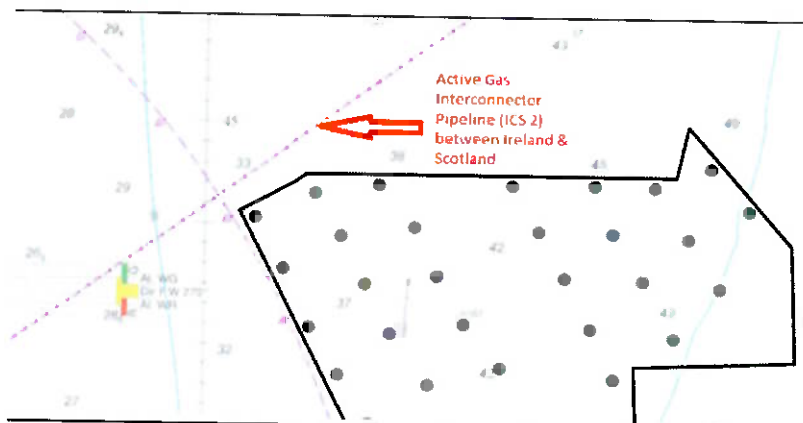


IRCG propose that the three turbines in the Northwest corner, closest to the Gas Pipeline should be moved to a different location and that a safe distance is maintained between the other turbines and the gas pipeline. The pipeline is marked on the diagram below.

Reference Documents: Environmental Impact Assessment Report Volume 9 Appendices - Appendix 17.1 Navigational Risk Assessment

Section 15 – Cumulative Project Screening Exercise - page 104, paragraph 308. *“There are no subsea cable/ pipeline projects located within 2nm of the array and ECC and therefore no direct hazard pathway to shipping and navigation users is identified between such projects and the proposed development. Therefore, no subsea cable/ pipeline projects are screened into the cumulative risk assessment”*

Paragraph 308 is incorrect. The Gas Interconnector pipeline shown on the diagram below is located (0.2nm) 400 metres from the array. The location of the Gas interconnector pipeline should have been included in the cumulative risk assessment. IRCG consider the pipeline to be a significant risk to the proposed development.



Map of the northwestern area of the array showing the location of the gas pipeline – distance between the Gas pipeline and the array is only 400 metres

Reference Documents: Environmental Impact Assessment Report Volume 9 Appendices - Appendix 17.3 Vessel Management Plan

Page 6 Emergency Response Cooperation Plan (ERCoP) – IRCG will require a plan for all phases of the development. A ERCoP should be submitted to IRCG for approval prior to starting construction.

Page 9 – Incident Reporting – The Irish Coast Guard should also be notified of any incidents / accidents and marine casualties.

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Reference Documents: Environmental Impact Assessment Report Volume 2: Introductory Chapters, Chapter 8 Construction Strategy – Offshore

Page 8-5 Unexploded Ordnance (UXO) Clearance. The developer should refer to Irish Marine Notice 03 of 2002 Explosives picked up at Sea. Any ordnance found should be reported to Irish Coast Guard.

In addition to the above the following is of note to the developer when progressing the application:

1. The wind farm layout should be agreed with Irish Coast Guard prior to starting construction given the possibility of turbine locations changing by up to 500 metres and any other unforeseen circumstances.
2. The licensee shall submit an up-to-date Emergency Response Cooperation Plan and Oil/HNS Spill Contingency Plan for review and approval by Irish Coast Guard prior to any construction activities.
3. The licensee shall engage early with Irish Coast Guard on the contents of the SAR checklist.
4. The promulgation and frequency of Navtex and radio broadcast warnings shall be agreed in advance with the Irish Coast Guard for the duration of the license period.
5. The licensee should consult Irish Marine Notice 03 of 2002 Explosives Picked Up at Sea. Any ordnance found within Irelands EEZ should be reported to Irish Coast Guard.
6. The uncertainty over who (the developer, contractor or EirGrid) will take primacy on a substation, in the event of an emergency for different scenarios and throughout the lifetime of the development, must be clear prior to construction. The information must be included in the Emergency Response Cooperation Plan.
7. Information on the substation communications suite and rescue facilities should be available to IRCG prior to construction.
8. Weekly Notice - To maintain situational awareness of a changing maritime domain, developers should ensure that IRCG is promptly advised of any significant changes to the operation as soon as reasonably practical. A notice template will be provided by IRCG on request.
9. Ship-to-ship (STS) transfer operations should normally take place in a port/harbour authority area, where suitable infrastructure and port services are in place and oil spill contingency plans exist to deal with incidents. Transfer of ship's stores, cargo, or oil to or from a ship in a place in the State (not being a harbour), including the EEZ, can only be carried in accordance with a permit granted by the Minister. The Minister may, upon an application being made by the owner, charterer, hirer or master of a ship, grant a permit to the applicant allowing the transfer to or from the ship concerned of ships stores, cargo or oil outside a harbour. This function is carried out by Authorised officers of IRCG.

For and on behalf of the Irish Coast Guard

An Roinn Iompair
Department of Transport

DocuSigned by:

Michael O'Toole

BC6A04EAC22C40E...

Micheál O'Toole

Director
Irish Coast Guard
Department of Transport



Garda C6sta na hEireann
IRISH COAST GUARD