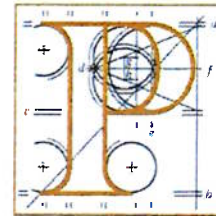


Our Case Number: ABP-319866-24

Planning Authority Reference Number:

Your Reference: Nephrops Fishermen and Producer Organisations



**An
Bord
Pleanála**

Marston Planning Consultancy
23 Grange Park
Foxrock
Dublin 18

Date: 16 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 recent submission and fee in relation to the above-mentioned proposed development and will take it into consideration in its determination of the matter. Please accept this letter as a receipt for the fee of €50 that you have paid.

The Board will revert to you in due course with regard to the 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 Dublin City, Fingal, Meath and Louth County Councils 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

OA03

Tel	Tel	(01) 858 8100
Glaos Áitiúil	LoCall	1890 275 175
Facs	Fax	(01) 872 2684
Láithreán Gréasáin	Website	www.pleanala.ie
Ríomhphost	Email	bord@pleanala.ie

64 Sráid Maoilbhríde	64 Marlborough Street
Baile Átha Cliath 1	Dublin 1
D01 V902	D01 V902

An Bord Pleanála,
Marlboro Street,
Rotunda,
DUBLIN 1.
SUBMITTED ONLINE.

9th August 2024

Re: An Bord Pleanála Case Reference No.: 319866.
North Irish Sea Array ("NISA") Offshore Windfarm
Location: East Coast of Ireland, off the coast of Counties Dublin, Meath and Louth.
Submission from Nephrops fishermen and Producer Organisations operating in the area of the
proposed development.

Dear Sirs,

This submission is filed on behalf of our clients, D&N Kirwan Limited, Vargas Limited, Polaris Fishing Limited, McEvoy Brothers Fishing Company Limited, John & Sharon Lynch, Supreme Fishing Limited, N C D Fishing Limited, Anthony Kirwan Senior, Anthony Kirwan Junior, Ivan Wilde, Eamon Wilde, Vierge Marie Limited, Ard Aluinn Fishing Company, Richard Branagan, Ciaran Powell, Gerald Powell, Inish Trawlers Limited, Port Oriel Fishing Limited, Granville Boats Limited, along with the vessel owner Producer Organisations, Irish Fish Producers Organisation, Killybegs Fishermen's Organisation, Irish South and East Fish Producers Organisation, Irish South and West Fishermen's PO and Irish Fish Processors & Exporters Association. We are discharging the requisite fee of €50 with this submission.

Our fisher clients are commercial fishing vessel owners, targeting the nephrops (Dublin Bay Prawns) located in the proposed development area and are backed up by their Producer Organisations with respect to communicating concerns relating to this development. They have been operating their licensed fishing businesses in this area since the 1960s, businesses which have provided a livelihood to generations of the same families, which they hope will continue to future generations.

Our clients each hold a Polyvalent Licence for their vessels, granted by the Licensing Authority for Sea-Fishing Boats. They operate 24 vessels in this area and have an average of 6 crew and a skipper working on each vessel.

Our clients have been watching the development of this project with significant concern. They have communicated concerns to the applicant, who they say have failed to avoid, minimise and mitigate the significant effects this development will have on the industry. Our clients are in support of green and renewable energy and are not against wind energy, once the locations are properly sited and evaluated. They say that this project is developer led, and the location for the project has not been subject to proper assessment in particular, in terms of the adverse effects from an environmental and commercial fishing perspective.

As set out in the report of Anthony Marston, Planning Consultant, our clients' firm view is that, having regard to the Board's obligations to exercise its powers in accordance with the proper planning and sustainable development of the marine environment and the coastal areas adjoining the proposed offshore wind farm (OWF) development, the Board should not grant permission unless it is satisfied that the following fundamental criteria have been met by the proposed development:

- The type of development, its location, layout and design must have been selected on the basis of the application of objective, multi-criteria analysis and comparison, taking into account environmental factors.
- In particular, the site selection process must have been carried out on the basis of the application of objective multi-criteria analysis and comparison.
- The consideration of alternatives in that context (including alternative locations, technology, layout and design), must have taken into account environmental factors and the need for ORE to co-exist with other marine users including commercial fisheries, in particular.
- A development management framework must be in place which is plan-led and which provides for marine planning guidelines to guide decision-making, in the absence of which the proposed OWD must be considered to be premature.
- The proposed development must be consistent with the requirements of section 15 of the Climate Action Act 2015, as amended.
- A cost benefit analysis of the project, which includes a comparison of alternatives, must be produced by the applicant to satisfy the Public Expenditure Code which forms part of government policy to which the Board is obliged to have regard, inter alia, under section 143 of the Planning and Development Act 2000, as amended.
- The EIA carried out by the Competent Authority must demonstrate that the project will not have unacceptable environmental impacts.
- The possibility that the proposed OWF, on its own or in combination with other plans or projects, will have an adverse effect on any European Site can be excluded beyond a reasonable scientific doubt.

It is our clients' opinion that these criteria have not been fulfilled in the context of the consideration of the proposed OWF application and accompanying documentation (including the EIAR and NIS) and because of the absence of fit-for-purpose decision making framework which, though part of Government policy, has not yet been implemented.

Our submission will address the following concerns:

- (a) The inadequacy of the consideration of alternatives and of the site selection process resulting in what is acknowledged in the EIAR to be a potentially very significant impact on commercial fisheries industry and the nephrops fishery in particular.
 - (b) The proposed development is premature pending the adoption of Designated Maritime Area Plans (DMAPs) which will identify suitable locations for ORE projects and pending the publication of the Marine Planning Guidelines.
 - (c) The proposed development is not consistent with the requirements of section 15 of the Climate Action Act 2015, as amended.
 - (d) Ineffectiveness of mitigation of impact on commercial fisheries.
 - (e) Ineffective mitigation and the FMMS.
 - (f) Economic Considerations.
 - (g) Environmental concerns relating to appropriate assessment (AA) and other ecological concerns relating to this development and the site selected
 - (h) Cumulative/In combination Impacts.
 - (i) The Planning and Development considerations as set out by Marston Planning Consultancy in the appended report.
- (a) **The inadequacy of the consideration of alternatives and of the site selection process resulting in what is acknowledged in the EIAR to be a potentially very significant on commercial fisheries industry and the nephrops fishery in particular.**

Article 5(1) of the EIA Directive provides that the information to be provided by the applicant shall include at least, *inter alia*:

(d) a description of the reasonable alternatives studied by the applicant, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment;

[Emphasis added]

Article 5(3) of the EIA Directive further provides:

3. In order to ensure the completeness and quality of the environmental impact assessment report:

(c) where necessary, the competent authority shall seek from the applicant supplementary information, in accordance with Annex IV, which is directly relevant to reaching the reasoned conclusion on the significant effects of the project on the environment.

The supplementary information for the purposes of Annex 4 to the Directive includes:

*(c) A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the applicant, which are relevant to the proposed project and its specific characteristics, and **an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.***
[Emphasis added]

In circumstances where the applicant has chosen to locate the proposed WFD within a candidate Special Protection Area cSPA, i.e. the North West Irish Sea cSPA, the Board should request supplementary information from the applicant in relation to the reasonable alternatives studied by the applicant, and an indication of the main reasons for selecting the chosen option, **including a comparison of the environmental effects** in relation to the alternatives actually considered by the applicant.

The inadequacies of the site selection for this project have been detailed in the report of Anthony Marston, Planning Consultant, accompanying this submission. His submission highlights the following:

- The subject proposal is located centrally within the North-West Irish Sea Special Protection Area (cSPA) which was not designated as a cSPA - prior to the selection of the application site for the proposed OWF. This cSPA is Ireland's largest protected zone for birds, spanning some 230,000 hectares.
- The site selection was largely based on a 2008 study conducted by UCC which aimed to identify target areas of the seabed for which a fixed bottom offshore wind farm could potentially be **economically constructed, operated, and maintained**. The broad area in the northwest Irish Sea was highly recommended as it was considered to be a low energy environment and away from ferry routes. The site

selection did not, therefore, take into account or give any material weight to environmental factors or to the impact on commercial fisheries.

- An inclusive and comprehensive multi-criteria decision-making and constraint mapping process should have been undertaken with full stakeholder participation to ensure appropriate representation of the different maritime users and environmental considerations.
- While token references are made in the EIAR to the need to reduce the impact on commercial fisheries as a consideration influencing the site selection process, the chronology of the site selection process as described in the EIAR provides clear evidence that the potential impact on commercial fisheries did not influence the process whatsoever.

In particular, the site selection process failed to adequately take into account or give any weight to the very significant impact on the nephrops fishery at this location and its knock-on consequences for our clients and this sector of the fishing industry.

- The concept of floating off-shore wind turbines was not adequately considered as part of this application at project inception stage or in the context of considering alternatives within Chapter 5 of the EIAR.

(b) The proposed development is premature pending the adoption of Designated Maritime Area Plans (DMAPs) which will identify suitable locations for ORE projects and pending the publication of the Marine Planning Guidelines.

This aspect is considered in more detail in the report of Anthony Marston, Planning Consultant, accompanying this submission.

The proposed development is premature pending the adoption of Designated Maritime Area Plans (DMAPs) and permission should be refused for that reason. Critically, these measures have yet to be put in place and do not apply to the application before the Board. In addition to the absence of Marine Planning Guidelines, this means that the Board does not have the necessary strategic guidance to consider the subject application in light of a plan-led approach.

It is important that all ORE development, including Phase One projects, are assessed within such a spatial decision-making framework which must include marine planning

guidelines to direct decision making which the Government were proposing to publish in Q4 of 2023 as per the Climate Action Plan 2023.

- (c) **The proposed development is not consistent with the requirements of section 15 of the Climate Action Act 2015, as amended.**

15. (1) A relevant body [which includes the Board] shall, in so far as practicable, perform its functions in a manner consistent with—

- (a) the most recent approved climate action plan,*
- (b) the most recent approved national long term climate action strategy,*
- (c) the most recent approved national adaptation framework and approved sectoral adaptation plans,*
- (d) the furtherance of the national climate objective, and*
- (e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State*

The Climate Action Plan 2024 states at section 2.2:

*“Under the Climate Action and Low Carbon Development (Amendment) Act 2021, Ireland’s national climate objective requires the State to pursue and achieve, by no later than the end of the year 2050, the transition to a climate-resilient, **biodiversity-rich, environmentally sustainable, and climate-neutral economy.**”*

[Emphasis added]

It follows from the use of the words “*biodiversity-rich, environmentally sustainable*” that the race to get as many ORE projects in place before the new regime of Designated Maritime Area Plans (DMAPs) is implemented in accordance with Government policy, must be tempered by requirements to promote biodiversity and environmentally sustainable development, including ORE development.

The Board is required to perform its functions in a manner consistent with the furtherance of the national climate objective under section 15(2)(d) which, in turn, specifically refers to a “...*biodiversity rich, environmentally sustainable...economy*”

The applicant has failed to ensure that this planning application is consistent with the furtherance of the national climate objective in so far as it failed to take into account the promotion of a biodiversity rich and environmentally sustainable economy in the context of the consideration of alternatives and the relevant site selection process.

(d) Ineffectiveness of mitigation of impact on commercial fisheries

Under the National Marine Planning Framework (NMPF), the applicant has an obligation to demonstrate that the proposals will avoid, minimise or mitigate such impacts. Our clients' position is that the applicant has failed on all three requirements as follows:

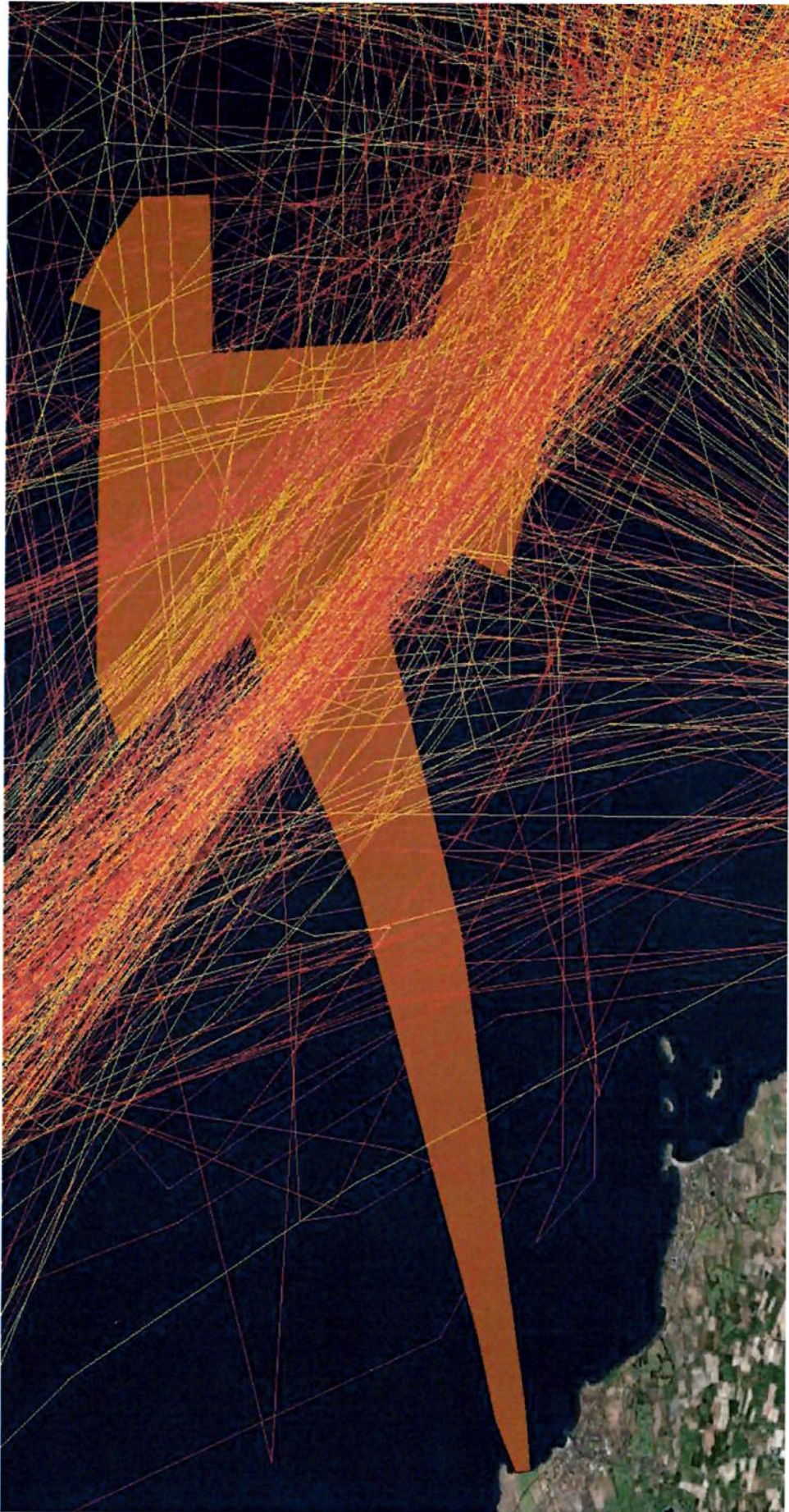
- (i) Avoid – the applicant states that it engaged in extensive consultation and engagement with our clients' group in relation to site selection; reliance is placed on a somewhat smaller array area due to a reduced number of turbines. The reality is that the site selection is due to technical advancements and driven by engineering and grid connection considerations, as opposed to listening to our clients' concerns. This is clear as the development is right in the middle of our clients' intensively fished grounds. The inadequacies of the site selection process as described in the EIAR are addressed in greater detail in the report of Anthony Marston, Planning Consultant.

This development is essentially severing the nephrops grounds, which will result in considerably valuable and sensitive grounds lost to the development, along with procedural and operational costs incurred in trying to fish outside and around the area of the proposed OWF. Our clients categorically reject the assertion that they can fish between the turbines once constructed. This is not possible due to navigational concerns, manoeuvrability of the vessels and equipment relating to wind shear and the strong tide that exist in the Irish Sea, along with weather conditions. Our clients take exception to the inclusion in the application of unworkable mitigation measures which are as a result of the lack of consultation and engagement with our clients and the fishing industry generally.

- (ii) Minimise – we say that the applicant has done nothing to minimise the impact on the nephrops at design stage. The proposed WFD is in the worst possible place in terms of its impact on nephrops which are not a mobile species and remain in and around their burrows for their lifetimes. There has been no effort to minimise impact at site selection or design stage; it is clear that commercial fisheries were not a factor or consideration, or was not accorded any material weight in the process. Furthermore, the FMMS makes no attempt to minimise the effect and the contents of this document should be disregarded by the Board.
- (iii) Mitigate - The FMMS document presented in this application is in complete breach of the applicant's obligations contained in the National Marine Planning Framework. Our clients and their representatives are members of the Seafood

ORE WG and were not consulted or engaged with in relation to the FMMS. The first time our clients have had sight of this document is as part of this public consultation process. The only publicly released document by the Seafood ORE Working Group is the Seafood/ORE Engagement in Ireland Summary Guide published in April 2023, which does not provide mitigation measures where there will be a significant impact.

The image overleaf shows a case study provided by our clients providing an example of one vessel's activity and overlap with the NISA boundary/envelope. This data is for a reference period of 5 calendar years, from 2019 to 2023 inclusive. This data shows the level of activity of the prawn vessel across the proposed area. Our clients would ask the Board to take note of the vessel tracks, in addition to the use of the proposed development area as a transit route for all of the surrounding nephrops grounds. The applicant has not included sufficient information to enable the Board to assess or include both the direct impacts of the loss of the footprint of this area, but also the indirect impacts of the restriction of access to the surrounding grounds.



(e) Ineffective mitigation and the FMMS

As discussed above, there was no consultation and engagement with our clients and the fishing industry generally in relation to the preparation of the FMMS. This document, prepared in breach of the guidelines issued in the NMPF, does not contain mitigation measures that are effective in any way to mitigate the very significant impact on our clients' industry. The NMPF simply stipulates that there should be communication in relation to timing, vessel activity, maintenance activities, health and safety, cable locations (which the applicant cannot yet confirm will be buried, thus causing further impact on the industry).

The NMPF requires that the applicant will progress the construction of the proposed development with the least disturbance practicable to the local fishing activities. The applicant acknowledges that there will be very significant impacts on nephrops fishing at all stages of the proposed development and seeks to mitigate these impacts with the FMMS. As explained in the planning report of Mr. Marston, these measures are totally ineffective. The application also accepts that there will be exclusion zones around major activity areas which again will inhibit our clients' access to the fishing grounds. The applicant also acknowledges the fact of the killing or destruction of species (but not the full extent thereof) that will occur to the nephrops species during construction and our clients do not accept that the species is likely to recover from this.

The applicant states that:

"Fishing will not be prohibited from within the array area and the above commitments are made by the Applicant to maximise coexistence with the fishing industry".

This comment could only be included by an applicant who has not engaged or consulted or prepared this document with the fishing industry, it is not a workable solution and makes no reference to the practical realities and impediments to this suggestion.

The applicant seeks to rely on an evidence-based disturbance payment strategy at section 4.4 of the FMMS. This strategy has not been discussed or developed with the fishing industry and is a vague and unsubstantiated mitigation measure which must be disregarded. The Sustainable Fisheries Community (SFC) initiative has not been prepared through collaboration and cooperation between the local fishing community and NISA. No socio-economic analysis or cost benefit analysis has been carried out for the fishing industry or is contained in this application. It is set out that the applicant carried out a body of work to establish the value of earnings, this data is not contained in the application for consideration and our clients do not accept that the applicant has prepared this analysis in a proper or meaningful way. No processes have been agreed

or developed to show how fisheries will be identified to ensure that impact mitigation, by way of disruption payments, will occur. The application notes that this purported mitigation measure (which is not adequately set out) is for the construction phase, whereas the EIAR recognises that nephrops will be impacted at all stages of the project. The limited engagement referenced by the applicant records the concerns put forward by nephrops fishermen, including our clients, which the applicant has ignored, thus failing to avoid, minimise and mitigate.

There are no national guidelines to implement the fisheries policies in the NMPF in regard to seafood production. The applicant has failed to carry out a social economic assessment of the effect this project will have on the nephrops and fishing industry and a cost benefit analysis for same. Commercial fishing was not considered in a multicriteria analysis as part of site selection and the development is located within the worst possible location for the Irish nephrops fishing fleet and wider industries that surround it.

The NMPF contains Co-Existence Policy 1, which requires the applicant to show they have considered how to optimise the use of space, including through consideration of opportunities for co-existence and co-operation with other activities. This should have included alternative locations for the purposes of co-existing with the other marine users including commercial fishermen. There is a clear breach of this obligation as our clients cannot co-exist with ORE when a significant part of their fishing grounds are being wiped out by the applicant. The Board needs to be aware that this project is planned in an area that is intensively fished and which contains valuable prawn grounds. If granted permission, this project will have a very significant adverse impact on our clients' ability to earn a livelihood.

The applicant has accepted in Chapter 16, Commercial Fisheries, that the EIAR confirms there will be very significant potential impacts for Irish demersal otter trawlers targeting nephrops within the array area during all phases of the proposed development. This triggers the applicant's obligations in the NMPF (Fisheries Policy 2) to prepare a Fisheries Mitigation and Management System. The applicant has put forward this document as Volume 9, Appendix 16.2. The applicant states:

"The mitigation measures provided within the FMMS have been developed in consultation with the industry and will continue to be delivered through the FMMS as it remains a live document. The FMMS includes the following key principles and measures relevant to construction:"

It is clear that this document has been prepared by a consultant engaged by the applicant. Our clients can confirm as key industry representatives, and members of the ORE Seafood WG, that the document **has not been** prepared in consultation with the fishing

industry. Our clients take great exception to the assertion being relied upon by the applicant. They can confirm that NISA representatives attending the ORE Seafood WG have been asked to engage with the fishing industry to prepare a Fishery Mitigation and Management Strategy but this has not happened.

Our clients would ask the Board not to tolerate mitigation measures which are not capable of implementation to deal with the significant impacts which are accepted to occur in our clients' industry, and to refuse this application based on this significant breach of government policy.

(f) Economic considerations¹

This application raises serious economic policy questions as well as environmental concerns. The gross benefit of the generation capacity is reflected in revenue to the promoters but there are offsets and the net benefit, in a social cost-benefit analysis, may not reach the level of promoter revenue. It may also be the case that the project promoters are enabled by the regulatory regime to avail of cross-subsidies from public funds or from end-users.

The State has undertaken a form of price guarantee with this project and there is a contingent liability on the Government's balance sheet, stretching out 20 years into the future. Should the promoters fail to receive the expected strike price in the all-island wholesale market, the State has effectively written an option against itself which could materialise. Under the current arrangements, any future payment to generators will compensate them for market prices below the strike price. If this cost falls on the Exchequer, the public is exposed to higher taxes, deferred where the funds are borrowed, so it is not envisaged that it will be a charge on public expenditure. Instead, there is a formal mechanism to pass this cost on to electricity consumers as a public service obligation so the future costs will be recovered as an indirect tax on customers.

Customer bills include transmission and distribution costs, as well as capital, fuel and other operating expenditures of generators. Unless generators are charged fully for new connection link-up and for any other upgrading to the system arising from their activities, this cost is also passed through to end-users. This is also true where discounted deals on transmission and distribution are available to sources of demand. Again, the customer pays.

¹ The contribution of Mr. Colm McCarthy, economist, Bachelor of Commerce UCD, Masters of Economic Science UCD, Master of Arts (Economics) University of Essex. to this section of this submission is acknowledged

The Public Spending Code and An Bord Pleanála

If ABP is required to take government policy into account, what is the status of the Public Spending Code? Does it constitute established government policy, even though it has never been enshrined in legislation, for example in a Public Investment Act which would bind the state and its agencies? The history of the PSC and its centrality in official pronouncements on energy and climate policy suggest that it ought to be seen as government policy, as is also the case with European Union directives and with elements of European Commission policies to which Ireland is a party.

Origin of the Public Spending Code

Following controversy in the late 1970s about cost over-runs on state-funded capital projects, notably the fertiliser plant on Cork Harbour built by the state-owned Nitrigin Eireann Teoranta and a prolonged Oireachtas inquiry, the Department of Finance established the Working Group on Cost Over-runs in Public Construction Contracts.

The Group's recommendations were reflected in Department of Finance Circular #1 of 1983, the forerunner, after numerous iterations, of what is now called the Public Spending Code (PSC). The code requires *inter alia* that public projects should be subjected to economic evaluation prior to government approval and that initial cost estimates be rigorous. In 2011 after the banking crash and the resort to state borrowing from the International Monetary Fund, the government decided to establish a new government department, the Department of Public Expenditure and Reform (DPER). DPER absorbed the former public expenditure division of Finance and expanded its role to include oversight of the Public Spending Code.

In the event there have been widespread cost-over-runs and public disputes between DPER officials and line departments, for example concerning the National Broadband Plan, over compliance with the requirements of the PSC. Public exposure can arise directly through the budget allocation for projects in the state capital programme but also indirectly through, for example, top-up payments to generators guaranteed by the Exchequer beyond the wholesale market price they receive for electricity.

Recovering Costs in the Electricity Industry

Electricity in Ireland is a cost-recovery industry, unlike the water and wastewater industries which receive direct Exchequer subvention of capital costs and operating losses. The full costs of fuel to generators, of high-voltage transmission and interconnection, low-voltage distribution and of retail supply are recovered in the

monthly bills. As electricity consumers, households and firms have to meet the cost of so-called ‘public service obligations’ imposed in their bills for discounts on connection charges to generators, in effect a form of earmarked tax on customers collected through electricity bills, as well as excess costs arising from distribution in remote areas where the full cost is not imposed on rural customers. These PSO charges are set explicitly by regulators and add to the retail cost of electricity in Ireland. Eurostat figures regularly show that retail electricity tariffs in Ireland are at the upper end of the range of prices in the European Union.

Customers are conscious that higher fuel costs for generators result in higher electricity bills but may not always be alert to the importance of transmission and distribution costs, which can account for as much as 40% of the final tariff. Whenever generators obtain favourable terms for grid connection, someone has to cover the cost and this can be a substantial issue. In the Future Framework for Offshore Renewable Energy released earlier this year by the Department, the issue is stated thus: *‘Energy transmission cables connecting project sites to the terrestrial electricity grid are currently particularly expensive components of ORE projects. These costs are ultimately borne by electricity consumers.’*

The extent of the imposition on consumers depends on the location of new renewable generation and also on whatever onshore grid strengthening may be needed to accommodate specific developments. Clarity in the arrangements for cost recovery by the grid operator from applicants is accordingly critical in assessing the distribution of potential benefits from any wind farm project, on- or off-shore. Connection costs can also be imposed on ‘loads’, especially new large-scale industrial users such as data centres. Recent reports from Eirgrid on transmission system adequacy assume investment in high-voltage lines and interconnectors which is not certain to be completed in timescales consistent with the 2030 ambitions for renewables. This has already resulted in restrictions on new connections for data centres in the Dublin area.

Eirgrid expect² that in the period up to 2030 there will be substantial development of renewable generation, including offshore, in the Dublin area which will add to existing pressures on the system’s capacity to deliver secure supplies. An Bord Pleanála should seek to ascertain Eirgrid’s view on the adequacy of existing onshore transmission infrastructure in the light of additional generation and of growing demand, and whether they acknowledge that these pressures will be most acute in Dublin and the East region. Do they accept the applicant’s view that the onshore facility at Belcamp will be adequate without additional enhancements and other work on transmission infrastructure?

²https://cms.eirgrid.ie/sites/default/files/publications/Shaping-Our-Electricity-Future-Roadmap_Version-1.1_07.23.pdf

Since the electricity industry is expected to remunerate fully its operating costs and to support balance sheets capable of financing capital investment, any attributable costs not levied on generators or on categories of users are passed through to the generality of customers.

Current Status of the Public Spending Code

The code has been articulated in greater detail over the years and a guide to the current guidelines for infrastructure projects dating from December 2023 can be found here³. Government announcements about individual projects, or about progress generally with the National Development Plan, routinely include statements about compliance with the code. Minister Paschal Donohoe answered a recent Dail question as follows:

'I am responsible for the public spending code, which sets the value-for-money requirements and guidance for evaluating, planning and managing Exchequer-funded capital projects. In March this year, I informed the Government of a package of significant actions aimed at enhancing project delivery for the national development plan, NDP. This package represented a fresh approach to securing delivery as part of the Department's enhanced remit around the NDP.'

In view of the prominence accorded to the code in the NDP and its revisions, and in statements from the ministers for Finance and DPER, it is clear that the Public Spending Code is a statement of government policy and is so regarded by the ministers responsible. Line departments moreover regularly allude to the PSC and claim compliance therewith in their 'business cases' for the funding of capital projects by the Exchequer.

Requirement for An Bord Pleanála to have regard to Government Policy.

The Bord acknowledges that it is required to have regard to government policy. The following statement is included in its current Strategic plan:⁴

'The Planning and Development Act 2000, as amended, provides An Bord Pleanála's mandate to ensure that appeals, applications and referrals are disposed of as

³[https://kpmg.com/ie/en/home/insights/2024/01/infrastructure-guidelines-public-spending-code-cge-infra.html#:~:text=In%20December%202023%2C%20the%20new,National%20Development%20Plan%20\(NDP\).](https://kpmg.com/ie/en/home/insights/2024/01/infrastructure-guidelines-public-spending-code-cge-infra.html#:~:text=In%20December%202023%2C%20the%20new,National%20Development%20Plan%20(NDP).)

⁴ https://www.pleanala.ie/getmedia/2331ffe3-8976-49da-9588-43d28f6b852d/An-Bord-Pleanala-Strategic-Plan-FINAL-for-WEB_1.pdf

expeditiously as possible. Planning decisions are made in line with government and EU policy and legislation, having regard to a range of specified plans, policies and guidance documents. Further, the legislation requires that An Bord Pleanála shall, in performing its functions, be independent while operating within the general framework of public policy.'

It is our contention that the PSC as updated is, along with applicable European Union directives, part of the 'general framework of public policy'. The PSC is regarded as such by government ministers and regularly referenced by them. An Bord Pleanála in its own language in its most recent strategic plan must be

'independent, while operating within the general framework of public policy',

which cannot reasonably be construed as ignoring the PSC and compliance therewith of project evaluations by promoters and sponsoring government departments.

It is clear that ABP does not perceive its role as determining whether proposals constitute value for money or have been independently evaluated from that perspective. This is a matter for central government. However, the Board does have an obligation to assess the extent to which the proposals brought before it have complied adequately with the requirements of the PSC and of the European Union.

Evaluation of Alternative Projects.

The PSC requires that the preliminary and final business cases for public projects should consider a 'do-nothing' alternative as well as competing projects, perhaps in a different location or using a different technology. An example would be bus versus rail for public transport.

In the case of the proposed OWF, does the consideration of alternatives comply fully with this PSC requirement? A key alternative which is addressed in the application is 'do nothing', that is not to proceed with the array as outlined and leave the shortfall in electricity supply to be made up by other projects and other technologies. It was also open to the applicant to consider alternative locations in the Irish Sea. It would appear that the location and preferred layout were selected on the basis of cost and commercial feasibility, a procedure which may fail to identify the relevant alternative project in the sense of maximising the social surplus of benefits over costs. In this respect, the failure to consider the full range of alternatives, the application is not in compliance with the PSC.

Downstream Benefits

The application claims benefits ancillary to the direct commercial revenue which electricity generation at the site will deliver. Aside from the contingent liability for the State and ultimately for the electricity consumer arising from the price guarantee, the reality of the claims needs to be assessed. These include off-site employment and additional business for Irish sea-ports. Several ports in the Republic on the Irish Sea and off the southern and Atlantic coasts, most of which are in the ownership of the state, have already announced plans for onshore facilities aimed at the offshore wind industry but have been keen to stress that they will require Exchequer support.⁵ The Port of Cork, one of Ireland's more successful in commercial operations, has already admitted that they cannot go ahead without government capital. Costs could be substantial – running to €50 or €100 million per port, or even more, depending on land availability. The list includes several on the east coast as well as a necklace of ports around the western seaboard.

The presumed downstream benefits will arise only if the government decides to finance at least some of these onshore facilities and if the offshore applicants choose them as a base for their operations. There are reasons to fear that the ports on the Republic's Irish Sea coastline are not favourably placed. None has internal financial resources to finance the full scale of expenditure required. Moreover, there will be competition from nearby ports in the United Kingdom. Facilities are under development in Belfast but also at several British ports adjacent to the Irish and Celtic Seas, including at Barrow-in-Furness on the Lancashire coast and at Port Talbot, near Swansea in Wales. There are numerous ports on Britain's North Sea coast with space and facilities dating from the North Sea oil and gas boom which have already converted to facilitating offshore wind and more are progressing their plans. We understand that pre-construction work at the proposed OWF site has been undertaken by vessels based outside the Republic.

There are multiple risks to the presumed downstream benefits. The first is that some of the port developments in the Republic may not attract the financial support from government which has been sought. This is especially the case off the Irish Sea coast where existing British wind-farms are already being serviced from ports on the British side. The distances are short. Even if physical facilities are provided, it would be a matter for customers, in this case the offshore wind farms, to choose their base of operations and the UK ports have a head-start, including adequate storage space for construction materials, surveying and dredging capabilities as well as experienced staff.

Off the west coast, should Atlantic wind-farm projects go ahead, there is less competition from established operations within reasonable range and government

⁵ It is understood that there is currently an application pending determination before An Bord Pleanála for a proposed development at Greenore Port, a privately owned port.

accordingly less likely to have reservations. But any state investment in port development would have to be evaluated on its merits, in accordance with the procedures laid out in the PSC.

The community benefit fund promised, €4 million per annum, is not compared to the gross benefit of the project to the promoters, nor to any direct estimate of losses to the fishing industry.

It is our clients' contention that the application is deficient in its failure to address the requirement in the PSC to prepare a full socioeconomic cost-benefit appraisal, and to address the issue of alternatives to its preferred option.

A cost benefit analysis of the project, which includes a comparison of reasonable alternatives, has not been submitted by the applicant to satisfy the Public Expenditure/Infrastructure Code which forms part of government policy to which the Board is obliged to have regard, *inter alia*, under section 143 of the Planning and Development Act 2000, as amended

The licensing and registration of Irish sea-fishing boats is in accordance with National and EU legislation and Policy Directives issued by the Minister. EU rules require that there be a stable and enduring balance between fishing capacity and fishing opportunities and in this regard lay down maximum capacity (i.e. gross tonnage and kilowatts) limits for member States' fishing fleets. Entries and exits from the fleet must be managed in such a way that the entry of new capacity into the fleet must be compensated by the previous withdrawal of at least the same amount of capacity (i.e. gross tonnage and kilowatts) in accordance with Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy. Detailed reporting on the fishing fleet to the EU is also required.

The very significant impact, as acknowledged, on the nephrops fishing industry will result in a reduction in fishing opportunities, which will have a knock-on effect on fleet capacity. The Irish fishing fleet has already suffered significant decommissioning of vessels post Brexit, which BIM estimated at a total cost of €63 million⁶. 39 demersal vessels were decommissioned as a result of the loss of quotas to the UK as a result of the Trade and Cooperation Agreement.

⁶ <https://bim.ie/news-and-events/media-releases/high-uptake-for-voluntary-decommissioning-scheme/#:~:text=42%20vessels%20have%20accepted%20offers,recommended%20by%20the%20Seafood%20Taskforce.>

BIM valued Ireland's seafood economy as €1.3 billion in 2022, providing direct and indirect employment for 15,373⁷. The nephrops industry is responsible for providing employment for ancillary jobs ashore such as fish processing, net making, tourism, local shops, lorry drivers, oil delivery, co-ops amongst others. Overheads are high, and we have invested heavily in our clients' vessels and fishing equipment. The profit margins cannot survive the losses that will occur as a result of this development, noting the expense required to get the vessels in the water such as fuel, insurance, experienced crew costs and vessel and equipment costs and this has not been considered or evaluated by the applicant.

(g) Appropriate Assessment and other Ecological Concerns relating to this development and the site selected.

The EIA carried out by the Competent Authority can demonstrate that the project will not have unacceptable environmental impacts.

Having reviewed the Natura Impact Statement, and with the benefit of the advice of Marie Louise Heffernan ecologist, our clients' position is that the likelihood or possibility of the proposed offshore wind farm development (the proposed WFD), whether on its own or in combination with other projects, having an adverse effect on the integrity of a number of Natura 2000 sites and their protected species, in light of the conservation objectives for those sites, cannot be excluded on the basis of the information in this application, including the Natura Impact Statement (NIS) and appropriate assessment (AA) screening information. The unsatisfactory approach to how this site was selected and the extent to which alternatives were not considered adequately or at all is evident from the chronology in relation to site selection in the EIAR and is addressed in more detail in the report of Anthony Marston, Planning consultant.

The site is located within a Special Protection Area, namely the **North West Irish Sea SPA**, designated to protect 120,000 feeding birds. It is also located on a migratory route for Wildfowl and Waders for which the **Malahide Estuary SPA** is designated, at c. 0.5m from the NISA onshore infrastructure and **Rockabill SPA**, a breeding area for vulnerable Roseate Terns. Rockabill supports 94% of the UK and Ireland population and is located 0.2km from the array area. The potential for displacement and collision impacts in such a key European and internationally important area for birds are considerable.

However, it is not only birds that are at risk. This Array is located just 2.5km from **Rockabill to Dalkey Island SAC**, designated for the largest number of harbour

⁷ <https://bim.ie/a-seafood-way-of-life/facts-and-figures/>

porpoises in a single area in Ireland. Only 15km away lies **Lambay Island SAC** designated to protect Grey and Harbour Seal, the latter pupping on its shores in autumn. Marine mammals rear their young in this area, forage, mate and communicate using sound. There is significant potential for impact on these species through development of this and other wind farms in the Irish sea. The noise levels during construction and operation will change the nature and potentially the ecology of this area permanently. The **project** is likely to have an adverse effect on the integrity of a number of Natura 2000 sites and their protected species, having regard to the conservation objectives for those sites.

Impact on Birds

Offshore wind farms can impact bird species differently. For example, in the NIS, Herring gull, Black headed gull and Kittiwakes are shown to be at risk of collision with turbine blades due to their flight patterns. Meanwhile, species like guillemots, gannets and razorbills which forage at sea, experience habitat displacement, reducing their feeding efficiency.

Displacement Impacts

Sample Species Selected.

Although there are many birds sensitive to displacement (as identified in the NIS), in particular Razorbills, Gannets and Guillemots, this submission will focus on one species only, by way of example, namely Guillemots. The main issue for these species is displacement.

Displacement occurs when birds move away from their preferred habitats due to wind farms. Turbines and infrastructure disrupt their environment, making the area less suitable for feeding, breeding, or resting. This forces birds to travel further, increasing energy use and reducing foraging efficiency, which can lower survival and reproductive success.⁸

Population

There are two populations of Guillemots of Concern

1. Breeding Guillemots
2. Guillemots outside breeding season at sea

⁸ Langston, R. H. W. (2013). Birds and Wind Projects Across the Pond: A UK Perspective. Wildlife Society Bulletin, 37(1), 5-18. DOI:10.1002/wsb.262

Lambay Island SPA is the SINGLE most important site in Ireland for breeding Guillemots. The most recent survey recorded Guillemot (**38,999 pairs**) on Lambay Island⁹. This is located some 15km from the array. This is the Breeding Bio-season population.

The Array lies in the North West Irish Sea SPA. According to NPWS Conservation Objectives “*Jessopp et al. (2018) undertook summer, autumn and winter surveys of the western Irish Sea; razorbill (*Alca torda*) and guillemot were categorised together. Based on this a maximum of 93,191 individuals are estimated to have occurred in the SPA respectively; it is likely that guillemot formed the majority of these.*” This is the Non-breeding Bio-season population (mainly autumn and winter numbers).

Ecology of species

Guillemots are small black and white diving birds that nest on steep sea cliffs and forage in shallow seas. They can dive up to 200m, typically 20–50m, with a foraging range of 24 km, often within 50 km of a colony.

These birds are known to forage in their thousands in the area of the proposed array. The NISA array area, covering 89 km², is about 15 km from the nearest colony in waters 30-63m deep.

According to a paper specifically on feeding preferences of guillemots from Lambay, their dominant prey is sand eel, shifting to sprat and crustaceans if that is not available.¹⁰¹¹ Guillemot feeding strategy is a “*mix of **benthic** (seafloor) and pelagic (open ocean) foraging.*”¹⁰ Sandeels are known to be present in the north array area and along the cable routes according to the NIS. They are not everywhere in the ocean so rich areas such as these are important feeding areas and are key resources¹². In this case, the shallow nature of the sand bank enables easy foraging for these seafloor foragers.

Foraging availability is key, especially in the breeding season when chicks are being reared. Lambay Island SPA is a key breeding area for this species in Ireland.¹³ These birds are particularly vulnerable to displacement impacts; “*As guillemots have one of the highest wing-loadings of any volant bird species, flight is an extremely expensive*

⁹ Seabirds Count A census of breeding seabirds in Britain and Ireland 2015 -2021 D. Burnell, AJ., Perkins Newton SJ, Bolton M, Tierney DT, Dunn T.E.

¹⁰ <https://bou.org.uk/blog-jo-what-do-common-guillemot-chicks-eat/>

¹¹

https://www.researchgate.net/publication/259549695_The_diet_of_Common_Guillemot_Uria_aalge_chicks_provides_evidence_of_changing_prey_communities_in_the_North_Sea

¹² <https://www.rspb.org.uk/whats-happening/news/how-a-little-fish-could-benefit-us-all>

¹³ <https://stud.epsilon.slu.se/18728/1/Bohacek-M-20230228.pdf>

behaviour, so marine threats that increase flight time can disproportionately affect energetics.”¹⁴ As a recent paper in *Nature* states in respect of Guillemots:

*“The reproductive season has previously been highlighted as an energetically costly period in an animal’s annual cycle. High values of energy expenditure during the breeding period are incurred by parents making physiological and behavioural adjustments in order to invest in reproduction, through activities such as egg production and offspring provisioning, whilst also maintaining their own body condition at a level that safeguards future survival and breeding. For example, in species that adopt central-place foraging strategies during reproduction, high energetic costs are often driven by increased allocation of time to energetically expensive commuting behaviours”*¹⁵.

This means that breeding is a particularly vulnerable time of the Guillemot’s life cycle. Any displacement is likely to be costly in terms of survival and reproduction.

Displacement Impacts

The Natura Impact Statement accepts that Guillemots are vulnerable to displacement from Offshore Wind (OW). The **Natura Impact Statement** accepts a displacement rate of 15-35% (see Natura Impact Statement table 5.13) of these birds during the construction and decommissioning phases. This rises during the operational phase to a displacement of 50% for guillemot with a range of 30% to 70%). These are significant displacement impacts.

The Natura Impact Statement notes the following figures at **Section 5.4.11.2.1**:

- **Breeding Bio-season (Site-Specific Approach):** The document estimates that 888 breeding guillemots, of which 826 are attributed to Lambay Island SPA, are at risk of displacement due to the proposed development, assuming a 50% displacement rate.
- **Breeding Bio-season (Generic Approach):** The document estimates that 6,715 breeding guillemots, of which 6,240 are attributed to Lambay Island SPA, are at risk of displacement, assuming a 50% displacement rate.

¹⁴ Buckingham, L., Daunt, F., Bogdanova, M. I., Furness, R. W., Bennett, S., Duckworth, J., Dunn, R. E., Wanless, S., Harris, M. P., Jardine, D. C., Newell, M. A., Ward, R. M., Weston, E. D., & Green, J. A. (2023). Energetic synchrony throughout the non-breeding season in common guillemots from four colonies. *Journal of Avian Biology*, 2023(1-2), e03018. <https://doi.org/10.1111/jav.03018>

¹⁵ <https://www.nature.com/articles/s41598-020-62842-x>

- **Non-breeding Bio-season:** The mean-peak number of guillemots during this period is estimated at 29,765 individuals, with a total of 1,340 breeding adults likely to be displaced, assuming a 50% displacement rate.

Displacement will be long term as this project will last a minimum of 35 years and, most likely, the turbines will be upgraded over time. A Guillemot only lives 24 years and reproduces at around 6 years old. The Operational phase represents long term permanent displacement from a rich feeding area which is part of the ecosystem supporting these amber listed protected species.

Conservation Objectives

North West Irish Sea SPA

To maintain the favourable conservation condition of guillemot in North-West Irish Sea.

The NPWS Conservation Objectives for Guillemot state the following:

“Attribute: Forage spatial distribution, extent, abundance and availability; Measure: Location and hectares, and forage biomass; and the Target: Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target.”

Lambay Island SPA has only generic Conservation Objectives so the same CO will be assumed for both sites.

Impact

The displacement impact on Guillemots from the array has the potential to have a significant impact on population targets and thus the Conservation Objectives for both Lambay Island SPA and the North West Irish Sea for the following reasons:

The displacement of a large number of birds from an area designated for their protection significantly undermines the Conservation Objective. This objective aims to ensure "sufficient locations, suitable habitat, and available forage biomass" to support target populations. Displacement disrupts access to vital resources, increasing competition in nearby areas and jeopardising the overall stability of the species. Such impacts could severely hinder the achievement of the intended conservation outcomes.

Cumulative Impact

1. Cumulative Displacement:

- For the breeding bio-season, the cumulative assessment considers that a significant number of guillemots across multiple wind farms might experience displacement. For example, it is estimated that 11,158 guillemots from Lambay Island SPA could be at risk of disturbance and displacement across all relevant offshore wind farms in the cumulative assessment.

2. Impact on Population Viability:

- The PVA results indicate that the cumulative displacement of guillemots could lead to a small reduction in population growth rates and a more noticeable reduction in final population size over a 35-year period. For instance, the PVA predicts a 0.156% reduction in the population growth rate and a 5.461% reduction in the final population size for the Lambay Island SPA guillemot population due to cumulative impacts.

A 5% threshold is normally seen as a significant adverse effect. For example in JNCC (2017)¹⁶, it is stated:

"The Conservation of Seabirds and the Assessment of Impacts from Offshore Wind Farms." This document explains that a 1% impact on a seabird population is often used as a precautionary threshold for significance, with impacts above 5% generally considered to have a significant adverse effect on the population."

Mitigation

Displacement Risk: for the NISA application guillemots, razorbills, and gannets, according to the NIS, avoid areas with wind turbines, leading to habitat displacement. This avoidance behaviour disrupts their feeding and breeding areas. No mitigation is possible.

Notwithstanding the reliance on the supposed 'down-sizing' of of the array area from the full extent of the area of the MAC as a purported design mitigation measure, there will be a residual significant adverse impact on the Conservation Objectives for Guillemot, and in particular, the achievement of the target relating to "*sufficient number of locations, area of suitable habitat and available forage biomass to support the population target.*"

¹⁶ JNCC (2017). *The Conservation of Seabirds and the Assessment of Impacts from Offshore Wind Farms*. Joint Nature Conservation Committee, Peterborough, UK.

Conclusion on Guillemots

The proposed North Irish Sea Array (NISA) Offshore Wind Farm is likely to have significant adverse impacts on the guillemot populations, both from a site-specific and cumulative perspective. The displacement of guillemots from the array area, a critical foraging and breeding ground, directly conflicts with the "Conservation Objectives" set forth for both Lambay Island SPA and the North West Irish Sea SPA.

Lambay Island SPA, as the most important breeding site for guillemots in Ireland, supports nearly 39,000 breeding pairs. The displacement of guillemots from the nearby NISA array area—located just 15 km from this critical habitat—will inevitably reduce their access to essential foraging grounds during the energetically demanding breeding season. This disruption is particularly concerning given the "Conservation Objectives" of ensuring "sufficient locations, suitable habitat, and available forage biomass" to support target populations. The forced displacement and loss of access to key foraging areas is likely to lead to reduced reproductive success and overall population viability.

The predicted reduction in population growth rate and final population size due to cumulative impacts cannot be ignored, particularly as a 5% impact threshold is typically considered significant in conservation assessments. Thus, it represents a significant impact in respect of the Conservation Objectives for guillemots at Lambay Island SPA and will result in an adverse impact on the integrity of the SPA.

Furthermore, the North West Irish Sea SPA, which provides critical foraging grounds for non-breeding guillemots, will also be significantly impacted.

In light of these impacts, it is clear that the proposed development does not align with the Conservation Objectives of maintaining the guillemot populations within these protected areas. The long-term displacement and habitat loss associated with this project pose a serious risk to the sustainability of these populations, contravening the fundamental aims of the Habitats Directive to maintain and restore species to favourable conservation status.

Collision Risk

Sample Species Selected.

Although there are many birds sensitive to Collision with wind turbine blades (as identified in the NIS) in particular Herring Gulls, Black backed Gull, Common Gull and Kittiwakes, for simplicity and due to time constraints this submission will focus on one only, specifically Kittiwakes, by way of example.

Kittiwakes have declined in Ireland from 38,282 (AON) to 24,723 (AON) in the past 20 years, a decline of 36%. These birds are screened in for AA and with the Conservation Objective to “*restore their conservation status.*”¹⁷ [Emphasis added]

Ecology of species

Black-legged Kittiwake (*Rissa tridactyla*), are seabirds that are intricately connected to their marine and coastal environments. They predominantly feed on sand eels, small fish vital to their diet, especially during the breeding season. These birds forage by surface dipping and plunge diving. Kittiwakes nest on steep, inaccessible coastal cliffs, forming large colonies on narrow ledges, constructing nests from mud, seaweed, and grass. Outside the breeding season, they are pelagic, living in the open ocean and migrating long distances across the North Atlantic. Their breeding success hinges on the availability of sand eels. The ecology of kittiwakes is characterized by their dietary dependence on sand eels and their specialised cliff-nesting behaviour.

Population

There are two populations of Kittiwakes of concern:

1. Breeding Kittiwakes (Breeding Bioseason)
2. Kittiwakes outside breeding season at sea (Non-Breeding Bioseason)

Breeding Kittiwake is a SCI for Lambay Island (004069), Howth Head (004113) and Ireland’s Eye (004117) SPAs; all of which declined over the period 1999-2015 (19% to 3,320 pairs; 22% to 1,773 pairs; 52% to 455 pairs respectively). Lambay Island is just 15km, Howth Head 27km and Islands Eye 25km from the Array.

Kittiwake is a Special Conservation Interest species (SCI) for which the North West Irish Sea SPA is designated. According to the Natura Impact Statement, the site supports 2,858 individuals. The NISA Array is located within this designated area. This area is used by Kittiwakes throughout the year including the breeding period.

Lambay Island SPA has only generic Conservation Objectives so the same CO will be assumed for both sites.

¹⁷ https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004236.pdf

Natura 2000

Conservation Objectives for: North-west Irish Sea SPA [004236] A188 Kittiwake *Rissa tridactyla* are to restore the favourable conservation condition of kittiwake in North-west Irish Sea SPA, the two Conservation targets of relevance are highlighted in bold below:

- ***Available forage biomass to support the population target***

Kittiwake is a surface feeding seabird and is highly dependent on sand eels as their main food source. The predicted mortality of c100km² of sand eels in the Array area (see section on Sand eels) has the potential to impact on “*Available forage biomass to support the population target*”.¹⁸ Sand eel is such an important part of their diet that, in order to protect Kittiwakes and indeed other birds that rely on this food source, all industrial sand eel fishing in the English North Sea and in all Scottish waters has been stopped.

- **Long term SPA population trend is stable or increasing**

The collision risk assessment predicts a maximum mortality due to collision of Kittiwakes with turbine blades of 45 kittiwake per annum following mitigation. This figure would appear to be a significant underestimate. The Consultants for the NISA wind farm, GoBe, have admitted that the modelling utilised was not fit for purpose. In the section of Offshore Ornithology Migratory Collision Risk Modelling they note that the collision risk modelling is not suitable for this type of assessment which is not a point to point migration but daily foraging within the SPA. However, even if we were to accept their (higher) figure of 45 per year, the total over the lifetime of the project would be 35 year is 1,575 Kittiwakes. In reality, the figure is likely to be much higher.

Mitigation

Collision Mitigation is incorporated into the project design. The collision risk assessment for the North Irish Sea Array (NISA) Offshore Wind Farm is indeed based on a minimum air draft of 40 meters (Lowest Astronomical Tide, LAT). This measure has been implemented as a mitigation strategy: see **Section 5.4.14.1** of the Natura Impact Statement. The mitigation is effectively a higher clearance between the sea and the turbine blade. However, kittiwakes found in high numbers in the NISA area face collision risks with turbine blades, which cannot be avoided.

¹⁸ <https://www.rspb.org.uk/whats-happening/news/sandeel-campaign-success-in-england>

Cumulative Impact

The cumulative impact of multiple wind farms on Kittiwakes must not be underestimated. Arklow bank wind farm is currently seeking permission for 56 turbines. It predicts an annual collision risk of 437 birds of which c190 are Kittiwakes¹⁹. Even if we take just these two wind farms together, this is a significant number of Kittiwakes over the project's lifespan. Together these projects are predicted to have a mortality due to collision risk of c8,000 birds. Our national population is 28,723 (pairs).

Conclusion

This project, both alone and in combination, is not compatible with the Conservation Objectives for: North-west Irish Sea SPA [004236] for A188 Kittiwake *Rissa tridactyla*: To restore the favourable conservation condition of kittiwake in North-west Irish Sea SPA.s It is not possible to exclude the likelihood that the project will have an adverse effect on the integrity of the North-west Irish Sea SPA for this reason. The assessment of the impact on kittiwakes has been significantly understated.

Impact on Marine Mammals

Although 4 marine mammals are screened in for Appropriate Assessment, given the proximity of two of the designated sites to protect these animals to the proposed Array, this submission specifically deals with Porpoises and Seals (grey and Harbour). However, these observations below also apply to Bottlenose Dolphin as a closely related species.

1. Rockabill to Dalkey Island SAC is 2.5km from the Array and designated as a Special Area of Conservation as part of the EU wide network Natura 2000 site to protect an internationally important population of Porpoises.
2. Lambay Island SAC is 15km from the Array and designated as a Special Area of Conservation as part of the EU wide network Natura 2000 sites to protect an internationally important population of Porpoises, Harbour Seals and Grey Seals.
3. Rockabill to Dalkey Island SAC

¹⁹ <https://www.arklowbank2offshoreplanning.ie/downloads/nis/abwp2-appendix-12.5-offshore-ornithology-technical-report-collision-modelling-results.pdf>

Ecology

Harbour Porpoise (*Phocoena phocoena*) is commonly found in coastal waters, estuaries, and around offshore islands. They are particularly abundant in the Irish Sea. These small cetaceans primarily feed on fish, using echolocation to locate prey.

Population

The Rockabill to Dalkey Island SAC lies just 2.5km south of the Array area. The Rockabill to Dalkey Island SAC, covering an area of approximately 273km², contains key habitat for harbour porpoises, including inshore shallow sand and mudbanks, and rocky reefs scoured by strong current flow (NPWS 2014). Harbour porpoises occur year-round within the site and have been observed with calves.” This is the most important site for porpoises in Ireland with an estimated abundance of 227 ± 39 (confidence interval) porpoises within the SAC.

This submission will look at the impacts in respect of the Conservation Objectives for this SAC:

NPWS Conservation Objectives Rockabill to Dalkey Island SAC

The COs to maintain the favourable conservation condition of the harbour porpoise within the Rockabill to Dalkey Island SAC, are defined by the following list of attributes and targets:

Target 1: Species range within the site should not be restricted by artificial barriers to site use:

Target 2: Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site:

Target 1: Species range within the site should not be restricted by artificial barriers to site use:

This target specifically excludes activities outside the site boundaries as being “artificial barriers” such as wind turbine arrays.. This target is not in accordance with the Habitats Directive which states Article 1 (i) “*The conservation status will be taken as 'favourable' when : — population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and — the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, ...*”²⁰

Target 2: Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site:

²⁰ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31992L0043>

The project is in three phases: Construction, Operation and Decommissioning.

The main impacts on porpoises are during the first two phases:

1. Construction
2. Operational

1. Construction Impacts (Noise)

According to NPWS detailed Conservation Objectives: *“Proposed activities or operations should not introduce man-made energy (e.g. aerial or underwater noise, light or thermal energy) at levels that could result in a significant negative impact on individuals and/or the community of harbour porpoise within the site. This refers to the aquatic habitats used by the species in addition to important natural behaviours during the species annual cycle”*

Noise Impact PTS and TTS ranges

According to the Natura Impact Statement (page 153) “For the monopile foundation scenario (WTG and OSP foundations for Project Option 1) involving the installation of 12.5m piles with a maximum blow energy of 5,500kJ, the **maximum auditory injury (PTS onset)** impact range for harbour porpoise was 15km for the installation of a monopile at the SE modelling location”.²¹

An impact range of 15km as cited in the Natura Impact Statement is equivalent to a footprint of **706.9** square kilometers. PTS qualifies as a significant injury to individuals. This site Rockabill to Dalkey SAC is 2.5km from the array and extends southwards, in a strip approximately 7 km wide and 40 km in length

In addition, on page 154 of the Natura Impact Statement **Section 5.3.2.2.1**, it is stated “..TTS-onset thresholds the maximum impact range for harbour porpoise during a single monopile piling event was calculated at 83km for the SE monopile location” . This is temporary hearing loss. This is significant as temporary hearing loss can affect fitness, reproductive success²² and can ultimately affect the harbour porpoise community at the site. A radius of 83km is equivalent to a footprint of **24,880** square kilometers. For reference, Dublin is 921 square kilometers.

²¹ https://www.researchgate.net/publication/327124348_Effects_of_Noise_on_Marine_Mammals

²² Southall, B.L., Bowles, A.E., Ellison, W.T., Finneran, J.J., Gentry, R.L., Greene Jr, C.R., Kastak, D., Ketten, D.R., Miller, J.H., Nachtigall, P.E., Richardson, W.J., Thomas, J.A., & Tyack, P.L. (2007). *Marine Mammal Noise Exposure Criteria: Initial Scientific Recommendations*. *Aquatic Mammals*, 33(4), 411-521

Impact on Porpoises

On this basis, porpoises within the northern one-third of the Rockabill to Dalkey Island SAC, a Special Area of Conservation, designated to protect porpoises and their young, would be impacted by Permanent Threshold Shift (PTS). An area of over 700km² would be impacted in this way. PTS is extremely harmful as it represents maximum auditory injury onset. Porpoises rely on sound to communicate, forage, find mates, and rear their young. Such auditory injuries could significantly harm individuals, potentially affecting the entire harbour porpoise community at the site. The primary reason for designating this area as an SAC is to protect these porpoises from harm, which PTS threatens to undermine.

Porpoises may recover more quickly from TTS but the area impacted on is a radius of 83km is equivalent to a footprint of **24,880** square kilometers and so the cumulative impacts of many Wind Farm projects have the potential to permanently impact on the population here. This is not the only project with the potential to cause temporary hearing loss to this population of porpoises. In fact, there are at least 6 similar projects within 60km (Oriel, Realt na Mhara, ESB Sea Stacks, Codling, Arklow) which will have the potential for both permanent and temporary hearing loss for these mammals that rely on sound for survival.

Mitigation

Mitigation measures such as slow start-ups and acoustic deterrents may offer partial effectiveness but unquestionably fall short of the stringent requirements set by the Habitats Directive. Acoustic Deterrent Devices (ADDs) will be deployed before piling starts to deter marine mammals and mitigate auditory injury risks. However, the mitigation does not reduce the sound impact in intensity or duration in any way for these animals. The construction activities, operating 7 days a week, 24 hours a day for 3 years, could disrupt marine mammal foraging and breeding behaviours, potentially forcing animals to seek alternative feeding grounds or less suitable habitats with significant negative impact on their conservation status.

Acoustic deterrents do not match the extensive noise range footprint of the actual piling events, leaving young porpoises particularly vulnerable to impact. Therefore, these mitigation efforts are inadequate to fully protect the porpoise population within the Rockabill to Dalkey SAC from the severe auditory injuries and potential community disruption caused by PTS. The designated purpose of this area is to shield these porpoises from harm, a goal these measures fail to meet effectively.

The problem with impact is that these are sea creatures with a relatively long life span and are difficult to study. Much of the studies of impact are short term in relation to a few individuals and the actual long term impact is not known. In fact the NPWS Conservation Objective detail alludes to this, as follows: *“In the absence of complete knowledge on the species ecological requirements in this site, such considerations should be assessed where appropriate on a case-by-case basis”*. It is for this reason that the **precautionary principle** is inherent in EU environmental legislation. Such construction noise would potentially result in a decline in the population of porpoises.

In fact, this may already be happening. We have a shifting baseline. The offshore area from Rockabill to Arklow has been surveyed over the last 20 years for various wind farms (Oriol, Realt na Mara, ESB Ssea stacks, Dublin Array, Codling and Arklow Bank). The in-combination and cumulative impact of various survey activities over the last 20 years may well have resulted in the significant decline in the population of the Rockabill to Dalkey Island SAC, as evidenced by the *‘Harbour Porpoise Surveys in Rockabill to Dalkey Island SAC, 2021’*, by Berrow, S, *et al.*, commissioned by the National Parks and Wildlife Service, which states *“The density estimate in 2021 represent a 46% decline on that reported in 2016 and a 42% decline on that reported in 2013”*.

Therefore, it appears that we may already be seeing impacts at population level which are negatively impacting the harbour porpoise community at the site.

2. Operational Impacts

There is much data on increasing ocean noise and the impact that it is having on our wildlife. Even during the operational phase there will be noise impacts. According to Scottish Government (2013) *“Harbour porpoises can detect the gravity and monopile foundations out to at least 18 km”*²³

However, operationally, the impact of particular note, is the high density of vessels in the area. *According to the Natura Impact Statement For Project Option 1*

“During the operational phase of the proposed development a maximum of 21 vessels could be in transit and/or operation within the offshore development area at one time, equating to a total of 1,018 round trips per year”.

The construction phase will include –

²³ Scottish Government (2013). *Modelling the Effects of Underwater Noise from Construction and Operation of Offshore Wind Farms: Scottish Marine and Freshwater Science, Volume 4, Number 5*. Retrieved from <https://www.gov.scot/publications/scottish-marine-freshwater-science-volume-4-number-5-modelling-noise/pages/7/>.

“A maximum of 66 construction vessels may be on site simultaneously with a maximum total of 2,386 return trips”.

This is a significant number of trips. In fact, taking a lifespan of 35 years that is a total of 83,000 trips. Therefore, permitting this will result in ongoing disturbance with associated increased oil pollution and thus impacts on see NPWS Conservation Objectives *“proposed activities or operations that may result in the deterioration of key resources (e.g. water quality, feeding, etc) upon which harbour porpoises depend.”* are to be expected.

The Conservation Objectives in order to maintain the favourable conservation status of the harbour porpoise within the Rockabill to Dalkey Island SAC, are defined by the following list of attributes and targets:

The Conservation Objectives for the harbour porpoise within the Rockabill to Dalkey Island SAC are defined by the following attributes and targets:

1. **Access to Suitable Habitats:** The species' range within the site should not be restricted by artificial barriers to site use.
2. **Disturbance:** Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site.

These objectives are detailed in **Section 5.3.2.1.1** of the Natura Impact Statement. This evidence of harmful activities during construction (PTS and TTS as described) coupled with the ongoing noise of the operational phase, both alone and in combination with other similar windfarm projects, are in conflict with Target 2, i.e. that human activities should occur at levels that do not adversely affect the harbour porpoise community at the site.

Lambay Island SAC

Lambay Island SAC is c15km from the Array and designated as a Special Area of Conservation as part of the EU wide network Natura 2000 site to protect an internationally important population of Porpoises, Harbour seals and Grey seals.

The Lambay Island SAC lies 14.8km from the array and 15.7km from the ECC and is designated for the following marine mammal species as QI:

- Harbour porpoise (*Phocoena phocoena*).
- Grey seal (*Halichoerus grypus*)

- Harbour seal (*Phoca vitulina*)

The same observations as are made above for Rockabill in respect of Porpoises apply also to Lambay, although the distance is greater to the Array.

Ecology

Grey Seals, found along sandy beaches and rocky shores, predominantly prey on fish, such as herring, cod, and flatfish, as well as crustaceans and squid. Harbour Seals, which inhabit sheltered coves and estuaries, feed on a variety of smaller fish such as sandeels, sprats, and whiting, along with mollusks and crustaceans.

Population

Lambay Island SAC supports the principal breeding colony of grey seal on the east coast of Ireland, with minimum population estimate of between 196 and 252 grey seals of all ages (NPWS, 2014). The majority of grey seal pupping occurs among the bays largely along the south coast of the island, when breeding occurs from August to December approximately, followed by moulting from around December to April along the west and southwest coast. Grey seals are found to rest along the northeast and northwest coast of the island (NPWS, 2014).

The SAC also contains regionally significant numbers of harbour seal, of which up to 47 individuals have been counted at the site (NPWS, 2014). Harbour seal breeding occurs at site, primarily along the west coast of the island, from around May to July, followed by moulting from August to September approximately along the west and south coast of the island. Harbour seals are found to rest along the west coast of the island (NPWS, 2014). Both seals use the Array and ECC area for foraging.

The NPWS targets are as follows for Harbour Seals which are of particular significance as they pup on Lambay at the limit of PTS.

Conservation Objectives for : Lambay Island SAC [000204] 1365 Harbour seal *Phoca vitulina*: To maintain the favourable conservation condition of Harbour Seal in Lambay Island SAC

Target: Human activities should occur at levels that do not adversely affect the harbour seal population at the site

The issue for Lambay Island SAC conservation objectives is the PTS is up to 15km from the array (the same distance Lambay is located from the array) and TTS onset at

between 15km and 46km . The entire area of negative impact on hearing for seals (PTS/TTS) is estimated at **6648** square kilometers.

The observations made above in respect of foraging areas, food and feeding, disturbance and displacement made for porpoises are also valid for seals albeit the range of PTS and TTS are different.

Of the greatest concern is the fact that this is a pupping area for Harbour seals which are breeding on Lambay Island at 15km from the Array which is exactly at the limit of PTS injury and harm. *“Although it is difficult to directly compare these studies with the exposure levels to underwater sound that are likely to occur as a result of OREG (Offshore Renewable Energy Generation) activity the results of these and other studies on noise-induced hearing loss in the foetus (Pierson 1996) suggest this is a potential direct effect risk. Certainly studies on auditory brainstem responses (ABR) in seal pups of females potentially exposed to OREG construction and operation noise are warranted. Noise attenuation differences between species may mean that the received levels between mice, sheep and marine mammals are different and that higher exposures are required before the same effect is seen but permanent threshold shifts (PTS) in pups and juveniles could have consequences for their longevity, survival and reproduction as they may be unable to forage well or reproduce successfully due to impairment in hearing abilities necessary to navigate and mate.”*²²

Mitigation

Acoustic Deterrent Devices (ADDs) will be deployed before piling starts to deter marine mammals and mitigate auditory injury risks. However, this mitigation does not reduce the intensity or duration of the noise impact in any way for these animals.

Conclusion on noise

The noise generated by piling is severe enough to cause permanent injury, and there is substantial doubt that the proposed mitigation measures will adequately protect seal pups or pregnant females. As a result, the project does not align with the conservation objectives for Lambay Island SAC [000204], which aims to maintain the favourable conservation status of the Harbour Seal (**Phoca vitulina**) in the area.

Ecosystem impacts

Wind farms can impact ecosystems through various factors: scour protection sediments may alter seabed habitats, seabed levelling disrupts local marine life, noise pollution affects marine animals' communication and behaviour, and oil spills from vessels pose

contamination risks. Additionally, changes in prey availability can disrupt food webs and affect local wildlife.

Habitat

Although the seabed habitat does not in itself form part of the Qualifying Interests for North West Irish Sea SPA, this habitat is part of the ecosystem that underpins the designation of this exact area as a Natura 2000 site supporting 120,000 seabirds.

Description of Works

Impacts such as pile driving, sediment plumes, sand levelling and scour protection will change the nature of the environment.

Scour protection is described in different units, such as meters (m) and square meters (m²), making it challenging to calculate the absolute quantities required. According to the Natura Impact Statement, approximately 43,200m³ (4ha) of cable protection is needed for the offshore export cables. Assuming this figure is valid for 18 km of cable, it can be roughly estimated that 266,000m² (26ha) will be required for scour protection for the 111 km of inter-array cables. Additionally, the base of each monopile will require a 74m diameter of scour protection, covering an area of about 1.7ha. Assuming Option 1, which includes 49 turbines plus 1 Offshore Substation Platform (OSP), the scour protection for these structures will cover approximately 85ha. In total, it is calculated that around 115ha of current sandbank habitat will be lost to scour protection.

Description of impacts

Ecologically, this quantity of scour protection will mean a complete change with a replacement of sandy sediments with hard rock armour and negative impacts for the ecosystem and the species which live in its sandy banks. Habitat will be changed permanently from sand which is suitable habitat to support sandeels and Nephrops to hard rock features that will not support these marine animals.

Mitigation

No mitigation is possible for this permanent impact.

North West Irish Sea SPA Natura 2000

In the Conservation Objectives for North-west Irish Sea SPA [004236], for all the bird species listed there is a target to ensure –

- *Available forage biomass to support the population target*

The array covers an area of 89 km², of which 115 hectares of subtidal habitats will be lost to scour protection. The area of sand levelling has not been calculated for this project but is likely to be similar to the Arklow Bank project, which involves 56 turbines and is estimated at 300 hectares. This change in habitat within a shallow area accessible to diving birds and designated as an internationally important Natura 2000 site to support these birds' feeding represents a significant adverse impact on that habitat.

Sandeels

Population

Sandeels are highly nutritious and are therefore the preferred prey item for many other species of **fish, seabirds, seals, whales and dolphins**. According to Oceana "*Sandeels provide up to a third of the diet of seals and seabirds*"²⁴. The Atlantic Salmon Trust identified that for post-smolts '*sandeel was the most important prey item around the British Isles*'²⁵. The Natura Impact Statement particularly identifies suitable sand eel habitat along the ECC route and in the area to the south of the development.

Natura 2000 context

The single prey item that many of the QI species such as Harbour Porpoise, Seals, Salmon and SCI seabirds have in common is the Sand eel.

Conservation Objectives Impacts

The Natura Impact Statement submitted with this application identifies that "*due to their burrowing nature and reliance on specific substrates sandeel are susceptible to seabed disturbance inclusive of impacts from increased Suspended solids and sediment deposition, habitat damage and disturbance of the seabed and loss of benthic habitat*".

The Natura Impact Statement notes that "*Based on the underwater noise modelling mortality and potential mortal injury to sandeel (Group 1, stationary receptor model) may occur up to 1.1km from the installation of monopile foundations*". This is an area of 3.8km² per monopile sterilised of sandeels. In respect of 49 turbines this is over 100km² area. This is a huge sterilisation of a key feeding area. Sandeels live until they are ten and do not reproduce until they are two years old. Such a considerable loss of life underpinning this ecosystem is likely to be significant on all the birds, fish, seals and cetaceans that depend on this food resource.

²⁴ <https://uk.oceana.org/blog/sandeels>

²⁵ <https://atlanticsalmontrust.org/the-importance-of-sandeels>

In addition, loud noises from pile driving can have a temporary impact on hearing (TTS). According to the Natura Impact Statement, p. 244 the TTS in sandeel is predicted to occur up to 69km from the installation of (a single) monopile foundations. This wide impact zone covers 1.5 million hectares in area. The likely impact is that stunned sand eel make easy prey and proportionally more are eaten than the population of sandeels can sustain.

Mitigation

There is no mitigation proposed or possible to protect sandeels from PTS at 1.1km or TTS at 69km from the monopile driving.

Residual Impact and cumulative impact

There is no doubt that this project alone will significantly impact sand eels over a large area. Cumulative impacts from similar projects down the Irish coast (Oriel, Nisa, ESB Sea Stacks, Realt Na Mara, Dublin Array, Codling, Arklow) must also be considered. All of these projects will have similar impacts on this sensitive ecosystem, which supports EU-important species and their prey within the Natura 2000 network.

The impact on sand eel is significant (both individually and in combination with other similar plans and projects) as it an impact within the Special Protection Area North West Irish Sea that has a direct negative impact on the forage biomass of at least two of the conservation objectives for the North-west Irish Sea SPA [004236] .

These Conservation Objectives are :

Kittiwake *Rissa tridactyla*: To restore the favourable conservation condition of kittiwake in North-west Irish Sea SPA

Guillemot *Uria aalge*: To maintain the favourable conservation condition of Guillemot in North-west Irish Sea SPA

It must be noted that if we are to reach the bar for restoring Kittiwake populations, their habitat prey and mortality risk must be at the optimal levels.

Conclusion on the Significance of Impacts on Protected Species Arising from the Impact on Sandeels

The likely impact of the proposed North Irish Sea Array (NISA) Offshore Wind Farm on sandeel populations is significant, both individually and cumulatively, and has

profound implications for the protected species that rely on sandeels as a primary food source.

The Conservation Objectives for the North-west Irish Sea SPA include the restoration and maintenance of favourable conservation conditions for Kittiwake (*Rissa tridactyla*) and Guillemot (*Uria aalge*). Both species are heavily dependent on sandeels as a food source, particularly during the breeding season when the energy demands are highest. The significant loss of sandeel habitat and the potential for large-scale sandeel mortality due to pile driving and other construction activities directly undermine these objectives. The Natura Impact Statement acknowledges the sensitivity of sandeels to seabed disturbance, as well as the potential for temporary and permanent hearing loss (TTS and PTS) due to underwater noise, which can extend up to 69 km from the monopile installation site. This extensive impact area threatens the viability of sandeel populations, leading to a cascade of negative effects on the species that depend on them.

Nephrops

Ecology

Nephrops, commonly known as Dublin Bay prawn or scampi, are benthic crustaceans inhabiting the muddy seabed. They are found at depths ranging from 20 to 800 meters, thriving in burrows that they excavate in soft sediment. Nephrops are nocturnal, emerging from their burrows at night to feed primarily on detritus, small fish, and other invertebrates. Their life cycle includes a planktonic larval stage, which disperses with ocean currents before settling to the seabed. The growth and survival of Nephrops are influenced by factors such as sediment type, temperature, and food availability. They play a vital ecological role as both predator and prey, contributing to the benthic community's biodiversity.

Population

According to the EIAR, Nephrops within the study area are part of the western Irish Sea Nephrops population, which inhabits the fine sediments of the Western Irish Sea Mud Belt from about 54.5°N in the north to 53.5°N in the south. Under "Magnitude of Impact" (EIAR, pp. 16-27) it is set out that the commercial fisheries local study area confirms 31% of Irish Nephrops landings are in this area, with an average 1,410 tonnes of Nephrops are landed annually from the array area.

There is little content in respect of impacts on Nephrops in the documentation supporting the application. The Natura Impact Statement, for example, states that sandeels will suffer PTS within 1.1km of the pile driving for a single monopile and yet there are no equivalent data presented for Nephrops.

According to Scott et al. (2020):²⁶

“Noise studies on UK commercially important crustaceans are very limited....Norway lobster (Nephrops norvegicus) are influenced by shipping and construction noise. In addition, a PhD thesis noted alteration of different aspects of the Norway lobster’s larval life cycle in response to shipping noise, which can lead to a reduction in predator avoidance stamina”.

Scott et al. also state:

“In addition, it is not known if the eggs, larvae or adults of C. pagurus, H. gammarus and N. norvegicus can suffer direct physical harm as a result of exposure to high amplitude anthropogenic noise. Findings among related species show that egg development among specific crustaceans may be retarded, metabolic rates increased and internal organs damaged following exposure to high amplitude anthropogenic sounds”.

It is clear from the foregoing that that little is known regarding the overall impact of this marine organism which forms part of the ecosystem supporting multiple QI and SCI species.

Relevance to ecological considerations

Ecologically these lobsters play a vital role as both predator and prey, contributing to the benthic community's biodiversity. They are a key species as they are food source for Cod. Thomas (1965) found -

“In Scotland, the stomach contents of cod was examined. Results showed that 80% of cod had Nephrops norvegicus amongst their stomach contents (Thomas, 1965b)”.

The area of the array is a both a cod and a haddock spawning area (marine atlas.ie). The Cod in turn are prey items for QI species seals who favour whitefish.²⁷

²⁶ Scott, Kevin & Piper, Althea & Rochas, Corentine & Chapman, Erica. (2020). Underwater noise, vibration and electro-magnetic fields from offshore renewable energy developments: Impacts on commercial crustaceans.

²⁷ Nathan J. Edmonds, Christopher J. Firmin, Denise Goldsmith, Rebecca C. Faulkner, Daniel T. Wood, A review of crustacean sensitivity to high amplitude underwater noise: Data needs for effective risk assessment in relation to UK commercial species, Marine Pollution Bulletin, Volume 108, Issues 1–2, 2016, Pages 5–11, ISSN 0025-326X, <https://doi.org/10.1016/j.marpolbul.2016.05.006>.

Nephrops, or Dublin Bay prawns, are essential to the benthic ecosystem and serve as a critical food source for species like cod, which are in turn prey for seals and other higher trophic species. The proposed North Irish Sea Array (NISA) Offshore Wind Farm overlaps significant Nephrops habitats, yet the Natura Impact Statement (NIS) fails to provide sufficient detail on the cumulative impacts of habitat disruption and noise on Nephrops populations and their role in the food web. This lack of comprehensive assessment raises concerns about significant adverse effects on the Qualifying Interests (QIs) of these species within the affected SACs.

In the absence of detailed information on cumulative impacts from other permitted or pending projects, it is not possible to exclude the possibility of significant adverse impacts on these species or Natura 2000 Sites. A thorough cumulative impact assessment is essential to ensure the protection of these critical species and habitats within the Natura 2000 network.

Natura 2000 context

The Lambay Island SAC lies 14.8km from the array and 15.7km from the ECC and is designated for the following marine mammal species as QI:

- Grey seal (*Halichoerus grypus*)
- Harbour seal (*Phoca vitulina*)

Seal feed on cod and cod feed on Nephrops. The Nephrops is a key species underpinning the food web supporting the seals at Lambay Island SAC.

Impact on Nephrops

Information on the impacts of pile driving on Nephrops is lacking. This is an important part of the food web that supports QI species that indirectly depend on this population. Whereas it is hard to conclude that loss of this species would have significant effect on the conservation objectives of Lambay Island SAC, it is certain that the loss of this species from 115ha of habitat should be considered as part of the overall cumulative impact.

Pollution Risk

The risk of accidental pollution is understated in the NIS and EIAR having regard to the location of the proposed site in an internationally important cSPA . In respect of

Wind Turbines, there have been ongoing issues with oil leaks internationally during construction and operation ²⁸

A recent paper ²⁹ noted that the leakage rate for a vessel of 1,000 DWT has been widely reported as “6 litres per day” with higher rates for larger vessels and lower rates for smaller vessels. Even if the leakage rate was a fraction of that it is still considerable and significant in relation to the Conservation Objectives of the SCI and QI species that use the area.

For Project Option 1, according to the Natura Impact Statement (page 301): *“During the operational phase of the proposed development a maximum of 21 vessels could be in transit and/or operation within the offshore development area at one time, equating to a total of 1,018 round trips per year”*. The construction phase will include *“A maximum of 66 construction vessels may be on site simultaneously with a maximum total of 2386 return trips”*. This is a significant number of trips. In fact, taking a lifespan of 35 years, that is a total of Cc. 83,000 trips.

The proposed solutions outlined in the Natura Impact Statement include:

*“The project will implement marine pollution contingency measures, including bunding to 110% of the volume of the containers all potential pollutants and contaminants involved in the construction of the project and will have pre-agreed clean up processes established, with different responses for varying size spills in line with established incident management procedures. The proposed development is committed to the use of **best-practice techniques** and due diligence throughout all construction, operation and decommissioning activities. This commitment includes the implementation of an Offshore EMP (Appendix 7), which includes a Marine Pollution Contingency Procedure and an Emergency Incident Response Procedure to prevent, manage and mitigate the accidental release of pollutants into the marine environment. **With these measures established, a major incident that may impact any species at a population level is considered very unlikely. It is predicted that any impact would be of local spatial extent and of a short term duration.**”*³⁰

Such Oil spills from vessels pose significant long term threats to seabirds, affecting their feathers' insulative properties, leading to hypothermia and reduced buoyancy. Additionally, ingestion of oil can cause internal organ damage and impaired

²⁸ <https://www.wind-watch.org/news/2021/06/17/work-on-iberdrola-offshore-wind-farm-stopped-over-oil-leak-allegations/>

<https://www.wind-watch.org/news/2022/07/21/turbine-down-collapse-and-oil-spill-shuts-one-of-europes-largest-and-newest-wind-farms/>

²⁹ https://thordonbearings.com/docs/default-source/marine/technical-papers/analysis-of-in-port-vessel-operational-lubricant-discharges-and-leakages.pdf?sfvrsn=ef818aad_12

³⁰ Emphasis added.

reproductive success. Seabirds are particularly vulnerable during migration, breeding, and feeding³¹. All wind farms proposed on the east coast include similar mitigation measures and oil spills and lubricant leaks are part and parcel of this industrial style development of the marine area and are inevitable despite **best practice techniques**.³².

This NISA application is on a migration pathway and feeding area for thousands of seabirds. It is within the NorthWest Irish Sea cSPA (used by 120,000 seabirds in Autumn) and close to perhaps the most important seabird colony in Ireland, Lambay Island, which alone supports breeding colonies of a variety of seabirds amounting to over 50,000 pairs.

This is not a suitable location for an activity that will have oil spillages, accidental though they may be, associated with it.

Pollution Risk from this wind farm alone is significant, as it is located within an area supporting 120,000 birds.

Cumulative impacts from similar projects down the Irish coast (including Oriel, ESB Sea Stacks, Realt Na Mara, Dublin Array, Codling, Arklow) must also be considered. These together will involve tens of thousands of additional trips annually in this relatively small area of sea from Dundalk to Arklow

Quite clearly, the foregoing gives rise to a significant impact on the following sites and protected species, having regard to their conservation objectives:

North West Irish Sea cSPA (birds)

Rockabill SPA (Terns)

Lambay Island SPA (birds, including guillimots)

The issue of pollution is also likely to impact on the Conservation Objectives Impacts on Intertidal SPAs

Key SPAs that may be impacted by the NISA project include:

- **Rogerstown Estuary SPA**
- **Baldoyle Bay SPA**
- **Skerries Islands SPA**

³¹ O'Hara, P. D., & Morrissey, D. J. (2010). Impacts of oil on marine wildlife. In G. F. Mazik & J. N. Short (Eds.), *Oil in the sea III: Inputs, fates, and effects* (pp. 175-207). CRC Press.

³² <https://www.irishtimes.com/environment/2024/05/02/several-birds-found-dead-following-oil-spill-in-irish-sea-between-dublin-and-wexford/> [Emphasis added]

Bats

Bats under consideration here are species that are addressed in the EIAR and are protected under the Wildlife Act. The EIAR (page 46) states:

“The assessment of likely significant effects determined that the turbines are located too far offshore for coastal foraging bats. However, interactions between potential migratory bats or bats that may be present on Rockabill Island could not be ruled out. No significant effects in EIA terms have been identified for all activities, with the exception of collision and barotrauma. Likely significant effects to a potential bat roost on Rockabill could not be ruled out, and therefore in line with the precautionary principle, have been assumed could occur. A robust monitoring program is therefore needed to determine and understand the baseline in more detail. The Developer has committed to further vessel and headland surveys as well as further surveys of the buildings at Rockabill island to determine if a bat roost is present.”

A grant of planning is clearly premature whilst such key surveys are outstanding, having regard to obligations under Article 12 of the Habitats Directive.

Consideration of Alternatives in EIAR

Paragraph 2 of Annex IV of Directive 2011/92/EU as amended by 2014/52/EU (the EIA Directive) requires that the EIAR contains: “A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects”. The question of whether that area is suitable ecologically for development of a wind farm has not been addressed in the context of site selection or the consideration of reasonable alternatives. This aspect is addressed in more detail in the report of Anthony Marston, planning consultant.

The EU *Guidance document on wind energy developments and EU nature legislation* specifically propose Wildlife Sensitivity Maps to be prepared before a decision on locations of wind farms. This has not happened in Ireland, where the majority of the areas leased for wind farm exploration/development were decided on in before 2000. This EU guidance document is attached and shows examples Europe wide of sensitivity mapping developed in respect of birds and enable planning for wind energy (see pages 48-51 and 74, 78,80). Nothing similar exists for this important biodiversity area off the East Coast of Ireland. Such sensitivity maps would identify key areas used by QI species for feeding, mating, resting rearing young and it would identify key foraging areas

within the Irish sea used by the hundreds of thousands of birds that feed here alongside as well as migratory routes and key congregation points.³³

The site selection in this case appears to be primarily on economic and technological grounds – proximity to a large population centre and on shallow sand banks facilitating development. No evidence is presented to the contrary.

Conclusion on Appropriate Assessment

The applicant has not demonstrated that the likelihood that the proposed development which is located centrally within the North West Irish Sea cSPA, on its own or in combination with other plans or projects, will have an adverse effect on the integrity of European sites, can be excluded beyond a reasonable scientific doubt.

Climate Change Obligations

In bringing forward this objection, we also wish to acknowledge our climate change obligations and the impacts that this has on ecology. However, best practice and EU guidance directs us to comply with the Habitats Directive and wildlife-sensitive mapping in selecting sites that are not biodiversity hotspots. This project is ill-conceived and has the potential, whether on its own or in combination with plans or other similar projects to significantly diminish our biodiversity, which is already under threat, particularly in Irish marine environments such as the Celtic Sea and the Irish Sea.

Offshore wind is fundamentally very expensive, with onshore wind typically costing 1 million euros per MW and offshore normally much greater at some 3 million euros per MW³⁴. Therefore, this Offshore Wind does not make ecological sense nor does it make economic sense. We should be considering onshore options ideally in compromised environments (such as conifer plantations) not in biodiversity hotspots along migration routes for some of Europe's rarest and most vulnerable species.

Specific effects due to EMF, noise pollution and hydrographic impacts

Consideration should also be given by the Board to the potential adverse impacts on species in this and neighbouring areas arising from factors such as Electro Magnetic Fields /Disturbance (EMF) and the introduction of energy and underwater noise. 'Stress

³³ European Commission, Directorate-General for Environment, Guidance document on wind energy developments and EU nature legislation, Publications Office of the European Union, 2020, <https://data.europa.eu/doi/10.2779/457035>
<https://op.europa.eu/en/publication-detail/-/publication/2b08de80-5ad4-11eb-b59f-01aa75ed71a1>

³⁴ <https://www.structuresinsider.com/post/wind-energy-overview-onshore-vs-offshore-farm-costs>

due to noise and electromagnetic field emissions is believed to potentially have an impact on the growth, migration, survival, and/or reproductive capacity of commercially-exploited fish species. Further scientific evidence is needed to assess the magnitude of these cumulative impacts' (Floeter et al., 2017; Kikuchi, 2010; Gill et al., 2012; Wahlberg and Westerberg, 2005).

Regarding the issue of noise pollution (increased sound pressure on the marine environment) and energy, a key concern revolves around larval mortality of commercial marine species and components of the food web. Certain species are subject to impacts such as hearing impairment and marine mammals are sensitive to communication disruption. Local effects in the prey detection ability of elasmobranchs and disturbances in migration patterns of the European eel during the survey, construction, operational, and decommissioning phases are a concern.

In Hogan, F., Hooker, B., Jensen, B., Johnston, L., Lipsky, A., Methratta, E., Silva, A., and Hawkins, J. 2023. Fisheries and Offshore Wind Interactions: Synthesis of Science. NOAA Technical Memorandum NMFS-NE-291. 378 pages + Annexes <https://repository.library.noaa.gov/view/noaa/49151> it is noted that:

- Specific topics of concern for fishermen included ecosystem-level impacts, predator-prey interactions, and the specific effects of noise, EMF, and heat on shellfish, as well as the influence of upwelling on the larval dispersion and plankton production and potential cascading consequences through the food web.
- ORE introduces new hard substrate, often in a previously soft or mixed sediment environment, which is important to some shellfish species including crustaceans such as Crab, Lobsters and Nephrops. To date, no studies have taken place specifically addressing changes in abundance or distribution of shellfish relating to ORE.
- Magnetic fields (MFs) have been shown to induce responses or changes in distribution in crustaceans.
- Hydrodynamics play an important role in the transport of larvae, connectivity between populations, and recruitment to habitats for many shellfish species. Impacts of changes in hydrodynamics and wind wake effects on the pelagic larval life stages of shellfish species are largely unknown.

It is clear that the proposed site is entirely encompassed within the North-West Irish Sea candidate Special Protection Area (cSPA), a site which was designated in July 2023 and has not formed part of the site selection considerations. The site synopsis for the cSPA states that the site constitutes an important resource, primarily as feeding grounds

and migration routes, for marine birds, and is ecologically connected to several existing SPAs in this area. Twenty-one species of birds were named in the site synopsis for the North-West Irish Sea cSPA, including six Habitats Directive Annex I species. Whilst this is noted in the EIAR (P5-15), the conclusion of the Natura Impact Statement that the proposed development will not have an Adverse Effect on the Integrity (AEoI) of the cSPA is not objectively justifiable. The approach of the applicant is in stark contrast to how SPAs were considered in the recent South Coast Designated Maritime Area Plan (SC-DMAP) process. In that instance, the Seas Off Wexford cSPA was categorised as an exclusion zone for ORE development and a further 2km buffer zone was implemented around it due to the environmental sensitivity of the area. The lack of consistency between these two examples is worrying and highlights the need for analyses such as these to be conducted independently and not by contractors acting on behalf of ORE applicant.

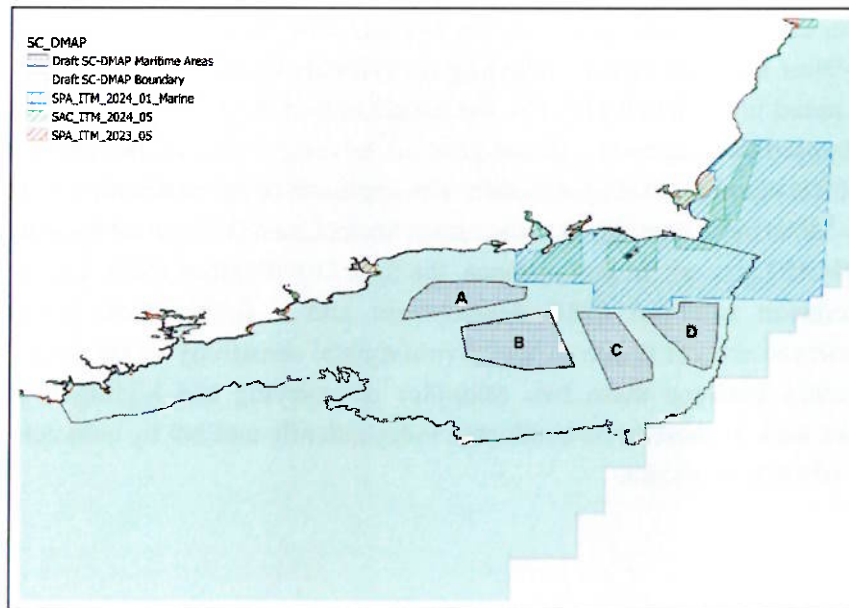


Figure 2. (top) The proposed NISA array site and cable route and the overlap with SPAs, SACs and the Nephrops fishing grounds.³⁵ (bottom) the South Coast DMAP are with the SPA and SAC exclusion area and 2km buffer zone.³⁶

In addition, it is unclear from the application documentation as to the level of seabed and minerals that will be extracted as part of the site investigation and construction stage, including the depths of extraction, and whether the relevant permissions have been obtained by the applicant.

Cumulative/ In-combination Impacts

Our clients refer the Board to the recent study on Fisheries and Offshore Wind Interactions and would request the Board to review it carefully³⁷.

The applicant has not considered all relevant plans and projects in the in-combination assessment carried out in this application, nor has it carried out sufficient assessments relating to the in-combination effect of its own activities. As such, the possibility that the proposed project, either on its own or in combination with other plans or projects will have an adverse effect on any European Site cannot be excluded beyond a reasonable doubt. In breach of the

³⁵ <https://data.gov.ie/dataset/atlas-of-commercial-fisheries-around-ireland-fourth-edition-2024>

³⁶ <https://www.npws.ie/maps-and-data/designated-site-data/download-boundary-data>

³⁷ In Hogan, F., Hooker, B., Jensen, B., Johnston, L., Lipsky, A., Methratta, E., Silva, A., and Hawkins, J. 2023. Fisheries and Offshore Wind Interactions: Synthesis of Science. NOAA Technical Memorandum NMFS-NE-291. 378 pages + Annexes <https://repository.library.noaa.gov/view/noaa/49151>.

precautionary principle, the applicant has not examined the likelihood that there will be in combination effects on the nephrops and fishing industry when the impacts of the Oriel and Sceirde Rocks Windfarm are considered, along with the other plans and projects of relevance

There is a significant level of development planned in the vicinity of this proposed location, with a number of Phase One Projects seeking planning permission and operating under similar deadlines to carry out site investigations, construct, obtain grid connection and become operational, all without a proper site selection process and marine spatial mapping.

In Volume 3, Chapter 10, para 10.9.2, the applicant has determined that only one Phase One Project, that being Oriel, has a potential pathway of impact. It is noted that if the construction phase of both projects overlaps then there may be limited occasions when plumes/settlement from the proposed development and Oriel Wind Park overlap in the far-field although this would not expect to occur during periods of neap tides and be limited to low values of impact. The confidence of the applicant's assessment is based on inadequate information to establish the direct and indirect construction or operational impacts of Oriel Wind Park. The applicant has an obligation to consider proposed and pending projects, utilising the precautionary approach. Oriel windfarm is progressing with the same deadlines as NISA, in relation to grid connection, operating times etc. It is very likely that the projects will be constructed at the same time, causing temporal overlap. The environmental in combination effects have not been properly considered in relation to all stages of these projects, or indeed in relation to the nephrops grounds.

In addition, Sceirde Rocks Windfarm has been screened out by the applicant. There are limited areas around Ireland that contain prawn grounds; the Sceirde Rocks location is one of them and the cable corridor if granted permission will run straight through the Aran Islands prawn beds. This project should have been screened in for in combination ecological assessment, including for the nephrops species and fishing vessels, which will involve repercussions for the nephrops quotas and fleet capacity in Ireland.

The applicant has also failed to take into consideration all relevant proposed, pending and determined projects in the context of the in combination assessment in the EIAR and the NIS.

The Oriel project overlaps with nephrops grounds, a fact that is not included in this application. The applicant is aware that there is a deficiency in data for vessels under 12 meters. The applicant should have carried out proper consultation with the industry so that the presence of nephrops fishing operators in the Oriel windfarm area is recorded in this application, along with the resulting in combination effect. The disturbance of nephrops habitats in two adjacent developments has not been considered in this application, in breach of the applicant's obligations.

Food security issues and impacts on small-scale fisheries and environmental justice have been acknowledged to be three of the top ten concerns related to novel developments at sea³⁸. There is a serious impending spatial squeeze occurring arising out of the sheer number of developments and site investigations being considered in the vicinity of this proposed development which has not been adequately and properly considered by the applicant.

The Short Background Study carried out on behalf of the European Commission³⁹ on Recommendations for positive interactions between offshore wind farms and fisheries notes that spatial exclusion for fisheries can be common practice, including buffer zones. The Study states that:

“Fishing vessels, on the other hand, move in more unpredictable ways. Consequently, with even more reason, in terms of safety, fishing activities whether active or passive are in most cases forbidden within the vicinity of OWF and their associated subsea cables.”

We would ask the Board to consider this study and to note that the applicant’s documentation is deficient with respect to key elements that should be considered for this project and its site selection.

In addition, when Scottish waters have been evaluated⁴⁰ as part of marine spatial planning (MSP), it is noted that MSP relies on robust data on human uses of the sea to minimise spatial conflicts and account for the cumulative effects of multiple activities in decision making. This application and site selection process is deficient in relation to this data, both with respect to our clients’ fishing activities, landings, fishing grounds, and in relation to the cumulative effect that the development will have on our clients’ activities, in combination with other plans or projects, along with the designation of marine protected areas.

CONCLUSION

The Board is requested to refuse permission for the proposed development and it is submitted that the reasons and considerations for refusal should include the following:

Appropriate Assessment

³⁸ <https://www.sciencedirect.com/science/article/abs/pii/S0308597X20310381>

³⁹ Written by Clément DUPONT, Frédérick HERPERS and Christophe LE VISAGE May 2020 https://maritime-spatial-planning.ec.europa.eu/sites/default/files/recommendations_for_positive_interactions_between_offshore_wind_farms_and_fisheries.pdf

⁴⁰ <http://marine.gov.scot/datafiles/misc/MREP/10/Documents/ICES%20selected%20presentations/Kafas%20et%20al%20VMS.pdf>

The applicant has not demonstrated that the likelihood that the proposed development which is located centrally within the North Irish Sea cSPA, on its own or in combination with other plans or projects, will have an adverse effect on the integrity of European sites, can be excluded beyond a reasonable scientific doubt.

Environmental Impact Assessment

The applicant has failed to demonstrate that the application site is the most appropriate site for the proposed development, taking into account environmental factors, for the very large scale and height of development proposed, having regard to the availability of reasonable alternatives.

It has not been demonstrated that there will not be a very significant impact on fishing in the area of the proposed development having regard to the mitigation within the Fisheries Management and Mitigation Strategy (FMMS).

The applicant has not demonstrated that the proposed development, on its own or in combination with other plans or projects, having regard to its scale and location will not have unacceptable environmental effects.

Proper Planning and Sustainable development

The proposed development is premature pending the adoption of the designation of *Offshore Renewable Energy (ORE) Designated Areas* to identify appropriate locations for large scale offshore marine development in accordance with proper planning and sustainable and government policy and in the absence of the publication of marine planning guidelines which are proposed under the Climate Action Plan 2024.

The applicant has failed to demonstrate that the application site is the most appropriate site for the proposed development, for the very large scale and height of development proposed, having regard to proper planning and sustainable development.

The site selection process for the proposed OWF failed to adequately take into account or give appropriate weight to the impact on commercial fisheries, and in particular to the very significant impact on the nephrops fishery at this location and the social economic impacts in that regard. The applicant has failed to adequately consider alternative locations that would reduce or mitigate significant impacts on commercial fisheries

A cost benefit analysis of the project, which includes a comparison of alternative, has not been produced by the applicant to satisfy the Public Expenditure Code which forms part of

government policy to which the Board is obliged to have regard, inter alia, under section 143 of the Planning and Development Act 2000, as amended

The scale and height of the proposed development would result in an entirely inappropriate form of development in this coastal landscape and seascape when considered with other concurrent projects and would be detrimental to the tourism industry which forms an important economic driver in the area.

Yours Faithfully,

Submitted by Clare-Ann Temple, Benville Robinson LLP, with contributions from Anthony Marston, Marie Louise Heffernan, Dr Edward Farrell, on behalf of the nephrops vessel owners and Producer Organisations listed as follows:

D&N Kirwan Limited of Killybush, Clogherhead, Co. Louth, Vargas Limited of Carn Hill, Loughshinney, Skerries Co. Dublin, Polaris Fishing Limited of Strand Street, Clogherhead, Co. Louth, McEvoy Brothers Fishing Company Limited of Chapel Road, Clogherhead, County Louth, John & Sharon Lynch of Windermere, Nashville Road, Howth, Dublin, Supreme Fishing Limited of Callystown, Clogherhead, County Louth, N C D Fishing Limited of Moorechurch, Julianstown, Meath, Anthony Kirwan Senior & Anthony Kirwan Junior of Callystown, Clogherhead, County Louth, Ivan Wilde & Eamon Wilde of Millennium House, Kilbush Lane, Rush, Dublin, Vierge Marie Limited of Millennium House, Kilbush Lane, Rush, Dublin, Ard Aluinn Fishing Company of Callystown, Clogherhead, County Louth, Richard Branagan of Canhill, Loughshinny, Skerries, Dublin, Ciaran Powell & Gerald Powell of Oughai, Inismor, Aran Islands, Galway, Inish Trawlers Limited of Kilmore Quay, Wexford, Port Oriel Fishing Limited of Dales, Clogherhead, Louth, Granville Boats Limited of Ballinaboula, Dingle, Kerry, along with the vessel owner Producer Organisations, Irish Fish Producers Organisation of 77 Sir John Rogerson's Quay, Grand Canal Dock, Dublin, D02 NP08, Killybegs Fisherman's Organisation of Bruach Na Mara, Saint Catherines Road, Killybegs, Co. Donegal, Irish South and East Fish Producers Organisation of 77 Sir John Rogerson's Quay, Grand Canal Dock, Dublin, D02 NP08, Irish South and West Fishermen's PO and Irish Fish Processors & Exporters Association of 77 Sir John Rogerson's Quay, Grand Canal Dock, Dublin, D02 NP08.

The address to which correspondence should be sent relating to this application is:

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24a Florence Road,
Bray,
COUNTY WICKLOW

clare-ann@benvill robinson.ie

Additional References

- Johnson, M.P., Lordan, C. and Power, A.M. 2013. Habitat and Ecology of *Nephrops norvegicus*. Adv. Mar. Biol. 64: 27-63.
- R McGeady, C Lordan, AM Power. Long-term interannual variability in larval dispersal and connectivity of the Norway lobster (*Nephrops norvegicus*) around Ireland: When supply-side matters. Fisheries Oceanography, 2022
- Hogan, F., Hooker, B., Jensen, B., Johnston, L., Lipsky, A., Methratta, E., Silva, A., and Hawkins, J. 2023. Fisheries and Offshore Wind Interactions: Synthesis of Science. NOAA Technical Memorandum NMFS-NE-291. 378 pages + Annexes
<https://repository.library.noaa.gov/view/noaa/49151>
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- [Clement Dupont, Frederick Herpers, Christophe Le Visage, 2020, Recommendations for positive interactions between offshore wind farms and fisheries, Study for the EU Commission..](#)

MARSTON

PLANNING CONSULTANCY

The Secretary
An Bord Pleanála
64 Marlborough Street
Dublin 1

9th August 2024

Our Ref. 24070

Re: Proposed development known as North Irish Sea Array ("NISA") Offshore Wind Farm that is located off the coast of the counties of Dublin, Meath and Louth

An Bord Pleanála Ref. OA29N.319866

Last date for lodging submission: on or before 9th August 2024

Dear Sir / Madam

We, Marston Planning Consultancy, 23 Grange Park, Foxrock, Dublin 18, D18 T3Y4; are instructed by D&N Kirwan Limited, Vargas Limited, Polaris Fishing Limited, McEvoy Brothers Fishing Company Limited, John & Sharon Lynch, Supreme Fishing Limited, N C D Fishing Limited, Anthony Kirwan Senior, Anthony Kirwan Junior, Ivan Wilde, Eamon Wilde, Vierge Marie Limited, Ard Aluinn Fishing Company, Richard Branagan, Ciaran Powell, Gerald Powell, Inish Trawlers Limited, Port Oriel Fishing Limited, Granville Boats Limited, along with the vessel owner Producer Organisations, Irish Fish Producers Organisation, Killybegs Fisherman's Organisation, Irish South and East Fish Producers Organisation, Irish South and West Fish Producers Organisation and Irish Fish Processors & Exporters Association to make this submission / observation to the Board in relation to the Offshore Wind Energy Project submitted by North Irish Sea Array Windfarm Limited. Our clients operate 24 vessels in the footprint of this proposed development, each vessel owner holds a polyvalent fishing licence, issued by the Licensing Authority for Sea-Fishing Boats which permits the vessel owner to fish anywhere in Irish territorial waters and certain UK waters. There are 24 vessels and their crew and captains relying on the fishing to earn a living.

1. Overview of Submission

1.1 Our clients wish to state at the very outset that they support the principle of offshore wind farms (OWFs) being located off the coast of Ireland as an element of Ireland's Climate Action strategy and support renewable and green energy. However, the location and extent of OWFs must be plan-led, as is recognised in the Government decision, in May 2023, which was to move away from developer led Offshore Renewable Energy and to move to a plan-led approach to offshore energy development.

1.2 It is our considered opinion that development consent should not be granted by the Board unless it is satisfied that the following fundamental criteria are met:

- The type of development, its location, layout and design must have been selected on the basis of the application of objective, multi-criteria analysis and comparison, taking into account environmental factors.
- In particular, the site selection process must have been carried out on the basis of the application of objective multi-criteria analysis and comparison.
- The consideration of alternatives in that context (including alternative locations, technology, layout and design), must have taken into account environmental factors and the need for ORE to co-exist with other marine users including commercial fisheries, in particular.
- A development management framework must be in place which is plan-led and which provides for marine planning guidelines to guide decision-making, in the absence of which the proposed OWD must be considered to be premature.

- The proposed development must be consistent with the requirements of section 15 of the Climate Action Act 2015, as amended.
 - A cost benefit analysis of the project, which includes a comparison of alternatives, must be produced by the applicant to satisfy the Public Expenditure Code which forms part of government policy to which the Board is obliged to have regard, inter alia, under section 143 of the Planning and Development Act 2000, as amended.
 - The EIA carried out by the Competent Authority must demonstrate that the project will not have unacceptable environmental impacts.
 - The possibility that the proposed OWF, on its own or in combination with other plans or projects, will have an adverse effect on any European Site can be excluded beyond a reasonable scientific doubt.
- 1.3 It is our opinion that these conditions have not been fulfilled in the context of the consideration of the proposed OWF application and accompanying documentation (including the EIAR and NIS) and because of the absence of fit-for-purpose decision making framework which, though part of Government policy, has not yet been implemented.

2. Site Selection Process and Consideration of Alternatives

- 2.1 The site selection process for OWFs must consider environmental factors, including the impact on European Sites. It is noteworthy that the subject proposal is located centrally within the North-West Irish Sea Special Protection Area (cSPA) which was not designated as a cSPA - prior to the selection of the application site for the proposed OWF. This cSPA is Ireland's largest protected zone for birds, spanning some 230,000 hectares. Adequate account in the site selection process has not been given to environmental factors, including the adverse effects on European Sites in the consideration of reasonable alternatives as required by Article 5(1)(d) of the EIA Directive.
- 2.2 The proposed OWF site is entirely encompassed within the North-West Irish Sea candidate Special Protection Area (cSPA). The site synopsis for the cSPA states that the site constitutes an important resource, primarily as feeding grounds and migration routes, for marine birds, and is ecologically connected to several existing SPAs in this area. Twenty-one species of birds were named in the site synopsis for the North-West Irish Sea cSPA, including six Habitats Directive Annex I species. Whilst this is noted in the EIAR (P5-15), the conclusion of the Natura Impact Statement (NIS) that the proposed development will not have an Adverse Effect on the Integrity (AEoI) of the cSPA has not been objectively justified.
- 2.3 The approach of the applicant is in stark contrast to how SPAs were considered in the recent South Coast Designated Maritime Area Plan (SC-DMAP) process. In that instance the Seas Off Wexford cSPA was categorised as an exclusion zone for ORE development and a further 2km buffer zone was implemented around it due to the environmental sensitivity of the area. The lack of consistency between these two examples is worrying and highlights the need for analyses such as these to be conducted independently and not by contractors acting on behalf of ORE developers.
- 2.4 The site selection was largely based on a 2008 study conducted by UCC which aimed to identify target areas of the seabed for which a fixed bottom offshore wind farm could potentially be **economically constructed, operated, and maintained**. The broad area in the northwest Irish Sea was highly recommended as it was considered to be a low energy environment and away from ferry routes. Additional studies (Irish Sea Marine Assessment, 2009 and IMAR Study, 2009) were conducted to refine the area and a *"a robust constraints analysis was undertaken by the Developer"*, which purported to consider other marine users and activities. It is clear that technical and economic considerations were the primary considerations for site selection, whilst environmental and avoidance of key fishing grounds were not taken into account or given any proper weight. An inclusive and comprehensive multi-criteria decision-making and constraint mapping process should have been undertaken with full stakeholder participation to ensure appropriate representation of the different maritime users and environmental considerations. This was not done.

Failure to have regard to commercial fisheries

- 2.5 The site selection process for the proposed OWF is deeply flawed. Of particular concern to our clients, is the fact that it failed to adequately take into account or give any weight to the impact on commercial

fisheries generally, and specifically to the very significant impact on the nephrops fishery at this location and its knock-on consequences for our clients and this overall sector of fishing industry. The potentially "very significant" environmental effects on the nephrops fishery and fishing industry which have been acknowledged in the EIAR, together with the associated socio-economic effects, have been inadequately addressed under the EIAR for this application.

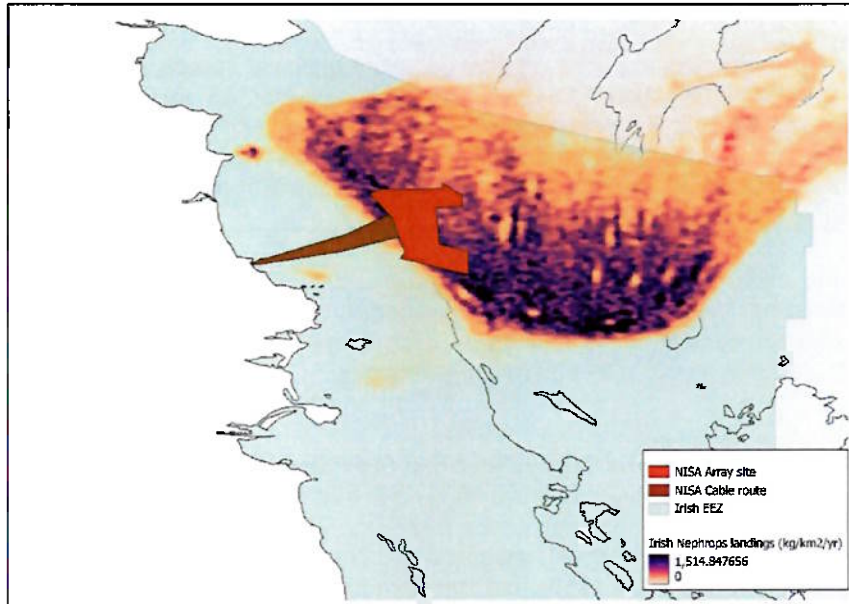


Figure 1: The proposed NISA array site and cable route and the overlap of Nephrops landings (kg/km²/yr) in the Irish EEZ.

- 2.6 The array site and part of the cable route are sited in the North West Irish Sea Nephrops fishing grounds (Functional Unit 15). This will result in displacement of the fishing effort in these areas and will also impact the habitat utilised by Nephrops. This impact may also extend beyond the immediate array site. Whilst the EIAR notes the significant impact of the development on demersal otter trawlers that target nephrops, it incorrectly concluded that the FMMS will mitigate those impacts. This will be addressed further below.
- 2.7 The site selection process not been plan-led and was initially predicated on identifying a location for a fixed bottom offshore wind farm which could be economically constructed, operated, and maintained. No adequate consideration was given to floating wind farms as an alternative. This aspect will be addressed in more detail below in the context of the NMPF, which recognises the importance of the contribution to be made by floating wind farms to Ireland's ORE provision.
- 2.8 While passing reference was made to the need to reduce impact on commercial fisheries as a consideration influencing the site selection process, the reality appears to be that the site selection process as described in the EIAR did not give it any weight whatsoever.

Flexibility in Design and Location of Turbines

- 2.9 Whilst the Board has the power to provide an opinion on design flexibility in terms of offshore wind projects under section 287B of the Planning and Development Act 2000 (as amended), in our opinion, the degree of flexibility facilitated in this instance is too wide to be consistent with the obligations under the EIA Directive to accurately assess the range of direct and indirect effects associated with this project, both from the perspective of 'the public concerned' and for the purposes of the EIA to be carried out by the Competent Authority, i.e. the Board.
- 2.10 The extensive flexibility in location and design gives rise to the following difficulties-
 - insufficient data in the EIAR, particularly in relation to wind turbine locations, to enable an assessment of the impact on the marine environment and the nephrops fishery at this location;

- the EIAR has failed to provide an adequate analysis of the worst-case effects/impacts of the project options and flexibility within those options, both individually and in combination with other projects;
 - the direct and indirect effects of the full range of possibilities for the development have not been adequately assessed; and
 - the application (including the EIAR and NIS) has failed to adequately consider the cumulative impacts of all the project options, in light of the flexibility sought for the location and design of the turbines.
- 2.11 The EIAR recognises that both project options will have a very significant impact on our clients (Irish demersal otter trawlers) prior to mitigation. The EIAR also concludes that the effects will reduce from 'very significant' to 'moderate to slight', for both project options following the implementation of measures outlined in section 16.6 and Appendix 16.2 of the EIAR. However, these measures will not be effective in mitigating the acknowledged very significant impact on the nephrops fishery, nor will they enable our clients to fish for nephrops in the area of the array.
- 2.12 Our clients have a long established and long-term commitment to fishing this area and, prior to addressing their key concerns, it is necessary to set out the details of their businesses below to enable the Board to fully establish the context of this submission, and the impact the proposal will have as well as the indirect impact it will have on the local and national economy.
- 3. The impact on the nephrops fishery and the livelihood of the Prawn Fishermen**
- 3.1 This submission is made on behalf of a group of prawn fishermen that represent and fish, it is estimated, 53% of Ireland's quota of prawns from the area of the Irish Sea. The prawn beds that they fish are contained within the array and cable corridor of this application. The prawn fishermen and their families have been operating in this area since the 1960s and therefore have a full and detailed understanding of how to fish these waters in a sustainable manner that ensures that the nephrops fishery is maintained. The fishermen have invested heavily in both vessels and fishing equipment and the crew and skippers of the boats are relying on this prawn bed to earn a livelihood.
- 3.2 Their method of fishing is via demersal otter trawling, which is the most common method of fishing for prawns. Prawn trawl nets are designed to be towed by a boat along the sea floor. Most of the vessels have invested in equipment known as a Quad Rig. This set up consists of the vessel using four nets towed behind the vessel at a speed of approximately three knots (5.4km/hour). The rear end of the fishing gear is approximately .9km from the vessel, which can vary in range from 45 degrees on either side of the vessel, depending on wind shear and the strong tide in the Irish Sea. Poor visibility or adverse weather conditions can make the vessels and gear difficult to manoeuvre. There is no basis for the claim in the EIAR that the mitigation within the Fisheries Management and Mitigation Strategy (FMMS) reduces the impact on the nephrops fishing industry from very significant to being moderate to slight. This appears to be solely based on a Disturbance Payment Strategy that has not been agreed with stakeholders in the fishing industry, in principle or at all. Some of our clients/representatives of the Producer Organisations are members of the ORE Seafood Working Group and have not been consulted or indeed did not have sight of the FMMS prior to this application being submitted. This amounts to a breach of Fisheries Policy 2 of the National Marine Planning Framework. We request that any proposed Disturbance Payment Strategy be dismissed by the Board as an irrelevance to the consideration of this application.
- 3.3 Their catches are sold both in Ireland and exported worldwide as Dublin Bay Prawns. The Dublin Bay Prawn is known more correctly as the Norway lobster *Nephrops norvegicus*. Nephrops, as they are more commonly known within the application documents, are identified within section 3.5 of Appendix 21 of the NIS as mainly found on fine cohesive muddy substrates that are stable enough to support the construction of complex burrow systems (Chapman, 1980). Appendix 21 of the NIS identifies that they live generally at between depths of 20-800m and fertilize throughout August and September (Farmer, 1974) and they demonstrate that individuals stay close to their burrows. This makes them particularly susceptible to being impacted by a large-scale construction project such as this.
- 3.4 Section 3.5.8 of Appendix 21 of the NIS indicates that this area of the Irish Sea is one of the most productive Nephrops fisheries in Irish waters. Our clients' fishing grounds are located at and adjacent to where the turbines are planned to be constructed, which is acknowledged in the EIAR as to be "very significantly" affected. Figure no. 3.22 of Appendix 21 of Volume 2: Appendices of the Natura Impact

Statement (NIS) shows the Nephrops Fishing Grounds in the Western Irish Sea and depicts the range of concentration of landings in the area, with highest level of landings coloured red, and the lowest coloured green.

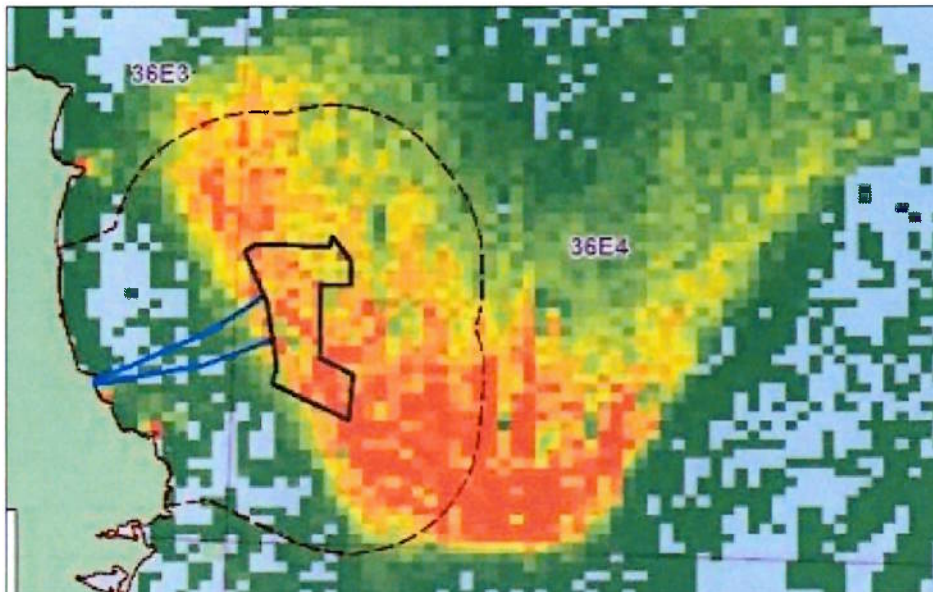


Figure 2: Excerpt from Figure no. 3.22 from Appendix 21 of Volume 2: Appendices of the NIS indicating Nephrops Fishing Grounds in the Western Irish Sea with the array boundary outlined in black

- 3.5 It is clear that the array area is overlapping with a large portion of the fishing grounds and will cause long term losses to the fishermen. The array area is essentially severing the nephrops fishing grounds. It is our clients' position that they will not be able to fish within the array area, or to navigate through the turbines. This has the combined result of removing very valuable and sensitive nephrops grounds, and also severing the nephrops fishery, creating practical and costly implications to accessing the remaining grounds.
- 3.6 The economic benefit of the fishing industry to Ireland was estimated as c.€1.3 billion of GDP in 2022. The International Council for Exploration of the Sea (ICES) notes that the Irish Sea West Area has 53% of the Total Allowable Catch (TAC). In addition to the direct impact on the habitat of the nephrops resulting from the loss of grounds in the array area and cable corridor, there is also the indirect impact of displacement of fishing effort. BIM valued the Irish Fishing Fleet landings of nephrops in 2022 as €82 million euros. The reduction of the nephrops fishing and a socio-economic assessment has not been carried out for the purposes of this application. The large majority of landings are from area 36E, the location of this proposed project. The array area overlaps with circa 6% of the nephrops grounds. This does not reflect the higher proportion of landings from this area, or indeed the cable corridor footprint. Nor does it evaluate or consider the indirect impacts of displaced fishing effort, impact on habitats and sensitive life cycles, or a reduction in Ireland's TAC and fishing quotas.
- 3.7 The following figure provides shows the MAC area (indicated by way of a red line), and the trawler tracking movements of one of our client's vessels over the last few years, indicating the clear and obvious conflict between the nephrops fishing area with the location of the array.



Figure 3: Fishing patterns of our clients in relation to the MAC area

- 3.8 In assessing the impact on nephrops it is important to note that they are not a mobile species and burrow in certain mud type sediment in this area, never moving beyond their burrows for their life cycle. This makes them particularly susceptible to be significantly impacted by any development, such as the large number of turbines being proposed. Their lack of mobility means that they will not simply move to different areas for our clients to fish, but will suffer significant loss of life due to habitat destruction and the species failure to move away from disturbance, the nephrops that remain (if any) will be inaccessible to our clients' trawlers.
- 3.9 The fishing industry provides a very important economic benefit to Ireland, creating much offshore and inshore employment, and has an important cultural and historical association for Ireland, most particularly in rural communities.
- 3.10 The applicant has failed to adequately characterise the socio-economic impacts of the proposed development in the EIAR, and has failed to adequately consider alternative locations that would reduce / mitigate socio-economic impacts, including impacts on commercial fisheries and, in particular, the nephrops industry and those for whom it provides a livelihood.
- 3.11 The impact on the nephrops fishery and on the livelihood of our clients will be addressed in more detail below.

4. Development site description

- 4.1 The North Irish Sea Array (NISA) Offshore Wind Farm is located off the coast of counties Dublin (Fingal), Meath and Louth; with the onshore element of the proposed development primarily located in Counties Meath and Dublin (Fingal). The boundary between onshore and offshore elements aspects of the application is the high-water mark. The onshore aspects include the proposed onshore cable corridor and the proposed grid connection at Belcamp.

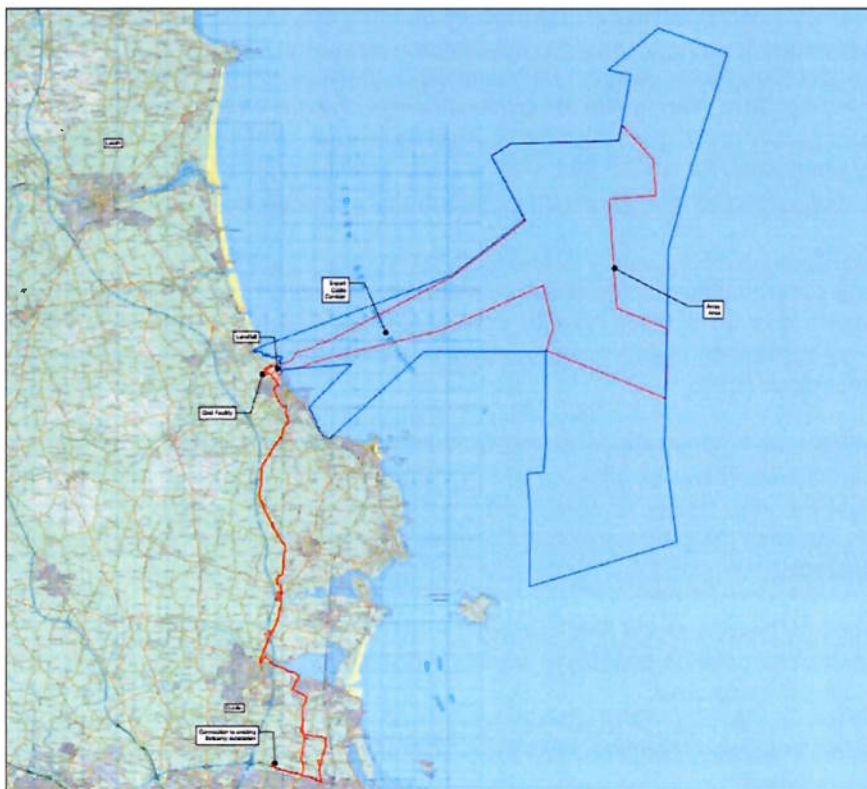


Figure 4: Excerpt from Site Location Map (Drawing no. 0001) from the Planning Report that accompanies the application that indicates the MAC area (outlined in blue) and the application site (outlined in red)

- 4.2 The offshore layout plan shows the indicative location of the offshore wind farm array and export cable corridor within the proposed development boundary. The off-shore windfarm is located c. 13km off the coast of Counties Dublin, Meath and Louth and extends for 20km parallel to the coastline, off Bettystown to the north, and off Balbriggan to the south. As is indicated in the map the MAC area extends for c. 30km from the vicinity of Clogherhead to the north, to just north of Lambay Island to the south.
- 4.3 The landfall part of the application site is located at Bremore Bay Beach that is c. 1.4km north of Balbriggan and 3km to the east of the M1 alignment. The proposed onshore substation is located c. 1km west of the landfall site on the western side of the R132. The onshore cables and substation are located within a low-lying area with several residential properties nearby.
- 4.4 The grid connection part of the application from the onshore substation extends for c. 33kms towards the existing EirGrid substation at Belcamp, which is located off the R139 to the south-east of Swords. The lands traversed by the grid connection are characterised by a wide range of uses that include transport, coastal, urban and rural uses.
- 4.5 There are several European sites within and adjacent to the application site. These include the recently designated North-West Irish Sea cSPA within which the off-shore array is proposed to be located; as well as being located adjacent to the Rockabilly SPA, as well as the Rockabilly to Dalkey Island SAC.

5. Planning context

- 5.1 The North Irish Sea Array (NISA) project is one of seven projects, which are referred to as Phase 1 projects, which were granted Maritime Area Consents (MACs) by the then Minister for the Environment, Climate and Communications on the 23rd December 2022.
- 5.2 The granting of MACs followed an assessment by the Department of Environment, Climate and Communications into each project's financial and technical competency. The lack of consideration of environmental and fishery considerations at the time of granting the MACs is notable. The grant of Phase One MACs follows the opening of the MAC assessment window in April 2022, and the publication of the ORESS Terms and Conditions in early November 2022. It was enabled by the enactment of the Maritime Area Planning Act 2021. One of the MACs was identified as the North Irish Sea Array (NISA), the subject of this application. A MAC (Ref. 2022-MAC-005) was issued to the applicant thereby enabling it to make a planning application for an Off-Shore Wind Farm and associated infrastructure. The MAC boundary and application boundary are shown on page 5 of this submission.
- 5.3 Subsequently, the Maritime Area Regulatory Authority (MARA) was established on the 17th July 2023, the function of which is set out under the Maritime Area Planning Acts 2021 and 2022. The MAC regime requires that developers acquire a MAC prior to making an application for permission to An Bord Pleanála. The planning application must be made within 18 months of the commencement date of the MAC, i.e. the 22nd December 2022.
- 5.4 The Government decided, and set out under its Policy Statement of the 18th May 2023 that they were moving to a fully plan-led approach to offshore energy development. This, by implication, was an acknowledgement that the first phase of MACs was not plan-led. This fact alone should lead an independent Board to question the process of site selection in this instance. The Government stated in relation to Phase 2 projects:

'(1) no new applications for developer-led ORE activity should be accepted by consenting bodies; and (2) the assessment and determination of existing consent applications relating to prospective ORE site investigation activity should be paused; until the Offshore Renewable Energy (ORE) Designated Areas, which will be designated according to legislative provisions for Designated Maritime Area Plans (DMAPs) in the Maritime Area Planning (MAP) Act 2021, have statutory effect'

- 5.5 The proposed development is premature pending the establishment of the plan led approach proposed by the Government and the designation of *Offshore Renewable Energy (ORE) Designated Areas*, using objective assessment criteria. The absence of such a plan led framework should be a critical consideration in leading the Board to refuse permission for the proposed OWF at this location.

Marine Planning Policy Statement and Guidelines

- 5.6 The Marine Planning Policy Statement was published in 2019 on a non-statutory basis, pending the introduction of legislation in 2020 which provided for the preparation, adoption, and review of statutory marine planning policy statements on six-yearly cycles. An update of this Policy is currently being undertaken by the Department of Housing, Local Government and Heritage.
- 5.7 The purpose of the Policy Statement was to set out the core principles to inform the new marine planning and development management process. The current marine planning and development management process comprises three elements, a National Marine Planning Framework [NMPF], a new marine development management process and new marine enforcement systems. However, it does not itself implement a plan-led approach, which awaits the designation of *Offshore Renewable Energy (ORE) Designated Areas*.
- 5.8 Furthermore, the consideration of the proposed OWF is premature pending the publication of Marine Planning Guidelines, which were required to be actioned by Q4 in 2023 under the Annex of Actions appended to the Climate Action Plan 2023. Under section 15 of the Climate Action Act 2015, as amended, the Board is obliged, in so far as practicable, to act consistently with the Climate Action Plan. The current *Climate Action Plan 2024 Annex of Actions* is described on the Government website as *"the full set of measures and actions will continue to be found in the plan itself, providing the legally required road map of actions to reach climate targets"*. The requirement for the publication of the

Marine Planning Guidelines continues to be an objective of the Climate Action Plan 2024 as evidenced by the following statement set out as one of the “Key Messages” on the first page of chapter 18 of the 2024 Plan, headed “*The Marine Environment*”:

“Current and Future Action

*We will support a State-led development management regime by adopting a statutory marine planning policy statement MPS, **developing marine planning guidelines**, and mapping all Irish offshore waters through the INFOMAR programme.”* [Emphasis added]

- 5.9 However, no timeline is indicated for the implementation of this apparently key objective in the 2024 Plan itself and no framework for actioning this measure is provided.
- 5.10 The failure to publish these Guidelines has deprived the Board of the benefit of a criteria-based framework as a guide to its decision making. This has compounded the difficulties for the Board caused by the State’s failure to implement a plan-led approach by the designation of *Offshore Renewable Energy (ORE) Designated Areas* to guide locational decision making in the context of the marine planning process.

National Marine Planning Framework

- 5.11 The National Marine Planning Framework (NMPF) was published on the 1st July 2021. The NMPF sits at the top of the hierarchy of plans and sectoral policies for the marine area.
- 5.12 In the absence of any planning framework in terms of the plan led identification of OWF sites at a national or regional level and in the absence of the publication of marine planning guidelines, it is the effectively the only planning related decision-making tool for the Board to have recourse to in terms of assessing this application, having regard to proper planning and sustainable development.
- 5.13 The NMPF recognises that there is only one offshore fixed wind farm generating electricity in Irish waters. That installation consists of 6 bottom-fixed turbines located on the Arklow Bank, around 10 kilometres off the coast of Wicklow. The NMPF recognises that bottom fixed wind turbines are limited to relatively shallow waters.
- 5.14 The NMPF also recognises that at the time of publication the technological development of floating offshore wind turbines had accelerated rapidly. The concept of floating off-shore wind turbines has not been adequately considered as part of this application at project inception stage or in the context of considering alternatives within Chapter 5 of the EIAR. We refer the Board to the fact that Climate Action Plan 2024 and Ireland’s Offshore Energy Programme have a target of 5GW of fixed offshore and 2GW of floating offshore wind energy by 2030. Therefore, floating offshore wind energy is an important component of the Government strategy to implement ORE.
- 5.15 Floating offshore wind farms involves a wind turbine supported by a floating structure, which is anchored to the seabed by one or more mooring cables. Section 5.4 of the EIAR states:

“At project inception, it was recognised that whilst the advancement of floating offshore wind was progressing, in order to deliver an offshore wind farm in Ireland (given the relative immaturity of floating technology on a commercial scale and the licensing regime in Ireland) in time for it to be constructed and operational for 2030, a wind farm with fixed bottom foundations was considered to be the most feasible technical option to help meet the targets.

Floating wind technology remains in its infancy with very few commercial turbines having been deployed to date. In addition, floating offshore wind foundations present a higher overall cost and therefore higher price to the consumer. As testing and demonstration continues if floating foundations were considered for Ireland’s Phase 1 projects it would lead to a longer timescale for commercial scale delivery and therefore lead to a longer period of fossil fuel dependency for Ireland. As such floating foundation technology was not deemed a viable and reasonable alternative.”

- 5.16 Inadequate consideration of floating wind turbines, which are supported by the NMPF, has been undertaken as part of this application, and particularly within the EIAR. This is considered further under the detailed grounds of submission below.

- 5.17 We note that the Environmental Impact Assessment Report (EIAR) submitted with the application sets out within Volume 8: Appendices, Appendix 3.1 a document that is titled, *National Marine Planning Framework Compliance Report*. The NMPF provides a policy framework, albeit insufficient on its own, for guiding planning within the maritime area off the coast of Ireland. There are two important elements of a fit-for-purpose planning framework which have not been implemented, despite the stated intention of the State to do so: the Marine Planning Guidelines, and the much-vaunted *Designated Maritime Area Plans (DMAPs)*, to which we will now turn.

Designated Maritime Area Plans (DMAPs)

- 5.18 The MAP Act provides for the establishment of a new system enabling spatial designations for specified areas and activities including ORE and emerging renewable energy technologies through Designated Maritime Area Plans (DMAPs). The role and function of these DMAPs is set out in the NMPF. These will be regional marine spatial plans.
- 5.19 A DMAP will be a management plan for a specific area of Ireland's marine waters and can be used to develop multiactivity area plans or to promote the use of specific activities, to include ORE. DMAPs, once adopted, will form part of the NMPF and become a binding consideration for marine decision makers and marine plan-makers.
- 5.20 The DMAP process will be a key element of the move to a plan-led ORE regime. The evidence base and spatial strategy set out in the OREDP II will facilitate the identification of Broad Areas for further analysis and to inform future designation for ORE as part of the statutory DMAP process.
- 5.21 Critically, these key elements of Government policy have yet to be put in place and do not apply to the application before the Board. In addition to the absence of Marine Planning Guidelines, this means that the Board is not in a position consider the subject application in light of a plan-led approach. The proposed development is, therefore, premature pending the adoption of these Plans and the Marine Planning Guidelines.

Climate Action Plan 2024

- 5.22 The Climate Action Plan 2024 supports a State led development management regime by adopting a Marine Planning Policy Statement, developing marine planning guidelines, and mapping all Irish offshore waters through the INFOMAR Programme. This includes the design and initiate the process of achieving 30% MPA coverage by 2030, and to adopt a statutory Ocean Environment Policy Statement to support decision making and identify priorities for the designation of MPAs.
- 5.23 The outcome of this is identified as a comprehensive regulatory and planning regime for the maritime area supporting the country's ambitions for decarbonising the energy sector through the development of offshore renewable energy.
- 5.24 The requirement for the publication of the Marine Planning Guidelines has not been carried forward into the *Climate Action Plan 2024 Annex of Actions*, notwithstanding that the preparation of these guidelines apparently continues to be an objective of the Climate Action Plan 2024. This has been discussed in more detail above.
- 5.25 The Board is required to perform its functions in a manner consistent with the furtherance of the national climate objective under section 15(2)(d) which, in turn, specifically refers to a "...biodiversity rich, environmentally sustainable...economy"
- 5.26 The applicant has failed to ensure that this planning application is consistent with the furtherance of the national climate objective in so far as it failed to take into account the promotion of a biodiversity rich and environmentally sustainable economy in the context of the consideration of alternatives and the site selection process described in the EIAR.

Draft Offshore Renewable Energy Development Plan II

- 5.27 This Draft Plan sets out a clear and unequivocal framework for guiding offshore renewable development in an appropriate plan-led hierarchy. It is intended to replace the first Plan that was published in 2014.

- 5.28 The Plan is recognised as one of the building blocks in moving towards a more plan-led approach to developing renewable energy as part of the enduring or long-term regime. The Plan recognises that there are many advantages to adopting this approach from optimising the use of our marine resources to reducing environmental impacts. The draft document focuses on the spatial strategy, setting out how the State proposes to identify the areas best suited for Offshore Renewable Energy (ORE), in line with the principles of good maritime spatial planning.
- 5.29 The Plan identifies actions required to deliver 5GW offshore wind connected to the grid by 2030 and forms a high-level guiding framework for offshore renewable energy projects. A key aspect of this process is to develop DMAPs for offshore renewable energy. There are currently no DMAPs for this part or any other part of the Irish Sea.
- 5.30 The data assessment carried out for the OREDP II has substantially updated the evidence base of marine data and knowledge relevant to spatial planning for ORE. The data collected has informed not only the development of the OREDP II but has created an evidence basis for the future identification of areas most suitable for ORE as part of the enduring plan-led regime.
- 5.31 The purpose of this is to ensure that spatial planning for ORE will be informed by best available evidence on an on-going basis. There was a cut-off date of the 31 May 2022 for the inputting of new datasets into the development of the draft OREDP II, due to the need for SEA and AA assessments to commence. The Plan states that the data collection process brought together a vast amount of marine data held across Government, contributing to the understanding of the marine environment and biodiversity in the context of ORE. The filling of identified data and knowledge gaps will deepen this understanding. The Plan states that this valuable marine data catalogue will be published and made accessible to other stakeholders. It is not evident from a consideration of the NIS or EIAR that this information has been taken into account in those reports. It is critically important that this information should be made available in the context of the appropriate assessment process for this application, both to the public concerned and to the Board as the Competent Authority to ensure that the AA is carried out in accordance with the best scientific evidence available. The present application is premature pending the availability of the site survey information obtained under Foreshore Licences for site investigation, including information to be obtained on foot of a recently granted Foreshore Licence this month (August, 2024).
- 5.32 This draft Plan includes a consideration of maritime constraints. In relation to Natura 2000 sites the Plan states that the presence of these sites does not expressly preclude the ability to develop ORE projects. However, the Plan states that development in these areas will be subject to additional regulatory processes and may require specific mitigation and monitoring that would make avoidance of these sites preferable from both a nature conservation and project development perspective. Figure 86 indicates the main array site being located within an ObSERVE High Density Area as well as an area that is identified as including OSPAR Declining Threatened Habitats. The environmental factors map also incorporates data gathered from aerial surveys on high density areas for seabirds and cetaceans conducting under the ObSERVE Project 2015– 2017. OSPAR Declining Threatened Habitats guide the OSPAR Commission in setting priorities for its further work on the conservation and protection of marine biodiversity. Figure 8-7 of the Plan II indicates the array area for the proposed OWF, as being in a high intensity area for commercial fishing.

Maritime Spatial Directive

- 5.33 The Maritime Spatial Planning Directive (Directive 2014/89/EU) defines Marine Spatial Planning as a process by which the relevant Member State's authorities analyse and organise human activities in marine areas to achieve ecological, economic and social objectives. It aims to deliver high levels of employment, productivity and social cohesion while also promoting a resource-efficient and green economy, which has great relevance for coastal and maritime sectors.
- 5.34 The Directive requires Member States to establish a framework for consistent, transparent, sustainable and evidence-based decision making. Where marine spatial plans are likely to have significant effects on the environment, they are subject to the SEA Directive.

Fingal County Development Plan

- 5.35 The majority of the proposed onshore infrastructure elements of the proposed development are proposed to be located within the administrative boundaries of Fingal County Council (FCC) as well as being located its coastline. The Fingal County Development Plan 2023-2029 was adopted on the 22nd February 2023 and came into effect on the 5th of April 2023. Section 5.5.3.3 of the Plan states:

“Potential also exists for the production of electricity from large-scale off-shore wind energy facilities off the coast of Fingal in the Irish Sea. In this regard, Fingal County Council supports the implementation of the Offshore Renewable Energy Development Plan 2014 and subsequently reviewed in 2018 and will co-operate with state and semi-state agencies in relation to the implementation of projects in the Irish Sea.

Where appropriate, Fingal County Council will also seek to facilitate infrastructure such as grid infrastructure on the land side of any renewable energy proposals of the offshore wind resource, in accordance with the principles of the National Marine Planning Framework.”

- 5.36 This is reflected in Policy CAP16 that relates to Offshore Wind-Energy Production. The landfall site is primarily zoned as High Amenity or Open Space.

Meath County Development Plan 2021-2027

- 5.37 The Meath County Development Plan 2021-2027 was adopted on 22nd September 2021 and came into effect on 3rd November 2021. The Plan provides policies and objectives for the protection of high-quality landscape and seascapes. The extent to which the proposed OWF is in conflict with these will be considered further below in the discussion of visual impact.

Louth County Development Plan 2021-2027

- 5.38 The Louth County Development Plan 2021-2027 was adopted on 30th September 2021 and came into effect on 11th November 2021. The Plan provides for the protection of high-quality landscape and seascapes. The extent to which the proposed OWF is in conflict with these will be considered further below in the discussion of visual impact.

6. Nature and extent of the proposed development

6.1 The North Irish Sear Array (NISA) project is one of 7 phase one projects, which are acknowledged to be developer-led plans by the State, all of which have submitted an application to An Bord Pleanála for planning permission to construct offshore windfarms as well as associated onshore development. For the purpose of this brief description, we have also subdivided between the off-shore and onshore aspects of the proposed development.

Offshore

6.2 Offshore development will comprise the following:

- Offshore Wind Turbine Generators (WTGs) within the array area;
- Offshore Substation Platform (OSP);
- Substructures and associated seabed foundations (for WTGs and OSP); and
- Offshore inter-array cables

6.3 The array area covers approximately 89km² that is indicated in Figure 1.1 in Volume 7A of the EIAR, and an excerpt of which is indicated below.

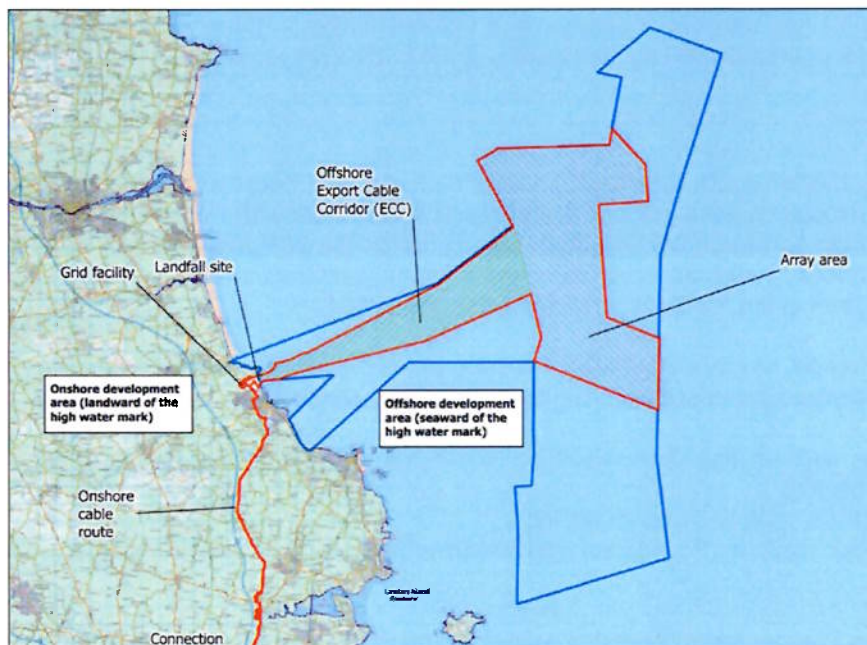


Figure 5: Excerpt from Proposed Development Location Map (Figure 1.1 of EIAR) that indicates the MAC area (outlined in blue) and the application site (outlined in red), with the various aspects of the application noted

6.4 At its closest point, the array area is located approximately 11.3km from land in water depths of approximately 30m to 63m below lowest astronomical tide (LAT), with the closest WTG situated approximately 12.3km from the coastline. The Offshore export cable corridor (ECC) is located between the OSP and the landfall site where the offshore export cables will be routed from the OSP to landfall. The ECC covers an area of approximately 36km².

6.5 This infrastructure is proposed to reach landfall the townland of Bremore, north of Balbriggan, Dublin. The offshore infrastructure consists of the transition of the two offshore export cables coming ashore to the onshore export cables.

Project options

6.6 The application includes two project options for the consideration of the Board. Paragraph 2.8.1 of Chapter 2 of Volume 2 of the EIAR states that the assessments of the EIAR are based on a design that incorporates details that have not been confirmed.

Project option 1 – 49 Wind Turbine Generators with a wind tip height of 290m, rotor diameter of 250m, hub height of 165m, and a monopile foundation.

Project option 2 - 35 Wind Turbine Generators with a wind tip height of 316m, rotor diameter of 276m, hub height of 178m, and a Monopiles or multi-leg pin piled jackets foundation.

- 6.7 The EIAR states that assessments were undertaken based on minimum and maximum values and parameters. Therefore, it is reasonable to assume that the number of turbines can be anywhere between 35 and 49 in this instance. This section of the EIAR states that a fixed Wind Turbine Generator layout for each of the two project options is included in the application.
- 6.8 A 500m limit of deviation for each Wind Turbine Generator and the Off-Shore substation platform is proposed. The applicant states that the *“precise location of WTGs and the OSP within the array area, and the export cable within the export cable corridor, will not be confirmed until detailed geotechnical site investigation surveys are undertaken”*.
- 6.9 NISA were granted two foreshore licences in recent years for site investigations, and a separate maritime usage licence was granted on 2nd August 2024 by the MARA for site investigations, and therefore various site investigations have already taken place. It is not evident from a consideration of the EIAR and NIS submitted with this application that the information on these site investigations has been made available for consideration by the Board and the public concerned.

Project flexibility

- 6.10 We note that during the pre-application consultations that occurred between the applicant and the Board, a request from the applicant for design flexibility was made under ABP Ref. OC29N.316332. The Board issued its opinion on design flexibility that was signed on the 30th January 2024. This Opinion was subsequently clarified by way of a letter dated the 4th April 2024 and updated by way of a decision pursuant to Section 146A of the Planning Acts on the 16th April 2024.
- 6.11 This stated that the details, or groups of details, of the proposed development that may be confirmed after the proposed development application has been made and decided are:
1. Turbines (Model, Number and Dimensions [tip height, rotor diameter, rotor swept areas, Nacelle height and hub height])
 2. Turbine Foundations (type and pile dimensions)
 3. Offshore substation platform (Foundation type and Dimensions [Height above sea level, length and width])
- 6.12 The Board concluded that no design flexibility was allowable for the extent and protection of subsea cable associated with the proposed development, as the Board considered that this element related to normal construction practices that are intrinsic to the installation of the proposed development. The applicants request on this matter is more comprehensively set out within the Inspector's Report of this request.
- 6.13 The ability to request this opinion on design flexibility is set out under the relevant provisions of the Planning and Development Act 2000, as amended, and under Circular PL 11/2023. We respectfully submit that the accuracy and correctness of the EIAR and other assessments are not reliable, given that it is unclear as to what the design and layout of the proposed WFO will be. In particular, the nature and extent of the impact on the *Nephrops* fishery industry is unclear for this reason.
- 6.14 The applicant states that this high degree of 'flexibility' is supported by section 3.5.8 of the EPA 2022 Guidelines. This guidance states that the EIAR **must contain** adequate information to enable the Competent Authority (An Bord Pleanála in this case) to carry out an assessment of all likely significant effects of the project on the environment (own emphasis).
- 6.15 The matters sought in terms of flexibility in layout and design in this instance go way beyond points of detail. In simple terms, our clients at the time of making this submission do not know where the individual turbines will be exactly located; how many will be built; and to what height. These indeterminate elements of design and layout, the degree of flexibility that is permissible under the EIA Directive, This

is especially the case in terms of the degree of flexibility sought in relation to the location of the individual turbines.

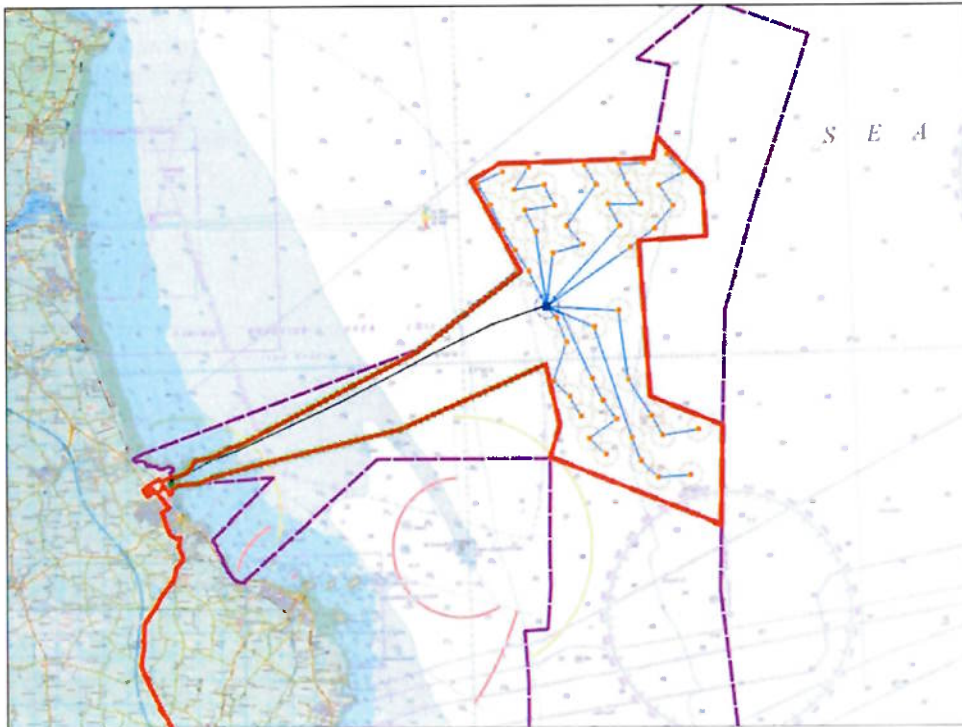


Figure 6: Excerpt from Proposed Layout – Project Option 1 (Figure 6.1 of EIA) that indicates the MAC area (outlined in purple) and the application site (outlined in red), with the 49 wind turbine generator locations, including the 500m limit of deviation also indicated

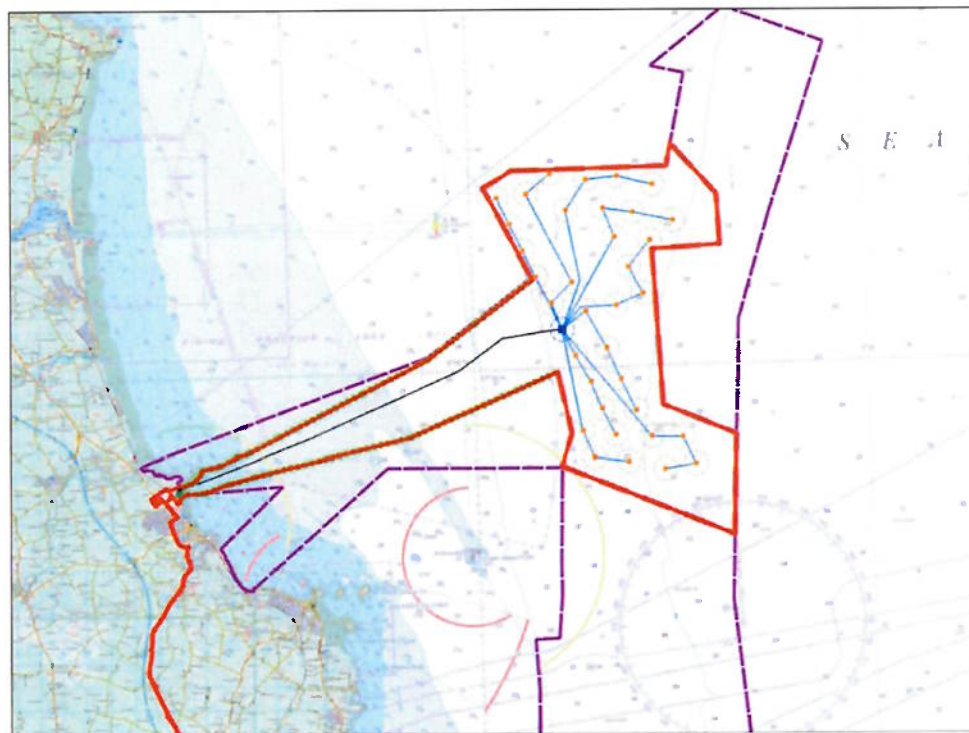


Figure 7: Excerpt from Proposed Layout – Project Option 2 (Figure 6.2 of EIA) that indicates the MAC area (outlined in purple) and the application site (outlined in red), with the 35 wind turbine generator locations, including the 500m limit of deviation also indicated

Onshore

- 6.16 The onshore aspects of the proposed development are set out within chapter 7 of the EIAR. This is a primarily linear alignment that will incorporate two 220kV underground transmission lines that will connect the two transmission joint bays that will be located near to the shoreline at the landfall site, to the substation at Belcamp that is located to the north of the R139. The transmission line route is proposed to be along the alignment of the R132 for the majority of its length, with some differentials to allow for the East-West Interconnector route at Corduff; Blakes Cross South; and M1 motorway, before it proposes to extend along local roads between Swords and Malahide; and then via the Malahide Road to the R139 and the substation.

7. Mitigation relied upon in FMMS

- 7.1 It is submitted that - it is critical that the Board take into account the unacceptable approach of the applicant in addressing what it acknowledges to be the potentially very significant impacts of the proposed OWF on the nephrops fishery in the location of the array, and also on marine biodiversity. The mitigation that is proposed in the FMMS is entirely ineffective to mitigate such impacts. A key element of marine planning policy in relation to ORE development is to protect the environment and biodiversity and to provide for the co-existence with other marine activities in a plan-led and informed manner. Several aspects of the current application, fail to address this framework

Contrary to the National Marine Planning Framework

- 7.2 The National Marine Planning Framework (NMPF) is intended to guide development proposals such as this within the marine environment. The NMPF stems from the Marine Planning Policy Statement and is a parallel document to the National Planning Framework. Chapter 3 of the Maritime Area Planning Act 2021 states that there is a need for Designated Maritime Area Plans (DMAPs) that will determine the appropriate location for offshore renewable energy projects. There is currently only one of these in Ireland, which is located off the south coast of Ireland and, therefore, the north-west part of the Irish Sea that is subject of this application is not covered by a DMAP. This planning application is premature pending the adoption of DMAPs covering the remaining area of the Irish Sea.
- 7.3 Appendix 3.1 of Volume 8 : Appendices (Introductory) of the EIAR includes a report that assesses the development relative to the NMPF. The NMPF includes several policies relating to fisheries. Fisheries Policy 1 is of particular significance. The NMPF states that if it is not possible to mitigate significant adverse impacts on fishing activity, the public benefits for proceeding with the proposal that outweigh the significant adverse impacts on existing fishing activity must be demonstrated. This has not been demonstrated in the present case due to the failure to engage in a proper site selection process or a consideration of all reasonable alternatives taking into account environmental factors.
- 7.4 Fisheries Policy requires that where a very significant impact upon fishing activity, as is acknowledged under the EIAR in the present case, a Fisheries Management and Mitigation Strategy (FMMS) is required to be prepared in consultation with fishing interests. The fishing industry, including our clients who sit on the ORE Seafood Working Group have not been involved or consulted relating the formulation of the draft FMMS, despite our clients' requests to commence this process, and having reviewed the proposed measures, have concluded that they are deeply unsatisfactory in terms of offering any mitigation in terms of addressing the very significant impact on the nephrops fishery.
- 7.5 The NMPF states that all proposals that assist the State in meeting the Government's ORE targets will be rigorously assessed to ensure compliance with environmental standards and to minimise impacts on the marine environment, marine ecology, and other maritime users. The overarching policy specifies that proposals must demonstrate that they will, in order of priority: a) avoid, b) minimise, or c) mitigate significant adverse impacts on the subject matter of the policy including Seafood/Fisheries (Fisheries Policy 1).
- 7.6 We note that Biodiversity Policy 1 requires any development to avoid, minimise or mitigate significant impacts. Page 4 of Appendix 3.1 claims that no significant permanent negative impacts on species adaptation or migration, or on natural native habitat connectivity, are expected. Given the timeline of the permission over which the development will be either in operation or under construction (a period of near 40 years), which in EIAR terms under the EPA Guidelines is classified as being classified as long-term and not far from being considered as a permanent effect in EIAR terms, the basis for the applicant's claim that there will be no significant impacts has not been demonstrated.
- 7.7 It is our firm view, that the mitigation measures being proposed in this instance will not ameliorate the very significant impact on our clients' fishery business and that the proposal must, therefore, be considered as being contrary to Fisheries Policies 1 and 2. Whilst the EIAR notes the significant impact of the development on demersal otter trawlers that target nephrops, it incorrectly concludes that the FMMS will mitigate those impacts. The proposed mitigation is largely concerned with communication via an FLO, disruption payments during surveys and construction and safety aspects including lighting, navigation and guard vessels. There is no mitigation for the permanent loss of a significant part of the Nephrops fishing grounds and the associated reduction in catches. Further there is no mitigation for the

potential wider unknown impacts of the development on the Nephrops outside of the array site and the resulting impact on the fishing industry.

- 7.8 A key aspect of the NMPF is biodiversity protection and enhancement under Biodiversity Policy 2. It is notable that when pre-planning discussions commenced with the Board, the North-West Irish Sea cSPA had not been designated, and therefore the location of the MAC area, and array area were identified prior to this designation being in place. The EIAR (Appendix 3.1) claims that 'no significant adverse impacts on such habitats are expected' when considering whether it will affect important habitats or other habitats upon which important species depend. However, the cSPA was not designated at the time of project inception, and there is no basis therefore to claim that the design has been developed to avoid and minimise the impact on marine assets as required under Biodiversity Policy 3 of the NMPF.
- 7.9 Furthermore, we submit that the Board should conclude that the consideration of the impact of the proposal, in combination with other projects and plans) has been not been adequately considered in either the Natura Impact Statement (NIS) or the EIAR. The concurrent nature of a number of these offshore wind projects, coupled with the design flexibility that is being sought, is significant in terms of the potential cumulative impact on the marine environment. This must lead the Board to question whether the proposed development is therefore in accordance with Protected Marine Policy 1 and 2 of the NMPF.
- 7.10 Furthermore, we request the Board to also question whether the applicant has utilised the best scientific evidence, which was available at the time the application is made and/or that has since become available. We respectfully submit that the Board should conclude that the application is in conflict with Protected Marine Sites Policy 4, quite apart from the requirements of Article 6(3) of the Habitats Directive.
- 7.11 The Board is referred to the Economic – Thriving Maritime Economy section of the NMPF and the need for the co-existence of uses within the marine environment as is required under Co-existence policy 1. The measures put forward by the applicant under the FMMS patently do not adequately mitigate the adverse impacts on the nephrops fishery acknowledged in the EIAR to be 'very significant'.
- 7.12 The mitigation measures that seek to address the obvious conflicts and negative impacts on our clients are set out under section 16.6 of the EIAR. None of these suggested mitigation measures are effective to ameliorate the environmental impact on the nephrops fishery or the economic impact on our clients.
- 7.13 The EIAR concludes that due to mitigation measures the impacts on our clients reduce from being very significant (we would contend they are greater than this) to being moderate to slight only. There is no evidential basis for reaching such a conclusion. This must lead the Board to conclude that the proposed development is contrary to Co-existence Policy 1 of the NMPF.
- 7.14 Policies relating to offshore renewable energy are dealt with under ORE Policy 1-11. These are supportive in principle of offshore renewable projects. The question for the Board to consider in this instance, is whether the impacts on the marine environment that includes the nephrops grounds within and adjoining the proposed array, and the very significant impact on our clients' ability to fish in this area, is acceptable. In our view it is not, and the selection of the subject site has resulted from the failure to implement a plan-led approach to the identification of an appropriate location for offshore renewable projects, and should therefore be refused.

Very Significant Negative Impact on Prawn fishermen

- 7.15 Section 16.3 of the EIAR states that on average 1,410 tonnes of Nephrops are landed annually, worth an estimated €10.2 million in first sales value per annum for landings by Irish vessels from fishing areas 36E3 and 36E4, with the vast majority being from 36E4. The EIAR states that the array area overlaps with approximately 6% of the nephrops grounds that are routinely fished by Irish vessels.
- 7.16 There is also no basis for the EIAR to claim when considering the impact that there will only be a localised loss of access to fishing grounds during the construction process. Whilst the applicant claims that the construction activities will impact on only 4.8km² of seabed, however, based on the applicants aim to establish zones, based on the relevant UK guidance MGN 654 (Maritime and Coastguard Agency, 2016), of a 500m radius around each structure this will require safety zones of 0.79km² per structure.

When these safety zones are applied to the 49 structures plus the platform, this equates to an overall area of 39.5km² that will be inaccessible during the construction process. This will have a profound negative impact on our clients. The assertion by the developer that 50 metre safety zones will suffice at operational stage is not practical or workable, noting the size of our clients' vessels and quad rigs used, along with basic navigational safety considerations in place.

- 7.17 The degree of impact on our clients' business is in our considered opinion, significantly understated in the EIAR. This is compounded by the construction impacts being divided or broken down and considered as several different aspects, as opposed to a cumulative impact of all the construction activities within the nephrops fishing area.
- 7.18 The EIAR concludes that the commercial fisheries local study area equates to 31% of Irish vessels landings of nephrops from the Irish EEZ. This is questionable, and appears to be based on a number of broad assumptions, which we would contend lead to inaccurate conclusions in this instance. Their conclusion that only €1.55 million of nephrops are caught by Irish trawlers from inside the array area during an annual period significantly underestimates the value and, consequently, the impact of the proposed development on this sector of the fishing industry.
- 7.19 We note that the EIAR recognises that the sensitivity of the receptor is considered to be medium and the magnitude is assessed to be high for Irish demersal otter trawlers that are used to fish for nephrops for both Project Option 1 and Project Option 2. The significance of effect will, therefore, be very significant for both Project Option 1 and Project Option 2.
- 7.20 This very significant effect from the construction of the array would be compounded by the impact during construction of the cable installation. It is clear, given the high value of the nephrops grounds, that even a short-term exclusion has the potential to impact upon a number of trawling vessels and, therefore, the magnitude is considered to be medium for both Project Option 1 and Project Option 2 under the EIAR. The rationale for the applicant's consideration and conclusions of the effect of the construction period on the commercial nephrops fishing fleet is unclear as it does not seem to coincide with the methodology for the description of effects under the EIAR Guidelines 2022 (EPA).
- 7.21 In terms of mitigation, the EIAR notes (Table 16.11) that there will be significant impacts on nephrops fishing within the array area during the construction phase of the proposed development. Under the NMPPF, where significant impacts are identified, a Fisheries Management and Mitigation Strategy (FMMS) should be prepared (Fisheries Policy 2). This is provided in Volume 9 Appendix 16.2 of the EIAR. This claims to have been developed in consultation with the industry, our clients or representatives are sitting on the ORE Seafood Working Groups and can confirm that no consultation has occurred in relation to this FMMS. We can confirm that our clients have not been adequately consulted in forming this draft / live document and it should not be inferred from the applicant's statement in the EIAR in this regard that our clients were satisfied with or in any way considered the measure set out in the FMMS to be effective in terms of mitigating the likely significant adverse effects on their fisheries and their livelihood.
- 7.22 Appendix C of the FMMS indicates the consultation and discussions that have been undertaken. Page 40 and 41 of the FMMS indicates concerns raised in terms of the impact on the Nephrops fishing industry. A Pod layout was put forward as facilitating maximised navigability between turbines for our clients. It is noted that this alternative layout was dismissed under section 5.6.2.1 of the EIAR (Chapter 5) due to other environmental concerns. The vague suggestion of a possible compensation package to our clients, in our considered opinion, cannot be regarded as a mitigation measure in the context of EIA, and should be dismissed as such by the Board.
- 7.23 We note that the EIAR recognises that due to the nature of the gear used by our clients, that is deployed as twin or quad-rigged trawl nets, that nephrops trawling activity will be very significantly affected within the array area during the 35 year operational phase. The EIAR states that our clients may employ single rigged nets. Our clients have confirmed that they would not be in a position to deploy single rigged nets to allow better manoeuvrability and access to the site. If this was even a possibility, it would reduce their return by 50%, thereby adding to the losses that will significantly impact on the viability of their businesses. It is our clients' position that due to navigational concerns, including manoeuvrability, tidal and weather restrictions, it will not be possible to operate within the array area.

Adverse visual impact on the character of the landscape of the area

- 7.24 The development as now proposed before the Board will comprise of 35 to 49 no. turbines as well as ancillary elements. The Seascape Landscape and Visual Assessment of the project options are considered under Chapter 29 of the EIAR. The visual impact of the proposed development is stated to be most significant during the operational phase. The most significant visual impacts are considered as being from Ardgillen Castle, Amenity Area in Skerries and Loughshinny where the EIAR considers the impacts to be major-moderate in significance, negative and long-term. We also note the EIAR conclusion in relation to impacts on Clogherhead Beach, Termonfeckin Beach and Bettystown Beach where the EIAR considers the impacts to be moderate in significance, negative and long-term.
- 7.25 It is unclear from the description of effects what the applicant defines as major, which we assume relates to significant effects under the definition of assessment criteria under Table 3.4 of the EPA 2022 Guidelines. This is defined as *"an effect, which, by its character, magnitude, duration or intensity, alters a sensitive aspect of the environment"*.
- 7.26 The County Development Plans along this coastline from where the wind farm would be visible all contain landscape character areas that have high sensitivity. This would appear to reflect the significant negative impact the wind farm will have on the most sensitive locations of the coastline. This coastline also, with the rich historical and cultural heritage of the inlands, forms part of the Ireland's Ancient East initiative of Failte Ireland. We note that there is no consideration of this aspect within this Chapter of the EIAR.
- 7.27 We respectfully submit that a critical aspect of the landscape and visual impact assessment will be the cumulative impact of the concurrent Phase 1 schemes that are at planning stage including the Oriel Wind Farm that is proposed to the north.
- 7.28 The scale and magnitude of development now proposed would result in an entirely inappropriate form of development in this coastal landscape and seascape when considered with other concurrent projects, and would be detrimental to the tourism industry that forms an important economic driver in the area.

Lack of strategic assessment of potential alternative sites considered; Guidance

- 7.29 Chapter 5 of the EIAR reviews and considers alternatives that were considered in the design of the development. The consideration of alternatives is defined in the glossary of the EIAR Guidelines as:
- "A description of other options that may have been considered during the conception of a project; these include alternative locations, alternative designs and alternative processes."*
- 7.30 The need to consider alternatives is further expanded upon within section 3.4 of the Guidelines. The EIA Directive (Annex IV(2)) of the amended Directive requires an EIAR to contain:
- 'A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.'*
[Emphasis added]
- 7.31 Section 5.2 of the EIAR states that a project objective was to deliver a fixed bottom offshore wind farm. The lack of consideration as an alternative of a floating offshore wind farm is notable. This is dismissed within section 5.4 of the EIAR in that there was a need to deliver the project by 2030, and that a wind farm with fixed bottom foundations was considered to be the most feasible technical option. No clarification of what this actually means is provided and it appears to be reflective of the selection of the preferred alternative being determined by the economic and technical considerations without any proper consideration of the impact on the environment in which the proposed development is to be located or the impact on the livelihood of fishermen such as our clients.
- 7.32 The applicant claims that introduction of floating wind turbines is in its infancy but there is significant evidence that such schemes are being rolled out across Europe and that they form part of the Governments' own offshore wind generation strategy. The fact that it may be more 'viable' for technical

reasons as is referred to by the applicants does not establish a fixed bottom offshore wind farm as the best alternative in circumstances where environmental factors have not been taken into account.

- 7.33 Prior to the recent change to a plan-led identification of offshore wind farm sites, the identification of suitable sites for development of offshore renewable energy was not plan-led. Developers undertook site selection and feasibility exercises to identify what they considered as being the most appropriate locations for the siting of offshore wind farms.
- 7.34 The inadequacy of the developer-led site selection is a core ground of our submission to the Board. It is our understanding based on section 5.5 of the EIAR that the applicant commenced site selection in 2008. This pre-dated the Offshore Renewables Development Plan (OREDPP) identifying the East-Coast North region (within which the proposed development is located) as being viable for offshore wind.
- 7.35 This site selection process that has been undertaken in this instance is clearly the opposite of being plan-led and was initially predicated on the project being a fixed bottom offshore wind farm that could potentially be economically constructed, operated and maintained. The EIAR suggests that the impact on European Sites was a key factor that influenced site selection, when in fact proposed OWF it is now located centrally within the North Irish Sea cSPA. Using the applicant's own criteria for site selection, the current site would now be excluded from consideration. The initial consideration of sites would appear to be based on concerns relating to ferry routes as opposed to other more pressing environmental or fishing areas.
- 7.36 We respectfully submit that it is unequivocal that the site selection process has been entirely developer led, and that there has been an inadequate consideration of the impact on the environmental and commercial fisheries.
- 7.37 We note that section 5.5.9 of the EIAR dismisses the impact of the proposed development on the integrity of the North West Irish Sea cSPA, and indicates this as being justified based on offshore wind farms being located within the Outer Thames Estuary SPA. We would request the Board to consider whether this is an appropriate comparison given that clearly it is the conservation objectives and SCIs of the North West Irish Sea cSPA that are sought to be protected that are the key considerations in that regard.
- 7.38 The foundation design is also noteworthy. In addition to dismissing the floating wind farm layout, the applicant has sought flexibility in their foundation design. The environmental effects, including hydrographic effects, of the potential range of foundations have not been adequately considered in the EIAR. The presence of turbine foundations are understood to alter localised hydrodynamics, resulting in potential variable modification of benthic habitats through scour and deposition. Hydrodynamics play an important role in the transport of larvae, connectivity between populations, and recruitment to habitats for many shellfish species. Impacts of changes in hydrodynamics and wind wake effects on the pelagic larval life stages of shellfish species are largely unknown.
- 7.39 This is compounded by the potential 500m alteration in the location of each turbine. This is beyond what was envisaged by Circular PL11/23 and is stretching the '*Rochdale envelope*' beyond what can be tolerated by the requirements of the EIA Directive.
- 7.40 The consideration of alternatives under the EIAR is deficient, given the strategic scale of the proposal that is now before the Board. The proposed OWF is of a scale for which there is no precedent in Ireland, and the impact on commercial fisheries has not been taken into account in the consideration of alternatives, albeit that commercial fisheries are 'name-checked'.
- 7.41 The scale of the proposal requires a more strategic and plan-led approach to the search for an appropriate site. It would appear from the review of the alternatives considered that the subject site was chosen predominantly for ease of construction and also for ease of operation. Neither environmental factors, nor the nature and extent of commercial fisheries that would be affected by the proposed WFO were factored into the identification of potential sites or the comparative assessment of those sites identified. In our opinion, the lack of a balanced or objective approach to the consideration of alternatives and site selection is a fundamental flaw. It is not in accordance with basic principles of proper planning and sustainable development.

- 7.42 When all these elements are considered, the only reasonable conclusion to reach is that the applicant has failed to adequately assess alternative sites and that there is a weighting in favour of the application site for technical, operational and economic reasons. The applicant has failed to demonstrate, adequately or at all, that the application site is the most appropriate site in terms of proper planning and sustainable development for the very large scale of development proposed and should therefore be refused.

8. Conclusion

- 8.1 It is requested that the Board refuse permission for the proposed development and that the reasons and considerations for refusal should include the following:

Appropriate Assessment

- 8.2 The applicant has not demonstrated that the likelihood that the proposed development which is located centrally within the North Irish Sea cSPA, on its own or in combination with other plans or projects, will have an adverse effect on the integrity of European sites, can be excluded beyond a reasonable scientific doubt.

Environmental Impact Assessment

- 8.3 The applicant has failed to demonstrate that the application site is the most appropriate site for the proposed development, taking into account environmental factors, for the very large scale and height of development proposed, having regard to the availability of reasonable alternatives.
- 8.4 It has not been demonstrated that there will not be a very significant impact on fishing in the area of the proposed development having regard to the mitigation within the Fisheries Management and Mitigation Strategy (FMMS).
- 8.5 The applicant has not demonstrated that the proposed development, on its own or in combination with other plans or projects, having regard to its scale and location will not have unacceptable environmental effects.

Proper Planning and Sustainable development

- 8.6 The proposed development is premature pending the adoption of the designation of *Offshore Renewable Energy (ORE) Designated Areas* to identify appropriate locations for large scale offshore marine development in accordance with proper planning and sustainable and government policy and in the absence of the publication of marine planning guidelines which are proposed under the Climate Action Plan 2024.
- 8.7 The applicant has failed to demonstrate that the application site is the most appropriate site for the proposed development, for the very large scale and height of development proposed, having regard to proper planning and sustainable development.
- 8.8 The site selection process for the proposed OWF failed to adequately take into account or give appropriate weight to the impact on commercial fisheries, and in particular to the very significant impact on the nephrops fishery at this location and the social economic impacts in that regard. The applicant has failed to adequately consider alternative locations that would reduce or mitigate significant impacts on commercial fisheries.
- 8.9 A cost benefit analysis of the project, which includes a comparison of alternative, has not been produced by the applicant to satisfy the Public Expenditure Code which forms part of government policy to which the Board is obliged to have regard, inter alia, under section 143 of the Planning and Development Act 2000, as amended.
- 8.10 The scale and height of the proposed development would result in an entirely inappropriate form of development in this coastal landscape and seascape when considered with other concurrent projects, and would be detrimental to the tourism industry which forms an important economic driver in the area.

8.11 Nothing further occurs to me at the time of writing this.

Yours faithfully,

A handwritten signature in black ink that reads "Anthony Marston". The signature is written in a cursive, flowing style.

Anthony Marston (MIPI, MRTPI)
Marston Planning Consultancy