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MONA OFFSHORE WIND PROJECT

Response to Stena Line ExQ2 Submission

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Contents

Tables

Glossary

Term	Meaning
Applicant	Mona Offshore Wind Limited.
Appropriate Assessment	A step-wise procedure undertaken in accordance with Article 6(3) of the Habitats Directive, to determine the implications of a plan or project on a European site in view of the site's conservation objectives, where the plan or project is not directly connected with or necessary to the management of a European site but likely to have a significant effect thereon, either individually or in-combination with other plans or projects.
Bodelwyddan National Grid Substation	This is the Point of Interconnection (POI) selected by the National Grid for the Mona Offshore Wind Project.
Competent Authority	Regulation 6(1) defines competent authorities as "any Minister, government department, public or statutory undertaker, public body of any description or person holding a public office".
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
Environmental Statement	The document presenting the results of the Environmental Impact Assessment (EIA) process for the Mona Offshore Wind Project.
Evidence Plan Process	The Evidence Plan process is a mechanism to agree upfront what information the Applicant needs to supply to the Planning Inspectorate as part of the Development Consent Order (DCO) applications for the Mona Offshore Wind Project.
Expert Working Group (EWG)	Expert working groups set up with relevant stakeholders as part of the Evidence Plan process.
Inter-array cables	Cables which connect the wind turbines to each other and to the offshore substation platforms. Inter-array cables will carry the electrical current produced by the wind turbines to the offshore substation platforms.
Interconnector cables	Cables that may be required to interconnect the Offshore Substation Platforms in order to provide redundancy in the case of cable failure elsewhere.
Intertidal access areas	The area from Mean High Water Springs (MHWS) to Mean Low Water Springs (MLWS) which will be used for access to the beach and construction related activities.
Intertidal area	The area between MHWS and MLWS.
Landfall	The area in which the offshore export cables make contact with land and the transitional area where the offshore cabling connects to the onshore cabling.
Local Authority	A body empowered by law to exercise various statutory functions for a particular area of the United Kingdom. This includes County Councils, District Councils and County Borough Councils.
Local Highway Authority	A body responsible for the public highways in a particular area of England and Wales, as defined in the Highways Act 1980.
Marine licence	The Marine and Coastal Access Act 2009 requires a marine licence to be obtained for licensable marine activities. Section 149A of the Planning Act 2008 allows an applicant for a DCO to apply for a 'deemed' marine licence as part of the DCO process. In addition, licensable activities within 12nm of the Welsh coast require a separate marine licence from Natural Resource Wales (NRW).

Term	Meaning
Maximum Design Scenario (MDS)	The scenario within the design envelope with the potential to result in the greatest impact on a particular topic receptor, and therefore the one that should be assessed for that topic receptor.
Mona 400kV Grid Connection Cable Corridor	The corridor from the Mona onshore substation to the National Grid substation at Bodelwyddan.
Mona Array Area	The area within which the wind turbines, foundations, inter-array cables, interconnector cables, offshore export cables and offshore substation platforms (OSPs) forming part of the Mona Offshore Wind Project will be located.
Mona Array Scoping Boundary	The Preferred Bidding Area that the Applicant was awarded by The Crown Estate as part of Offshore Wind Leasing Round 4.
Mona Offshore Cable Corridor	The corridor located between the Mona Array Area and the landfall up to MHWS, in which the offshore export cables will be located.
Mona Offshore Cable Corridor and Access Areas	The corridor located between the Mona Array Area and the landfall up to MHWS, in which the offshore export cables will be located and in which the intertidal access areas are located.
Mona Offshore Transmission Infrastructure Scoping Search Area	The area that was presented in the Mona Scoping Report as the area encompassing and located between the Mona Potential Array Area and the landfall up to MHWS, in which the offshore export cables will be located.
Mona Offshore Wind Project	The Mona Offshore Wind Project is comprised of both the generation assets, offshore and onshore transmission assets, and associated activities.
Mona Offshore Wind Project Boundary	The area containing all aspects of the Mona Offshore Wind Project, both offshore and onshore.
Mona Offshore Wind Project PEIR	The Mona Offshore Wind Project Preliminary Environmental Information Report (PEIR) that was submitted to The Planning Inspectorate (on behalf of the Secretary of State) and NRW for the Mona Offshore Wind Project.
Mona Offshore Wind Project Scoping Report	The Mona Scoping Report that was submitted to The Planning Inspectorate (on behalf of the Secretary of State) and NRW for the Mona Offshore Wind Project.
Mona Onshore Cable Corridor	The corridor between MHWS at the landfall and the Mona onshore substation, in which the onshore export cables will be located.
Mona Onshore Development Area	The area in which the landfall, onshore cable corridor, onshore substation, mitigation areas, temporary construction facilities (such as access roads and construction compounds), and the connection to National Grid substation will be located
Mona Onshore Transmission Infrastructure Scoping Search Area	The area that was presented in the Mona Scoping Report as the area located between MHWS at the landfall and the onshore National Grid substation, in which the onshore export cables, onshore substation and other associated onshore transmission infrastructure will be located.
Mona PEIR Offshore Cable Corridor	The corridor presented at PEIR that was consulted on during statutory consultation and has subsequently been refined for the application for Development Consent. It is located between the Mona Array Area and the landfall up to MHWS, in which the offshore export cables and the offshore booster substation will be located.
Mona PEIR Offshore Wind Project Boundary	The area presented at PEIR containing all aspects of the Mona Offshore Wind Project, both offshore and onshore. This area was the boundary consulted on during statutory consultation and subsequently refined for the application for Development Consent.

Term	Meaning
Mona Potential Array Area	The area that was presented in the Mona Scoping Report and in the PEIR as the area within which the wind turbines, foundations, meteorological mast, inter-array cables, interconnector cables, offshore export cables and OSPs forming part of the Mona Offshore Wind Project were likely to be located. This area was the boundary consulted on during statutory consultation and subsequently refined for the application for Development Consent.
Mona Proposed Onshore Development Area	The area presented at PEIR in which the landfall, onshore cable corridor, onshore substation, mitigation areas, temporary construction facilities (such as access roads and construction compounds), and the connection to National Grid infrastructure will be located. This area was the boundary consulted on during statutory consultation and subsequently refined for the application for Development Consent.
Mona Scoping Report	The Mona Scoping Report that was submitted to The Planning Inspectorate (on behalf of the Secretary of State) and NRW for the Mona Offshore Wind Project.
National Policy Statement (NPS)	The current national policy statements published by the Department for Energy Security & Net Zero in 2024.
Non-statutory consultee	Organisations that an applicant may choose to consult in relation to a project who are not designated in law but are likely to have an interest in the project.
Offshore Substation Platform (OSP)	The offshore substation platforms located within the Mona Array Area will transform the electricity generated by the wind turbines to a higher voltage allowing the power to be efficiently transmitted to shore.
Offshore Wind Leasing Round 4	The Crown Estate auction process which allocated developers preferred bidder status on areas of the seabed within Welsh and English waters and ends when the Agreements for Lease (AfLs) are signed.
Pre-construction site investigation surveys	Pre-construction geophysical and/or geotechnical surveys undertaken offshore and, or onshore to inform, amongst other things, the final design of the Mona Offshore Wind Project.
Point of Interconnection	The point of connection at which a project is connected to the grid. For the Mona Offshore Wind Project, this is the Bodelwyddan National Grid Substation.
Relevant Local Planning Authority	The Relevant Local Planning Authority is the Local Authority in respect of an area within which a project is situated, as set out in Section 173 of the Planning Act 2008. Relevant Local Planning Authorities may have responsibility for discharging requirements and some functions pursuant to the DCO, once made.
the Secretary of State for Business, Energy and Industrial Strategy	The decision maker with regards to the application for development consent for the Mona Offshore Wind Project.
Statutory consultee	Organisations that are required to be consulted by an applicant pursuant to the Planning Act 2008 in relation to an application for development consent. Not all consultees will be statutory consultees (see non-statutory consultee definition).
Wind turbines	The wind turbine generators, including the tower, nacelle and rotor.
The Planning Inspectorate	The agency responsible for operating the planning process for NSIPs.

Acronyms

Acronym	Description
AfL	Agreement for Lease
BEIS	Department for Business, Energy and Industrial Strategy
BNG	Biodiversity net gain
DCO	Development Consent Order
EIA	Environmental Impact Assessment
EnBW	Energie Baden-Württemberg AG
EWG	Expert Working Group
HVAC	High Voltage Alternating Current
IEF	Important Ecological Feature
IEMA	Institute for Environmental Management and Assessment
ISAA	Information to support the Appropriate Assessment
MDS	Maximum Design Scenario
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
NBB	Net Benefits for Biodiversity
NRW	Natural Resources Wales
NSIP	Nationally Significant Infrastructure Project
NTS	Non-Technical Summary
OSP	Offshore Substation Platform
PDE	Project Design Envelope
PEI	Preliminary Environmental Information
PEIR	Preliminary Environmental Information Report
POI	Point of Interconnection
SAC	Special Area of Conservation
SoCC	Statement of Community Consultation
SPA	Special Protection Area
TCE	The Crown Estate
WTW	Wildlife Trust Wales
TWT	The Wildlife Trusts

Units

Unit	Description
GW	Gigawatt
km	Kilometres
km^2	Kilometres squared
kV	Kilovolt
MW	Megawatt
nm	Nautical miles

1 Response to Stena Line ExQ2 Submission

1.1 Introduction

1.1.1.1 The Applicant has responded to Stena Line ExQ2 submission below.

2 Response to Stena Line ExQ2 Submission

Table 2.1: REP5-122 - Stena Line

Planning Inspectorate Ref. No.	Question to	ExQ2 Question	Stena Line response	Applicant's response
REP5-122.1	Stena Line UK (Limited)	Residual effects on Stena Line operations • Describe the commercial and / or operational implications of increased transit times for Stena Line services as a result of the Mona project cumulatively with other plans and projects in the Irish Sea.	Q2.15.2 **a) Describe the commercial and / or operational implications of increased transit times for Stena Line services as a result of the Mona project cumulatively with other plans and projects in the Irish Sea.** Stena Line operates two passenger and one freight RoRo vessels on its Belfast to Liverpool service on three separate routes, all of which cross through the site of the proposed offshore windfarm. These services are year-round and each vessel makes one round trip every day between the two ports. Stena Line have invested heavily in the route with two new 1000 Passenger E-Flexer's being delivered in 2020 & 2021. The individual and cumulative development of the four offshore wind farms would effectively obstruct the currently direct line of passage between the ports. Fig 1 shows the magnitude of the physical deviation which is 5.5 Nm passing North of the Isle of Man and c 1.5 Nm passing South of the Isle of Man. As a consequence, whilst it is certainly the case that the Stena Line vessels would have the option of diverting from their currently direct line of passage and could as an alternative transit either to the north or south of the Isle of Man, such a forced diversion would create serious commercial implications in terms of service challenges, operational practicality and navigational safety.	The Applicant notes this response and confirms that Stena Line and the Applicant are in agreement that significant adverse impacts are predicted on Stena Line routes, as described in Volume 2, Chapter 7: Shipping and navigation (APP-059) and agreed in the Statement of Common Ground at Deadline 5 (REP5-078). The assessment notes that the 5.5 nm deviation to the north of the Isle of Man referred to by Stena Line in their response relates to the cumulative scenario as a result of Morecambe Generation Assets, Morgan Generation Assets and Mooir Vannin Offshore Wind Project and is not a result of the Mona Offshore Wind Project. Volume 2, Chapter 7: Shipping and navigation (APP-059) concludes that the deviations to the Stena Line route between Liverpool and Belfast west of the Isle of Man in typical conditions as a result of the Mona Offshore Wind Project are between 1.1 nm and 2.2 nm which equate to between 3.4 and 6.8 minutes of deviation on an eight hour timetabled service and are therefore minor, but could have an operational and commercial impact. The Applicant notes that engagement is ongoing with Stena Line to address residual matters as set out in the Statement of Common Ground submitted at Deadline 5 (REP5-078).
			Navigational safety As long ago as Quarter 2 in 2021, Stena Line's concerns in relation to navigational safety have been made clear to the applicant and Nash Maritime, which company is advising the applicant on navigational risk. Since then, we have participated in several marine navigational engagement forums, marine simulator exercises conducted by HR Wallingford and the resulting HAZID workshops. This process has looked at both the original and reduced red line boundaries for the cumulative effect of Mona, Morgan and Morecambe ORE projects. As far as Stena Line is concerned, some risk clearly remains and this residual risk is appreciably raised above the current level. As Stena Line will remain the owners of this risk for the duration of the project's lifetime, it will be for Stena Line as the operator, and for Stena Line alone, to determine what is a deemed acceptable risk. Those risks include being responsible for the lives and wellbeing of up to 1000 persons on board our vessels during each crossing and we take the management of such risk with the greatest importance. The ExA should note, however, that additional safety risks will arise as a result of the offshore wind farm proposals, both singly and cumulatively. In summary, these include: The funnelling of marine traffic in the area into reduced seaways as a result of ORE development in the area. • Anticipated additional vessel encounters particularly at the corners of the developments. • Reduced weather routing options for masters during periods of adverse weather which judging by recent meteorological experience would indicate that we are experiencing more notable weather events. While our vessels are large and designed to deal with heavy seas and swells we must be conscious the passenger falls and the shifting of cargo inside freight units is somewhat outside our practical control but remains within our duty of care to mitigate. • An incident aboard any vessel resulting in even a temporary loss of power or propulsion whilst navigating through the channels which the proposed level of ORE's create, greatly reduces the availability of both sea room and time for the master of that vessel to react and risks the	The SoCG between the Applicant and Stena Line submitted at Deadline 5 (REP5-078) notes agreement that there were no unacceptable hazards, as concluded at the hazard workshop and navigation simulations which Stena Line attended (as detailed in Volume 6, Annex 7.1: Navigational Risk Assessment (NRA) (APP-098)). Whilst the Applicant accepts that any offshore development inherently increases the risk over the current base case, Stena Line agreed that risks of the Mona Offshore Wind Project were reduced to ALARP at Issue Specific Hearing 2 (REP1-010) as concluded in the Applicant's assessment. With regards to the specific points raised by Stena Line: • The Applicant assessed 'funnelling' of marine traffic and increased vessel encounters through modelling, navigation simulations and the hazard workshop and concluded that the impacts on collision and allision risk were minor given the volume of traffic and available sea space (as detailed in Volume 6, Annex 7.1: NRA APP-098). • Reduced weather routeing was assessed through navigation simulations in adverse weather and it was concluded that suitable alternative routes were available but incurred additional transit duration and consequential operational impacts. • Scenarios of incidents aboard vessels, noting the low likelihood of occurrence, were simulated in the navigation simulations and suitable response strategies proposed. • As detailed in Section 7.9.9 of Volume 2, Chapter 7: Shipping and navigation (APP-059) and 1.8.11 of the NRA (APP-098), impacts on radar are recognised however they are mitigated by the passing distances of commercial ships and the greater separation between wind turbine generators (WTGs) which is believed to lessen the effects than those currently experienced by Stena Line. The National Academies study referenced by Stena Line notes these points. The MCA have not raised concerns on this matter (REP3-026). The Applicant also notes that Stena Line already operates between "two ORE projects" when

Planning Inspectorate Ref. No.	Question to	ExQ2 Question	Stena Line response	Applicant's response
			possibility of an allision with a turbine, construction vessels, maintenance vessels or other structure. • While it was argued by the applicant during simulation exercises that Marine Radar is not significantly affected by the proximity of wind turbines, the National Academies of Sciences, Engineering, and Medicine, 2022 paper (Ref 1), gives us cause for concern that such interference is not fully evaluated in particular when passing between two ORE projects. We continue to believe that there is an element of uncertainty as to the level of interference. See Fig. 3. as a local example. • The Swedish government has recently rejected applications for 13 offshore wind farm applications in Baltic Sea this week citing their military's concerns with regards to the possible effect on radar. (Ref 2.) While the report does not specify the areas of the radio spectrum effected it would be reassuring to understand if the Marine bands are included ie 3.02–3.1 GHz (S band) or 3.1–9.45 GHz (S and X band) • The addition of so many additional red lights on the turbines of the four new proposed ORE's combined with the ones already in place will present every mariner with a landscape for which it will be difficult to effectively identify the red navigation lights on other vessels at night. See Fig 2	transiting between Heysham and Belfast and such impacts are presumably managed. • Stena Line also refer to the recent decision by the Swedish Government to reject projects citing impact on radar interference. The Applicant notes that this decision was for defence radar and missile warning systems which are far more sensitive and not related to marine navigational safety. The Applicant therefore does believe this is a relevant comparison. • The impact on visual identification and collision avoidance was assessed as part of the NRA (APP-098) and no significant issues were identified. The Applicant assessed nighttime scenarios as part of the 2023 navigation simulations (including with Stena Line) and attendees noted that navigational lights were identifiable amongst the backscatter of the OWF projects. The Applicant also notes that no concerns have been raised by the MCA (REP3-026) or Trinity House (REP3-027/REP4-132) on these matters and there is nothing inherently more impactful of the Mona Offshore Wind Project compared to any other built/consented OWF in the UK. Furthermore, the increased spacing between WTGs as part of the Mona Offshore Wind Project may lessen these impacts. The Applicant notes that there are also other means for collision avoidance such as radar and AIS.
			Commercial impacts While navigational safety is clearly our primary consideration, the commercial impacts on the company's business model are undeniable. These have already been shared with the applicant and can be made available to the ExA on a confidential basis. It is self-evident that the development of the offshore wind farms, either singly or cumulatively, will increase the transit distance between Belfast and Liverpool. While this may appear to be only a small distance depending on the route selected – which incidentally will itself be dependent on a variety of circumstance from weather conditions, wind farm operation and maintenance vessels, other shipping lines, contractual obligations etc., - its long-term effect has a significant cost. In order to maintain schedule and so that each vessel does not impact on the other during their slot time in port, vessels will be required to increase speed which in turn results in increased fuel consumption, increased emissions trading system costs and increased maintenance. Stena Line have committed to migrate to new greener marine fuels and the fuel selected is Methanol. This initiative, however, brings with it cost implications and increased crossing speeds adds further to this. Many of our freight customers work on a just in time model and delays to service are not acceptable to them in particular with foodstuffs being shipped to Northern Ireland. We have further expressed concerns in relation to the increased transit time for the three vessels and the effect this will have on not only our increased carbon emissions along with its associated carbon tax. This will additionally have an effect on our bunker consumption and turn-around times in port.	The Applicant notes this response and impacts on Stena Line operations are assessed as part of Volume 2, Chapter 7: Shipping and navigation (APP-059), both individually with the Mona Offshore Wind Project and cumulatively with other Tier 1 and Tier 2 Projects. The Applicant notes that engagement on a commercial agreement is ongoing with Stena Line to address residual matters as set out in the Statement of Common Ground submitted at Deadline 5 (REP5-078).
		• Do you consider that the deviations necessary to accommodate the Mona project together with other planned offshore wind farms could threaten the viability of Stena Line's ferry operations? If so, how?	Q2.15.2 **(b) Do you consider that the deviations necessary to accommodate the Mona project together with other planned offshore wind farms could threaten the viability of Stena Line's ferry operations? If so, how?** There is no doubt that the Mona project either alone or together with other proposed offshore windfarms will have serious implications for Stena Lines ferry operations simply as a consequence of increased cost. It would be misleading, however, to suggest that the construction of the four ORE's would threaten the total viability of Stena Line's operations between Liverpool and Belfast – which are designed to meet and satisfy a growing commercial need by providing a trade link between England and Northern Ireland. Indeed, the company has risen to recent commercial challenges, seeing increased freight volumes and passenger traffic on the route, much of which was brought	The Applicant notes this response and confirms that Stena Line and the Applicant are in agreement that there are impacts on Stena Line routes, as described in Volume 2, Chapter 7: Shipping and navigation (APP-059) and agreed in the Statement of Common Ground at Deadline 5 (REP5-078). The assessment concludes that the deviations to the Stena Line route between Liverpool and Belfast west of the Isle of Man are between 1.1 nm and 2.2 nm which equate to between 3.4 and 6.8 minutes of deviation on an eight-hour timetabled service and is therefore minor and would not threaten the viability of the Stena Line routes in the Irish Sea, but could have an operational and commercial impact.

Planning Inspectorate Ref. No.	Question to	ExQ2 Question	Stena Line response	Applicant's response
			about post Brexit. Stena Line now provides the vital shipping services based on the just-in-time model our freight customers require in order to supply Northern Ireland and the UK mainland. Increased crossing distances that will be created as a result these windfarm proposals, if approved, will have to be mitigated if the company is to continue to deliver its contractual obligations. This can only be achieved, however, with increased speed on passage to mitigate the extra distance that will now have to covered. Inevitably, however, increased speed requires increased bunker fuel consumption, and this will have to be factored into the company's operational costs. In addition, additional costs will be brought about by the introduction of the UK's Emissions Trading Scheme (UK ETS) with which we expect compliance obligations to commence on 1 January 2026. There is no phase-in period for maritime emissions, and we therefore anticipate full cost exposure from that date onwards. Stena Line's commitment to building new fuel-efficient tonnage and to changing to new greener fuels will be heavily negated by the construction and operation of the proposed offshore wind farms, either singly or cumulatively. We have calculated the magnitude of these costs in a framework document over the lifetime of the project and shared them with the relevant applicants for transparency.	The Applicant notes that engagement on a commercial agreement is ongoing with Stena Line to address residual matters as set out in the Statement of Common Ground submitted at Deadline 5 (REP5-078).
		• Is there any further mitigation that you consider should be adopted by the Applicant to further reduce the residual cumulative effects of the Proposed Development on the operations of Stena Line in typical and adverse weather conditions?	Q2.15.2 **c) Is there any further mitigation that you consider should be adopted by the Applicant to further reduce the residual cumulative effects of the Proposed Development on the operations of Stena Line in typical and adverse weather conditions?** Should the construction of the four projects go ahead as tabled, Stena Line will be seriously disadvantaged both operationally and commercially. This will be despite the provisions of UNCLOS Article 60.7 which states that "Artificial islands, installations and structures and the safety zones around them may not be established where interference may be caused to the use of recognized sea lanes essential to international navigation." Regular shipping services between the two ports have existed since 1824. The construction and operation of a single offshore wind farm, let alone four, in the established sea lanes will certainly act as a critical "interference" to our operations.	The Applicant reiterates the definition of sea lanes as used in the National Policy Statement EN-3 and UNCLOS relate to Traffic Separation Schemes as described in Section 1.8.2 of the NRA (APP-098). Therefore, the assessment concludes that there are no significant adverse impacts on sea lanes. This is agreed with the MCA in the SoCG submitted at Deadline 3 (REP3-026) and confirmed by MCA within the Morgan Generation Assets Examination in its response to ExQ1 SN1.2 at Deadline 3 (EN010136 REP3-036). The Applicant considers the Stena Line routes to fall under NPS EN-3 Paragraph 2.8.328 as strategic routes and lifeline ferries and have been treated accordingly.
			It is the view of Stena Line that if the Mona project is to proceed, the only possible mitigation available to the promoter of the scheme must be – a) Formal agreement as to the compensation payable to Stena Line during the construction of the windfarm and for the life of its operation and ultimate removal; and b) The inclusion of adequate protections in the DCO. Stena Line continues to engage with the applicant in agreeing a Statement of Common ground. We remain open to continued dialogue on all matters.	The Applicant notes that engagement is ongoing with Stena Line to address residual matters and the Applicant is confident this can be achieved prior to the close of the Examination. Therefore, the Applicant does not believe that such any provision in the DCO is necessary.