From: [redacted]
To: Mona Offshore Wind Project
Subject: Stena Line Response - Deadline 5
Date: 03 December 2024 06:48:27
Attachments: image001.png
Stena Line response Mona - Deadline 5.pdf

Good Morning,

Please find attached a response from Stena Line to the questions raised for Deadline 5.

Best Regards

[redacted]
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Safety Starts With You!

The Examining Authority
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02 December 2024

To the Examining Authority

Application by Mona Offshore Wind Limited for Mona Offshore Wind Farm

Response by Stena Line UK Limited (Stena Line) - (Ref: 200476870) -

To the ExA's written questions and request for information (ExQ2) - Deadline 5

The single question to which Stena has been asked to respond for ExQ2 falls into three parts as follows -

Q2.15.2 - Residual effects on Stena Line operations

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.

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 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

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.

(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 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.

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.

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.

Best Regards

[redacted]

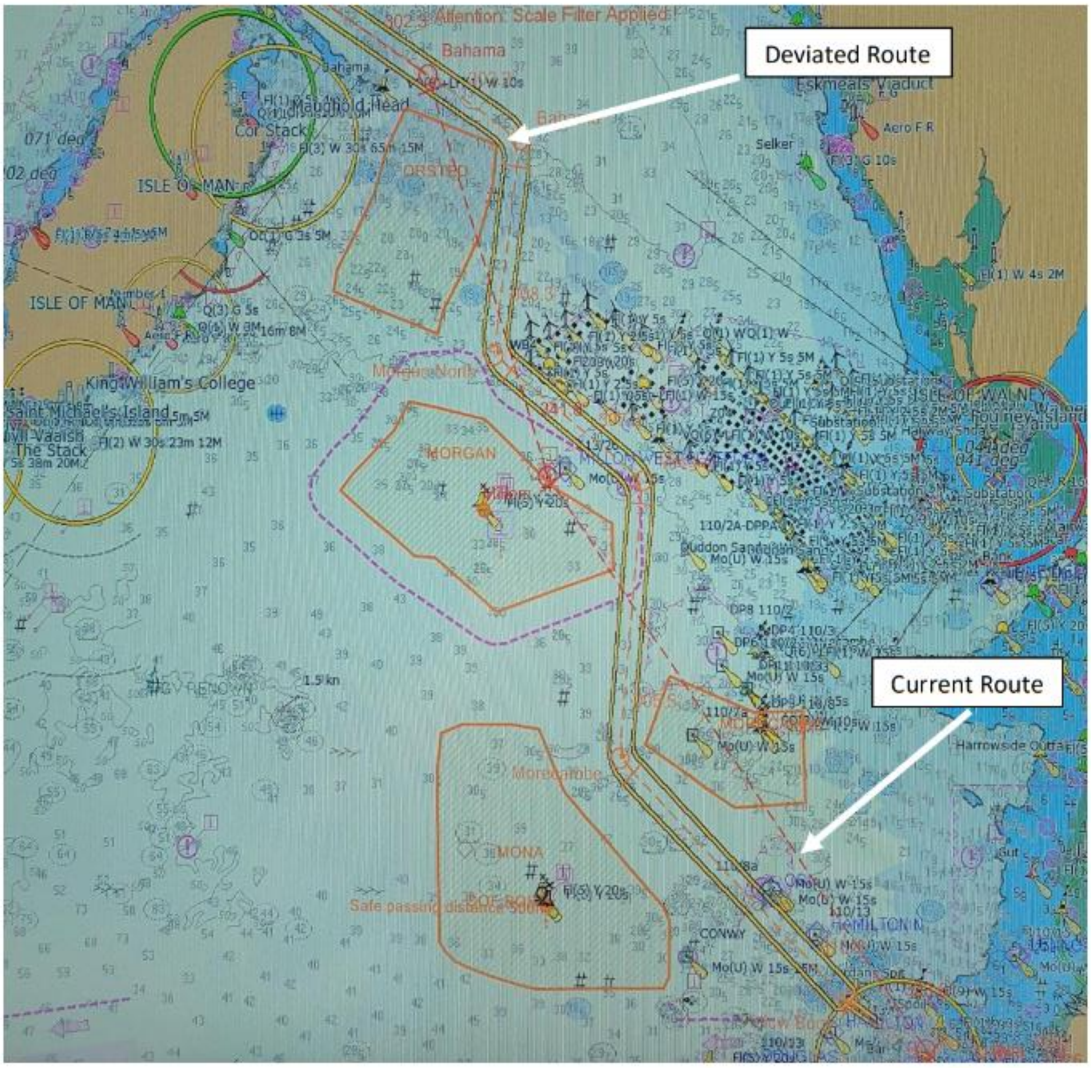
DPA

Stena Line Ltd.

Fig1

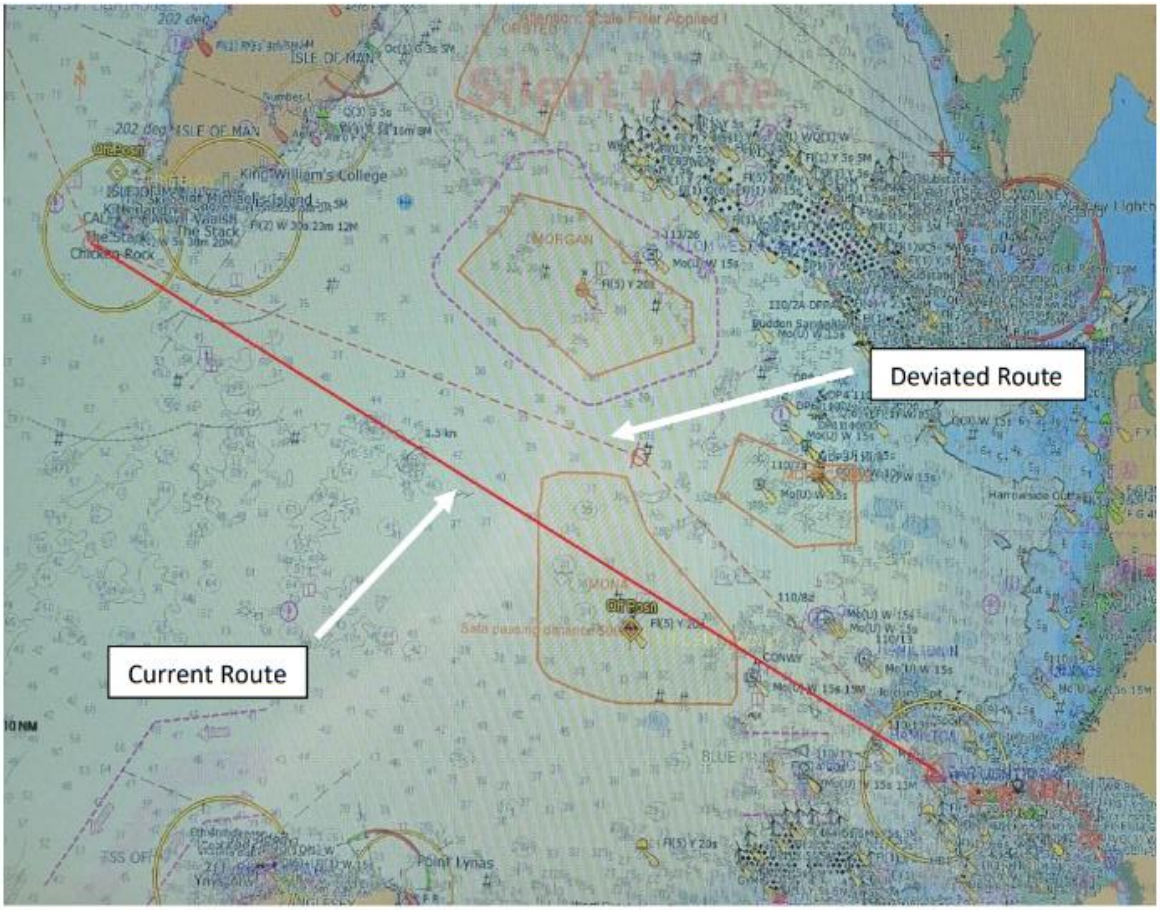
Analysis of the deviations required by the cumulative effect of the proposed development of the Morgan, Mona, Morecambe and Orsted Windfarms on Stena Lines Belfast to Liverpool services.

Passage North of the Isle of Man



This screen capture from the ECDIS of one of our EFlexer vessels shows the deviations required for our Belfast to Liverpool route when routing North of the Isle of Man. The red hatched line shows the vessels current direct route.

Passage South of the Isle of Man

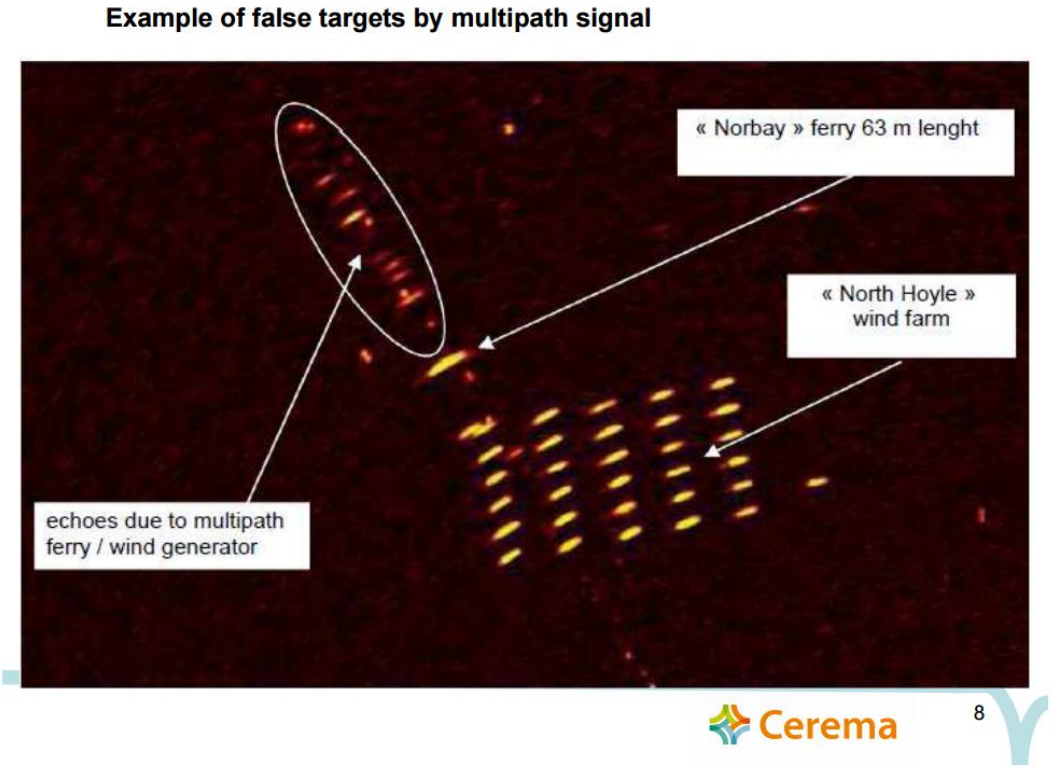


This screen capture from the ECDIS of one of our EFlexer vessels shows the deviations required for our Belfast to Liverpool route when routing South of the Isle of Man. The red solid line shows the vessels current direct route.

Fig 2

Hollandse Kust Zuid as seen from the Bridge of Stena Britannica identifying what a smaller array looks like at night and the difficulties it poses for a Navigating officer to identify a red navigation light on another vessel.

Fig 3



Ref CEREMA (Centre d'etudes et d'expertises sur les risques)
PIANC WG 161
Interaction between offshore wind farms and maritime navigation
By Jean-Charles CORNILLOU, DTechEMF / DT
This identifies Radar interference on board the P&O ferry Norbay from the North Hoyle Wind Farm off the North coast of Wales.

References:

1. Wind Turbine Generator Impacts to Marine Vessel Radar (2022)
   National Academies , Science Engineering & Medicine.

   https://nap.nationalacademies.org/catalog/26430/wind-turbine-generator-impacts-to-marine-vessel-radar

2. Sweden Rejects 13 Offshore Wind Farms, Greenlights Vattenfall's Poseidon Project
   Offshore Energy .biz

   https://www.offshorewind.biz/2024/11/04/sweden-rejects-13-offshore-wind-farms-greenlights-vattenfalls-poseidon-project/