



Maritime &  
Coastguard  
Agency

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23<sup>rd</sup> September 2024

Your ref: EN010115

Interested Party reference number: 20048260  
By E-mail to: [FiveEstuaries@planninginspectorate.gov.uk](mailto:FiveEstuaries@planninginspectorate.gov.uk)

Dear Sir/Madam

**Application by Five Estuaries Offshore Wind Farm Limited (Ltd) for an Order Granting Development Consent for a new offshore windfarm, Five Estuaries, with up to 79 wind turbine generators, offshore substation Platforms and electricity transmission infrastructure.**

**Planning Act 2008 – Section 88 and 89 and The Infrastructure Planning (Examination Procedure) Rules 2010 – Rules 4, 6, 9 and 13.**

### **Examination Timetable – Deadline 1 – Written Representation**

The Maritime and Coastguard Agency (MCA) is an Executive Agency of the Department for Transport and is responsible throughout the UK for implementing and developing the UK Government's maritime safety and environmental protection policy. This includes co-ordinating maritime Search and Rescue (SAR) through His Majesty's Coastguard 24 hours a day, and checking that ships meet UK and international safety rules. The MCA works to prevent the loss of lives at the coast and at sea, to ensure that vessels are safe, and to prevent coastal pollution. The UK Technical Services Navigation Branch is responsible for UK radiocommunication and navigation policy. This primarily covers SOLAS Convention (Safety of Life at Sea Convention 1974, as amended) Chapters IV and V; the COLREG Convention (International Regulations for Preventing Collisions at Sea 1972, as amended); and the ITU Convention (International Telecommunications Convention 1932, as amended). The Navigation Risk Assessment (NRA), the Shipping and Navigation chapter of the Environmental Impact Report and draft DCO have been reviewed and we would like to comment as follows:

### **6.2.9 Environmental Statement Chapter 9 – Shipping and Navigation (APP-078) and 9.10 Volume 9, Report 10 – Navigation Risk Assessment (APP-240)**

Five Estuaries Offshore Wind Farm Ltd has undertaken a detailed Navigation Risk Assessment (NRA) in accordance with MCA guidance MGN (Marine Guidance Note) 654 and NRA risk assessment methodology. We are satisfied that appropriate traffic data has been collected in accordance with MGN 654. This includes two 14-day marine vessel traffic surveys carried out in January 2022 and June 2022 which was supplemented by 12 months of Automatic Identification System (AIS) data from

2019. Further surveys of the Export Cable Corridor (ECC) were also carried out in January and June 2022 and post PEIR have been further supplemented with 12 months of AIS data from 2022. Table 9.3 of Chapter 9 and table 5.1 of the NRA presents a full summary of the data used to inform the Shipping and Navigation baseline. As stated in Paragraph 50 of the NRA, MCA accepted a request from the Applicant for an extension to the 24-month period of traffic data of approximately 3 months. This was due to a slip in the timeline for submission from January 2024 to April 2024. To mitigate for the 3 months extension, an additional 12-month AIS data set for 2022 was submitted. It should be noted that this decision does not set a precedent for any future projects and that we continue to assess every project on a case-by-case basis.

Key and appropriate stakeholders were identified, and the MCA is content that suitable consultation took place via a hazard identification workshop and dedicated meetings. A completed MGN 654 Checklist has been provided as part of the NRA, and we are content the recommended NRA process has been followed.

We would like to comment as follows on the NRA and Shipping & Navigation Chapter of the EIA Report:

### **1. Navigable Sea Room**

The changes to the Red Line Boundary (RLB) as presented in Figure 6.2 of the NRA have led to an overall increase in the navigable sea room available of 23% in the vicinity of the planned Northern array. Concerns were raised with the original RLB as traffic would be constricted on their approaches to the busy shipping lanes at North Hinder Junction, creating a 'pinch point' and increased risk of collision. Through further assessment and extensive consultation with stakeholders, a refined northern array area was agreed which mitigated these concerns. The applicant has summarised the issues avoided by implementing the redefined boundary in Paragraph 69 of the NRA. The MCA welcomes this change.

The proximity of the East Anglia Two project to the northern array is addressed in Section 17 of the NRA; Navigation Corridor Safety Case. The safety case applies and illustrates compliance with the Guidance. We note that in reference to MGN 654 the minimum overall width for the navigation corridor, based on the 90th percentile is 2.86 nm (paragraph 478). Figure 17.1 presents the narrowest point between boundaries at 2.9nm. As the refined RLB of the northern array is no longer parallel to East Anglia 2's southern boundary, our initial concerns about the constriction of traffic in this area have been addressed. Therefore, we are content with the findings.

### **2. Shipping and Navigation Mitigation Measures**

In response to MCA and stakeholder concerns at the Hazard Identification workshop, PEIR and subsequent additional meetings, a Navigation Installation Plan (NIP) has been proposed by the applicant. This plan seeks to mitigate further any potential increases in the risk of collision in association with project vessels involved in cable laying works, especially in the Sunk Precautionary and Pilot boarding areas.

MCA welcomes the projects suggestion of preparing a NIP for the offshore Export Cable Corridor (ECC) and supports it being a 'live document'. Given the traffic density and depths constraints within the area this document will help in carefully managing the cable installation. While drafting this document, details including navigational constraints and common practices of routing and pilotage operations in heavy weather should also be considered. The details of the NIP are presented in Section 21.4 of the NRA and an outline NIP can be found in Volume

9, Report 20 (APP-252). It is listed as a mitigation measure in Table 21.1 of the NRA and Table 9.10 of Chapter 9.

We are content that the list of mitigation measures in Table 21.1 of the NRA and Table 9.10 of the Shipping and navigation Chapter are relevant and appropriate and will serve to reduce identified risks to As Low As Reasonably Practicable (ALARP).

Additionally, it should be noted that the requirement for an Emergency Response Cooperation Plan (ERCoP), as referenced in paragraph 9.11.195 of Chapter 9 and in paragraph 727 and Appendix A, table A.1 of the NRA will be secured in the DCO/DML under the condition for complying with MGN 654. There will not be a specific condition for the completion of an ERCoP.

### **3. Layout Design**

The turbine layout design must be compliant with MGN 654 and it will require MCA and Trinity House approval prior to construction to minimise the risks to surface vessels, including rescue boats, and search and rescue aircraft operating within the site. MCA will seek to ensure all structures are aligned in straight rows and columns with a minimum of two lines of orientation. Mitigations in table 9.10 of Chapter 9 and Table 21.1 of the NRA, confirms the intention to continue discussions with the MCA and Trinity House. Further advice will be provided once the layout discussions have started.

### **4. Marking and Lighting.**

MCA will seek to ensure the turbine numbering system follows a 'spreadsheet' principle and is consistent with other windfarms in the UK. All lighting and marking arrangements will need to be agreed with MCA and Trinity House. The MCA requires all aviation lighting to be visible 360° and compatible with night vision imaging systems, as detailed in CAP 764 and MGN 654 Annex 5.

### **5. Emergency Response and Search and Rescue.**

There is an expectation that the presence of wind farms will increase the likelihood of the requirement for emergency response, not just from navigational incidents but from other incidents such as medical evacuation or pollution. This is confirmed by the applicant in paragraph 9.11.186 of Chapter 9. A SAR checklist based on the requirements in MGN 654 Annex 5 will need to be completed in agreement with MCA before construction starts. This will include the requirement for an approved Emergency Response Co-operation Plan (ERCoP).

During SAR discussions, particular consideration will need to be given to the implications of the site size and location. Attention should be paid to the level of radar surveillance, AIS and shore-based VHF radio coverage and give due consideration for appropriate mitigation such as radar, AIS receivers and in-field, Marine Band VHF radio communications aerial(s) (VHF voice with Digital Selective Calling (DSC)) that can cover the entire wind farm sites and their surrounding areas. It will be expected that the applicant will provide this AIS and VHF capability to the MCA with direct access to HM Coastguard systems.

Sections 9 and 13 of the NRA reference SAR helicopter trials at the North Hoyle offshore wind farm in 2004/5. This is now a dated document and while references may still be made as some of the findings are relevant, there may be additional benefit in also referring to documents written by the MCA in 2019, titled: "MCA report following aviation trials and exercises in relation to offshore windfarms" and "MCA report following aviation trials at Hornsea Project 1 windfarm".

## **6. Construction scenarios.**

We would expect to see some form of linear progression of the construction programme avoiding disparate construction sites across the development area, and the consent needs to include the requirement for an agreed construction plan to be in place ahead of any works commencing.

## **7. Cable Routes and Cable Protection**

As was highlighted in the MCA's response at PEIR stage, owing to the large volume of traffic including deep draft vessels, the area around the Sunk Pilot Boarding Station together with channels which have a charted maintained depth, will need particular focus. We also asserted that: '*where burial depths as informed by the Cable Burial Risk Assessment (CBRA) cannot be achieved in these areas*' [maintained depth channels] '*any potential reduction in surrounding depths referenced to Chart Datum will need special attention and further consultation with the MCA and relevant stakeholders.*' It is stated in Paragraph 622 of NRA and 9.11.85 of ES Shipping and Navigation Chapter that in relation to under keel clearance along the rest of the Export Cable Corridor (ECC), the Applicant intends to follow the guidance contained in MGN 654 in relation to cable protection, namely that cable protection will not change the charted water depth by more than 5%. This was reaffirmed by the MCA during consultation.

Referring to paragraph 91 and 92 of the NRA, we understand that up to 10% of the ECC will have cable protection measures of a height of 1.1m for normal cases and 1.4m for crossings. We note that there may be cable crossings in shallower waters within the Sunk Precautionary Area where 1.4m will be more than 5% reduction in the surrounding depth in relation to Chart Datum (CD). It is expected however that through the Cable Specification and Installation Plan (CSIP) in Volume 9 Report 12 (APP-242), the CBRA (APP-239), preparation and review of a NIP and continued consultation with stakeholders, that the applicant will address these concerns.

Further to this and as a reminder to the Applicant, due cognisance also needs to address cable burial and protection close to shore where impacts on navigable water depth may also become significant. Any consented cable protection works must ensure existing and future safe navigation is not compromised. It is noted in Volume 6, Part 2, Chapter 1 (APP-069) that the export cables will be High Voltage Alternate Current (HVAC) which is not expected to have an impact on electro-magnetic fields and ships' magnetic compasses.

## **8. Safety Zones.**

The requirement and use of safety zones as detailed in the application as embedded mitigation in table 9.10 of chapter 9 is noted, and MCA will comment on the safety zone application once submitted, as a statutory consultee. Safety zones during the construction, maintenance and decommissioning phases are supported. A detailed justification would be required for a 50m operational safety zone, with significant evidence from the construction phase in addition to the baseline NRA required supporting the case. Safety zones triggered by a Service Operation Vessel connecting to a wind turbine will not be supported as there is no clear benefit for reducing risk in addition to good watchkeeping, communications, seamanship and COLREG.

## **Draft Development Consent Order (DCO) (APP-024)**

We would like to comment on the draft conditions in the Deemed Marine Licences as follows:

## Schedule 10, Part 2:

- 3(3) amend to: *'the undertaker must not reduce water depth by more than 5% of navigable depth referenced to chart datum unless agreed with the MMO and MCA in writing.'*
- 3(4) Add 'MCA' for consultation.
- 6(13) add: *'regional fisheries contact'* after *'notify mariners'*.
- 6(12) add *'regional fisheries contacts'* to the notifications.
- 10(10) reword to: *'All dropped objects must be reported to the MMO, UKHO and HMCG using the Dropped Object Procedure Form as soon as reasonably practicable and no later than 6 hours of the undertaker becoming aware of an incident. Immediate notification should be made to HM Coastguard via telephone where there is a perceived danger or hazard to navigation. On receipt of the Dropped Object Procedure Form, the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so.'*
- 8(1) amend to: *'Except as otherwise required by Trinity House the undertaker must paint all structures forming part of the authorised project yellow (colour code RAL 1023) from at least HAT to a height as directed by Trinity House.'*
- 16(3) add: *'which includes the requirement for the full density data and reports to be delivered to the MCA and the UKHO for the update of nautical charts and publications. This must be submitted as soon as possible, and no later than [three months] prior to construction. The Order Limit shapefiles must be submitted to MCA. The Report of Survey must also be sent to the MMO.'*
- with the addition of the above to 16(3), remove 16(5) or reword to only apply to the statutory nature conservation body.
- 24(c) replace with: *'latitude and longitude coordinates of the centre point of the location for each wind turbine generator and offshore platform, substation, booster station and meteorological mast; provided as Geographical Information System data referenced to WGS84 datum.'*

## Schedule 11, Part 2:

- 4(3) amend to: *'the undertaker must not reduce water depth by more than 5% of navigable depth referenced to chart datum unless agreed with the MMO and MCA in writing.'*
- 7(13) add: *'regional fisheries contacts'* after *'notify mariners'*.

- 9(1) re-word to: *'Except as otherwise required by Trinity House the undertaker must paint all structures forming part of the authorised project yellow (colour code RAL 1023) from at least HAT to a height as directed by Trinity House. Unless the MMO otherwise directs, the undertaker must paint the remainder of the structures grey (colour code RAL 7035).'*
- 11(10) reword to: *'All dropped objects must be reported to the MMO, UKHO and HMCG using the Dropped Object Procedure Form as soon as reasonably practicable and no later than 6 hours of the undertaker becoming aware of an incident. Immediate notification should be made to HM Coastguard via telephone where there is a perceived danger or hazard to navigation. On receipt of the Dropped Object Procedure Form, the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so.'*
- 17(2) needs to make clear that the survey will include all proposed cable routes.
- 17(3) add: *'which includes the requirement for the full density data and reports to be delivered to the MCA and the UKHO for the update of nautical charts and publications. This must be submitted as soon as possible, and no later than [three months] prior to construction. The Order Limit shapefiles must be submitted to MCA. The Report of Survey must also be sent to the MMO.'*
- with the addition of the above to 17(3), remove 17(5) or reword to only apply to the statutory nature conservation body.
- 19 add: *'The undertaker must conduct a swath bathymetric survey to IHO Order 1a of the installed export cable route and provide the data and survey report(s) to the MCA and UKHO. The MMO should be notified once this has been done, with a copy of the Report of Survey also sent to the MMO. This should fulfil the requirements of MGN654 and its supporting 'Hydrographic Guidelines for Offshore Renewable Energy Developers', which includes the requirement for the full density data and reports to be delivered to the MCA and the UKHO for the update of nautical charts and publications.'*
- 25 add MMO to reporting and add as (d): *'latitude and longitude coordinates of the inter array and export cable routes; provided as Geographical Information System data referenced to WGS84 datum.'*

MCA contact details in Schedules 10 and 11 Part 1 to be amended to:

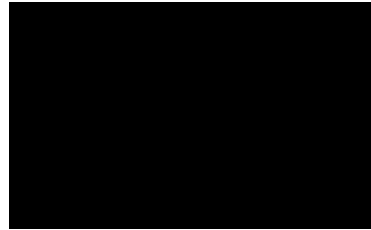
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The Applicant has provided a comprehensive overview of the risk. The comments detailed above are to highlight items to be addressed by the applicant in consultation with the MCA and navigation stakeholders to ensure the risk to the safety of navigation and the impact on SAR capability remains low.

Yours Sincerely,



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UK Technical Services – Navigation



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