

# **Vattenfall Wind Power Ltd**

## **Thanet Extension Offshore Wind Farm**

Appendix 25, Annex O to Deadline 1 Submission:  
Applicant's Responses to the Examining  
Authority's First Written Questions – EXQ 1.12.4

Relevant Examination Deadline: 1

Submitted by Vattenfall Wind Power Ltd

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Drafted By:	GoBe, Marico Marine
Approved By:	Daniel Bates
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## Contents

1	Introduction .....	4
2	ExA Question 1.12.4.....	5
3	Applicants Response – Context.....	6
4	Applicants Response – Q1.12.4 – (a) .....	8
5	Applicants Response – Q1.12.4 – (b) .....	9
6	Applicants Response – Q1.12.4 – (c).....	10
7	Applicants Response – Q1.12.4 – (d) .....	11

## 1 Introduction

- 1 This note has been drafted in response to question 1.12.4 raised by ExA following Issue Specific Hearing 2 (ISH2) on 12/12/2018.
- 2 The question has been extracted into this supplementary note for ease of reference.
- 3 The Applicant notes that this subject is also addressed in the Oral summary speaking notes of ISH2.

## 2 ExA Question 1.12.4

- 4 The ExA Question 1.12.4 is repeated below and is asked of The Applicant.

***Consideration of effects of relocation of NE Spit pilot station:***

***Responding to concerns raised at ISH2, please comment on the opinion recorded in minutes of Dec 2017 meeting with ESL (appended to the NRA [APP-089]) that moving the NE Spit pilot station from its current location would be sub-optimal because it had been carefully located as a consequence of the Thanet Offshore Wind Farm project to be “2nm from all hazards and therefore makes maximum use of the space”:***

***a) to what extent the proposed Thanet Extension Red Line Boundary plus safety zone during construction and maintenance would encroach within that zone of 2nm radius from the NE Spit pilot station diamond?***

***b) to what coordinates the NE Spit boarding station diamond could be relocated in order to maintain an operating zone of “2nm from all hazards”?***

***c) what hazards or obstacles whether geographic, physical or based on use of the sea space should be considered as bounds for this operating zone?***

***d) What account has been taken of the consultation with Estuary Services Ltd in regard to the effects to pilot operations, to navigational safety and the operating efficiency of commercial shipping, fishing and ports of relocating the NE Spit boarding station. Ref: minutes of Dec 2017 meeting with ESL appended to Section 4 of the [APP-089] NRA.***

### 3 Applicants Response – Context

- 5 The Applicant wishes to clarify the statement **“that the NE Spit pilot boarding station was carefully located as a Consequence of the Thanet Offshore Wind Farm Project”** with reference to Section 7.2.1 of the NRA document.
- 6 First, the NE Spit pilot station is not seen to have appreciably moved since construction of the existing Thanet Offshore Wind Farm, according to admiralty charts dating from 2000 (Figure 49) and 2005 (Figure 50), and present day.



Figure 49: Extract from MAIB Report 35/2000.

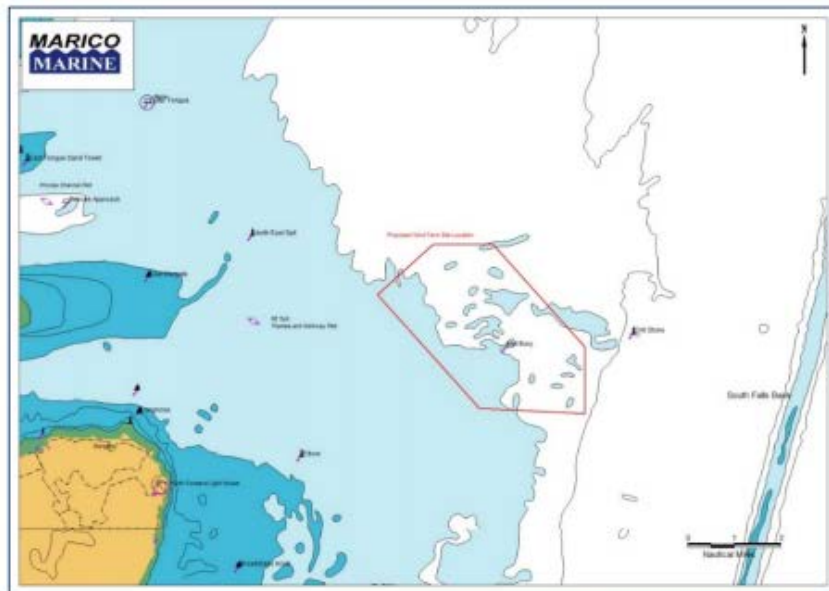


Figure 50: Extract from Thanet Wind Farm NRA (2005).

- 7 Secondly, it is noted that the Tongue was introduced following the construction of the existing Thanet Wind Farm and the PLA Passage Planning Guide (Ref: <https://www.pla.co.uk/assets/passageplanningguide2013-3.pdf>) refers to the Tongue as an option for deep draught vessels within the NE Spit area.

- 8 With regards to the stated **“2nm from all hazards and therefore makes maximum use of the space”** it should be noted, with reference to Annex B of ExA Actions that NE Spit Pilot Boarding Station is not located with a clear 2nm of radius clear of hazards. Overlapping features of note include:
- The anchoring limit (between E Margate buoy and Elbow buoy) which is 0.3nm from the NE Spit Pilot Boarding Station. This intersect represents 39% of the total declared 2nm radius (the NRA and consultation demonstrates that vessel anchor up to this eastern limit of the anchorage-especially in adverse weather from the SW). This area therefore cannot be considered as always available for pilot transfer operations.
  - The shallowest bathymetry of North East Spit (8.6m depth)
  - The isolated area of shallow bathymetry to the immediate north west of Elbow buoy (of 7.8m depth)
- 9 The Applicant therefore concludes that 2nm is not representative of the necessary separation distances between NE Spit Pilot Boarding station and the proposed development, and that as shown in the Pilotage Simulation Study the continued use of NE Spit Pilot station was considered feasible for the original (PEIR) Red Line Boundary.

## 4 Applicants Response – Q1.12.4 – (a)

- 10 ExA asks “*to what extent the proposed Thanet Extension Red Line Boundary plus safety zone during construction and maintenance would encroach within that zone of 2nm radius from the NE Spit pilot station diamond?*”
- 11 The Applicant notes the schematic at Annex B to Appendix 28.
- 12 The closest point the RLB plus the 500m rolling safety zone (located at 450m from the RLB as explained in response to ExA Action 11), extends into the 2nm radius during construction represents 4% of the 2nm radius area. The rolling safety zone is shown at the maximum possible extent but will only apply as a radius around live construction activity and so is unlikely to represent the whole area shown. The closest point the RLB extends into the 2nm radius during the operation phase is approximately 1% of the 2nm radius area.
- 13 It is noted that this is a comparatively small encroachment of sea room, and the pilot transfer simulation plots (shown in Annex L to Appendix 25 of this Deadline 1 submission and below) demonstrated that transfer operations can occur significantly within this sea room (proven with the PEIR RLB). Additionally, in excess of 90% of through traffic on this inshore route currently navigates further to the west as identified within the response to ExAQ 1.12.1.
- 14 The Applicant also notes that analysis and benchmarking was undertaken with other pilot boarding areas which demonstrates the available sea room post construction of the Thanet Extension Offshore Wind Farm is comparable with other pilot transfer areas around the UK and is provided in Section 3.2.3 and Table 2 of the Pilotage Study (*See Vol 4, Annex 10.1*).
- 15 The Applicant does not consider in any event that the degree of encroachment into this notional 2nm radius would have any material effect on pilotage operations.



## 5 Applicants Response – Q1.12.4 – (b)

- 16 ExA asks ***“to what coordinates the NE Spit boarding station diamond could be relocated in order to maintain an operating zone of “2nm from all hazards”?***
- 17 Notwithstanding the observation that the NE Spit pilot boarding station is not currently located in an area of 2nm clear radius of sea room from hazards (and the project overlaps by only 4% and 1% of this area during construction and operation phases respectively), the Applicant does not consider that relocation of the NE Spit Station is necessary. This consideration is as a result of detailed analysis and simulation, including the pilotage simulation which was undertaken using representative met-ocean conditions with parameters as defined in collaboration with the practitioners.
- 18 Relocation of the NE pilot boarding station was considered by the Applicant on the basis of relocating to the Tongue (which was instated following the construction of the existing windfarm), or NE Goodwin, both of which could have in excess of 2nm sea room.

## 6 Applicants Response – Q1.12.4 – (c)

- 19 ExA asks “*what hazards or obstacles whether geographic, physical or based on use of the sea space should be considered as bounds for this operating zone?*”
- 20 The existing hazards and obstacles based on geographic, physical and sea include:
- Shallow water to the west – bathymetry
  - Margate Roads Anchorage
  - Windfarm to the East
  - The anchoring limit (between E Margate buoy and Elbow buoy) which is 0.3nm from the NE Spit Pilot Boarding Station. This intersect represents 39% of the total declared 2nm radius (the NRA and consultation demonstrates that vessel anchor up to this eastern limit of the anchorage). This area cannot always be considered as always available for pilot transfer operations.
  - The shallowest bathymetry of North East Spit (8.6m depth)
  - The isolated area of shallow bathymetry to the immediate north west of Elbow buoy (of 7.8m depth)
  - The wind farm to the east, including a nominal 0.5nm buffer

## 7 Applicants Response – Q1.12.4 – (d)

- 21 ExA asks ***“What account has been taken of the consultation with Estuary Services Ltd in regard to the effects to pilot operations, to navigational safety and the operating efficiency of commercial shipping, fishing and ports of relocating the NE Spit boarding station. Ref: minutes of Dec 2017 meeting with ESL appended to Section 4 of the [APP-089] NRA.?”***
- 22 The Applicant has undertaken extensive consultation with ESL from the outset of the study in order to interrogate the concerns raised prior to and during scoping. Additional data was collected, and work activity was performed (pilotage study, pilotage bridge simulation, and collision risk modelling) in order to better understand the pilot boarding operations, both existing (which are not well defined) and work together to evidence how they would be affected by the proposed scheme.
- 23 It should be noted that despite the Pilot Bridge Simulation demonstrating (to the agreement of all participants at that time including PLA and ESL) that sufficient sea room was available for the continued use of NE Spit, the Applicant sought to respond to concerns relating to the north west corner of the extension following regulation 42 consultation and reduced the RLB, thereby significantly increasing sea room for dipping vessels and general traffic. Following the debrief of the bridge navigation simulation, the report was issued and distributed for comment. No written response/commentary was received on the draft reports and subsequent consultation meetings were held with PLA and ESL (as part of the NRA) at which no specific feedback on the validity of the simulation methodology was provided (minutes of these meetings held on 05 and 06 December 2017 are provided within *Annex C Navigation Risk Assessment Application Ref 6.4.10.1*).
- 24 Consultation meetings are as documented in the consultation table as shown in answer to ExA question 1.12.12 and additional minutes of meetings relating to the planning and development of the Pilotage Study and Pilot Bridge Navigation Simulation work are provided at Annex J of Appendix 25
- 25 With regards to relocation, it should be noted that the pilotage study undertook operational analysis of ESL pilot launch journey time to NE Spit, Tongue and NE Goodwin – see section 3.3 of *Pilotage Study – Vol 4, Annex 10.1* (albeit ESL expressed concerns over the commercial implications of increased journey distances and times), and pilot bridge simulation and the simulation demonstrated that sufficient sea room remained available and thus this was not progressed further.