



Your ref: EN010109-001631-SADEP – WQ3  
Our ref: Sheringham and Dudgeon Extension Projects  
SADEP

Menaka Sahai  
Lead Member of the Examining Authority  
National Infrastructure Planning  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

Dr Shamsul Hoque

National Highways  
Operations - East  
Woodlands  
Manton Lane  
Bedford MK41 7LW

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via email: [sadep@planninginspectorate.gov.uk](mailto:sadep@planninginspectorate.gov.uk)

Dear Menaka,

**Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Project  
(EN010109): Written Statement**

**The Examining Authority's third written questions and requests for  
information (WQ3)**

I refer to your third written questions issued on 26 May 2023 regarding the above proposal and your invitation to submit written representations to the Examining Authority's (ExA's) Written Questions as set out in the Rule 8(3) letter, Annex A [PD-017].

National Highway's responses are set out below and should be read in conjunction with the Statement of Common Ground between National Highways and Equinor which has been submitted to you by the applicant.

National Highways also includes the following appendices with this submission:

- Appendix 1 – National Highways' responses to the Applicant's Document 18.8 (REP4-035);
- Appendix 2 – National Highways' responses to the Applicant's Document 18.2 (REP4-028)

Please contact me [PlanningEE@nationalhighways.co.uk](mailto:PlanningEE@nationalhighways.co.uk) if you require any further information.

Yours sincerely,

S. H.

Dr Shamsul Hoque

Assistant Spatial Planner

Contact phone: 0300 470 0743; mobile: 07850 907600

# **Sheringham Shoal Offshore Wind Farm Extension Project and Dudgeon Offshore Wind Farm Extension Project (EN010109)**

## **Written Statement by National Highways**

**13 June 2023**

### 1.0 Introduction

National Highways (NH) have been invited (dated 26 May 2023) to provide responses to the ExA's Third Written Questions for this project. The relevant questions to National Highways and our responses are set out below.

#### **Q3.23 Traffic and Transport**

##### **Q3.23.1 Effects from Construction Vehicles on the Highway Network and Living Conditions**

###### **WQ3.23.1.1. Driver Delay, Capacity and Assessment Methodology**

The draft SOCG [REP3-080] sets out that the Applicant is providing further information to NH in relation to driver delay, capacity and assessment methodology. Set out what the further information is and what remains the concern of NH.

Response:

In response to clarifications requested by NH in relation to driver delay, capacity and assessment methodology, the applicant's transport consultant has provided a technical note titled, 'Junction Modelling Clarifications' which addresses potential traffic impacts on the previously agreed list of 11 junction models for assessment. The document was received by NH on 22 May 2023, and contains 552 pages (including appendices) for review. NH is progressing its review of this document and will provide an update by Deadline 7.

Table 1 sets out the 11 sensitive junctions which were identified by National Highways at the 13 July 2021 ETG (Expert Topic Group) meeting. The outstanding modelling issues for each respective junction are set out.

Table 1: Outstanding Modelling Issues for 11 sensitive SRN junctions

| <b>Jct. No.</b> | <b>SRN - Junction Name</b>  | <b>Outstanding Modelling Issues</b>   |
|-----------------|---|---|
| 1               | A47 / B1535 / Berrys Lane staggered junction (west of Honingham)        | The output results (reported RFC's and queues) shown within the tables within the TA, do not appear to correlate with Annex 32 for the 'with development' scenarios.  |
| 2               | A47 / Taverham Road / Blind Lane staggered junction (east of Honingham) | <p>A plan should be provided to show the mitigation proposals at this junction and therefore it has not been possible to verify the geometry measurements used within the Junctions 9 model; a plan showing the geometry measurements used should be provided.</p> <p>The modelled period for the AM peak appears to be between 07:30-08:30, and it is understood that the intention is that the period from 06:30-07:30 should have been modelled. This should be clarified.</p> <p>The output results (reported RFC's and queues) shown within the Tables held within the TA, relating to the 'in isolation' scenarios, do not appear to correlate with the outputs provided within Annex 32. This discrepancy should be clarified.</p> |
| 3               | A47 / Church Lane/ Dereham Road 'Easton' Roundabout                     | TA output results (reported RFC's and queues) within the Tables held within the TA, relating to the 'with development' scenarios, do not appear to correlate with the outputs provided within Annex 32 (marginal differences).  |
| 4               | A11 / Station Lane junction   | TA output results (reported RFC's and queues) within the Tables held within the TA, relating to the 'with development' scenarios, do not appear to correlate with the outputs provided within Annex 32 (marginal differences).  |
| 5               | A11 / A47 'Thickthorn' grade separated roundabout                       | The output results shown within the Tables held within the TA, relating to all scenarios, do not appear to correlate with the outputs provided within Annex 32.   |

| Jct. No. | SRN - Junction Name  | Outstanding Modelling Issues  |
|----------|--|---|
| 6        | A47 / Markshall Farm Road / Harford Park and Ride Road                       | <p>It is considered that the 'lane simulation' function may be useful when modelling this roundabout, however, it is clear from Google Maps that this junction does not appear to suffer from congestion issues during the modelled peaks; notwithstanding this, the use of this function should be considered (particularly for the A140 arms of the junction) if the modelling is updated in the future.</p> <p>The output results (reported RFC's and queues) shown within the Tables held within the TA, relating to the 'with development' scenarios, do not appear to correlate with the outputs provided within Annex 32 (marginal differences).</p> |
| 7        | A47 / Norwich Road roundabout  | <p>The modelled period for the AM peak appears to be between 07:30-08:30, and it is understood that the intention is that the period from 06:30-07:30 should have been modelled. This should be clarified.</p> <p>The flare length included within the model set up for the A47 east arm appears to be excessive (modelled as 74m on length); this should be checked and the model re-run as required.</p> <p>The output results (reported RFC's and queues) shown within the Tables held within the TA, relating to the 'with development' scenarios, do not appear to correlate with the outputs provided within Annex 32 (marginal differences).</p>     |
| 8        | A47 / A1074 / William Frost Way five arm roundabout                          | <p>The Google Maps traffic function appears to show some congestion at this junction, particularly during the PM peak. The modelling results appear to contradict this and further clarification should be provided with regards to this.</p>   |
| 9        | A47 / Dereham Road / Long Lane five arm roundabout                           | <p>The geometry measurements for the 'A47 North' approach to the roundabout appear to differ to our reviewer's measurements. These measurements should be clarified/ revisited and the model updated as appropriate.</p>  |
| 10       | A47 / B1108 / Green Acres / Walton Road six arm roundabout (east of the A47) | <p>The output results (reported RFC's and queues) shown within the Tables held within the TA, relating to the concurrent' scenarios, do not appear</p>  |

| <b>Jct. No.</b> | <b>SRN - Junction Name</b>                                       | <b>Outstanding Modelling Issues</b>   |
|-----------------|--|---|
|                 |  | to correlate with the outputs provided within Annex 32. This discrepancy should be clarified. |
| 11              | A47 / B1108 / Walton Road four arm roundabout (west of the A47). | No outstanding concerns or queries.   |

Our Spatial Planning Framework consultant, AECOM, is currently reviewing the submitted 'Junction Modelling Clarifications' technical note and National Highways will submit our response by Deadline 07 (10 July).

### **Q3.23.5 Suitability of Access Strategy**

#### **WQ3.23.5.1. Abnormal Indivisible Loads**

- a) NH has set out [REP3-138, Q2.23.5.1] that it's consultants will be issuing their report soon for the Scarning Bridge assessment. Provide an update on the progress of the report.

NH note [REP3-138, Q2.23.5.1] that it has been agreed between the parties that abnormal load movements can be dealt with post consent through the development of the CTMP and established Electronic Service Delivery for Abnormal Loads processes. Further, NH is of the view that engagement will also be required with the A47 scheme major project teams and other major offshore wind farm developers to proactively understand risks to and programme abnormal load movements around the A47 works and other abnormal load movement needs, not solely rely on the processes.

- b) What changes are needed to the OCTMP to capture such matters?

Response:

- a) Please find update on the Scarning Bridge assessment, together with an updated in relation to the West Bilney No 1 Culvert:

**Scarning Bridge (Structure Key 7650).** Analysis of the structure has been completed and the preliminary findings indicate that the structure is adequate for the abnormal load WYLN/35/S1. In any case, National Highways understand that an alternative route using the Local Road Network has been agreed between the Applicant and the Local Highway Authority which would avoid the need to use this bridge.

#### **The structural reviews for West Bilney No 1 Culvert (Structure Key 1291 and extension 1292):**

It is recommended that the load is moved away from the damaged wall (for example, onto the opposite (westbound) lane). The load distribution measures such as plating over the carriageway being used to help spread the load away from the head wall; so that the load distribution remains within the undamaged part of the overall structure. This approach is assumed to be the easiest method to facilitate the movement and remove with minimal disruption, before and after the passage of the Special Order (SO) vehicle.

National Highways have reviewed the Outline Construction Traffic Management Plan (OCTMP) Revision C dated May 2023 (clean version REP3-062) submitted by Equinor. This OCTMP has mentioned the alternative arrangements that the applicant may need to make in relation to the Abnormal and Indivisible Loads (AIL) route. NH has reviewed this element of the OCTMP and is content with how this will be dealt with in the OCTMP.

- b) Engagement will still be required with the A47 scheme major projects teams in respect of the routing of AILs around the A47 scheme construction works. A meeting was held on 06/06/2023 with National Highways A47 Major Projects, North Tuddenham and Easton team. At this meeting, National Highways recommended regular project-to-project meetings between the A47 Major Projects team and the Equinor team to make and co-ordinate access arrangements during the period in which the works overlap. These meetings should also address the question of the routing of AILs around the works. The OCTMP should be amended to refer to this process. The parties also envisage that co-operation around these works will need to be included within the proposed co-operation agreement.



#### WQ3.23.5.4. **Access to the North of the A47**

- a) NH has recommended [REP3-138] the Applicant considers the implications to their construction programme of a 2-year period of no access to the north of the A47 or if access from Church Lane in the east is required to mitigate the risk. The Applicant is of the view [REP4-028] that this can be suitably managed by the OCTMP. Is this accepted by NH?

Response:

This answer relates to coordinated construction activities and phases among National Highway's major projects in and around the Norfolk area and all those third-party led Nationally Significant Infrastructure Projects (NSIPs) within the same area. The issues raised by NH also relate to NH's ability to comply with its own DCO (The A47 North Tuddenham to Easton Development Consent Order 2022) and its agreements to co-operate with the Hornsea Three Offshore Wind Farm Project. See further details in Appendix 1 of NH's submissions.

The submitted document, 'The Applicant's Comments on Responses to the ExA's Second Written Questions' (REP4-028) mentioned, at ID-19, that Equinor will be seeking to further mitigate risks to the programme associated with the construction of the A47 North Tuddenham to Easton Scheme through the forthcoming co-operation agreement with National Highways. National Highways welcomes the Applicant's acknowledgement that a co-operation agreement is required and will be entered into.

In order to resolve this challenging situation National Highways and Equinor have engaged in discussions to enter into a co-operation agreement to cover access arrangements, programming of works, lines of communication, engineering works where relevant (for example, infrastructure under the A47), ecological mitigation and road closures. There are also impacts on the overlapping Hornsea Three Offshore Wind Farm Project which will also need to be taken into account by the Applicant and dealt with in the co-operation agreement. Matters were raised at a recent meeting on 06/06/2023 with the National Highways A47 Major Projects, North Tuddenham to Easton team. At this meeting, National Highways recommended regular project-to-project meetings between the A47 Major Projects team and the Equinor team to make and co-ordinate access arrangements during the period in which the works overlap. Equinor accepted this approach. The OCTMP should also be amended to refer to this process.

In relation to the proposed access from the Church Lane, as stated in the ID-20 of the Applicant's Responses to the ExA's Second Written Questions (REP4-028), the highways including Church Lane are in the ownership and control of Norfolk County Council (NCC) as local highway, and not National Highways.

National Highways have requested further amendments to the OCTMP, by setting up a monitoring group, which will be chaired by the Applicant. The Monitoring Group will include a review of the outputs of a Monitoring Report and discuss any remedial measures. This monitoring group will consider whether the CTMP is being carried out and is working in practice.

#### WQ3.23.5.5. Honingham Lane Temporary Traffic Regulation Order

NH has raised concerns [REP3-138] about the effect of the Honingham Lane Temporary Traffic Regulation Order that forms part of the A47 Tuddenham Scheme on the proposed development. The Applicant asserts [REP4-028] that in the event that link 149 is closed an alternative route via link 148 from the west would be available and the associated impacts of the use of this route have been assessed.

- a) Has the ES considered and assessed such a circumstance in terms of vehicles numbers that the alternative would receive?
- b) Does this overcome NH's concern and is the Applicant's view supported by NCC?

Response:

- a) National Highways notes that this is a question directed to the Applicant but National Highways is able to highlight the documents and information provided by the Applicant that National Highways has had sight of. In particular National Highways has reviewed Chapter 24 Traffic and Transport where it sets out (Tables 24.19 and 24.20) the forecast construction vehicle trips for the number of peaks, all and average daily HGV trips; especially, for all those SRN associated links, out of total 140 links within the Traffic and Transport Study Area (TTSA). In addition, the resultant peak daily HGV trips per link are also summarised in the Annex A of the OCTMP (REP3-062).

The alternative route link 148, mentioned above in the ExA's question, is part of the local road network, where Norfolk County Council (NCC) is the responsible highway authority.

- b) National Highways understands that any change or non-availability, due to road closures of any of those previously assessed links, the Applicant will initially seek to reschedule works and subsequently propose (contingency) diversion routes on the highway network for approval by the relevant highway authorities. . National Highways has submitted and had approved its traffic management plan under the A47 North Tuddenham to Easton Development Consent Order 2022. Whilst National Highways will be willing to assist with any updates to routes on the highway, it is constrained by the approved traffic management plan already approved under its Order. National Highways would be happy to share this with the Applicant so it can be taken into account in the Applicant's scheme going forward.

At the meeting held on 6<sup>th</sup> June 2023, the Applicant explained to National Highways the alternative routes available to traffic should Honingham Lane be closed to construction traffic during the course of the works. Alternative routes to/ from the A47 via Taverham Road and the B1535 are equally available whether Honingham

Lane is open or closed to construction traffic and the difference between them in impacts on the A47 is therefore likely to be minimal.

This additional information overcomes the previously raised concern in the National Highway's response (REP3-138).

### **Q3.23.6 Effectiveness of Proposed Mitigation Measures**

#### **WQ3.23.6.1. Mitigation – A47 Tuddenham Scheme**

NH have set out [REP3-138] that the Applicant has acknowledged the need to enter into a Legal/ Co-operation agreement similar to that between NH and Orsted for the Hornsea Project Three DCO wind farm cable crossing of the A47 Tuddenham Scheme. Explain why this is necessary outside of the DCO and its protective provisions.

Response:

NH's position is that a co-operation agreement is required alongside the protective provisions that have been proposed by NH. The purpose of the protective provisions is to provide protection to the existing assets held by NH from the authorised development. Where there are impacts on the SRN by an application for a proposed Development Consent Order, it is NH's position that the assets require protection by virtue of protective provisions – this is the case for all schemes affecting the SRN.

In addition, in relation to this project the Applicant is proposing to use a Horizontal Direction Drill (HDD) to drill and install cabling underneath the SRN. The protective provisions seek to protect the SRN from such works, and to address the issues arising in relation to rights in land held by National Highways for the purposes of their undertaking.

The co-operation agreement is required in relation to this particular scheme because of the nature of the interaction between this scheme and the development consented by both The A47 North Tuddenham to Easton Development Consent Order 2022 and The Hornsea Project Three Offshore Wind Farm Order 2020. The interactions between the three projects cannot be dealt with solely within the proposed Order given that there will likely be obligations on all parties to work with each other. The co-operation agreement will allow for the parties to agree how best the three projects are implemented in relation to the specific areas of land affected to best avoid there being any conflict between competing projects. It is not unusual for parties to enter into agreements, such as the one proposed, in circumstances such as this.