

THE SIZEWELL C PROJECT

(EN010012)

DEADLINE 5

POST HEARING SUBMISSIONS INCLUDING WRITTEN SUBMISSIONS OF ORAL CASE SUBMITTED BY THE HEVENINGHAM HALL ESTATE

TRAFFIC AND TRANSPORT

(INTERESTED PARTY NUMBER: 20026675)

1 Introduction

- 1.1 The Heveningham Hall Estate (the **HHE**) appeared at Issue Specific Hearing 2 (**ISH2**) and Issue Specific Hearing 3 (**ISH3**) on Traffic and Transport held on 7 and 8 July 2021 and made oral submissions in respect of the following agenda items:
- (a) Agenda Item 2 concerning NNB Generation Company (SZC) Limited's (the **Applicant's**) freight management strategy, specifically the movement of freight by Abnormal Indivisible Loads (**AILs**);
 - (b) Agenda Item 4 regarding the Applicant's transport assessments approach and modelling, in particular the park and ride sites traffic modelling.
- 1.2 This document summarises and expands on the arguments made by the HHE before the Examining Authority (**ExA**) at ISH2 and ISH3.
- 1.3 References to documents followed by "EXL" and then a reference number (e.g. **EXL AS-107**) are references to the document's unique Examination Library reference.

2 The movement of freight by AILs

- 2.1 The HHE made two points regarding the movement of freight by AILs and the design of the Yoxford Roundabout at ISH2.
- 2.2 First, the Applicant has not justified the need for a 55 metre Inscribed Circle Diameter (**ICD**) roundabout at the junction between the A12 and the B1122 to offset the impact of the Sizewell C Project (the **Project**). As detailed in the HHE's Written Representation (**EXL REP2-287**), Transport Planning Associates (**TPA**), the HHE's transport consultants, consider a 40 metre ICD roundabout to be acceptable. Noting the requirement to accommodate AILs, TPA have also tested the possible swept path of a 27.6 metre long AIL vehicle. For further details see:
- (a) Yoxford Roundabout: Indicative Sketch of a 40m ICD Roundabout – drawing 2009-039 SK05 (Appendix 3 to the HHE's Written Representation - **EXL REP2-287**);
 - (b) Yoxford Roundabout: Swept Path of a 27.6m long AIL vehicle – drawing 2009-039 SP01 (Appendix 4 to the HHE's Written Representation – **EXL REP2-287**).
- 2.3 A smaller roundabout would require significantly less land, and would have a reduced impact on landscape, the historic environment and ecology.

- 2.4 In its oral response to the HHE's question, the Applicant simply asserted that a 55 metre ICD roundabout would function adequately and that this has been agreed by the host local authorities. With respect, that is no answer to the point the HHE makes. The roundabout is bigger than it needs to be. TPA have demonstrated this with reference to a 40 metre ICD roundabout, which would be less harmful. The HHE has asked why the Applicant believes a 40 metre ICD roundabout would not function equally well and, unless and until a meaningful response is provided, the assumption must be that there is no answer to the expert evidence of TPA. Second, the Applicant has been inconsistent in its approach to AIL provision, as illustrated by comparing the drawings for the proposed Yoxford Roundabout at the junction between the A12 and the B1122 and the roundabout at the junction between the Sizewell Link Road and the B1122. See:
- (a) Yoxford Roundabout Plans for Approval - drawing SZC-SZ0701-XX-000-DRW-100179 (Rev 02) (January 2021) (**EXL AS-132**); and
 - (b) Sizewell Link Road Plans for Approval (Part 3 of 3) - drawing SZC-SZ0701-XX-000-DRW-100171 (Rev 02) (January 2021) (**EXL AS-138**).
- 2.5 The roundabout at the junction between the Sizewell Link Road and the B1122 does not appear to be suitable for AILs, yet the design of the Yoxford Roundabout between the A12 and B1122 includes AIL features. No explanation has been provided and it is unclear whether the difference in approach is deliberate or an omission.
- 2.6 The Applicant agreed to respond to the above design points raised by the HHE at Deadline 5, namely why a smaller 40 metre ICD roundabout has not been considered by the Applicant and the rationale behind the different design for the junction between the Sizewell Link Road and the B1122 and the Yoxford Roundabout in terms of AIL provision.

3 Transport assessments approach and modelling

- 3.1 At ISH3 the HHE raised a number of concerns regarding the Applicant's gravity and Vissim microsimulation modelling.
- 3.2 The Applicant's gravity model included as Appendix 7A to the Consolidated Transport Assessment (**EXL REP2-046**) at page 454 does not take into account the 3,000 workers that are anticipated to live at the on-site campus or in a caravan. Given these workers constitute 35% of the total workforce (7,900 + 600), this is a significant omission:
- (a) First, these workers are anticipated by TPA to move tidally on a Friday night or a Sunday night from their homes to the main construction site. At ISH4 the Applicant's transport expert Kirsty McMullen sought to justify their exclusion from the gravity model on the basis that six week shift patterns and the fact that a number of workers would come from abroad meant workers would not return home every weekend. These reasons contrast, however, with evidence from the Applicant's planning consultant, John Rhodes, at ISH7 on ecology and biodiversity. He clearly stated that when considering recreational effects, on-site construction workers were anticipated by the Applicant to return home, rather than recreate in the local area. In the absence of further information, the Applicant's assessment of workers' movements is materially inconsistent;
 - (b) Second, if the number of on-site workers ends up being less, there is a risk the Applicant has underestimated the number of drivers in its gravity model.
- 3.3 For the above reasons, the HHE has serious concerns about the robustness of the Applicant's modelling and whether the impact associated with worker weekly tidal movements has been properly assessed.
- 3.4 With regard to the Applicant's Vissim microsimulation model, the HHE has identified the following issues:

- (a) First, there are significant departures between the modelled queues at the Darsham level crossing and the observed ones. By way of example, take Figure 9 on page 22 of Appendix 9B: Yoxford VISSIM Model Technical Note (**EXL APP-605**). Figure 9, as well as the subsequent Figures 10, 11 and 12 show that each of the modelled levels falls significantly below or above the observed level. Unsurprisingly, the model average is also, therefore, significantly below or above the observed level. The upshot is that the Vissim model does not appear to be fully representative of typical conditions;
 - (b) Second, the Applicant's approach to validation and in particular tables 12, 13 and 14 of Appendix 9B: Yoxford VISSIM Model Technical Note (**EXL APP-605**) are misleading. The Applicant appears to have validated each section of the journey routes against the WebTAG criteria (see the reference to "PASS" in each row), despite highlighting values above 15% in red. In the Applicant's document, where a particular section fails the test, it is still recorded as a pass if the overall average for the entire route would pass the WebTAG criteria. In short, sections of the route which fail the WebTAG criterion are marked as pass, and an overall pass is achieved by averaging out discrepancies across the whole route, rather than being based on each individual component passing. The Applicant's sectional approach, coupled with the difference between the observed and modelled queues, further undermines confidence in the Applicant's Vissim modelling;
 - (c) Finally, there are a series of arithmetic errors in the Vissim model (see the HHE's Written Representation for details (**EXL REP2-278**), particularly page 89). These errors do not seem to have been addressed by the Applicant, despite being highlighted by the HHE in its Written Representation. These arithmetic errors raise further questions about the quality of the modelling and the Applicant is invited to address them promptly.
- 3.5 The HHE further notes that the Applicant stated that the impact at individual junctions, rather than being assessed on traditional traffic counts, has been based on the outputs of strategic models, which take into account congestion levels and route choice and rerouting of traffic. It makes it even more important that the (gravity and Vissim) models are fit for purpose as the whole assessment relies on them.
- 3.6 The HHE looks forward to receiving the Applicant's detailed response to the above concerns regarding its gravity and Vissim modelling at Deadline 5.

4 Park and Ride sites traffic modelling

- 4.1 The Construction Worker Travel Plan (**CWTP – EXL REP2-055**) and the Applicant's Deadline 3 response to the HHE's Written Representation (see pages 82-97 of **EXL REP3-042**) (the **D3 Response**) are inconsistent in terms of the Applicant's approach to park and ride catchment areas.
- 4.2 Paragraph 4.8.1 of the CWTP explains that the induction of construction workers will involve the allocation of the construction workers to a mode of travel to work based on several principles. In considering those principles, the last bullet point of paragraph 4.8.1 of the CWTP advises: "All other workers will be allocated to the northern or southern park and ride facilities, depending on which is closest to their place of residence" [underlining added]. In the D3 Response, however, the Applicant advises that workers would not be allocated to the park and ride closest to their place of residence, but rather to the park and ride that would allow for the shortest overall journey time. Specifically at **EXL REP3-042** pages 82-83 the Applicant writes:

"In terms of why some residents living west of Saxmundham are predicted to use the NPR when they live closer to the Southern Park and Ride, whilst they may be closer to the SPR, their overall journey time (car to P&R facility and bus to the main development site) may be longer. There would be a shorter bus journey time from Darsham to the main development site than from Wickham Market, hence for those workers living west of the P&Rs the split between the northern and southern park and rides will not only be related to their proximity to a park and ride facility but the whole journey time."

- 4.3 Basing park and ride catchment areas on overall journey times, as opposed to allocating workers to the park and ride closest to their residence, presents two principal issues, namely:

- (a) Issue 1: The Applicant has failed to take advantage of its power to manage worker vehicle movements, and thereby to secure the environmental benefits that arise from allocating workers to the closest park and ride site;
- (b) Issue 2: The Applicant's approach undermines the justification for the size of the NPR.

Issue 1: The Applicant has failed to take advantage of its power to manage worker vehicle movements

- 4.4 At paragraph 14.4.7 of the Consolidated Transport Assessment (**EXL REP4-005**) the Applicant highlights that the transport strategy for the Project is "*not conventional*" and rather than simply providing encouragement to use sustainable modes of transport, the Applicant would "*require*" its workers to use a "*prescribed mode of travel*." Yet, the Applicant's approach, as detailed in the D3 Response (**EXL REP3-042**), does not support its stated objective of promoting sustainable travel since it encourages workers to drive further, thereby increasing the distance travelled as a single car trip, with adverse impacts on vehicle emissions, congestion levels, and other concomitant disbenefits.

Issue 2: The Applicant's approach undermines the justification for the size of the NPR¹

- 4.5 The ability to direct workers to a specific park and ride undermines the justification for the current size of the NPR.

- (a) First, allocating workers to the NPR to achieve an overall shorter journey time would at best only achieve a maximum saving of approximately 5 minutes. While buses travelling from the NPR would arrive at the main development site 8 minutes faster than buses travelling from the Southern Park and Ride (**SPR**), workers living in and around Saxmundham would still need to drive for at least another 3 minutes to reach the NPR. Such a limited time saving does not out-weigh the environmental benefits that come from directing workers to use the park and ride site nearest to their homes, since a greater proportion of the overall journey would be by bus rather than by private car, which in turn would mean a reduction in the level of traffic on the highway network and reduced emissions.
- (b) Second, requiring workers to use the park and ride closest to their homes would mean the sites genuinely intercept traffic, which is their stated primary function. In contrast, requiring workers to use a park and ride site that is further away to achieve a minimal overall journey time saving creates a perverse situation whereby the park and ride site starts to attract traffic, rather than intercepting it. In terms of the NPR, the Applicant's current approach means additional traffic from the South would have to cross the level crossing at Darsham unnecessarily. This presents safety problems, since the Darsham level crossing already has a very high Network Rail risk rating and additional traffic will only exacerbate existing issues. See paragraph 2.4 of the HHE's Written Representation (**EXL REP2-287**) for further commentary.
- (c) Thirdly, based on paragraph 7.2.55 of the Consolidated Transport Assessment (**EXL REP2-046**) and Table 13 of its Appendix 7B peak demand across the two park and ride sites is 1,948 spaces (894 at the SPR and 1,054 at the NPR), which means an occupancy of 78% based on a total capacity of 2,500 car parking spaces. Allowing for a 15% buffer and using the Applicant's own figures, only 2,291 spaces across the two park and ride sites is actually required. As acknowledged by the Applicant's transport expert at ISH2 "*you don't build a supermarket for Christmas*" and a transport assessment should not seek to build

¹ These comments are also relevant to Agenda Item 2: North and South Park and Ride sites – size and modelling coverage. The ExA advised that a number of technical questions in relation to the same would be addressed to the Applicant in writing and the HHE reserves the right to comment in due course.

mitigation and infrastructure for abnormal peaks. Applying the same reasoning and the Applicant's figures, each park and ride site could readily be made much smaller and usage better balanced if the Applicant were to direct workers to use the park and ride site closest to their homes, as per paragraph 4.8.1 of the CWTP.

- (d) Finally, an effective CWTP that directs workers to use a particular park and ride site negates the need for a 15-20% buffer of "spare" parking spaces. Unlike a public car park, SPR and NPR users would not have to drive around looking for parking and could instead use a designated space that they know will be available. The Applicant's suggestion in its D3 Response that one of the reasons for extra space is to prevent drivers queuing onto the highway network is frankly risible when one looks at the actual design of the NPR, specifically the layout of the car park, the long route leading to it and the loop for errant vehicles.
- 4.6 To ensure the Applicant's approach to construction worker traffic management is sustainable and robust, the HHE asks that:
- (a) the obligations in the CWTP are tightened to ensure that construction workers are obliged to use the park and ride site closest to their residence. Fewer single car trips and increased shared bus journeys will have a number of environmental benefits in terms of sustainable travel;
 - (b) the Applicant revisits the justification for the size of the NPR in light of the approach highlighted in the CWTP i.e. that the Applicant will require workers to use a specific mode of transport.
- 4.7 The HHE looks forward to receiving the Applicant's detailed response to the above comments and in particular further information about the factors that informed the design of the NPR at Deadline 5.

5 The Approach to Assessing and Controlling Impacts

- 5.1 Finally, in the course of ISH2-3, the Applicant at various points sought to argue that the impacts of the development consented need not be restricted to those assessed. In order to do so it argued that the only controls which the Secretary of State could impose were those which are necessary, and suggested that it will not always be necessary to restrict development to the levels the impacts of which have been assessed.
- 5.2 This approach is circular and legally misconceived. As a matter of law, a decision maker is required to restrict the development permitted to that the impacts of which have been assessed. Such restrictions are, by definition, necessary.
- 5.3 This matter was recently put beyond argument by the judgment of the Court of Appeal in *Ikram v Secretary of State for Housing Communities and Local Government* [2021] EWCA Civ 2. In that case, Singh LJ (with whom Andrews and Nugee LJJs agreed) found at para. 77 that the Secretary of State had fallen "into a fundamental error of approach" because "having considered the planning impacts which flowed from the Limited Use... he went on to grant planning permission for something which was much broader". In this regard it is of particular note that the argument advanced by the Secretary of State (and rejected by the Court of Appeal) reflected that made by the Applicant at ISH2-3. As para. 41 of the judgment in *Ikram* records, the Secretary of State argued that there was "no disconnect" between the use assessed and the use permitted. Instead, "the Inspector was exercising his planning judgment to impose the conditions he considered necessary". For the reasons referred to above, the Court of Appeal rejected that argument.
- 5.4 The same principles apply when consenting development under the Planning Act 2008. The Applicant's approach is fundamentally circular. It relies on an assumed levels of activity to assess the impacts of the proposed development, assesses the impact as acceptable on the basis of

those assumptions, but then argues that it is not necessary to restrict the development to ensure it does not exceed the assumed levels of activity. That approach cannot be correct.

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