

# **The Keadby Next Generation Power Station Project**

Document Ref: 9.4

Planning Inspectorate Ref: EN0110001

The Keadby Next Generation Power Station Development Consent Order 202[x]

Land at, and in the vicinity of, the existing Keadby Power Station (Trentside, Keadby, Scunthorpe DN17 3EF)

## **Statement of Common Ground with National Highways**

The Planning Act 2008

Applicant: Keadby Next Generation Limited

Date: March 2026

## Glossary

Abbreviation	Description
AIL	Abnormal Indivisible Load - a load that cannot be broken down into smaller loads for transport without undue expense or risk of damage. It may also be a load that exceeds certain parameters for weight, length and width.
CCGT	Combined Cycle Gas Turbine - a highly efficient form of electricity generation technology. An assembly of heat engines work in tandem using the same source of heat to convert it into mechanical energy which drives electrical generators and consequently generates electricity.
CTMP	Construction Traffic Management Plan - a plan outlining measures to organise and control vehicular movement on a construction site so that vehicles and pedestrians using site routes can move around safely.
DCO	Development Consent Order - made by the relevant Secretary of State pursuant to The Planning Act 2008 to authorise a Nationally Significant Infrastructure Project. A DCO can incorporate or remove the need for a range of consents which would otherwise be required for a development. A DCO can also include rights of compulsory acquisition.
DEMP	Decommissioning Environmental Management Plan - a plan to outline how a decommissioning project will avoid, minimise or mitigate effects on the environment and surrounding area.
DTMP	Decommissioning Traffic Management Plan – a plan to outline how traffic would be managed to avoid adverse effects on the local or strategic highway network as part of the decommissioning of the Proposed Development.
HGV	Heavy Goods Vehicle – vehicles with a gross weight in excess of 3.5 tonnes
PIA	Personal Injury Accident – an incident to the body, mind or emotions.
SoS	Secretary of State - the decision maker for DCO applications and head of Government department.

Abbreviation	Description
SRN	Strategic Road Network – National Highways manages the strategic road network in England which comprises motorways and some A roads.

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# 1. Introduction

- 1.1.1. This Statement of Common Ground has been prepared on behalf of Keadby Next Generation Limited ('the Applicant') and National Highways. It forms part of the application for a Development Consent Order (DCO) ('the Application'), that has been submitted to the Secretary of State (the 'SoS') for Energy Security and Net Zero under Section 37 of 'The Planning Act 2008' ('the 2008 Act').
- 1.1.2. The Applicant is seeking development consent for the construction, operation and maintenance of a new combined cycle gas turbine ('CCGT') electricity generating station on land at, and in the vicinity of, the existing Keadby Power Station, Trentside, Keadby, Scunthorpe DN17 3EF ('the Site').
- 1.1.3. The Keadby Next Generation Power Station ('the Proposed Development') is a new CCGT electricity generating station with a capacity of up to 910MW electrical output. The CCGT electricity generating station will be designed to run on 100% hydrogen and able to run on 100% natural gas or a blend of natural gas and hydrogen and will be located on land to the west of Keadby 1 and Keadby 2 Power Stations. The Proposed Development includes connections for cooling water, electricity, hydrogen and natural gas, and construction laydown areas and other associated development. It is described in full in Environmental Statement (ES) Volume I Chapter 4: The Proposed Development (Application Document Ref. 6.2.4).

## 2. Matters Agreed

2.1.1. Within Table 2.1 below, the date and location where matters have been agreed have been included. The corresponding meeting minutes, emails and letters referenced here are also provided in Appendix 1.

**Table 2.1 List of Matters Agreed**

Matter agreed	Date and place agreed	Commentary
Traffic and Transport Assessment – Overall Approach, Methodology and Conclusions	Statutory Consultation Comments – 12 February 2025	<p>It is agreed that the updates to Environmental Statement (ES) Chapter 10: Traffic and Transport (Application Document Ref. 6.2.10) and the Transport Statement in Appendix 10A (Application Document Ref. 6.3.8) have sufficiently addressed the comments provided by National Highways in their Statutory Consultation Comments including:</p> <ul style="list-style-type: none"> <li>• Confirmation that design development will not affect trip generation;</li> <li>• Reference to latest policy and guidance as part of the assessment;</li> <li>• Clarification of the design vision and reference to Circular 01/202 within the Transport Statement;</li> <li>• Inclusion of the traffic flows and Personal Injury Accident (PIA) data for the M180 within the Transport Statement;</li> <li>• Inclusion of PIA analysis on the M181/A18 Roundabout within the Transport Statement;</li> <li>• Updated TEMPro factors for the Transport Statement; and</li> <li>• Confirmation of the list of committed developments included in the assessment.</li> </ul>

Matter agreed	Date and place agreed	Commentary
Traffic and Transport Assessment – Construction Phase		<p>It is agreed that the updates to ES Chapter 10, Appendix 10A and the Outline Construction Traffic Management Plan (CTMP) have sufficiently addressed National Highways comments in relation to the construction phase of the Proposed Development, namely:</p> <ul style="list-style-type: none"> <li>• Consideration of later future opening date on which to base the assessment (2036 used as construction year as worst-case);</li> <li>• Inclusion of good practice mitigation measures covering the Strategic Road Network (SRN) within the Outline CTMP;</li> <li>• Inclusion of measures relating to movement of Abnormal Indivisible Loads (AILs) within the Outline CTMP;</li> <li>• Inclusion of Heavy Goods Vehicle (HGV) movements associated with the movement of materials included in the Outline CTMP (Application Document Ref. 7.5) and Transport Statement; and</li> <li>• Inclusion of a requirement for the final CTMP to be shared and agreed with National Highways included in the Draft DCO as Requirement 22 (Application Document Ref. 3.10).</li> </ul>
Traffic and Transport Assessment – Operational Phase		<p>It is agreed that the updates made in relation to ES Chapter 10 and Appendix 10A have sufficiently addressed National Highways comment in relation to the operational phase of the Proposed Development, namely the clarification on operational parking provisions.</p>

Matter agreed	Date and place agreed	Commentary
Traffic and Transport Assessment – Decommissioning Phase		It is agreed that the inclusion of Requirement 36 within the Draft DCO (Application Document Ref. 3.1) has sufficiently secured the requirement for production of a Decommissioning Environmental Management Plan (DEMP) and Decommissioning Traffic Management Plan (DTMP), requiring consultation with National Highways, as requested by National Highways.
Staff Trip Generation	Written response from JSJV on behalf of National Highways – Received on 30 July 2025	It is agreed that the approach adopted by the Applicant to assess the staff trip generation over the construction phase of the Proposed Development is acceptable.
Construction Trip Distribution and Assignment	Written response from JSJV on behalf of National Highways – Received on 30 July 2025	On the basis that the movement of HGVs between the construction site and M180 will be regulated by a HGV routing plan, which will be included as part of the final CTMP (written in accordance with the Framework CTMP (Application Document Ref. 7.5)) this approach is considered acceptable. It is also agreed that no further assessments will be required to be produced by the Applicant in relation to trip generation during the construction phase.
Construction worker monthly profile	MS Teams Meeting held between Arup and National Highways – 12 August 2025	It was agreed that while a full monthly profile of construction worker trips would be added to the Transport Statement (Appendix 10A), rather than just the peak month, the overall approach to trip generation was acceptable.
Development Impact	MS Teams Meeting held between Arup and National Highways – 12 August 2025	It is agreed that the impact of the Proposed Development would not have an adverse impact on the operation of the highway network.

Matter agreed	Date and place agreed	Commentary
Outline Construction Traffic Management Plan	Written response provided over email - 12 February 2026	<p>It is agreed that the updates the Applicant has made to the Outline CTMP have sufficiently addressed National Highways' requests for further information namely:</p> <ul style="list-style-type: none"> <li>• The provision of a monthly breakdown of staffing and associated worker-generated traffic.</li> <li>• The provision of extra information relating to construction phase parking provision.</li> <li>• Reference to waste management details in the Outline Construction Environmental Management Plan and accompanying Outline Site Waste Management Plan.</li> </ul> <p>It is also agreed that whilst the Applicant has not provided specific information on construction phase parking spaces or vehicular trips associated with waste management, the detail provided is sufficient on the basis that the trip generation forecasts do not indicate a severe impact on the SRN and the volume of vehicular trips are expected to be at a level so as not to generate further concerns for National Highways.</p>
Outline Construction Worker Travel Plan	Written response provided over email - 12 February 2026	<p>It is agreed that the update made to the Outline Construction Worker Travel Plan (CWTP) to include targets for sustainable travel is acceptable.</p> <p>It is also agreed that with the implementation of travel planning as outlined in the Outline CWTP a significant effect on the operation of the SRN is unlikely.</p> <p>It is also agreed that the approach of securing the CWTP by Requirement (Requirement 23 of the Draft DCO</p>

Matter agreed	Date and place agreed	Commentary
		(Application Document 3.1)) is a sufficient mechanism for securing the funding commitment for the measures contained within the CWTP.
Proportion of operational staff	Written response provided over email - 12 February 2026	<p>The Applicant has confirmed over email (dated 30 January 2026) that approximately 30% of the total operational staff would be office / administrative staff.</p> <p>Based on this information, it is agreed that this information is sufficient to confirm that the safe and efficient operation of the SRN is unlikely to be affected by the Proposed Development during its operation.</p>

### 3. Matters Not Yet Agreed

**Table 3.2 List of Matters Not Agreed**

<b>Matter not yet agreed</b>	<b>Commentary</b>	<b>Likelihood of resolution</b>
None	N/A	N/A

## 4. Signatures

This SoCG is agreed

**On behalf of National Highways**

**Name:**



**Signat**

**Date: 31.03.2026**

**On behalf of the Applicant**

**Name:**

**Signature:**

**Date:**

# **Appendix 1 Correspondence**

Our ref: DCOKNGPS  
Your ref: EN0110001

[REDACTED]  
National Highways  
2 City Walk  
Leeds  
LS11 9AT

Tel: [REDACTED]

12 February 2025

## FAO: Planning Inspectorate

Dear Sir/Madam,

We have reviewed the Preliminary Environmental Information Report [PEIR] submitted to accompany planning application ref. EN0110001 for the *'the construction, operation and maintenance of a combined cycle gas turbine (CCGT) electricity generating station'* on land at, and in the vicinity of, the existing Keadby Power Station, Trentside, Keadby, Scunthorpe, and would offer the following comments.

### The Proposal

The Applicant states that since the proposed development is a *'first of a kind'* for this type of power station, a number of the design aspects and features of the proposed development cannot be confirmed until the detailed design of the proposed development has been completed, including building sizes. The Applicant finds it necessary that the consent retains some flexibility to allow for changing economic conditions and the advancement of hydrogen fired CCGT technology in the period between preparing the application and starting construction.

National Highways recommends that the Applicant clarifies whether potential development design changes could affect the trip generation of the proposed development. The Applicant should set out a range of reasonable operational scenarios and test these relative to Circular 01/2022.

The Applicant has identified the potential to supply waste heat for local district heating as there are a number of theoretical identified heat users within a 15km radius of the site. A CHP [combined heat and power] is not proposed to be installed from the outset, but the proposed development will be CHP ready, with the inclusion of connection flanges at suitable locations to export waste heat in the future should this become viable.

We recommend that the Applicant clarify how the supply of waste heat will be addressed in the TS, particularly in respect of the construction impacts.

### Construction and Operation

Construction of the proposed development is forecast to start in 2027, with the operational phase forecast to commence after 2030.

Up to, approximately, 50 full-time staff are expected to be working at the development once operational. The Applicant must clarify within the TS the proportion of administrative staff versus operational staff to be working at the proposed development.

Temporary and contractor employees associated with maintenance activities would also be employed, as required. The Applicant should provide details in regard to the number of potential temporary / contractor employees that might be required by the proposed development.

### **Car Parking**

The PEIR outlines that there would be provision for several car parking spaces and cycle storage onsite for operational use, with additional car parking spaces to be provided to support outages, if required, however no specifics are given.

National Highways would highlight that the Applicant must include within the TS the number of parking spaces to be provided as part of the proposed development.

### **Construction Programme and Management**

The Applicant states that an initial enabling works phase, including the replacement of Mabey Bridge, and construction of the emergency access crossing, would be undertaken over approximately 9 months. National Highways would advise that if the enabling works phase will result in staff traffic reassignment, the Applicant should consider this aspect and provide further details.

The Applicant states that due to uncertainties in the market and Government investment decisions in hydrogen production, transport, storage, and Capacity Market Auction reform, the application would be made on the basis that commencement of development can take place for up to seven years from the granting of consent. Consequently, a scenario where construction commences later in the programme, up to 2034 (seven years after the DCO could be granted) has also been considered by the Applicant as a reasonable worst-case for technical assessments where relevant.

We would highlight that the TS should consider all reasonable scenarios, including any potential phasing of development and opening at dates further into the future when potential exists.

### **Decommissioning**

The Applicant states that a Decommissioning Plan, including a Decommissioning Environmental Management Plan [DEMP] will be produced within the period specified in the relevant legislation in force at the time of cessation of operations.

National Highways would recommend that a Requirement of the DCO is in place to secure the provision of a DEMP. Further, we would recommend that a Requirement is imposed to secure the provision of a Decommissioning Traffic Management Plan [DTMP] also.

We would recommend the following wording:

*“Unless otherwise agreed in writing by the Planning Inspectorate in consultation with National Highways (or its successors) decommissioning of the development hereby approved shall not commence unless and until a Decommissioning Traffic Management Plan has been submitted to and approved in writing by the Planning Inspectorate in consultation with National Highways (or its successors). Thereafter unless otherwise approved in writing decommissioning shall be undertaken in accordance with the approved plan.”*

The inclusion of the Condition ensures that any effects from the decommissioning phase are to be reviewed and agreed upon by National Highways immediately prior to decommissioning.

### **Legislation, Planning Policy and Guidance**

The Applicant considered a series of relevant transport policy, including the National Planning Policy Framework 2019 (with amends published July 2024) and Circular 01/2022, which the Applicant will use to inform the Transport Statement [TS] to accompany the application.

National Highways would highlight that the NPPF was revised in December 2024 and the Applicant must reference this updated version.

Further, we note that the Applicant must also consider Circular 01/2022 when preparing the TS to accompany the planning application for the proposed development.

Circular 01/2022 states:

*“Where a transport assessment is required, this should start with a vision of what the development is seeking to achieve and then test a set of scenarios to determine the optimum design and transport infrastructure to realise this vision.”*

*“The company expects development promoters to enable a reduction in the need to travel by private car and prioritise sustainable transport opportunities ahead of capacity enhancements and new connections on the SRN.”*

With reference to the prevailing policy, National Highways requires that the Consultant set out the vision for development. The Consultant should clearly describe the aims of the development in terms of transport and explain how the aims are in line with the prevailing policy. National Highways now expect development promoters to enable a reduction in the need to travel by private car and prioritise sustainable transport opportunities, ahead of capacity enhancements and new connections on the Strategic Road Network.

Once we have agreed the vision for the development, we request that the Applicant submits a Travel Plan in line with the policy, which should demonstrate how the vision can be achieved. To do this, the applicant should put forward clear targets and commitments to manage down the traffic impact of development and maximise the accessibility of and within sites by walking, wheeling, cycling, public transport and shared

travel. We recommend that the Travel Plan presents suitable multi-modal (person) trip rates alongside any travel planning targets.

Once the vision and supporting travel planning are agreed upon, the approach enables an assessment of residual transport impacts. This should be undertaken in line with the Circular 01/2022.

### **Extent of Study Area**

The Applicant states that traffic impacts on the M180 have not been assessed due to development traffic representing a very low percentage of total traffic on the M180, which does not trigger the rule threshold guidelines.

National Highways would highlight that, when preparing the TS and considering potential junction capacity assessments, the Applicant should refer to the following guidance:

- National Planning Policy Framework (2024).
- National Highways' guidance document 'Planning for The Future' (October 2023).
- The Department for Transport's Circular 01/2022.

In particular, we would refer the Applicant to 'Planning for the Future', which states that National Highways will look at planning applications assessed as being 'severe' on a case-by-case basis. This will consider the performance and character of the relevant section of the SRN and the predicted effects of the development on its safe operation.

Further, the Applicant should note that the 2007 DfT guidance that describes a '30-vehicle threshold for discussions' does not, for National Highways, justify junction capacity assessments not being undertaken.

In light of the above, the Applicant must consider the impact the proposed development will have on the safe and efficient operation of the SRN, including the M181/A18 roundabout and the M180 Junctions 2 and 3, during the construction and operation phases; and traffic generation, distribution, and assignment data for the SRN must be provided for review.

### **Collision Data**

The Applicant obtained Personal Injury Accident [PIA] data from the CrashMap website for the five year period 2016 - 2019 and 2022. The study area included the M180 Junctions 1 and 2 also.

The SRN areas of interest to National Highways are the M180 Junctions 2 and 3 and the M181/A18 Roundabout. Consequently, the Applicant must include PIA information for M180 Junction 3 and the M181/A18 Roundabout within the TS to accompany the planning application.

### **Future Baseline for Construction and Operation**

Future year baseline traffic flows for the assessment year of 2036 for the peak of construction and the year of opening 2038 have been derived by the Applicant by applying the traffic growth factor obtained from TEMPro.

The Applicant provided future year baseline traffic flows for the assessment years of 2036 peak of construction and 2038 for the local road network only, and the future year baseline traffic flows for the SRN of interest will need to be considered also.

National Highways has undertaken a high-level check of the TEMPro factor provided and would recommend the Applicant derives a new TEMPro factor to be used in any CTMP and TS traffic impact assessments. Furthermore, due to potential unsuitability of TEMPro for localised analyses, we advise the Applicant to also use an alternative method to verify traffic growth forecasts by comparison with actual count data for the relevant road section.

The Applicant states that the identified developments in the vicinity of the proposed development could result in cumulative impacts during its construction and operation, and that these effects will be considered in the Cumulative Effects Assessment.

We would highlight that in accordance with Planning Practice Guidance, the committed development should include development that is consented or allocated where there is a reasonable degree of certainty will proceed within the next 3 years.

We also invite confirmation that the committed development included in the assessment by the Applicant has been confirmed with the relevant Planning Authority.

The confirmed committed developments will need to be considered within the CTMP and TS traffic impact assessments of the local road network, including the SRN.

## **Likely Impacts**

### **Construction Traffic**

The Applicant highlights that construction traffic movements will take place along designated transport routes to be outlined within the Framework Construction Traffic Management Plan (FCTMP) which will be submitted alongside the final ES. The final CTMP will be prepared in accordance with the Framework CTMP and secured through a DCO requirement.

We welcome the above approach, and we would reiterate that the CTMP should be provided to National Highways for review and agreement in writing prior to commencement of construction. Construction will then be expected to proceed in accordance with the approved CTMP. Further, the CTMP will need to include the following:

- Length of construction period.
- A dust management plan.
- A noise management plan.
- Pollution prevention measures.
- Staffing numbers.

- Peak trip generation (including types of vehicles);
- Contractor parking.
- Any potential need to limit light intrusion on the SRN at the relevant locations.
- Construction traffic routes.
- Access routes, including consideration of abnormal loads and details of proposed signage, implementation and enforcement.

The Applicant estimates up to 200 HGV movements in total over the construction period to remove waste, with up to 10 HGV movements expected per day. National Highways would note that waste removal vehicular trips must be included in the CTMP assessment of the traffic impact that the proposed development could have on the SRN during construction period. Furthermore, details of waste management measures should also be provided within the CTMP to be submitted in support of the planning application.

The principal items of plant will be modular and delivered by ship to the Waterborne Transport Offloading Facility, with around 35 - 40 deliveries expected over a 12-month period. The components will then be lifted using a mobile crane onto a hauled trailer and transported to the main site along the existing temporary haulage route for assembly. These vehicular trips will also need to be considered when deriving the trip generation during construction period.

Construction staff are anticipated to travel to the site via the existing trunk road and local networks, with the staff arriving by car using on-site parking. We would reiterate that the Applicant must include further details of the car park provision for both the construction and operational phases of the proposed development, and of trip generation and assignment, particularly during peak hours.

The Applicant assigned HGV trips to the M180 Junction 2 via the A18 and the A161. The construction workers trips assignment has been based on the geographic split of population within a 45 minute drive-time of the Proposed Development Site. National Highways would request that a detailed methodology be presented for review.

The SRN will need to be included in any traffic assessments within the upcoming TS and CTMP, including AM and PM peak hours traffic generation and appropriate trip distribution / assignment data, in order for National Highways to determine the need or otherwise for junction capacity assessments.

We would recommend the Applicant includes within the CTMP a breakdown of the traffic generation for the entire construction period, rather than just for the peak period, with the AM and PM Peak hour traffic generations clearly stated. Vehicular trip distribution and assignment data should also be included.

The Applicant outlines a series of good practice mitigation measures that will be implemented during the construction phase to minimise traffic impacts on the local highway network. We welcome these initiatives, however, we would request that they are extended to the SRN, and this should be discussed in detail within the CTMP to be submitted.

### Abnormal Loads

The Applicant highlights that a number of AIL movements are expected to be required during the construction programme associated with the delivery of large items of plant and equipment, however the exact number and size / weight are not known at this stage.

We would suggest that, if an abnormal load is required, and depending on the load being moved and the route, advance warning may be required by:

- The Police.
- Highway authorities.
- Bridge and structure owners such as Network Rail.

The Electronic Service Delivery for Abnormal Loads (ESDAL) system can be used for route plotting. ESDAL will also:

- Notify the Police, highways, and bridge authorities.
- Provide advance notice of any possible route problems.
- Save vehicle details and routes for future use.

If ESDAL is not used, an abnormal loads movement application form will need to be completed.

Sufficient time must also be allowed in order to get the necessary clearances from the police, highway, and bridge authorities. For example, a Special-Order application must be completed 10 weeks before the scheduled date of the move.

### Operational Phase

The Applicant states that although approximately 200 additional staff could be on-site on any one day during an outage (which may occur once every 2-5 years and last approximately 3 months), no additional impact avoidance measures are considered necessary as both the HGV and staff vehicle numbers would be considerably lower than during construction.

We would specify that an hourly break down of the vehicular trips to take place during outages must be included in the TS. Furthermore, depending on the trip generation during the AM and PM peak hours and the trip distribution and assignment of those trips, short term management measures might need to be implemented by the Applicant during the outage periods.

The Applicant states that driver delay will be considered in the TS to be submitted with the application.

National Highways would highlight that the TS must present detailed traffic generation information for the standard peak hours, including residual traffic impacts, taking account of the measures identified to achieve the development vision, together with appropriate traffic assignment and distribution data for the operational stage of the proposed development, for the road network in vicinity of the proposal site, including the SRN.

We would further highlight that if the TS suggests that there is no impact on the SRN during the AM and PM peaks because trips to and from the development occur outside peak hours, a condition may be required to ensure changeover periods remain outside these peaks.

Decommissioning

Regarding the decommissioning aspect, we would note that the DTMP will need to include an hourly break-down of the traffic to be generated by the proposed development during the decommissioning phase and appropriate traffic assignment and distribution data for the SRN of interest.

I trust this response is helpful, but should you require any further information please do not hesitate to contact me.

Yours sincerely

[REDACTED]

Planning and Development

[REDACTED]

[\[REDACTED\]@nationalhighways.co.uk](mailto:[REDACTED]@nationalhighways.co.uk)

## DCOKNGPS Keadby Hydrogen Power Station

Case ref:	DCOKNGPS	Document ref:	DCOKNGPS TM03	Date issued:	30/07/2025
Prepared for:	Becky Garrett	Prepared by:	Roxana Watson	Reviewed / approved by:	Terence Dale

Limitation: This technical memorandum [TM] has been prepared on behalf of, and for the exclusive use of National Highways, and is subject to, and issued in accordance with, the provisions of the National Spatial Planning Contract. We accept no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this document by any third party.

### Headline summary

Planning Outcome	Site Location <sup>1</sup>
<p><b>Pre-application / screening response</b></p>	

### Technical Summary

- The Applicant should specify the number of parking spaces to be provided as part of the proposed development, for both the construction and operational phases of the proposed development.
- The Applicant should provide a breakdown of the traffic generation for the entire construction period, rather than just for the peak period.
- The Applicant should provide details in regard to the number of potential temporary/ contractor employees that might be required by the proposed development during the operational phase. The Applicant should also clarify the proportion of administrative staff versus operational staff to be working at the proposed development.
- The Applicant should clarify whether potential development design changes could affect the trip generation of the proposed development.
- The JSJV would recommend that a Requirement of the DCO is in place to secure the provision of a DEMP. Further, we would recommend that a Requirement is imposed to secure the provision of a Decommissioning Traffic Management Plan [DTMP].

<sup>1</sup> Source: Preliminary Environmental Information Report, Volume III

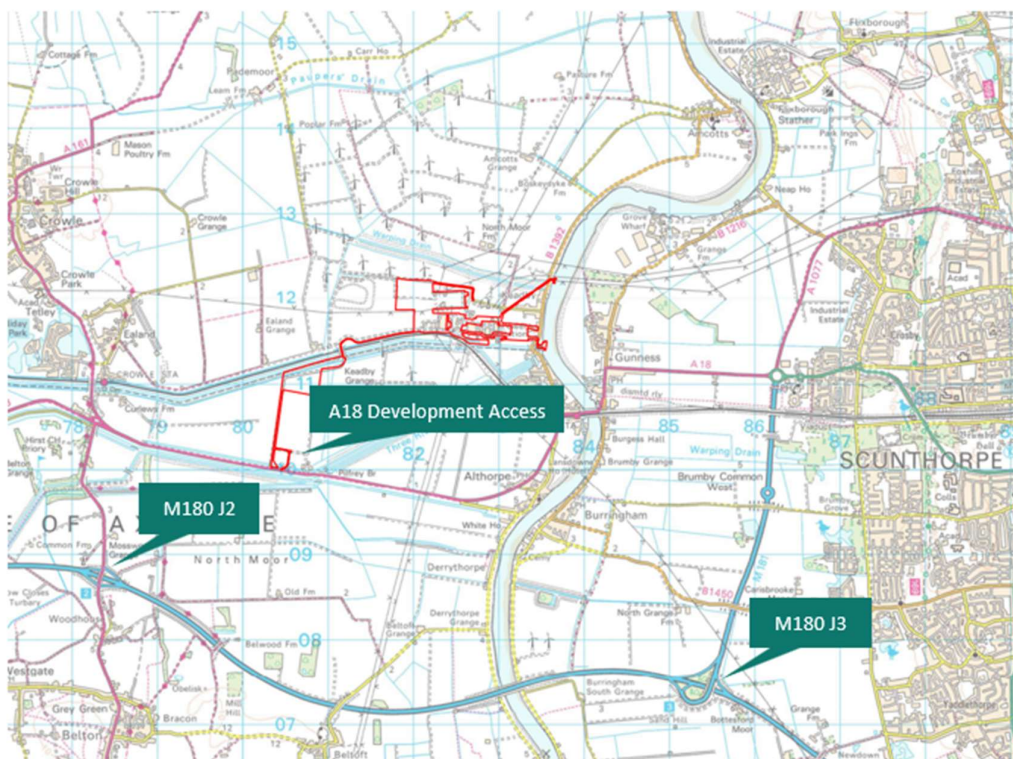
## 1 Overview

- 1.1 In May 2024, National Highways was consulted on an Environmental Impact Assessment [EIA] Scoping Request [ref. EN0110001] submitted by SSE Hydrogen Developments Limited for an Order granting Development Consent for the Keadby Hydrogen Power Station Project.
- 1.2 In January 2025 National Highways was consulted on a Preliminary Environmental Information Report [PEIR] submitted in relation to application ref. EN0110001 for ‘the construction, operation and maintenance of a combined cycle gas turbine (CCGT) electricity generating station’ on land at, and in the vicinity of, the existing Keadby Power Station, Trentside, Keadby, Scunthorpe DN17 3EF.
- 1.3 In July 2025, the Applicant has submitted a Technical Note entitled Trip Generation Summary [TGS]. The JSJV has reviewed the TGS and would offer the following comments.

## 2 Development Location

- 2.1 The location of the application site is presented in **Figure 1**. The main site access is located approximately 4 km driving distance from the M180 Junction 2 and approximately 10.5 km driving distance from the M180 Junction 3.

Figure 1: Site Location in relation to the SRN <sup>2</sup>



## 3 The Proposal

- 3.1 The proposed development comprises the construction, operation, maintenance, and decommissioning of a high efficiency combined cycle gas turbine [CCGT] electricity generating station with a capacity of up to 910MW electrical output. The DCO is due to be submitted in August 2025.

<sup>2</sup> Source: Preliminary Environmental Information Report (with JSJV adjustments)

- 3.2 The CCGT electricity generating station will be designed to run on 100% hydrogen, however it would also be able to operate using 100% natural gas or a blend of hydrogen and natural gas.
- 3.3 The Applicant specifies that access to the site during both construction and operation will be via the existing perpendicular bridge (Mabey Bridge) and skew bridge construction access points off the A18, built for construction vehicles during construction of Keadby Wind Farm.

#### 4 Technical Note

- 4.1 The Applicant notes that the details within the TGS will be included in the Transport Statement [TS] to be submitted as a Technical Appendix to the Environmental Statement (ES).

##### Construction Phase Traffic Generation

##### Staff Trip Generation

- 4.2 The Applicant has compared the projected workforce profile for the construction period with data from the construction of the Keadby 2 Power Station CCGT Plant, as well as the approved Net Zero Teesside CCGT and CCP Plant.
- 4.3 The daily workforce profile the Applicant is forecasting is presented in **Table 1**, which shows that the peak construction workforce occurs during months 26 and 27 when approximately 1,050 workers are expected on-site per month.
- 4.4 For context, the first six months of the construction programme, which is anticipated to commence in 2027, would be for the Early Preparation Works phase and the Mabey Bridge replacement works, with the main construction build to take place over the last 36 months of the construction period.
- 4.5 The Applicant has assumed that 80% of workers will travel to the site by car, with an average of two workers per vehicle, while the remaining 20% are expected to arrive by minibus, averaging seven workers per vehicle. According to the Applicant, this assumption has previously been used as the basis for assessments in the Knottingley CCGT Power Station Transport Assessment (June 2013), which received DCO consent in March 2015, and in the Eggborough CCGT Power Station, which obtained DCO consent in September 2018.
- 4.6 The JSJV agrees with the aforementioned approach.
- 4.7 The Applicant proposes that the travel modes of construction staff could be managed through travel planning measures and the provision of on-site parking, with a Construction Worker Travel Plan to be submitted as part of the DCO. However, the specific number of car parking spaces to be provided has not been detailed, and we recommend the Applicant provides this information.
- 4.8 The staff trip generation the Applicant proposes for the two peak months of construction (months 26 and 27) is presented in **Table 2**.

Table 1. Profile of daily workforce throughout construction<sup>3</sup>

Month of Construction	Daily workforce in the month
1	24
2	24
3	24
4	24
5	24
6	24
7	57
8	65
9	73
10	145
11	162
12	170
13	218
14	436
15	654
16	788
17	872
18	961
19	1,002
20	1,002
21	1,002
22	1,002
23	1,026
24	1,026
25	1,026
26	1,050
27	1,050
28	1,002
29	1,002
30	1,002
31	985
32	985
33	985
34	985
35	985
36	985
37	985
38	985
39	654
40	436
41	218
42	121

<sup>3</sup> Source: Technical Note

Table 2. Construction worker vehicle generation at peak of construction (Applicant)<sup>4</sup>

Month of Construction	Total workers per day	No. of cars/vans (2 per vehicle)	No. of minibuses (7 per vehicle)	Average two-way daily flow
26-27	1,050	420	30	900

- 4.9 As shown, approximately 900 two-way vehicular trips will be generated daily by the construction phase of the proposed development.
- 4.10 The TGS outlines that the core construction working hours will be 07:00 - 19:00 Monday to Friday and 08:00 - 13:00 on Saturday, with some construction activities to be undertaken outside of the core working hours.
- 4.11 **Table 3** shows the distribution of daily staff vehicle trips by hour during the AM and PM peak periods for the busiest construction month, as proposed by the Applicant. The Applicant notes that this profile is based on the travel patterns used for the Eggborough CCGT Power Station and the West Burton C Power Station, both of which received DCO consent in October 2020.

Table 3. Daily vehicle (staff) profile during peak month of construction<sup>5</sup>

Hour beginning	% of Daily Inbound	% of Daily Outbound	Arrivals	Departure
06:00	30%	0%	135	0
07:00	55%	0%	248	0
08:00	10%	0%	45	0
09:00	5%	0%	23	0
16:00	0%	10%	0	45
17:00	0%	15%	0	68
18:00	0%	70%	0	315
19:00	0%	5%	0	23

- 4.12 As indicated, the Applicant anticipates 45 two-way vehicle trips during the standard AM peak hour and 68 two-way trips during the standard PM peak hour. Additionally, a

<sup>4</sup> Source: Technical Note

<sup>5</sup> Source: Technical Note

localised peak is observed, with 248 two-way vehicle movements between 07:00 and 08:00, and 315 two-way movements between 18:00 and 19:00.

*HGV Trip Generation*

4.13 The Applicant’s monthly forecasts for HGV trip generation throughout the construction period are shown in **Table 4**. As indicated, the highest level of HGV activity occurs in months seven, eight, and nine, with approximately 828 two-way HGV movements per day (comprising 414 inbound and 414 outbound trips) during this peak.

*Table 4. Profile of Daily Two-Way HGV Trips During Construction (Applicant)<sup>6</sup>*

Month of Construction	Daily HGV movements in the month
1	10
2	10
3	10
4	10
5	10
6	10
7	828
8	828
9	828
10	60
11	60
12	60
13	60
14	60
15	60
16	60
17	60
18	60
19	60
20	60
21	60
22	60
23	60
24	120
25	120
26	120
27	120
28	120
29	120
30	120
31	120
32	120
33	120
34	120
35	120
36	60
37	60
38	60

*Total Trip Generation*

4.14 **Table 5** presents an hourly summary of the total trips the Applicant forecasts for the months 26 and 27 of the construction phase, specifically for the AM and the PM peak hours.

<sup>6</sup> Source: Technical Note

*Table 5. Daily Construction Phase Trip Generation (Peak Month of Construction) <sup>7</sup>*

Hour Beginning	Construction Worker Vehicles		Construction HGVs	
	Arrival	Departure	Arrival	Departure
06:00	135	0	0	0
07:00	248	0	5	5
08:00	45	0	5	5
09:00	23	0	5	5
10:00	0	0	5	5
11:00	0	0	5	5
12:00	0	0	5	5
13:00	0	0	5	5
14:00	0	0	5	5
15:00	0	0	5	5
16:00	0	45	5	5
17:00	0	68	5	5
18:00	0	315	5	5
19:00	0	23	0	0
<b>Total</b>	<b>451</b>	<b>451</b>	<b>60</b>	<b>60</b>

- 4.15 The Applicant states that the projected daily pattern of HGV movements is informed by experience from similar power station construction projects. According to the Applicant, during the peak construction phase (when HGV and construction traffic combined are at their highest), up to 120 two-way HGV movements per day are expected (60 arrivals and 60 departures). This corresponds to approximately five HGVs arriving and five departing per hour, based on the assumption that arrivals and departures will be evenly spread throughout the 07:00 to 19:00 working hours.
- 4.16 As indicated, the Applicant forecasts a total of 258 two-way trips during the AM localised peak hour and 325 two-way trips during the PM localised peak hour for construction staff and HGVs combined. For the standard peak hours, the Applicant estimates 55 two-way movements in the AM peak and 78 two-way movements in the PM peak.
- 4.17 The JSJV notes that the highest levels of staff and HGV trips occur during different months of the construction period. Staff trips reach their maximum during months 26

<sup>7</sup> Source: Technical Note

and 27, while HGV trips peak earlier, in months seven, eight, and nine of the construction periods. Consequently, the Applicant should have included within the TGS a breakdown of the traffic generation for the entire construction period, rather than just for the peak period.

- 4.18 We also note that the Applicant's assumption that HGV arrivals and departures will be evenly distributed over the 07:00 to 19:00 working hours appears unrealistic.
- 4.19 Nonetheless, considering the staff trips and the HGV trips as a whole, the peak hourly trip generation would be during months 26 and 27, during the localised AM and PM peak hours, and, as previously mentioned, would translate in a total of 258 two-way trips in the localised AM peak hour and 325 two-way trips in the localised PM peak hour.

#### Operational Phase Traffic Generation

- 4.20 The Applicant states that up to 50 full-time positions will be created during the operational phase of the proposed development. It is expected that staff will follow a shift pattern similar to that of the current Keadby Power Station, most likely operating on a two-shift system from 07:00 to 19:00 and from 19:00 to 07:00. Administrative staff are expected to work standard office hours between 08:30 and 18:00. However, the Applicant has not specified the proportion of staff in administrative roles, and we recommend that this information be provided.
- 4.21 The Applicant further notes that day-to-day operations and maintenance of the plant and equipment will also generate HGV traffic, amounting to approximately 15 HGVs per week.
- 4.22 **Table 6** summarises the hourly trip generation forecast by the Applicant for the operational phase of the proposed development.
- 4.23 As shown, the Applicant forecasts 17 two-way trips during both the AM and PM peak hours. While the JSJV notes that the predicted trip generation for the PM peak does not appear to correspond with the working hours indicated by the Applicant for staff members, this lower volume of trips does not raise any concerns regarding the safe and efficient operation of the SRN in the area.
- 4.24 However, we would remind the Applicant that, as previously requested in TM02, further details are required regarding the number of potential temporary and contractor employees that may be needed during the operational phase of the proposed development. This is important, as short-term management measures may need to be implemented by the Applicant during periods of significant temporary or contractor employee traffic.
- 4.25 Furthermore, the Applicant needs to clarify whether potential development design changes could affect the trip generation of the proposed development.

Table 6. Daily Operational Vehicle Profile (Applicant) <sup>8</sup>

Hour Beginning	Operational Worker Vehicles		Operational HGV	
	Arrival	Departure	Arrival	Departure
06:00	12	0	3	0
07:00	13	0	4	0
08:00	13	0	4	0
09:00	12	0	4	0
10:00	0	0	0	0
11:00	0	0	0	0
12:00	0	0	0	0
13:00	0	0	0	0
14:00	0	0	0	0
15:00	0	0	0	0
16:00	0	12	0	3
17:00	0	13	0	4
18:00	0	13	0	4
19:00	0	12	0	4
<b>Total</b>	<b>50</b>	<b>50</b>	<b>15</b>	<b>15</b>

Trip Distribution and Assignment

Construction Trip Distribution and Assignment

4.26 The applicant states that the distribution of construction staff trips has been based on a gravity model and the populations of towns and cities within a 45-minute drive time from the site. **Figure 2** and **Table 7** show the workforce distribution proposed by the Applicant.

<sup>8</sup> Source: Technical Note

Figure 2. Construction Workforce Distribution (Applicant) <sup>9</sup>

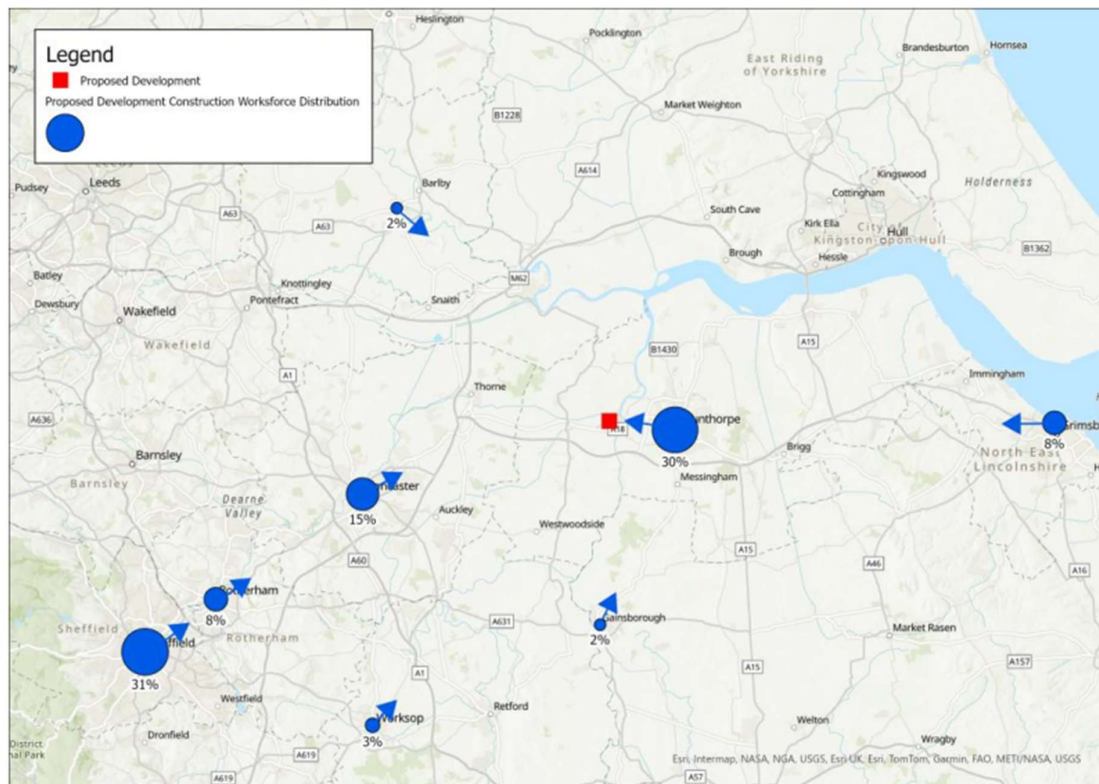


Table 7. Construction Workforce Distribution (Applicant) <sup>10</sup>

Location	Population (2021 Census)	Distance to centre of location (miles)	Weighting Factor (1/distance)	Population by Weighting Factor	Percentage Distribution	Number of Workers (Peak Month of Construction, daily two way)
Sheffield	556,500	39	0.0256	14,269	31%	282
Doncaster	160,220	23	0.0435	6,966	15%	137
Grimsby	137,021	36	0.0278	3,806	8%	75
Rotherham	129,897	35	0.0286	3,711	8%	73
Scunthorpe	81,286	6	0.1667	13,548	30%	267
Worksop	45,118	35	0.0286	1,289	3%	25
Selby	27,898	30	0.0333	930	2%	18
Gainsborough	22,913	21	0.0476	1,091	2%	22

4.27 Regarding the assignment of the staff trip generation, the Applicant identified five key routes that construction workers are most likely to use when travelling to and from the development site, as outlined in **Table 8**.

<sup>9</sup> Source: Technical Note

<sup>10</sup> Source: Technical Note

Table 8. Construction Workforce Distribution (Applicant) <sup>11</sup>

Route	Catchment Area	% of Catchment Area
<b>Route 1:</b> From the west via M180 Junction 2, A161, A18, site access	Sheffield Rotherham Doncaster Worksop Selby	45.2%
<b>Route 2:</b> From the west via M180 Junction 1, A18, site access	Sheffield Rotherham Doncaster Worksop	14.4%
<b>Route 3:</b> From the south via A161, A18, site access	Gainsborough	2.4%
<b>Route 4:</b> From the east via A18, site access	Scunthorpe	29.7%
<b>Route 5:</b> From the east via M180 Junction 2, A161, A18, site access	Grimsby	8.3%

- 4.28 As shown, the route proposed by the Applicant that would have the greatest impact on the SRN is Route 1, which assumes that 45.2% of workforce trip generation will route through M180 Junction 2.
- 4.29 The JSJV has conducted a high-level review of the trip assignment proposed by the Applicant and found Route 1 to be robust. However, the Route 5 assessment is not considered appropriate due to the low percentage of traffic projected to use M180 Junction 2. Therefore, it is recommended that the assessment of traffic impact during the construction period be carried out using Route 1.
- 4.30 Regarding the assignment of the HGV trips during the construction period, the Applicant notes that all HGV traffic will access the site via M180 Junction 2, the A161, and the A18.
- 4.31 Considering the above information and the hourly trip generations forecast by the Applicant during the peak months of the construction period, there would be a total of 122 two-way trips during the AM localised peak hour and 152 two-way trips during the PM localised peak hour for construction staff and HGVs combined, that will route through the M180 Junction 2 during the peak construction months. Similarly, for the standard peak hours, the Applicant estimates 30 two-way movements in the AM peak and 41 two-way movements in the PM peak that will route through the M180 Junction 2 during the peak construction months.
- 4.32 The Applicant highlights that the movement of HGVs between the construction site and the M180 will be regulated by a HGV routing plan, which will form part of the Construction Traffic Management Plan (CTMP) to be prepared by the appointed contractor. The Applicant intends to submit a Framework CTMP as part of the DCO application.
- 4.33 The JSJV supports the aforementioned approach. Furthermore, given the short duration of the peak construction period and the fact that Google Maps data indicate no congestion issues at the relevant SRN junctions during the AM and PM peak hours,

<sup>11</sup> Source: Technical Note

the JSJV does not consider it necessary to request any further assessments from the Applicant.

- 4.34 However, we would add that the CTMP should be provided to National Highways for review and agreement in writing prior to commencement of construction. Construction will then be expected to proceed in accordance with the approved CTMP.
- 4.35 We also recommend that the CTMP provide guidance on using routes that have the least impact on the SRN and consider measures to avoid construction traffic during peak periods.

*Operational Trip Distribution and Assignment*

- 4.36 The Applicant notes that the route to be used by operational workers is not currently known. Therefore, a conservative approach has been taken by assuming that all staff trips will be distributed across all assessed road links simultaneously. For the purposes of a worst-case scenario assessment, it is also assumed that all 15 weekly HGVs will access the site on the same day. The JSJV welcomes this approach.
- 4.37 The above assumptions indicate that, during the operational phase of the proposed development, there could be 17 two-way trips in both the AM and PM peak hours routing through M180 Junction 2. This number of trips is modest and would not raise concerns regarding the safe and efficient operation of the SRN.

*SRN Impact Assessment*

- 4.38 The Applicant has assessed the potential impact on both the M180 and M181 and anticipates that no trips will occur on the M181 or pass through M180 Junction 3.
- 4.39 The trips the Applicant suggests will use the M180 Junction 2 are presented in **Table 9**.

*Table 9. Trips routing through the SRN – Peak Construction Phase (Applicant)<sup>12</sup>*

Location (on the M180)	Direction	AM peak hour	PM peak hour
M180 (east of Junction 2)	Eastbound	0	4
	Westbound	21	0
M180 (west of Junction 2)	Eastbound	117	5
	Westbound	5	25

- 4.40 The Applicant concludes that the level of additional traffic generated by the proposed development during the construction and operational phases that will route through the M180 is not deemed significant and therefore would not have an impact on the operation of the M180.
- 4.41 While the JSJV notes that the trips listed in **Table 9** do not align with the trips previously identified as routing through M180 Junction 2 in earlier sections of this TM03, and acknowledges that the traffic impact on the SRN during the peak construction period will be significant, no further information is required from the Applicant beyond the CTMP, due to the limited duration of the construction period.

<sup>12</sup> Source: Technical Note

- 4.42 The JSJV agrees with the Applicant's conclusion that the trips generated during the operational phase of the development will not have a significant impact on the SRN. However, we would reiterate that further details in regard to the number of potential temporary/ contractor employees that might be required by the proposed development during operation (outages, etc) must be provided, together with clarification whether potential development design changes could affect the trip generation of the proposed development.
- 4.43 The JSJV would recommend that a Requirement of the DCO is in place to secure the provision of a DEMP. Further, we would recommend that a Requirement is imposed to secure the provision of a Decommissioning Traffic Management Plan [DTMP]. The impact of the proposed development on the safe and efficient operation of the SRN during the decommissioning phase will need to be considered.
- 4.44 Lastly, we would note that the Applicant must reference the latest version of transport guidance when preparing documentation in support of the planning application.

# Record of meeting

## Meeting details

Date	12/8/25
Time	10:30am
Location	Teams meeting
Organisation	National Highways
Attendees	<ul style="list-style-type: none"> <li>██████████ JSJV<sup>1</sup> on behalf of National Highways</li> <li>██████████ JSJV on behalf of National Highways</li> </ul>
Meeting purpose	Feedback from Environment Agency on revised Trip Generation and Impact Summary shared in July 2025

## Actions summary

Action	Assigned to
DM agreed to include a full monthly profile of construction worker trips in the TS, rather than just the peak month.	DM (Arup)
DM agreed to provide details on parking in the TS, noting that construction worker parking would need to remain flexible to respond to the varying size of the workforce during the programme.	DM (Arup)
DM noted that a DEMP and DTMP would be a Requirement of the DCO, and this would be noted in the ES and TS.	DM (Arup)

## Meeting notes

Topic	Comment
Feedback on Trip Generation Summary	DM thanked JSJV/NH for its written response dated 30 July 2025 to the Trip Generation Summary Technical Note, and noted NH's overall agreement that the impact of the Proposed Development would not have an adverse impact on the operation of the highway network. For the purpose of the meeting, DM focussed on the five Technical Summary points included in the JSJV/NH response. These are:

<sup>1</sup> Jacobs Systra Joint Venture

- 
- The Applicant should specify the number of parking spaces to be provided as part of the proposed development, for both the construction and operational phases of the proposed development.  
**Meeting discussion:** DM noted that this detail would be provided in the Transport Statement (TS), detailing that construction worker parking would need to remain flexible to respond to the varying size of the workforce during the programme. It was also noted and agreed that given the distance between the A18 and the construction site, there would not be any adverse parking impacts on the A18. JSJV/NH accepted this position.
  - The Applicant should provide a breakdown of the traffic generation for the entire construction period, rather than just for the peak period.  
**Meeting discussion:** DM agreed to this request and noted that NLC had made a similar request as well as requesting a graph of the monthly profile for construction vehicle movements. This will be detailed in the TS, which JSJV/NH welcomed.
  - The Applicant should provide details in regard to the number of potential temporary/contractor employees that might be required by the proposed development during the operational phase. The Applicant should also clarify the proportion of administrative staff versus operational staff to be working at the proposed development.  
**Meeting discussion:** DM noted that the overall number of operational workers have been accounted for but that the exact breakdown would be refined as the scheme progresses. JSJV/NH noted that the overall operational workforce is expected to be low and accepted there would be no impacts. JSJV/NH noted the potential increase in the operational traffic during outages, but accepted this would be significantly lower than the peak of construction traffic and therefore did not warrant further assessment.
  - The Applicant should clarify whether potential development design changes could affect the trip generation of the proposed development.  
**Meeting discussion:** DM noted that design changes are not anticipated currently and any changes that do materialise are not expected to change the trip generation to a significant level.
  - The JSJV would recommend that a Requirement of the DCO is in place to secure the provision of a DEMP. Further, we would recommend that a Requirement is imposed to secure the provision of a Decommissioning Traffic Management Plan [DTMP].
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- **Meeting discussion:** DM indicated that both a DEMP and DTMP would be secured via Requirement to the DCO.

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AOB and next meeting

DM noted that further meetings can be held, if needed, once the DCO has been submitted and NH has reviewed the full suite of submission documents.

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