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## 14.0 TRAFFIC AND TRANSPORT

### 14.1 Introduction

14.1.1 This chapter of the Environmental Statement (ES) addresses the potential effects of the Proposed Development near Eggborough, North Yorkshire on traffic and transport.

14.1.2 This chapter is supported by Appendix 14A (Transport Assessment) provided in ES Volume III.

### 14.2 Legislation and Planning Policy Context

#### *Planning Policy Context*

14.2.1 This section outlines the planning policy relating to traffic and transport. A full overview of all relevant planning policy is covered in Chapter 7: Legislative Context and Planning Policy Framework, which also sets out the primacy of National Policy Statements (NPS) in decision-making on nationally significant infrastructure projects (NSIPs) such as the Proposed Development.

#### National Planning Policy

##### **National Policy Statement for Energy (NPS EN-1)**

14.2.2 The National Policy Statement (NPS) EN-1 (Department for Energy and Climate Change (DECC), 2011a) was published in 2011. Section 5.13 outlines the planning policy for traffic and transport, including guidance on the carrying out of the relevant parts of the Environmental Impact Assessment (EIA) (which has been taken into account in producing this ES). The most relevant paragraphs for the Transport Assessment (Appendix 14A, ES Volume III) are 5.13.2 to 5.13.4 which state:

*“5.13.2 The consideration and mitigation of transport impacts is an essential part of Government’s wider policy objectives for sustainable development as set out in Section 2.2 of this NPS.*

*5.13.3 If a project is likely to have significant transport implications, the applicant’s ES (see Section 4.2) should include a transport assessment, using the NATA/WebTAG139 methodology stipulated in Department for Transport guidance, or any successor to such methodology. Applicants should consult the Highways Agency and Highways Authorities as appropriate on the assessment and mitigation.*

*5.13.4 Where appropriate, the applicant should prepare a travel plan including demand management measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by public transport, walking and cycling, to reduce the need for parking associated with the proposal and to mitigate transport impacts.”*

14.2.3 In terms of decision making, Section 5.13 of NPS EN-1 states that the Secretary of State should ensure that the applicant has sought to mitigate the impacts on the surrounding road infrastructure that may occur as a result of a new energy NSIP. Where the proposed mitigation measures are insufficient to reduce the impact on the transport infrastructure to acceptable

levels, the Secretary of State should consider requirements to mitigate the adverse impacts on transport networks arising from the development and could include:

- demand management measures;
- water-borne or rail transport, where cost effective;
- attaching conditions to a planning consent where there is likely to be substantial HGV traffic.

#### **National Policy Statement for Fossil Fuel Electricity Generating Infrastructure (NPS EN-2)**

14.2.4 Section 2.2 of NPS EN-2 (DECC, 2011b) outlines the planning policy for traffic and transport specifically in respect of fossil fuel generating stations such as the Proposed Development. The relevant paragraphs for the Transport Assessment are 2.2.5 and 2.2.6 which state:

*“2.2.5 New fossil generating stations need to be accessible for the delivery and removal of construction materials, fuel, waste and equipment, and for employees.*

*2.2.6 Government policy encourages multi-modal transport and materials (fuel and residues) may be transported by water or rail routes where possible. Applicants should locate new fossil generating stations in the vicinity of existing transport routes wherever possible. Although there may in some instances be environmental advantages to rail or water transport, whether or not such methods are viable is likely to be determined by the economics of the scheme. Road transport may be required to connect the site to the rail network, waterway or port. Any application should therefore incorporate suitable access leading off from the main highway network. If the existing access is inadequate and the applicant has proposed new infrastructure, the IPC should satisfy itself that the impacts of the new infrastructure are acceptable as set out in Section 5.13 of EN-1.”*

#### **National Planning Policy Framework**

14.2.5 In March 2012, the Government published the National Planning Policy Framework (NPPF) (Department for Communities and Local Government (DCLG), 2012). The NPPF sets out the Government’s planning policies for England.

14.2.6 The NPPF refers explicitly to the five guiding principles of sustainable development in the Government’s document ‘*Securing the Future*’:

- living within the planet’s environmental limits;
- ensuring a strong, healthy and just society;
- achieving a sustainable economy;
- promoting good governance; and
- using sound science responsibly.

14.2.7 The NPPF (paragraphs 28 – 41) states that the transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how to travel. The policy states that local authorities should support a pattern of development, which, where reasonable to do so, facilitates the use of sustainable modes of transport. Plans and decisions should ensure that developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised.

- 14.2.8 The NPPF recommends that a Transport Statement (TS) or Transport Assessment (TA) should support all developments that generate significant amounts of movement and that development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

#### Local Planning Policy

##### **North Yorkshire Local Transport Plan 2016 - 2045**

- 14.2.9 The Local Transport Plan (LTP) was adopted by North Yorkshire County Council (NYCC) in April 2016. The LTP covers a 30 year period from 2016 – 2045. The plan builds on the previous plans and sets out how NYCC will manage, maintain and improve the transport system for the benefit of people living and travelling in the county. The objectives of the LTP in relation to traffic and transport can be summarised as:

- economic growth: contributing to economic growth by delivering reliable and efficient transport networks and services;
- road safety: improving road and transport safety;
- access to services: improving equality of opportunity by facilitating access to services;
- environment and climate change: managing the adverse impact of transport on the environment; and
- healthier travel: promoting healthier travel opportunities.

- 14.2.10 No significant transport improvement schemes are proposed in the LTP that are relevant to the Proposed Development.

##### **Selby District Core Strategy Local Plan**

- 14.2.11 The Selby District Core Strategy was adopted in October 2013 and provides a long-term strategic vision for how the District will be shaped by setting out a number of broad policies to guide development.

- 14.2.12 The objectives of the core strategy in relation to transport can be summarised as:

- concentrating new development in the most sustainable locations, where reasonable public transport exists, and taking full account of local needs and environmental, social and economic constraints; and
- minimising the need to travel and providing opportunities for trips to be made by public transport, cycling and walking.

##### **Minerals and Waste Joint Plan**

- 14.2.13 As described in Chapter 7: Legislative Context and Planning Policy Framework, NYCC, North York Moors National Park and the City of York Council is preparing a Minerals and Waste Joint Plan. The Plan is at a relatively advanced stage with a Publication Draft having been published in November 2016. The existing rail head at the Eggborough coal-fired Power Station site is safeguarded under Policy S04 'Transport infrastructure safeguarding' of the Minerals and Waste Joint Plan.

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### ***Other Guidance***

#### **Planning Practice Guidance**

- 14.2.14 Planning Practice Guidance titled 'Travel plans, transport assessments and statements in decision-taking' was published in March 2014 on the Government planning guidance planning portal (DCLG, 2014) and has been used to inform the transport assessment.

#### **Guidelines for the Environmental Assessment of Road Traffic**

- 14.2.15 The Guidelines for the Environmental Assessment of Road Traffic were published in 1993 by the Institute of Environmental Assessment. The guidelines provide a basis for a comprehensive and consistent approach to the appraisal of traffic and transport impacts. Extensive reference has been made to these guidelines throughout the preparation of this chapter.

#### **Department for Transport Circular 02/2013: The Strategic Road Network and the Delivery of Sustainable Development**

- 14.2.16 Circular 02/2013 was published in September 2013 by the Department for Transport which sets out the way in which Highways England will engage with the development industry to deliver sustainable development and, thus, economic growth, whilst safeguarding the primary function and purpose of the strategic road network and has been used to inform the transport assessment.

#### **The Strategic Road Network: Planning for the Future**

- 14.2.17 The Strategic Road Network: Planning for the Future 'A guide to working with Highways England on Planning Matters' published by Highways England in September 2015 offers advice and information regarding the information it expects to see within a planning proposal and has been used to inform the transport assessment.

### **14.3 Assessment Methodology and Significance Criteria**

#### ***Overview***

- 14.3.1 A scoping exercise has been held with North Yorkshire County Council and Highways England to agree the appropriate scope and methodology for assessment. This is discussed within the Transport Assessment (Appendix 14A, ES Volume III) with minutes of the scoping meetings held included within Annex A (Appendix 14A, ES Volume III).
- 14.3.2 The environmental impact of the development generated traffic has been assessed with reference to the 'Guidelines for the Environmental Assessment of Road Traffic' published by the Institute of Environmental Assessment (1993). In accordance with guidance, issues including severance, driver delay, pedestrian amenity and delay, accidents and safety associated with the Proposed Development have been investigated and are reported below. For the purposes of this chapter no allowance has been made for the delivery of construction materials by rail (in order to assess the 'worst case' construction road traffic impact), but the contractor will review options for the use of rail when sourcing construction materials.

- 14.3.3 Any likely significant environmental effects relating to noise and vibration and air pollution, generated by traffic from the Proposed Development are considered in Chapters 8: Air Quality and 9: Noise and Vibration of this ES.

#### ***Key Parameters for Assessment***

- 14.3.4 The maximum and minimum parameters adopted for building sizes within the Rochdale Envelope defined for the Proposed Development do not have any material impact on vehicle numbers accessing the Site and therefore are not considered further in this assessment. Similarly where flexibility is to be retained in the application, any changes are unlikely to have a material difference on the volumes of traffic accessing the Site during construction or operation.

#### ***Extent of Study Area***

- 14.3.5 The study area scope of this assessment has been defined by reference to the 'Guidelines for the Environmental Assessment of Road Traffic' (Institute of Environmental Assessment (IEA), 1993). The guidelines set out two rules as follows:

- Rule 1 – include highway links where traffic flows are predicted to increase by more than 30% (or where the number of Heavy Goods Vehicles (HGVs) is predicted to increase by more than 30%); and
- Rule 2 – include any other specifically sensitive areas where the traffic flow (or HGV component) are predicted to increase by more than 10%.

- 14.3.6 Traffic effects are set out in Section 14.6 of this chapter. The road links that have been considered in determining if the above rules are satisfied are listed below and shown on Figure 3.2 in Chapter 3: Description of the Site:

- A19, south of the existing coal-fired power station main entrance;
- A19, north of the existing coal-fired power station main entrance;
- Wand Lane, east of Hensall Gate entrance;
- West Lane, between A19 and the Proposed AGI location;
- Millfield Road, east of Chapel Haddlesey to the Proposed Gas Connection corridor; and
- Fox Lane, east of the A19 to the proposed temporary access to the Proposed Gas Connection corridor.

#### ***Sensitivity of Receptors***

- 14.3.7 The sensitivity of a road or the immediate area through which it passes can be defined by the type of user groups who may use them. Vulnerable users will include elderly residents and children. It is also necessary to consider footpath and cycle route networks that cross the roads within the study area.
- 14.3.8 A desktop exercise has been undertaken to classify the sensitivity of the routes within the study area. Table 14.1 below identifies the links, the assigned sensitivity rating and the justification:

**Table 14.1: Sensitivity of receptors**

Link no.	Link description	Link sensitivity	Rationale
1	A19 (south of existing coal-fired power station main entrance)	Very low	The two-lane single carriageway A19 between the existing main entrance and the M62 grade-separated roundabout passes through largely open country. Any frontage development is industrial in nature. There are no pedestrian facilities along the road.
2	A19 (north of existing coal-fired power station main entrance)	Medium	The two-lane single carriageway A19 between the existing coal-fired power station main entrance and the A63 roundabout passes through largely open country. However the A19 does pass through the villages of Chapel Haddlesey and Burn with residential development fronting onto the A19. Pedestrian footway facilities are provided at certain points along the route including between the A63 roundabout and Burn village and between Wand Lane and the bus stops on the A19 opposite the existing coal-fired power station main entrance.
3	Wand Lane (west) of Hensall Gate entrance)	Very low	The two-lane single carriageway Wand Lane between the A19 junction and the Hensall Gate entrance passes through open country. There are no pedestrian facilities along the road
4	West Lane (between A19 and the Proposed AGI location)	Medium	The two-lane single carriageway has a width of approximately 6 m as it passes residential properties on either side. A pedestrian footway is provided along the northern side of West Lane with footways provided intermittently along the southern side of the carriageway. As West Lane leaves Burn village in a south-westerly direction, the carriageway narrows to a single lane of approximately 3 m for 300 m as it passes Top House Farm to the west of Burn village. The carriageway then widens again to approximately 5 m as it crosses the East Coast Mainline via a railway bridge.
5	Millfield Road (east of Chapel Haddlesey to the Proposed Gas Connection corridor)	Medium	Millfield Road passes through the village of Chapel Haddlesey with residential properties fronting onto the carriageway for a distance of approximately 300 m. Pedestrian footways are provided either side of Millfield Road between the A19 and the church. Beyond the church the road passes through open country where no pedestrian

Link no.	Link description	Link sensitivity	Rationale
			facilities are provided.
6	Fox Lane (between A19 and the Proposed Gas Connection corridor construction access to the east)	Very low	Fox Lane is a narrow country lane and has a width of approximately 3 m between the A19 and the bend located approximately 50 m to the east. The only frontage development on this section of road is Lodge Farm which is accessed from Fox Lane. There are no pedestrian facilities along the road.

### Assessment Methods

14.3.9 The assessment methodology adopted in this chapter, as contained in the document ‘Guidelines for the Environmental Assessment of Road Traffic’ (IEA, 1993), is recognised as the industry standard methodology for the assessment of traffic and highway impacts. The guidelines outline the issues and the respective changes in volume and composition of traffic regarded as necessary before each issue results in traffic and transport impacts.

14.3.10 Due to uncertainties regarding the timescales for decommissioning and demolition of the existing coal-fired power station, the traffic and transport assessment has assumed a ‘worst case’ for each assessment scenario as follows:

- Construction phase (2019 – 2022) – the assessment assumes the peak of demolition (in terms of traffic generation) of the existing coal-fired power station could coincide with the peak of construction (in terms of traffic generation) of the Proposed Development;
- Opening phase (2022) – the assessment assumes the peak of demolition (in terms of traffic generation) of the existing coal-fired power station could coincide with the start of operation of the Proposed Development;
- Operational phase (2022) – the assessment assumes demolition of the existing coal-fired power station has been completed, so the traffic impact is from the Proposed Development’s operation only (note 2022 is used for the transport assessment of operational effects without concurrent demolition of the existing coal-fired power station, rather than 2037 as in other technical assessment chapters, because an earlier year is a worst case in traffic terms as lower base flows mean the impact of the Proposed Development would comprise a greater percentage change); and
- Decommissioning (2047).

14.3.11 The following are likely to be susceptible to changes as a result of the Proposed Development.

#### Severance

14.3.12 Severance occurs in a community when a major artery separates people from places and other people. Severance occurs from difficulty of crossing a road or where the road itself creates a physical barrier. Severance can be caused to pedestrians or motorists.

14.3.13 The Guidelines (IEA, 1993) suggest that changes in total traffic flow of 30%, 60% and 90% will result in slight, moderate and substantial changes in severance respectively.

### Pedestrian Amenity

- 14.3.14 Pedestrian amenity is broadly defined as the relative pleasantness of a journey, and is considered to be affected by traffic flow, traffic composition, pavement width and separation between vehicles and pedestrians. The impact manifests itself in fear and intimidation, exposure to noise and exposure to vehicle emissions.
- 14.3.15 The Guidelines (IEA, 1993) suggest that a doubling or halving of total traffic flow or the HGV composition could lead to perceptible negative or positive impacts upon pedestrian amenity.

### Fear and Intimidation

- 14.3.16 The volume of traffic and its HGV composition are the factors that contribute to fear and intimidation. In the absence of thresholds set out in the guidance, this ES considers that changes in total traffic flow of 30%, 60% and 90% are considered to result in slight, moderate or substantial impacts.

### Highway Safety

- 14.3.17 Highway safety is assessed by the frequency and severity of injury accidents that are attended by the police and recorded in official accident statistics. Intensification of use or changes in the composition of traffic has the potential to have an effect on collision rates.
- 14.3.18 The examination of recent collision statistics on routes within the study area will highlight any hotspots that need further examination.

### Driver Delay

- 14.3.19 The use of industry standard junction capacity modelling programs provides a methodology to quantify junction delay. Driver delay is only likely to be significant where the existing study area highway network is at or close to capacity.

### ***Significance Criteria***

- 14.3.20 Using the information set out above, the magnitude of impacts is defined as set out in Table 14.2.

**Table 14.2: Traffic and transport assessment framework – magnitude of impacts**

Type of impact	Magnitude of impact			
	Very low	Low	Medium	High
Severance	Change in total traffic flow of <30%	Change in total traffic flow of 30% to 60%	Change in total traffic flow of 60% to 90%	Change in total traffic flow of >90%
Pedestrian amenity	Change in traffic flow (or HGV component) < 50%.	Change in traffic flow (or HGV component) of 51% to 100%.	Change in traffic flow (or HGV component) of 101% to 150%.	Change in traffic flow (or HGV component) of > 151%.

Type of impact	Magnitude of impact			
	Very low	Low	Medium	High
Fear and intimidation	Change in total traffic flow of <30%	Change in total traffic flow of 30% to 60%	Change in total traffic flow of 60% to 90%	Change in total traffic flow of >90%
Highway safety	Magnitude of impact derived using professional judgment informed by the frequency and severity of collisions within the study area and the forecast increase in traffic			
Driver delay	Magnitude of impact derived using professional judgment informed by the increase in vehicle delay and whether a junction is at, or close to capacity			

14.3.21 By combining the receptor sensitivity with the magnitude of impact using the assessment matrix shown in Table 14.3, the effects are classified as negligible, minor, moderate or major (adverse or beneficial).

**Table 14.3: Classification of effects**

Magnitude of impact	Sensitivity/ importance of receptor			
	High	Medium	Low	Very low
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Very low	Minor	Negligible	Negligible	Negligible

14.3.22 Only moderate and major effects are considered to be 'significant' for the purposes of the EIA Regulations; minor and negligible effects are 'not significant'.

#### ***Sources of Information/ Data***

14.3.23 As set out in further detail in the Transport Assessment at Appendix 14A, a series of 7-day automated traffic counts (ATCs) were undertaken between Tuesday 18<sup>th</sup> October 2016 and Monday 24<sup>th</sup> October 2016 and Friday 3<sup>rd</sup> March 2017 to Thursday 9<sup>th</sup> March 2017 to provide a baseline for comparison on the following roads:

- A19 (north of M62 Junction 34);
- A19 (north of Wand Lane);
- Wand Lane;
- Millfield Road;
- Fox Lane; and
- West Lane.

14.3.24 In addition to the ATC counts, it was agreed with NYCC that the impact of the Proposed Development would be examined at the following junctions on the local highway network for the overall network morning (AM) and evening (PM) peak hours:

- A19 / A645 Weeland Road;
- A19 / existing main power station entrance;
- A19 / Wand Lane;
- Wand Lane / Hensall Gate entrance; and
- A63 / A19.

14.3.25 Furthermore, it was agreed with Highways England that the impact of the Proposed Development would be reviewed at the A19 / M62 Junction 34 grade separated roundabout junction.

14.3.26 The junction surveys were undertaken on Tuesday 18th October 2016 between the hours of 07:00 and 19:00 hours, apart from the existing coal-fired power station site entrances which were surveyed on Thursday 3rd November 2016.

14.3.27 In addition the impact of the Proposed Gas Connection pipeline construction has been examined at the following junctions on the local highway network during the time periods 06:00 – 07:00 and 19:00 – 20:00 which coincide with construction workers start and finish times:

- A19 / West Lane / Brick Kiln Lane;
- A19 / Fox Lane; and
- A19 / Millfield Road.

14.3.28 The junction surveys were undertaken on Wednesday 1<sup>st</sup> March 2017 between the hours of 06:00 – 10:00 and 16:00 – 20:00.

### **Consultation**

14.3.29 A summary of the consultation responses specific to traffic and transport that have been received is provided in Table 14.4 below.

**Table 14.4: Consultation summary table**

<b>Consultee</b>	<b>Date (method of consultation)</b>	<b>Summary of consultee comments</b>	<b>Summary of response/how comments have been addressed</b>
NYCC	August 2016 (telephone conversation)	NYCC agreed to the traffic count locations proposed by AECOM	Traffic counts were commissioned by AECOM in October 2016.
	3rd November 2016 (meeting)	Meeting held to discuss and agree the scope of the TA. NYCC indicated that the scope was acceptable however the following points were raised for	Full details provided within the TA (see Appendix 14A (ES Volume III)).

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/ how comments have been addressed
		<p>consideration during the assessment of the scheme and for inclusion in the TA where necessary:</p> <p>The assignment of gas pipeline trips, particularly HGV trips through Burn, was identified by NYCC as a sensitive issue which will require careful analysis and mitigation within the TA;</p> <p>The workforce and shift times of the CCGT once operational should be set out within the TA;</p> <p>A Construction Traffic Management Plan is likely to be the main mitigation measure. NYCC expects that the Construction Traffic Management Plan (CTMP) will be addressed as part of the Statement of Common Ground.</p>	
	<p>24th November 2016 (email)</p>	<p>Email conversation held to discuss the construction of the Proposed Gas Connection including routing pipelines within the highway which would require temporary traffic management and / or closure of Wand Lane, access to the Above Ground Installation (AGI) via West Lane and providing an alternative access to the AGI and pipeline construction west of the A19 directly off the A19.</p> <p>NYCC provided the following comments:</p> <p>No issues in closing Wand Lane for a short time period. A diversion route via the A645 is the more appropriate route. A Temporary Traffic Regulation Order (TTRO) will need to be prepared and notices submitted.</p> <p>Concern regarding possible</p>	<p>Full details on construction of the Proposed Gas Connection provided within the TA (see Appendix 14A (ES Volume III)).</p>

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/ how comments have been addressed
		<p>damage to the highway edge on West Lane and suggest this is monitored and repaired as necessary especially on the narrow section of the road. The management of deliveries is essential and off street parking must be made available for contractors vehicles at the AGI once established.</p> <p>NYCC are comfortable with a construction vehicle access being provided off the A19 either utilising the existing entrance to Burn Lodge Farm or via a temporary access directly to the south of Burn Lodge Farm. However their preference would be the use of the Burn Lodge Farm entrance. NYCC has no concerns regarding the risk of fogging on the A19, based on the fact that the risk of a visible plume from the Proposed Development’s cooling towers is around 0.1% (i.e. may occur once every three years) for a hybrid cooling tower.</p>	
	<p>February 2017 (formal response to consultation on PEI Report)</p>	<p>Construction workers accessing the Site need to be considered especially at the peak of construction. Other types of transport should be considered to those working at the power station to lessen the impact on the road network;</p> <p>A645 / A19 roundabout to be closed to allow signs to be removed and re-installed and allow the AIL to make its way across the roundabout.</p> <p>Gas pipeline construction access points will need LHA approval.</p>	<p>This is be considered within the Framework CWTP (see Appendix 14A in ES Volume III);</p> <p>Agreed. This is considered within the Framework CTMP (see Appendix 14A in ES Volume III);</p> <p>Full details on construction access points are included within the TA (see</p>

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/how comments have been addressed
		<p>Crashmap Data is generally not up to date though the information is generally accurate.</p> <p>Traffic Management and Travel Plan are to be introduced as part of the application with the purpose of reducing travel as much as possible.</p>	<p>Appendix 14A (ES Volume III);</p> <p>Further accident data has been supplied by Paul Roberts covering the extents of West Lane, Millfield Road and Fox Lane for the period 1<sup>st</sup> Jan 2012 – 31<sup>st</sup> Dec 2016.</p> <p>Framework CWTP and CTMP are included in Appendix 14A (ES Volume III). These will be finalised prior to construction in accordance with draft DCO Requirements.</p>
	<p>May 2017 (comments on the Draft Transport Assessment, Framework Construction Worker Travel Plan and Framework Construction Traffic Management Plan)</p>	<p><b>Framework Construction Traffic Management Plan</b></p> <p>Need to make it clear that all vehicles travel south from the site along the A19 to junction 34 on the M62.</p> <p>Noted that HGVs will be routed along A19 north to the A63 roundabout and then turn 365 degrees and travel back to make a right turn into West Lane. This is likely to be a common manoeuvre and question if it is possible to improve the junction of West Lane to avoid the right turn. If this is not possible we would expect this operation to happen off peak.</p>	<p>This is covered in Section 3 of the Framework CTMP (Appendix 14A, ES Volume III).</p> <p>The volume of HGVs associated with the construction of the AGI is predicted to be a maximum of 4 two-way daily vehicle with materials delivered over two weeks in the first month of construction. Given the temporary period in which deliveries would take place and the minimal number of HGV movements per day, improvements to the junction of West Lane are not considered necessary. HGV movements will be</p>

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/ how comments have been addressed
		<p>What activities are likely to be done outside standard working hours?</p> <p>Area 7 office will need to be consulted as well as Streetworks co-ordinator giving advance warning when work is likely to start. Social media / radio / press may be helpful with this.</p> <p>Monitoring surveys could include any accident data and observations made by the travelling public.</p> <p><b>Framework Construction Workers Travel Plan</b></p> <p>Could parking charges be introduced</p> <p>The target set for parking numbers appear high – could</p>	<p>restricted to taking place outside of the peak hours.</p> <p>This is covered in Section 3 of the Framework CTMP (Appendix 14A, ES Volume III).</p> <p>This is covered in Section 4 of the Framework CTMP (Appendix 14A, ES Volume III).</p> <p>This is covered in Section 5 of the Framework CTMP (Appendix 14A, ES Volume III)</p> <p>EPL are against the introduction of parking charges on-site for the following reasons:</p> <ul style="list-style-type: none"> <li>• inequality – some workers need to arrive by car to carry out their job (i.e. bringing tools to site) and may not have any other choice but to park on-site;</li> <li>• off-site parking – it would encourage workers to park off-site on local roads;</li> <li>• delays on local roads - paying for parking at the Site entrance(s) could lead to vehicles blocking back onto Wand Lane.</li> </ul> <p>A maximum of 480</p>

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/ how comments have been addressed
		<p>these be reduced</p> <p><b>Transport Assessment</b></p> <p>Junctions capacities have been reviewed in the TA and all appear to operate within capacity which is reassuring. However it should be noted that the document has reviewed the construction phase of the development. This was agreed that most traffic would be generated at this stage. That said the site once in operation will have a number of staff working at the site and suggested this is stated in the document to inform people of the numbers reassuring them that the permanent traffic flows will be low especially when comparing to the construction phase.</p> <p>Annex X - Temporary access road is to be an unbound material</p>	<p>spaces to be provided on-site at the peak of construction was derived based on a vehicle occupancy of two per vehicle and was the figure assessed as part of the TA (Appendix 14A in ES Volume III).</p> <p>Providing a lesser number of spaces than this at the peak of construction could lead to parking problems off-site on local roads. It should be noted in Section 6.2 of the Framework CWTP (Appendix 14A, ES Volume III) that the car park will be gradually opened up to make sure that the number of vehicles is controlled.</p> <p>Covered in Section 4 of the TA (Appendix 14A, ES Volume III)</p> <p>This is noted.</p>

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/ how comments have been addressed
		<p>however would want to see the track have a concrete or tarmac base on the approach to the junction. Usually the setback is 20m from the giveway line. Important next to A19.</p>	
<p>Secretary of State</p>	<p>September 2016 (Scoping Opinion)</p>	<p>A full Transport Assessment is required to be undertaken;</p> <p>The ES should detail the transport routes to be used during construction and operational phases;</p> <p>The ES should take account of any public rights of way (including bridleways) that may be affected and minimise hindrance to them where possible.</p> <p>Mitigation measures should be considered such as a travel plan.</p>	<p>Full details provided within the TA (see Appendix 14A (ES Volume III)).</p>
<p>Highways England</p>	<p>4th November 2016 (meeting)</p>	<p>Meeting held to discuss and agree the scope of the TA. Highways England indicated that the scope was acceptable however the following points were raised for consideration during the assessment of the scheme and for inclusion in the TA where necessary:</p> <p>Some elements of clarity would be welcome in relation to HGV movements and any abnormal loads;</p> <p>Some clarification required in relation to routing of specific elements of the distribution;</p> <p>Road safety study area be extended slightly to include the interaction between the M62 junction 34 main line and the on and off slip roads.</p>	<p>Full details relating to HGV movements and abnormal loads provided within the TA (see Appendix 14A (ES Volume III)).</p> <p>Assignment of trips amended as set out in the Highways England email dated 3rd November 2016.</p> <p>Road safety study area amended.</p>

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/ how comments have been addressed
	<p>May 2017 (comments on the Draft Transport Assessment, Framework Construction Worker Travel Plan and Framework Traffic Management Plan</p>	<p>A condition will be imposed in relation to AIL routing</p>	<p>AIL routing is included in the draft DCO Requirement regarding construction traffic management and routing.</p>
<p>Royal Mail</p>	<p>February 2017 (formal response to consultation on PEI Report)</p>	<p>Royal Mail provide the following comments:</p> <p>The ES should include information on the needs of major road users (including Royal Mail) and acknowledges the requirement to ensure that major road users are not disrupted;</p> <p>Royal Mail should be specifically named within the traffic and transport section of the Environmental Statement in the list of transport operators for consultation on usage of the network;</p> <p>Royal Mail is fully consulted by EPL in advance of the preparation of the contractor’s CTMP;</p> <p>Major road hauliers such as Royal Mail are included in the public communications strategy for this scheme;</p> <p>EPL and the appointed contractor to keep Royal Mail fully informed in advance of all temporary road closures and/or delivery of Abnormal Indivisible Loads.</p>	<p>Baseline traffic data and the use of this in assessment will address this request;</p> <p>This request is noted;</p> <p>The Framework CTMP contained in Appendix 14A (ES Volume III). Royal Mail will have the opportunity to comment on this when submitted as part of the DCO application;</p> <p>A local liaison committee will be established in accordance with a draft DCO Requirement.</p> <p>A statutory process is in place for road closures involving newspaper</p>

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/how comments have been addressed
			advertises and site notices and for AIL deliveries involving road signs providing prior notice.
Canal & River Trust	February 2017 (formal response to consultation on PEI Report)	Construction work impacts would be temporary in nature and mostly not in close proximity to any of our stretches of water. We would welcome discussions on any measures which would be implemented to minimise the impacts of construction traffic and other works on those stretches.	Embedded design and mitigation measures such as those included in the Framework Construction Workers Travel Plan (CWTP) and Framework CTMP (see Appendix 14A in ES Volume III) will aim to minimise and control construction traffic.
Network Rail	February 2017 (formal response to consultation on PEI Report)	Concerns regarding any proposed route which would involve access by HGVs via Network Rail assets such as bridges and level crossings. With this in mind, the CTMP must be agreed with our Asset Protection Team in advance of work commencing on site.	A Framework CTMP is included in Appendix 14A (ES Volume III) and a final version will be prepared in accordance with a DCO Requirement..
Burn Parish Council	November/ December 2016 (meeting and letter)	Comments regarding the impacts of construction traffic associated with the construction of the Proposed Gas Connection and AGI on West Lane, Burn.	The Framework CTMP (Appendix 14A, ES Volume III) includes measures to control HGV routing and impacts and the Framework CWTP (Appendix 14A, ES Volume III) includes measures to control the impacts associated with construction staff vehicle movements. These documents will be finalised in accordance with draft DCO Requirements.

### ***Summary of Key Changes to Chapter 14 since Publication of the Preliminary Environmental Information (PEI) Report***

- 14.3.30 The PEI Report was published for statutory consultation in January 2017, allowing consultees the opportunity to provide informed comment on the Proposed Development, the assessment process and preliminary findings through a consultation process prior to the finalisation of this ES.
- 14.3.31 The key changes since the PEI Report was published are summarised in Table 14.5 below.

**Table 14.5: Summary of key changes to Chapter 13 since publication of the PEI Report**

<b>Summary of change since PEI Report</b>	<b>Reason for change</b>	<b>Summary of change to chapter text in the ES</b>
Impacts associated with temporary construction access to the Proposed Gas Connection corridor at Millfield Road, Fox Lane and West Lane have been assessed in more detail, and with reference to additional traffic count data for West Lane, Millfield Road and Fox Lane.	To address comments raised by Burn Parish Council and local residents.	Additional assessment described in paragraphs 14.6.19 to 14.6.26 and in the TA (Appendix 14A in ES Volume III).

## **14.4 Baseline Conditions**

### ***Existing Baseline***

#### Site Location

- 14.4.2 The existing coal-fired power station site, within which the Proposed Power Plant Site, Proposed Borehole Water and Electrical Connections and Proposed Construction Laydown area are located, is approximately 2.5 km north of the M62, which connects to the A19 at Junction 34.
- 14.4.3 The A19 runs north-south along the western boundary of the existing coal-fired power station site, linking to Junction 34 of the M62 to the south at a grade separated roundabout and the A63 to the north at a four-arm roundabout junction. The A19 is a wide single carriageway road (not a trunk road where it passes the existing coal-fired power station) and is subject to the national speed limit adjacent to the existing coal-fired power station. To the north of the existing coal-fired power station site, in the vicinity of the Proposed Cooling Water and Gas Connections, the A19 passes through Chapel Haddlesey and Burn where the speed limit through these villages reduces to 40 mph and 30 mph respectively.

- 14.4.4 Pedestrian footway provision is provided at certain points along the A19 including the western side of the carriageway between the A63 roundabout and Burn village. In addition a footway is provided along the eastern side of the carriageway between Wand Lane and the bus stops located on either side of the A19.
- 14.4.5 In total there are three existing access points to the existing coal-fired power station from the A19; the main power station entrance, the Tranmore Lane access (used for access to the coal stockyard) and the Hensall Gate access from Wand Lane to the north of the existing coal-fired power station site. All three access points have been designed to Highways England's Design Manual for Roads and Bridges (DMRB) (1995) standards and include right turning lanes with good forward visibility.
- 14.4.6 Wand Lane is a single carriageway rural road and runs west to east along the northern boundary of the power station site connecting the A19 with the villages of Hensall, Gowdall and Snaith. The road is subject to a de-restricted speed limit along the site frontage. Access to the power station site from Wand Lane is located approximately 950 metres to the east of the A19 and is accessed via a simple priority junction.
- 14.4.7 Access routes to the Proposed Gas Connection construction corridor are proposed from the A19 via Millfield Road and Fox Lane. Construction access points are also proposed from the A19 via Whitings Lane and a new access south of Burn Lodge Farm, however these access points are not existing highways and therefore have not been assessed.
- 14.4.8 Millfield Road is a single carriageway road and runs west to east through Chapel Haddlesey connecting the A19 with the A1401 at Carlton. The road is subject to a 30 mph speed limit which increases to a de-restricted speed limit to the east of the junction with Fox Lane.
- 14.4.9 Fox Lane is a narrow county lane with a width of approximately 3 m and runs north to south between the A19 and Chapel Haddlesey. The road is subject to a de-restricted speed limit. No pedestrian footways are provided.
- 14.4.10 Access to the Proposed AGI during construction is proposed from West Lane in Burn village. The two-lane single carriageway has a width of approximately 6 m as it passes residential properties on either side. A pedestrian footway is provided along the northern side of West Lane with footways provided intermittently along the southern side of the carriageway. As West Lane leaves Burn village in a south-westerly direction, the carriageway narrows to a single lane of approximately 3 m for c.300 m as it passes Top House Farm to the west of Burn village. The carriageway then widens again to approximately 5 m as it crosses the East Coast Mainline via a railway bridge.

#### Existing Traffic Flows

- 14.4.11 The following highway links form the highway network of interest for this assessment as agreed with North Yorkshire County Council and Highways England during scoping. The scoping meeting notes are included within Annex A of the Transport Assessment (Appendix 14A, ES Volume III):
- A19 (north of M62 Junction 34);
  - A19 (north of Wand Lane);
  - Wand Lane;
  - West Lane;

- Millfield Road; and
- Fox Lane.

14.4.12 Baseline 24 hour annual average daily traffic (AADT) two-way link flows for the study area discussed and agreed with North Yorkshire County Council and Highways England during the scoping stage are provided in Table 14.6 and Table 14.7. Further details of the baseline traffic data are provided in the TA (Appendix 14A, ES Volume III).

**Table 14.6: 2016 baseline traffic flows (24 hour AADT)**

Link no.	Link description	Total vehicles	Total HGVs
1	A19 (north of M62 Junction 34)	13,600	574
2	A19 (north of Wand Lane)	10,907	352
3	Wand Lane	1,039	29

**Table 14.7: 2017 baseline traffic flows (24 hour AADT)**

Link no.	Link description	Total vehicles	Total HGVs
4	West Lane	326	4
5	Millfield Road	901	11
6	Fox Lane	136	2

#### Baseline Accident Record

14.4.13 Personal Injury Accident (PIA) data covering a five year period plus this year (01/01/2011 – 31/10/2016) has been obtained from NYCC. The area of investigation included the extents of the A19 from its junction with the M62 Junction 34 (including slip roads) to its junction with the A63 and Wand Land up to and including its junction with the existing coal-fired power station main entrance. In addition accident data has been obtained from NYCC covering the extents of West Lane, Millfield Road and Fox Lane between the A19 and the gas pipeline construction access points covering the five year period (01/01/2012 – 31/12/2016).

14.4.14 In total, 42 accidents were recorded within the analysed area. Of these, thirty were recorded as 'slight', eight as 'serious' and four 'fatal'. Table 14.8 summarises the accidents that have occurred over the specified period.

**Table 14.8: Summary of recorded accidents (01/01/2011 to 31/12/2016)**

Location	Accident severity			
	Slight	Serious	Fatal	Total
M62 Junction 34	4	2	1	7
A19 (between M62 and A645)	2	2	0	4
A19 / A645 junction	3	0	0	3
A19 (between A645 and Wand Lane)	4	1	0	5
A19 / Wand Lane junction	1	1	0	2
Wand Lane	1	0	0	1
A19 (between Wand Lane and A63)	6	2	1	9
A19 / A63 junction	7	0	1	8
West Lane	1	0	0	1
Millfield Road	1	0	0	1
Fox Lane	0	0	1	1
<b>Total</b>	<b>30</b>	<b>8</b>	<b>4</b>	<b>42</b>

14.4.15 As can be seen from Table 14.8, the A19 between the M62 Junction 34, and the A63 has a generally low accident record. The cause of the majority of accidents was driver error due to lack of awareness or loss of control. The number of accidents on West Lane, Millfield Road and Fox Lane also show a low accident record with one accident recorded on each link within the last five years. The accident of fatal severity on Fox Lane occurred at the junction with the A19 and involved a motorcycle traveling south on the A19 colliding with a vehicle turning right into Fox Lane. Given the good forward visibility on this section of the A19, it is likely that the accident was down to driver error.

14.4.16 Only one accident took place in which a poor or defective road surface may have been a causation factor. Whilst any one incident is undesirable, it was also reported that the incident might have been due to a loss of control and/ or failing to look properly. As there have been no other reoccurrences of incidents throughout the five year plus study period at this location,

it is considered that the incident is likely to be a unique occurrence that would not be exacerbated by development traffic from the Proposed Development.

### **Future Baseline**

- 14.4.17 Future year baseline traffic flows for the assessment year of 2020 for the peak of construction have been derived by applying the standard Trip End Model Presentation Program (TEMPRO) to the above flows and are indicated in Table 14.9. These growth factors have been taken into account when comparing the baseline and future traffic scenarios.
- 14.4.18 Future year baseline traffic flows for the assessment year of 2021 for the Proposed Gas Connection pipeline and AGI construction have again been derived by applying TEMPRO to the above flows and are indicated in Table 14.9.
- 14.4.19 Future year baseline scenarios are not detailed for 2022 (opening and operational) due to the very low traffic flows generated by the operation of the Proposed Development meaning that a quantitative assessment of operational traffic has not been necessary, with the vehicle numbers generated being significantly lower than experienced during the construction period.

**Table 14.9: TEMPRO traffic growth factors (average day)**

Year	Vehicle type	Growth factor
2016 – 2020 (peak of construction)	All	1.0546
2017 – 2021 (Proposed Gas Connection construction)	All	1.0558

- 14.4.20 Future year baseline traffic flows for the assessment year of 2020 peak of construction are presented in Table 14.10.

**Table 14.10: 2020 baseline traffic flows (24 hour AADT)**

Link no.	Link description	Total vehicles	Total HGVs
1	A19 (north of M62 Junction 34)	14,343	605
2	A19 (north of Wand Lane)	11,503	371
3	Wand Lane	1,096	31

- 14.4.21 Future year baseline traffic flows for the assessment year 2021 for the Proposed Gas Connection pipeline and AGI construction are presented in Table 14.11.

**Table 14.11: 2021 baseline traffic flows (24 hour AADT)**

Link no.	Link description	Total vehicles	Total HGVs
4	West Lane	344	4
5	Millfield Road	951	12
6	Fox Lane	144	2

14.4.22 As agreed with NYCC during the scoping stage, the assessment has had regard to the traffic generated by the following committed developments which are identified in Figure 20.1 (ES Volume II) and described in more detail in Chapter 20: Cumulative and Combined Effects:

- demolition of Eggborough Coal-Fired Power Station;
- Knottingley Power Project;
- Southmoor Energy Centre;
- Thorpe Marsh CCGT Power Station;
- Thorpe Marsh Gas Pipeline;
- Ferrybridge Multifuel 2;
- 55 dwelling residential development, Eggborough;
- 64 dwelling residential development, Eggborough;
- single storey production facility – Saint Gobain glass factory;
- Advanced Thermal Treatment Plant, Eggborough,
- hydro-electricity generation scheme, Chapel Haddlesey;
- proposed solar farm development, Pollington; and
- Kellingley Colliery Business Park.

14.4.23 The total committed development two-way flows for each link road within the agreed study area are shown in Table 14.12.

**Table 14.12: Committed development flows (24 hour AADT)**

Link no.	Link description	Total vehicles	Total HGVs
1	A19 (north of M62 Junction 34)	3,266	543
2	A19 (north of Wand Lane)	2,060	207
3	Wand Lane	0	0

4	West Lane	0	0
5	Millfield Road	0	0
6	Fox Lane	0	0

14.4.24 In addition it should be noted that traffic flows associated with the existing coal-fired power station which is due to cease operation in or before 2019 have been discounted to avoid double counting. These are summarised in Table 14.13.

**Table 14.13: Existing traffic flows associated with coal-fired power station (24 hour AADT)**

Link no.	Link description	Total vehicles	Total HGVs
1	A19 (north of M62 Junction 34)	-568	-37
2	A19 (north of Wand Lane)	-323	-3
3	Wand Lane	-348	-33
4	West Lane	0	0
5	Millfield Road	0	0
6	Fox Lane	0	0

14.4.25 Table 14.14 summarises the future year baseline (i.e. existing baseline traffic, plus growth factor, plus committed development traffic flows, minus coal-fired power station existing traffic) for the assessment year 2020 peak of construction.

**Table 14.14: 2020 Future Baseline (24 hour AADT)**

Link no.	Link description	Total vehicles	Total HGVs
1	A19 (north of M62 Junction 34)	17,041	1,111
2	A19 (north of Wand Lane)	13,240	575
3	Wand Lane	748	0

## 14.5 Development Design and Impact Avoidance

14.5.1 A number of measures are already embedded into the routing and control of construction traffic movements and are taken into account in the analysis of effects presented above. These are:

- management of the site access points to control competing on-site activities – for the purposes of this assessment it is assumed that all construction workers will arrive and depart the site via the Hensall Gate entrance located off Wand Lane, and all construction HGVs will arrive and depart the site via the Tranmore Lane entrance which has historically been used for deliveries associated with the existing coal-fired power station (but this arrangement is not yet fixed); and
- the requirement for any HGV arriving or departing the Proposed Power Plant Site and other parts of the Site within the existing coal-fired power station site to travel to/from the south along the A19 to Junction 34 of the M62.

14.5.2 Traffic associated with the decommissioning and demolition of the existing coal-fired power station is proposed to be separated from the construction and operational traffic associated with the Proposed Development, with the decommissioning and demolition traffic currently expected to use the existing main entrance to the existing coal-fired power station off the A19 (although this is not yet fixed).

14.5.3 The existing coal-fired power station site is rail connected, and alterations to the existing rail infrastructure to enable the Site to remain rail connected following the removal of the majority of the rail loop are described in Chapter 4: The Proposed Development. The feasibility and viability of the use of rail will be considered by the contractor during detailed design and when the source of construction materials is known, but for the purposes of this assessment a 'worst case' assumption is made whereby all materials are assumed to be delivered by road.

## 14.6 Likely Impacts and Effects

### *CCGT Construction*

- 14.6.1 Access to and from the parts of the Site within the existing coal-fired power station for construction workers will be via the existing Hensall Gate entrance located off Wand Lane.
- 14.6.2 The construction period for the Proposed Development is estimated to be approximately 40 months, currently anticipated to commence in early 2019 with a view to being fully operational in 2022 (subject to obtaining necessary approvals).
- 14.6.3 A holistic approach has been undertaken within the Transport Assessment (Appendix 14A, ES Volume III) to identify the peak month of activity combining the workforce associated with construction of the Proposed Development within the existing coal-fired power station and that associated with the Proposed Gas Connection to the north. It is expected that the construction workforce will peak at approximately 1,200 workers per day in Month 18 (i.e. Quarter 2 in 2020). As the proposed construction programme for the Proposed Gas Connection does not begin until Month 22, this does not coincide with the peak of construction in Month 18. Nonetheless the cumulative effects of the Proposed Gas Connection construction on West Lane, Millfield Road and Fox Lane access routes have been considered later in this section. Cumulative effects with the potentially coinciding decommissioning and demolition of the existing coal-fired power station are also considered later in this section, as one of a number of other 'committed developments' within the area.
- 14.6.4 ESA profile of the anticipated daily workforce each month through the construction period is provided in Appendix 14A (ES Volume III). The standard construction working hours for the Proposed Development will be 07:00 to 19:00 Monday to Friday (except bank holidays) and 07:00 to 13:00 on Saturday. Key exceptions to these working hours could include activities that must continue beyond these hours and non-noisy activities with night working if desired. However the traffic impact associated with extending the working hours is not considered material.
- 14.6.5 Based on the agreed methodology contained within the TA (Appendix 14A in ES Volume III), the weekday construction worker shift is likely to generate 515 vehicular trips (one-way) during the AM arrival and PM departure periods at the peak of construction.
- 14.6.6 HGVs delivering construction materials will access the Site from Tranmore Lane located off the A19 with all HGVs arriving and departing the Site to/from M62 Junction 34. The volume of HGVs associated with the Proposed Development on the network is at its maximum of 80 two-way daily vehicle movements (40 in and 40 out) at the peak of construction in Month 18. Deliveries will be made between 08:00 and 18:00 hours.
- 14.6.7 A number of Abnormal Indivisible Load (AIL) movements are expected during the construction programme associated with the delivery of large items of plant and equipment.
- 14.6.8 The ports of Goole, Hull and Immingham are situated near to the Proposed Development. Detailed consideration will be given to the appropriate port and AIL routes during detailed design. However, it is a reasonable expectation that major ports are able to accommodate abnormal loads and that adequate access to the strategic network is achievable. On this basis, only the route from the strategic network to the Site requires assessment.

14.6.9 The AIL route from the strategic network to the Site is as follows:

- exit M62 at Junction 34 to the A19; and
- A19 to the Site.

14.6.10 It is anticipated that the gas turbines will be the largest single component deliveries. As such, swept path analysis has been undertaken for a vehicle capable of transporting a gas turbine, undertaking the right turn manoeuvre onto the A19 on leaving Junction 34 of the M62 and is provided within the Transport Assessment (Appendix 14A, ES Volume III). This demonstrates that delivery of the largest AIL component via the M62 Jct 34 / A19 grade separated roundabout is possible. Once on the A19, the AIL delivery would head north along the A19 towards the Proposed Power Plant Site. The only pinch point along this section of the A19 is where it meets the A645 at a standard four arm roundabout. This would require the AIL delivery having to be driven over the roundabout and will require the temporary removal of street furniture and the necessary support put in place for the AIL to safely negotiate the roundabout. Due to the small number of AIL deliveries, such deliveries can be managed so as not to cause a nuisance to other road users.

14.6.11 Table 14.15 below summarises the expected diurnal profile of construction phase peak traffic levels (see the TA in Appendix 14A (ES Volume III) for further details).

**Table 14.15: Daily construction vehicle profile (peak month of construction)**

Hour beginning	Construction worker vehicles		Construction HGVs	
	Arrival	Departure	Arrival	Departure
00:00	0	0	0	0
01:00	0	0	0	0
02:00	0	0	0	0
03:00	0	0	0	0
04:00	0	0	0	0
05:00	0	0	0	0
06:00	154	0	0	0
07:00	283	0	0	0
08:00	52	0	4	4
09:00	26	0	4	4
10:00	0	0	4	4
11:00	0	0	4	4
12:00	0	0	4	4

Hour beginning	Construction worker vehicles		Construction HGVs	
	Arrival	Departure	Arrival	Departure
13:00	0	0	4	4
14:00	0	0	4	4
15:00	0	0	4	4
16:00	0	26	4	4
17:00	0	77	4	4
18:00	0	386	0	0
19:00	0	26	0	0
20:00	0	0	0	0
21:00	0	0	0	0
22:00	0	0	0	0
23:00	0	0	0	0
<b>Total</b>	<b>515</b>	<b>515</b>	<b>40</b>	<b>40</b>

14.6.12 Based on the agreed vehicle assignment contained within the TA (Appendix 14A, ES Volume II), Table 14.16 summarises the likely changes in link flows within the agreed study area for the assessment year 2020 peak of construction. As detailed in the TA (Appendix 14A, ES Volume III), HGV traffic has been assigned to the most direct route to the strategic network which is the M62 Junction 34 and the A19, and the construction workers assignment has been based on the geographic split of population within a 30 minute drive-time of the construction site.

**Table 14.16: 2020 base + committed + Proposed Development daily two-way traffic flows**

Link no.	Link description	Baseline flow (inc. com dev)		Construction traffic		Percentage increase	
		Total veh.	Total HGVs	Total veh.	Total HGV	Total veh.	Total HGVs
1	A19 (north of M62 Junction 34)	17,041	1,111	894	80	5.2%	7.2%
2	A19 (north of Wand Lane)	13,240	575	154	0	1.2%	0.0%
3	Wand Lane	748	0	1,010	0	135.0%	0.0%

- 14.6.13 It is evident that the change in total traffic associated with the Proposed Development is significantly less than 30% on the A19 (very low impact) and therefore the severance effect is **negligible adverse (not significant)**. In comparison the change in total traffic on Wand Lane is greater than 90% (high impact), due to low current usage of that road, however given the link sensitivity is very low, the overall effect is considered **minor adverse (not significant)**.
- 14.6.14 It is evident that the change in total traffic (or HGV component) is significantly less than 50% on the A19 (very low impact) and therefore the effect for pedestrian amenity is **negligible adverse (not significant)**. In comparison the change in total traffic on Wand Lane is greater than 100% but below 150% (medium impact) however given the link sensitivity is very low with no pedestrian footways provided on this section of Wand Lane, the overall magnitude of effect is considered **negligible adverse (not significant)**.
- 14.6.15 It is evident that the change in total traffic is significantly less than 30% on the A19 (very low impact) and therefore the effect on fear and intimidation is **negligible adverse (not significant)**. In comparison the change in total traffic on Wand Lane is greater than 90% (high impact) however given the link sensitivity is very low, the overall effect is considered **minor adverse (not significant)**.
- 14.6.16 Accident data for the most recent five years has been acquired for the study area and is summarised in Section 14.4. The statistics provide information on the location and severity of each Personal Injury Accident (PIA). Given that the level of increase in traffic flow resulting from the development is negligible, the effect on highway safety is **negligible adverse (not significant)**.
- 14.6.17 The performance of a junction is judged by the ratio of flow to capacity (RFC). As a general guide, a junction operating below a threshold of 0.85 is considered to operate within its design capacity. Junction modelling has been undertaken at key junctions in the vicinity of the Site (the results of which are provided in the TA (Appendix 14A in ES Volume II)) for the AM and PM Peak hours (07:00 – 08:00 and 17:00 – 18:00) and demonstrates that each junction operates within its design capacity in terms of the future baseline and future baseline plus Proposed Development scenarios. Junction modelling therefore leads to the conclusion that the driver delay effect of the Proposed Development will be **negligible adverse (not significant)**.
- 14.6.18 In summary, in line with the significance criteria set out previously, the effects of construction traffic on all road links and junctions within the study area are considered to have a **minor/negligible adverse** effect, all of which are therefore **not significant**. All roads experience less than a 30% increase in either total flows or HGV flows apart from Wand Lane during the peak of construction where a change of 135% is forecast in total daily traffic. However this higher percentage is primarily due to the low number of existing vehicles using Wand Lane. Notwithstanding this the overall effect of development traffic on Wand Lane is minor given the road's very low sensitivity between the Hensall Gate entrance and the A19.

### ***Proposed Gas Connection Construction***

- 14.6.19 Although the traffic associated with the construction of the Proposed Gas Connection falls outside the peak month (Month 18) which is the 'worst case' for construction traffic, traffic associated with the construction of the Proposed Gas Connection has been considered separately in the Transport Assessment (Appendix 14A, ES Volume III). At the start of the construction of the Proposed Gas Connection (around Month 22), when the majority of

materials for the gas connection are anticipated to be delivered to Site over a two week period, up to 40 HGV movements per day are anticipated. The peak of traffic associated with the Proposed Gas Connection is anticipated to be Months 25 and 26, when up to 90 construction worker traffic movements associated with the Proposed Gas Connection are predicted. These construction worker traffic movements would be spread over different parts of the Proposed Gas Connection corridor with one team of approximately 30 workers carrying out construction of the AGI and two teams of around 30 workers engaged in construction of the gas pipeline.

- 14.6.20 It is anticipated that West Lane, Fox Lane and Millfield Road will be utilised by construction worker vehicles during the year 2021. To ensure a robust assessment of the likely impacts of pipeline construction traffic on all three link roads, it has been assumed that a maximum of 60 operatives engaged in pipeline construction would arrive and depart Fox Lane and Millfield Road per day (30 vehicle arrivals and departures). In addition it has been assumed that 30 operatives engaged in AGI construction would arrive and depart via West Lane per day (15 vehicle arrivals and departures). In terms of HGV movements, 5 HGVs per day (10 HGV movements) delivering consumable construction materials are expected along Fox Lane and Millfield Road whilst 2 HGVs per day (4 HGV movements) are expected along West Lane delivering construction materials to the AGI.
- 14.6.21 Table 14.17 summarises the likely changes in link flows on West Lane, Millfield Road and Fox Lane for the assessment year 2021.

**Table 14.17: 2021 base + Proposed Gas Connection construction daily two-way traffic flows**

Link no.	Link description	Baseline flow (inc. com dev)		Construction traffic		Percentage increase	
		Total veh.	Total HGVs	Total veh.	Total HGV	Total veh.	Total HGVs
4	West Lane	344	4	34	4	9.9%	100.0%
5	Millfield Road	951	12	70	10	7.4%	83.3%
6	Fox Lane	144	2	70	10	48.6%	500.0%

- 14.6.22 It is evident that the change in total traffic flow associated with the Proposed Gas Connection construction is significantly less than 30% on West Lane and Millfield Road (very low impact) and therefore the severance effect is **negligible adverse (not significant)**. In comparison the change in total traffic on Fox Lane is greater than 30% but less than 60% (low impact), due to the low current usage of that road, however given the link sensitivity is very low, the overall effect is considered **negligible adverse (not significant)**.
- 14.6.23 It is evident that the change in total traffic (or HGV component) is 100% on West Lane and 83.3% on Millfield Road (low impact) and therefore the effect for pedestrian amenity is considered **minor adverse (not significant)**. In comparison the change in total traffic (or HGV

component) on Fox Lane is greater than 150% (high impact) however given the link sensitivity is very low with no pedestrian footways provided on this section of Fox Lane, the overall magnitude of effect is considered **minor adverse (not significant)**.

- 14.6.24 It is evident that the change in total traffic is significantly less than 30% on West Lane and Millfield Road (very low impact) and therefore the effect on fear and intimidation is assessed to be **negligible adverse (not significant)**. In comparison the change in total traffic on Fox Lane is greater than 30% but less than 60% (low impact) however given the link sensitivity is very low, the overall effect is considered **negligible adverse (not significant)**.
- 14.6.25 Accident data for the most recent five years has been acquired for West Lane, Millfield Road and Fox Lane and is summarised in Section 14.4. The statistics provide information on the location and severity of each Personal Injury Accident (PIA). Given the low or non-existent accident record on these links and the fact that the level of increase in traffic flow resulting from the Proposed Gas Connection construction is negligible, the effect on highway safety is **negligible adverse (not significant)**.
- 14.6.26 The performance of a junction is judged by the ratio of flow to capacity (RFC). As a general guide, a junction operating below a threshold of 0.85 is considered to operate within its design capacity. Junction modelling has been undertaken where West Lane, Fox Lane and Millfield Road connect with the A19 (the results of which are provided in the TA (Appendix 14A in ES Volume II)) for the hours (06:00 – 07:00 and 19:00 – 20:00) that coincide with construction workers arriving and departing the construction site. The results demonstrate that each junction operates within its design capacity in terms of the future baseline plus Proposed Development. Junction modelling therefore leads to the conclusion that the driver delay effect of the Proposed Development will be **negligible adverse (not significant)**.

### ***Opening and Operation***

- 14.6.27 Once operational there will be a maximum of approximately 40 full-time staff working in three shifts (06:00 – 14:00 hours, 14:00 – 22:00 hours and 22:00 – 06:00 hours). In addition there would be around 30 corporate staff based at the site working normal office hours (09:00 – 17:00 hours). Conservatively assuming a car occupancy of 1, this equates to 70 cars per day (140 vehicle movements).
- 14.6.28 In addition, there will be HGV traffic generated by deliveries of operational and maintenance plant and equipment. However this is expected to equate to a maximum of 4 HGVs per day. Fuel for the new power station will be natural gas imported to the Site via pipeline and there will be no vehicular movements associated directly with the transport of gas to the Site. Small quantities of back-up diesel would be delivered by road if refilling of storage tanks was required.
- 14.6.29 Due to the very low traffic flows which result once the Proposed Development is first operational in 2022, the vehicle numbers generated will be significantly lower than experienced during the construction period. The overall effects during operation are therefore considered to be **negligible adverse (not significant)**. This conclusion is valid regardless of whether or not demolition of the existing coal-fired power station is still ongoing in the Opening assessment scenario (2022) as the vehicle numbers generated will continue to be significantly lower than experienced during the construction period. The same conclusion (no

significant effects) applies to the future Operational assessment scenario (2037) when demolition activities would have been completed.

### ***Decommissioning***

- 14.6.30 The activities involved in the decommissioning process for the proposed power plant are not yet known in detail, as it has a design life of around 25 years. There would be expected to be some traffic movements associated with the removal (and recycling, as appropriate) of material arising from demolition and potentially the import of materials for land restoration and re-instatement. However, vehicle numbers are not expected to be any higher than those experienced during the construction period.
- 14.6.31 Current baseline data collected for the purposes of this assessment will not be valid at the year of decommissioning, which is currently unknown. However, as it is unlikely that baseline traffic figures on local roads will reduce appreciably over the next twenty five years, it is considered that the percentage increase in traffic due to decommissioning would be negligible, and that overall the effects of decommissioning traffic would be no greater than that of the construction traffic detailed above. Effects are therefore assessed as likely to be **not significant**.

## **14.7 Mitigation and Enhancement Measures**

- 14.7.1 Assessments have demonstrated that, even during the construction phase of the Proposed Development when traffic will peak, there will be no significant effects to any of the road sections assessed. However, as a matter of good practice, a number of mitigation measures will be implemented.
- 14.7.2 As described in paragraph 14.6.4, the standard construction working hours are expected to be 07:00 to 19:00 Monday to Friday (except Bank Holidays) and 07:00 – 13:00 Saturday, and as such the majority of construction worker traffic is anticipated to avoid the AM and PM peak periods on the local highway network (identified to be 08:00 – 09:00 hours and 17:00 – 18:00 hours).
- 14.7.3 During the construction phase, Eggborough Power Limited (EPL) (the Applicant) will apply the following mitigation measures in respect of the local highways:
- implementation of a Construction Worker Travel Plan (CWTP) aimed at identifying measures and establishing procedures to encourage construction workers to adopt modes of transport which reduce reliance on single occupancy private car use in accordance with a draft DCO Requirement (a Framework CWTP is provided in Appendix 14A (ES Volume III));
  - liaison with the appointed contractor for the potential to implement construction worker minibuses and car sharing options (considered as part of the CWTP);
  - the contractor will be required to prepare a Construction Traffic Management Plan (CTMP) in accordance with a draft DCO Requirement to identify a number of measures to control the routing and impact that HGVs will have on the local road network during construction (a framework CTMP is provided in Appendix 14A (ES Volume III)). It is proposed that all construction HGVs will be required to arrive and depart the site towards the M62 avoiding the villages of Chapel Haddlesey and Burn (with the exception of a small number accessing

the northern parts of the Proposed Gas Connection construction area). A programme of monitoring will be recommended to assess the effectiveness of the measures proposed;

- a pre-construction condition survey of relevant highways to be used during construction will be undertaken, and any necessary repair undertaken after construction, in accordance with a draft DCO Requirement.

## **14.8 Limitations or Difficulties**

14.8.1 No limitations or difficulties have been identified.

## **14.9 Residual Effects and Conclusions**

14.9.1 Residual effects are those predicted following consideration of any proposed mitigation measures. All effects are predicted to be minor/ negligible adverse (not significant), and the mitigation measures set out in Section 14.7 will not reduce the classification of these effects any further.

14.9.2 Traffic increases associated with the construction of the Proposed Development (combined with traffic associated with demolition of the existing coal-fired power station, which could occur concurrently) have been assessed to be minor/ negligible adverse (not significant). The additional traffic due to the Proposed Development construction activities will result in small, temporary, increases of traffic flows, including HGVs, on the roads leading to the Site. In line with the significance criteria presented earlier in this chapter and in the TA (Appendix 14A in ES Volume II), the impacts of construction traffic on all road sections and junctions are considered to be minor/ negligible and not considered to be significant.

14.9.3 Traffic increases associated with the construction of the Proposed Gas Connection have been assessed to be minor / negligible adverse (not significant). The additional traffic on West Lane, Millfield Road and Fox Lane will result in small, temporary increases of traffic flows. In line with the significance criteria presented earlier in this chapter and in the TA (Appendix 14A in ES Volume III), the impacts of pipeline construction traffic on all three road sections and their respective junctions with the A19 are considered to be minor/ negligible and not considered to be significant.

14.9.4 The generation of traffic during operation will be minimal when compared to the construction period and therefore will have an insignificant impact on the local highway network. During the operational phase of the Proposed Development, the potential effects are considered to be negligible and not considered to be significant.

14.9.5 Whilst assessments have demonstrated that, for both the construction and operational phases, there will be no impacts of any significance to any of the road sections assessed, a number of traffic management measures will be implemented to further minimise any traffic increases as a result of the Proposed Development as outlined in Section 14.7.

14.9.6 An assessment of the impact of traffic with regard to noise impacts and emissions to air have been undertaken and are presented in Chapter 9: Noise and Vibration and Chapter 8: Air Quality respectively.

## **14.10** References

Department for Energy and Climate Change (2011a) *National Policy Statement for Energy (EN-1)*

Department for Energy and Climate Change (2011b) *National Policy Statement for Fossil Fuel Electricity Generating Infrastructure (EN-2)*

Department for Communities and Local Government (2012) *National Planning Policy Framework*

Department for Transport (2013) *Circular 02/2013 – The Strategic Road Network and the Delivery of Sustainable Development*

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Highways England (2015) *The Strategic Road Network: Planning for the Future – A guide to working with Highways England on Planning Matters*

Institution of Environmental Management and Assessments (IEMA) (1994) *Guidelines for the Environmental Assessment of Road Traffic*

North Yorkshire County Council (2016) *North Yorkshire Local Transport Plan 2016 – 2045*

North Yorkshire County Council, North York Moors National Park and City of York Council (2016) *Joint Minerals and Waste Local Plan, Publication Version November 2016*

Planning Practice Guidance (2014) *Travel Plans, Transport Assessment and Statements in decision-taking*