

The Wrexham (Gas Fired Power Station) Order

6.4.2 Volume 4: Environmental Statement Appendix 7.5: CTMP

Planning Act 2008 The Infrastructure Planning
(Applications: Prescribed Forms and Procedure) Regulations 2009

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◆ Executive Summary

- 1.1 Wrexham Power Limited (WPL) is proposing to construct, maintain and operate a gas-fired power station on land at Wrexham Industrial Estate (WIE), to the east of Wrexham.
- 1.2 The Scheme includes a Combined Cycle Gas Turbine (CCGT) Power Station. To operate, it will require a connection to the gas transmission network for importing the natural gas fuel, and a connection to the electricity network to export the power generated.
- 1.3 The Power Station Complex Site and the Gas Connection (together they are referred to as the Wrexham Energy Centre ('WEC') or the 'Scheme') have separate consenting requirements. However, the Environmental Statement (ES) assesses both elements in order to identify, insofar as possible, the likely significant environmental effects of the Scheme as a whole. As such, this CTMP also considers the Scheme as a whole.
- 1.4 A description of the Scheme is provided in chapter 4 of the ES. The Power Station Complex would be fuelled by natural gas and would have an electrical generation capacity of up to 299 megawatts (MW_e). The electricity generated would be exported to the local 132kV electrical distribution network currently operated by Scottish Power Energy Networks (SPEN).
- 1.5 The location of the Scheme, which includes the Power Station Complex and Gas Connection (approximately 3.5 km in length) is shown in Figure 2.1 below. The proposed Power Station Complex Site is situated to the immediate north-east of Wrexham Industrial Estate in an area dominated by industrial complexes, to the west and south, and by agricultural land, to the north and east. The Gas Connection Route runs through agricultural land to the south and east of Wrexham Industrial Estate to the Above Ground Installation (AGI) adjacent to the Maelor Gas Works approximately 2.5 km to the south west.
- 1.6 This draft Construction Traffic Management Plan (CTMP) has been developed to provide a framework for the CTMP which will be prepared by the approved contractor for approval by the local authority, Wrexham County Borough Council (WCBC) prior to construction starting.
- 1.7 The preferred Construction Routing Strategy (see chapter 3 of this document) has been outlined for the Scheme, which identifies a route using the recently completed Industrial Estate Road to the north of the industrial estate (Industrial Estate Road (N)) and leading onto Bryn Lane. Construction traffic will turn left off Bryn Lane into the Power Station Complex Site, and turn right onto Bryn Lane when exiting the Power Station Complex Site. Access to the Gas Connection Route to the south and east of the Power Station Complex Site has also been identified for the small amount of construction traffic that will be accessing the sections of the Gas Connection.

- 1.8 A number of mitigation measures have been outlined which will minimise the impact of the construction traffic on the local community and local highway network. These include timings of construction traffic trips, wheel washing facilities, parking measures, abnormal load delivery plans and a Construction Travel Plan.

Chapter 1 ◆ Introduction

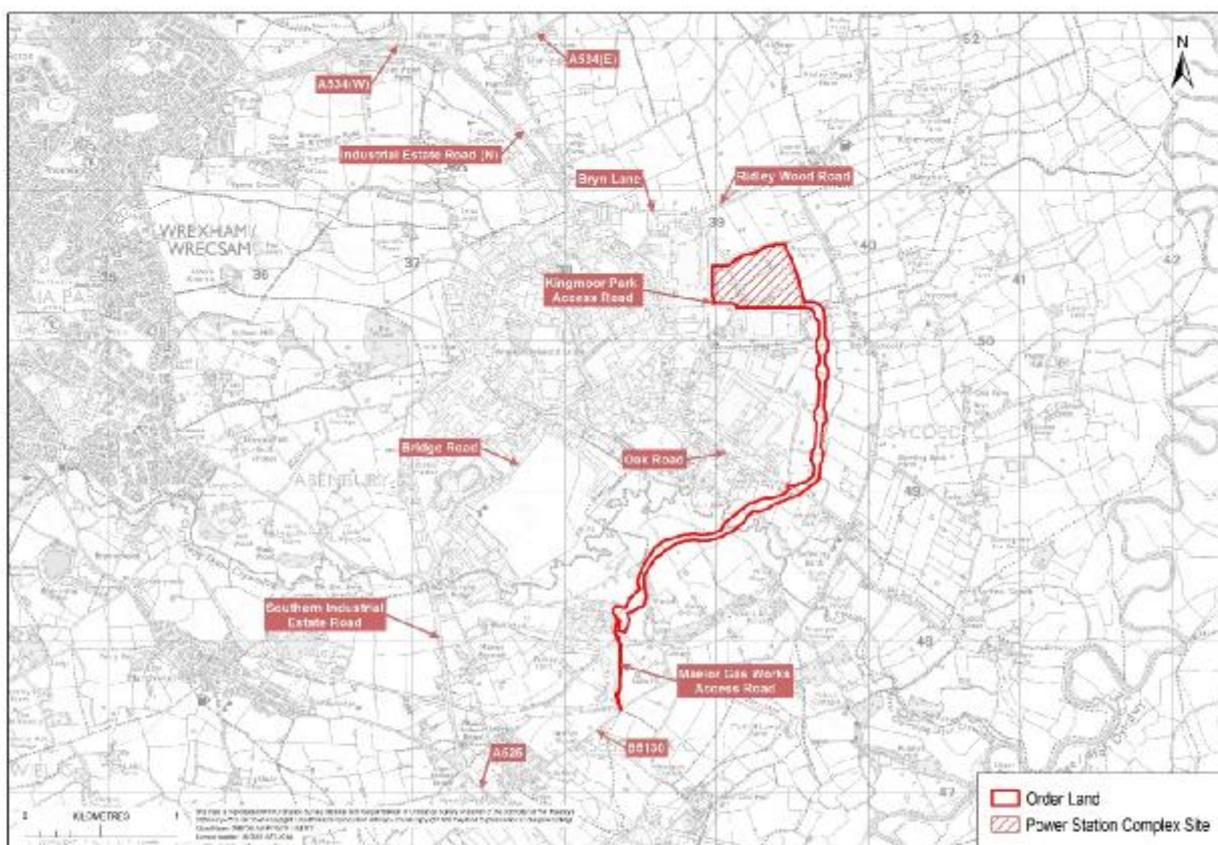
- 1.9 Wrexham Power Limited (WPL) is proposing to construct, maintain and operate a gas-fired power station on land at Wrexham Industrial Estate (WIE), to the east of Wrexham.
- 1.10 The Scheme includes a Combined Cycle Gas Turbine (CCGT) Power Station. To operate, it will require a connection to the gas transmission network for importing the natural gas fuel, and a connection to the electricity network to export the power generated.
- 1.11 The Power Station Complex Site and the Gas Connection (together they are referred to as the Wrexham Energy Centre ('WEC') or the 'Scheme') have separate consenting requirements. However, the Environmental Statement (ES) assesses both elements in order to identify, insofar as possible, the likely significant environmental effects of the Scheme as a whole. As such, this CTMP also considers the Scheme as a whole.
- 1.12 The Power Station Complex would be fuelled by natural gas and would have an electrical generation capacity of up to 299 megawatts (MW_e). The electricity generated would be exported to the local 132kV electrical distribution network currently operated by Scottish Power Energy Networks (SPEN).
- 1.13 The location of the Scheme, which includes the Power Station Complex and Gas Connection (approximately 3.5 km in length) is shown in Figure 1.1 below. The proposed Power Station Complex Site is situated to the immediate north-east of Wrexham Industrial Estate in an area dominated by industrial complexes, to the west and south, and by agricultural land, to the north and east. The Gas Connection Route runs through agricultural land to the south and east of Wrexham Industrial Estate to the Above Ground Installation (AGI) adjacent to the Maelor Gas Works approximately 2.5 km to the south-west.
- 1.14 The Scheme comprises:
- a combined cycle gas turbine (CCGT) power station (the "Power Station Complex") (work numbered 1 in Schedule 1 to the Order) which would be fuelled by natural gas and would have an electrical generation capacity of up to 299 megawatts (MW_e);
 - the temporary and permanent Laydown Areas (works numbered 2A and 2B respectively in Schedule 1 to the Order);
 - surface water drainage works (work numbered 3 in Schedule 1 to the Order);
 - the landscaping and ecological mitigation works (work numbered 4 in Schedule 1 to the Order);

- the alteration and use of the Kingmoor Park Access Road (work numbered 5 in Schedule 1 to the Order) (together the “Power Station Complex Site”);
- the gas connection and an Above Ground Installation (AGI) (the "Gas Connection").

1.15 A description of the Scheme is provided in chapters 1 and 4 of the Environmental Statement (ES) (document reference 6.2).

1.16 Atkins has been commissioned by WPL to provide a draft Construction Traffic Management Plan (CTMP) for the Scheme. This draft CTMP is an Appendix to chapter 7 (Transport and Traffic) of the ES. A Transport Statement (Appendix 7.6) has also been produced.

Figure 1.1: Scheme location plan



1.17 An Environmental Statement (ES) (Document reference: 6.2) and a separate Transport Statement (Appendix 7.6) have been prepared to assess the impacts of the Scheme. Chapter 7 of the ES (Transport and Traffic) identifies that a CTMP will be prepared by the appointed contractor to detail a number of initiatives and measures to mitigate the impact of the construction traffic related to the construction of the Scheme.

Purpose of the Report

- 1.18 This draft CTMP has been developed to provide a framework for the final CTMP that will be prepared by the appointed contractor. The CTMP will need to be approved by WCBC prior to construction starting.
- 1.19 As the construction phase will be dependent on suppliers, construction methodology and project programme, the CTMP will be developed by the appointed contractor once more detail of the construction phases and programme is determined.

Report Structure

- 1.20 The structure of this document will be as follows:
- **Section 2** contains a review of the relevant national, regional and local policy;
 - **Section 3** details the construction route strategy which sets out the preferred routes for traffic during construction;
 - **Section 4** details the proposed mitigation measures; and
 - **Section 5** provides a summary.

Chapter 2 ◆ Policy and Document Review

2.1 The following documents have been reviewed:

- Guidelines for the Environmental Assessment of Road Traffic '*Institute of Environmental Assessment*'(IEMA); and
- Wales Transport Strategy (WTS) 2008.

Guidelines for the Environmental Assessment of Road Traffic (IEMA)

2.2 These guidelines have been used for the assessment of the environmental impact of transport and traffic associated with the Scheme as provided in chapter 7 of the ES. The purpose of these guidelines is to provide the basis for a systematic, consistent and comprehensive coverage for the appraisal of traffic impact.

2.3 The IEMA Guidelines suggest a range of topics to be considered when determining the magnitude and significance of the environmental impact of development proposals. These topics include noise, vibration, severance, driver and pedestrian delay, fear and intimidation, accidents and safety, hazardous loads, dust and dirt, and ecological effects.

Wales Transport Strategy (WTS) 2008

2.4 The objective of the WTS is to promote sustainable transport networks that safeguard the environment. The WTS identifies a series of high-level outcomes and sets out the steps to their delivery. The strategy identifies 'improving the impact of transport on the local environment' as a long-term outcome.

2.5 Transport priorities identified in the WTS are:

- Reducing greenhouse gas emissions and other environmental impacts;
- Integrating local transport;
- Enhancing international connectivity; and
- Increasing safety and security.

2.6 The WTS encourages local authorities in Wales to work towards these goals and outcomes by:

Promoting more sustainable and healthy forms of travel. We aim to make walking and cycling the first choice for shorter journeys and make public transport an attractive choice for longer journeys; and

Minimise the demands on the transport system. For example, we will adopt land use policies that take into account effects on demand for transport, with good public transport access for major destinations. We will also encourage home working and use of Information Technology to cut the need for daily travel.

North Wales Regional Transport Plan (NWRTP) 2009

- 2.7 The Wales Transport Act 2006 requires the Taith Transport Consortium to produce a Regional Transport Plan (RTP) for North Wales (NWRTP) consistent with the Welsh Government's Wales Transport Strategy (WTS). There are other important considerations such as protecting and enhancing North Wales' world class landscapes and heritage and taking measures to reduce the adverse impacts of transport on the environment and climate. As well as the NWRTP itself, Taith is required to produce a Strategic Environmental Appraisal (SEA)
- 2.8 The NWRTP was adopted in September 2009 and outlines the strategic vision for transport of six local authorities in the North Wales area. These are - Anglesey; Conwy; Denbighshire; Gwynedd; Flintshire; and Wrexham. The document outlines the local authorities' transport strategy for the next 25 years in the context of national policy as well as the social and economic aspirations.
- 2.9 The long term vision for this NWRTP is to 'deliver safe, sustainable and efficient transport networks to support the economic and social activities of North Wales' diverse communities and businesses having regard to its strategic European role.' This vision takes into account the long term aims of the Wales Spatial Plan 2008 (WSP) which runs to 2021 and the WTS which runs to 2030.
- 2.10 The NWRTP includes seven main objectives, two of which are directly relevant to the Scheme and are to:-
- *'Optimise accessibility to employment, education, health and services for all the diverse communities in North Wales';* and
 - *'Provide, promote and improve sustainable forms of transport and infrastructure to minimise the negative impacts of transport on the local and global environment'.*
- 2.11 Transport is seen as a contributor to climate change. Greenhouse gas emissions from traffic and transport have been increasing since 1990 and therefore Taith commits to support each of the local authorities in ensuring that sustainable accessibility is a major consideration when planning new developments.

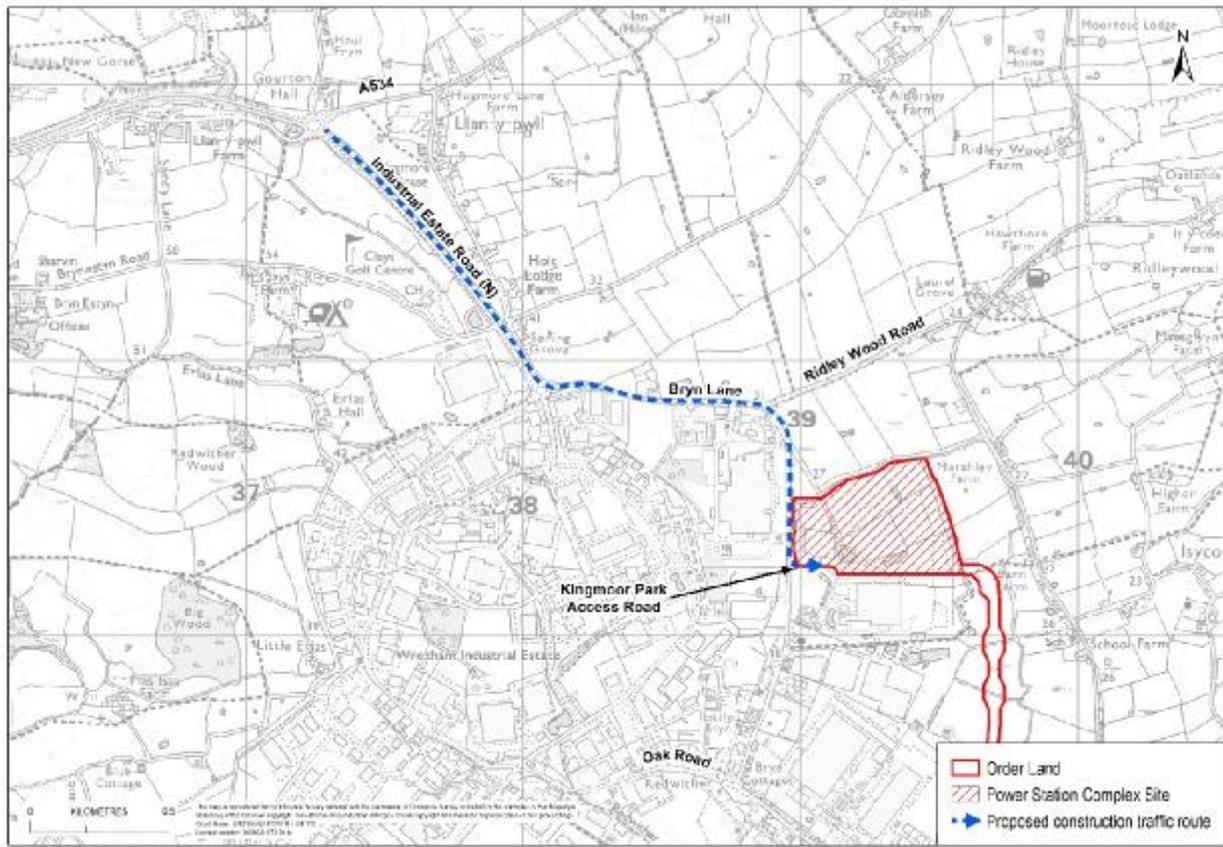
Chapter 3 ◆ Construction Route Strategy

- 3.1 This section presents a summary of the Construction Route Strategy to and from the Scheme during its construction based upon the highway conditions and constraints, along with a rationale for discounting or preventing certain movements or road use.

Preferred Construction Traffic Routes

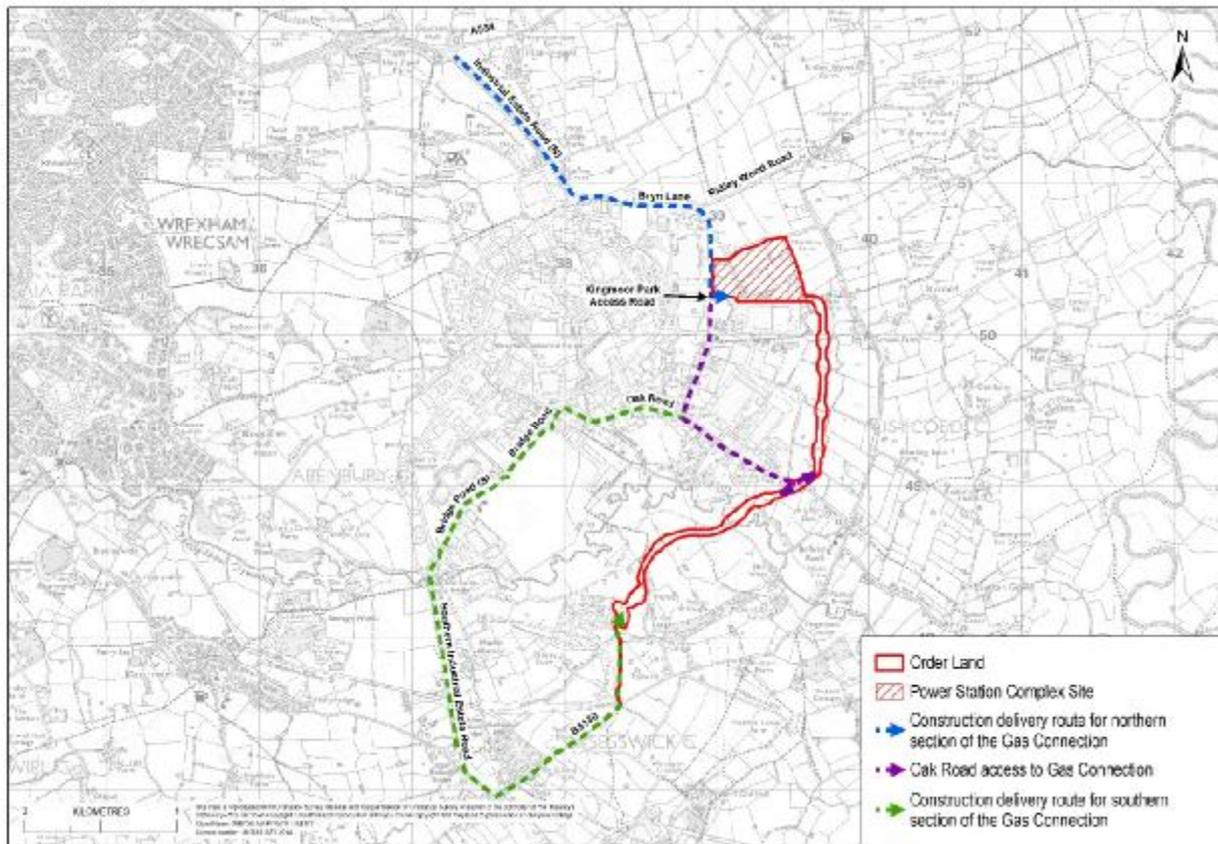
- 3.2 Construction traffic to the Power Station Complex Site (i.e. HGVs) will use the route from the north via the A534, the new Industrial Estate Road (N) and Bryn Lane before turning left into the Kingmoor Park Access Road.
- 3.3 All construction staff visiting the Scheme will also be encouraged to access and exit the Power Station Complex Site via the A534, the new Industrial Estate Road (N) and Bryn Lane, in order to avoid more sensitive roads such as Ridley Wood Road and the village of Hugmore. The A534(W) provides good access to Wrexham and onto the national strategic road network. The access route for construction vehicles is illustrated in Figure 3.1.

Figure 3.1: Power Station Complex Site- Proposed Construction Access Route



3.4 Figure 3.2 presents the construction access route for the Gas Connection. The Gas Connection will need to be accessed at three locations to cover the northern section, the Oak Road section, and the southern section of the Gas Pipeline. The construction access routes to these access points are described below.

Figure 3.2: Gas Connection - Construction Access Route



- 3.5 Construction traffic to the Gas Connection Route will use the same route to the Power Station Complex Site to access the northern section of the Gas Connection route. Equipment and materials for the construction of the Gas Connection will be stored at the Power Station Complex Site and transported to the Gas Connection. However, when the Gas Pipeline passes underneath Oak Road, construction vehicles may need to access the fields directly from Oak Road.
- 3.6 For the southern section of the Gas Connection, construction vehicles will again approach from the north via the A534, the new Industrial Estate Road (N), Bryn Lane and then turn right onto Oak Road. There is a weak bridge on the B5130 (13 T limit) south of Oak Road so the proposed route is to use Bridge Road, Bridge Road (S) and the Southern Industrial Estate Access Road (see the green route in Figure 3.2. At the southern end of the Southern Industrial Estate Access Road, the construction traffic will use the A525 before turning left onto the B5130. After approximately 1 km construction traffic will turn left into Maelor Gas Works Access Road to access the southern section of the Gas Connection.

Traffic generation

- 3.7 The CTMP will contain details of the number of construction vehicles using these routes during the construction period, including details of the type of vehicles accessing the Scheme and schedules of their arrivals.

Chapter 4 ◆ Mitigation Measures

- 4.1 In order to minimise the impact of the construction traffic on the local community and highway network, a number of mitigation measures have been proposed to support the preferred route strategy outlined in **Chapter 3**.

On-site Concrete batching Plant

- 4.2 The use of an on-site concrete batching plant may be considered to potentially reduce the number of HGVs requiring access to the Power Station Complex Site during construction of the foundations for the Power Station Complex. Subject to final design and construction programme, details for an on-site concrete batching plant will be contained within the final CTMP.

Timings of Construction Traffic Arrivals and Departures

- 4.3 HGV trips to and from the site will be evenly spread during the day. The spreading of trips will minimise the impact of HGV traffic and make the best use of the space on site.
- 4.4 In order to reduce the impact of the construction phase on congestion and potential delays, arrivals of materials in the AM and PM highway peak periods (07:30 – 09:00 and 16:30 – 18:00) will be restricted.
- 4.5 A HGV booking / management system for vehicles 10 T and over, which will allow drivers to book pre-determined time slots for deliveries, will be implemented to minimise peaks during the construction period. This will ensure that arrivals and departures are spread evenly over the course of the working day. It is acknowledged that road conditions and delays that are not foreseen may cause drivers to miss their allotted time slot on occasion; however, an effective management system will ensure that significant peaks in the day do not occur.
- 4.6 Inbound and outbound vehicles will be efficiently loaded in order to minimise vehicle numbers.

Parking and Equipment Storage

- 4.7 All construction traffic will be accommodated onsite in a temporary compound on the Power Station Complex Site. This will be monitored and managed by the appointed contractor.
- 4.8 The equipment and materials for the Gas Connection will also be stored on the Power Station Complex Site prior to being transported to the relevant location along the Gas Connection Route, when required.

Site Access Design

- 4.9 The CTMP will contain details of the Power Station Complex Site layout showing access points, welfare facilities, site storage, site boundaries, wheel and vehicle wash facilities and temporary signage. Swept path analysis to demonstrate how abnormal loads will safely access the Power Station Complex Site will also be included.

Site Access Signage

- 4.10 Temporary signage will be installed to warn motorists of vehicles entering and exiting the Power Station Complex Site and at the relevant access points from the construction routes for the Gas Connection to alert the construction traffic vehicles to the appropriate access points. The exact location of these signs will be approved by the Local Highway Authority and documented in the CTMP. The temporary site access points on Oak Road will require appropriate signage and temporary traffic management while they are in use.

Community Liaison Manager

- 4.11 A Community Liaison Manager will be made available to members of the public during the construction stage of the Scheme to report any issues or concerns. This will allow a communication channel between the community and the appointed contractor to provide information about forthcoming works and for the community to report non-compliance with agreed construction access routes as well as incidents of inappropriate driving. A 24hr contact number will be provided.

Cleaning of Vehicles Prior to Leaving the Power Station Complex Site

- 4.12 A wheel wash facility will be provided for all construction vehicles leaving the Power Station Complex Site. This will help minimise the level of dust and dirt being transferred onto the public highway.
- 4.13 The Power Station Complex Site entrance and adjacent public highway will be monitored and cleaned if required.

Enclose Vehicles Containing Dusty Materials

- 4.14 Vehicles carrying dusty materials arriving at or leaving the site are to be covered.

Construction Traffic Parking

- 4.15 To avoid any disruption caused by parked vehicles relating to the construction of the Scheme, all construction plant and vehicles will be parked on the Power Station Complex Site.

Abnormal Load Deliveries

- 4.16 Deliveries involving abnormal loads will be notified to the relevant highway authorities by the appointed contractor in accordance with the CTMP. These will be identified in advance to allow liaison with relevant parties. Vehicle escorts will be used where required.

Temporary Road Closures

- 4.17 There may need to be temporary road closures to allow access for abnormal load vehicles. All closures will be agreed with the local highway authority, and detailed in the CTMP.

Construction Travel Plan

- 4.18 A Construction Travel Plan (CTP) will be produced by the appointed contractor and implemented throughout the construction phase of the Scheme. The CTP will aim to further reduce the impact of construction traffic, particularly construction workers trips, by providing measures and strategies to alter travel behaviour.

Chapter 5 ◆ Summary and conclusion

- 5.1 This draft CTMP has been prepared for the construction of the Scheme at the Wrexham Industrial Estate.
- 5.2 An ES for the Scheme identifies that a CTMP will be prepared by the appointed contractor to detail a number of initiatives and measures to mitigate the impact of the construction traffic.
- 5.3 The Construction Routing Strategy outlined in chapter 3 of this document identifies a route using the new Industrial Estate Road (N) and Bryn Lane to then turn left into the Kingmoor Park Access Road into the Power Station Complex Site. When exiting the Power Station Complex Site, construction traffic will turn right onto Bryn Lane and then use the same route as entering.
- 5.4 Access to the Gas Connection has also been identified for the construction traffic needed to construct the Gas Pipeline both for the northern section and southern section of the Gas Connection Route.
- 5.5 A number of mitigation measures have been identified to minimise the impact of the construction traffic on the local community and local highway network. These include timings of construction traffic trips, wheel washing facilities, parking measures, abnormal load delivery plans and a Construction Travel Plan.
- 5.6 The exact details of these and other measures will be outlined in more detail by the appointed contractor in the final CTMP, once greater understanding of the construction programme has been carried out.
- 5.7 It is concluded that the production and implementation of a CTMP will help minimise the impact of construction traffic from the Scheme.