



**Uwchraddio'r Grid**

Pentir i Drawsfynydd

# Pentir to Drawsfynydd Reinforcement Project

TRAWSFYNYDD SUBSTATION

OUTLINE CONSTRUCTION TRAFFIC MANAGEMENT  
PLAN

**September 2025**

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# Construction Traffic Management Plan

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# 1. INTRODUCTION

## 1.1 Background

- 1.1.1 National Grid Electricity Transmission plc (NGET) is submitting consent applications under the Town and Country Planning Act 1990 (TCPA) and Section 37 of The Electricity Act 1989 ('the Electricity Act') for the construction and operation of the Pentir to Trawsfynydd Reinforcement Project (the 'Project'). The Project is within the administrative boundary of Eryri National Park Authority and comprises the following elements:
- Underground cabling works in the existing Pentir substation.
  - A new substation, replacement of tower 4ZC067 and new cables from the replaced tower down into the substation (downloads). A new 132 kV cable to connect the existing SPEN DB route to the new substation, which will be partly underground cable and partly overhead line, and removal of a section of the SPEN DB route that will no longer be required.
  - An extension to the existing Wern Cable sealing End Compound (CSEC), replacement of the Glaslyn Cables, including the removal of some redundant sections of cable and making safe other redundant sections that will be left buried, a new CSEC at Minffordd and raising the floor level of a new Tunnel Head House (THH), previously consented as part of the Eryri (previously Snowdonia) Visual Impact Provision (EVIP) project, and the removal of the existing Garth CSEC.
  - Replacement of downloads from tower 4ZC005, underground cabling works, installation of new equipment, including a shunt reactor, and amendments to the substation compound fence line.
  - Replacement of cables and fittings ("reconductoring") on the 4ZC overhead line between towers 4ZC005 and 4ZC027, and then between towers 4ZC044 and 4ZC070 as well as replacement of the earthwire with an Optical Ground Wire (OPGW). Installation of fibre optic cables along the earthwire between towers 4ZC070 and 4ZC140.
- 1.1.2 This Outline Construction Traffic Management Plan (CTMP) focuses on the works at Trawsfynydd, referred to herein as the 'Trawsfynydd Works' or the 'Proposed Works' and will subject to agreement with the Eryri National Park Authority as local highway authority (LHA) (also referred to herein as 'Eryri National Park Authority Highways').
- 1.1.3 The Outline CTMP is one of a series of management plans for specific environmental topics within the Outline Construction Environmental Management Plan (CEMP) which supports the planning application for the Trawsfynydd Works. An Environmental Statement (ES)<sup>1</sup> in support of the planning application has also been produced. This Outline CTMP makes reference to this, specifically **Volume 5: Trawsfynydd Works**,

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<sup>1</sup> Pentir to Trawsfynydd Reinforcement Project (Environmental Statement; Volume 5: Trawsfynydd Substation)

## **Chapter 9 - Traffic and Transport** (referred to herein as ‘**ES Volume 5: Trawsfynydd Works Chapter 9**’).

- 1.1.4 This Outline CTMP describes and explains the approach undertaken to manage and mitigate the impacts of construction traffic arising from the Proposed Works, with specific reference to the construction and access strategy; the ‘embedded mitigation’ incorporated into the design of the Proposed Works and described in **ES Volume 5: Trawsfynydd Works Chapter 9**.
- 1.1.5 The full CTMP will be produced by the appointed contractor (‘the Contractor’) and shall need to be submitted for acceptance by NGET in consultation with Eryri National Park Authority Highways prior to construction. The Contractor shall carry out all mitigation and enhancements included in the CTMP and comply with all limits and thresholds where specified. This will include monitoring which is defined within the relevant sections of the CTMP.

## **1.2 The Project (Proposed Works)**

- 1.2.1 The Trawsfynydd Substation site is located to the west of the A470, near the village of Trawsfynydd. Access to the Trawsfynydd works site would be gained via the existing Trawsfynydd Substation access road off the A470. No works are required to the access road. **Figure 1-1** illustrates the Trawsfynydd Works location.
- 1.2.2 The Trawsfynydd Substation site does not intersect any Public Rights of Way (PRoW). However, PRoWs in the wider area have been considered in the assessment.
- 1.2.3 A summary description of the Trawsfynydd Substation works is provided below:
- Removal of redundant cables.
  - New 400 kV cables and cable sealing ends, shunt reactor and gantry.
  - Replacement downleads from Tower 4ZC005.
  - Alterations to the fence alignment.
- 1.2.4 Construction activities are proposed to take place as a minimum between 7.30 am – 5.30 pm, noting that the hours are to be confirmed, over an estimated 36-month period, anticipated to be between 2026 - 2029. A summary of the construction activities is provided below:
- Site mobilisation – site set up for cabins and civils;
  - Civils enabling works – access, main site office establishment, earthworks, drainage and platform;
  - 400 kV works – de-oiling and purging of the existing cables; removing lids, breaking concrete bound sand and exposing cables; cutting at capping at joint bays, removal of cables; and clean throughs and removal of steelwork;
  - Civils construction – shunt reactor base, cable sealing end bases and structures and portable relay room etc.;
  - High voltage plant installation;

- Commissioning – commissioning test, starting with testing the individual items of plant and culminating with testing the installed system as a whole;
- Demobilisation – removal of all temporary infrastructure i.e. cabins and offices; and
- Close out – handover assets and final as-built drawings.

1.2.5 During operation, the Trawsfynydd Substation would typically be unmanned, with routine inspections and maintenance carried out periodically.

## **1.3 Scope of the Outline CTMP**

- 1.3.1 This Outline CTMP supports the planning application by NGET to construct the Proposed Works and will need to be agreed with Eryri National Park Authority Highways. This document presents the approach and application of traffic management and mitigation for the construction of the Proposed Works. The Outline CTMP aims to ensure that adverse effects on local communities and users of the transport network arising from the construction phase of the Proposed Works are minimised.
- 1.3.2 The Outline CTMP has been prepared in accordance with the construction mitigation measures identified during the environmental assessment phase and in accordance with NGET's Environmental Management System (EMS).
- 1.3.3 This Outline CTMP establishes good practice principles to be implemented to mitigate, so far as reasonably practicable, the potential environmental effects of traffic during the construction phase of the Proposed Works. As a consequence, it is intended to consider the construction phase of the Proposed Works only; although reference is made to operation and maintenance activity and the decommissioning phase where relevant.
- 1.3.4 The measures included within this Outline CTMP are not intended to be exhaustive and the Contractor will be required to actively engage with NGET and Eryri National Park Authority Highways to ensure appropriate measures are implemented during the construction phase.
- 1.3.5 On this basis, and prior to the construction phase, in consultation with Eryri National Park Authority Highways, the Contractor shall produce a detailed CTMP based on the outline plan which is to be implemented and monitored throughout the construction programme. The detailed CTMP shall ensure that all traffic associated with the Proposed Works' construction works operates in a safe and compliant manner at all times and shall be signed by the Contractor and Eryri National Park Authority Highways.

## **1.4 Objectives of the Outline CTMP**

- 1.4.1 The objectives of the Outline CTMP are to:
- Ensure that movements of people, plant and materials are achieved in a safe, efficient, timely and sustainable manner;
  - Ensure that any impact to the local communities and local tourism industry is reduced so far as reasonably practicable;
  - Ensure construction traffic levels are acceptable;
  - Reduce and control construction vehicle trips where practical;

- Ensure strategies and mitigation measures are implemented and adhered to through continued monitoring, review and improvement of the CTMP; and
- Limit the effects of construction traffic on the road network.

1.4.2 Building upon the objectives and information contained within this outline CTMP, the detailed CTMP development by the appointed contractor shall include working procedures and measures to:

- Ensure the effects on residents, properties, businesses and schools caused by construction traffic, where practicable, are kept to an absolute minimum;
- Maximise safety in all aspects of the project associated with the movement of traffic;
- Ensure all third-party traffic interfacing with the project are kept safe from the on-going works;
- Include clear liaison with the LHA regarding traffic caused by construction works;
- Identify suitable signage and traffic controls to be used for all access points; and
- Include a Driver Information Pack covering a variety of topics and providing information on the requirements of working on the project.

## 1.5 Study Area

1.5.1 The 'Study Area' referred to henceforth in this Outline CTMP has been defined by identifying the links that construction traffic would be required to use in order to access the Proposed Works. The highway network within the Study Area comprises:

- Strategic Road Network (SRN) – roads maintained by Welsh Government;
- Local Road Network (LRN) – roads maintained by Eryri National Park Authority; and
- Temporary access tracks - a network of temporary and existing access tracks which link the working areas of the Proposed Works to the LRN.

1.5.2 The most appropriate and likely routes for vehicles to access and egress the Proposed Works were identified considering their likely origins and destination points, the type of vehicles concerned, and the elements of the Proposed Works concerned.

1.5.3 Based on the extent of the Trawsfynydd works site, several roads on the local and strategic highway network have been identified as roads that would be used by traffic associated with the Proposed Works and could be subject to increases in traffic. The roads identified cover likely routes to the Trawsfynydd works site from the SRN and from local and regional population centres between a 30–45-minute drive time of the Trawsfynydd works site. This is the likely catchment area for construction traffic.

1.5.4 The roads in the Study Area comprise the following:

- A487 north of A470.
- A470 east of A487.
- A487 south of A470.
- A487 south of Trawsfynydd Substation access road.



- Trawsfynydd Substation access road.

## 1.6 Structure of the Outline CTMP

1.6.1 The Outline CTMP is structured as follows:

- **Section 2** sets out details regarding the construction traffic and highways works;
- **Section 3** summarises relevant policies and procedure;
- **Section 4** sets out the roles and management structure for the CTMP;
- **Section 5** outlines the mitigation measures; and
- **Section 6** presents a monitoring and review strategy.

## 2. Construction Traffic & Highways Works

### 2.1 Introduction

- 2.1.1 This section of the Outline CTMP sets out information on the traffic associated with the construction phase of the Proposed Works, including vehicle classification, traffic generation and routing on the road network.

### 2.2 Construction Vehicle Classification

- 2.2.1 A wide variety of vehicle types would be used for the construction phase of the Proposed Works. Vehicles would be required to transport people, equipment and materials. Volumes of Light Vehicles (LVs) and Heavy Goods Vehicle (HGVs) associated with the construction phase of the Proposed Works are detailed and assessed in **ES Volume 5: Trawsfynydd Works, Chapter 9**.
- 2.2.2 For the purposes of the assessment, construction vehicles have been classified as follows, in accordance with the Driver and Vehicle Standards Agency (DVSA) *Lorry types and weights guide*<sup>2</sup>:
- LV = Vehicles 3.5 tonnes (t) or below in gross weight; and
  - HGV = Vehicles above 3.5 t in gross weight.
- 2.2.3 **Table 2-1** outlines the vehicle classification and typical vehicle types that would be required for the construction phase of the Proposed Works. These have been identified based on experience of those used for similar National Grid projects.

**Table 2-1: Project Vehicle Classification**

Vehicle Classification	Example
LV (i.e. 3.5 t or below)	Car, van, 4x4 pick up, welfare van
HGV (i.e. over 3.5 t)	Excavator, HIAB/winch tractor, tractor and trailer, 10 m and 12 m rigid vehicles, 20 t tippers, concrete mixers, 14 m and 16.5 m articulated vehicles, low loaders, small and large cranes (250 t and 300 t)

- 2.2.4 In addition, the Proposed Works will require the delivery of an abnormal indivisible load (AIL), namely the Shunt Reactor.

<sup>2</sup> [A Simplified Guide to Lorry Types and Weights](#)

## 2.3 Construction Traffic Generation

- 2.3.1 Further information on the volume of traffic of each type forecast to be generated by the Proposed Works is contained within **ES Volume 5: Trawsfynydd Works, Chapter 9**. However, peak traffic volumes are described below in order to provide an indication of traffic volumes of HGVs and LVs during construction.
- 2.3.2 Generally, construction activities would be undertaken during daytime periods only, from Monday to Friday 7.30 am – 5.30 pm (including an hour set up and hour shut down). No bank holiday or weekend working will be undertaken, unless agreed with the Local Planning Authority.
- 2.3.3 There may be some periods of extended or 24-hour working, however, this would be by agreement with the Local Planning Authority.

### Construction Staff

- 2.3.4 The number of staff on the Trawsfynydd works site would vary according to the construction phase and activities being undertaken; some activities may be run concurrently. It is anticipated that the following would be required for each phase of works:
- Removing and decommissioning old equipment, concrete break out of slabs and foundations – 10 operatives;
  - Civil construction of new AIS bay and shunt reactor bund – 16 operatives;
  - High voltage mechanical and electrical services installation – eight operatives;
  - Constructing the new duct routes for the two circuits – 12 operatives;
  - Installing, terminating and testing the new cable – eight operatives; and
  - Installing shunt reactor (by others) – six operatives.
- 2.3.5 The current estimate is that a peak of 40 Full Time Equivalent (FTE) workers will be on-site per day at the Trawsfynydd works site. These numbers include workers associated with the replacement of the existing cross-site cables and those associated with the installation of the new shunt reactor and cables.
- 2.3.6 To minimise the number of vehicle trips generated, it is expected that car-sharing measures will be promoted by the contractor during peak construction stages. It is assumed that approximately 50% of the workforce (around 20 out of 40 workers) will participate in car-sharing. This estimate is informed by car-sharing uptake observed at other similar infrastructure projects. A realistic car-sharing ratio of 1.5 workers per vehicle has also been applied. This results in an estimated 13 one-way daily car movements for the car-sharing workers.
- 2.3.7 For the remaining 20 workers who do not engage in car-sharing, it is assumed they will travel individually by private vehicles. Adding these 20 movements to the 13 movements generated by car sharing workers results in a total of 33 one-way daily vehicle movements per day for the workforce.
- 2.3.8 For the purposes of this assessment, it is assumed that the Proposed Works will generate a total of 66 two-way daily worker vehicle movements (33 in and 33 out).

## Construction HGVs

- 2.3.9 It is estimated there would be a peak of up to eight HGV deliveries (including waste removal) per day (16 two-way, e.g. eight inbound and eight outbound). These numbers include all HGVs associated with the Proposed Works.
- 2.3.10 During construction, there is expected to be a total of up to eight AIL movements associated with the delivery of cables to the Trawsfynydd works site.

## Total Vehicles

- 2.3.11 In summary, the total daily number of vehicles expected during the peak of construction are shown in **Table 2-2** below.

Table 2-2 – 24-hour AADT Trip Generation by Vehicle Type

Vehicle Type	In	Out	Total (Two-Way)
Cars	33	33	66
HGVs	8	8	16
<b>Total</b>	<b>41</b>	<b>41</b>	<b>82</b>

## 2.4 Construction Traffic Routing Strategy

- 2.4.1 Site visits and audits have taken place along the proposed construction traffic routes and at construction access points. Matters which have been considered to inform the construction traffic routing are as follows:
- Height and weight restrictions;
  - Highway classification;
  - Highway structures;
  - Highway layout (width and horizontal/vertical alignments);
  - Traffic calming measures;
  - Built environment indicators (BEIs) adjacent to the highway;
  - Visibility constraints;
  - Speed limits and surveyed traffic speeds;
  - PRow; and
  - Other road users (pedestrians, cyclists and equestrians).
- 2.4.2 The sections below summarise the forecasting of how vehicle trips will be distributed across the road network.

## Construction Staff

- 2.4.3 Construction staff will be encouraged to take the most direct route to the Trawsfynydd works site using 'higher' order roads, such as A and B classified roads. **ES Volume 5:**

**Trawsfynydd Works, Chapter 9** sets out the methodology for identifying traffic routing based on a gravity model approach within a 90-minute estimated drive time and use of an interactive mapping tool for fastest routes.

### Constructions HGVs

2.4.4 Construction HGVs will travel to the Trawsfynydd works site firstly via the SRN, then appropriate routes on the LRN. The following HGV traffic distribution is identified in **ES Volume 5: Trawsfynydd Works, Chapter 9**:

- A487 from the north – 50%;
- A470 from the north – 25%; and
- A470 from the south – 25%.

### Total Vehicles

2.4.5 The daily two-way movements are presented in **Table 2-3**.

Table 2-3 – Daily profile of Total Two-Way Construction Traffic Link by Link\*

ATC Link	All Vehicles	HGV
5.1 A487 North of A470	22	8
5.2 A470 East of A487	29	4
5.3 A487 South of A470	73	12
5.4 A487 South of Trawsfynydd Substation Access Road	10	4
5.5 Trawsfynydd Substation Access Road	83	16

\* Note, the numbers have been rounded to the nearest whole number

## 2.5 Public Highway Works

- 2.5.1 Access to the Trawsfynydd works site would be gained via the existing Trawsfynydd Substation access road off the A470. No works are required to the site, just works on the road in the substation to accommodate the shunt reactor.
- 2.5.2 Prior to the main construction works, access to the site will be required off the A470. This road is expected to be a primary route for both staff and HGVs travelling to the Trawsfynydd works site. Key considerations for the A470 close to Trawsfynydd include its alignment, which features several sharp bends, undulating terrain, and areas with limited visibility. These characteristics, coupled with the road's importance as a regional artery, mean that careful management of construction traffic will be necessary to minimise disruption and ensure safety.
- 2.5.3 Traffic management measures required to construct the access will be identified in consultation and agreement with the LHA. This may require partial road closures at off-peak times.

- 2.5.4 In addition, any improvements required to accommodate the AIL delivery vehicle will be identified through swept path analysis and an access strategy will be produced in consultation and agreement with the highway authorities. This may include the temporary removal of street signs and furniture.

## **2.6 Public Rights of Way**

- 2.6.1 There are four PRoW within 500 m of the Trawsfynydd works site:
- Footpath Maentwrog No 5;
  - Footpath Maentwrog No 21;
  - Footpath Maentwrog No 18; and
  - Bridleway Maentwrog No 5.
- 2.6.2 The Proposed Works will be contained within the existing Trawsfynydd Substation compound and therefore no diversions or closures to the PRoW identified in will be required. Therefore, impacts are not likely to be significant.

## 3. Policies and Procedure

### 3.1 Introduction

- 3.1.1 The CTMP will comply with the policies and procedures set out by Eryri National Park Authority Highways for any traffic management works on the public highway. This section sets out the policies and procedure relating to standard loads HGVs and vehicles carrying AIL/abnormal loads.

### 3.2 Normal Loads

- 3.2.1 The co-ordination and notification of accommodation works, traffic controls and temporary road closures is covered under the *New Roads and Street Works Act*, 1991. The Code of Practice for the Coordination of Street and Road Works (updated 2023) is based on this Act and sets out that at least three months' notice will be required for temporary road closures and traffic management procedures. This will allow the highway authority sufficient time to advertise and process the appropriate orders and notify the emergency services and other traffic authorities.
- 3.2.2 The full CTMP will set out the works required for the construction of the Proposed Works and the contractor will comply with the LHA procedures regarding traffic management and accommodation works.

### 3.3 Abnormal Loads

- 3.3.1 The Proposed Works will require the delivery of one AIL. Actions to be taken include the following:
- A review of current procedures for the movement of abnormal loads by road, and sources for further information and formal notifications. This must be undertaken prior to the movement of the AIL to ensure that the correct procedures are followed and approvals obtained;
  - Appropriate assessment of proposed transport route for the AIL delivery to the Trawsfynydd Works site; and
  - Early and continuous communication with the required stakeholders including the Police and highway authorities whose network will be used by the AIL delivery vehicle, including Eryri National Park Authority Highways and Welsh Government, to notify of the intention to transport an AIL and determine any mitigation measures including but not limited to escort vehicles.
- 3.3.2 The approved haulage contractor will be required to consult with the appropriate authorities to ensure that all relevant permissions are obtained prior to the transportation of any abnormal loads. The responsibility for ensuring that a route is suitable for the transportation of abnormal loads and ensuring the correct notifications are given rests with the haulier.

## **4. Responsibilities & Management Structure**

### **4.1 Introduction**

- 4.1.1 This section outlines the proposed roles and responsibilities for implementing the CTMP during the construction of the Proposed Works. It is important that a strong management structure is in place to ensure the CTMP objectives are met and that continued monitoring and review of the CTMP is maintained. Information on this will be included in the full and final CTMP which will be submitted to the LHA.

### **4.2 Transport Co-Ordinator**

- 4.2.1 The Transport Co-ordinator (TCO) will be appointed prior to the commencement of the works, will be identified in the CTMP and will have the following responsibilities:
- Ensuring the CTMP is implemented by the relevant and responsible parties;
  - Liaising with LHAs and the Welsh Government, as relevant; and
  - Resolving issues and problems, and implementing agreed mitigation measures, through the liaison with relevant stakeholders and the client.

### **4.3 Site-Based Staff**

- 4.3.1 In addition to any specific duties assigned by the TCO, all site-based staff shall be receiving training to cover the following aspects.
- Ensure familiarity with the themes and requirements of the CTMP;
  - Monitor and encourage colleagues to ensure compliance with the environmental requirements of the CTMP and intervene or request supervisory/ Health, Safety, and Environment (HSE) office intervention if environmentally damaging activities or actions that are non-compliant with any Project construction traffic are witnessed;
  - Report any environmental incidents or concerns to the appropriate line manager.

### **4.4 Sub-Contractors**

- 4.4.1 All sub-contractors will be required to comply with the CTMP and undertake the following:
- Ensure the nominated sub-contractor HSE Manager is fully familiar with the requirements and manages their implementation; and
  - Liaise with the TCO on a regular basis to ensure any changes in scope that have environmental implications, or new environmental requirements are accounted for and managed and to advise the TCO of any activity or the need to deviate from any requirement within this CTMP.



# 5. Mitigation Measures

## 5.1 Introduction

- 5.1.1 This section of the Outline CTMP sets out mitigation measures to minimise the impact of construction traffic that the Contractor will be required to implement in agreement with the highway authorities and relevant stakeholders. These are aligned to the objectives of the CTMP as set out in **Section 1.4**. It is anticipated that further detail will be set out within the full CTMP at the appropriate time prior to construction commencement.
- 5.1.2 Mitigation is either 'Embedded' (i.e. incorporated into the design of the Proposed Works) or 'Proposed' (i.e. measures that will be implemented and measures that could be implemented to mitigate the impact of construction traffic).

## 5.2 Mitigation Measures

- 5.2.1 The mitigation measures are set out in the following sections.

### Construction Traffic Routes

- 5.2.2 Only prescribed routes will be used by construction HGVs. Appropriate self-enforcement and monitoring measures will be included within the conditions of contract of the Contractor and sub-contractors and penalties would apply for non-compliance.

### Physical Highway Improvements

- 5.2.3 Physical highway changes to be implemented where considered necessary at access locations and improvements to carriageways to accommodate the swept path of construction vehicles, including temporary measures for the AIL delivery vehicle.
- 5.2.4 Where deemed hazardous, overgrown vegetation and grass verge encroachment onto the edge of carriageway along construction traffic routes would be managed during consultation with the Ecological Clerk of Works.

### Community Engagement and Public Information

- 5.2.5 Information regarding construction activities and traffic movements would be provided to the public and would include appropriate road safety information. The means of communication could include online updates, letter drops, information boards and details of key contacts.

### Temporary Traffic Management

- 5.2.6 As set out in **Section 2.5**, anticipated public highways works relate to the construction of the site access. Appropriate traffic management measures required for this will be identified in agreement with the LHA. The agreed mitigation will be detailed within the final CTMP.

- 5.2.7 In the event that additional traffic management measures are proposed, for example at Site access points, these will be agreed with the LHA prior to construction and temporary traffic regulation orders procured prior to the traffic management being implemented.

### **Temporary Traffic Signage**

- 5.2.8 *The Traffic Signs Manual* ('the Manual') provides advice on the use of traffic signs and road markings on the highway network in the UK. Mandatory requirements are set out in the *Traffic Signs Regulations and General Directions* 2016 (as amended) (TSRGD).
- 5.2.9 Chapter 8 of the Manual<sup>3</sup> provides essential guidelines for the design and management of temporary traffic management systems during road works. As identified in the general principles of temporary traffic management design (Section 2.1 in Chapter 8 of the Manual), whilst the complexity of traffic management arrangements varies from scheme to scheme, the primary objective and secondary objectives are as follows:
- i. to maximise the safety of the workforce and the travelling public.
  - ii. to keep traffic flowing as freely as possible'
- 5.2.10 Temporary signage will be erected on the construction traffic route, where required to provide directional routing information for construction vehicle drivers.
- 5.2.11 Temporary signage will be placed in the vicinity of the site accesses to warn other road users of the likely presence of construction vehicles. Temporary signage will be installed in accordance with standards and in agreement with the highway authorities.

### **Wheel and Road Cleaning**

- 5.2.12 If required wheel wash cleaning stations will be provided at the site access to minimise the potential for mud and dirt to be transferred to the LRN.
- 5.2.13 Transfer of on-site debris onto the LRN will be monitored. If issues are identified with the transfer of site material onto the highway, then mechanical road sweeping will be engaged to remove this, where it is clearly linked to the Proposed Works.

### **Working Hours and Timing of Vehicle Movements**

- 5.2.14 Construction activities would be undertaken during daytime periods only, from Monday to Friday 7.30 am – 5.30 pm (including an hour set up and hour shut down). No bank holiday or weekend working will be undertaken, unless agreed with the Local Planning Authority.
- 5.2.15 The hours will be defined within the full CTMP, with the potential need for some extended working hours for certain activities subject to relevant agreements or for emergency works.
- 5.2.16 HGV movements to/from the Trawsfynydd Works site will be occur throughout the day and will minimise the impact during the network peak hours. In the interests of road safety and reducing possible nuisance, where required due to sensitive receptors such as schools, HGV construction traffic will be subject to a timing restriction whereby

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<sup>3</sup> [Traffic signs manual chapter 8 part 1 road works and temporary situations: designs](#)

vehicles will not be able to gain access into the proposed work area or depart from the proposed work area at certain times of the day. This may include, for example, peak congestion times on the LRN and local school drop off/pick up times where practical.

### **AIL Vehicles**

- 5.2.17 Temporary traffic management would be provided during AIL delivery where required, along with appropriate communications with the local community.
- 5.2.18 The AIL delivery vehicle is anticipated to be accompanied by escort vehicles, should this be deemed necessary. Night deliveries would be undertaken where required, to reduce disruption and maintain safety on the LRN and SRN.
- 5.2.19 The Electronic Service Delivery for Abnormal Loads (ESDAL) system would be used for route planning, notifications and approvals.
- 5.2.20 The full CTMP will set out the anticipated procedures based on liaison with the highway authorities.

### **Road Condition Surveys**

- 5.2.21 To establish if there is any damage to the roads along the construction vehicle route caused as a result of construction traffic movements, a road condition survey will be undertaken at locations agreed with the LHAs prior to construction.
- 5.2.22 To ensure any damage to the highway is attributable to Proposed Works construction traffic rather than general wear and tear, surveys will be taken at intervals throughout the construction period to the satisfaction of the LHA, at the agreed locations established in the initial survey.
- 5.2.23 A final survey will be undertaken post construction which will be compared to the original survey and surveys undertaken during the construction period. The outcome of which will be to identify areas where there has been a deterioration to the road surface and or edge which can be attributed to the Proposed Works construction traffic. This will be used to design a scheme that returns the road to its original state should such action be necessary. Consideration will need to be given to any other construction work in the study area which have vehicles using the routes.
- 5.2.24 An appropriate method will be identified for the process of the road condition surveys.

### **Construction Information Packs & Communications**

- 5.2.25 Information packs will be provided to all contractors/site staff and will form part of the contractual agreement between the contractors and the client. The information pack will contain the details of the CTMP requirements including:
  - Construction traffic routes that have been identified and agreed with the LHA;
  - Non-compliance procedure including enforcement and corrective measures;
  - Complaints procedure;
  - CTMP protocols and Code of Good Practice;
  - Guidance on standard communication procedures between contractors and site; and

- CTMP contacts (emergency and non-emergency).

5.2.26 Information packs will be shared with the LHA ahead of any construction works.

### **Sustainable Travel**

5.2.27 Contractors will be encouraged to minimise the impact of workforce travel by considering and promoting alternative modes of transport to the Site. Due to the rural location of the Site and nature of the Project it is anticipated that sustainable travel will be best achieved through the promotion of car sharing/minibus use.

## 6. Monitoring & Review

### 6.1 Introduction

- 6.1.1 This section sets out the likely monitoring and review strategy for the CTMP, along with mechanisms for failure to comply with the requirements of the CTMP.

### 6.2 Monitoring And Review Strategy

- 6.2.1 The TCO will undertake monitoring as necessary to ensure compliance with the requirements of the CTMP and this will include the maintenance of records and traffic management measures.
- 6.2.2 The client will ensure that a suitable, qualified, member of staff is employed to conduct surveys and monitor construction vehicle activity at specific locations along the construction route network to ensure adherence to the CTMP. This will include the monitoring of construction vehicles on the LRN and speed enforcement monitoring.
- 6.2.3 The TCO will monitor and review the CTMP. These reviews are required to ensure that the CTMP delivers on the commitments and achieves the agreed goals as set out in the CTMP document.

### 6.3 Compliance

- 6.3.1 As part of the CTMP, a series of mechanisms will be established to provide all parties with a clear understanding of the enforcement procedures that will be applied if the requirements contained within the CTMP are not achieved. It is anticipated that these mechanisms will be determined at a later stage but are likely to include the following.

#### **Risk Assessment Method Statement (RAMS) procedures**

- 6.3.2 The contractor, through the TCO, will implement the CTMP, adhere to the requirements and meet the goals through management practices. This will include:
- Site inductions for contractors;
  - Briefing on the obligations of standards;
  - Induction and adherence to RAMS procedures;
  - Delivery Management System (DMS) briefing;
  - Driver inductions; and
  - Compliance guidance.

### **Contractual conditions**

- 6.3.3 Contractual conditions to be employed as part of the CTMP compliance methodology and will be built into the contractors' contract, this will be subject to a performance review by the client.

### **Actions**

- 6.3.4 Actions to be employed if the commitments of the CTMP are breached.

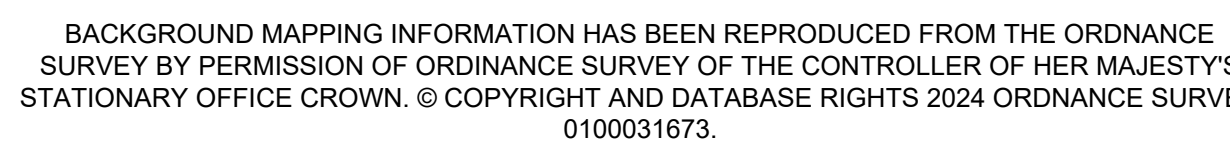
## **6.4 Enforcement & Corrective Measures**

- 6.4.1 The TCO will ensure that appropriate measures are taken to ensure that contractor behaviour and performance is monitored and where appropriate, corrective measures are taken to resolve, redress and enhance service performance which is in breach of the standards within the CTMP.



- APPLICATION SITE BOUNDARY
- PROPOSED ABOVE GROUND EQUIPMENT
- WORKS TO BE CARRIED OUT UNDER SECTION 37 AGREEMENT
- EXISTING TRAWSFYNDD SUBSTATION
- - - EXISTING UNDERGROUND A220 CABLE TROUGH
- PROPOSED UNDERGROUND A220 CABLE ROUTES
- PROPOSED UNDERGROUND A260 CABLE ROUTES
- - - PROPOSED OIL SUPPLY
- PROPOSED WATER SUPPLY
- PROPOSED VEHICLE BARRIER
- PROPOSED ROAD RE-ALIGNMENT WORKS
- PROPOSED PLANT FOUNDATIONS

This drawing is scaled at paper size A0, therefore any prints taken at smaller sizes will affect accuracy of the measurement units and should not be scaled against



<u>Title</u>
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**nationalgrid**

**Drawing Reference** PTNO-WSP-SS51-C00484-DRW-CP-000004

<b>Scale</b>	<b>Sheet Size</b>	<b>Sheet</b>	<b>Issue</b>
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