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Bramford to Twinstead Reinforcement

Volume 7: Other Documents

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nationalgrid

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1. Introduction

1.1 Summary

- 1.1.1 National Grid Electricity Transmission plc (here on referred to as National Grid) has produced an application for an order granting development consent to reinforce the transmission network between the existing Bramford Substation in Suffolk, and Twinstead Tee in Essex ('the project'). This would be achieved by the construction and operation of a new electricity transmission line over a distance of approximately 29km. The project meets the threshold as a Nationally Significant Infrastructure Project (NSIP), as defined under Part 3 of the Planning Act 2008, hence National Grid requires a development consent order (DCO).
- 1.1.2 This Construction Traffic Management Plan (CTMP) sets out the proposed site-specific measures and construction methodologies that are required to help avoid or reduce potential effects of the project on the environment, in particular the local road network (LRN) and public rights of ways (PRoW) during construction.
- 1.1.3 The CTMP is based on the project detail as submitted with the application for development consent and also takes into account feedback received on a consultation draft of the CTMP in autumn 2022. It is recognised that there may be minor refinements through the examination process as part of the application for development consent.
- 1.1.4 This CTMP should be read alongside the Environmental Statement (ES), in particular ES Chapter 12: Traffic and Transport (**application document 6.2.12**) which describes the existing baseline conditions and the environmental impact assessment (EIA). It should also be read alongside the Transport Assessment (**application document 5.7**), which contains further details about the impacts on the LRN and PRoW network.

1.2 Project Overview

- 1.2.1 The reinforcement would comprise up to approximately 18km of overhead line (consisting of approximately 50 new pylons, and conductors) and 11km of underground cable system (with associated joint bays and above ground link pillars).
- 1.2.2 Four cable sealing end (CSE) compounds would be required to facilitate the transition between the overhead and underground cable technology. The CSE would be within a fenced compound, and contain electrical equipment, support structures, control building and a permanent access track.
- 1.2.3 Approximately 27km of existing overhead line and associated pylons would be removed as part of the proposals (25km of existing 132kV overhead line between Burstall Bridge and Twinstead Tee, and 2km of the existing 400kV overhead line to the south of Twinstead Tee). To facilitate the overhead line removal, a new grid supply point (GSP) substation is required at Butler's Wood, east of Wickham St Paul, in Essex. The GSP substation would include associated works, including replacement pylons, a single circuit sealing end compound and underground cables to tie the substation into the existing 400kV and 132kV networks.
- 1.2.4 Some aspects of the project, such as the underground sections and the GSP substation, constitute 'associated development' under the Planning Act 2008.

- 1.2.5 Other ancillary activities would be required to facilitate construction and operation of the project, including (but not limited to):
- Modifications to, and realignment of sections of the existing overhead lines, including pylons;
 - Temporary land to facilitate construction activities including temporary amendments to the public highway, public rights of way, working areas for construction equipment and machinery, site offices, welfare, storage and access;
 - Temporary infrastructure to facilitate construction activities such as amendments to the highway, pylons and overhead line diversions, scaffolding to safeguard existing crossings and watercourse crossings;
 - Diversion of third-party assets and land drainage from the construction and operational footprint; and
 - Land required for mitigation, compensation and enhancement of the environment as a result of the environmental assessment process, and National Grid's commitments to Biodiversity Net Gain.
- 1.2.6 The development authorised by the DCO must be undertaken in accordance with this CTMP, pursuant to Requirement 4 of the draft DCO (**application document 3.1**).
- 1.2.7 The CTMP describes the works undertaken pursuant to the DCO, whether this is undertaken by National Grid, UK Power Networks (UKPN) and any appointed contractors appointed by these organisations. This document refers to 'the contractor' when referring to any organisation responsible for constructing components of the project (including removal of the 132kV overhead line).
- 1.2.8 National Grid, UKPN and any appointed contractors will carry out all work in accordance with the CTMP during the construction of the project unless otherwise agreed with the relevant planning authority.

1.3 Purpose of the CTMP

- 1.3.1 The purpose of the CTMP is to outline the approach to managing construction traffic, impacts on the LRN including effects during works to roads, for example during construction of bellmouths and also from impacts due to construction traffic (both delivery and construction vehicles and also commuting workers). The CTMP also considers measures to reduce effects on the PRoW network. The contractor will be responsible for implementing the measures outlined within the CTMP.
- 1.3.2 The project as submitted with the application for development consent includes environmental commitments under the following categories:
- Embedded Measures: measures that form part of the engineering design set out in Construction Environmental Management Plan (CEMP) Appendix B: Register of Environmental Actions and Commitments (REAC) (**application document 7.5.2**);
 - Good Practice Measures: standard approaches and actions to be implemented on construction sites, intended to protect the environment. These may be general or topic-specific but are typically applicable across the whole project. The good practice measures are provided in full in CEMP Appendix A: Code of Construction Practice (CoCP) (**application document 7.5.1**); and

- Mitigation Measures: any additional project-specific measures needed to avoid, reduce or offset potential impacts that could otherwise result in negative effects considered significant in the context of the EIA Regulations 2017. Mitigation measures have been identified by environmental topic specialists, taking into account the embedded design and good practice measures. These can be found in the REAC in CEMP Appendix B: REAC (**application document 7.5.2**).

1.3.3 Construction phase measures relevant to traffic and transport are secured within this CTMP. Construction phase measures for other environmental topics are secured by one of the following three documents which are all secured through Requirement 4 in the draft DCO (**application document 3.1**):

- CEMP (**application document 7.5**): general construction measures and methodologies to avoid or reduce potential effects of the project. The CEMP also includes the CoCP containing a list of the good practice measures that will be implemented on the project in Appendix A (**application document 7.5.1**), and a schedule of embedded and mitigation measures in Appendix B: REAC (**application document 7.5.2**);
- Material and Waste Management Plan (**application document 7.7**): measures to reduce consumption of raw materials and reduce waste; and
- Landscape and Ecological Management Plan (LEMP) (**application document 7.8**): measures to manage construction impacts on landscape and ecology.

1.3.4 The above plans are referenced in the CTMP where appropriate.

1.4 Sudbury Branch Railway Line

1.4.1 The 132kV overhead line will be removed from over the Sudbury Branch Railway Line and the underground cables will need to cross underneath the railway line. Embedded measure (EM-G04) states that a trenchless crossing is used to install the underground cables beneath the railway line.

1.4.2 It is anticipated that any works in proximity to the railway will be agreed through discussions with Network Rail and will, unless otherwise agreed, be subject to the protective provisions included for the benefit of Network Rail in Schedule 14 of the draft DCO (**application document 3.1**). These protective provisions secure protection for Network Rail's operational assets and require National Grid (or UKPN) to submit plans (including method statements) for the approval of Network Rail's engineers prior to the commencement of any proximate works. The works must be undertaken in accordance with the plans and other documents approved by Network Rail including where appropriate the requirement to install protective works.

1.4.3 Due to this separate approval process and the role of Network Rail in approving the designs, the CTMP does not include details associated with the railway line.

1.5 River Stour

1.5.1 The River Stour is navigable within the Order limits. Unpowered craft (i.e. those that are paddled, rowed or sailed) are permitted to travel the whole length of the Stour Navigation, from Brundon Mill (Sudbury) to Cattawade (on the Stour Estuary). Powered craft, with certain specified exceptions, such as the River Stour Trust trip boats, are restricted to the

stretch between Ballingdon Bridge (Sudbury) and Henny Street. The Environment Agency is the navigation authority for this section of the river.

- 1.5.2 The 132kV overhead line will be removed from over the River Stour and the underground cables will need to cross underneath the river. There is an embedded measure (EM-G04) for the underground cables to cross beneath the River Stour using a trenchless construction method. There is also a good practice measure in the CoCP (**application document 7.5.1**) (W17) to provide a temporary clear span bridge over the river during construction.
- 1.5.3 It is anticipated that there would be short term disruption to navigation along the River Stour for safety reasons during lowering of the 132kV conductors and during installation and removal of the temporary bridge. These are anticipated to be short term in duration (i.e. up to one week for each). Outside of this, there are not anticipated to be effects on navigation. Notices would be placed up and downstream of the Order Limits at least four weeks in advance (or as otherwise agreed with the navigation authority) to notify river users of the works. During the conductor lowering and bridge works, it is anticipated that a boat would be moored in the river to prevent and warn users accessing the working area.
- 1.5.4 Due to the limited effects on the River Stour, the CTMP does not include further details in relation to the river.

1.6 Structure of the CTMP

- 1.6.1 The CTMP structure is set out in Table 1.1.

Table 1.1 – Structure of the CTMP

Chapter	Content
1. Introduction	This sets out the purpose of the CTMP and how it is structured.
2. Project Description	This describes the features of the project, the project commitments from the CoCP and other documents. It also references the Permitting Scheme which is anticipated to be used for some aspects covered within the CTMP.
3. Project Team Roles and Responsibilities	This sets out the roles and responsibilities relevant to the CTMP and the training and awareness that will be completed.
4. Engagement on the CTMP	The CTMP was issued as a draft to relevant consultees for review. This section summarises the comments received and how these were considered when developing the final CTMP for the application for development consent.
5. Road Network	This describes the road network potentially affected by the project during construction. It describes the measures to reduce effects from works to the road network, such as the installation of temporary access points or how the transmission line will cross the road network. It also describes measures to reduce the potential effects on the road network from the additional vehicles generated during construction.

Chapter	Content
6. Public Rights of Way Management	This describes how PRow affected by the project during construction would be managed. It references PRow which require temporary closures and diversions during construction and then outlines any additional measures that may be employed to further reduce the effects to PRow.
7. Travel Plan	This sets out the measures that the contractor is anticipated to employ to reduce the effects of construction workers on traffic and the LRN.
8. Implementation	This section sets out the site checks that are anticipated to be undertaken to monitor compliance of the CTMP during construction. It also outlines the change process.
References	List of references used in the CTMP.

2. Project Description

2.1 Project Commitments

- 2.1.1 The project design is the result of a process of iterative design development that was introduced at project inception. Environmental considerations have had a key influence on the project, with knowledge gained through the EIA process, input from the project team (including the results of site surveys) and discussions with interested parties (such as landowners, relevant planning authorities and regulators).
- 2.1.2 As explained in Chapter 1, the project incorporates environmental considerations through measures embedded in the design, good practice (general measures and topic-specific) measures and mitigation measures identified in the ES. For ease of reference these have been assigned a reference number:
- Embedded measures are given a prefix of EM then the relevant geographical section e.g. AB: Bramford Substation/Hintlesham, followed by a unique number for example EM-AB01 is the first embedded measure identified in Section AB: Bramford Substation/Hintlesham;
 - Good practice measures are given a unique reference number based on the aspect. For example, general good practice measures are identified with a GG prefix, whereas the topic specific ones are given a prefix based on the topic initials for example landscape and visual measures are referenced as LV01, LV02 etc; and
 - Additional mitigation measures are given a prefix of EIA, followed by the topic initials and a unique reference number, for example EIA_B01 would be a measure identified in the biodiversity assessment to offset a significant effect.
- 2.1.3 These references are used throughout this CTMP.
- 2.1.4 The good practice measures and embedded measures that have been made by National Grid that are relevant to the road network, PRow network and travel planning are included in Chapters 5 to 7 of this document respectively.

2.2 Construction Schedule

- 2.2.1 In common with other NSIP, the eventual detailed construction programme will be subject to change from factors such as procurement, system access requirements (outages), resource and material availability and weather and ground conditions.
- 2.2.2 Advance works may also take place prior to development consent, where consented under alternative regimes. Any such early works would be controlled under the terms of the relevant planning permission and would not relate to development that can only be carried out under a DCO.
- 2.2.3 The construction schedule will be included within the Stage Plan submitted to the relevant planning authorities in accordance with Requirement 3 of the draft DCO (**application document 3.1**) prior to commencement.
- 2.2.4 Construction activities will be sequenced and of a transient nature given the linear construction site. There are likely to be a number of construction work fronts working at the same time. This will reduce the overall construction programme and will help with project efficiencies such as delivery of goods to site.

- 2.2.5 Due to the nature of the works, and as some aspects need to take place during agreed outage windows, there may be periods of time where works do not take place within a particular geographical area. In addition, some temporary access routes and temporary fencing may need to remain on site until after testing has been completed to allow any snagging matters to be addressed before reinstatement takes place. The schedule of works will be communicated with each landowner and they will be updated of any amendments to the schedule during construction.

2.3 Working Hours

- 2.3.1 Working hours will be in accordance with Requirement 7 in the draft DCO (**application document 3.1**). Further details can be found in the CEMP (**application document 7.5**).

2.4 Consents, Licences and Permits

Permit Schemes

- 2.4.1 Part 3 of the Traffic Management Act 2004 introduced Permit Scheme as an alternative framework to the notification system under the New Roads and Street Works Act 1991 (NRSWA) for highway maintenance and improvements works. The Permit Scheme would work alongside the street work powers set out in Part 3 Article 11 of the draft DCO (**application document 3.1**) that this CTMP will normally apply to.
- 2.4.2 In accordance with Article 12 of the draft DCO (**application document 3.1**) National Grid is proposing to use the Permit Scheme in effect for Suffolk County Council and Essex County Council (the 'relevant highway authorities') in order to best coordinate the street works required for the project. The Permit Scheme are referred to as the 'Permit Schemes' in the CTMP.
- 2.4.3 A permit application requires information about the activities on streets subject to Special Engineering Difficulty (Schedule 4 of NRSWA), as will works which require temporary multiway traffic lights. Information required includes plans detailing the location of the works, timing and duration of activities, proposed traffic management and details regarding reinstatement.
- 2.4.4 A permit issued under the Permit Schemes will specify in detail the activity that is allowed. The types of conditions include timing and duration; road space; traffic management provisions; manner in which specified works are to be carried out; consultation and publicity; environmental conditions; and conditions to progress. The relevant highway authorities may also require the promoter to consult with persons likely to have apparatus in the street and comply with any reasonable requirements asked by the apparatus owner.
- 2.4.5 Permits for street works issued under a Permit Scheme will therefore cover many of the aspects detailed below in this CTMP. Due to the enforceable nature of Permit Schemes and the role of the relevant highway authorities in considering and issuing the permits, compliance with permit conditions will necessarily take precedence over the CTMP in the case of any conflict between the application for and subsequent terms of a permit and the requirements of the CTMP.

Traffic Regulation Orders

- 2.4.6 A Traffic Regulation Order will be required for regulating traffic on roads in proximity to the authorised development, including if a street needs to be closed or diverted

temporarily during construction. Part 6 Article 47 of the draft DCO (**application document 3.1**) allows National Grid and its contractor to introduce Traffic Regulation Orders for the purposes specified in Schedule 12 and, with the consent of the traffic authority, to any other extent for the construction of the authorised development.

3. Project Team Roles and Responsibilities

3.1 Project Responsibilities

- 3.1.1 The contractor will undertake the construction works in accordance with the DCO and its associated documents including this CTMP. The relevant aspects of this CTMP will be notified to the workforce at commencement of works to highlight the relevant commitments and responsibilities to those undertaking the work.
- 3.1.2 Overall roles and responsibilities relevant to the CTMP are presented in Table 3.1. These roles may be delivered by multiple people across the project, who are designated with that specific responsibility, e.g. Environmental Clerk of Works (EnvCoW). The EnvCoW will also draw on the experience of the technical specialists, who will advise in specific areas, for example the arboriculturist will advise on tree works that are required near to new bellmouths.

Table 3.1 – Overall Roles and Responsibilities Relevant to the CTMP

Role	Organisation	Responsibilities
Environmental Manager	Contractor	The Environmental Manager will be responsible for the maintenance of all environmental plans and registers, including monitoring that the environmental measures and mitigation are implemented on site and as recorded within the CTMP. It is assumed that they will be the main point of contact for all environmental matters on the project. They will also develop good working relationships with external stakeholders such as the relevant highway authorities.
EnvCoW	National Grid	The EnvCoW will monitor that the works proceed in accordance with relevant environmental DCO requirements and adhere to the required mitigation measures. The EnvCoW will be supported as necessary by appropriate technical specialist advisors.
Permits and Consents Manager	Contractor	It is anticipated that the Permits and Consents Manager will work with the Environmental Manager to draft and submit permits and consents on behalf of the project, track the progress, provide updates and communicate approvals.
Works Supervisor	Contractor	It is anticipated that the Works Supervisor will be responsible for delivering the site works in accordance with the requirements of the CTMP and implementing good environmental practices required by the Environmental Manager. They are responsible for managing operatives, plant and their areas of work in accordance with the principles of good environmental practice.
Technical specialist advisors	Contractor / National Grid	These will have the relevant experience to supervise the relevant aspects of the works, which might include an arboriculturist, land contamination specialist, soil specialist, ecologist, archaeologist.

3.2 Information Training and Awareness

- 3.2.1 In accordance with good practice measure GG05 in the CoCP (**application document 7.5.1**), all staff and operatives working on the project will undergo a site-specific induction, which is anticipated to include the following topics relevant to the CTMP:
- General traffic management requirements on the project;
 - Car parking arrangements;
 - Good practice measures for commuting, such as car sharing and sustainable transport options;
 - How to find out about construction routes; and
 - Expected behaviour on site (e.g. switching off machinery when not in use).
- 3.2.2 Regular environmental toolbox talks will be provided by the contractor. These will give targeted information about site-specific issues or activities taking place at that time.

3.3 Community Engagement and Public Information

- 3.3.1 The contractor will implement a system for the provision of information to local residents and occupiers about the works. It is anticipated that a community relations team will be appointed to provide dedicated community relations and external communication support during construction. The information to be provided to local residents will be specific to the works to be carried out, describing the nature of the works, the location and extent of the works, the duration of works and the hours to be worked.
- 3.3.2 Local residents will be informed of the commencement and likely duration of the construction work activities through a letter drop. It is anticipated that the letter(s) will be tailored to a specific area and reflects the works to be carried out and the duration of works. The letter will include a contact telephone number, which is assumed to be manned at all times that construction activities are being undertaken on site.
- 3.3.3 The name and contact details for the project will be displayed at the entrance to the main site compound. This will include an emergency telephone number. In addition, it is anticipated that details of the works, including contact details, will be provided to the relevant community groups, such as the local parish councils and landowners before work commences.
- 3.3.4 It is anticipated that a free telephone project helpline and project website will be maintained and managed by the National Grid community relations team. The project helpline and website information will be visible on boards placed in appropriate locations where they will be visible to the public. The telephone number and project website details will be provided to the relevant planning authorities and other relevant parties.
- 3.3.5 The community relations team will record the details of any complaints and how these are to be investigated and appropriately managed. Further details about the complaints procedure can be found in Section 15.4 of the CEMP (**application document 7.5**).

4. Engagement on the CTMP

4.1 Introduction

4.1.1 This chapter sets out the engagement that has been undertaken on the CTMP and how the comments were considered when developing the final CTMP for submission with the application for development consent.

4.2 Engagement

4.2.1 The CTMP was issued to National Highways and the relevant highway authorities to seek feedback on the contents and structure before producing the final CTMP for the application for development consent. The CTMP was issued to the following organisations:

- Essex County Council;
- Suffolk County Council; and
- National Highways.

4.2.2 Although the CTMP was issued to the organisations listed above for comments in their role as a relevant highway authority on the project, the CTMP was also copied to the local planning authorities for information, namely Babergh and Mid Suffolk District Councils and Braintree District Council.

4.3 Feedback on the CTMP

4.3.1 Table 4.1 summarises the feedback received on the draft CTMP and how these have been considered when developing the final CTMP for application. No specific comments were received from Essex County Council on the CTMP. Table 4.1 excludes feedback that was received on the following aspects, as these are not related to the production or development of the CTMP:

- Suitability of construction routes: The construction routes that have been identified within the application for development consent have had surveys, as appropriate to check that they are suitable for the vehicles proposed. Feedback received on the construction routes has been considered when developing the proposed construction routes on the project; and
- Special Types General Orders (STGO): As described in Section 5.3 of the CTMP, some construction vehicles will require STGO. As this requires documentation as part of a separate consenting process, detailed considerations are excluded from the CTMP to avoid any misalignment of requirements under the separate processes. However, it is noted that National Grid and its contractors will complete the relevant documentation (including the completion of any required surveys to inform routing) and will seek authorisation through the Electronic Service Delivery for Abnormal Loads (ESDAL) system.

Table 4.1 – Feedback Received on the Draft CTMP

Comment	How This Has Been Considered
National Highways	
It is welcomed that working hours will be in accordance with the draft DCO (application document 3.1), which allows for heavy good vehicle (HGV) deliveries outside of traditional peak hours.	Noted.
National Highways has a major upgrade of the A12 between J19-J25 scheduled to commence in 2024 and 2027. Has this been taken into account in the CTMP?	National Grid will continue to work with National Highways to understand any implications of the A12 Improvements that could affect the project.
A GG104 risk assessment will be required where construction traffic is using a junction on the strategic road network (SRN).	The Transport Assessment (application document 5.7) shows that the project would have negligible effects upon the operation of the SRN and National Grid does not consider a GG104 risk assessment to be necessary.
It is welcomed that all PRoW affected during construction will have clear signage at least two weeks in advance of disruption to notify users about the works.	Noted. This is included in paragraph 6.3.8.
A Traffic Regulation Order will be required for any road closure or diversion.	Noted. This has been stated in paragraph 2.4.6.
The CTMP should include agreement on construction routes to and from the SRN.	As a preferred contractor has not yet been identified, the construction routes are subject to change. Therefore, it is not appropriate to include construction routeing within the CTMP at this time.
The CTMP should include measures to minimise delivery of construction materials during peak periods.	The working hours set out within the draft DCO (application document 3.1) allow for deliveries to take place outside of peak hours. Further details can be found in Section 5.4 of the CTMP.
Suffolk County Council (SCC)	
SCC considers that as the relevant highway authority it should be the discharging authority for the CTMP (and Travel Plan if separate). The authority would request that discharge of the CTMP also provides for consultation with the relevant local planning authority to ensure consistency.	Noted. The discharging authority will be determined during examination. Travel planning is included in Chapter 7 of the CTMP.
SCC would agree that the Applicant's proposal to use the authorities NRSWA permit process would be its preference.	National Grid is proposing to use the Permit Schemes as referenced in Section 2.4.
Table 3.1 of the CTMP: Whilst the delegation of the responsibility of management plans to the contractor may be acceptable, the ultimate responsibility for compliance and enforcement will lie with the Applicant.	Noted. National Grid will retain overall responsibility for the works undertaken pursuant to the DCO.

Comment	How This Has Been Considered
<p>SCC would suggest that the opportunity is taken to inform staff and operative of sustainable transport options if these are available.</p>	<p>Section 3.2 has been updated to include reference to sustainable transport options.</p>
<p>SCC notes that it is likely that existing accesses will need improvement as use will intensify and they may not comply with current design standards. Will these be retained in the improved form or reinstated on completion of the project?</p>	<p>National Grid is seeking DCO consent for permanent accesses at the GSP substation and each CSE compound. Separate consent would be sought where necessary if any temporary accesses were to be retained after construction.</p>
<p>Where routes will be used by significant numbers of HGV SCC will expect structural surveys to be undertaken together with a commitment to undertake any structural repairs to the carriageway identified by these surveys.</p>	<p>The project is not anticipating significant numbers of HGV during construction. The routing study has looked at suitability of roads for HGV as part of identifying the proposed routes. Maintenance of the highway and structures along this, would fall under the responsibility of the relevant highway authority.</p>
<p>It would be helpful if the definition of HGV and LGV is included in the CTMP. Also, if LGV are different to other vehicles used by workers such as cars.</p>	<p>HGV include Ordinary Goods Vehicle 1 with two axles, over 3.5 tonnes and up to 7.5 tonnes gross weight; and Ordinary Goods Vehicle 2 with two or more axles, over 7.5 tonnes gross weight. References to LGV in the CTMP include both vans and cars, including those used for commuting.</p>
<p>SCC welcomes the commitment that the Applicant will use vehicles complying to the most recent emission standards but notes that this will need to be monitored, reported and if necessary enforced.</p>	<p>Chapter 8 outlines implementation of the CTMP, including checks and reporting.</p>
<p>The Applicant is encouraged to refer to the Suffolk Lorry Route Network Map, noting that there may be restrictions on these routes and these may change at short notice.</p>	<p>The Suffolk Lorry Route Network Map has been considered this as part of the routeing.</p>
<p>The routes, timing and numbers of HGV should be embedded within the management documents with appropriate monitoring, reporting and enforcement measures, such as excluding construction vehicles from the road network outside normal working hours (accepting there may be operations where exceptions are accepted).</p>	<p>As a preferred contractor has not yet been identified, the construction routes, timing and numbers are subject to change. Therefore, it is not appropriate to include construction routeing within the CTMP at this time.</p>
<p>Where incidents occur on the highway network the Applicant should consider holding large vehicles at their origin, within the site or at appropriate locations on the highway network.</p>	<p>In an emergency, the compound areas and passing places on the temporary access routes could be used to hold vehicles.</p>
<p>It is expected that the construction route signage will be submitted to the relevant highway authorities for approval and that flexibility will be required to alter temporary signage to reflect progress of the construction work.</p>	<p>It is anticipated that signage would fall under the Permit Scheme. Further details on signage can be found in Section 5.4.</p>

Comment	How This Has Been Considered
While SCC welcomes the proposal to obtain relevant highway authorities approval for the detailed design of the site accesses, the Applicant should provide sufficient information with the DCO submission to show that the proposals are safe, feasible and deliverable.	A generic design is provided within the DCO (as is consistent with other DCO). Separate bellmouth designs will be discussed with councils outside of application.
SCC encourages the Applicant to discuss temporary traffic management with the authority at an early stage of design, and if necessary, seek advice from an experienced contractor.	National Grid will be appointing an experienced contractor to undertake construction of the project from their framework contracts. Discussions will be held with the relevant highway authorities to discuss traffic management.
The Applicant will be expected to obtain licenses for overhead scaffolding or other work that involves oversailing of the public highway.	It is anticipated that scaffolding across the public highway would fall under the Permit Scheme.
Access should be provided for non-motorised users to pass through sections of closed roads. This applies to all public highways including PRoW.	In accordance with AS03 access to and from residential, commercial, community and agricultural land uses will be maintained throughout the construction period or as agreed through the landowner discussions. It is generally anticipated that any roads that are closed for longer than one day, would have a diversion route in place.
The travel plan should include monitoring of the workforce who arrive and depart by minibus including the numbers based at temporary accommodation.	Section 7.4 of the CTMP sets out the targets and monitoring of the travel plan.
SCC would expect the Applicant to provide data on the number of workers and visitors on site each day together with the vehicle movements.	It would be impractical and unnecessary for National Grid to provide data on workers and visitors attending the site on a daily basis.
Targets should be included within the draft travel plan submitted as part of the DCO.	As described in Section 7.3, travel plan targets would be set following the initial baseline travel surveys.
The anticipated site checks in Table 8.1 do not include details of how the data, including non-compliance will be collected and reported to interested stakeholders.	The non-compliance process is described in Sections 8.3 of the CTMP.
SCC would consider that as the relevant highway authority, it should discharge any changes to the CTMP albeit following consultation with the relevant local planning authority.	The discharging authority will be determined during examination.
Braintree District Council	
The CTMP includes several measures which will assist in reducing the noise impact of construction vehicle movements. These measures are welcomed. Reference to the repair and upkeep of the temporary access routes does not appear to have been included within the CTMP.	Noted. GG27 has been added to the CoCP and states that the Contractor will undertake regular inspections of the temporary access routes and bellmouths to check for potholes or other defects. These will be repaired in a timely manner.

5. Road Network

5.1 Introduction and Terminology

5.1.1 This chapter sets out the pre-construction surveys and good practice measures that are anticipated to be implemented in relation to the road network. It includes potential impacts caused by proposed works to the road network, for example creating temporary bellmouth junctions for access to the working area and works where the proposed electricity line is anticipated to cross a road. It also includes impacts that may be caused by the extra traffic that will be generated during construction.

5.1.2 The following terminology is used to describe the construction routes:

- SRN: Comprises the motorway and trunk road network, managed by National Highways, which provides construction access from a wide catchment to the LRN and Order Limits. It includes the A14 to the east of the Order Limits and the A12 to the south the Order Limits. The Permit Schemes do not apply to the SRN managed by National Highways and no works are anticipated to be required to the SRN as part of the project;
- LRN: Comprises the local roads managed by Essex and Suffolk County Councils which link the SRN to the Order Limits. It includes the A1071 which lies parallel to the Order Limits to the north, the A134 running between Sudbury and Colchester and the A131 running between Sudbury and Braintree;
- Access Points: These are where construction vehicles would leave the working area and join the LRN. Existing accesses will be used where practicable. Where new access points are created, these will be reinstated following construction. Gates will be installed at access points to prevent unauthorised access to the site. These may be set back from the public carriageway (up to 20m where practicable), so that a single HGV does not block the carriageway and footway; and
- Temporary access routes: This comprises the temporary access routes created for the construction phase of the project located off the local road network. These routes will be managed by National Grid and link the access point to the specific working areas.

5.2 Pre-Construction Surveys

5.2.1 Preconstruction structural surveys have been undertaken of the routes that are anticipated to be used by AIL. These surveys have not identified any structures along the routes that require structural repairs.

5.2.2 In accordance with good practice measure GG06 in the CoCP (**application document 7.5.1**), a full record of condition will be carried out (photographic and descriptive) of the access points and LRN that may be affected by construction activities. This is anticipated to include taking detailed records including photographs showing boundary features such as fencing or hedgerows and surfacing (paying particular attention to any potholes or other pre-existing features). The initial survey will be undertaken prior to construction and it is anticipated that this will be regularly checked throughout construction to check that the surface of the highway altered for the project remains in good repair and safe for the public traffic using the highway.

- 5.2.3 The records will be available for comparison following reinstatement and after the works have been completed, to demonstrate that the standard of reinstatement at least meets that recorded in the pre-condition survey.

5.3 Vehicle Classification

Special Types General Orders

- 5.3.1 Special Types General Orders (STGO) are a set of regulations which allow unusual vehicles to be driven on UK highways. Under normal circumstances a vehicle and its load must not exceed the weight (44 tonnes) and dimensions (a width of more than 2.9m and a rigid length of more than 18.65m) contained within the Road Vehicles (Construction and Use) Regulations 1986 and the Road Vehicles (Authorised Weight) Regulations 1988. These regulations are set by the Driver and Vehicle Standards Agency.
- 5.3.2 STGO rules mean that a range of less common vehicles, whose design and use prevent compliance with the above regulations, may, in some circumstances, be used on public roads. Examples of vehicles likely to be used under an STGO are:
- Abnormal Indivisible Loads which cannot be divided into two or more loads to be transported by road;
 - Mobile cranes specially built or adapted for lifting operations; and
 - Engineering machinery that are moveable and comprise of a motor vehicle or trailer specially built for engineering operations.
- 5.3.3 Where an STGO applies to the project, this will be undertaken in accordance with Government guidance transporting abnormal loads (GOV.UK, 2022). This is anticipated to require the use of escort vehicles. Full details for all notice periods are set out in the Special Types enforcement guide (Driver and Vehicle Standards Agency, May 2018).
- 5.3.4 National Highways, the relevant highway authorities and police will be notified of the ALL routes and appropriate forms will be completed for ALL routeing. It is anticipated that this the relevant documentation and authorisation would be completed through the ESDAL system. When the response to each abnormal load movement order is received the defined route agreed with National Highways, the relevant highway authorities and police will be strictly followed.

Shunt Reactors

- 5.3.5 Shunt reactors will be required at Bramford Substation. These will be delivered on vehicles classed as Special Order and are anticipated to require a police escort to the Order Limits. It is assumed that the shunt reactors will be delivered to substation at AB-AP1, as shown on the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**).
- 5.3.6 The shunt reactors will be delivered to site in accordance with Government guidance transporting abnormal loads and will require the use of both private escort vehicles and a police escort. National Highways, the relevant highway authorities and police will be notified and appropriate forms will be completed by the appointed haulage contractor. This will be completed via a Special Order application (BE16 form) or via the ESDAL system. When the response to each abnormal load movement order is received the

defined route agreed with National Highways, the relevant highway authorities and police will be strictly followed.

Super Grid Transformer

- 5.3.7 Super Grid Transformers (SGT) will be required at the GSP substation. These will be delivered on vehicles classed as Special Order and are anticipated to require a police escort to the Order Limits. It is assumed that the SGT will be delivered to the working area of the GSP substation at H-AP1 of the A131, as shown on the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**).
- 5.3.8 The SGT will be delivered to site in accordance with Government guidance transporting abnormal loads and will require the use of both private escort vehicles and a police escort. National Highways, the relevant highway authorities and police will be notified and appropriate forms will be completed by the appointed haulage contractor. This will be completed via a Special Order application (BE16 form) or via the ESDAL system.
- 5.3.9 National Grid has discussed the escorting of the SGT with the police and their feedback has been taken into account when developing the AIL route for the project. When the response to each abnormal load movement order is received the defined route agreed with National Highways, the relevant highway authorities and police will be strictly followed.

Cable Drums

- 5.3.10 The cable drums are expected to be transported at STGO Category 2 or 3. Such loads require two clear working weekdays notice to be given to the police forces on the route and five clear working weekdays notice together with an indemnity to the highway and bridge authorities on the route. The cable drums are anticipated to be delivered to the following four access points at each end of the underground cable sections:
- D-AP2 - Access Point for Dedham Vale East CSE compound off Rands Road;
 - F-AP6 – Access Point for Dedham Vale West CSE compound off the A134;
 - G-AP4 – Access Point for Stour Valley East CSE compound off St Edmund’s Hill; and
 - H-AP20 – Access Point for Stour Valley West CSE compound off the A131.
- 5.3.11 Preferred routes to the proposed site access points required for cable drums have been identified. All routes to the different sites are considered negotiable from the A12 and A14 trunk roads with appropriate street furniture removal, traffic management and AIL escorts. Discussions will be held with National Highways, the relevant highway authorities and the police forces to confirm escort and traffic management implications once the number and date of AIL deliveries is clarified.

Mobile Crane and Piling Rig

- 5.3.12 The project is anticipated to use a 160 tonne and 250 tonne cranes for the installation and removal of the pylons. A piling rig is also anticipated to be used for construction of the foundations of the pylons, CSE compound, GSP substation and temporary bridges. The piling rig would be delivered on a low-loader. Both the crane and the piling low-loader are anticipated to fall within the criteria of the STGO regulations, although these vehicles are not anticipated to require a police escort.

Other Construction Vehicles

- 5.3.13 A range of other construction vehicles will be required on the project that will use the LRN. This will include LGV including vans to deliver smaller items and the workers to the site. It will also include other HGV, such as low-loader units used to deliver larger items such as excavators, construction mats, and Portakabin™-size local welfare units and 40 tonne trucks. Construction traffic movements will be kept to the minimum reasonable for the effective and safe construction of the project.
- 5.3.14 None of the LGV or HGV are anticipated to require a police escort.
- 5.3.15 In accordance with good practice measure GG12 in the CoCP, plant and vehicles will conform to relevant applicable standards for the vehicle type as follows:
- Euro 4 (nitrogen oxides (NO_x)) for petrol cars, vans and minibuses;
 - Euro 6 (NO_x and particulate matter) for diesel cars, vans and minibuses; and
 - Euro VI (NO_x and particulate matter) for lorries, buses, coaches and HGV (excluding specialist AIL).
- 5.3.16 Vehicles will be correctly maintained and operated in accordance with manufacturer's recommendations and in a responsible manner. It is assumed that all plant and vehicles will switch off their engines when not in use and when it is safe to do so.

5.4 Construction Traffic

General Construction Routeing Strategy

- 5.4.1 The project has followed a hierarchy approach to determining construction routes so that the SRN (including the A12 and A14) is used where practicable and then the LRN, prioritising A-roads, is used for the last part of the construction journey before considering B-roads or less. At any time, instructions from relevant authorities such as National Highways Traffic Officers, the police and local authority traffic diversions will take precedence over these principles.
- 5.4.2 The project is located in an area of Essex and Suffolk where there are a number of narrow lanes which are less suitable for construction traffic than more major roads. As part of the construction routeing strategy, National Grid is proposing to construct a temporary access route off the A131 to provide access for construction vehicles to the Stour Valley West CSE compound and to the working area to the west of the trenchless crossing to the south of Ansell's Grove. This will reduce the number of access points required along the smaller lanes in Section G: Stour Valley (some of which are Protected Lanes), will reduce the number of vehicles needing to use the local roads and will also reduce the need for modifications to the LRN.
- 5.4.3 The proposed construction routes will be agreed with the contractor and colour coding will be used to identify which routes are for AIL or HGV, to aid driver navigation to the correct access point. Copies of the construction routes will be provided to the contractor and each of its suppliers, who will be instructed to not use satellite navigation equipment and to use the supplied access routes only.
- 5.4.4 As noted above, HGV will generally use the SRN before using the LRN/ A roads to access the site. LGV will favour the SRN and A roads where practicable and where this will not

lead to excessive trip distance and journey time. During the daily commute, construction workers (including site-based staff) will be encouraged to follow the same principles as the HGV routing. This is anticipated to be encouraged through the use of minibuses that would transport workers between their accommodation and a particular work front.

5.4.5 The construction routing will avoid the Air Quality Management Area in Sudbury (AQ01).

HGV Deliveries

5.4.6 HGV movements will normally take place during the working hours. Where practicable, deliveries of construction materials will be timed to fall outside of traditional peak traffic periods (i.e. 08:00 to 09:00 and 17:00 to 18:00 Monday to Friday) or as otherwise set out as part of the Permit Schemes. It is assumed that vehicles finishing at the end of a working day shall be permitted to leave site (i.e. a one-way movement out of the access point to the LRN).

5.4.7 A booking system will be used to manage, where practicable, the spread of deliveries across the whole day to further reduce the impact of HGV traffic during the peak periods. It is assumed that all project HGV and LGV construction vehicle movements will be recorded and timed as they enter and leave all sites.

Contingency Routes

5.4.8 There may be exceptional circumstances when traffic movements on the SRN or LRN are compromised, which will impact on construction vehicles being able to use the agreed construction traffic routes and access point. These exceptional circumstances are defined as one or more of the following:

- A traffic or other similar incident on the highway network that disrupts the normal operation of the highway network or results in the closure of the highway network;
- A breakdown of an HGV enroute to the authorised development;
- Work requested to be completed out of hours by a third party such as the relevant highway authority/Network Rail e.g. scaffold erection; and
- Emergency health and safety requirement (incident).

5.4.9 In the event of any incident occurring which impacts on the safe and efficient operation of the road network, contingency routes will be provided by pre-established traffic diversions and diversions as set out by National Highways, the relevant highway authorities and the police.

5.4.10 Further to this, the contractor will regularly monitor the One.Network website and liaise directly with National Highways and/or the relevant highway authorities to establish where predefined construction routes may be temporarily disrupted by other works or events and seek to establish alternative routes that, as far as practicable, are consistent with the principles set out above.

Agreements with Third Parties

5.4.11 The period of notice required to be given to highway and bridge authorities varies by vehicle class and by type. Generally:

- 40 to 80 tonnes, two working days' notice;

- 80 to 150 tonnes, five working days' notice; and
- Loads over 150 tonnes, a 'special order movement' is needed requiring permission from the Secretary of State. This is administered through the Department for Transport and National Highways.

5.4.12 Notice to the police will also be required in certain circumstances. Full details for all notice periods are set out in the Special Types Enforcement Guide (Driver and Vehicle Standards Agency, May 2018).

Construction Route Signage

5.4.13 All signage for temporary access to construction work sites is expected to comply with relevant standards including Traffic Safety Measures and Signs for Road Works and Temporary Situations Chapter 8 (Department for Transport and Highways Agency, 2009).

5.4.14 The following signage is proposed on the project:

- **Construction routes and access point signs:** It is anticipated that temporary signage will be erected along construction routes on the LRN to provide access (directional) routeing information. It is assumed that this temporary signage will be provided in the vicinity of each access point (bellmouth), which will provide warning to other road users of the likely presence of construction vehicles;
- **Temporary access route signs:** Similar to the above, temporary signage will be erected along the temporary access routes within the working area where necessary. The signage will provide drivers with information on distances to destination, and warning (hazard) information relating to potential vehicle conflict or pedestrian conflict areas (cross over points); and
- **Temporary diversion signs:** In the event that any diversions of traffic along the construction routes are required, temporary signage will be installed by National Grid or the relevant highway authority or both in accordance with relevant signage design guidance as is standard.

5.4.15 Warning signage would also be installed prior to construction at Church Road, Twinstead to inform users of the road that construction traffic would be using it (additional mitigation measure EIA_TT01). Baseline traffic on this route is fairly low, and while the route passes a church and a village hall, it has no dedicated footpaths. ES Chapter 12: Traffic and Transport (**application document 6.2.12**) identified this road as having a potential significant effect on walker, cyclist and horse rider amenity, fear and intimidation.

5.4.16 It is anticipated that signage will be weighted to help it stay in place and the contractor will undertake regular maintenance checks to report and rectify any defects with signage.

5.5 Access Points

5.5.1 Access points are where the Order Limits join the LRN and provide the entrance to the construction site and are proposed along the length of the project. These are shown on the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**). Where practicable and available, existing accesses have been used. If an appropriate existing access is not available, a temporary access point will be created.

- 5.5.2 As set out in Requirement 11 of the draft DCO (**application document 3.1**), no work to construct, alter or temporarily alter any new or existing means of access to a highway to be used by vehicular traffic may commence until written details of design, layout and reinstatement of that means of access has been submitted to and approved by the relevant highway authority.
- 5.5.3 A standard access point design is provided in the Design and Layout Plans: Temporary Bellmouth for Access (**application document 2.11.12**) and detailed designs will be agreed with the relevant highway authority.
- 5.5.4 Traffic management may be required during the construction of the proposed access points for safety of road users. The Traffic Regulation Order Plans (**application document 2.6**) show the proposed traffic management measures for example temporary traffic light systems to allow single lane closures. The construction of access points / bellmouths is expected to take less than two weeks during construction and a similar duration is anticipated to be required during reinstatement of the access point at the end of construction. As outlined on the Traffic Regulation Order Plans (**application document 2.6**), it is anticipated that smaller roads (single carriageway) would be closed during these two weeks period for safety, with access maintained for residents and landowners. It is anticipated that access points onto larger roads would be undertaken using temporary traffic management.
- 5.5.5 Access control to the working areas will be in place for safety and security. Access points will be designed to reduce risks and congestion by providing for the safe and efficient passage of construction traffic. Where practicable, this may be achieved by providing security gates set back from the public carriageway (up to 20m), so that a single HGV does not block the carriageway and footway. Where used, entrance gates will be placed to allow both plant and the operatives access and it is anticipated that these will be closed and locked when not in use.
- 5.5.6 Measures such as bellmouth construction and temporary construction matting or temporary hardstanding will be used to protect verges and provide a sound foundation for the safe passage of vehicles. Security fencing will be installed around the roadside access areas along with signage restricting access to construction traffic and construction teams only. Vegetation that needs to be removed to create a bellmouth or to provide suitable visibility will be removed in accordance with the measures set out within the LEMP (**application document 7.8**). National Grid will apply for any relevant protected species licences before construction activities commence.
- 5.5.7 In accordance with GG27, the Contractor will undertake regular inspections of the bellmouths to check for potholes or other defects. These will be repaired in a timely manner. In addition, and in accordance with good practice measure GG17 in the CoCP (**application document 7.5.1**), wheel washing will be provided at each main compound access point on to the highway where a need has been identified through the design process. An adequate supply of water will be made available at these locations at all times. Road sweepers will be deployed on public roads where necessary to prevent excessive dust or mud deposits.
- 5.5.8 At the end of construction, access points will be reinstated to their pre-construction condition unless agreed otherwise with the relevant highway authority. This may involve reinstatement of hard landscape features, such as walls and fences or reinstatement of soft landscape features such as hedgerows. The pre-construction records will be used to check that reinstatement has been undertaken to an appropriate standard.

5.6 Temporary Access Routes

- 5.6.1 All temporary access routes will incorporate temporary hardstanding where a suitable permanent surface is not already in place. This could include temporary trackway matting.
- 5.6.2 In accordance with good practice measure GG26 in the CoCP (**application document 7.5.1**), the site speed limit will be 15mph on surfaced temporary access routes and 10mph on unsurfaced temporary access routes and work areas.
- 5.6.3 It is assumed that the temporary access routes for the removal of the 132kV overhead line would be either using existing tracks or would use trackway matting (assumed to be 4m wide) to protect the soil and avoid the need for soil stripping. It is anticipated that the 132kV removal can be undertaken using light vehicles and tractors rather than standard construction HGV.
- 5.6.4 It is assumed that the temporary access routes for removal of the 400kV overhead line to the north of Stour Valley West CSE compound would require a stone access track to provide access for a crane. It is assumed that the stone access track would be 7m wide plus 4m allowance alongside for soil storage.
- 5.6.5 In accordance with good practice measure GG27 in the CoCP (**application document 7.5.1**), the Contractor will undertake regular inspections of the temporary access routes to check for potholes or other defects. These will be repaired in a timely manner.

5.7 Construction Works within the Road Network

- 5.7.1 Road crossings are shown on the General Arrangement Plans (**application document 2.10**). Where the 132kV overhead line crosses the LRN and where the new overhead is to be constructed over the LRN, this will generally be undertaken using scaffolding on either side of the road. Traffic management measures may also be required during the setting up of scaffolding where required. This is likely to be for a short duration e.g. two weeks to install scaffolding where an access is required. A similar duration will also be required at the end of construction, when the scaffold and access is to be removed. In some cases, particularly on narrow / single carriageway roads, road closures may be used during the 132kV removal and the installation of the new overhead line. Further details on traffic management can be found in Section 5.8.
- 5.7.2 Where the underground cables cross the LRN, open-cut techniques will be used. The road width is likely to determine the need for road closures or traffic management as follows:
- For roads that are too narrow to allow traffic to pass while works are undertaken, the road is likely to be closed during construction with a diversion. Anticipated sections and traffic diversions are shown on the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**); and
 - For roads that are wide enough for the works to be undertaken in two parts, it is anticipated that traffic management, such as two-way traffic lights or similar will be used to control the flow of traffic past the works.
- 5.7.3 Access will generally be maintained for residents and landowners. Where this is not practicable, alternative arrangements will be made with the affected parties.

5.8 Traffic Management

- 5.8.1 Traffic management will be used where required to maintain public or workforce safety. This will include during construction and removal of access points, when erecting or dismantling scaffolding and where the underground cables cross the LRN. The anticipated roads that will require traffic management measures are shown on the Traffic Regulation Order Plans (**application document 2.6**) and the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**).
- 5.8.2 Traffic management will be proportionate to the size of road, duration of works and volume of traffic. Traffic management measures could include temporary traffic signals or manned stop and go boards. In some instances, there will be the need for road closures, particularly on single track roads. Specific locations, timings and the specific traffic management measures may need to be agreed with the relevant highway authorities as part of the Permit Scheme. Traffic management plans may change, following discussions with the relevant highway authorities.
- 5.8.3 It is anticipated that roads would only be closed where this is required for safe working. Road proposed for closing are shown on the Access, Rights of Way and Public Rights of Navigation Plans (**application document 2.7**) along with the proposed diversion routes. In accordance with good practice measure AS03 in the CoCP (**application document 7.5.1**), where a road is to be closed, access to and from residential, commercial, community and agricultural land uses will be maintained throughout the construction period. Where this is not practicable, alternative arrangements will be made with the affected parties through the land agreements.
- 5.8.4 A diversion route is anticipated to be required for all roads that would be closed for longer than one day. All diversions are anticipated to adopt the principle that they will use the same standard of road (e.g. 'A' class) or higher where practicable and available. However final agreement on the most suitable diversion route to be used will form part of the Permit Schemes. A full point-to-point diversion will be provided so that all vehicles that will usually and legitimately use a road can continue to use it to complete their journey. The means of access will be communicated to the relevant highway authorities, emergency and essential services.

5.9 Bus Stops and Routes

- 5.9.1 No bus stops are anticipated to require closing or relocating during construction. If this changes, discussions would be had with the relevant highway authority and the bus operators to agree alternative arrangements.

5.10 Pedestrians and Other Road Users

- 5.10.1 Pedestrians and other users using the LRN will be informed of increased traffic during construction through letter drops and local signage. A risk assessment will be undertaken to identify any specific measures required to protect pedestrians and other road users during construction. The measures will be tailored to the road, the number and types of construction vehicles using the route and users of the LRN. This may involve providing signage to advise of alternative footways and cycle routes that can be used during construction. Further details will be provided within the Permit applications and agreed with the relevant highway authorities.

6. Public Rights of Way Management

6.1 Introduction and Definitions

6.1.1 This chapter sets out the good practice measures that will be implemented in relation to the PRow network based on Section 329 of the Highway Act 1980. For the purpose of this document, a PRow is defined as one of the following:

- A footpath, being a Highway over which the public have a right of way on foot only and which is not a footway;
- A bridleway, being a Highway over which the public have a right of way on foot and on horseback or leading a horse (horse is taken to include pony, ass or mule), and by pedal cycle;
- A cycle track, being a way over which the public has the right of way by pedal cycle (with or without a right of way on foot); and
- A restricted byway, being a way over which the public have the right of way on foot, horseback etc. and pedal cycle.

6.1.2 A byway open to all traffic is defined in the Countryside Rights of Way Act 2000, as being a way over which the public have the right of way on foot, horseback etc., pedal cycle or motor vehicle but over which the local highway authority has no obligation to provide a surface suitable for the passage of vehicles.

6.1.3 No permanent PRow closures are required as part of the project and none are sought under the DCO. Therefore, this chapter only covers the temporary measures that will be employed by the contractor during construction to maintain public safety during works.

6.2 Existing PRow

6.2.1 PRow mapping data was provided by Essex and Suffolk County Councils originally in 2021 and updated in July 2022. This has been taken to represent the definitive record of PRow in this area. PRow affected by the project were identified through examination of this data in comparison to the mapping of the Order Limits to understand which PRow may be affected.

6.2.2 PRow surveys were undertaken during summer 2021 for the PRow within the underground cable sections, particularly in Section G: Stour Valley. The surveys generally recorded a relatively low level of use on the PRow within the Order Limits.

6.2.3 In accordance with good practice measure GG06 in the CoCP (**application document 7.5.1**), a full record of condition will be carried out (photographic and descriptive) of PRow within the Order Limits. This will include taking detailed records including photographs showing the condition of the PRow including existing surfacing and any crossing points such as bridges and stiles. This record will be available for comparison following reinstatement after the works have been completed to demonstrate that the standard of reinstatement at least meets that recorded in the pre-condition survey.

6.3 General Strategy for PRow

- 6.3.1 In accordance with good practice measure TT03 in the CoCP (**application document 7.5.1**), all designated PRow have been identified, and the potential temporary closures and diversions have been identified. The locations of the PRow affected by the project are shown in the Access, Rights of Way and Public Rights of Navigation Plans along with the proposed diversion routes (**application document 2.7**). Schedule 7 of the draft DCO (**application document 3.1**) provides details of PRow to be temporarily stopped up, for which a diversion is to be provided (Schedule 7 Part 1) and for which no diversion is to be provided (Schedule 7 Part 2).
- 6.3.2 National Grid is committed to the highest levels of safety during construction and to reducing disruption to the public. It is the intention to keep the majority of PRow effectively open via management where it is safe to do so and the use of temporary closures where necessary during specific activities.
- 6.3.3 As stated in good practice measure GG06 in the CoCP (**application document 7.5.1**), land used temporarily will be reinstated where practicable to its pre-construction condition and use. Therefore, all PRow affected during construction will be reinstated as soon as practicable after completion.

Forms of Managed Closure

- 6.3.4 All designated PRow crossing the Order Limits will be managed with access only closed during specific construction activities. Any required temporary diversions will be clearly marked at both ends with signage explaining the diversion, the duration of the diversion and a contact number for any concerns.
- 6.3.5 Exact details of the forms of closure will be developed by National Grid and its contractor and will be subject to discussion with the PRow Officers at Essex and Suffolk County Councils. For each location at which a PRow is affected by construction, efforts will be made to reduce the impact on users following a simple decision-making process which sets out a hierarchy of actions, starting with those that create the least impact. For example, in order of increasing impact:
- Using signs for both PRow users and construction vehicles to allow safe crossings by PRow users of construction roads (local management);
 - Using contractor staff to hold PRow users for short periods (a few minutes) while vehicles pass or while construction activities are undertaken (local management);
 - Using scaffold protection over PRow so they can still be used underneath construction works;
 - Creating diversions, for example around a scaffold tower or other temporary work site; or
 - Fully closing the PRow for a temporary period and signing an acceptable longer diversion route.
- 6.3.6 National Grid will discuss the proposed temporary closures and diversions with the PRow Officers at Suffolk and Essex County Councils and apply for temporary diversions and closures where relevant. Examples of the forms of intervention that are likely to be implemented by the contractor are set out in Table 6.1.

Table 6.1 – Types of PRow Intervention

Role	Responsibilities
Managed crossing of the temporary access road with signage	Where a PRow crosses a temporary access road to be used for construction activities, it will be disproportionately disruptive to close the PRow for the duration of the use of that access, particularly when the risk to the public is likely to be lower than crossing a public road due to the relatively low traffic volumes. A system of signs warning PRow users of the danger will be used, together with signs warning drivers of vehicles using the temporary access road of the likely presence of PRow users crossing. This will be comparable to an uncontrolled level crossing of a railway or an uncontrolled crossing of a minor road, with low vehicle speeds giving the option for lorries to slow or stop when they see pedestrians.
Temporary access road coincident with PRow	In some cases, the temporary access route follows an existing PRow, for example where an existing access track is currently used as a PRow. At these locations, and aside from the duration of any full closures proposed, appropriate vehicle management measures will be put in place. This is likely to consist of signs for both drivers and PRow users, speed limits, control by site staff where necessary, and standard instructions to drivers about protocol. In addition, a small number of PRow run alongside the course of a temporary access route. Where this is the case an appropriate separation and demarcation (suitable fencing) will be made between them to maintain safety of PRow users.
Managed Closure for Scaffolding	Where scaffolding is to be erected to protect a PRow during the stringing and destringing of overhead lines, the scaffolding on either side will be constructed first. The PRow will be closed for a maximum of one day while the scaffolding is placed over the PRow, and once again for removal of the scaffolding. Aside from that, the PRow will remain open with the scaffolding providing protection from overhead line works. Where practicable, a short diversion of the PRow will be created around the scaffolding, so no full temporary closure will be necessary.
Managed Closure for Stringing or De-stringing	Where scaffolding is not proposed for the stringing/de-stringing process, the PRow will need to be closed for part or all of a small number of days, which will be advertised in advance.
Managed closure where cable construction crosses a PRow	The PRow will need to be closed for during installation of the underground cables. As a ducting system is proposed, it is anticipated that the PRow can be reopened shortly after the ducts are installed which will help keep the closure to a short period of time, which will be advertised in advance.

6.3.7 A high-level programme for PRow closures will be produced by the contractor. It is anticipated that this will be issued to the PRow Officers at least seven days in advance of any closure and the PRow Officers will then be notified once the closure has ceased. Advance notice will include dates of closure and the likelihood of the path being reopened the same day.

Signage and Information

6.3.8 All PRow affected during construction will have clear signage positioned at the start and end of the relevant section of the PRow, at least two weeks in advance of disruption to notify users about the works, unless otherwise advised by the PRow Officers at Essex

and Suffolk County Councils. It is anticipated that the signage will explain the effects of the works (for example anticipated closure or segregation of PRow along the working area), the anticipated duration of the effects (including dates and hours of working) and project contact details for any questions.

- 6.3.9 It is assumed that a standard form of signage relating to temporary closures will be used across the project and will be agreed with PRow Officers in advance of construction. The location of signs will also be discussed before construction. Where applicable, maps showing temporary diversions and alternative PRow will be provided at sites affected by the works. Users will be advised when it is safe to use the PRow at a specific location by National Grid's contractor's staff and/or signage.
- 6.3.10 In addition, it is anticipated that local residents will be informed of effects to PRow through the regular newsletters being undertaken within a particular section of the route.

7. Travel Plan

7.1 Introduction

7.1.1 This chapter sets out the good practice measures that will be in place to encourage sustainable transportation for the workforce, in a way that reduces both environmental and social impacts on the local area. The objective of the Travel Plan is to encourage a reduction in the quantity of single-occupancy car journeys and to create a shift towards more sustainable modes of transport.

7.1.2 To achieve this, National Grid and its contractor will promote the use of sustainable travel solutions, such as car sharing and use of public transportation. Wherever practicable, operatives will meet at pre-determined locations to share a minibus to the workforce to reduce the impact of cars being parked at unsuitable locations.

7.2 Travel Plan Assumptions

Geographical Location

7.2.1 The project is located in a part of Suffolk and Essex that is rural and many of the local roads are narrow. There are limited dedicated cycle routes within the area around the Order Limits and the train and bus networks offer limited services.

Workforce

7.2.2 National Grid's appointed contractor will specialise in construction of electrical infrastructure. The majority of the workforce will be split into mobile gangs, which would normally consist of between four and six employees. These staff will normally reside together during the week in temporary accommodation. It is anticipated that the mobile gangs will travel together to and from their accommodation each working day in a minibus, with the minibus collecting staff from the pick-up / drop of points at the start and end of the working day. The services will be designed around shift patterns and commuting times. Services will be provided to drop staff at the main site compound and also at work fronts along the Order Limits, as required.

7.2.3 It is anticipated that this minibus service will also provide the function of a welfare van at the individual work fronts outside of site compounds. The welfare van typically contains facilities including a toilet, refreshment facilities and a microwave. This type of working provides a sustainable mode of transport the use of approved construction routes to otherwise remote areas on the LRN.

7.2.4 The main site compound is located off the A134 at Leavenheath. This will house a regular workforce over the construction period. The main site offices are located at this compound, and this is anticipated to form the main hub for employees visiting the site on a one off or temporary basis. It is assumed that car sharing or minibuses would be used between the main site compound and individual work fronts where required for inspections and visits.

7.3 Travel Planning Strategy

Staff Travel Survey

- 7.3.1 Prior to construction, it is anticipated that the contractor will undertake a staff travel survey to capture information about how staff travel to work. This will consider the local sustainable transport infrastructure and also the main accommodation locations for staff. It is anticipated that the results of the staff travel survey will inform the setting of project specific requirements, including staff travel routes and ways to encourage walking, cycling, public transport use and car sharing / reduction in car use.

Travel Information Pack

- 7.3.2 The contractor will prepare a travel information pack which will be issued to all staff as part of their induction. This is expected to include:

- An introductory leaflet to the travel plan, highlighting the purpose and measures being implemented;
- A map showing the location of the project in relation to the local area, highlighting the nearby bus stops and local facilities within easy walking distance of the site;
- Bus timetables of local services from nearby bus stops;
- Details of routes and destinations served by trains which stop at local rail stations;
- A map showing local cycle routes, which will also indicate the locations of cycle parking and cycle shops in the area; and
- Details of any local taxi numbers.

- 7.3.3 Travel information will also be provided on staff notice-boards within the main site compound and it is anticipated that travel advice will be issued to visitors upon making appointments. The contractor will regularly review the information provided within the travel information pack so that it is kept up to date and reflects any changes, such as local taxi numbers and new bus timetables or changes to services.

- 7.3.4 The contractor will promote car sharing among its employees and suppliers and assist them where necessary, to find suitable car share partners. They will include information about the benefits of car sharing in the travel information pack which will be provided to staff at induction.

- 7.3.5 Staff will be required to sign in and out of each work location. These records will be used to assess vehicle movements and occupancy rates. The target is to achieve an average minimum occupancy of 1.3 personnel per vehicle over each six month monitoring period, which is the industry average for construction projects. Should the results of the monitoring be lower than this target, National Grid will discuss the need for further measures with the contractor to see if there are additional measures to encourage further car sharing, such as additional provision of minibus transport.

Public Transport and Non-Motorised Commuting

- 7.3.6 Details of public transport routes and timetable, cycle routes and footpaths will be provided within the travel information pack and on site noticeboards. In addition, the

contractor will identify the need for local pick-up and drop off points at suitable locations based on the results of the travel survey. This could include Sudbury train station and local accommodation sites. It may also include locations with secure bicycle storage facilities to encourage walking and cycling.

- 7.3.7 For safety reasons, it is anticipated that the only site compound where staff will be permitted to enter on foot or by bicycle (as well as by motor vehicle), will be the main site compound (off the A134). Otherwise, walking and cycling will be via the local pick-up and drop off points noted above. The contractor will provide storage areas for storing personal protective equipment on site so staff do not need to carry equipment during their daily commute.

Vehicle Sharing

- 7.3.8 It is anticipated that a vehicle sharing database will be created and administered by the contractor to identify members of staff that live in the same area so that they can travel to the local accommodation together via a vehicle sharing arrangement such as a minibus.
- 7.3.9 Where vehicle sharing is encouraged and actively promoted, it is assumed that a 'guaranteed lift' to local accommodation will be provided, as failure to implement this will be seen by potential vehicle sharers as a barrier to taking up vehicle sharing. This 'guaranteed lift home' may be in the form of access to the commuting minibus or welfare van or provision of a subsidised taxi, as appropriate.

Car Parking Control

- 7.3.10 The main site compound is located off the A134 at Leavenheath. It is assumed that this will contain approximately 50 parking spaces for the workforce. It is anticipated that vehicles authorised to park at the compounds will be given a parking permit and visitors will be booked in and then directed to available parking spaces. It is anticipated that smaller satellite compounds will provide a limited number of parking spaces to provide parking for workers at these. There will also be parking for the welfare vans at each individual working areas.
- 7.3.11 It is assumed that the parking strategy will be communicated through the Travel Information Packs. It is anticipated that car park management will be undertaken and monitored in order to control onsite parking and that where limited parking is provided it is used by those it is intended for, as opposed to those who should be accessing the site via other methods.

7.4 Travel Plan Monitoring and Targets

- 7.4.1 It is anticipated that an initial baseline travel survey will be undertaken within three months after commencement of the works once travel habits have become established. This will set the baseline trip generation and modal split characteristics of the project and the data collected will be used to determine the success of the measures implemented within the Travel Plan. Each month the contractor will gather the following data to inform travel planning on the project:
- Percentage of onsite staff who have completed the Staff Travel Survey;
 - Percentage of onsite staff issued with Travel Information Packs;
 - Percentage of onsite staff signing up to the car-sharing database;

- Car park usage in terms of how many spaces used and proportion split between construction workers and visitors;
- Mode of transport used by workers to commute to the site;
- Number of minibus/welfare van movements between the site compound and work fronts; and
- Number of people car/vehicle sharing.

7.4.2 The contractor will set targets around increasing the number of staff using sustainable travel options and a general reduction of travel movements over the duration of the project. It is anticipated that the contractor will undertake quarterly reviews following the three month audit to assess progress against the targets. The objective will be to measure the success of the project against its targets, and to identify the potential for refinements. It will also allow for the update of staffing numbers and the likely shift patterns and location of staff.

7.4.3 It is anticipated that the contractor will compile a report outlining the results, together with the results of ongoing monitoring throughout the preceding period. The report will comment on the overall success of the Travel Plan and will set out initiatives for the following six months. A copy of the report will be available for the relevant highway authorities on request. Where amendments to targets are identified, these will be discussed and agreed with the relevant highway authority.

8. Implementation

8.1 Implementation of the CTMP

- 8.1.1 National Grid will put in place robust procedures to inform and supervise all those working on the project including its contractor, to make sure the control measures set out in the CTMP are adopted when undertaking the construction of works authorised by the DCO. The main responsibility for implementing these control measures will fall to the contractor.
- 8.1.2 The contractor will brief all operatives on the specific details within the CTMP prior to the commencement of works. The briefings will be delivered by a suitably trained member of the team such as the site supervisor, Construction Manager or Environmental Manager.

8.2 Site Checks and Reporting

- 8.2.1 It is anticipated that the contractor will undertake pre-site condition surveys as part of the site setup, as described in Sections 5.2 and 6.2. This will include making a record of the condition of existing features such as roads, tracks and PRow. Post site condition surveys will be undertaken by the contractor after construction and the results of these and any remediation will be discussed with the landowner and where applicable, the relevant highway authorities, prior to handover.
- 8.2.2 Regular site checks will be carried out across the project to monitor compliance with the CTMP. The programme of site inspections will be controlled by the Environmental Manager who will draw on appropriate suitably experienced specialists for specific tasks. The overarching inspections are summarised below in Table 8.1. Immediate action including, if necessary ‘stopping a job’, will be taken should any incidents or non-conformance with the CTMP be found during inspection.
- 8.2.3 Site checks and inspections will include checks against compliance with good practice measures and other commitments made by the project.

Table 8.1 – Anticipated Site Checks Relevant to the CTMP

Inspection Type	Purpose	Who	Frequency
Environmental Inspections	To monitor compliance with project commitments and the environmental standards.	Environmental Manager	Weekly
	To record adherence to good practice commitments and raise actions where concerns are identified.	EnvCoW	
	To check mitigation measures for sensitive features are in place.		
Audits (External/Internal)	Formal audit process for internal Management System.	External Auditor Environmental Manager	Annual

Inspection Type	Purpose	Who	Frequency
Site Checks	To ensure that working practices are carried out in accordance with approved methods, standards and good practice commitments. These will also check compliance with requirements agreed in any applicable permit	Works Supervisor	Daily visual check in working area.
Environmental Observations	Allows all staff to raise concerns or good practice ideas to safeguard continual improvement and innovation.	All staff	As required.
Monitoring of vehicles and road network	Checking signage is in place. Monitoring of vehicle condition and use of agreed construction routes.	EnvCoW	Weekly
Monitoring of PRow routes	Checking signage is in place and checking condition of PRow within the Order Limits.	EnvCoW	Daily visual check in working area

8.2.4 The results of inspections will be recorded in an Environmental Log. Findings will be disseminated to the wider construction team as appropriate and additional procedures put in place if required.

8.2.5 In accordance with good practice measure TT02 in the CoCP (**application document 7.5.1**), the contractor will implement a monitoring and reporting system to check compliance with the measures set out within the CTMP. This will include the need for a GPS tracking system to be fitted to HGV owned and operated by the contractor to check for compliance with authorised construction routes. The contractor will also be expected to monitor the number of construction vehicles between the site and the SRN. Deviations from the authorised routes or changes to traffic levels that are higher than the CTMP assumptions will require discussion of the need for additional mitigation measures with the relevant highway authorities.

8.3 Non-Compliance Procedure

8.3.1 The EnvCoW will generally be responsible for undertaking site audits to check compliance with the CTMP. All incidents associated with the construction of the project, including environmental incidents and non-conformance with the CTMP, will be reported and investigated. Where the contractor, suppliers or sub-contractors are not delivering the requirements, National Grid will review performance and will conduct further training and issue formal warnings as appropriate.

8.4 Community Liaison

8.4.1 In accordance with good practice measure GG25 in the CoCP (**application document 7.5.1**), members of the community and local businesses will be kept informed regularly of the works through active community liaison. This is anticipated to include notification of heavy traffic periods and start and end dates of phasing. A contact number will be provided which members of the public can use to raise any concerns or complaints about the project. All construction-related complaints will be logged by the contractor in a complaints register, together with a record of the responses given and actions taken. Further details can be found in Section 15.4 of the CEMP (**application document 7.5**).

- 8.4.2 The specific requirements for works in highways will be in accordance with the Permit Schemes, which is anticipated to set out the communication expectations for road works. The project will adhere to these principles, the permit requirements and any resulting traffic diversions will be shown on the relevant county council's online traffic map. Communication is anticipated to include sending letters to residents, detailing the extent of the works and, for example, any implications on parking arrangements. Details of where traffic management is in place is also anticipated to be available on the project website.

8.5 Complaints Procedure

- 8.5.1 The complaints procedure for the project is outlined within Section 15.4 of the CEMP (**application document 7.5**).

8.6 Change Process

Introduction

- 8.6.1 The CTMP is one of the plans listed in sub-paragraph (2) of Requirement 4(1) in the draft DCO (**application document 3.1**) which states: *'All construction works forming part of the authorised development must be carried out in accordance with the plans listed in sub-paragraph (2) below, unless otherwise agreed with the relevant planning authority or other discharging authority as may be appropriate to the relevant plan concerned.'*
- 8.6.2 Requirement 1(4) of the draft DCO (**application document 3.1**) states: *'Where an approval or agreement is required under the terms of any Requirement or a document referred to in a Requirement, or any Requirement specifies "unless otherwise approved" or "unless otherwise agreed" by the relevant highway authority or the relevant planning authority, such approval or agreement may only be given in relation to minor or immaterial changes and where it has been demonstrated to the satisfaction of the relevant highway authority or the relevant planning authority that the subject matter of the approval or agreement sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the Environmental Statement.'*
- 8.6.3 Where there is a need to update the CTMP beyond derogations addressed pursuant to the above, the below text addresses the process for changing the CTMP itself. This does not cover changes to the DCO (material or non-material) which would be managed through the process set out in Schedule 6 of the Planning Act 2008.
- 8.6.4 Therefore, the below process is limited to changes to the CTMP.

CTMP Changes

- 8.6.5 It may be necessary to amend the details contained in the CTMP as a result of the iterative discussion and engagement that will continue after the CTMP has been approved. The resulting changes would not alter any of the underlying commitments, mitigations and methodologies set out in the CTMP. An example may be where a pre-construction survey identifies that a measure already committed to is no longer required in the CTMP. In every case, consideration will be given to any changes to the outcome of the assessment of environmental effects.
- 8.6.6 Where there is a proposed change to the CTMP, National Grid will provide details to the relevant planning authority together with evidence of relevant stakeholder engagement,

where upon, the relevant planning authority will, acting reasonably, endeavour to respond within 28 days to either confirm its consent to the change to the CTMP or provide its reasons why the change is not accepted.

References

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Driver and Vehicle Standards Agency (2018) Special types enforcement guide.

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