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28/07/2023	А	Final	First Issue		

1. About this document

1. Introduction

- 1.1.1. This document provides National Grid Electricity Transmission Plc's (National Grid) (the Applicant) response to Action Points addressed to the Applicant arising from Issue Specific Hearing 4 (ISH4) held on Wednesday 19 July on Environmental Matters and draft Development Consent Order (DCO) in respect of the Yorkshire Green Energy Enablement Project (Yorkshire GREEN) (the Project).
- 1.1.2. Responses to actions addressed to the Applicant and required for Deadline 6 are provided in **section 2** below.

2. The Applicant's Response to ISH4 Action Points

Table 2.1 – Response to ISH4 Action Points

	ExA description	Party	Deadline	Response
No.				
1	Consider a scheme for the planting of fast-growing plants on the northern boundary of the western Temporary Construction Compound at Monk Fryston.	The Applicant	D6	As stated in the Applicant's Response to Examining Authority's First Written Questions (ExQ1) (Document 8.9.1) [REP2-038], the siting of construction compounds away from settlements and scattered dwellings has minimised the potential visual impact of construction activity upon fixed views experienced by residents. Fleeting visibility towards construction compounds is acknowledged to be experienced from some medium sensitivity highway receptors, and these receptors would include users of Rawfield Lane, Butts Lane and the A63. It is proposed that the western Temporary Construction Compound at Monk Fryston would have 2.4m high solid timber fencing along its northern boundary, as outlined at paragraphs 2.3.10 to 2.3.11 in the ES Appendix 3B, Code of Construction Practice (CoCP) (Document 5.3.3B) [APP-095] and illustrated in Appendix C of the Applicant's Response to ISH2 Hearing Action Points (Document 8.23.4) [REP4-026]. The temporary compounds are not illustrated on the photomontages that accompany the Landscape and Visual ES Chapter, however the location of the compounds can be established with reference to the existing views at Viewpoint 25 from the A63 near the junction with Rawfield Lane in Annotated Photomontages for the purposes of ExQ1 Q11.1.3, Document 8.16 [REP2-047] and from Viewpoint E on Butts Lane in Additional Photomontages as requested by Examining Authority (Part 2 of 2), Document 8.15, [REP2-046]. At both Viewpoint 25 and Viewpoint E, the northern boundary of the western Temporary Construction Compound at Monk Fryston would be fully screened by mature
				hedgerow planting along the A63.
				During the construction phase, stored materials and taller structures over 2.4m high, including double height portacabins up to 5.5m high, would occupy a comparatively modest footprint within the overall footprint of the temporary construction compound. In a relatively flat landscape, structures that would be visible above the 2.4m solid fence would consequently have a modest contribution to the overall magnitude of visual change during the construction phase.
				Potential visibility of the northern boundary of the Temporary Construction Compound at Monk Fryston is predicted to be restricted from Butts Lane (Viewpoint E) and other parts of the A63 and Rawfield Lane (Viewpoint 25) by planting along the A63, as described above. There are predicted to be very fleeting views experienced by road users travelling south on the northern end of Rawfield Lane and from a localised section of the A63 directly north of the compound. In this context, it is considered that the 2.4m high solid fencing that is proposed to the northern boundary of the Temporary Construction Compound at Monk Fryston would provide reasonable and appropriate mitigation.
				The addition of temporary fast-growing planting and associated maintenance access would require the expansion of the Order Limits and the loss of additional agricultural land and is considered disproportionate given the negligible additional benefit that temporary planting would have in further reducing adverse visual impacts for the construction period.
2	Submit comments on the Yorkshire Wildlife Trust letter dated 18 July 2023 [AS-023].	The Applicant	D6	This action point is addressed in Applicant's Comments on Interested Parties' Deadline 5 Submissions (Document 8.28) submitted at Deadline 6.
4	Submit the Natural England guidance which states that the Biodiversity Net Gain (BNG)	The Applicant	D6	Natural England guidance which accompanied the release of Metric V4.0 states: "Users of previous versions of the Biodiversity Metric should continue to use that metric (unless requested to do otherwise by their client or consenting body) for the duration of the project it is being used for. This is because users may

Action No.	ExA description	Party	Deadline	Response
	metric that was used at the start should be retained.			find that certain biodiversity unit values generated in biodiversity metric 4.0 will differ from those generated by earlier versions.1"
				National Grid acknowledges that Defra Metric 4.0 is the most recent version of the metric, but in line with Natural England guidance which advises the continued use of a single metric for the duration of a project, it is National Grid's current intention to continue to use Metric 3.1 for the remainder of the Project to ensure that results are comparable at each stage.
				National Grid has previously submitted this information in its response to the Environment Agency Written Representations [REP3-032].
8	Set out the haul road alternative proposal to avoid HGVs through Lumby and provide update on progress on landowner agreement.	The Applicant	D6	The alternative proposal is set out in an illustrative plan in Appendix A to this document, which would see a temporary access extend from AP7. This would mean that HGV traffic would be able to use the bellmouth AP7 and travel to pylon XC521. The access proposal would consist of track matting. The use of this proposal would mean that HGV access would not need to be routed through Lumby, however the road through Lumby would still be used for LGV movements and for future maintenance requirements.
				Heads of Terms were already agreed with the affected landowner prior to this proposal being identified, and a meeting has taken place to discuss the alternative which was positively received. The alternative access route will be required to be agreed by the landowner as part of voluntarily agreement and the option agreement signed by the landowner.
				If the option agreement is signed within the timeframes of the Examination, this would enable the CTMP (Document 5.3.3F(C)) to be updated to reflect the change of route for HGVs as detailed above. However, as it can take some time for an option agreement to be finalised and signed which may not take place prior to Deadline 7, National Grid consider an update to the CTMP could be made to confirm as part of the routeing strategy the flexibility for access to pylon XC521 to be taken via Access Point 7 for HGV access should the voluntary agreement be in place.
9	CTMP update if landowner agreement confirmed for haul route to avoid use of Access Point 8 by HGV traffic.	The Applicant	D7	National Grid is continuing to progress the alternative haul route access in the vicinity of Lumby, to avoid the use of Butts Lane by HGVs during the construction period. Should this alternative access route be confirmed as agreed with the landowner and an option agreement be signed this would enable the CTMP (Document 5.3.3F(C)) to be updated to reflect the change of route for HGVs as detailed under Action Point 8 above. However, as it can take some time for an option agreement to be finalised and signed which may not take place prior to Deadline 7, National Grid consider an update to the CTMP could be made to confirm as part of the routeing strategy the flexibility for access to pylon XC521 to be taken via Access Point 7 for HGV access should the voluntary agreement be in place.
11	Submit relevant details of statutory guidance on clearance distances above the banks of watercourses, in regard to the comments on this matter made by Ainsty Internal Drainage Board (IDB).	The Applicant	D6	Schedule 2 of the Electricity Safety, Quality and Continuity Regulations 2002 (2002 Regulations) establishes the statutory clearances required for overhead lines. A full copy of the 2002 Regulations can be found at Appendix B to this document. These regulations are directly referenced within Article 19(12) of the draft DCO (Document 3.1(E)) . The statutory minimum ground clearance for a 275kV overhead line is 7.0m.
				In addition, the National Grid authored Technical Guidance Note 287 sets out Third-party guidance for working near National Grid Electricity Transmission equipment to ensure works are compliant with National Grid specifications and statutory requirements. A copy of this Guidance note is appended at Appendix C to this document.
				The requirements of Energy Networks Association Technical Specification 43-8 as referenced by National Grid Technical Specification 2.04, and TGN287, ensure that National Grid meet their statutory obligations under the Electrical Safety,

¹ Source: Natural England. (2021) The Biodiversity Metric 4.0 (JP039). Available at https://publications.naturalengland.org.uk/publication/6049804846366720

Action No.	ExA description	Party	Deadline	Response
				Quality and Continuity Regulations 2002 (ESQCR) with respect to minimum clearances from overhead lines, including minimum ground and object clearances. The minimum clearance distance to conductors operating at275kV to an object that cannot be stood on top of is detailed in ENA TS 43-8 and is 2.4m from the object to the conductor. The 2.4m clearance from the conductor ensures that work can safely be undertaken underneath the overhead line. National Grid are aware that Ainsty IDB refer to their guidance which refers to GS6 guidance. The GS6 guidance sets out guidelines for working near overhead lines and sets out exclusion zones. These zones are for guidance and on the basis that no measures are in place for working under the lines. National Grid note the guidance but consider that it is possible to work within this zone as long as the statutory minimum clearance distances are maintained as per ENA 43-8. By achieving the clearances as stated in ENA 43-8, then it is safe to work underneath the overhead line. ENA 43-8 states that GS6 provides recommendations for working under overhead lines and that in the cases where the exclusions zones may be breached as set out in GS6, it is imperative that the clearances states in ENA 43-8 (2.4m for 275kV) be maintained to ensure safe working. If within the 7m exclusion zone, consultation with National Grid at the time of works will mean the exact clearances can be provided to ensure that the safe working distances are achieved, and suitable working practices and risk assessment can be put in place, such as limiting the height of the arm of the excavator to 3.5m Furthermore, National Grid have reviewed the proposed design clearances at overhead line crossings of AIDB-maintained watercourses. For existing crossings where reconductoring is taking place, existing clearances are improved upon in all cases, and, in all but one location, the 10.5m clearance required by AIDB's internal guidance is met. For two new crossing locations, the 10.5m requirement from AIDB's internal guid
				Interested Parties' Deadline 5 Submissions (Document 8.28) submitted at Deadline 6. Furthermore, Appendix D below in this document (Document 8.29.4) shows the existing clearances, and the proposed new clearances.
14	Consider the alternate Sunday working arrangements that are included in the Orders for Hinkley Point C Connector and Richborough Connection Project and provide an assessment of the implications for the construction programme should a comparable provision be inserted into Requirement 7.	The Applicant	D6	As noted by the Examining Authority at ISH4 the National Grid (Hinkley Point C Connection Project) Development Consent Order 2016 and the National Grid (Richborough Connection Project) Development Consent Order 2017 do include paragraphs in Requirement 7 that are similar in nature in both Orders that restrict weekend working. The National Grid (Hinkley Point C Connection Project) Development Consent Order 2016, Requirement 7(3) states 'working on a consecutive Saturday and Sunday may take place only on two out of any four consecutive weekends in each relevant local authority area' and the The National Grid (Richborough Connection Project) Development Consent Order 2017 Requirement 7(2) states 'working on a consecutive Saturday and Sunday may only take place on two out of any four alternate weekends in each relevant local authority area'. To note as discussed at ISH4 the National Grid (Richborough Connection Project) Development Consent Order 2017 does include Bank Holidays as part of its core working hours (Requirement 7(1)).
				However, as detailed in the Updated Need Case (Document 7.4) [APP-205] submitted in support of the application, there is a critical need for this reinforcement project to be in place to meets its Earliest in Service Date in 2027. This urgency is recognised further by the inclusion of this Project in Ofgem's decision on accelerating onshore electricity transmission investment and its decision to introduce a new Accelerated Strategic Transmission Investment (ASTI) framework. Therefore, the programme requirements and working hours as detailed in Requirement 7 of the draft DCO (Document 3.1(D)) [REP5-004] in particular the restrictions on weekend working should not be compared against

Action No.	ExA description	Party	Deadline	Response
				previous Projects. The noise assessment for the Project has taken place as per the working hours proposed, and the assessment is detailed in Chapter 14 Noise and Vibration of the Environmental Statement (Document 5.2.14) [APP-086] and mitigation set out in the Noise and Vibration Management Plan (Document 5.3.3H) [APP-101]. The assessment and mitigation proposed does not justify the inclusion of any further restrictions on working hours in Requirement 7 of the draft DCO along the lines of those proposed on the Hinkley and Richborough Connection Projects.
				National Grid maintain that the working hours put forward as part of the application are required for the successful delivery of the Project meeting the September 2027 energisation date. The Project has a tight construction programme with a number of key dates that must be achieved in order to meet the Earliest In Service Date, such as a significant number of outage requirements that cannot be changed and are booked well in advance of construction. Should an outage be missed, this could have a significant impact on the construction programme, with another outage potentially not available until the next outage season (April – October). As the outage works are limited in their availability and duration, it is not possible to reduce the working hours from those proposed in the draft DCO, as it is essential to the programme that all works are completed within the limited outage window, which will include working Sundays and Bank Holidays.
				Due to the nature of the works, and skilled workers that are required on this Project, the workforce usually is widely geographically spread, and typically works of this nature are undertaken on a 10 day on 2 day off work pattern to maximise productivity and minimise time lost to travel. This is standard across the industry.
				In addition to this, the Project requires eight supergrid transformers, which have agreed shipping dates, as these are sourced from outside of the UK. The substations need to have the foundation and bund work complete to be able to accept these deliveries.
				It is not envisaged that construction would take place every day, and every weekend throughout the Project, however National Grid need the flexibility to work those days and hours should there be a need to do so to meet the key dates referred to above. This may be required due to unforeseen circumstances, or weather delays that mean that progress on certain elements of work has not been made as expected, in which case National Grid would, for example, need to undertake construction works at all times throughout the weekend to maintain the programme and meet those keys dates. This could be required where there is an extended period of wet weather that means that soil is unable to be worked on for a period of time. The overarching programme including the need to build in float to the programme requires the working hours as set out in Requirement 7 of the draft DCO (Document 3.1 (D)) [REP5-004]) to ensure the programme can be achieved and the connection is in place to meet the Earliest in Service Date in 2027.
16	Provide final position statements on working hours.	The Applicant	D7	The final Position Statement is progressing and will be submitted at Deadline 7.
18	Consider additional wording in the Code of Construction Practice (CoCP) to cover the use of a carbon interface tool and weighting of sustainability measures in tenders for contractors.	The Applicant	D6	National Grid has added the following text into measure CC01 in the Code of Construction Practice (Document 5.3.3B (E)) submitted at Deadline 6: "The main works contractor(s) will maintain a Carbon Interface Tool (CIT) that will record the carbon footprint and will be reviewed every quarter by the contractor and National Grid. Where possible, the contractors will seek opportunities to reduce the carbon footprint of the project which will be discussed with National Grid at focused Sustainability Workshops."
				National Grid do not consider it necessary to include within the COCP wording that covers the tendering process for the Project, as this already forms part of the process, and is not necessary considering the measure above included in the COCP would be in place for the successful contractor to deliver against in the construction phase. Furthermore, the timeframe for any tendering exercise for contractor(s) to deliver the Project are not linked to the consenting process and may take place prior to the grant of development consent and the COCP being in force.

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19	Statement regarding security for Substation sites.	The Applicant	D6	National Grid must comply to the Electricity Safety, Quality and Continuity Regulations 2002 as a minimum standard, and National Grid's technical specifications based on the regulations above that covers perimeter security when designing the substation sites.
				The function of perimeter security fences is to provide a deterrent, physical barrier and potential alarm against intruders. The perimeter fence shall be robust to give long delay times for access/egress for person's intent on unauthorised access.
				Security fencing must be designed and manufactured in accordance with the minimum standards in the technical specification. Relevant British Standards and/or Eurocodes should be used as a reference when the item is not covered or superseded by this technical specification.'.
				The overall height of the fence must be 2.4m above base level, and must be designed to the general purpose fence British standard specifications, detailed in BS 1722-12:2016 – 'Fences. Specification for steel palisade fences', BS type reference GP 24.
				An electric pulse fence system must be installed to the rear (internal) face of the security fence, attached to lugs welded to the fence posts, extending 3.4m above base level.
				Warning signs must comply with "The Electricity Safety, Quality and Continuity Regulations 2002". Where electric fencing is used warning signs shall also comply with "BS 1722-17 Fences – Part 17: Specification for fences – Design, installation and maintenance".
				Anti-drone signage must be displayed.
				All substation sites are designed to these standards to avoid unauthorised entry to the substation in order to adequately protect the critical infrastructure.
20	Prepare and submit a simple table listing each dDCO provision for which there is an	The Applicant	D6	Appendix E of this document sets out the provisions to which objections remain outstanding from third parties in respect of the draft DCO (Document 3.1(E)) in the format requested.
	 the party or parties objecting, the specific matter in contention, that party's position or preferred wording (where available); and, the Applicant's response to that objection. 			Each party's respective position has been taken from submissions previously made to the Examination and the relevant examination library reference is quoted.
23	Consider wording of Article 46(7)(b) to cover the situation where the Local Planning Authority did not agree with the hedgerow removal.	The Applicant	D6	The power afforded by Article 46(7) removes the need for consent under the Hedgerows Regulations 1997 to remove both hedgerows listed within Schedule 17 and, subject to consultation, any other hedgerow within the Order limits which needs to be removed for the purposes of the authorised development.
				Similarly, removal of a hedgerow without relevant planning authority consent would be permitted under the Hedgerows Regulations if it were necessary to carry out development for which planning permission has been obtained.
				Regulation 6(1)(e) of the Hedgerows Regulations states "The removal of any hedgerow to which these Regulations apply is permitted if it is required— (e) for carrying out development for which planning permission has been granted or is deemed to have been granted, except development for which permission is granted by article 3 of the Town and Country Planning General Permitted Development Order 1995 in respect of development of any of the descriptions contained in

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				Schedule 2 to that Order other than Parts 11 (development under local or private Acts or orders) and 30 (toll road facilities);". Therefore, the same principle should be applicable for development consent so as not to create an enhanced burden to this Project above and beyond what the Hedgerow Regulations allow for planning permissions generally. Consultation is proposed in respect of hedgerows not listed in Schedule 17 to both inform the local planning authority of the removal and also allow for any input or requests relating to the specifics of the removal, which National Grid would consider when constructing the authorised development. The local planning authority would not be able to prevent
24	Consider whether Article 51 is necessary in	The	D6	removal of the hedgerow, however neither would the local planning authority be able to prevent removal of a hedgerow under the Hedgerow Regulations where planning permission had been granted. National Grid have retained Article 51 within the draft DCO (Document 3.1(E)) submitted at Deadline 6 because it is
	light of the made Longfield Solar Farm Order	Applicant		considered that the article is necessary for this Project. Whilst it is acknowledged that the Secretary of State removed a similar article from The Longfield Solar Farm Order 2023 (Longfield), this Project can be distinguished from Longfield in a number of ways.
				Firstly, the Project is a linear development which crosses a very wide area and so it is more likely that the presence of human remains will be encountered. Similar articles have been included in Development Consent Orders for other linear schemes such as Southampton to London Pipeline Project and the A428 Black Cat to Caxton Gibbet Road Improvement scheme.
				Secondly, the Secretary of State's justification for removing the parallel article within the Longfield Development Consent Order was that there were no known burial grounds within the Order Limits. However, within the Project, there is a potential for archaeological findings and findings of human remains within the Order Limits. Whilst there are no known burial grounds, paragraph 5.5.1 of the Archaeological Written Scheme of Investigation (Document 5.3.3C) [APP-096] confirms that it is possible for human remains to be present within the Order limits, particularly in and around the registered battlefields of Towton (1461) and Marston Moor (1644). Therefore National Grid consider it necessary to retain Article 51.
				Another reason for retaining Article 51 is in the interest of time and avoiding any unnecessary potential delays to the implementation of development. Although there is a provision within the Written Scheme of Investigation (Document 5.3.3C) [APP-096] that deals with human remains, Article 51 provides needed clarity as to the procedure in the event human remains are found. The wording in Article 51 contains additional provisions to those which were within the draft article for Longfield. For example, paragraph (12) of article 51 removes the notice requirements before the removal of human remains where the undertaker is satisfied that these were interred more than 100 years ago and that no relative or personal representative of the deceased is likely to object to the remains being removed. Paragraph (13) requires that the undertaker seeks and complies with direction from the Secretary of State under paragraph (14) regarding the treatment of such remains following their removal. Taken together the effect of Article 51 is to replace the existing and disparate regimes for regulating the removal of human remains and consolidate the applicable provisions in a single Article in the DCO. It is required by the undertaker to ensure that any archaeological remains are recovered appropriately without causing unacceptable delay to the implementation of this NSIP.
25	Schedule 1: Consider whether Work No. U8 can be removed from the dDCO.	The Applicant	D6	Under section 115 of the Planning Act 2008 (PA 2008), development consent may be granted for development for which development consent is required or 'associated development'. Work No. U8 falls within the definition of 'associated development' under section 115 of the PA 2008. In contrast to the requirements for inclusion of compulsory acquisition powers under section 122 of the PA 2008, there are no conditions which must be satisfied to enable 'associated development' to be included in a DCO. Therefore, even though the works contemplated by Work No. U8 have been completed by a third party as advance works, there is no reason why the works cannot be included in the DCO (if granted).

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				Notwithstanding this, National Grid notes the ExA's concern and suggestion that this work may be recommended to be included as 'not used' in the DCO. It is National Grid's understanding that statutory instrument drafting would not allow for a 'not used' provision within Schedule 1. Therefore, to avoid any future confusion, the specific Work No. U8 has been removed from Schedule 1 (Authorised development) of the draft DCO (Document 3.1(E)) submitted at deadline 6, and the "U" Work Nos. have been renumbered in Schedule 1 (Authorised development) accordingly. Consequential amendments have been made to other references to "U" Work Nos. in the draft DCO (Document 3.1(E)) and the Works Plans (Documents 2.6.3(C) Section C, 2.6.4(C) Section D, and 2.6.5(C) Section E) have been updated to reflect this and submitted at Deadline 6. However, and for the avoidance of doubt, because no change application is proposed, the Order Limits will remain the same and have not been amended. Given the Order Limits have not changed, the plots over which compulsory acquisition powers were sought for the carrying out of Work No. U8 remain in the Book of Reference, and shown on the Land Plans (Document 2.5.3(C)) submitted at Deadline 6, but with clear annotation that compulsory acquisition powers are no longer sought over those plots. The relevant plots have been removed from Schedule 12 (Land of which temporary possession may be taken) and Schedule 13 (Land in which only new rights and restrictive covenants etc. may be acquired) of the draft DCO
				(Document 3.1(E)) and the acquisition of rights on behalf of Northern Powergrid over plots C9-48 and C9-50 (the area where Work No.7 and U8 overlapped) has been removed from the Book of Reference and DCO.
26	Requirements 8, 9 and 10: Provide a written summary of oral submissions made about the replacement and reinstatement planting and consider which management plan should be updated to include this information.	The Applicant	D6	At Issue Specific Hearing 4, National Grid explained that the draft DCO only references 'replacement' planting, whereas the Environmental Statement including the certified construction management plans reference a mixture of 'replacement' and reinstatement' terminology. For the draft DCO, 'replacement' is considered to be a more accurate description because the replacement planting might not be in the exact same location or of the exact same type as that which is being removed. Wording has been added to the glossary of the Environmental Statement to explain why there might be a difference in terminology within the Environmental Statement. However, it is correct that the draft DCO only references replacement planting. Additional wording has been provided within the Explanatory Memorandum (Document 3.2(E)) to explain this as follows:
				"The term 'replacement planting' is used within Requirement 10 to reflect the fact that the new planting to be provided in place of the planting which is being removed may not be in the exact same location or of the exact same species mix as that which was previously present on site. The Environmental Statement and certified management plans use both 'replacement' and 'reinstatement' to refer to this. Therefore, any reference to 'reinstatement' where planting is removed in the Environmental Statement or certified plans will not necessarily be like for like and should be interpreted in this context."
				Given this wording has been added to the Explanatory Memorandum (Document 3.2(E)) , it is not considered necessary to include further explanation of this within each relevant certified plan.
27	Requirement 8(2): delete 'proposed'.	The Applicant	D6	The word 'proposed' has been deleted in the draft DCO (Document 3.1(E)) submitted at deadline 6.
28	Requirement 8(3): check whether there is any inconsistency between 'first operational use' and the commitment in the Embedded Measures Schedule to 'before completion of the substation'.	The Applicant	D6	Requirement 8(3) of the draft DCO (Document 3.1(E)) states: "The landscape strategy referred to in paragraph (1) must be implemented as approved, by no later than the first available planting season after the authorised development is first brought into operational use and carried out to a reasonable standard in accordance with the relevant recommendations of the appropriate British Standard or other recognised codes of good practice." Measure LV03 of the Code of Construction Practice (COCP) (Document 5.3.3B(D)) and Embedded Measures Schedule (Document 5.3.3A(C)) states that the mounding proposed at the substations "would be planted with woodland at the earliest opportunity and prior to completion of the substation infrastructure. The formation of permanent earth mounds and advance planting at the earliest opportunity in areas that would not be affected by construction works in the construction programme would assist in minimising adverse effects upon landscape character and visual amenity."

Action No.	ExA description	Party	Deadline	Response
				The Outline Landscape Mitigation Strategy (Figures 3.10 and 3.12) (Document 5.4.3(C)) [REP2-031] identifies using Target Notes, the location of mounding with advance woodland planting that would be implemented in the planting season (November to March) prior to completion of the construction phase. As set out in the updated indicative construction programme (Appendix A (Document 8.4.2) [REP1-018]) at both proposed substations landscaping and reinstatement works would commence in July 2027, construction activities would be completed in July 2027 and connection works, commissioning and testing would be completed in September 2027. To ensure consistency the text related to measure LV03 is amended at Deadline 6 to read that the mounding at the substations "would be planted with woodland at the earliest opportunity in line with the Outline Landscape Mitigation Strategy (Figures 3.10 and 3.12 of Document 5.4.3(C)) and no later than the first available planting season (November to March) after the substation infrastructure is first brought into operational use. The formation of permanent earth mounds and advance planting at the earliest opportunity in areas that would not be affected by construction works in the construction programme would assist in minimising adverse effects upon landscape character and visual amenity."
29	Consider narrowing the drafting of Requirement 18(2) in relation to 'having regard to' and the need for the tailpiece.	The Applicant	D6	The term 'having regard to' is essential to retain within the requirement wording due to the nature of the DASSI as a 'brief' rather than a document with 'principles' that need to be directly adhered to. It is accepted that National Grid would need to consider and explain any departures from this document in order to demonstrate that they have had regard to the DASSI in forming the design and complying with the requirement. Therefore, whilst this tailpiece is precedented in other DCOs with requirements of this nature, National Grid has removed the tailpiece from Requirement 18 to remove any potential for duplication with the term 'having regard to'.
31	Update CoCP to cover community liaison and appropriate communication with hard-to-reach groups and consultation with the Traveller Community or its representative prior to submission of the Site-Specific Mitigation Scheme under Requirement 19.	The Applicant	D6	The following wording has been added to the Code of Construction Practice after paragraph 2.2.11 (Document 5.3.3B(E)) submitted at Deadline 6. "Liaison with hard-to-reach groups, including the residents of the Traveller Encampment west of Monk Fryston Substation, would be undertaken using appropriate and accessible forms of communication alongside standard forms of communication that will be put in place for the construction phase of the Project. Communication would be tailored to meet the needs of the residents of the Travellers Encampment. National Grid will liaise with North Yorkshire Council for advice on appropriate forms of communication to use. Such methods of communication are likely to include measures such as on-site meetings to relay information regarding the construction works and hand delivery of Project information. Engagement through appropriate means would be undertaken with the residents of the Traveller encampment and/or their representative regarding the site-specific construction mitigation scheme, secured via Requirement 19 of the draft DCO (Document 3.1(E)), prior to its submission and approval by the relevant local planning authority, which would also set out how ongoing engagement would take place during construction works."
32	Consider the need for the tailpiece in Requirement 19(3).	The Applicant	D6	Additional wording has been included in the Explanatory Memorandum (Document 3.2(E)) to explain the need for the tailpiece in Requirement 19(3). This reads as follows: "This is necessary because the nature of use and occupation of the travellers' encampment may vary and so the site specific mitigation scheme would also need to vary accordingly. If National Grid have made provision for a specific construction approach at a specific location, but then circumstances change or there comes a time where occupation occurs in a different way than was envisaged or known at the date the site specific mitigation scheme was approved, National Grid would need flexibility to allow for some variation to respond to that change, with the agreement of the relevant planning authority.
34	Provide a response to amending Schedule 1 as an alternative to National Highways'	The Applicant	D6	The works listed within Schedule 1 associated development are intended to ensure that National Grid has the powers to undertake works necessary for the construction of the authorised development without listing each specific individual minor work. This ensures both a focussed and clear understanding of the main works proposed. It also ensures that minor works not anticipated at the time of application but found to be necessary as a result of detailed design, are

Action No.	ExA description	Party	Deadline	Response
	objections in the event that agreement isn't reached on Protective Provisions.			capable of being carried out under the DCO. Restricting the Schedule 1 works so as not to apply in respect of National Highways infrastructure (or indeed any third party's assets) may impede works taking place or necessitate separate consents to be obtained outside of the DCO, which would delay construction timescales.
				National Highways has not provided any precedent in support of the proposed approach. In addition, there is no precedent which National Grid has been able to identify which constrains the description of authorised development in the way suggested by National Highways.
				Rather than restrict the authorised development set out in Schedule 1, the precedented and most appropriate way to protect a third party from works which are capable of being carried out under the DCO, even if not specifically envisaged as part of the Project, would be through the inclusion of protective provisions in Schedule 15 to the draft DCO. National Grid has sought to add control mechanisms into the protective provisions for the benefit of National Highways which ensure that they are protected even in the event that works are carried out on the strategic road network under associated development powers in Schedule 1.
				Within the protective provisions for the benefit of National Highways included within Part 6 of Schedule 15 to the draft DCO (Document 3.1(E)) , National Grid has set out two tiers of protection for National Highways. One which covers the anticipated scaffolding and reconductoring works (which involve no direct works to the strategic road network) and a further level of protection in the event that works are carried out within the 5.5m 'envelope' of the strategic road network. In this way, National Highways are fully protected should unforeseen works, permitted under Schedule 1 associated development, take place during the construction of the authorised development.
35	Consider the need for a definition of 'application' in Schedule 4 Paragraph 5 (Interpretation).	The Applicant	D6	A definition for 'application' has been included within the draft DCO (Document 3.1(E)) submitted at deadline 6 as follows:
				""application" includes an application made in part or in full as the context so requires;"
36	Update the CoCP wording to include generalised wording regarding working with affected landowners post-consent where it is necessary to have alterations within the Limits of Deviation and to make specific	The Applicant	D6	In respect of landowner liaison for micro-siting within the Limits of Deviation if required due to an unforeseen or unknown constraint and in particular in relation to pylons SP005 and SP006 a new measure has been added to the Code of Construction Practice (Document 5.3.3B(D)) submitted at Deadline 6. The following text has been added to the document after Table 2.1.
	reference to work in the vicinity of Pylons			"Landowner liaison for micro-siting in Limits of Deviation
	SP005 and SP006.			The Order Limits delineate the maximum extent of the Project for which development consent is being sought; and encompass the land required temporarily to build the Project and permanently to operate the project. The Order Limits include the Limits of Deviation (LoD), which represent the maximum deviation for new permanent infrastructure. The LoD provide a proportionate and necessary degree of flexibility to allow adjustment to the final positioning of new permanent infrastructure should unknown or unforeseen issues arise after the Project has been consented. If the final position of the new permanent infrastructure needs to be moved from the locations shown on the Works Plans (Documents 2.6.1 – 2.6.6) within the LoD due to an unforeseen or unknown constraint then National Grid and its contractor(s) would consider the following to ensure landowners views are reflected where possible:
				National Grid and/or its contractor(s) would initially consider the proposed micro-siting with information on the ground conditions found that necessitated a possible move;
				National Grid and/or its contractor(s) would undertake a preliminary impact assessment to define all relevant engineering, environmental, planning and landowner constraints;
				an engineering feasibility study to consider engineering options and implications; and

Action No.	ExA description	Party	Deadline	Response
				 final consideration of all relevant engineering, environmental, planning and landowner constraints before arriving at final solution. Feedback final solution to all parties. It would be the responsibility of the National Grid Land Officer/Agent to co-ordinate all relevant engagement with landowners regarding the use of the LoD to ensure that their comments are considered as part of the preliminary impact assessment if a change to new permanent infrastructure is required within the LoD from those shown on the Works Plans. In respect of pylons SP005 and SP006 National Grid commits to liaise with the affected landowners on the final siting of
				these pylons as the detailed design is progressed to establish whether there is the potential to minimise impact on farming practices through the micro-siting of the pylons in this location only."
37	Update progress on the Service Level Agreement and implications for Schedule 4.	The Applicant	D6	In May 2023 a call was held with each of the Local Planning Authorities (LPAs) to discuss the proposed Service Level Agreement (SLA), how it would be secured through the section 106 agreement, and obtain their initial views on this. In addition to the draft section 106 agreement, the draft detailed SLA was subsequently circulated on 13 July 2023 (the principles of which are set out in the S.106 Agreement), with a request for comments prior to deadline 6. To date, the following feedback has been received: • Both City of York Council and Leeds City Council have confirmed that they agree to the principle of the SLA, and as such can agree to the timescales set out within Schedule 4 of the draft DCO (Document 3.1(E)). • North Yorkshire Council (NYC) agree to the principle of the SLA and can agree to the timescales for consents pursuant to articles, as per the draft DCO (Document 3.1(E)). However, they have requested additional time to confirm their position in terms of the timescales for Discharge of Requirements, as set out in Schedule 4. National Grid will continue to liaise with NYC on this matter and provide a further update at Deadline 7 as required.
38	Confirm the current status of the Continental Link and Atlantic Superconnection schemes.	The Applicant	D6	Continental Link, Atlantic Superconnection and Hornsea Offshore Project 4 are listed in Paragraph 3.21 of the Updated Need Case (Document 7.4) [APP-205] as being contracted generators that would contribute to the overloads described in the Updated Need Case report and who have a requirement for reinforcement to be undertaken before they connect to the national electricity transmission system. Signed connection agreements are in place with the relevant generators for their connection to the national transmission system. The current status, available within the public domain, of each project is as follows: • Continental Link – is listed as a Project on the Planning Inspectorate National Infrastructure Planning website as an application expected to be submitted in Q2 2025 with a connection date of 2027. • Atlantic Superconnection – the National Grid Electricity System Operator (ESO) Connection Register Portal (Interconnector Register) lists the project status (what stage the Project is at in it's build cycle) as at 'Scoping' with a connection date of 2027. • Hornsea Offshore Project 4 – the Secretary of State granted development consent for this application on 12 July 2023. It is important to note that the contracted generators listed above form only one part of the Project Need Case. As detailed in the Updated Need Case (Document 7.4) [APP-205] the rising transfers of onshore and offshore wind from Scotland, alongside connections in the northern regions of England, means that by 2027, boundaries B7, B7a and B8 of the transmission system will exceed their current capacity. This assessment is supported by both the Network Options Assessment (NOA) and the Future Energy Scenarios (FES) which are undertaken by the Electricity System Operator (ESO), independently of National Grid as the transmission owner. The National Grid ESO manages shortfalls in boundary capacity by reducing power flows and constraining generation. This is achieved by paying generators to reduce their outputs, known as 'constraint costs'. U

Action No.	ExA description	Party	Deadline	Response
				reinforce the network (and remove the need for constraint costs) it is considered right to proceed with investment for reinforcement. Without reinforcement by 2027 there can be no further unconstrained connections above boundary B8. Whilst this response seeks to provide the current status of those projects noted in the Updated Need Case, it is important to note that National Grid is required contractually to continue to progress with the required reinforcement and connection as per the connection agreements shown in the register until such a point as those connection agreements are amended or agreements terminated.

Appendix A Illustrative Lumby Proposed Alternative Access Sketch





LEGEND

Appendix B Electricity Safety Quality and Continuity Regulations 2002

2002 No. 2665

ELECTRICITY

The Electricity Safety, Quality and Continuity Regulations 2002

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Made24th October 2002Laid before Parliament28th October 2002Coming into force31st January 2003

The Secretary of State, in exercise of the powers conferred on her by sections 29, 30(3) and 60 of the Electricity Act 1989¹, hereby makes the following Regulations:—

Notes

Extent

Preamble: England, Wales, Scotland

PART I

INTRODUCTORY



1.— Citation, commencement and interpretation

- (1) These Regulations may be cited as the Electricity Safety, Quality and Continuity Regulations 2002 and shall come into force on 31st January 2003.
- (2) Any requirement in these Regulations for goods or materials to comply with a specified standard shall be satisfied by compliance with an equivalent standard or code of practice of a national standards or equivalent body of any [country or territory]¹, in so far as the standard or code of



Sections 29 and 30 were amended by the Utilities Act 2000 (c. 27), Schedule 6, paragraphs 24, 30 and 31. Section 60 was amended by section 3(2) of the Utilities Act 2000.

practice in question enables electricity safety, quality or continuity considerations to be met in an equivalent manner.

$(3) [...]^2$

- (4) Unless the context otherwise requires, any reference in these Regulations to the provision of information "in writing" shall include the provision of such information by electronic mail, facsimile or similar means which are capable of producing a document containing the text of any communication.
- (5) In these Regulations, unless the context otherwise requires—

"British Standard Requirements" means the British Standard Requirements for Electrical Installations BS 7671: [2008 IEE Wiring Regulations 17th Edition (ISBN 978-0-86341-844-0)] ³ 16th Edition ISBN 0 85296 988 0, 2001 (as amended by Amendment No. 1 (AMD 13628) February 2002 [and as further amended by Amendment No. 2 (AMD 14905) March 2004] ⁴);

"conductor" means an electrical conductor arranged to be electrically connected to a network but does not include conductors used or intended to be used solely for the purposes of control, protection or regulation of supply or for communication;

"connected with earth" means connected with earth in such manner as will at all times provide a rapid and safe discharge of energy, and cognate expressions shall be construed accordingly;

"consumer" means any person supplied or entitled to be supplied by a supplier but in regulations 24, 25 and 26 shall not include, in respect of any supply to meet haulage or traction requirements, any person who is an operator of a network within the meaning of Part I of the Railways Act 1993⁵ [or an operator of a tramway, a trolley vehicle system or guided transport]⁶;

"consumer's installation" means the electric lines situated upon the consumer's side of the supply terminals together with any equipment permanently connected or intended to be permanently connected thereto on that side;

"danger" includes danger to health or danger to life or limb from electric shock, burn, injury or mechanical movement to persons, livestock or domestic animals, or from fire or explosion, attendant upon the generation, transmission, transformation, distribution or use of energy; "distributing main" means a low voltage electric line which connects a distributor's source of voltage to one or more service lines or directly to a single consumer's installation;

"distributor" means a person who owns or operates a network, except for a network where that person is an operator of a network within the meaning of Part I of the Railways Act 1993 [or an operator of a tramway, a trolley vehicle system or guided transport] ⁶;

"earth" means the general mass of the earth;

"earth electrode" means a conductor or group of conductors in intimate contact with, and providing a connection with, earth;

"electric line" means any line which is used or intended to be used for carrying electricity for any purpose and includes, unless the context otherwise requires—

- (a) any equipment connected to any such line for the purpose of carrying electricity; and
- (b) any wire, cable, tube, pipe, insulator or other similar thing (including its casing or coating) which surrounds or supports, or is associated with, any such line;

"energy" means electrical energy;



"equipment" includes plant, meters, lines, supports, appliances and associated items used or intended to be used for carrying electricity for the purposes of generating, transmitting or distributing energy, or for using or measuring energy;

"generating station" means those parts of any premises which are principally used for the purpose of generating energy;

"generator" means a person who generates electricity at high voltage for the purpose of supplying consumer's installations via a network;

"high voltage" means any voltage exceeding low voltage;

"insulation" means non-conducting material enclosing or surrounding a conductor or any part thereof and of such quality and thickness as to withstand the operating voltage of the equipment;

"insulator" means a device which supports a live conductor or which electrically separates the upper and lower parts of a stay wire;

"low voltage" means—

- (a) in relation to alternating current, a voltage exceeding 50 volts measured between phase conductors (or between phase conductors and earth), but not exceeding 1000 volts measured between phase conductors (or 600 volts if measured between phase conductors and earth), calculated by taking the square root of the mean of the squares of the instantaneous values of a voltage during a complete cycle; and
- (b) in relation to direct current, a voltage exceeding 120 volts measured between live conductors (or between live conductors and earth), but not exceeding 1500 volts measured between live conductors (or 900 volts if measured between live conductors and earth),

with any variations of voltage allowed by these Regulations;

"metalwork" does not include any electric line or conductor used for earthing purposes;

"meter operator" means a person who installs, maintains or removes metering equipment used for measuring the flow of energy to or from a network at or near the supply terminals; "network" means an electrical system supplied by one or more sources of voltage and comprising all the conductors and other equipment used to conduct electricity for the purposes of conveying energy from the source or sources of voltage to one or more consumer's installations, street electrical fixtures, or other networks, but does not include an electrical system which is situated entirely on an offshore installation;

"neutral conductor" means a conductor which is, or is intended to be, connected to the neutral point of an electrical system and intended to contribute to the carrying of energy;

"overhead line" means any electric line which is placed above ground and in the open air; "phase conductor" means a conductor for the carrying of energy other than a neutral conductor or a protective conductor or a conductor used for earthing purposes;

"protective conductor" means a conductor which is used for protection against electric shock and which connects the exposed conductive parts of equipment with earth;

"service line" means an electric line which connects either a street electrical fixture, or no more than four consumer's installations in adjacent buildings, to a distributing main;

["smart meter communication provider" means a person who holds a licence under section 6(1)(f) of the Electricity Act 1989;]⁷

"street electrical fixture" means a permanent fixture which is or is intended to be connected to a supply of electricity and which is in, on, or is associated with a highway;

"substation" means any premises or part thereof which contain equipment for either transforming or converting energy to or from high voltage (other than transforming or



converting solely for the operation of switching devices or instruments) or for switching, controlling or regulating energy at high voltage, but does not include equipment mounted on a support to any overhead line;

- "supplier" means a person who contracts to supply electricity to consumers;
- "supply" means the supply of electricity;
- "supply neutral conductor" means the neutral conductor of a low voltage network which is or is intended to be connected with earth, but does not include any part of the neutral conductor on the consumer's side of the supply terminals;
- "supply terminals" means the ends of the electric lines at which the supply is delivered to a consumer's installation;
- "support" means any structure, pole or other device, in, on, by or from which any electric line is or may be supported, carried or suspended and includes stays and struts, but does not include insulators, their fittings or any building or structure the principal purpose of which is not the support of electric lines or equipment;
- "switching device" includes any device which can either make or break a current, or both $[\ldots]^8$
- ["tramway", "trolley vehicle system" and "guided transport" have the same meanings as in section 67(1) of the Transport and Works Act 1992; and] 8
- "underground cable" means any conductor surrounded by insulation which is placed below ground.
- (6) In relation to a distributor, generator or meter operator a reference in these Regulations to his network, his overhead line, his substation or his equipment is a reference to a network, an overhead line, a substation or equipment (as the case may be) owned or operated by him.
- (7) Words and expressions to which meanings are assigned by these Regulations shall (unless the contrary intention appears) have the same meanings in any document issued by the Secretary of State under these Regulations.

Notes

- Words substituted by Electricity and Gas etc. (Amendment etc.) (EU Exit) Regulations 2019/530 Pt 3 reg.78(a) (December 31, 2020: shall come into force on IP completion day not exit day as specified in 2020 c.1 s.39(1) and Sch.5 para.1(1))
- Revoked by Electricity and Gas etc. (Amendment etc.) (EU Exit) Regulations 2019/530 Pt 3 reg.78(b) (December 31, 2020: shall come into force on IP completion day not exit day as specified in 2020 c.1 s.39(1) and Sch.5 para.1(1))
- Words substituted by Electricity Safety, Quality and Continuity (Amendment) Regulations 2009/639 reg.2(2) (April 6, 2009)
- Words inserted by Electricity Safety, Quality and Continuity (Amendment) Regulations 2006/1521 reg.2 (October 1, 2006)
- ⁵ See sections 6(2) and 83.
- Words inserted by Electricity Safety, Quality and Continuity (Amendment) Regulations 2006/1521 reg.3(a) (October 1, 2006)
- Definition inserted by Electricity and Gas (Smart Meters Licensable Activity) Order 2012/2400 Pt 5 art.35(2) (September 19, 2012)
- Definitions inserted by Electricity Safety, Quality and Continuity (Amendment) Regulations 2006/1521 reg.3(b) (October 1, 2006)

Commencement

Pt I reg. 1(1)-(7): January 31, 2003



Extent

Pt I reg. 1(1)-(7): England, Wales, Scotland



2.— Application of Regulations

- (1) Except as provided for in paragraph (2), in so far as these Regulations apply to any generator, distributor, supplier or meter operator, they shall also apply to any agent, contractor or sub-contractor of his acting on his behalf in relation to a matter which is the subject of these Regulations.
- (2) Regulations 4, 15, 25, 26, 27, 28, 31 and 32 shall not apply to any agent, contractor or sub-contractor.
- (3) Regulation 3(2) shall not apply until, in the case of overhead lines, 5 years, and, in the case of substations, 2 years after the coming into force of these Regulations.
- (4) Regulation 7(2) shall not apply to any distributor's fusible cut-out brought into use on or before 31st December 1936, until 10 years after the coming into force of these Regulations.
- (5) Regulation 11(c) shall not apply until 2 years after the coming into force of these Regulations.
- (6) Paragraphs (2) and (3) of regulation 14 shall not apply to any low voltage underground cable installed on or before the day before the day on which these Regulations come into force.
- (7) Regulations 19(2) and 20 shall not apply until 10 years after the coming into force of these Regulations.
- [(7A) Regulation 20A shall not apply until 6 years after the coming into force of these Regulations.]
- (8) Where a material alteration is made to any part of a network, the provisions in paragraphs (4) to (7) shall cease to apply to that part of the network from the date of that alteration.
- (9) Where any provision of these Regulations does not apply to any network, or part of a network, by virtue of any of the provisions of paragraphs (4) to (7), any equivalent provision which applied to the network, or part of it, as the case may be, immediately before the coming into force of these Regulations by virtue of the Electricity Supply Regulations 1988² including any approval, authority or exemption granted or given under or pursuant to that provision shall apply as if that equivalent provision had been contained in these Regulations.
- (10) Where any provision of these Regulations is equivalent to a provision which applied to any network, or part of a network, immediately before the coming into force of these Regulations by virtue of the Electricity Supply Regulations 1988, any approval, authority or exemption granted or given under or pursuant to the latter provision which was in force immediately before the coming into force of these Regulations shall continue in force and shall have effect as if granted or given under or pursuant to the former provision but shall cease to have effect one year after the coming into force of these Regulations.

Notes

Added by Electricity Safety, Quality and Continuity (Amendment) Regulations 2006/1521 reg.4(1) (October 1, 2006)



Amended by S.I. 1990/390, 1992/2961, 1994/533, 1994/3021, 1998/2971.

Commencement

Pt I reg. 2(1)-(10): January 31, 2003

Extent

Pt I reg. 2(1)-(10): England, Wales, Scotland



3.— General adequacy of electrical equipment

- (1) Generators, distributors and meter operators shall ensure that their equipment is—
 - (a) sufficient for the purposes for and the circumstances in which it is used; and
 - (b) so constructed, installed, protected (both electrically and mechanically), used and maintained as to prevent danger, interference with or interruption of supply, so far as is reasonably practicable.
- (2) Generators and distributors shall—
 - (a) for each of their overhead lines or part thereof and for each of their substations, assess the foreseeable risk of danger from interference, vandalism or unauthorised access, having regard to both the nature of the equipment and use of the surrounding land, and classify the degree of the risk;
 - (b) enter details of the result of the classification of risk in a register or other permanent record kept updated for the purpose; and
 - (c) take measures to safeguard the equipment commensurate with the nature and class of risk to which it gives rise.
- (3) Generators and distributors shall take reasonable steps to ensure that the public are made aware of dangers which may arise from activities carried out in proximity to overhead lines, and to indicate the means by which those dangers may be avoided.
- (4) Generators and distributors shall take precautions to prevent, so far as is reasonably practicable, danger due to the influx of water, or any noxious or explosive liquid or gas, into any enclosed space, arising from the installation or operation of their equipment.

Commencement

Pt I reg. 3(1)-(4): January 31, 2003

Extent

Pt I reg. 3(1)-(4): England, Wales, Scotland





4. Duty of co-operation

Generators, distributors, suppliers [, meter operators and smart meter communication providers]¹ shall—

- (a) disclose such information to each other as might reasonably be required in order to ensure compliance with these Regulations; and
- (b) otherwise co-operate amongst themselves so far as is necessary in order to ensure compliance with these Regulations.

Notes

Words substituted by Electricity and Gas (Smart Meters Licensable Activity) Order 2012/2400 Pt 5 art.35(3) (September 19, 2012)

Commencement

Pt I reg. 4(a)-(b): January 31, 2003

Extent

Pt I reg. 4(a)-(b): England, Wales, Scotland



5. Inspection of networks

A generator or distributor shall, so far as is reasonably practicable, inspect his network with sufficient frequency so that he is aware of what action he needs to take so as to ensure compliance with these Regulations and, in the case of his substations and overhead lines, shall maintain for a period of not less than 10 years a record of such an inspection including any recommendations arising therefrom.

Commencement

Pt I reg. 5: January 31, 2003

Extent

Pt I reg. 5: England, Wales, Scotland

PART II

PROTECTION AND EARTHING





6. Electrical protection

A generator or distributor shall be responsible for the application of such protective devices to his network as will, so far as is reasonably practicable, prevent any current, including any leakage to earth, from flowing in any part of his network for such a period that that part of his network can no longer carry that current without danger.

Commencement

Pt II reg. 6: January 31, 2003

Extent

Pt II reg. 6: England, Wales, Scotland



7.— Continuity of the supply neutral conductor and earthing connections

- (1) A generator or distributor shall, in the design, construction, maintenance or operation of his network, take all reasonable precautions to ensure continuity of the supply neutral conductor.
- (2) No generator or distributor shall introduce or retain any protective device in any supply neutral conductor or any earthing connection of a low voltage network which he owns or operates.

Commencement

Pt II reg. 7(1)-(2): January 31, 2003

Extent

Pt II reg. 7(1)-(2): England, Wales, Scotland



8.— General requirements for connection with earth

- (1) A generator or distributor shall ensure that, so far as is reasonably practicable, his network does not become disconnected from earth in the event of any foreseeable current due to a fault.
- (2) A generator or distributor shall, in respect of any high voltage network which he owns or operates, ensure that—
 - (a) the network is connected with earth at, or as near as is reasonably practicable to, the source of voltage but where there is more than one source of voltage in that network, the connection with earth need only be made at one such point;
 - (b) the earth electrodes are designed, installed and used in such a manner so as to prevent danger occurring in any low voltage network as a result of any fault in the high voltage network; and



(c) where the network is connected with earth through a continuously rated arc suppression coil, an automatic warning is given to the generator or distributor (as the case may be) of any fault which causes the arc suppression coil to operate.

- (3) A generator or distributor shall, in respect of any low voltage network which he owns or operates, ensure that—
 - (a) the outer conductor of any electric line which has concentric conductors is connected with earth;
 - (b) every supply neutral conductor is connected with earth at, or as near as is reasonably practicable to, the source of voltage except that where there is only one point in a network at which consumer's installations are connected to a single source of voltage, that connection may be made at that point, or at another point nearer to the source of voltage; and
 - (c) no impedance is inserted in any connection with earth of a low voltage network other than that required for the operation of switching devices or of instruments or equipment for control, telemetry or metering.
- (4) A consumer shall not combine the neutral and protective functions in a single conductor in his consumer's installation.
- (5) Paragraphs (1) to (3) shall not apply to a network which is situated within a generating station if, and only if, adequate alternative arrangements are in place to prevent danger.

Commencement

Pt II reg. 8(1)-(5): January 31, 2003

Extent

Pt II reg. 8(1)-(5): England, Wales, Scotland



9.— Protective multiple earthing

- (1) This regulation applies to distributors' low voltage networks in which the neutral and protective functions are combined.
- (2) In addition to the neutral with earth connection required under regulation 8(3)(b) a distributor shall ensure that the supply neutral conductor is connected with earth at—
 - (a) a point no closer to the distributor's source of voltage (as measured along the distributing main) than the junction between that distributing main and the service line which is most remote from the source; and
 - (b) such other points as may be necessary to prevent, so far as is reasonably practicable, the risk of danger arising from the supply neutral conductor becoming open circuit.
- (3) Paragraph (2)(a) shall only apply where the supply neutral conductor of the service line referred to in paragraph (2)(a) is connected to the protective conductor of a consumer's installation.
- (4) The distributor shall not connect his combined neutral and protective conductor to any metalwork in a caravan or boat.



Commencement

Pt II reg. 9(1)-(4): January 31, 2003

Extent

Pt II reg. 9(1)-(4): England, Wales, Scotland



10.— Earthing of metalwork

(1) Subject to paragraph (2), and without prejudice to any other requirement as to earthing, a generator, distributor or meter operator, as the case may be, shall ensure that any metalwork enclosing, supporting or otherwise associated with his equipment in a network and which is not intended to serve as a phase conductor is, where necessary to prevent danger, connected with earth.

(2) Paragraph (1) shall not apply—

- (a) to any metalwork attached to, or forming part of, a wooden pole support, the design and construction of which is such as to prevent, so far as is reasonably practicable, danger within 3 metres of the ground from any failure of insulation or failure of insulators; or
- (b) to any wall-mounted metal bracket carrying an overhead line not connected with earth, where the line is both supported by an insulator and the part of the line in contact with the insulator is itself surrounded by insulation.

Commencement

Pt II reg. 10(1)-(2)(b): January 31, 2003

Extent

Pt II reg. 10(1)-(2)(b): England, Wales, Scotland

PART III

SUBSTATIONS



11. Substation safety

Every generator and distributor shall, for every substation which he owns or operates—

- (a) enclose the substation where necessary to prevent, so far as is reasonably practicable, danger or unauthorised access;
- (b) enclose any part of the substation, which is open to the air and contains live equipment which is not encased, with a fence or wall not less than 2.4 metres in height to prevent, so far as is reasonably practicable, danger or unauthorised access;



(c) ensure that, so far as is reasonably practicable, there are at all times displayed—

- (i) sufficient safety signs which comply with Schedule 1 and which are of such size and placed in such positions as are necessary to give due warning of such danger as is reasonably foreseeable in the circumstances;
- (ii) a notice which is placed in a conspicuous position and which gives the location or identification of the substation, the name of each generator or distributor who owns or operates the substation equipment making up the substation and the telephone number where a suitably qualified person appointed for this purpose by the generator or distributor will be in constant attendance; and
- (iii) such other signs, which are of such size and placed in such positions, as are necessary to give due warning of danger having regard to the siting of, the nature of, and the measures taken to ensure the physical security of, the substation equipment;

and

(d) take all reasonable precautions to minimise the risk of fire associated with the equipment.

Commencement

Pt III reg. 11(a)-(d): January 31, 2003

Extent

Pt III reg. 11(a)-(d): England, Wales, Scotland

PART IV

UNDERGROUND CABLES AND EQUIPMENT



12. General restriction on the use of underground cables

No generator or distributor shall use any of his underground cables and associated equipment (except those in generating stations or substations) which he knows do not comply with regulations 13 and 14.

Commencement

Pt IV reg. 12: January 31, 2003

Extent

Pt IV reg. 12: England, Wales, Scotland





13.— Protective screens

(1) Underground cables and associated equipment which contain conductors not connected with earth shall be protected in accordance with paragraph (2).

- (2) The protection referred to in paragraph (1) shall comprise—
 - (a) in respect of joints or terminations of a conductor in a low voltage system, some form of mechanical protection; and
 - (b) in respect of any other part of any conductor, an electrically continuous metallic screen connected with earth,

so placed as to ensure that, so far as is reasonably practicable, any tool or device likely to be used in the vicinity will make contact with that protection or screen before it can make contact with any conductors not connected with earth.

Commencement

Pt IV reg. 13(1)-(2)(b): January 31, 2003

Extent

Pt IV reg. 13(1)-(2)(b): England, Wales, Scotland



14.— Excavations and depth of underground cables

- (1) Every underground cable shall be kept at such depth or be otherwise protected so as to avoid, so far as is reasonably practicable, any damage or danger by reason of such uses of the land which can be reasonably expected.
- (2) In addition to satisfying the requirements of paragraph (1), an underground cable containing conductors not connected with earth shall be protected, marked or otherwise indicated so as to ensure, so far as is reasonably practicable, that any person excavating the land above the cable will be given sufficient warning of its presence.
- (3) The protection, marking or indication required by paragraph (2) shall be made by placing the cable in a pipe or duct or by overlaying the cable at a suitable distance with protective tiles or warning tape or by the provision of such other protective or warning device, mark or indication, or by a suitable combination of such measures, as will be likely to provide an appropriate warning.

Commencement

Pt IV reg. 14(1)-(3): January 31, 2003

Extent

Pt IV reg. 14(1)-(3): England, Wales, Scotland





15.— Maps of underground networks

(1) This regulation applies in respect of any network or part thereof, owned or operated by a generator or distributor which is below ground on land which is not under his control.

- (2) Every generator or distributor shall have and, so far as is reasonably practicable, keep up to date, a map or series of maps indicating the position and depth below surface level of all networks or parts thereof which he owns or operates.
- (3) The generator or distributor shall make a copy of the whole or the relevant part of any map prepared or kept for the purposes of paragraph (2) available for inspection by any of—
 - (a) the Secretary of State;
 - (b) the local planning authority, or, in Scotland, the planning authority, for the area where the network or part thereof is situated; and
 - (c) any other person who can show reasonable cause for requiring to inspect any part of the map,

and shall, on request, provide a copy of such map or part of the map.

- (4) The generator or distributor may, at his discretion, require payment of a reasonable fee for the inspection or copying of the map or part thereof referred to in paragraph (3).
- (5) Any map prepared for the purposes of paragraph (2) may be prepared and kept by electronic means provided that that means has the capability of reproducing such map in printed form.
- (6) Nothing in this regulation shall require the inclusion, on a map prepared or kept for the purposes of paragraph (2), of information relating to the position and depth below surface level of networks or parts thereof which were placed below ground before 1st October 1988 where it would not be reasonably practicable to obtain such information.

Commencement

Pt IV reg. 15(1)-(6): January 31, 2003

Extent

Pt IV reg. 15(1)-(6): England, Wales, Scotland

PART V

OVERHEAD LINES



16.— General restriction on the use of overhead lines

(1) No generator or distributor shall use any of his overhead lines (except those in generating stations and substations) which he knows do not comply with this Part of these Regulations.



(2) No overhead line shall be used for the purpose of supply at a nominal voltage greater than 400,000 volts.

Commencement

Pt V reg. 16(1)-(2): January 31, 2003

Extent

Pt V reg. 16(1)-(2): England, Wales, Scotland



17.— Minimum height of overhead lines, wires and cables

- (1) Subject to paragraph (3), the height above ground of any overhead line, at the maximum likely temperature of that line, shall not be less than that specified by paragraph (2).
- (2) In relation to an overhead line used, or intended to be used, at a voltage specified in column 1 of Schedule 2 the height referred to in paragraph (1) shall be—
 - (a) at any point where that line is over a road accessible to vehicular traffic, the height specified in column 2 of Schedule 2 as appropriate to that voltage; and
 - (b) at any other point, the height specified in column 3 of Schedule 2 as appropriate to that voltage.
- (3) Paragraph (2) does not apply to any section of an overhead line at a point where it is not over a road accessible to vehicular traffic and which—
 - (a) is surrounded by insulation; or
 - (b) is not surrounded by insulation but is at least 4.3 metres above ground and connects equipment mounted on a support to any overhead line; or
 - (c) is connected with earth.
- (4) The height above ground of any wire or cable which is attached to a support carrying any overhead line shall not be less than 5.8 metres at any point where it is over a road accessible to vehicular traffic.

Commencement

Pt V reg. 17(1)-(4): January 31, 2003

Extent

Pt V reg. 17(1)-(4): England, Wales, Scotland



18.— Position, insulation and protection of overhead lines

(1) Any part of an overhead line which is not connected with earth and which is not ordinarily accessible shall be supported on insulators or surrounded by insulation.



(2) Any part of an overhead line which is not connected with earth and which is ordinarily accessible shall be—

- (a) made dead; or
- (b) so insulated that it is protected, so far as is reasonably practicable, against mechanical damage or interference; or
- (c) adequately protected to prevent danger.
- (3) Any person responsible for erecting a building or structure which will cause any part of an overhead line which is not connected with earth to become ordinarily accessible shall give reasonable notice to the generator or distributor who owns or operates the overhead line of his intention to erect that building or structure.
- (4) Any bare conductor not connected with earth, which is part of a low voltage overhead line, shall be situated throughout its length directly above a bare conductor which is connected with earth.
- (5) No overhead line shall, so far as is reasonably practicable, come so close to any building, tree or structure as to cause danger.
- (6) In this regulation the expression "ordinarily accessible" means the overhead line could be reached by hand if any scaffolding, ladder or other construction was erected or placed on, in, against or near to a building or structure.

Commencement

Pt V reg. 18(1)-(6): January 31, 2003

Extent

Pt V reg. 18(1)-(6): England, Wales, Scotland



19.— Precautions against access and warnings of dangers

- (1) Every support carrying a high voltage overhead line shall, if the circumstances reasonably require, be fitted with devices to prevent, so far as is reasonably practicable, any unauthorised person from reaching a position at which any such line would be a source of danger.
- (2) Every support carrying a high voltage overhead line, and every support carrying a low voltage overhead line incorporating bare phase conductors, shall have attached to it sufficient safety signs complying with Schedule 1 of such size and placed in such positions as are necessary to give due warning of such danger as is reasonably foreseeable in the circumstances.

Commencement

Pt V reg. 19(1)-(2): January 31, 2003

Extent

Pt V reg. 19(1)-(2): England, Wales, Scotland





20. Fitting of insulators to stay wires

Every stay wire which forms part of, or is attached to, any support carrying an overhead line incorporating bare phase conductors (except where the support is a lattice steel structure or other structure entirely of metal and connected to earth) shall be fitted with an insulator no part of which shall be less than 3 metres above ground or above the normal height of any such line attached to that support.

Commencement

Pt V reg. 20: January 31, 2003

Extent

Pt V reg. 20: England, Wales, Scotland

[PART VA

AVOIDANCE OF INTERFERENCE WITH OR INTERRUPTION OF SUPPLY CAUSED BY TREES

 1^1

Notes

Added by Electricity Safety, Quality and Continuity (Amendment) Regulations 2006/1521 reg.4(2) (January 31, 2009: insertion has effect from January 31, 2009)



[20A.

A generator or distributor shall, so far as is reasonably practicable, ensure that there is no interference with or interruption of supply caused by an insufficient clearance between any of his overhead lines and a tree or other vegetation.] ¹

Notes

Added by Electricity Safety, Quality and Continuity (Amendment) Regulations 2006/1521 reg.4(2) (January 31, 2009: insertion has effect from January 31, 2009)

Extent

Pt VA reg. 20A: England, Wales, Scotland



PART VI

GENERATION



21. Switched alternative sources of energy

Where a person operates a source of energy as a switched alternative to a distributor's network, he shall ensure that that source of energy cannot operate in parallel with that network and where the source of energy is part of a low voltage consumer's installation, that installation shall comply with British Standard Requirements.

Commencement

Pt VI reg. 21: January 31, 2003

Extent

Pt VI reg. 21: England, Wales, Scotland



22.— Parallel operation

- (1) Without prejudice to regulation 21, no person shall install or operate a source of energy which may be connected in parallel with a distributor's network unless he—
 - (a) has the necessary and appropriate equipment to prevent danger or interference with that network or with the supply to consumers so far as is reasonably practicable;
 - (b) has the necessary and appropriate personnel and procedures to prevent danger so far as is reasonably practicable;
 - (c) where the source of energy is part of a low voltage consumer's installation, complies with British Standard Requirements; and
 - (d) agrees specific requirements with the distributor who owns or operates the network.
- (2) Sub-paragraphs (b) and (d) of paragraph (1) shall not apply to a person who installs or operates a source of energy which may be connected in parallel with a distributor's network provided that sub-paragraphs (a) and (c) of paragraph (1) are complied with; and
 - (a) the source of energy does not produce an electrical output exceeding 16 amperes per phase at low voltage;
 - (b) the source of energy is configured to disconnect itself electrically from the parallel connection when the distributor's equipment disconnects the supply of electricity to the person's installation; and
 - (c) the person installing the source of energy ensures that the distributor is advised of the intention to use the source of energy in parallel with the network before, or at the time of, commissioning the source.



Commencement

Pt VI reg. 22(1)-(2)(c): January 31, 2003

Extent

Pt VI reg. 22(1)-(2)(c): England, Wales, Scotland

PART VII

SUPPLIES TO INSTALLATIONS AND TO OTHER NETWORKS



23.— Precautions against supply failure

- (1) A distributor shall ensure that his network shall be—
 - (a) so arranged; and
 - (b) so provided, where necessary, with fuses or automatic switching devices, appropriately located and set,

as to restrict, so far as is reasonably practicable, the number of consumers affected by any fault in his network.

(2) Subject to regulation 29, a distributor shall at all times take all reasonably practicable steps to avoid interruptions of supply resulting from his own acts.

Commencement

Pt VII reg. 23(1)-(2): January 31, 2003

Extent

Pt VII reg. 23(1)-(2): England, Wales, Scotland



24.— Equipment on a consumer's premises

- (1) A distributor or meter operator shall ensure that each item of his equipment which is on a consumer's premises but which is not under the control of the consumer (whether forming part of the consumer's installation or not) is—
 - (a) suitable for its purpose;
 - (b) installed and, so far as is reasonably practicable, maintained so as to prevent danger; and
 - (c) protected by a suitable fusible cut-out or circuit breaker which is situated as close as is reasonably practicable to the supply terminals.



(2) Every circuit breaker or cut-out fuse forming part of the fusible cut-out mentioned in paragraph (1)(c) shall be enclosed in a locked or sealed container as appropriate.

- (3) Where they form part of his equipment which is on a consumer's premises but which is not under the control of the consumer, a distributor or meter operator (as appropriate) shall mark permanently, so as clearly to identify the polarity of each of them, the separate conductors of low voltage electric lines which are connected to supply terminals and such markings shall be made at a point which is as close as is practicable to the supply terminals in question.
- (4) Unless he can reasonably conclude that it is inappropriate for reasons of safety, a distributor shall, when providing a new connection at low voltage, make available his supply neutral conductor or, if appropriate, the protective conductor of his network for connection to the protective conductor of the consumer's installation.
- (5) In this regulation the expression "new connection" means the first electric line, or the replacement of an existing electric line, to one or more consumer's installations.

Commencement

Pt VII reg. 24(1)-(5): January 31, 2003

Extent

Pt VII reg. 24(1)-(5): England, Wales, Scotland



25.— Connections to installations or to other networks

- (1) No person shall make or alter a connection from a distributor's network to a consumer's installation, a street electrical fixture or to another distributor's network without that distributor's consent, unless such consent has been unreasonably withheld.
- (2) A distributor shall not give his consent to the making or altering of the connection referred to in paragraph (1), where he has reasonable grounds for believing that—
 - (a) the consumer's installation, street electrical fixture or other distributor's network fails to comply with British Standard Requirements or these Regulations; or
 - (b) the connection itself will not be so constructed, installed, protected and used or arranged for use, so as to prevent as far as is reasonably practicable, danger or interruption of supply.
- (3) Any dispute between a person to whom paragraph (1) refers and the distributor, arising from delay in giving or refusal to give the consent required by paragraph (1) by virtue of the provisions of paragraph (2), which cannot be resolved between them may be referred by either of them to the Secretary of State who shall appoint a suitably qualified person to determine the dispute and to order as he thinks fit whether the costs (or any part of them) associated with the determination should be borne by one or other of the parties.
- (4) Following the determination by the person appointed by the Secretary of State, the distributor shall grant or withhold the consent required in paragraph (1) as appropriate, subject to any conditions which the person appointed by the Secretary of State may stipulate in his determination.



Commencement

Pt VII reg. 25(1)-(4): January 31, 2003

Extent

Pt VII reg. 25(1)-(4): England, Wales, Scotland



26.— Disconnection of supply, refusal to connect and resolution of disagreements

- (1) Where a connection to a distributor's network has been made, or is proposed, and the distributor is not satisfied that the consumer's installation or other distributor's network or street electrical fixture which is or would be connected to his network is or would be so constructed, installed, protected and used or arranged for use so as to prevent, so far as is reasonably practicable, danger or interference with his or any other distributor's network, or with the supply to any consumer's installation or street electrical fixture, he may issue a notice in writing to the consumer or other distributor or owner of the street electrical fixture (as the case may be) requiring remedial works to be carried out within such reasonable period as may be specified in the notice.
- (2) If the remedial works specified in the notice by the distributor are not carried out by the end of the period specified in the notice the distributor may disconnect or refuse to connect (as the case may be) the supply to the consumer's installation or other distributor's network or street electrical fixture, and in such an event the distributor shall by further notice in writing addressed to the consumer or other distributor or owner of the street electrical fixture (as the case may be) set out the reasons for the disconnection or refusal to connect.
- (3) A distributor may disconnect the supply to the consumer's installation or other distributor's network or street electrical fixture without giving notice as required by paragraph (1) if such disconnection can be justified on grounds of safety, but in such an event the distributor shall by notice in writing addressed to the consumer or other distributor or owner of the street electrical fixture (as the case may be) and served as soon as reasonably practicable after the disconnection, give the reasons for such disconnection and if applicable details of any remedial measures required to be taken by the consumer or other distributor or owner of the street electrical fixture.
- (4) The distributor shall connect or restore the supply when the stipulated remedial measures have been taken by the consumer or other distributor or owner of the street electrical fixture (as the case may be) to the reasonable satisfaction of the distributor, or if no remedial measures are required, as soon as is reasonably practicable after the grounds for disconnection have ceased to apply.
- (5) Any dispute between the distributor and the consumer or other distributor or owner of the street electrical fixture (as the case may be), over the disconnection of or refusal to connect the consumer's installation or other distributor's network or street electrical fixture which cannot be resolved between them, may be referred by any of them to the Secretary of State who shall appoint a suitably qualified person to determine the dispute and to order as he thinks fit whether the costs (or any part of them) associated with the determination should be borne by one or other of the parties.



(6) Where a referral is made to the Secretary of State in accordance with paragraph (5) before the expiry of the notice period referred to in paragraph (1), the distributor shall not take any action pursuant to paragraph (2) until the determination of the dispute.

- (7) Following the determination by the person appointed by the Secretary of State, the distributor shall maintain, connect, restore or may disconnect the supply as appropriate, subject to any conditions which the person appointed by the Secretary of State may stipulate in his determination.
- (8) A copy of this regulation shall be endorsed upon or accompany every notice given by the distributor pursuant to this regulation.

Commencement

Pt VII reg. 26(1)-(8): January 31, 2003

Extent

Pt VII reg. 26(1)-(8): England, Wales, Scotland



27.— Declaration of phases, frequency and voltage at supply terminals

- (1) Before commencing a supply to a consumer's installation, or when the existing supply characteristics have been modified, the supplier shall ascertain from the distributor and then declare to the consumer—
 - (a) the number of phases;
 - (b) the frequency; and
 - (c) the voltage,

at which it is proposed to supply electricity and the extent of the permitted variations thereto.

- (2) Unless otherwise agreed in writing between the distributor, the supplier and the consumer (and if necessary between the distributor and any other distributor likely to be affected) the frequency declared pursuant to paragraph (1) shall be 50 hertz and the voltage declared in respect of a low voltage supply shall be 230 volts between the phase and neutral conductors at the supply terminals.
- (3) For the purposes of this regulation, unless otherwise agreed in writing by those persons specified in paragraph (2), the permitted variations are—
 - (a) a variation not exceeding 1 per cent above or below the declared frequency;
 - (b) in the case of a low voltage supply, a variation not exceeding 10 per cent above or 6 per cent below the declared voltage at the declared frequency;
 - (c) in the case of a high voltage supply operating at a voltage below 132,000 volts, a variation not exceeding 6 per cent above or below the declared voltage at the declared frequency; and
 - (d) in the case of a high voltage supply operating at a voltage of 132,000 volts or above, a variation not exceeding 10 per cent above or below the declared voltage at the declared frequency.
- (4) The Secretary of State may, following an application by any distributor affected by a declaration made pursuant to paragraph (1), authorise the variation of any of the values or permitted variations



contained in a declaration provided that the applicant has previously given notice of his application to such persons and in such terms as the Secretary of State may require.

- (5) Where the Secretary of State has authorised a variation under paragraph (4) the distributor shall forthwith serve notice of any such variation on every supplier, other distributor referred to in paragraph (2), and consumer to whom it may apply.
- (6) Every distributor shall ensure that, save in exceptional circumstances, the characteristics of the supplies to consumer's installations connected to his network comply with the declarations made under paragraph (1).
- (7) The number and rotation of phases in any supply shall not be varied by the distributor except with the agreement of the consumer or, in the absence of such agreement, the consent of the Secretary of State who may impose such conditions, if any, as she thinks appropriate.

Commencement

Pt VII reg. 27(1)-(7): January 31, 2003

Extent

Pt VII reg. 27(1)-(7): England, Wales, Scotland



28. Information to be provided on request

A distributor shall provide, in respect of any existing or proposed consumer's installation which is connected or is to be connected to his network, to any person who can show a reasonable cause for requiring the information, a written statement of—

- (a) the maximum prospective short circuit current at the supply terminals;
- (b) for low voltage connections, the maximum earth loop impedance of the earth fault path outside the installation;
- (c) the type and rating of the distributor's protective device or devices nearest to the supply terminals;
- (d) the type of earthing system applicable to the connection; and
- (e) the information specified in regulation 27(1),

which apply, or will apply, to that installation.

Commencement

Pt VII reg. 28(a)-(e): January 31, 2003

Extent

Pt VII reg. 28(a)-(e): England, Wales, Scotland





29.— Discontinuation of supplies

(1) Subject to paragraph (2), a distributor may discontinue a supply for the purposes of testing or for any other purpose connected with the carrying on of his activities.

- (2) A distributor may discontinue a supply pursuant to paragraph (1) only—
 - (a) for such period as may be necessary but no longer; and
 - (b) subject to paragraph (3), if not less than 2 days notice in writing has been received by the relevant persons.
- (3) A distributor may discontinue a supply even if the notice required by paragraph (2)(b) has not been received by the relevant persons if—
 - (a) the discontinuation is agreed between the relevant persons and the distributor; or
 - (b) the distributor considers it necessary to discontinue supplies to the relevant persons in order to prevent danger or to undertake essential emergency repairs; or
 - (c) if there is an urgent need to discontinue the supply relating to the safe or proper operation of the network; or
 - (d) the notice is not received by the relevant persons due to circumstances not within the control of the distributor.
- (4) In this regulation the expression "relevant persons" means every consumer likely to be affected by a discontinuation of supply by a distributor and every other distributor likely to be affected by that discontinuation.

Commencement

Pt VII reg. 29(1)-(4): January 31, 2003

Extent

Pt VII reg. 29(1)-(4): England, Wales, Scotland

PART VIII

MISCELLANEOUS



30.— Inspections, etc. for the Secretary of State

- (1) A generator or distributor whose equipment is subject to inspection, test or examination for the purpose of ascertaining whether a breach of these Regulations may have occurred, by an inspector appointed under section 30 of the Electricity Act 1989, shall afford reasonable facilities therefor.
- (2) A generator or distributor shall provide such information to the inspector as he may require for the purposes of performing his functions under this regulation.



Commencement

Pt VIII reg. 30(1)-(2): January 31, 2003

Extent

Pt VIII reg. 30(1)-(2): England, Wales, Scotland



31.— Notification of specified events

- (1) Notice shall be given to the Secretary of State in accordance with this regulation by the distributor in respect of any event which is of a type specified in paragraph (2)(b) where the event involves a consumer's installation which is connected to the distributor's network and by the generator, distributor or meter operator, as the case may be, in respect of any event which is an event of a type otherwise specified in paragraph (2) and involves a network or equipment which is in the ownership of, under the control of, or used by, the generator, distributor or meter operator, as the case may be.
- (2) The events referred to in paragraph (1) are—
 - (a) any event attributable in whole or in part to the generating, transforming, control or carrying of energy up to and including the supply terminals, which has given rise to—
 - (i) the death of any person other than a person engaged by the generator, distributor or meter operator for the purposes of his business; or
 - (ii) an injury (including any electric shock) to any person other than a person engaged by the generator, distributor or meter operator for the purposes of his business; or
 - (iii) any fire; or
 - (iv) any explosion or implosion;
 - (b) any event attributable in whole or in part to the presence of energy on the consumer's side of the supply terminals on any non-industrial and non-commercial premises resulting in the death of any person;
 - (c) any event, whether or not accompanied by an event specified in sub-paragraph (a), which caused an overhead line to be at a height less than that required by regulation 17(2);
 - (d) the occurrence of any damage to any underground cable resulting from an event not specified in sub-paragraphs (a) and (b); and
 - (e) any event other than those listed in sub-paragraph (a), (c) or (d) which, taking into account the circumstances of that event, was likely to cause any of the events listed in sub-paragraph (a).
- (3) In respect of any event specified in paragraph (2)(a)—
 - (a) the requirement to give notice in accordance with paragraph (4) (so far as applicable) applies in addition to the requirement to give notice in accordance with paragraph (5) unless the notice given satisfies the requirements of both paragraphs; and
 - (b) the requirement to give notice in accordance with paragraphs (4) and (5) applies in addition to the requirement to give notice in accordance with paragraph (6).
- (4) In respect of any event specified in paragraph (2)(a)(i) or (in the case of a serious injury) in paragraph (2)(a)(ii), notice of the event shall be given to the Secretary of State by telephone or



other immediate means of communication immediately after the event becomes known to the generator, distributor or meter operator, as the case may be.

- (5) In respect of any event specified in paragraph (2)(a) or (2)(b), notice containing the relevant particulars shall, subject to paragraph (8), as soon as possible after the event becomes known to the generator, distributor or meter operator, as the case may be, be given to the Secretary of State in writing by the quickest practicable means.
- (6) In respect of any event notifiable under paragraph (2)(a), (2)(c) or (2)(e), notice shall be given to the Secretary of State by post within 15 days of the end of the month in which the event becomes known to the generator, distributor or meter operator as the case may be, in the form of a computer disc which—
 - (a) conforms to the description specified in the Department's publication; and
 - (b) subject to paragraph (8), contains the information comprising the relevant particulars, arranged in a form which complies with the technical requirements specified in that publication.
- (7) In respect of any event specified in paragraph (2)(d), notice containing the relevant particulars shall be sent to the Secretary of State by means of a return in writing to be submitted within one month of the end of the period of 3 months ending on 31st March, 30th June, 30th September or 31st December (as the case may be) in which the event became known to the generator, distributor or meter operator as the case may be.
- (8) The notices required by paragraphs (5) and (6) shall, where the giver of the notice is unable to provide full particulars, contain such of the relevant particulars as are available to the giver of the notice at the time of giving it, and the remaining particulars shall be supplied to the Secretary of State in writing by the quickest practicable means immediately after they have become known.

(9) In this regulation—

"the Department's publication" means the publication entitled (under the heading "ELECTRICITY SAFETY, QUALITY AND CONTINUITY REGULATIONS 2002") "COMPUTERISATION OF THE NOTIFICATION OF CERTAIN SPECIFIED EVENTS UNDER REGULATION 31", subtitled "SPECIFICATION OF THE DATA FILES", and published in September 2002 by the Department of Trade and Industry, a copy of which was certified as such by the signature of the Minister of State for Energy and Construction, Department of Trade and Industry;

"event" means any event of the kind specified irrespective of whether it was accidental; "relevant particulars" means—

- (i) in respect of an event specified in paragraph (2)(a), (2)(b) or (2)(d), the particulars specified in Parts I, II and IV, respectively, of Schedule 3; and
- (ii) in respect of an event specified in paragraph (2)(c) or (2)(e), the particulars specified in Part III of Schedule 3; and

"serious injury" means any injury which results in the person injured being admitted into hospital as an in-patient.



Commencement

Pt VIII reg. 31(1)-(9) definition of "serious injury": January 31, 2003

Extent

Pt VIII reg. 31(1)-(9) definition of "serious injury": England, Wales, Scotland



32.— Notification of certain interruptions of supply

(1) A distributor shall give to the Secretary of State notification in accordance with paragraph (2) of those interruptions of supply involving his network where there has been—

- (a) any single interruption of supply, to any demand of 20 megawatts or more at the time of the interruption, for a period of three minutes or longer; or
- (b) any single interruption of supply, to any demand of 5 megawatts or more at the time of the interruption, for a period of one hour or longer; or
- (c) any single interruption of supply to 5,000 or more consumer's installations for a period of one hour or longer.
- (2) The notification shall—
 - (a) be sent in writing by the quickest practicable means immediately after the distributor becomes aware of the interruption; and
 - (b) contain the particulars specified in Schedule 4.
- (3) The notification given to the Secretary of State shall, where the distributor is unable to give the full particulars required by Schedule 4, contain such of the particulars as are available to the distributor at the time of giving the notification, and any remaining particulars shall be sent in a supplementary notification in writing to the Secretary of State by the quickest practicable means immediately after they have become known.

Commencement

Pt VIII reg. 32(1)-(3): January 31, 2003

Extent

Pt VIII reg. 32(1)-(3): England, Wales, Scotland



33.— Exemption from requirements of Regulations

(1) Where a request is made to the Secretary of State to grant an exemption from a requirement of these Regulations, that request shall be made in writing and shall state the full extent of the reasons for the exemption sought.



(2) Where the Secretary of State is satisfied that an exemption may be granted without prejudice to safety or interference with the supply to others, the Secretary of State may grant such an exemption as she thinks appropriate.

(3) An exemption granted under this regulation shall be for such period as the Secretary of State shall specify when granting that exemption or, where no period is so specified, for a period of 25 years.

Commencement

Pt VIII reg. 33(1)-(3): January 31, 2003

Extent

Pt VIII reg. 33(1)-(3): England, Wales, Scotland



34.— Networks, equipment or installations in breach of Regulations

- (1) Paragraphs (2) to (10) shall apply in any case where the Secretary of State is satisfied that—
 - (a) any network or any part thereof, or any equipment which is constructed, placed, erected, maintained, or used otherwise than in accordance with these Regulations; or
 - (b) any part of a consumer's installation which is not enclosed in a building; or
 - (c) any network or any part thereof, any part of a consumer's installation which is not enclosed in a building or any equipment which is in breach of any relevant exemption or other relevant provision made under these Regulations in force at the time when the notice referred to in paragraph (2) is served,

is or is liable to become—

- (i) a source of danger to others; or
- (ii) an interference with a supply to others; or
- (iii) a cause of interruption of a supply to others.
- (2) The Secretary of State may serve notice on the generator, distributor, meter operator or consumer (as the case may be) specifying the matter of which she is satisfied and require that the network, consumer's installation, or the equipment or the part thereof specified in the notice—
 - (a) shall not be used; or
 - (b) shall be made dead; or
 - (c) shall be removed; or
 - (d) shall only be used subject to compliance with such conditions, improvements or modifications as that notice shall specify,

within the time specified in that notice and the person on whom that notice is served shall comply with the provisions of that notice.

(3) Where such a notice has required that any network, consumer's installation, equipment or the part thereof specified in the notice shall not be used or shall be made dead or shall be removed or only used subject to compliance with conditions, improvements or modifications, that notice shall remain in effect until such time as the network, consumer's installation, equipment or the part thereof specified in the notice shall comply with these Regulations or until the Secretary of State shall withdraw the notice.



(4) If, within the period specified by that notice for compliance or such longer period as the Secretary of State may allow, the person on whom the notice is served disputes the basis for, or the requirements of, the notice, he may give notice in writing to the Secretary of State of that dispute and shall state the grounds.

- (5) Where a notice is given to the Secretary of State pursuant to paragraph (4), the Secretary of State shall refer the dispute to an independent person agreed between the Secretary of State and the person giving the notice, or in default of agreement, to a person nominated by the President for the time being of The Institution of Electrical Engineers.
- (6) The person to whom a dispute is referred may decide—
 - (a) to uphold the notice served under paragraph (2); or
- (b) to recommend to the Secretary of State that the notice be withdrawn or modified; and shall notify his decision in writing to the Secretary of State and to the person who has given notice under paragraph (4).
- (7) The person to whom a dispute is referred may and, if so requested by any party to the dispute, shall—
 - (a) give the parties to the dispute an opportunity of appearing before and being heard by him; and
 - (b) make an inspection of the network, consumer's installation, or equipment which is the subject of the dispute.
- (8) Where it appears to the person to whom a dispute is referred that any other person, not being a party to the dispute, has an interest in the outcome of that dispute, he may at his discretion treat that other person as if he were a party to the dispute.
- (9) The person to whom a dispute is referred shall, having deliberated upon the dispute, make a direction as to whether the person giving the notice under paragraph (4) shall bear the costs of the reference (including any fees or expenses payable to him) or whether those costs shall be borne by the Secretary of State.
- (10) A copy of this regulation shall be endorsed upon or accompany every notice served by the Secretary of State pursuant to this regulation.

Commencement

Pt VIII reg. 34(1)-(10): January 31, 2003

Extent

Pt VIII reg. 34(1)-(10): England, Wales, Scotland



35. Offences

Any generator, distributor, supplier, or meter operator or any agent, contractor or sub-contractor of any of the foregoing who fails to comply with any provision of these Regulations which applies to him, any person who fails to comply with regulation 18(3), 21, 22 or 25(1) and any consumer who fails to comply with regulation 8(4) or 34(2) shall be liable on summary conviction to a fine not exceeding level 5 on the standard scale.



Commencement

Pt VIII reg. 35: January 31, 2003

Extent

Pt VIII reg. 35: England, Wales, Scotland



36. Revocation

The Regulations set out in Schedule 5 are hereby revoked.

Commencement

Pt VIII reg. 36: January 31, 2003

Extent

Pt VIII reg. 36: England, Wales, Scotland



Brian Wilson,
Minister of State for Energy and Construction,
Department of Trade and Industry

24th October 2002

SCHEDULE 1

DESIGN, COLOURS AND PROPORTIONS OF THE SAFETY SIGN

Regulations 11(c)(i) and 19(2)



1.

A safety sign shall incorporate a design, and shall be of the proportions, as shown in the diagram below, except that the height of the text may be increased to a maximum of $0.12 \times L$.



Commencement

Sch. 1 para. 1: January 31, 2003

Extent

Sch. 1 para. 1: England, Wales, Scotland



2.

The triangle, symbol and text shall be shown in black on a yellow background.

Commencement

Sch. 1 para. 2: January 31, 2003

Extent

Sch. 1 para. 2: England, Wales, Scotland



3.

The symbol shall not occupy more than 50 per cent of the area within the triangle.

Commencement

Sch. 1 para. 3: January 31, 2003

Extent

Sch. 1 para. 3: England, Wales, Scotland



4.

A safety sign may include additional text but any such text—

- (a) shall be in black; and
- (b) shall be the same size as the text used on the safety sign, and no part of any additional text shall appear on the sign higher than the base of the triangle.





Commencement

Sch. 1 para. 4(a)-(b): January 31, 2003

Extent

Sch. 1 para. 4(a)-(b): England, Wales, Scotland

SCHEDULE 2

MINIMUM HEIGHT ABOVE GROUND OF OVERHEAD LINES

Regulation 17(2)



Column 1	Column 2	Column 3
Nominal Voltages	Over Roads	Other Locations
Not exceeding 33,000 volts	5.8 metres	5.2 metres
Exceeding 33,000 volts but not exceeding 66,000 volts	6 metres	6 metres
Exceeding 66,000 volts but not exceeding 132,000 volts	6.7 metres	6.7 metres
Exceeding 132,000 volts but not exceeding 275,000 volts	7 metres	7 metres
Exceeding 275,000 volts but not exceeding 400,000 volts	7.3 metres	7.3 metres

Commencement

Sch. 2 para. 1: January 31, 2003

Extent

Sch. 2 para. 1: England, Wales, Scotland



SCHEDULE 3

NOTIFICATION OF SPECIFIED EVENTS

Regulation 31(9)

PART I

EVENTS SPECIFIED IN REGULATION 31(2)(a)

Particulars relating to the person submitting the notice



1.

Name, address and telephone number of the person submitting the notice and, if different, corresponding particulars of the person to whom enquiries should be addressed.

Commencement

Sch. 3(I) para. 1: January 31, 2003

Extent

Sch. 3(I) para. 1: England, Wales, Scotland



2.

Date on which the notice is submitted.

Commencement

Sch. 3(I) para. 2: January 31, 2003

Extent

Sch. 3(I) para. 2: England, Wales, Scotland





3.

A unique and sequential reference number indicating, in respect of each year ending on 31st March, the number of the event.

Commencement

Sch. 3(I) para. 3: January 31, 2003

Extent

Sch. 3(I) para. 3: England, Wales, Scotland

Particulars relating to the event



4.

Nature of site of event, e.g. street, arable field, camp site.

Commencement

Sch. 3(I) para. 4: January 31, 2003

Extent

Sch. 3(I) para. 4: England, Wales, Scotland



5.

Date and time of event.

Commencement

Sch. 3(I) para. 5: January 31, 2003

Extent

Sch. 3(I) para. 5: England, Wales, Scotland



6.

Persons involved in the event, if any—

(a) if at work, type of work;



(b) if not at work, sufficient description to identify status, e.g. householder, visitor, child;

- (c) age;
- (d) sex; and
- (e) nature of injury, if any.

Commencement

Sch. 3(I) para. 6(a)-(e): January 31, 2003

Extent

Sch. 3(I) para. 6(a)-(e): England, Wales, Scotland



7.

Network details—

- (a) voltage;
- (b) equipment at site of event, whether overhead lines, underground cables, distributing mains, or service lines, or if other, specify;
- (c) where relevant, whether the earthing of the low voltage network is by means of protective multiple earthing;
- (d) extent of operation of circuit protection;
- (e) in respect of events involving overhead lines—
 - (i) height of the electric line at point of contact, if any;
 - (ii) whether or not the electric line remained live on the ground or at a reduced height; and
 - (iii) whether or not the electric line was surrounded by insulation; and
- (f) in respect of events not involving overhead lines—
 - (i) whether the equipment was situated indoors;
 - (ii) where a substation is involved, a brief description of substation physical security equipment, e.g. brick building, steel doors, nature of fencing; and
 - (iii) whether any security fence was also the perimeter fence.

Commencement

Sch. 3(I) para. 7(a)-(f)(iii): January 31, 2003

Extent

Sch. 3(I) para. 7(a)-(f)(iii): England, Wales, Scotland



8.

Brief facts of the event, including, where known, the cause.



Commencement

Sch. 3(I) para. 8: January 31, 2003

Extent

Sch. 3(I) para. 8: England, Wales, Scotland



9.

Details of any action which has been, or is intended to be, taken to prevent a recurrence of the event.

Commencement

Sch. 3(I) para. 9: January 31, 2003

Extent

Sch. 3(I) para. 9: England, Wales, Scotland

PART II

EVENTS SPECIFIED IN REGULATION 31(2)(b)

Particulars relating to the person submitting the notice



1.

Name, address and telephone number of the person submitting the notice and, if different, corresponding particulars of the person to whom enquiries should be addressed.

Commencement

Sch. 3(II) para. 1: January 31, 2003

Extent

Sch. 3(II) para. 1: England, Wales, Scotland





2.

Date on which the notice is submitted.

Commencement

Sch. 3(II) para. 2: January 31, 2003

Extent

Sch. 3(II) para. 2: England, Wales, Scotland



3.

A unique and sequential reference number indicating, in respect of each year ending on 31st March, the number of the event.

Commencement

Sch. 3(II) para. 3: January 31, 2003

Extent

Sch. 3(II) para. 3: England, Wales, Scotland

Particulars relating to the event



4.

Site of the event—

- (a) address; and
- (b) location within the premises.

Commencement

Sch. 3(II) para. 4(a)-(b): January 31, 2003

Extent

Sch. 3(II) para. 4(a)-(b): England, Wales, Scotland





5.

Date of event.

Commencement

Sch. 3(II) para. 5: January 31, 2003

Extent

Sch. 3(II) para. 5: England, Wales, Scotland



6.

Person involved in the event—

- (a) surname and initials of the deceased person;
- (b) if at work, type of work;
- (c) if not at work, sufficient description to identify status, e.g. householder, visitor, child;
- (d) age;
- (e) sex; and
- (f) nature of injury and cause of death.

Commencement

Sch. 3(II) para. 6(a)-(f): January 31, 2003

Extent

Sch. 3(II) para. 6(a)-(f): England, Wales, Scotland



7.

Inquest [determination or findings] or, in Scotland, fatal accident inquiry determinations.

Notes

Possible drafting error - word purportedly substituted in Sch.3 Pt III para.7, however word does not exist and therefore amendment is applied to Sch.3 Pt II para.7 by Coroners and Justice Act 2009 (Commencement No. 15, Consequential and Transitory Provisions) Order 2013/1869 Sch.1 para.3 (July 25, 2013 as SI 2013/1869 art.4)

Commencement

Sch. 3(II) para. 7: January 31, 2003

Extent

Sch. 3(II) para. 7: England, Wales, Scotland





8.

Equipment involved in the event—

- (a) equipment directly involved—
 - (i) type and make;
 - (ii) whether it was faulty;
 - (iii) if electric blanket, whether over or under blanket; and
 - (iv) if radiator, whether it was guarded; and
- (b) whether the death was due to a fault involving—
 - (i) fixed wiring;
 - (ii) flexible lead;
 - (iii) appliance lead;
 - (iv) appliance;
 - (v) plug;
 - (vi) socket outlet;
 - (vii) misuse of equipment or appliance;
 - (viii) bare wires;
 - (ix) taped joints;
 - (x) broken neutral conductor; or
 - (xi) exposed and live male plug pins.

Commencement

Sch. 3(II) para. 8(a)-(b)(xi): January 31, 2003

Extent

Sch. 3(II) para. 8(a)-(b)(xi): England, Wales, Scotland



9.

Network and consumer's installation details—

- (a) voltage;
- (b) earthing arrangements, whether—
 - (i) the earthing connection was loose;
 - (ii) the earthing connection was disconnected;
 - (iii) the earthing connection was in contact with a phase conductor in the plug, the socket, or elsewhere, and if so, where;
 - (iv) the earthing connection was to a water pipe, local earth electrode, cable sheath, aerial earthwire or earthing terminal and, if so, which;
 - (v) the earth fault loop impedance was measured and, if so, the measurement obtained;
- (c) description of circuit protection; and
- (d) extent of operation of circuit protection.



Commencement

Sch. 3(II) para. 9(a)-(d): January 31, 2003

Sch. 3(II) para. 9(a)-(d): England, Wales, Scotland



Law In Force

10.

Whether there was evidence of amateur work.

Commencement

Sch. 3(II) para. 10: January 31, 2003

Extent

Sch. 3(II) para. 10: England, Wales, Scotland

PART III

EVENTS SPECIFIED IN REGULATION 31(2)(c) and 31(2)(e)

Particulars relating to the person submitting the notice



Law In Force

1.

Name, address and telephone number of the person submitting the notice and, if different, corresponding particulars of the person to whom enquiries should be addressed.

Commencement

Sch. 3(III) para. 1: January 31, 2003

Extent

Sch. 3(III) para. 1: England, Wales, Scotland





2.

Date on which the notice is submitted.

Commencement

Sch. 3(III) para. 2: January 31, 2003

Extent

Sch. 3(III) para. 2: England, Wales, Scotland



3.

A unique and sequential reference number indicating, in respect of each year ending on 31st March, the number of the event.

Commencement

Sch. 3(III) para. 3: January 31, 2003

Extent

Sch. 3(III) para. 3: England, Wales, Scotland

Particulars relating to the event



4.

Nature of site of event, e.g. street, arable field, camp site.

Commencement

Sch. 3(III) para. 4: January 31, 2003

Extent

Sch. 3(III) para. 4: England, Wales, Scotland



5.

Date of event.



Commencement

Sch. 3(III) para. 5: January 31, 2003

Extent

Sch. 3(III) para. 5: England, Wales, Scotland



6.

Whether the person involved in the event, if any, was—

- (a) at work, and, if so, the type of work;
- (b) not at work, and, if so, sufficient description to identify status, e.g. householder, visitor, child.

Commencement

Sch. 3(III) para. 6(a)-(b): January 31, 2003

Extent

Sch. 3(III) para. 6(a)-(b): England, Wales, Scotland



7.

Network details—

- (a) voltage;
- (b) equipment at site of event, whether overhead lines, underground cables, distributing mains or service lines, or if other, specify;
- (c) height of the electric line at point of contact, if any;
- (d) whether or not the electric line remained live on the ground or at a reduced height;
- (e) whether or not the electric line was surrounded by insulation;
- (f) description of circuit protection; and
- (g) extent of operation of circuit protection.

Commencement

Sch. 3(III) para. 7(a)-(g): January 31, 2003

Extent

Sch. 3(III) para. 7(a)-(g): England, Wales, Scotland





8.

Brief facts of the event, including the cause where known, and details of all equipment involved and the person responsible for the equipment.

Commencement

Sch. 3(III) para. 8: January 31, 2003

Extent

Sch. 3(III) para. 8: England, Wales, Scotland



9.

Details of any action which has been, or is intended to be, taken to prevent a recurrence of the event.

Commencement

Sch. 3(III) para. 9: January 31, 2003

Extent

Sch. 3(III) para. 9: England, Wales, Scotland

PART IV

EVENTS SPECIFIED IN REGULATION 31(2)(d)

Particulars relating to the person submitting the notice



1.

Name, address and telephone number of the person submitting the notice and, if different, corresponding particulars of the person to whom enquiries should be addressed.



Commencement

Sch. 3(IV) para. 1: January 31, 2003

Extent

Sch. 3(IV) para. 1: England, Wales, Scotland



2.

Date on which the notice is submitted.

Commencement

Sch. 3(IV) para. 2: January 31, 2003

Extent

Sch. 3(IV) para. 2: England, Wales, Scotland



3.

A unique and sequential reference number indicating, in respect of each year ending on 31st March, the number of the event.

Commencement

Sch. 3(IV) para. 3: January 31, 2003

Extent

Sch. 3(IV) para. 3: England, Wales, Scotland

Particulars relating to the events



4.—

- (a) Total number of events, if any, during the 3 month period specified in regulation 31(7), classified as specified in sub-paragraph (b) and as also classified as involving deliberate or accidental contact, damage or interference by each of the following—
 - (i) a generator, a distributor, a [electronic communications code operator]¹, a gas transporter, a water or sewerage authority [(in Scotland, Scottish Water)]², a



local or highway authority (in Scotland, a local roads authority or a roads authority), or their respective contractors;

- (ii) farmers, farm workers or farm implements;
- (iii) private individuals;
- (iv) other persons; and
- (v) other causes, e.g. corrosion, ground subsidence, faulty manufacture, ageing or deterioration.
- (b) The classes referred to in sub-paragraph (a) are—
 - (i) low voltage service lines;
 - (ii) low voltage distributing mains; and
 - (iii) high voltage electric lines (specifying voltage).

Notes

- Words substituted by Communications Act 2003 (Consequential Amendments) Order 2003/2155 Sch.1(5) para.49 (September 17, 2003)
- Words substituted by Water Industry (Scotland) Act 2002 (Consequential Modifications) Order 2004/1822 Sch.1(2) para.20 (July 14, 2004)

Commencement

Sch. 3(IV) para. 4(a)-(b)(iii): January 31, 2003

Extent

Sch. 3(IV) para. 4(a)-(b)(iii): England, Wales, Scotland

SCHEDULE 4

NOTIFICATION OF CERTAIN INTERRUPTIONS OF SUPPLY

Regulation 32(2)

Particulars relating to the person submitting the notification



1.

Name, address and telephone number of the person submitting the notification and, if different, corresponding particulars of the person to whom enquiries should be addressed.



Commencement

Sch. 4 para. 1: January 31, 2003

Extent

Sch. 4 para. 1: England, Wales, Scotland



2.

Date on which the notification is submitted.

Commencement

Sch. 4 para. 2: January 31, 2003

Extent

Sch. 4 para. 2: England, Wales, Scotland

Particulars relating to the interruption of supply

✓ Law In Force

3.

Date and time of the interruption.

Commencement

Sch. 4 para. 3: January 31, 2003

Extent

Sch. 4 para. 3: England, Wales, Scotland



4.

Duration of the interruption.



Commencement

Sch. 4 para. 4: January 31, 2003

Extent

Sch. 4 para. 4: England, Wales, Scotland



5.

Approximate load affected (in megawatts).

Commencement

Sch. 4 para. 5: January 31, 2003

Extent

Sch. 4 para. 5: England, Wales, Scotland



6.

Number of consumers affected approximated to the nearest 100.

Commencement

Sch. 4 para. 6: January 31, 2003

Extent

Sch. 4 para. 6: England, Wales, Scotland



7.

Geographical area affected.

Commencement

Sch. 4 para. 7: January 31, 2003

Extent

Sch. 4 para. 7: England, Wales, Scotland





8.

Nature and cause of the interruption.

Commencement

Sch. 4 para. 8: January 31, 2003

Extent

Sch. 4 para. 8: England, Wales, Scotland

Law In Force

9.

Nature of any deliberate damage involved.

Commencement

Sch. 4 para. 9: January 31, 2003

Extent

Sch. 4 para. 9: England, Wales, Scotland

✓ Law In Force

10.

Voltage of equipment involved.

Commencement

Sch. 4 para. 10: January 31, 2003

Extent

Sch. 4 para. 10: England, Wales, Scotland

Law In Force

11.

Type of equipment involved.



Commencement

Sch. 4 para. 11: January 31, 2003

Extent

Sch. 4 para. 11: England, Wales, Scotland

SCHEDULE 5

REVOCATIONS

Regulation 36



Regulations revoked	References
The Electricity Supply Regulations 1988	S.I. 1988/1057
The Electricity Supply (Amendment) Regulations 1990	S.I. 1990/390
The Electricity Supply (Amendment) Regulations 1992	S.I. 1992/2961
The Electricity Supply (Amendment) Regulations 1994	S.I. 1994/533
The Electricity Supply (Amendment) (No. 2) Regulations 1994	S.I. 1994/3021
The Electricity Supply (Amendment) Regulations 1998	S.I. 1998/2971

Commencement

Sch. 5 para. 1: January 31, 2003

Extent

Sch. 5 para. 1: England, Wales, Scotland

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations replace the Electricity Supply Regulations 1988 (S.I. 1988/1057) and all subsequent amendments (S.I. 1990/390, S.I. 1992/2961, S.I. 1994/533, S.I. 1994/3021 and S.I. 1998/2971).



These Regulations impose requirements regarding the installation and use of electrical networks and equipment owned or operated by generators, distributors (which include, in these Regulations, transmitters), and meter operators, and the participation of suppliers in providing electricity to consumers (all such persons are collectively referred to as "duty holders" in this note). Agents, contractors and sub-contractors of duty holders also have duties under these Regulations. These Regulations were notified in draft to the European Commission in accordance with Council Directive 98/34/EC (O.J. No. L 204, 21.7.1998, p. 37) as amended by Council Directive 98/48/EC (O.J. No. L 217, 5.8.1998, p. 18).

A regulatory impact assessment is available and can be obtained from the Engineering Inspectorate, Department of Trade and Industry, 1 Victoria Street, London SW1H OET. The Department's publication referred to in regulation 31(9) can be obtained from the same address. Copies of the regulatory impact assessment have been placed in the libraries of both Houses of Parliament.

The British Standard Requirements referred to in regulation 1(5) is a joint publication by the British Standards Institution and The Institution of Electrical Engineers. Copies can be obtained from The Institution of Electrical Engineers, P.O. Box 96, Stevenage, United Kingdom SGI 2SD.

Part I (regulations 1–5) contains introductory provisions. Regulation 1 contains defined terms; because these Regulations are targeted at technical and safety requirements, some of the defined terms have a different meaning from those used in the Electricity Act 1989 and in the Utilities Act 2000. Regulation 2 contains time limited exemptions for continued use of old equipment not complying with the requirements of the Regulations (e.g. pre-1937 cut-outs) and for the phased introduction of several new requirements (e.g. risk assessment of substations). Regulation 3 contains general duties relating to the safe use and operation of equipment, and requires risk registers to be maintained for substations and overhead lines. Regulation 4 requires duty holders to co-operate as necessary in order that they may each comply with these Regulations. Regulation 5 imposes requirements on duty holders to inspect their equipment and to maintain certain records for at least 10 years.

Part II (regulations 6–10) contains provisions relating to electrical protection and earthing. Regulation 6 imposes a requirement for generators and distributors to install adequate protective devices in their networks. Regulation 7 requires generators and distributors to ensure continuity of the supply neutral conductor. Regulation 8 imposes certain requirements for connections with earth for all systems, and also for high voltage networks and for low voltage networks in particular. Regulation 9 contains requirements for distributors operating protective multiple earthing systems, including the circumstances in which earthing terminals of consumers' installations should not be connected to the distributor's combined neutral and protective conductor. Regulation 10 contains requirements for earthing of metalwork.

Part III (regulation 11) contains provisions relating to substations, specifically requirements for enclosures, safety and other signs (see Schedule 1), and fire precautions.

Part IV (regulations 12–15) contains provisions relating to underground cables and associated equipment. Regulation 12 imposes restrictions on the use of underground cables. Regulation 13 imposes requirements for mechanical protection of such equipment and regulation 14 contains requirements regarding the depth and manner of installation. Regulation 15 requires generators and distributors to maintain maps of underground cables and equipment and to permit inspection by, and to provide copies to, specified persons.



Part V (regulations 16–20) contains provisions relating to overhead lines. Regulation 16 specifies the equipment affected by this Part and imposes a limit on nominal voltage. Regulation 17 imposes minimum heights for overhead electric lines and other cables (with further requirements in Schedule 2). Regulation 18 contains requirements relating to insulation and protection of such lines. Regulation 19 imposes requirements to prevent access to high voltage overhead conductors and to fix safety signs to supports for overhead lines (see Schedule 1). Regulation 20 relates to stay wires for supports carrying overhead lines.

Part VI (regulations 21 and 22) contains provisions relating to generation. Regulation 21 requires persons to ensure switched alternative sources of energy remain isolated from a distributor's network. Regulation 22 imposes requirements on persons intending to operate a source of energy in parallel with a distributor's network.

Part VII (regulations 23–29) contains general requirements relating to the provision of electricity to consumers' installations and other networks. Regulation 23 requires distributors to take precautions against supply failure. Regulation 24 contains provisions relating to distributors' and meter operators' equipment on consumers' premises, including electrical protection, security and connections to consumers' earthing terminals. Regulation 25 specifies requirements for persons connecting new installations or new networks to a distributor's network, with provision for settling disputes arising from a distributor's delay in giving or refusal to give consent for connections. Regulation 26 specifies the procedure if a distributor considers that an installation is unsafe or is causing interference and the procedure to challenge the distributor's refusal to give or continue a supply. Regulation 27 imposes requirements to give information relating to a supply and to maintain the quality of supply within certain tolerance limits. Regulation 28 requires other information affecting a consumer to be provided on request. Regulation 29 permits distributors to discontinue a supply for such period as may be necessary under certain circumstances.

Part VIII (regulations 30–36) contains miscellaneous provisions. Regulation 30 entitles inspectors appointed by the Secretary of State to the provision of facilities and information where an inspection of a generator's or distributor's network or equipment is being carried out. Regulation 31 and Schedule 3 contain a requirement on generators, distributors and meter operators to give particulars to the Secretary of State relating to accidents and other events involving their networks and equipment and domestic consumers' installations. Regulation 32 and Schedule 4 contain a requirement on a distributor to give notice to the Secretary of State of specified interruptions of supply to consumers. Regulation 33 permits the Secretary of State to grant exemptions from the Regulations, and regulation 34 enables the Secretary of State to prohibit the use of networks or equipment owned or operated by duty holders or of a consumer's installation in specified circumstances, with provision for settling disputes. Regulation 35 provides that specified persons who fail to comply with specified provisions of the Regulations commit an offence under section 29 of the Electricity Act 1989. Regulation 36 and Schedule 5 specify Regulations (the Electricity Supply Regulations 1988 and subsequent amendments) which are revoked by these Regulations.



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Purpose and scope

The purpose of this document is to give guidance and information to third parties who are proposing, scheduling or designing developments close to National Grid Electricity Transmission assets.

The scope of the report covers information on basic safety and the location of our assets – and also highlights key issues around particular types of development and risk areas.

In the case of electrical assets, National Grid does not authorise or agree safe systems of work with developers and contractors. However, we will advise on issues such as electrical safety clearances and the location of towers and cables. We also work with developers to minimise the impact of any National Grid assets that are nearby.

How to identify specific National Grid sites

Substations

The name of the substation and the emergency contact number will be on the site sign.



Overhead lines

The reference number of the tower and the emergency contact number will be on this type of sign.



Contact National Grid

Plant protection

For routine enquiries regarding planned, scheduled or emergency works, contact the Plant Protection team online, by email, post or phone.

www.beforeyoudig.nationalgrid.com

Email: plantprotection@nationalgrid.com

Phone: 0800 688 588

Write to:

National Grid Plant Protection Brick Kiln Street Hinckley Leicestershire LE10 ONA

Emergencies

In the event of occurrences such as a cable strike, coming into contact with an overhead line conductor or identifying any hazards or problems with National Grid's equipment, phone our emergency number 0800 404 090 (option 1).

If you have apparatus within 30m of a National Grid asset, please ensure that the emergency number is included in your site's emergency procedures.

Consider safety

Consider the hazards identified in this document when working near electrical equipment



Part 1

Electricity transmission infrastructure

National Grid owns and maintains the high-voltage electricity transmission network in England and Wales (Scotland has its own networks). It's responsible for balancing supply with demand on a minute-by-minute basis across the network.

Overhead lines

Overhead lines consist of two main parts – pylons (also called towers) and conductors (or wires). Pylons are typically steel lattice structures mounted on concrete foundations. A pylon's design can vary due to factors such as voltage, conductor type and the strength of structure required.

Conductors, which are the 'live' part of the overhead line, hang from pylons on insulators. Conductors come in several different designs depending on the amount of power that is transmitted on the circuit.

In most cases, National Grid's overhead lines operate at 275kV or 400kV.

Underground cables

Underground cables are a growing feature of National Grid's network. They consist of a conducting core surrounded by layers of insulation and armour. Cables can be laid in the road, across open land or in tunnels. They operate at a range of voltages, up to 400kV.

Substations

Substations are found at points on the network where circuits come together or where a rise or fall in voltage is required.

Transmission substations tend to be large facilities containing equipment such as power transformers, circuit breakers, reactors and capacitors. Diesel generators and compressed air systems are also found there.

Part 2

Statutory requirements for working near high-voltage electricity

The legal framework that regulates electrical safety in the UK is The Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002. This also details the minimum electrical safety clearances, which are used as a basis for the Energy Networks Association (ENA) TS 43-8. These standards have been agreed by CENELEC (European Committee for Electrotechnical Standardisation) and also form part of the British Standard BS EN 50341-1:2012 Overhead Electrical Lines exceeding AC 1kV. All electricity companies are bound by these rules, standards and technical specifications. They are required to uphold them by their operator's licence.

Electrical safety clearances

It is essential that a safe distance is kept between the exposed conductors and people and objects when working near National Grid's electrical assets. A person does not have to touch an exposed conductor to get a life-threatening electric shock. At the voltages National Grid operates at, it is possible for electricity to jump up to several metres from an exposed conductor and kill or cause serious injury to anyone who is nearby. For this reason, there are several legal requirements and safety standards that must be met.

Any breach of legal safety clearances will be enforced in the courts. This can – and has – resulted in the removal of an infringement, which is normally at the cost of the developer or whoever caused it to be there. Breaching safety clearances, even temporarily, risks a serious incident that could cause serious injury or death.

National Grid will, on request, advise planning authorities, developers or third parties on any safety clearances and associated issues. We can supply detailed drawings of all our overhead line assets marked up with relevant safe areas.



Part 3

What National Grid will do for you and your development

Provision of information

National Grid should be notified well in advance of any works or developments taking place near our electrical assets. We can then provide the following services:

Drawings

National Grid will provide relevant drawings of overhead lines or underground cables to make sure the presence and location of our services are known. Once a third party or developer has contacted us, we will supply the drawings for free.

400kV

The maximum nominal voltage of the underground cables in National Grid's network

Risk or impact identification

National Grid can help identify any hazards or risks that the presence of our assets might bring to any works or developments. This includes both the risk to safety from high-voltage electricity and longer-term issues, such as induced currents, noise and maintenance access that may affect the outcome of the development. National Grid will not authorise specific working procedures, but we can provide advice on best practice.





Risks or hazards to be aware of

This section includes a brief description of some of the hazards and issues that a third party or developer might face when working or developing close to our electrical infrastructure.

Land and access

National Grid has land rights in place with landowners and occupiers, which cover our existing overhead lines and underground cable network. These agreements, together with legislation set out under the *Electricity Act 1989*, allow us to access our assets to maintain, repair and renew them. The agreements also lay down restrictions and covenants to protect the integrity of our assets and meet safety regulations. Anyone proposing a development close to our assets should carefully examine these agreements.

Our agreements often affect land both inside and outside the immediate vicinity of an asset. Rights will include the provision of access, along with restrictions that ban the development of land through building, changing levels, planting and other operations. Anyone looking to develop close to our assets must consult with National Grid first.

For further information, contact Plant Protection:

Email: plantprotection@nationalgrid.com Phone: 0800 688 588

Electrical clearance from overhead lines

The clearance distances referred to in this section are specific to 400kV overhead lines. National Grid can advise on the distances required around different voltages i.e. 132kV and 275kV.

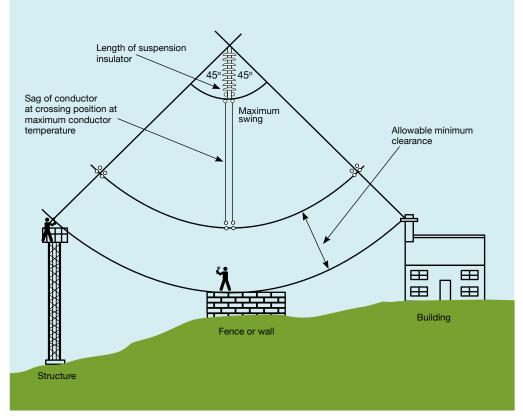
As we explained earlier, *Electrical Networks Association TS 43-8* details the legal clearances to our overhead lines. The minimum clearance between the conductors of an overhead line and the ground is 7.3m at maximum sag. The sag is the vertical distance between the wire's highest and lowest point. Certain conditions, such as power flow, wind speed and air temperature can cause conductors to move and allowances should be made for this.

The required clearance from the point where a person can stand to the conductors is 5.3m.

To be clear, this means there should be at least 5.3m from where someone could stand on any structure (i.e. mobile and construction equipment) to the conductors. Available clearances will be assessed by National Grid on an individual basis.

National Grid expects third parties to implement a safe system of work whenever they are near

Diagram not to scale



There should be at least 5.3m between the conductors and any structure someone could stand on

overhead lines. We recommend that guidance such as HSE Guidance Note GS6 (Avoiding Danger from Overhead Power Lines) is followed, which provides advice on how to avoid danger from all overhead lines, at all voltages. If you are carrying out work near overhead lines you must contact National Grid, who will provide the relevant profile drawings.

7.3m

The required minimum clearance between the conductors of an overhead line, at maximum sag, and the ground





The undergrounding of electricity cables at Ross-on-Wye

Underground cables

Underground cables operating at up to 400kV are a significant part of the National Grid Electricity Transmission network. When your works will involve any ground disturbance it is expected that a safe system of work is put in place and that you follow guidance such as HSG 47 (Avoiding Danger from Underground Services).

You must contact National Grid to find out if there are any underground cables near your proposed works. If there are, we will provide cable profiles and location drawings and, if required, on-site supervision of the works. Cables can be laid under roads or across industrial or agricultural land. They can even be layed in canal towpaths and other areas that you would not expect.

Cables crossing any National Grid high-voltage (HV) cables directly buried in the ground are required to maintain a minimum seperation that will be determined by National Grid on a case-by-case basis. National Grid will need to do a rating study on the existing cable to work out if there are any adverse effects on either cable rating. We will only allow a cable to cross such an area once we know the results of the re-rating. As a result, the clearance distance may need to be increased or alternative methods of crossing found.

For other cables and services crossing the path of our HV cables, National Grid will need confirmation that published standards and clearances are met.

Impressed voltage

Any conducting materials installed near high-voltage equipment could be raised to an elevated voltage compared to the local earth, even when there is no direct contact with the high-voltage equipment. These impressed voltages are caused by inductive or capacitive coupling between the high-voltage equipment and nearby conducting materials and can occur at distances of several metres away from the

equipment. Impressed voltages may damage your equipment and could potentially injure people and animals, depending on their severity. Third parties should take impressed voltages into account during the early stages and initial design of any development, ensuring that all structures and equipment are adequately earthed at all times.



Earth potential rise

Under certain system fault conditions – and during lightning storms – a rise in the earth potential from the base of an overhead line tower or substation is possible. This is a rare phenomenon that occurs when large amounts of electricity enter the earth. This can pose a serious hazard to people or equipment that are close by.

We advise that developments and works are not carried out close to our tower bases, particularly during lightning storms.

Noise

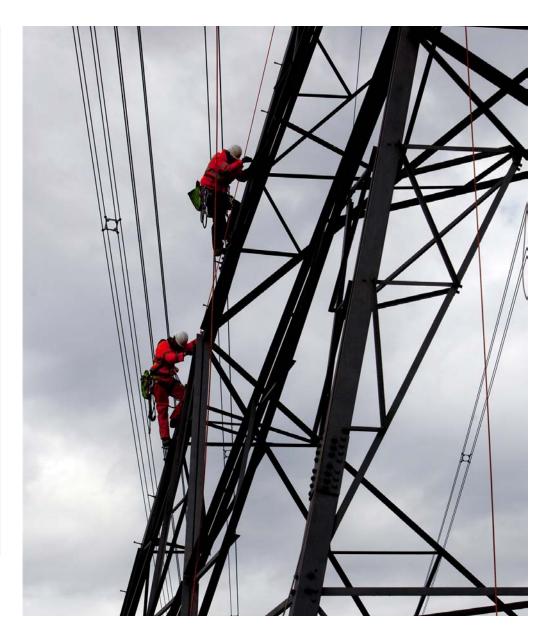
Noise is a by-product of National Grid's operations and is carefully assessed during the planning and construction of any of our equipment. Developers should consider the noise emitted from National Grid's sites or overhead lines when planning any developments, particularly housing. Low-frequency hum from substations can, in some circumstances, be heard up to 1km or more from the site, so it is essential that developers find adequate solutions for this in their design. Further information about likely noise levels can be provided by National Grid.

Maintenance access

National Grid needs to have safe access for vehicles around its assets and work that restricts this will not be allowed. In terms of our overhead lines, we wouldn't want to see any excavations made, or permanent structures built, that might affect the foundations of our towers. The size of the foundations around a tower base depends on the type of tower that is built there. If you wish to carry out works within 30m of the tower base, contact National Grid for more information. Our business has to maintain access routes to tower bases with land owners. For that reason, a route wide enough for an HGV must be permanently available. We may need to access our sites, towers, conductors and underground cables at short notice.

30m

If you wish to carry out work within this distance of the tower base, you must contact National Grid for more information





Fires and firefighting

National Grid does not recommend that any type of flammable material is stored under overhead lines. Developers should be aware that in certain cases the local fire authority will not use water hoses to put out a fire if there are live, high-voltage conductors within 30m of the seat of the fire (as outlined in ENA TS 43-8).

In these situations, National Grid would have to be notified and reconfigure the system – to allow staff to switch out the overhead line – before any firefighting could take place. This could take several hours.

We recommend that any site which has a specific hazard relating to fire or flammable material should include National Grid's emergency contact details (found at the beginning and end of this document) in its fire plan information, so any incidents can be reported.

Developers should also make sure their insurance cover takes into account the challenge of putting out fires near our overhead lines.

Excavations, piling or tunnelling

You must inform National Grid of any works that have the potential to disturb the foundations of our substations or overhead line towers. This will have to be assessed by National Grid engineers before any work begins.

BS ISO 4866:2010 states that a minimum distance of 200m should be maintained when carrying out quarry blasting near our assets. However, this can be reduced with specific site surveys and changes to the maximum instantaneous charge (the amount of explosive detonated at a particular time).

All activities should observe guidance layed out in *BS 5228-2:2009*.

Microshocks

High-voltage overhead power lines produce an electric field. Any person or object inside this field that isn't earthed picks up an electrical charge. When two conducting objects – one that is grounded and one that isn't – touch, the charge can equalise and cause a small shock, known as a microshock. While they are not harmful, they can be disturbing for the person or animal that suffers the shock.

For these reasons, metal-framed and metal-clad buildings which are close to existing overhead lines should be earthed to minimise the risk of microshocks. Anything that isn't earthed, is conductive and sits close to the lines is likely to pick up a charge. Items such as deer fences, metal palisade fencing, chain-link fences and metal gates underneath overhead lines all need to be earthed.

For further information on microshocks please visit www.emfs.info.





Specific development guidance

Wind farms

National Grid's policy towards wind farm development is closely connected to the *Electricity Networks Association Engineering Recommendation L44 Separation between Wind Turbines and Overhead Lines, Principles of Good Practice.* The advice is based on national guidelines and global research. It may be adjusted to suit specific local applications.

There are two main criteria in the document:

- (i) The turbine shall be far enough away to avoid the possibility of toppling onto the overhead line
- (ii) The turbine shall be far enough away to avoid damage to the overhead line from downward wake effects, also known as turbulence

The toppling distance is the minimum horizontal distance between the worst-case pivot point of the wind turbine and the conductors hanging in still air. It is the greater of:

- the tip height of the turbine plus 10%
- or, the tip height of the turbine plus the electrical safety distance that applies to the voltage of the overhead line.

To minimise the downward wake effect on an overhead line, the wind turbine should be three times the rotor distance away from the centre of the overhead line.

Wake effects can prematurely age conductors and fittings, significantly reducing the life of the asset. For that reason, careful consideration should be taken if a wind turbine needs to be sited within the above limits. Agreement from National Grid will be required.

Commercial and housing developments

National Grid has developed a document called *A Sense of Place*, which gives advice to anyone involved in planning or designing large-scale developments that are crossed by, or close to, overhead lines.

The document focuses on existing 275kV and 400kV overhead lines on steel lattice towers, but can equally apply to 132kV and below. The document explains how to design large-scale developments close to high-voltage lines, while respecting clearances and the development's visual and environmental impact.

Section continues on next page »

Diagram not to scale The distance between the centre of the overhead line and base of the turbine needs to be the greater of: • the height of the turbine, plus 10% of that height again • or, three times the diameter of the turbine rotor.

Turbines should be far enough away to avoid the possibility of toppling onto the overhead line



The advice is intended for developers, designers, landowners, local authorities and communities, but is not limited to those organisations.

Overall, developers should be aware of all the hazards and issues relating to the electrical equipment that we have discussed when designing new housing.

As we explored earlier, National Grid's assets have the potential to create noise. This can be low frequency and tonal, which makes it quite noticeable. It is the responsibility of developers to take this into account during the design stage and find an appropriate solution.

Solar farms

Development of solar farms is a relatively new phenomenon. While there is limited research and recommendations available, there are several key factors to consider when designing them.

Developers may be looking to build on arable land close to National Grid's assets. In keeping with the safety clearance limits that we outlined earlier for solar panels directly underneath overhead line conductors, the highest point on the solar panels must be no more than 5.3m from the lowest conductors.

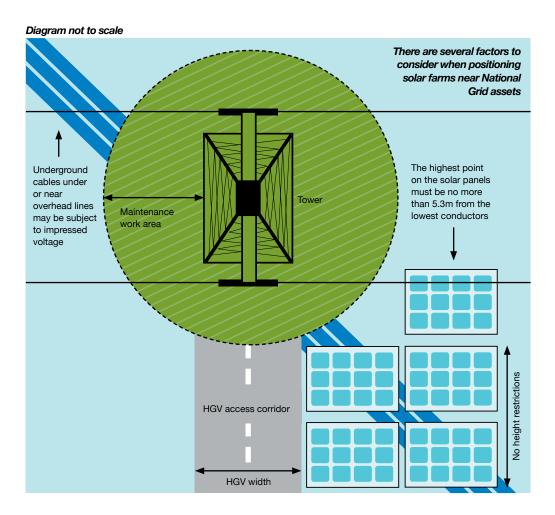
This means that the maximum height of any structure will need to be determined to make sure safety clearance limits aren't breached. This could be as low as 2m. National Grid will supply profile drawings to aid the planning of solar farms and determine the maximum height of panels and equipment.

Solar panels that are directly underneath power lines risk being damaged on the rare occasion that a conductor or fitting falls to the ground. A more likely risk is ice falling from conductors or towers in winter and damaging solar panels.

There is also a risk of damage during adverse weather conditions, such as lightning storms, and system faults. As all our towers are earthed, a weather event such as lightning can cause a rise in the earth potential around the base of a tower. Solar panel support structures and supply cables should be adequately earthed and bonded together to minimise the effects of this temporary rise in earth potential.

Any metallic fencing that is located under an overhead line will pick up an electrical charge. For this reason, it will need to be adequately earthed to minimise microshocks to the public.

For normal, routine maintenance and in an emergency National Grid requires unrestricted access to its assets. So if a tower is enclosed in a solar farm compound, we will



need full access for our vehicles, including access through any compound gates. During maintenance – and especially re-conductoring – National Grid would need enough space near our towers for winches and cable drums. If enough space is not available, we would require solar panels to be temporarily removed.



Asset protection agreements

In some cases, where there is a risk that development will impact on National Grid's assets, we will insist on an asset protection agreement being put in place. The cost of this will be the responsibility of the developer or third party.

Contact details

Emergency situations

If you spot a potential hazard on or near an overhead electricity line, do not approach it, even at ground level. Keep as far away as possible and follow the six steps below:

- Warn anyone close by to evacuate the area
- Call our 24-hour electricity emergency number: 0800 404 090 (Option 1)¹
- Give your name and contact phone number
- Explain the nature of the issue or hazard

information or call 01926 653 000.

- Give as much information as possible so we can identify
 the location i.e. the name of the town or village,
 numbers of nearby roads, postcode and (ONLY if it can
 be observed without putting you or others in danger) the
 tower number of an adjacent pylon
- Await further contact from a National Grid engineer

¹ It is critically important that you don't use this phone number for any other purpose. If you need to contact National Grid for another reason please use our Contact Centre at www2.nationalgrid.com/contact-us to find the appropriate

Routine enquiries

Email:

plantprotection@nationalgrid.com (you will be sent an automated response to confirm receipt)

Call Plant Protection for free on: 0800 688 588

Opening hours: Monday to Friday 08:00-16:30

Write to:
National Grid Plant Protection,
Brick Kiln Street,
Hinckley,
Leicestershire
LE10 0NA

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Risks or hazards to be aware of

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The clearance distances referred to in this section are specific to 400kV overhead lines. National Grid can advise on the distances required around different voltages i.e. 132kV and 275kV.

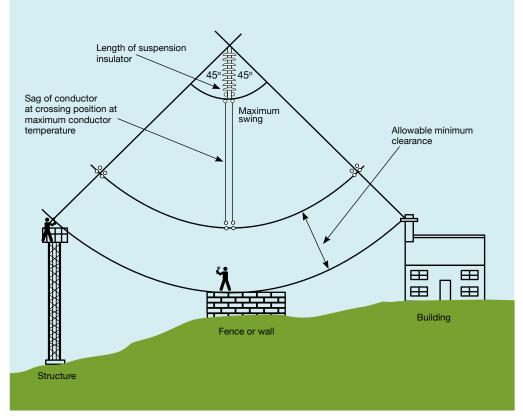
As we explained earlier, *Electrical Networks Association TS 43-8* details the legal clearances to our overhead lines. The minimum clearance between the conductors of an overhead line and the ground is 7.3m at maximum sag. The sag is the vertical distance between the wire's highest and lowest point. Certain conditions, such as power flow, wind speed and air temperature can cause conductors to move and allowances should be made for this.

The required clearance from the point where a person can stand to the conductors is 5.3m.

To be clear, this means there should be at least 5.3m from where someone could stand on any structure (i.e. mobile and construction equipment) to the conductors. Available clearances will be assessed by National Grid on an individual basis.

National Grid expects third parties to implement a safe system of work whenever they are near

Diagram not to scale



There should be at least 5.3m between the conductors and any structure someone could stand on

overhead lines. We recommend that guidance such as HSE Guidance Note GS6 (Avoiding Danger from Overhead Power Lines) is followed, which provides advice on how to avoid danger from all overhead lines, at all voltages. If you are carrying out work near overhead lines you must contact National Grid, who will provide the relevant profile drawings.

7.3m

The required minimum clearance between the conductors of an overhead line, at maximum sag, and the ground





The undergrounding of electricity cables at Ross-on-Wye

Underground cables

Underground cables operating at up to 400kV are a significant part of the National Grid Electricity Transmission network. When your works will involve any ground disturbance it is expected that a safe system of work is put in place and that you follow guidance such as HSG 47 (Avoiding Danger from Underground Services).

You must contact National Grid to find out if there are any underground cables near your proposed works. If there are, we will provide cable profiles and location drawings and, if required, on-site supervision of the works. Cables can be laid under roads or across industrial or agricultural land. They can even be layed in canal towpaths and other areas that you would not expect.

Cables crossing any National Grid high-voltage (HV) cables directly buried in the ground are required to maintain a minimum seperation that will be determined by National Grid on a case-by-case basis. National Grid will need to do a rating study on the existing cable to work out if there are any adverse effects on either cable rating. We will only allow a cable to cross such an area once we know the results of the re-rating. As a result, the clearance distance may need to be increased or alternative methods of crossing found.

For other cables and services crossing the path of our HV cables, National Grid will need confirmation that published standards and clearances are met.

Impressed voltage

Any conducting materials installed near high-voltage equipment could be raised to an elevated voltage compared to the local earth, even when there is no direct contact with the high-voltage equipment. These impressed voltages are caused by inductive or capacitive coupling between the high-voltage equipment and nearby conducting materials and can occur at distances of several metres away from the

equipment. Impressed voltages may damage your equipment and could potentially injure people and animals, depending on their severity. Third parties should take impressed voltages into account during the early stages and initial design of any development, ensuring that all structures and equipment are adequately earthed at all times.



Earth potential rise

Under certain system fault conditions – and during lightning storms – a rise in the earth potential from the base of an overhead line tower or substation is possible. This is a rare phenomenon that occurs when large amounts of electricity enter the earth. This can pose a serious hazard to people or equipment that are close by.

We advise that developments and works are not carried out close to our tower bases, particularly during lightning storms.

Noise

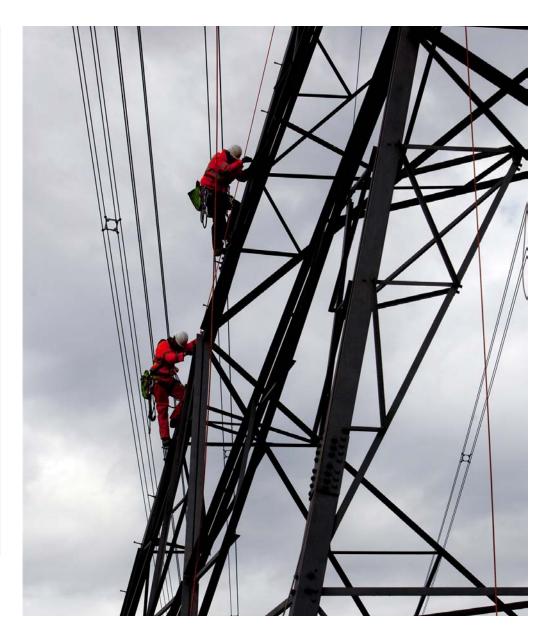
Noise is a by-product of National Grid's operations and is carefully assessed during the planning and construction of any of our equipment. Developers should consider the noise emitted from National Grid's sites or overhead lines when planning any developments, particularly housing. Low-frequency hum from substations can, in some circumstances, be heard up to 1km or more from the site, so it is essential that developers find adequate solutions for this in their design. Further information about likely noise levels can be provided by National Grid.

Maintenance access

National Grid needs to have safe access for vehicles around its assets and work that restricts this will not be allowed. In terms of our overhead lines, we wouldn't want to see any excavations made, or permanent structures built, that might affect the foundations of our towers. The size of the foundations around a tower base depends on the type of tower that is built there. If you wish to carry out works within 30m of the tower base, contact National Grid for more information. Our business has to maintain access routes to tower bases with land owners. For that reason, a route wide enough for an HGV must be permanently available. We may need to access our sites, towers, conductors and underground cables at short notice.

30m

If you wish to carry out work within this distance of the tower base, you must contact National Grid for more information





Fires and firefighting

National Grid does not recommend that any type of flammable material is stored under overhead lines. Developers should be aware that in certain cases the local fire authority will not use water hoses to put out a fire if there are live, high-voltage conductors within 30m of the seat of the fire (as outlined in ENA TS 43-8).

In these situations, National Grid would have to be notified and reconfigure the system – to allow staff to switch out the overhead line – before any firefighting could take place. This could take several hours.

We recommend that any site which has a specific hazard relating to fire or flammable material should include National Grid's emergency contact details (found at the beginning and end of this document) in its fire plan information, so any incidents can be reported.

Developers should also make sure their insurance cover takes into account the challenge of putting out fires near our overhead lines.

Excavations, piling or tunnelling

You must inform National Grid of any works that have the potential to disturb the foundations of our substations or overhead line towers. This will have to be assessed by National Grid engineers before any work begins.

BS ISO 4866:2010 states that a minimum distance of 200m should be maintained when carrying out quarry blasting near our assets. However, this can be reduced with specific site surveys and changes to the maximum instantaneous charge (the amount of explosive detonated at a particular time).

All activities should observe guidance layed out in *BS 5228-2:2009*.

Microshocks

High-voltage overhead power lines produce an electric field. Any person or object inside this field that isn't earthed picks up an electrical charge. When two conducting objects – one that is grounded and one that isn't – touch, the charge can equalise and cause a small shock, known as a microshock. While they are not harmful, they can be disturbing for the person or animal that suffers the shock.

For these reasons, metal-framed and metal-clad buildings which are close to existing overhead lines should be earthed to minimise the risk of microshocks. Anything that isn't earthed, is conductive and sits close to the lines is likely to pick up a charge. Items such as deer fences, metal palisade fencing, chain-link fences and metal gates underneath overhead lines all need to be earthed.

For further information on microshocks please visit **www.emfs.info.**





Specific development guidance

Wind farms

National Grid's policy towards wind farm development is closely connected to the *Electricity Networks Association Engineering Recommendation L44 Separation between Wind Turbines and Overhead Lines, Principles of Good Practice.* The advice is based on national guidelines and global research. It may be adjusted to suit specific local applications.

There are two main criteria in the document:

- (i) The turbine shall be far enough away to avoid the possibility of toppling onto the overhead line
- (ii) The turbine shall be far enough away to avoid damage to the overhead line from downward wake effects, also known as turbulence

The toppling distance is the minimum horizontal distance between the worst-case pivot point of the wind turbine and the conductors hanging in still air. It is the greater of:

- the tip height of the turbine plus 10%
- or, the tip height of the turbine plus the electrical safety distance that applies to the voltage of the overhead line.

To minimise the downward wake effect on an overhead line, the wind turbine should be three times the rotor distance away from the centre of the overhead line.

Wake effects can prematurely age conductors and fittings, significantly reducing the life of the asset. For that reason, careful consideration should be taken if a wind turbine needs to be sited within the above limits. Agreement from National Grid will be required.

Commercial and housing developments

National Grid has developed a document called *A Sense of Place*, which gives advice to anyone involved in planning or designing large-scale developments that are crossed by, or close to, overhead lines.

The document focuses on existing 275kV and 400kV overhead lines on steel lattice towers, but can equally apply to 132kV and below. The document explains how to design large-scale developments close to high-voltage lines, while respecting clearances and the development's visual and environmental impact.

Section continues on next page »

Diagram not to scale The distance between the centre of the overhead line and base of the turbine needs to be the greater of: • the height of the turbine, plus 10% of that height again • or, three times the diameter of the turbine rotor.

Turbines should be far enough away to avoid the possibility of toppling onto the overhead line



The advice is intended for developers, designers, landowners, local authorities and communities, but is not limited to those organisations.

Overall, developers should be aware of all the hazards and issues relating to the electrical equipment that we have discussed when designing new housing.

As we explored earlier, National Grid's assets have the potential to create noise. This can be low frequency and tonal, which makes it quite noticeable. It is the responsibility of developers to take this into account during the design stage and find an appropriate solution.

Solar farms

Development of solar farms is a relatively new phenomenon. While there is limited research and recommendations available, there are several key factors to consider when designing them.

Developers may be looking to build on arable land close to National Grid's assets. In keeping with the safety clearance limits that we outlined earlier for solar panels directly underneath overhead line conductors, the highest point on the solar panels must be no more than 5.3m from the lowest conductors.

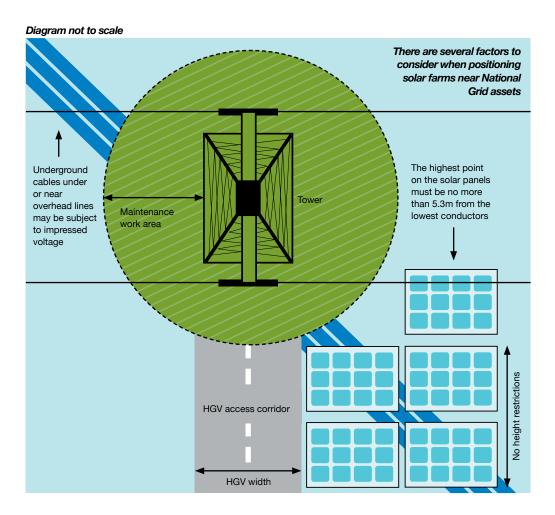
This means that the maximum height of any structure will need to be determined to make sure safety clearance limits aren't breached. This could be as low as 2m. National Grid will supply profile drawings to aid the planning of solar farms and determine the maximum height of panels and equipment.

Solar panels that are directly underneath power lines risk being damaged on the rare occasion that a conductor or fitting falls to the ground. A more likely risk is ice falling from conductors or towers in winter and damaging solar panels.

There is also a risk of damage during adverse weather conditions, such as lightning storms, and system faults. As all our towers are earthed, a weather event such as lightning can cause a rise in the earth potential around the base of a tower. Solar panel support structures and supply cables should be adequately earthed and bonded together to minimise the effects of this temporary rise in earth potential.

Any metallic fencing that is located under an overhead line will pick up an electrical charge. For this reason, it will need to be adequately earthed to minimise microshocks to the public.

For normal, routine maintenance and in an emergency National Grid requires unrestricted access to its assets. So if a tower is enclosed in a solar farm compound, we will



need full access for our vehicles, including access through any compound gates. During maintenance – and especially re-conductoring – National Grid would need enough space near our towers for winches and cable drums. If enough space is not available, we would require solar panels to be temporarily removed.



Asset protection agreements

In some cases, where there is a risk that development will impact on National Grid's assets, we will insist on an asset protection agreement being put in place. The cost of this will be the responsibility of the developer or third party.

Contact details

Emergency situations

If you spot a potential hazard on or near an overhead electricity line, do not approach it, even at ground level. Keep as far away as possible and follow the six steps below:

- Warn anyone close by to evacuate the area
- Call our 24-hour electricity emergency number: 0800 404 090 (Option 1)¹
- Give your name and contact phone number
- Explain the nature of the issue or hazard

information or call 01926 653 000.

- Give as much information as possible so we can identify
 the location i.e. the name of the town or village,
 numbers of nearby roads, postcode and (ONLY if it can
 be observed without putting you or others in danger) the
 tower number of an adjacent pylon
- Await further contact from a National Grid engineer

¹ It is critically important that you don't use this phone number for any other purpose. If you need to contact National Grid for another reason please use our Contact Centre at www2.nationalgrid.com/contact-us to find the appropriate

Routine enquiries

Email:

plantprotection@nationalgrid.com (you will be sent an automated response to confirm receipt)

Call Plant Protection for free on: 0800 688 588

Opening hours: Monday to Friday 08:00-16:30

Write to:
National Grid Plant Protection,
Brick Kiln Street,
Hinckley,
Leicestershire
LE10 0NA

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Appendix D Existing and proposed clearances

Table D.2 shows the clearance between the conductor, existing and proposed, at maximum operating temperature to the bank(s) where an excavator could operate.

Table D.2 – Existing and proposed clearances

Proposed									Exis	ting
Back Tower Number	Bank 1 Clearance	Bank 2 Clearance	(Above (+	e margin -) / Below m HSE 66)	(Above (-	e margin -) / Below ENA 43-8)	(Greater that than (-)	e margin an (+) / Less Existing Clearance)	Bank 1 Clearance	Bank 2 Clearance
XC424	20.8	18.9	10.3	8.4	14.9	13.0	N/A	new	N/A	new
XC427	16.8	16.9	6.3	6.4	10.9	11.0	N/A	new	N/A	new
XC429	11.3	11.2	0.8	0.7	5.4	5.3	3.1	3.1	8.2	8.1
XC432	12.2	12.3	1.7	1.8	6.3	6.4	1.9	1.9	10.3	10.4
XC438	12.4	13.2	1.9	2.7	6.5	7.3	1.1	1.1	11.3	12.1
XC439	-	14.0	-	3.5	-	8.1	-	0.5	-	13.5
XC452	13.8	13.4	3.3	2.9	7.9	7.5	1.4	1.4	12.4	12.0
XC459	9.5	9.3	-1.0	-1.2	3.6	3.4	1.3	1.3	8.2	8.0
SP006	13.2	13.0	2.7	2.5	7.3	7.1	N/A	new	N/A	new
YN007	20.0	22.5	9.5	12.0	14.1	16.6	N/A	new	N/A	new

Clearance assessed to:

- Guideline: HSE GS6 clearance zone (7m) + 3.5m (excavator) = 10.5m
- Requirement: ENA43-8 clearance to object on which a person cannot stand (2.4m) + 3.5m (excavator) = 5.9m

Appendix E Table of DCO outstanding matters

E.1 Introduction

- E.1.1 At Issue Specific Hearing 4 in respect of the Yorkshire Green Energy Enablement Project (Yorkshire GREEN) (Project), the Examining Authority (ExA) requested that National Grid Electricity Transmission plc (National Grid) (the Applicant) prepare a table listing each draft DCO provision for which there is an outstanding objection, to record:
 - the party or parties objecting,
 - the specific matter in contention,
 - that party's position or preferred wording (where available); and,
 - the Applicant's response to that objection.
- E1.2 This document sets out the provisions to which objections remain outstanding from third parties in respect of the **draft DCO (Document 3.1(E))** in response to Action Point 20, arising from Issue Specific Hearing 4.

Table E.3 – Summary of Draft DCO Outstanding Matters with Third Parties

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
1	Article 11(1), 11(2) and 11(3) (Street Works).	National Highways	Article 11(1) would permit the Applicant to carry out significant works to the SRN without the oversight and approval of National Highways as the relevant highway authority. No consent is required nor the ability to impose conditions on how such works take place. This is not acceptable to National Highways due to significant safety concerns. Further, Article 11(2) permits such works being carried out to any street within the order limits therefore bringing further parts of the SRN within the remit of this power. Whilst Article 11(3) provides that in those cases where the power under 11(2) is being exercised the applicant would need to seek National Highways consent, this is qualified and subject to a 28 day deemed consent provision. For the reasons already stated, this is not acceptable to National Highways. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3	Within the protective provisions placed on the face of the draft DCO in Part 6 of Schedule 15 to the draft DCO (Document 3.1(E)) National Grid has proposed that the authorised development cannot be carried out under on or above the strategic road network without the approval of National Highways. As a result, it is National Grid's view that any interference caused (if at all) will not be a serious detriment to National Highways carrying on its undertaking. Paragraph 65 (prior approvals and security) of Schedule 15, Part 6 provide as follows: " 65. (1) In respect of any specified works being at least, when constructed, 5.5 metres above the surface of the strategic road network, such works must not commence until— (a) Evidence that a stage 1 and stage 2 road safety audit has been carried out and all recommendations raised by them or any exceptions are approved by National Highways; (b) the programme of works has been approved by National Highways; (c) the reconductoring detailed design of the specified works comprising of the following details, insofar as considered relevant by National Highways, has been submitted to and approved by National Highways, has been submitted to and approved by National Highways.

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
			(ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	 (i) the detailed design information, including scaffolding to oversail the strategic road network, incorporating all recommendations and any exceptions approved by National Highways under sub-paragraph (a); (ii) details of the proposed road space bookings; (iii) the identity and suitability of the contractor
				and nominated persons; (iv) a process for stakeholder liaison, with key stakeholders to be identified and agreed between National Highways and the undertaker;
				(v) information demonstrating that the walking, cycling and horse riding assessment and review process undertaken by the undertaker in relation to the specified works has been adhered to in accordance with DMRB GG142 – Designing for walking, cycling and horse riding; and
				(d) where necessary, a scheme of traffic management has been submitted by the undertaker and approved by National Highways such scheme to be capable of amendment by agreement between the undertaker and National Highways from time to time,
				unless otherwise agreed by National Highways. (2) In respect of specified works save for those which fall under sub-paragraph (1), such works must not commence until— (a) a stage 1 and stage 2 road safety audit has been carried out and all recommendations raised

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
				by them or any exceptions are approved by National Highways;
				(b) the programme of works has been approved by National Highways;
				(c) the detailed design of the specified works comprising of the following details, insofar as considered relevant by National Highways, has been submitted to and approved by National Highways—
				(i) the highway detailed design information, incorporating all recommendations and any exceptions approved by National Highways under sub-paragraph (a)
				(ii) details of the proposed road space bookings;
				(iii) the identity and suitability of the contractor and nominated persons;
				(iv) a process for stakeholder liaison, with key stakeholders to be identified and agreed between National Highways and the undertaker;
				(v) information demonstrating that the walking, cycling and horse riding assessment and review process undertaken by the undertaker in relation to the specified works has been adhered to in accordance with DMRB GG142 – Designing for walking, cycling and horse riding; and
				(d) a scheme of traffic management has been submitted by the undertaker and approved by National Highways such scheme to be capable of

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
				amendment by agreement between the undertaker and National Highways from time to time;
				(e) stakeholder liaison has taken place in accordance with the process for such liaison agreed between the undertaker and National Highways under sub-paragraph (c)(v) above;
				(f) National Highways has approved the audit brief and CVs for all road safety audits and exceptions to items raised in accordance with the road safety audit standard;
				(g) the undertaker has agreed the estimate of the commuted sum with National Highways;
				(h) the scope of all maintenance operations (routine inspections, incident management, reactive and third party damage) to be carried out by the undertaker during the construction of the specified works (which must include winter maintenance) has been agreed in writing by National Highways;
				(i) the undertaker has procured to National Highways collateral warranties in a form approved by National Highways from the contractor and designer of the specified works in favour of National Highways to include covenants requiring the contractor and designer to exercise all reasonable skill care and diligence in designing and constructing the specified works, including in the selection of materials, goods, equipment and plant; and
				(j) a condition survey and regime of monitoring of any National Highways assets or structures that

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
				National Highways considers will be affected by the specified works, has been agreed in writing by National Highways, unless otherwise agreed by National Highways." This ensures that, where the authorised development involves works directly to the SRN, there is provision for approval of those works by National Highways in line with their usual practices. A more streamlined process for approval is established for works outside of the 5.5m envelope, which is appropriate to the works in question. There is no deemed approval. Whilst it is not envisaged that any such works would be undertaken to the SRN, protections have now been included within the protective provisions to ensure that National Highways have appropriate controls in the event that any such works do unexpectedly take place. (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082] – Amended as appropriate to reflect updated drafting within the draft DCO (Document 3.1(E)) at Deadline 6)
2	Article 12(3) (Application of the 1991 Act)	National Highways	This Article is seeking a power such that the DCO would trump a usual provision of the 1991 Act. The 1991 Act was set up for very clear reasons to address historical problems in this area, setting out a clear code for	Appendix A to the Explanatory Memorandum (Document 3.2(D)) provides clear justification for the disapplication of each provision within the 1991 Act. This demonstrates that where a provision is being disapplied, there is an alternative protection applicable through the DCO

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
			street works and an appropriate statutory process to protect both highway authorities and statutory undertakers. As such its provisions should not be so easily overruled. It is National Highways' view that any exclusions of the 1991 Act need to be very clearly justified. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	requirements or mitigation plans. Moreover, of the 10 provisions listed for disapplication, four are not yet in force and so only six specific provisions, which are currently active, are being sought to be disapplied by National Grid. These are fully justified pursuant to the explanation given in Appendix A of the Explanatory Memorandum (Document 3.2(D)). (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082])
3	Article 13(1), Article 13(2), Article 13(5) (Power to alter layout etc. of streets)	National Highways	Article 13(1) would permit the Applicant to carry out significant works to the SRN without the oversight and approval of National Highways as the relevant highway authority. Further, Article 13(2) permits such works being carried out to any street within, or adjacent to, the order limits therefore bringing further parts of the SRN within the remit of this power. Such works may include, for example, increasing carriageway widths, decreasing carriageway widths and altering levels. Any such	As confirmed under the response to Article 11 above, paragraph 65 of the protective provisions for the benefit of National Highways provides the requisite control for any works in, on or over the strategic road network, with a differing approvals process for works which are at least 5.5m vertically above the strategic road network. However, in any event, deemed approval does not apply. Moreover, paragraph 64 (works outside the Order limits) provides protection for any works outside of the Order limits on the strategic road network on the following terms:

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
			works to the SRN would be considered significant and would, under normal circumstances, require an applicant to enter into a section 278 agreement pursuant to the Highways Act 1980. National Highways has significant concerns over any third party having such wide powers to carry out works to the SRN without the appropriate approvals processes and safeguards being in place. Whilst Article 13(4) provides that in those cases where the power under Article 13(2) is being exercised the applicant would need to seek National Highways consent, Article 13(5) makes this subject to a 28 day deemed consent provision. For the reasons already stated, this is not acceptable to National Highways. It should be noted that Article 13 is a very wide power which could result in permanent alterations being made to the SRN. It is not acceptable to National Highways that such a power could be permitted which could bypass the explicit consent of National Highways as the highway authority who would thereafter be responsible for such works.	"If the undertaker proposes to carry out works to the strategic road network that are outside of the Order Limits in connection with the authorised development, the undertaker must enter into an agreement with National Highways in respect of the carrying out of those works prior to the commencement of those works". (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082] – Amended as appropriate to reflect updated drafting within the draft DCO (Document 3.1(E)) at Deadline 6)

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
			(Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	
4	Article 14(1), Article 14(2), Article 14(5), Article 14(8) (Temporary stopping up of streets, cycle tracks, and public rights of way)	National Highways	This article would allow any street within the order limits (including the SRN) to be temporarily stopped up, altered or diverted. Article 14(2) gives a power for parts of the SRN to be used as a temporary working site for an unknown period of time. Whilst article 14(5) provides that National Highways consent would be required before the power could be exercised, again this is qualified. Conditions cannot be attached to consents requested pursuant to article 14(5)(a). Requests pursuant to article 14(5)(b) are subject to a 28 day deemed consent provision. For the reasons already stated, it is National Highways view that its consent should not be qualified in this way and deemed consent poses significant safety concerns. As presented this article would not be acceptable to National Highways	Paragraph 66(2) (construction of the specified works) of Schedule 15 Part 6 requires that: "the undertaker must comply with National Highways' road space booking procedures prior to and during the carrying out the specified works and no specified works for which a road space booking is required shall commence without a road space booking having first been secured from National Highways". Accordingly, were any temporary stopping up of the strategic road network proposed, this would be subject to National Highways processes being followed. (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082] – Amended as appropriate to reflect updated drafting within the draft DCO (Document 3.1(E)) at Deadline 6)

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
			given it could interfere with National Highways carrying out its own statutory or Licence obligations and pose significant safety issues. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	
5	Article 16(1), Article 16(2) (Access to works)	National Highways	Article 16(1) permits the creation of new accesses either at those locations specified in Schedule 9 or at any location within the order limits. Any new access off the SRN poses safety concerns and under the Highways Act 1980 (s175B) National Highways approval is required to ensure that only safe and appropriate accesses are introduced. Whilst s175B does not apply if development consent is required under the Planning Act 2008 this is not, in National Highways' view, because highway authority consent is not required but rather that is expected to be appropriately covered under the DCO and the DCO would	Please see National Grid's response to Action Point 15 in Applicant's Response to ISH3 Hearing Action Points (Document 8.23.9) [REP5-081]. In summary, National Highways have a consultation right in the same respect as they would have if permission for an access was sought under the Town and Country Planning Act 1990 (TCPA) regime. Additionally, Requirement 14 provides an approval right for the relevant highway authority, which is not subject to deemed approval, in relation to the detail of works to construct or temporarily alter any new or existing means of access to a highway to be used by vehicular traffic. (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082])

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
			provide for such consent to be given, if appropriate. National Highways' concerns with regards to this article are twofold: (i) no consent whatsoever is required for those accesses listed in Schedule 9; and (ii) for any other accesses the consent is to be provided by the LPA, who must consult with the highway authority but are not obliged to agree with them. There is also a deemed consent clause increasing the risk that National Highways may have no say, and no control, over the imposition of new SRN accesses which is considered to be totally unacceptable. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	
6	Article 19(1), Article 19(3), Article 19(4), Article 19(9) (Discharge of water)	National Highways	Article 19(1) would permit the Applicant to discharge water into the highway drainage system of the SRN. Whilst Articles 19(3) and 19(4)	Article 19 is a highly precedented provision in overhead line DCOs and more generally.

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
			provide for the applicant to obtain consent, such consent is qualified in that it must not be unreasonably withheld or delayed. National Highways would refuse any such request given the policy of the Secretary of State for Transport set out in Strategic Road Network and the delivery of sustainable development [Dec 2022] which states at paragraph 59: To ensure the integrity of the highway drainage systems, no new connections into those systems from third party development and proposed drainage schemes will be accepted. Article 19(9) is also a concern to National Highways as it imposes a 28 day deemed consent provision on any request for consent. For the reasons already stated, this is not acceptable to National Highways. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	Further, National Grid do not envisage making any connections into National Highways' drainage systems as part of the Project. In addition, for works "in, on or over" the strategic road network, the protective provisions now included in the draft DCO secure pursuant to paragraph 64(2) as referenced above that details must be submitted for "(c) drainage and ducting as required by DMRB CD 535 Drainage asset data and risk management and DMRB CS551 Drainage Surveys standards for Highways;". (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082])

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
7	Article 19(12) (Discharge of water)	Ainsty Internal Drainage Board	AIBD's internal guidance on safe working around overhead lines specifies that a 7m exclusion zone for 275 and 400kV overhead lines should be provided in addition to the maximum working height for their machinery of 3.5m. AIDB therefore require a minimum clearance of 10.5m from top of bank of maintained watercourses. AIDB will accept a minimum clearance of 9.5m between pylons XC459 and XC460 as a one-off but AIDB are likely to need to excavate the ground to provide the minimum clearance of 10.5 metres that [AIDB] require. AIDB require a minimum of 10.5 metres between an overhead line and bank top of an IDB-maintained watercourse to be provided as otherwise we will be unable to access the watercourse as we will be breaching our safe working practices. This will leave sections of watercourses not maintained and could affect water flows. AIDB will continue to discuss the matter with National Grid to try and come to a resolution. (Extract from 'matters outstanding' within the Statement	National Grid confirms that the only remaining matter outstanding between the parties is the clearance between overhead lines and the top of banks of AIDB-maintained watercourses. The positions of the two parties are summarised as follows: • AIDB is requesting a minimum 10.5 metre (m) clearance between top of bank of their maintained watercourses and any overhead line. The 10.5m clearance being requested is derived from their own internal safety operating procedures for working beneath overhead lines and is based on the assumption of the maximum 3.5m boom height for their machinery, plus a 7m exclusion zone from the overhead line. They require this in order for them to agree that overhead line crossings would not require Land Drainage Consent under their byelaws. • AIDB's internal guidance is based on Health and Safety Executive Guidance Note GS6 'Avoiding danger from overhead power lines'. The GS6 guidance sets out guidelines for working near overhead lines and sets out exclusion zones. These zones are for guidance and on the basis that no

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			of Common Ground between National Grid Electricity Transmission and Ainsty Internal Drainage Board Draft Version 2 (Clean) [Document 8.5.12(B)) [REP5-051]) — It is noted that matters have progressed since the last statement of common ground was submitted and a resolution on this issue is unlikely to be reached between parties.	control measures are in place for working under the lines. National Grid note the guidance but consider that it is possible to work within this zone as long at the statutory minimum clearance distances are maintained as per Energy Networks Association Technical Specification 43-8, and as set out below. By achieving the clearances as stated in ENA 43-8, then it is safe to work underneath the overhead line. ENA 43-8 states that GS6 provides recommendations for working under overhead lines and that in the cases where the exclusion zones may be breached as set out in GS6, it is imperative that the clearances stated in ENA 43-8 (2.4m for 275kV) be maintained to ensure safe working.
				If within the 7m exclusion zone, consultation with National Grid at the time of works will mean the exact clearances can be provided to ensure that the safe working distances are achieved, and suitable working practices and risk assessment can be put in place, such as limiting the height of the arm of the excavator to 3.5m. National Grid's position is that they
				 National Grid's position is that they have designed all proposed overhead lines within the Project to meet the

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				statutory requirements for minimum ground clearances set out in Schedule 2 of the Electricity Safety, Quality and Continuity Regulations 2002. In the case of the 275kV overhead lines that traverse AIDB-maintained watercourses, this minimum clearance is 7m. The design of the overhead lines also meets the statutory clearances set out in Energy Networks Association Technical Specification 43-8, which, in addition to ground clearances, sets out minimum clearance distance from a 275kV conductor to an object. The minimum clearance distance from a 275kV conductor to an object that cannot be stood on top of is given in ENA TS 43-8 and is 2.4m. Given that the AIDB have specified a maximum working height of 3.5m for their machinery, it is therefore National Grid's position that meeting the 7m statutory clearance between conductor and the top of bank for AIDB maintained watercourses gives AIDB sufficient clearance to work safely below the overhead lines.
				 Furthermore, National Grid have reviewed the proposed design clearances at overhead line crossings of AIDB-maintained watercourses. For existing crossings where

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				reconductoring is taking place, existing clearances are improved upon in all cases, and, in all but one location, the 10.5m clearance required by AIDB's internal guidance is met. For two new crossing locations, the 10.5m requirement from AIDB's internal guidance is met. Design clearances may be subject to change post-grant of the DCO following final detailed design, so current design clearances should be treated as indicative. A table is provided in an Appendix to Applicant's comments on Interested Parties' Deadline 5 Submissions (Document 8.28), which shows the existing and proposed new clearances. However there is little flexibility to change the clearance on the existing XC overhead line, as the pylons are not being changed in height. To achieve a 10.5m clearance over all the AIDB maintained watercourses would mean that pylon heights would need to be increased. National Grid consider this not to be appropriate, or justifiable as the design meets all statutory clearances for the safe operation of the overhead line, and maintenance of the watercourses.

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				 National Grid has proposed changes to Article 19 of the draft Development Consent Order (draft DCO, Document 3.1(D), [REP5-004]), which has the effect of disapplying Internal Drainage Board byelaw consenting powers provided the statutory requirements for overhead line ground clearance as set out in the Electricity Safety, Quality and Continuity Regulations 2002 are met. National Grid believe this is a pragmatic approach which minimises any potential delays in project delivery, whilst guaranteeing that the overhead line design meets all relevant statutory safety clearances.
				 AIDB do not agree with this position, as it does not meet the requirements of their own internal guidance.
				 Despite efforts to resolve this point of difference, this position is likely to remain as a matter not agreed at the end of the Examination.
				(Extracted from Applicant's comments on Interested Parties' Deadline 5 Submissions (Document 8.28)
8	Article 21(1), Article 21(3), Article 21(5), Article 21(8) (Authority	National Highways	This Article authorises entry onto any land within the Order limits which would include land owned by	National Highways has not substantiated what the safety concerns would be regarding National

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
	to survey and investigate the land)		National Highways, including parts of the SRN. Pursuant to Article 21(3) no consent is required and only 14 days' notice needs to be given. This would not be acceptable to National Highways given it could interfere with National Highways carrying out its own statutory or Licence obligations and pose significant safety issues. Whilst the consent of National Highways is required for certain activities, this is limited to trial holes, boreholes, excavations or horizontal courses (Article 21(5)). National Highways consent should not be limited this way and should apply to any activity on National Highways' land. Further, any request for consent is subject to a 28 day deemed consent provision which, for reasons already stated, is not acceptable to National Highways. (Extracted from National Highways. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	Grid's power to undertake surveys on land, having provided prior notice. However, if the survey works would involve any works "in, on or over" the strategic road network, the definition of "specified work" within the protective provisions would be triggered and so the protective measures afforded through such provisions would apply. (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082])

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9	Article 26(1), Article 26(3) (Extinguishment and suspension of private rights)	National Highways	Interests of National Highways are subject to compulsory acquisition and the Applicant is also seeking the compulsory acquisition of rights over land belonging to National Highways, or which it holds an interest. Article 26(1) could therefore result in the extinguishment of National Highways interests. Given National Highways role as the strategic highways company responsible for the SRN in England it is not appropriate for its interests to be extinguished in such manner which could make it impossible for National Highways to fulfil its statutory and Licence obligations. Of further concern is Article 26(3) which renders all rights 'suspended and unenforceable' in respect of any land which the applicant takes temporary possession of. This could apply to any land within the order limits and so could result in National Highways' interests being suspended and therefore for a potentially lengthy period National Highways could lose the ability to access its land. There is no need to obtain consent and no need to consider the implications of such other than to pay compensation	The powers of acquisition granted through Article 26 are subject to the specific purposes identified and are still subject to the controls of the requirements and protective provisions. National Highways has an advance approval right over works undertaken by National Grid through the protective provisions within Schedule 15, Part 6 of the draft DCO (Document 3.1(E)). Additionally, paragraph 66(4) (construction of the specified works) of Schedule 15, Part 6 confirms that "the undertaker must permit and must require the contractor to permit at all reasonable times persons authorised by National Highways (whose identity must have been previously notified to the undertaker by National Highways) to gain access to the specified works for the purposes of inspection and supervision of the specified works." (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082] – Amended as appropriate to reflect updated drafting within the draft DCO (Document 3.1(E)) at Deadline 6)

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
			however this would not be sufficient to address National Highways' concerns over such a wide power and the impact it could have on the SRN. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	
10	Article 35(1) (Use of subsoil under or airspace over streets)	National Highways	This article permits the applicant to enter on and use so much of the subsoil under and airspace over any street within the order limits without the consent of the highway authority. National Highways is concerned that such a wide power, without controls, creates significant safety concerns. Anyone seeking to carry out works above or below the SRN would ordinarily be expected to comply with various safety requirements so National Highways is concerned with the blanket power this article provides without the ability for National Highways to influence how any such works are carried out.	As stated above in response to article 26, the protective provisions afford National Highways an approval right over works which take place on, in and over the strategic road network and also require access to be afforded to National Highways at all reasonable times. (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082] – Amended as appropriate to reflect updated drafting within the draft DCO (Document 3.1(E)) at Deadline 6)

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			It is clearly in the public interest to ensure that any works in the airspace above the SRN are appropriately authorised and National Highways must have a role to play in such. Similarly, any works beneath the SRN must be carried out with appropriate safeguards to ensure the integrity of the highway is not adversely affected. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	
11	Article 36(1) (Temporary use of land by National Grid)	National Highways	This gives the applicant a very wide power to enter any land within the order limits to take temporary possession and so for a potentially lengthy period National Highways could lose the ability to access its land. This includes the SRN. It also gives a power to construct new accesses. No consent is required and only 14 days notice must be given. Such a wide power has the potential to cause National Highways	As stated above in response to article 26, the protective provisions afford National Highways an approval right over works which take place on, in and over the strategic road network and also require access to be afforded to National Highways at all reasonable times. (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082] – Amended as appropriate to reflect updated drafting within the draft DCO (Document 3.1(E)) at Deadline 6)

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			significant concerns and could make it impossible for National Highways to fulfil its statutory and Licence obligations. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	
12	Article 37(1) (Temporary use of land by NPG)	National Highways	This gives NPG a very wide power to enter any land within the order limits to take temporary possession and so for a potentially lengthy period National Highways could lose the ability to access its land. This includes the SRN. It also gives a power to construct new accesses. No consent is required and only 14 days notice must be given. Such a wide power has the potential to cause National Highways significant concerns and could make it impossible for National Highways to fulfil its statutory and Licence obligations. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in	As stated above in response to article 26, the protective provisions afford National Highways an approval right over works which take place on, in and over the strategic road network and also require access to be afforded to National Highways at all reasonable times. (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082] – Amended as appropriate to reflect updated drafting within the draft DCO (Document 3.1(E)) at Deadline 6)

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
			respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	
13	Article 38(1) (Temporary use of land by NGN)	National Highways	This gives NGN a very wide power to enter any land within the order limits to take temporary possession and so for a potentially lengthy period National Highways could lose the ability to access its land. This includes the SRN. It also gives a power to construct new accesses. No consent is required and only 14 days notice must be given. Such a wide power has the potential to cause National Highways significant concerns and could make it impossible for National Highways to fulfil its statutory and Licence obligations. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	As stated above in response to article 26, the protective provisions afford National Highways an approval right over works which take place on, in and over the strategic road network and also require access to be afforded to National Highways at all reasonable times. (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082] – Amended as appropriate to reflect updated drafting within the draft DCO (Document 3.1(E)) at Deadline 6)

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
14	Article 39(1) (Temporary use of land for maintaining the authorised development)	National Highways	This gives the applicant a very wide power to enter any land within the order limits to take temporary possession. This includes the SRN. It also gives a power to construct new accesses. No consent is required and only 28 days notice must be given. Such a wide power has the potential to cause National Highways significant concerns and could make it impossible for National Highways to fulfil its statutory and Licence obligations. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	As stated above in response to article 26, the protective provisions afford National Highways an approval right over works which take place on, in and over the strategic road network and also require access to be afforded to National Highways at all reasonable times. (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082] – Amended as appropriate to reflect updated drafting within the draft DCO (Document 3.1(E)) at Deadline 6)
15	Article 45(1), Article 45(2), Article 45(8) (Traffic Regulation)	National Highways	This article gives the undertaker very wide traffic regulation powers. Whilst articles 45(1) and 45(2) provide that the consent of the traffic authority is required, article 45(8) makes this subject to a 28 day deemed consent provision. For the reasons already stated, this is not acceptable to National Highways. National Highways, as the strategic highway	Article 45 requires consent for TROs which are included within Schedule 14, as well as any additional TROs sought by National Grid. Before the powers under Article 45 can be used by National Grid, National Grid is required to first consult with the chief of police and the traffic authority in whose area the road is situated. Only following this prior consultation would the 28 days'

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			company appointed by the Secretary of State for Transport, should be the only body permitted to have such powers in respect of the SRN. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	notice be given in writing. Additionally, National Grid must advertise the TRO as is specified by the traffic authority. Therefore, to the extent that the TRO affects the strategic road network, National Highways would be fully consulted under the provisions contained within Article 45. It should be noted that only two TROs are proposed on the SRN in schedule 14 of the dDCO. These relate to (1) the rolling road block which is necessary to install the overhead line over the A64 (between points TR45 to TR46 on the Traffic Regulation Order Plan Section D [APP-059]) and (2) the ability to install necessary signage and remove any vegetation on the A659/A64 Westbound Onslip in connection with the installation of the overhead line over the A64 (between points TR47 and TR48 on the Traffic Regulation Order Plan Section D [APP-059]). (Extracted from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082])
16	Schedule 1, Associated Development	National Highways	Schedule 1 of the draft DCO gives the applicant extremely wide powers that would permit them carrying out, potentially significant, works to the SRN and the DCO in its current form would give National Highways no role in ensuring that any such works are carried out appropriately and	The associated development works listed in Schedule 1 have been justified within Appendix D of the Applicant's Response to Open Floor Hearing 1 (OFH1) and Issue Specific Hearing 1 (ISH1) Hearing Action Point (Document 8.4.2) [REP1-018]. Specifically in relation to item "(i) works required for the strengthening, improvement, maintenance, or reconstruction of any streets", this was recorded as being "required to widen the roads at Overton Road and Corban

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			safely. An example that is of concern to National Highways is: (i) works required for the strengthening, improvement, maintenance, or reconstruction of any streets; Whilst it may not be the current intention of the applicant to do so, this gives them a power to carry out improvement works (whatever they may be, but could be significant in scope) or reconstruct those parts of the SRN that are located within the order limits. It would be unacceptable to National Highways for any third party to be granted such powers without National Highways being afforded appropriate protections to ensure that the usual policies and approval processes are adhered to. (Extracted from National Highways' Deadline 4 Submission - Post Hearing Submissions in respect of Issue Specific Hearing 2 (ISH2), Issue Specific Hearing 3 (ISH3) and Compulsory Acquisition Hearing 1 (CAH1) [REP4-029])	this power be used for any works to the strategic road network but National Grid appreciates that there is the potential for this to be widely construed. However, any works listed within Schedule 1 as associated development will be subject to the same controls as elsewhere within the draft DCO (Document 3.1(E)). In relation to National Highway's undertaking, the main control is contained within the protective provisions included at Schedule 15 of the draft DCO (Document 3.1(E)). These require National Highways approval for all works on, in over or under the strategic road network.

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17	Schedule 3, Requirement 7 (Construction hours)	North Yorkshire Council	It is advised that core construction hours set out within dDCO Requirement 7 should be amended to between 0800 and 1800 Mondays to Fridays, between 0800 and 1300 on Saturdays, and not at all on Sundays and Bank Holidays, which reflect those considered to safeguard residential amenity in the early mornings and into the evening. This applies only to core construction hours and is a separate issue to construction works identified within Requirement 7 as necessary outside of these hours. (Extracted from para 7.7 of NYC's Local Impact Report [REP1-056])	As noted by the Examining Authority at ISH4 the National Grid (Hinkley Point C Connection Project) Development Consent Order 2016 and the National Grid (Richborough Connection Project) Development Consent Order 2017 do include paragraphs in Requirement 7 that are similar in nature in both Orders that restrict weekend working. The National Grid (Hinkley Point C Connection Project) Development Consent Order 2016, Requirement 7(3) states 'working on a consecutive Saturday and Sunday may take place only on two out of any four consecutive weekends in each relevant local authority area' and the The National Grid (Richborough Connection Project) Development Consent Order 2017 Requirement 7(2) states 'working on a consecutive Saturday and Sunday may only take place on two out of any four alternate weekends in each relevant local authority area'. To note as discussed at ISH4 the National Grid (Richborough Connection Project) Development Consent Order 2017 does include Bank Holidays as part of its core working hours (Requirement 7(1)). However, as detailed in the Updated Need Case (Document 7.4) [APP-205] submitted in support of the application, there is a critical need for this reinforcement project to be in place to meets its Earliest in Service Date in 2027. This urgency is recognised further by the inclusion of this Project

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
				in Ofgem's decision on accelerating onshore electricity transmission investment and its decision to introduce a new Accelerated Strategic Transmission Investment (ASTI) framework. Therefore, the programme requirements and working hours as detailed in Requirement 7 of the draft DCO (Document 3.1(D)) [REP5-004] in particular the restrictions on weekend working should not be compared against previous Projects. The noise assessment for the Project has taken place as per the working hours proposed, and the assessment is detailed in Chapter 14 Noise and Vibration of the Environmental Statement (Document 5.2.14) [APP-086] and mitigation set out in the Noise and Vibration Management Plan (Document 5.3.3H) [APP-101]. The assessment and mitigation proposed does not justify the inclusion of any further restrictions on working hours in Requirement 7 of the draft DCO along the lines of those proposed on the Hinkley and Richborough Connection Projects. National Grid maintain that the working hours put forward as part of the application are required for the successful delivery of the Project meeting the September 2027 energisation date. The Project has a tight construction programme with a number of key dates that must be achieved in order to meet the Earliest In Service Date, such as a significant number of outage requirements that cannot be changed and are booked well in

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				advance of construction. Should an outage be missed, this could have a significant impact on the construction programme, with another outage potentially not available until the next outage season (April – October). As the outage works are limited in their availability and duration, it is not possible to reduce the working hours from those proposed in the draft DCO, as it is essential to the programme that all works are completed within the limited outage window, which will include working Sundays and Bank Holidays.
				Due to the nature of the works, and skilled workers that are required on this Project, the workforce usually is widely geographically spread, and typically works of these nature are undertaken on a 10 day on 2 day off work pattern to maximise productivity and minimise time lost to travel. This is standard across the industry.
				In addition to this, the Project requires eight supergrid transformers, which have agreed shipping dates, as these are sourced from outside of the UK. The substations need to have the foundation and bund work complete to be able to accept these deliveries.
				It is not envisaged that construction would take place every day, and every weekend throughout the Project, however National Grid need the flexibility to work those days and hours should there be a need to do so to meet the key dates referred to above. This may be required due to

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				unforeseen circumstances, or weather delays that mean that progress on certain elements of work has not been made as expected, in which case National Grid would, for example, need to undertake construction works at all times throughout the weekend to maintain the programme and meet those keys dates. This could be required where there is an extended period of wet weather that means that soil is unable to be worked on for a period of time. The overarching programme including the need to build in float to the programme requires the working hours as set out in Requirement 7 of the draft DCO (Document 3.1 (D)) [REP5-004]) to ensure the programme can be achieved and the connection is in place to meet the Earliest in Service Date in 2027. (Extract from Applicant's Response to ISH4 Hearing Action Points (Document 8.29.4), Action Point 14) Additionally, a position statement in respect of noise issues outstanding between National Grid and NYC will be submitted to the Examination at Deadline 7.
18	Schedule 3, Requirement 18 (Approval of details	North Yorkshire Council	Details of fencing and acoustic enclosures	Details of fencing and acoustic enclosures • The size and design of the acoustic enclosures will be determined during the detailed design

Number	Contested Provision	Relevant Third Party	Third Party Objection	National Grid response
	having regard to the Design Approach to Site Specific Infrastructure)		Theis should be added to requirement 18 of the DCO. Whilst galvanised steel panel fencing is commonly used there are locations where this would result in a harsh intrusive industrial impact. This would not be consistent with the Horlock Rules bullet point 9 set out in para 1.4.9 of the DASSI. No details are provided of the acoustic enclosures in terms of height, position or design details, other than at para 4.1.22 setting out they could be Olive Green or Grey. National Grid stated at the Hearing on 24 May that for security purposes the grey steel palisade fencing was appropriate and was the only type available. This is not the case as the LPA often negotiate the use of green palisade fencing in rural locations on other developments. It is commonly available and, whilst it may be more expensive, there are locations where it would be more appropriate and would help reduce the impact. For example, the new Overton substation is in an open green field site adjacent to woodland where no development currently exists. The use of green coated palisade fencing, would blend in better with the surroundings. At	stage, following the selection and contract award of the specific supergrid transformers. The design cannot be completed until the exact make and model of the transformers are known, and the design of the noise enclosures will be specific to that transformer. The noise enclosures are a technical element of the substation, similar to the substation equipment and there is no flexibility in their design. The acoustic enclosures will be subject to the maximum heights as detailed on the parameter plans (Document 2.15 (B)) [REP2-011]. The only scope for variation is in respect of external colour of the noise enclosures, and this have been included in the update to Requirement 18 of the draft DCO (Document 3.1(D)) submitted at deadline 5. National Grid have set out their position in detail on green palisade fencing in part f) of question 7.0.1 of the ExA's second round of question response (Document 8.25.1) [REP5-083]), on why green palisade fencing has higher maintenance requirements, a significantly lower lifespan and to effectively repaint the fencing there is a need to do this in a controlled factory environment, leaving safety concerns on site during this period. On this basis, National Grid are not proposing to include the approval of fencing by the relevant authority as part of the DASSI. The DASSI has however been updated to clarify that all fencing will be galvanized steel, not a short section of green fencing facing Rawfield Lane as previously included. Further to this, the adoption of green fencing is not

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			Monk Fryston, although the current substation has grey steel fencing, the two adjacent battery sites granted on appeal (details provided under cumulative impacts) were required to use green palisade fencing and green battery outer casing to reduce the visual impact and harm visually to the Green Belt. The materials and fencing which already exist at National Grid Monk Fryston substation serve to indicate how harmful and intrusive these can be. They have been there a long time and are no reason to repeat the mistakes of the past simply because it is NG policy or to keep costs down. Moreover, since these substations attract add on uses such as battery storages sites, the use of steel fencing here could undermine the LPA position to request green fencing on other surrounding sites in the future. Materials and colour for surfacing for roads and footpaths This should include appropriate options for different locations to be agreed under requirement 18 (provided it is acceptable to highways). Different options are	considered necessary as the boundary of the CSECs and substations would either not be visible from public locations or would be predominantly screened by intervening planting, even in winter. At Overton and Monk Fryston Substations, permanent earth mounding and the growth of planting would restrict views towards the boundary fence of the proposed substation. At the Monk Fryston Substation, there is an existing painted green galvanized steel fence on the frontage of the substation to Rawfield lane, however the poor condition of this fence, with paint flaking off, demonstrates the challenges of maintaining a consistent finish. At the Shipton CSECs, the reinstated hedgerow along the Newlands Farm track would restrict views of the boundary fences to the CSECs. At Tadcaster the reinforced planting along the A659 and a new boundary hedgerow would restrict views of the western CSEC and the eastern CSEC would be surrounded by native scrub planting in fleeting views from the A64 dual carriageway. On the basis that there is mitigation planting and screening in place then the adoption of green palisade fencing is not something National Grid feel is justifiable. In addition to this, the equipment contained within the substation will be a galvanized steel, so any other fencing colour would contrast with the electrical equipment. Materials and colour for surfacing for roads and footpaths

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			mentioned in the DASSI. However, the suggestions and examples are not in accordance with the Horlock Rules. For example, the illustration of the CSE with Anchor Blocks at Figure 5. in Kingswell in the DASSI would have much less impact and blend in better with the surrounding green landscape if the fencing was green and the surfacing within the site was a more muted earth colour. This principle would also apply at all the CSE compounds as well as the sub-stations. The white/grey aggregate mix can be a very startling contrast with the surrounding green/brown rural landscape. Aggregate stone can be a mix of more browns with grey and the maintenance characteristics would be unaffected. Mitigation planting The DASSI suggests the LPA can only suggest minor changes to the planting palette. However, this could lead to a 'standardisation' of landscaping. The submission of details under the relevant requirement should not be constrained by this as there may be locations where the Local landscape	 National Grid do not consider it appropriate for the surfacing of roads or footpaths to be included for approval. In effect the majority of the roads are contained within the substation footprint and are at ground level and there are very few instances in which these will be visible from a public accessible location, so National Grid do not feel that this should be subject to approval. Therefore, this has not been included in the updated Requirement 18 in the draft DCO (Document 3.1(D)) although the scope for variation remains in the Design Approach to Site Specific Infrastructure (DASSI) to be determined as part of the detailed design of the Project by National Grid and its contractor(s). Mitigation Planting The planting schedules have included a wide range of predominantly native species (up to 36 species for woodland and woodland edge and 9 species for hedgerows). These are based on the tree and shrub species recorded in the area as set out in the AIA and knowledge of additional species that would be appropriate to facilitate a diverse planting mix that would offer the best possible resilience to climate change and tree diseases. The Outline Landscape Mitigation Strategy plant schedules are not fixed and for the detailed landscaping schemes covered by Requirement 8 of the draft DCO (Document 3.1 (D)), will require approval by the relevant planning authority, so is not required to be covered by the DASSI further or Requirement 18.

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			Officer has greater knowledge of species Permanent Building Materials A range of illustrations are provided with different building material options including red brick or cladding in green, grey and the supporting text indicates there is scope for variation within the range. This is generally acceptable provided the most appropriate choice for the individual location can be agreed. Eg. Overton Figures 25, 26, 27 & 28 and Monk Fryston Figures 35, 36, 37 and 38. However, it is unclear which buildings are meant in para 4.1.54 or what is meant by 'prefabricated buildings'. No detail is provided of their intended colour or finish. Para 4.1.46 indicates the existing workshop relocated will remain in white. It which unclear which building this is, what the white material is or where it would be re-located. However, a white building could stand out in sharp contrast to the muted colours of the surrounding rural landscape. Further options to reflect the principles above should therefore be	Permanent Building Materials Requirement 18 of the draft DCO (Document 3.1 (D)) states that any permanent buildings at Overton and Monk Fryston Substations must not be completed until details of the external colour and surface finish of the permanent buildings have been submitted to and approved by the relevant planning authority, and that the details must be produced having regard to the DASSI, and this will include any relocated buildings. For any reused and/or relocated buildings, any cladding material proposed shall either be of identical specification to that of the existing cladding or, if a proposed change is made by the local authority, must be compatible with the structure of the existing building. If no compatible alternative is available, the existing cladding material would be reused on any relocated building. (Extract from Applicant's Comments on Interested Parties' Deadline 4 Submissions (Document 8.24) [REP5-082])
			stand out in sharp contrast to the muted colours of the surrounding rural landscape.	

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			in the wording of Requirement 18 a indicated in the tracked changes shown below.	
			Approval of external colour and surface finish of permanent buildings, boundary and acoustic fencing and surface materials having regard to the Design Approach to Site Specific Infrastructure	
			"18.—(1) Any permanent buildings, boundary and acoustic fencing and surface materials at—	
			(a) Overton Substation; and	
			(b) Monk Fryston Substation,	
			(c) CSE Stations	
			must not be completed until details of the external colour and surface finish of the permanent buildings, boundary and acoustic fencing and surface materials have been submitted to and approved by the relevant planning authority.	
			(2) Any details to be approved under sub-paragraph (1) must be produced having regard to the design approach to site specific infrastructure, unless otherwise agreed by the relevant planning authority.	

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			(3) Any buildings, boundary and acoustic fencing and surface materials referred to in this Requirement must be finished in accordance with the details approved under sub-paragraph (1)." (Extract from North Yorkshire Councils Post-hearing submissions, including written summarise of oral submissions to the hearings and any documents requested by the Examining Authority [REP4-041])	
19	Schedule 4 (Discharge of Requirements)	North Yorkshire Council	The Applicant is wanting to maintain the shorter time periods for the discharge of requirements on the basis that they will undertake a similar process with the same short timescales on a draft version of the information. NYC don't consider this addresses the issues previously raised. In practical terms this means NYC will get a draft submission and have to consider it in the same shorter timescales (3.3.2) and advise whether if they submitted as a formal discharge application it would be discharged. As we previously advised with the shorter timescales for the formal discharge application,	National Grid shared a draft detailed Service Level Agreement (SLA) with North Yorkshire Council (NYC) on 13 th July 2023 (the principles of which are set out in the S.106 Agreement), with a request for comments before Deadline 6. The SLA proposes a 6-week pre-application process for the discharge of Requirements and a further 5-week (35 days) formal determination period written into the draft DCO (Document 3.1 (D)) [REP5-004]. For the discharge of consents under Articles, a 2-week pre-application period has been proposed in addition to the 4-week formal determination period written into the draft DCO (Document 3.1 (D)) [REP5-004]. The SLA details that National Grid and their appointed contractor would hold regular dialogue

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			it doesn't give sufficient time for NYC to consider and there is concern about resourcing as we may need to discuss with colleagues internally (i.e. landscape for example) or get a consultant in, even if we don't have a formal consultation to undertake (such as LLFA or highways). The costs section in the draft S106 is very vague. But even if this were made clearer, the view would be that the approach overall with short timescales would put us in a difficult position when it comes to discharge of requirement (both at draft and final stage) and we should push for the longer timescales as originally requested in the DCO below; North Yorkshire Council would wish to see the following changes to timescales: • Article 1(1) – change 35 days to 8 weeks. • Article 1(3) – change 7 business days to 21 working days. • Article 2(2)(b) – change 3 working days to 5 working days. • Article 2(2)(b) – change 35 days to 8 weeks and add in the following text – "unless a longer period of time for determination has been agreed with	and monthly meetings with the LPAs and Local Highway Authorities in order to appraise them of the programme and the upcoming submissions for either discharges against requirements or other consent under the Articles. This is to allow the LPAs time to prepare the necessary resource for the forthcoming submissions. This is in addition to the written scheme of stages, to be submitted under Requirement 4 of the draft DCO (Document 3.1 (D)) [REP5-004], which will provide a further indication of the timings of the Project delivery. The SLA details that through the pre-application stage, a full pack of draft documents would be issued to the LPAs for their comment and provisional views. This process would allow the LPAs' comments to be passed back to National Grid on the need for any further information or to comment on the details of the submitted information. Following this process, a formal submission of the information would be made which would contain details which have already been reviewed by the LPAs, including a summary of the pre-application consultation undertaken, minimising the likelihood that any further information may be required. Notwithstanding this, should further information on any of the formal submissions be requested, the timescales would

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			the undertaker in accordance with (1)(1)(c)". If requirements are to be discharged in parts, North Yorkshire Council are of the view that a fee should be payable as per Article (2)(1)(a) for each request to discharge part of a requirement. It is suggested that a definition of 'application' is added to the Article (5) to set out that a 'application' means an application for any consent, agreement or approval required by a requirement whether or not the application seeks to discharge a requirement in whole or in part. Whether it is appropriate to discharge a requirement in part will depend upon the nature of the requirement. (Extract from North Yorkshire Council's Responses to the Examining Authority's Further Written Questions (ExQ2), Q 5.4.1 [REP5-117])	apply as detailed in paragraph 1 of Schedule 4 of the draft DCO (Document 3.1 (D)) [REP5-004]. The 6-week pre-application period followed by the 5-week (35 days) formal determination period would create a total time period for reviewing documentation by the LPAs of 11 weeks which is in excess of the 8 weeks target determination period for dealing with planning conditions submitted under the Town and Country Planning Act 1990 (as amended) and is therefore considered a reasonable timeframe. National Grid consider the incorporation of a preapplication period to be favourable for both parties, as it will ensure that both parties are aligned in their expectations for the formal application and will reduce the risk of refusals or requests for additional information. A refusal or request for additional information risks delaying the Project, for which there is an urgent need to deliver in a timely manner. This introduces a risk which National Grid considers is best mitigated by the incorporation of a reasonable period of time for pre-application discussions, rather than additional time for the LPAs' determination period post submission of a discharge application. National Grid has sought to reassure NYC that as the Project will be broken down into stages, as per

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				the written scheme of stages (to be submitted under Requirement 4 of the draft DCO (Document 3.1 (D)) [REP5-004]), the level of detail to be submitted under each requirement is likely to be less extensive than the LPAs have anticipated. In addition, as requirements are targeted and topic specific, extensive consultation with multiple consultees is unlikely to be required for the majority of requirements with only a small number of Requirements identifying a requirement consultee. Further, the construction management plans listed under Requirement 5 of the draft DCO (Document 3.1 (D)) [REP5-004]) are already in their approved form. Therefore, they would not be subject to a discharge application or require consultation and would form the basis for some of the further requirement applications coming forward. NYC have confirmed that they are able to agree to the timescales for consents submitted pursuant to articles. However NYC have requested further time (beyond deadline 6) to consider the timescales for Discharge of Requirements.
				Regarding NYC's comment on the fee payable for each submission, each requirement is intended to be submitted in parts to relate to individual stages of the authorised development to be defined by Requirement 4 of the draft DCO (Document 3.1

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				(D)) [REP5-004]) unless a scheme wide requirement is identified in Schedule 3 (e.g. Requirement 4). It is intended that a submission fee would be made with each individual application submission that is made as requested by North Yorkshire Council. NYC have also requested that the definition of 'application' be provided, and this has been included in the draft DCO submitted at Deadline 6 (Document 3.1 (E)).
				(Extract from Applicant's comments on Interested Parties' Deadline 5 Submissions (Document 8.28)).
20	Schedule 15 (Protective Provisions)	National Highways	Shown in Proposed Protective Provisions to benefit National Highways (Document 8.30.2).	Shown in Proposed Protective Provisions to benefit National Highways (Document 8.30.2) .
21	Schedule 15 (Protective Provisions)	National Gas Transmission	Shown in Proposed Protective Provisions to benefit National Gas Transmission (Document 8.30.3).	Shown in Proposed Protective Provisions to benefit National Gas Transmission (Document 8.30.3).
22	Schedule 15 (Protective Provisions)	Network Rail	Shown in Proposed Protective Provisions to benefit Network Rail (Document 8.30.1).	Shown in Proposed Protective Provisions to benefit Network Rail (Document 8.30.1).
23	Schedule 15 (Protective Provisions)	Northern Gas Networks	Shown in Proposed Protective Provisions to benefit Northern Gas Networks (Document 8.30.4).	Shown in Proposed Protective Provisions to benefit Northern Gas Networks (Document 8.30.4).

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