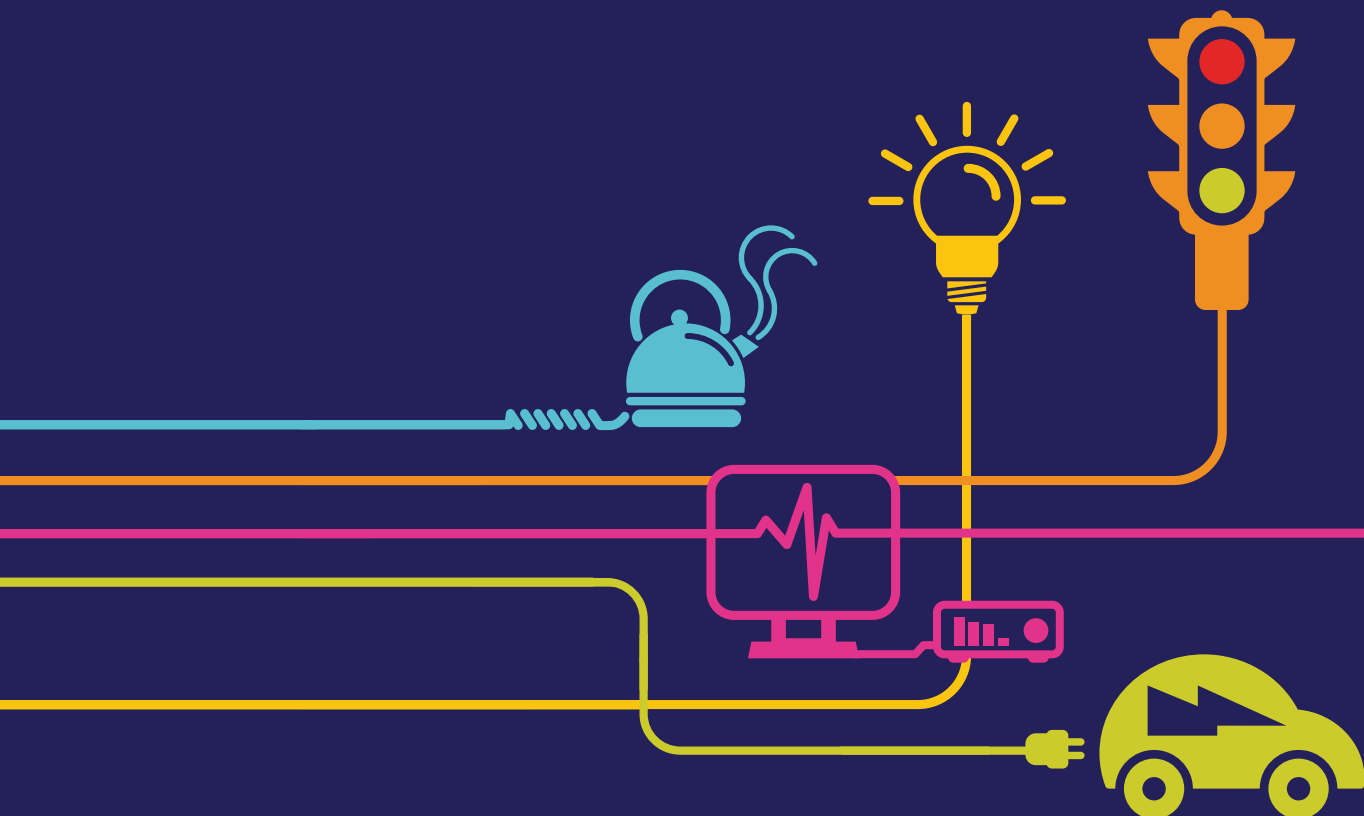


Environmental Statement Schedule of Operational Mitigation and Enhancement Measures

Hinkley Point C Connection Project

*Regulation 5(2)(q) of the Infrastructure Planning
(Applications: Prescribed Forms and Procedure)
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Hinkley Point C Connection Project

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**VOLUME 5.27 – SCHEDULE OF OPERATIONAL MITIGATION AND ENHANCEMENT
MEASURES**

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1 INTRODUCTION

1.1 The Proposed Development

1.1.1 The Proposed Development includes the following principal elements which are described in detail in the Environmental Statement (ES) (**Volume 5.3.1**):

- construction of a 57km 400,00 volt (400kV) electricity transmission connection between Bridgwater in Somerset and Seabank, near Avonmouth, comprising:
 - installation of a 400kV overhead line; and
 - installation of 400kV underground cables.
- modifications to existing overhead lines at Hinkley Point, Somerset;
- construction of three 400kV cable sealing end (CSE) compounds along the route of the connection;
- construction of a 400/132kV substation at Sandford, North Somerset;
- extension of the existing 400kV substation at Seabank;
- the removal of existing 132,00 (132kV) overhead lines and the construction of replacement 132kV overhead lines and 132kV underground cables;
- extensions/modifications to existing 132kV substations at Churchill, Portishead, Avonmouth and Seabank; and
- associated works, for example, temporary access roads, highway works, temporary construction compounds, scaffolds, work sites and ancillary works.

1.2 The Purpose of the Schedule of Operational Mitigation and Enhancement Measures

1.2.1 This Schedule of Operational Mitigation and Enhancement Measures (SOMEM) supports the application by National Grid Electricity Transmission plc (National Grid) under the Planning Act 2008 for authorisation of the Hinkley Point C Connection (The “Proposed Development”) in the National Grid (Hinkley Point C Connection Project) Development Consent Order (DCO) (the “Application”). If made, the DCO would grant powers to construct and maintain a new 400kV electricity connection across the authorities of West Somerset, North Somerset, Sedgemoor, South Gloucestershire and Bristol, together with a 132kV electricity connection and substation near Sandford in North Somerset and related works.

1.2.2 The SOMEM summarises the mitigation and enhancement measures for the operational phase of the Proposed Development.

1.2.3 Measures to reduce the adverse effects of the construction of the Proposed Development on the environment are provided in:

- the ES (**Volumes 5.6.1 to 5.17.1**); and
- the Draft Construction Environmental Management Plan (CEMP) (**Volume 5.26.1**) and its appendices (**Volumes 5.26.2 to 5.26.6**).

1.2.4 Measures to reduce the adverse effects of decommissioning the Proposed Development are the same as those described for construction in the Draft CEMP.

Operational Phase Mitigation

- 1.2.5 The Proposed Development has been designed to actively reduce adverse environmental effects and promote beneficial effects. This objective has been carried through the design and assessment process. The mitigation measures to reduce adverse effects incorporated into the Proposed Development design are known as 'embedded measures'. Embedded measures are described in the Design and Access Statement (**Volume 7.2**) and considered in each environmental assessment (**Volumes 5.6.1 to 5.16.1**). Where significant adverse effects are identified (after considering embedded measures), further mitigation measures have been proposed, where appropriate, to reduce the significance of the effect.
- 1.2.6 This SOMEM provides a tabulated summary of the additional mitigation and enhancement measures, identified in the ES (**Volumes 5.6.1 to Volume 5.16.1**) to reduce the significance of the effect on the environment during the operation of the Proposed Development, once the embedded measures have been implemented.
- 1.2.7 The proposed Off-site Planting and Enhancement Scheme (OSPES) (**Volume 5.25**), sets out proposals to strengthen landscape character and further reduce visual effects of the Proposed Development. National Grid and WPD intend to secure the OSPES through Section 106 Obligations.

2 SCHEDULE OF OPERATIONAL MITIGATION AND ENHANCEMENT MEASURES

2.1.1 **Table 2.1** summarises the operational mitigation and enhancement measures for the Proposed Development.

Table 2.1: Schedule of Operational Mitigation and Enhancement Measures

Ref	Measure	Enhancement or Mitigation?	Relevant DCO Requirement (Schedule 3)
Landscape (Volume 5.6.1, section 6.7) and Visual Effects (Volume 5.7.1, section 7.8)			
1.	<p>Trees, groups of trees and hedges will be planted at the sites of the CSE compounds and at Sandford Substation. Planting will be undertaken in accordance with the following Figures:</p> <ul style="list-style-type: none"> • Volume 5.7.3, Figures 7.32: Bridgwater Tee 400kV CSE Compound Landscape Mitigation and Detailed Planting Plans; • Volume 5.7.3, Figures 7.33: South of Mendip Hills 400kV CSE Compound Landscape Mitigation and Detailed Planting Plans; and • Volume 5.7.3, Figures 7.35: Sandford 400kV/132kV Substation Landscape Mitigation and Detailed Planting Plans. • Volume 5.7.3, Figure 7.36: Towerhead Brook Bridge Landscape Mitigation and Detailed Planting Plan. 	Mitigation	Requirement 9 Provision of Landscaping
2.	<p>Trees, groups of trees and hedges will be planted at the sites of the potential cable bridges if built. Planting will be undertaken in accordance with the following Figures:</p> <ul style="list-style-type: none"> • Volume 5.7.3, Figure 7.34 (Volume 5.7.3): River Axe Cable Bridge Option Landscape Mitigation and Detailed Planting Plan; and 	Mitigation	Requirement 30 River Axe Crossing
3.	<p>Replacement planting of trees, tree groups and hedges will be replanted 'in-situ' in accordance with the Arboricultural Implications Assessment (AIA) at Volume 5.21.1, section 9. Where 'in-situ' replacement planting is not possible (for example, under the overhead line and/or above the underground cables) replacement trees, tree groups and hedges will be planted in new locations with landowner agreement as part of reinstatement of land. Planting replacement trees, tree groups and hedges in new locations with landowner agreement is detailed in the AIA at Volume 5.21, section 9.</p>	Mitigation	Requirement 10 Replacement Planting

Ref	Measure	Enhancement or Mitigation?	Relevant DCO Requirement (Schedule 3)
4.	The OSPES (Volume 5.25) will be implemented in agreement with National Grid and the local authorities. This will provide funds to strengthening landscape character and further reduce visual effects of the Proposed Development.	Enhancement	N/A
5.	Planting will consist of native species of local provenance, where available, with all trees and hedge plants, seed sources and nursery root management specified in accordance with UK Forestry Standard Guidelines: Forests and Climate Change (Ref 1.1).	Mitigation and Enhancement	Requirements 9 and 10
Biodiversity and Nature Conservation (Volume 5.8.1, section 8.7)			
6.	Compensation will be provided for construction phase effects on Local Wildlife Sites.	Enhancement	N/A
7.	The OSPES (Volume 5.25) will be implemented in agreement with National Grid and the local authorities. The OSPES will bring biodiversity benefits, for example, strengthening hedgerows.	Enhancement	N/A
8.	Post-construction monitoring will be undertaken at designated wildlife sites and sites with protected species licences, as necessary, to be informed by the pre-construction surveys, and agreed with Natural England under licence conditions. Results of monitoring will be compared against baseline levels and be used to inform any long-term condition monitoring. Appropriate remedial action will be implemented where adverse effects are detected.	Mitigation	N/A

Ref	Measure	Enhancement or Mitigation?	Relevant DCO Requirement (Schedule 3)
9.	<p>National Grid will fit bird diverters to the earth wire of the new 400kV overhead line on the following spans:</p> <ul style="list-style-type: none"> • Pylon ZGA1 through to Pylon ZGA3 (2 spans) • Pylon LD2 through to pylon LD5 (3 spans) • Pylon LD8 through to pylon LD11 (3 spans) <p>National Grid will ensure that on the section between Bridgwater Tee and Mark, the conductors and earth wires of the new 400kV are installed only after the removal of the F Route 132kV conductors and earth wires.</p> <p>National Grid will undertake up to three winter seasons of bird collision monitoring along the sections of overhead line between Puriton (pylon ZGA9) and Mark (pylon LD17) that are not fitted with bird diverters. The monitoring will be carried out over three complete winter periods (October to March). The first winter period of monitoring will commence following completion of construction of the southern section of overhead line (south of the undergrounded section of line at the Mendip Hills).</p>	Mitigation	Requirement 13 Bird Flight Diverters
10.	A mortality monitoring study will be undertaken along sections of the overhead line where radar data has indicated potential movements of duck species (and diverters are not proposed).	Mitigation	N/A
11.	A financial contribution will be made by National Grid to the Hallen Marsh Project, to enable conservation measures for wildfowl and waders, and to provide resources for subsequent fitting of bird flight diverters should they become necessary.	Enhancement	N/A
12.	A financial contribution will be made by National Grid towards a “tagging” study which researches the relationship between the Somerset Levels and Moors Special Protection Area (SPA) and the Severn Estuary SPA.	Enhancement	N/A
13.	Small scattered groups of trees will be planted at the section of the Lox Yeo River between the M5 in the west and the sewage treatment works (near Max Mill Lane) in the east, which will be delivered through the OSPES (Volume 5.25).	Enhancement	N/A

Ref	Measure	Enhancement or Mitigation?	Relevant DCO Requirement (Schedule 3)
Ground Environment (Volume 5.9.1, section 9.7)			
14.	To avoid any incidents which may give rise to contamination of the ground and/or pollution of groundwater, sites would be managed according to existing best practice such as, the Environment Agency's PPG1 General Guide to the Prevention of Pollution (Ref 1.2).	Mitigation	N/A
15.	Maintenance work on the Proposed Development components will be undertaken in accordance with statutory guidance and best practice (Ref 1.2 and 1.3).	Mitigation	N/A
Hydrology, Water Resources and Flood Risk (Volume 5.10.1, section 10.7)			
16.	In order to avoid any incidents which may give rise to pollution of surface or groundwater, sites would be managed according to existing best practice such as, the Environment Agency's PPG1 General Guide to the Prevention of Pollution.	Mitigation	N/A
Historic Environment (Volume 5.11.1, section 11.7)			
17.	The OSPES (Volume 5.25) will be implemented in agreement with National Grid and the local authorities subject to Section 106 Agreements with the local authorities and other nominated parties. The OSPES includes proposals that may address some of the predicted adverse effects on the settings of heritage assets.	Enhancement	N/A
Traffic and Transport (Volume 5.12.1, section 12.7)			
No additional mitigation measures are required for the operational phase of the Proposed Development.			
Air Quality and Emissions (Volume 5.13.1, section 13.7)			
No additional mitigation measures are required for the operational phase of the Proposed Development after embedded mitigation measures have been implemented.			
Noise and Vibration (Volume 5.14.1, section 14.14)			

Ref	Measure	Enhancement or Mitigation?	Relevant DCO Requirement (Schedule 3)
18.	The rating level of noise emitted from the Sandford substation site during its operation, and measured at the nearest residential properties, will not exceed existing background noise levels or 30dB(A) (whichever is greater).	Mitigation	Requirement 29 Control of Operational Noise at Sandford Substation
Socio-economics and Land Use (Volume 5.15.1, section 15.7)			
No mitigation is required for the negligible or beneficial effects expected on the local economy			
Electric and Magnetic Fields (Volume 5.16.1, section 16.7)			
No mitigation measures are necessary as the Proposed Development has been demonstrated to comply with the current public exposure guidelines as detailed in NPS EN-5 (Ref. 1.4).			

Ref 1.1 Forestry Commission (2011), Forests and Climate Change: UK Forestry Standard Guidelines

Ref 1.2 PPG 1: General guide to the prevention of pollution

Ref 1.3 Health and Safety at work etc Act, 1974.

Ref 1.4 Department of Energy and Climate Change. National Policy Statement for Electricity Network Infrastructure (EN-5). London: The Stationary Office, 2011.