nationalgrid

Visual Impact Provision (VIP)

Peak District (East) Project

Design and Access Statement

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July 2019

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1 INTRODUCTION

1.1.1 This Design and Access Statement has been prepared to support a planning application being made by National Grid Electricity Transmission (NGET) relating to the Visual Impact Provision Peak District (East) Project (hereby referred to as the, 'Proposed Project').

1.1.2 National Grid Electricity Transmission plc (National Grid) owns the high voltage electricity transmission system in England and Wales and operates the electricity transmission system across Great Britain. The company is responsible for operating the high voltage electricity network, carrying power between power stations and the local electricity supply networks of the Distribution Network Operators (DNOs).

1.1.3 The high voltage electricity transmission system in England and Wales, which operates at 275,000 volts (275kV) and 400,000 volts (400kV), comprises some 7,000 route kilometres of overhead lines, over 600km of underground cable and over 320 substations. At the substations generation is connected to the system and the primary transmission voltage of 400kV or 275kV is transformed to lower voltages to companies with direct connections and to the DNOs who take supplies and distribute electricity at lower voltages to factories, offices and homes.

1.1.4 National Grid is regulated by the Office for Gas and Electricity Markets (Ofgem) and through the terms of its transmission licence and obligations under Schedule 9 of the Electricity Act 1989, National Grid is required to operate its transmission system in an economic, efficient and co-ordinated manner whilst having regard to the preservation of amenity.

1.1.5 Schedule 9 requires National Grid to have regard to the desirability of preserving natural beauty, conserving flora, fauna and geological or physiographical features of special interest and of protecting sties, buildings and objects of architectural, historic or archaeological interest. The Schedule also requires National Grid to do what it reasonably can to mitigate any effect which its proposals would have on such features.

1.1.6 The Proposed Project will comprise the following main elements:

- Removal of the existing Sealing End Compound at Dunford Bridge, eight pylons and 2km of overhead line;
- An underground cable of approximately 1.8km along the Trans Pennine Trail from the entrance of the Woodhead Tunnel to a proposed new Sealing End Compound;
- Construction of a new Sealing End Compound at Wogden Foot and replacement tension pylon including a permanent access off the Trans Pennine Trail;
- Temporary laydown areas and access tracks to facilitate construction activities; and
- Construction and removal of a temporary Trans Pennine Trail diversion for use during the construction phase of the Proposed Project (the diversion will include construction of a permanent bridge, a temporary bridge and a 410m section of surface to be retained following construction).

1.1.7 National Grid is seeking to secure full planning permission by way of a planning application under the Town and Country Planning Act 1990 to Barnsley Metropolitan Borough Council and Peak District National Park Authority for the following development:

- Construction of a new Sealing End Compound (SEC) including permanent access;
- Construction of a temporary haul road from Brook Hill Lane;
- Construction of a temporary Trans Pennine Trail Diversion to be used for approximately 12 - 18 months. Following construction a stretch of approximately 410m of the diversion surface will be retained permanently along the stretch that provides private access to Yorkshire Water assets. This is along the route of an existing farm track ; and

- Erection of two bridges (one temporary and one permanent) along the Trans Pennine Trail diversion.

1.1.8 All other works related to the Proposed Project, including that which falls within the Peak District National Park, constitutes 'Permitted Development' under Schedule 2 of the Town and Country (General Permitted Development) (England) Order 2015, subject to the conditions in the order, are covered by an exemption under the Electricity Act or are considered not development as shown on the Consents overview drawing (Planning Drawing PKD_660952_001).

1.1.9 The Electricity Act 1989 sets out that, with certain exceptions, consent must be obtained for installing and maintaining any electric OHL. Proposed works on OHLs require a fresh consent unless they are permitted under an existing consent or under an available exemption. Under Section 37 of the Act, specific electricity works require an application for consent to be submitted to the Department for Business, Energy and Industrial Strategy (BEIS). There are elements of the project that are deemed exempt from requiring consent under Section 37 of the Electricity Act 1989. This is because they are within the limitations and restrictions as set out in the Overhead Lines (Exemption) (England & Wales) Regulations 2009 and are deemed as not having a significant adverse effect.

1.1.10 National Grid are seeking confirmation notification from Barnsley Metropolitan Borough Council that the Proposed Project would be exempt from requiring Section 37 consent. The planning application and exemption regulation notifications will be submitted at the same time to allow for consideration of the project elements in parallel.

1.1.11 Section 62 of the Town and Country Planning Act 1990 (as amended) requires a Design and Access Statement to be submitted with most major developments for both outline and detailed planning applications.

1.1.12 The purpose of this Design and Access Statement is to explain how the principles of good design have been considered from the inception of the development process and to explain the concept and principles relating to use, amount, layout, scale, landscaping, appearance and access of the proposed SEC, the Trans Pennine Trail Diversion and the Northern Access route.

1.1.13 This Design and Access Statement has been prepared in line with the CABE guidance 'Design and Access Statements: How to write, read and use them' (2006). This DAS provides information on the following:

- Use: What the buildings and spaces will be used for
- Amount: How much will be built on the site
- Layout: How the buildings and open spaces will be arranged on the site
- Scale: How large the buildings and spaces will be
- Landscaping: How the open spaces will be designed
- Appearance: What the buildings and spaces will look like
- Access: How access will be provided.

1.1.14 This document is structured as follows:

- Section 1 - Introduction
- Section 2 - Development Design, Concept and Layout
- Section 3 - Access

- Section 4 - Conclusion

2 DEVELOPMENT DESIGN, CONCEPT AND LAYOUT

2.1 Introduction

2.1.1 This section describes the key components of the proposed SEC, Trans Pennine Trail Diversion (including permanent bridge and temporary bridge), Northern Access route, including details of the use, amount, scale, layout, landscaping and appearance of the proposed elements.

2.2 Key Components

SEC

2.2.1 The proposed SEC is located within Wogden Foot Local Wildlife Site (LWS) south of the River Don and north of the Trans Pennine Trail. Existing Pylons 4ZO158 and 4ZO157 are located to the northwest and northeast if the proposed SEC position respectively. Pylon 4ZO157 will be removed and replaced with a replacement tension pylon (Pylon 4ZO157R) to be located approximately 40m north east of the SEC on the northern side of the River Don. Pylon 4ZO158 will be removed. The location of the SEC is shown in Planning Drawing PDD_33492_LAY_049 (Figure 2.3). Indicative layout plans of the SEC are shown in PDD-33492-LAY-002, with elevations of the new SEC shown in PDD-33492-LAY-003.

2.2.2 The key components of the SEC are: gantries, switchgear, sealing ends, support structures, hardstanding (including for manoeuvring and parking of light goods vehicle), perimeter security fencing and access roads.

Trans Pennine Trail Diversion

2.2.3 A significant proportion of the construction work will take place along the alignment of the existing Trans Pennine Trail, and as such, a section of the Trail (near Dunford Bridge) will need to be diverted for a period of up to 1.5 years to enable the safe installation of the cable beneath and the subsequent reinstatement of the Trans Pennine Trail.

2.2.4 The proposed Trans Pennine Trail diversion will commence immediately east of the Dunford Bridge car park and follow the route of an existing farm track. The temporary diversion will be installed to the north of the River Don and parallel to the Trans Pennine Trail. The current wooden construction bridge will be replaced with a new permanent bridge (Bridge 1) as it crosses the River Don.

2.2.5 The proposed diversion will then follow the alignment of the farm track as far as this goes, before continuing east over fields and crossing back to the southern bank over a newly constructed temporary bridge (Bridge 2). This will bring the Trans Pennine Trail diversion through the construction site (to be managed) and back onto the existing Trans Pennine Trail east of the Wogden Foot SEC construction area.

2.2.6 The diversion route would be approximately 7m wide comprising of at least 5m hard surface for TPT users and 1m embankment on either side.

2.2.7 The Trans Pennine Trail diversion is shown in planning drawings PDD_33492_LAY_050-054.

Northern Access Route

2.2.8 The Northern Access route is a new temporary access track that will be constructed from Brook Hill Lane to Wogden Foot LWS along with an associated Bellmouth Access Point (AP7). AP7 is shown on PDD_33492_LAY_036-040.

2.3 Consideration of Alternatives

2.3.1 The National Grid Visual Impact Provision Peak District East Appraisal Study 2019 (submitted as part of the planning application) describes the options considered during project development and follows on from previous reports including the Peak District National Park (Eastern Section) Options Appraisal Study 2015, National Grid Visual Impact Provision Landscape and Visual Impact Assessment of Existing Electricity Transmission Infrastructure in Nationally Protect Landscapes in England and Wales – Technical Report (2014) and National Grid Visual Impact Provision Policy Document (2013).

2.3.2 The 2015 Options Appraisal considered alternative pylon design along the existing alignment (Option 1), OHL along an alternative alignment (conventional or alternative pylon design) (Option 2), and underground cable corridors for either 50% (Option 3a) and 100% (Option 3b) of the 4ZO.2 subsection. Two search areas for SECs were identified in relation to the above as follows:

- SEC Search Area A identified for Option 3a located to the south of Townhead; and
- SEC Search Area B identified for Option 3b located to the south of Castle Hill.

2.3.3 For both the alternative pylon design along the existing alignment, and OHL along an alternative alignment (conventional or alternative pylon design) option, it was considered that the alternative structures would still be highly visible in the landscape, and following discussions with the project team, together with the feedback from stakeholder engagement it was agreed that these options would not be investigated further.

2.3.4 For the underground cable corridor, although Option 3b was approximately three times longer than Option 3a it was not considered to provide proportionally more mitigation benefits than Option 3a. Option 3a which was also anticipated to be preferable on economics and efficiency grounds was taken forward for further consideration.

2.3.5 During the period 2015-2018 a further options appraisal was undertaken to consider further project development of subsection 4ZO.2. The 2015-2018 options appraisal work considered the following:

- Underground route alignment options (for both XLPE cable and GIL cable technology);
- The location of the proposed new SEC; and
- The location of temporary laydown areas and access routes

2.3.6 Cable alignment options considered included:

- Option 1A: Cable bridge from Dunford Bridge Car Park with a cable route and SEC to the north of the River Don (note the cable route proposed is further south than that suggested in Option 1B below);
- Option 1B: Cable bridge from Dunford Bridge Car Park with a cable route and SEC to the north of the River Don (note the cable route proposed is further north than that suggested in Option 1A above);
- Option 2: Horizontal Directional Drill (HDD) from Dunford Bridge Car Park with a cable route and SEC to the north of the River Don;
- Option 3: HDD from the Trans Pennine Trail with a cable route and SEC to the north of the River Don;
- Option 4: Cable route along the Trans Pennine Trail with cable bridge to a SEC on the northern side of the River Don;
- Option 5: Cable route along the Trans Pennine Trail with SEC on the southern side of the River Don; and

- Option 6: Cable route in moorland south of the Trans Pennine Trail SEC on the southern side of the River Don.

2.3.7 Of the options considered, Option 5 (cable route along the Trans Pennine Trail with SEC on the southern side of the River Don) was identified as the preferred cable route to be taken forward. This option would facilitate the removal of eight pylons (one of which will be replaced,) and approximately 2km of OHL, providing the maximum landscape and visual benefit of all options considered. Although within one of the LWS's, locating the SEC in Wogden Foot LWS would also provide more options for screening from views from the north rather than a SEC in open farmland on the northern side of the River Don. For this option a temporary diversion of the Trans Pennine Trail would be required on the northern side of the River Don.

2.3.8 Option 5 was considered to the only practical and feasible engineering solution for the Proposed Project that is in line with the VIP guiding principles, would not increase system security and safety risk and would not have led to other major significant environmental or socio-economic effects.

2.3.9 Discussions regarding the location of the SEC within the search area for Option 5 were undertaken with the stakeholders in 2016. Space within the SEC search area south of the river is very constrained, and within Wogden Foot LWS. A location was identified that fell outside the LWS designation initially; however, it is noted that Barnsley Metropolitan Borough Council subsequently amended the boundary in 2017 resulting in this location also falling within the LWS.

2.3.10 The preferred location of the proposed SEC at Wogden Foot was largely guided by the views of stakeholders, although due to the space constraints mainly entailed micro-siting indicative layouts and orientations. Stakeholders requested that the proposed SEC be moved slightly east from the area initially identified to avoid permanent land take within a particular area of grassland. This also minimised the total area of permanent land take and infrastructure within the LWS as it allowed the new tension pylon to be located on the northern side of the River Don (in place of Pylon 4ZO157), rather than a new additional pylon within the LWS.

Trans Pennine Trail Diversion

2.3.11 In considering options for the Trans Pennine Trail diversion, the following were taken into account:

- the requirement to keep the Trans Pennine Trail fully open via a diversion rather than temporarily close this section;
- the requirement from the Trans Pennine Trail National Office and Barnsley Metropolitan Borough Council that the diversion should seek to be as compliant as possible with the relevant gradient requirements of the Equalities Act (2010) (formerly covered under the Disability Discrimination Act);
- the variety of different Trans Pennine Trail users along this section to accommodate a route for;
- the route of the Trans Pennine Trail which runs almost parallel to the River Don, in the base of a valley with the topography rising up on both sides;
- ecological designations and associated constraints in moorland to the south of the Trans Pennine Trail and
- the use of other existing trails in the area would require users to travel over a much greater distance, up much steeper gradients and/or along the local road network.

2.3.12 The preferred Trans Pennine Trail diversion:

- is located close to the existing route;
- allows access to continue directly from Dunford Bridge car park;
- avoids the use of the local road network;
- enables the majority of the route to comply with the relevant gradient requirements of the Equalities Act (2010), apart from two short stretches by the bridges;
- seeks to ensures suitability for all users; and
- provides open countryside views across the River Don that are not currently available to the public

2.3.13 National Grid also considered a range of options for an access road to the eastern end of the project taking into account landowner considerations, access points off the highway, environmental constraints and the steep gradients for construction on the northern slopes which provided a constraint. The northern access road proposed from Brook Hill Lane minimises environmental effects whilst maximising the use of the lowest gradients down to the River Don.

2.3.14 National Grid have worked closely with Peak District National Park Authority, Barnsley Metropolitan Borough Council and key stakeholders throughout the options appraisal process with regard to the options detailed above. For further details of the option appraisal process, please refer to Peak District East Appraisal Study 2019.

2.4 Use

SEC

2.4.1 SECs are required at the interface between OHLs and underground cables. A SEC compound usually contains cable terminations (cable sealing ends), electrical equipment and support structures enclosed by security fencing. The replacement tension pylon (located either inside or close to the SEC) acts as a support for the conductor system and 'down-leads', that feed each circuit onto the cable sealing ends. A connection is provided to the electrical equipment via landing structures (gantries) designed to take the tension force. A photograph of a typical SEC is shown in Plate 2.1



Plate 2.1: Typical sealing end compound

2.4.2 The proposed SEC within Wogden Foot LWS is a key component of the Proposed Project providing an interface point between the existing OHL and the proposed Cable Corridor. A section of new OHL will span between the proposed SEC and the new replacement tension pylon (Pylon 4ZO157R).

2.4.3 The SEC will be designed to be unmanned during operation. The SEC will contain equipment that will be monitored remotely. Mechanical (manual operated) earth switches will require inspection and servicing as part of these visits. Infrequent visits will be made to the SEC to monitor and carry out periodic maintenance and checks on the electrical equipment within the compound.

2.4.4 When the SEC requires refurbishment or replacement works (every 10-15 years), vans will be used to carry workers in and out of site and trucks will be used to bring new materials and equipment to site and remove old equipment.

2.4.5 The SEC will not require day to day access and will not be open to the public.

Trans Pennine Trail Diversion

2.4.6 The existing Trans Pennine Trail (Dunford Bridge to Penistone section) largely follows the alignment of the former Woodhead Line railway, on the east of the Pennines along the upper Don Valley, and also forms part of European Long Distance Footpath E8 and National Cycle Route 62. This section of the trail is used by a number of users including pedestrians, equestrians and cyclists.

2.4.7 The Cable Corridor will follow the Trans Pennine Trail (outside of the existing National Grid compound) for approximately 1700m. The affected section of Trans Pennine Trail will be excluded from members of the public for safety; access will be restricted to construction staff only for the duration of construction activities.

2.4.8 The Trans Pennine Trail diversion (Including Bridge 1 and Bridge 2) will be required for the duration of construction activities to allow users of the Trans Pennine Trail with a safe and suitable diversion. The temporary bridge (Bridge 2) will also be required facilitate occasional construction traffic travelling along the Northern Access track to cross the River Don.

Northern Access Route

2.4.9 The Northern Access route will be required to access the proposed SEC and assist with the construction of the Trans Pennine Trail diversion prior to opening of the diversion. After the diversion is opened to the public access to the SEC will predominantly be from the existing route of the Trans Pennine Trail.

2.5 Design

SEC

2.5.1 Construction of the new SEC and replacement tension pylon will facilitate the connection of the Cable Corridor to the remaining existing OHL. The existing conductors between Pylon 4ZO155 and Pylon 4ZO157R will be replaced with new conductors. The circuits will terminate onto two full tension gantries within the SEC.

2.5.2 The design of the SEC is reasonably fixed by technical and operational requirements. However, the design of the SEC has taken care to reduce its visual impact by retaining as much existing vegetation around it as possible and landscape proposals (see Section 2.7 below) have been sought to filter and screen views to the SEC as far as possible. In order to minimise visual impact of the SEC the access road has been carefully designed to maximise screening and will have a grasscrete surface. The colour of the SEC fencing has also been discussed and agreed with stakeholders.

Trans Pennine Trail Diversion

2.5.3 The Trans Pennine Trail Diversion will be approximately 1.6km in length and will be in place for up to 1.5 years. The Trans Pennine Trail Diversion route and its design has been discussed with PROW officers at Barnsley Council and the Trans Pennine Trail organisation to agree in principle various aspects of the specification and design. It has also been discussed at the Barnsley Local Access Forum which includes members of a number of different user groups.

2.5.4 Where possible the Trans Pennine Trail Diversion will be designed to comply with the relevant gradient requirements of the Equality Act, 2010, in order to be accessible to people with limited mobility, including wheelchair users, and to those with sensory impairments. The following elements have been incorporated into the design:

- Width to be greater than 2m to allow for 2 wheelchairs, or two people, side by side;
- Regrading to ensure maximum gradient of 1:20 (there are few areas where compliance may not be possible due to site/topography constraints);
- Maximum camber of 1:100; and
- Surface finish of Hoggin or equivalent to provide a firm surface with good grip and drainage.

2.5.5 The two new bridges and the culvert which will be crossed by the Trans Pennine Trail diversion have been designed to be capable of supporting vehicular traffic for construction and for access to the Yorkshire Water facility and the farm track beyond, along with all Trans Pennine Trail users, including consideration of guidance provided by the British Horse Society on suitable design specifications for equestrian usage.

2.5.6 The Trans Pennine Trail Diversion has been designed so that following construction approximately 410m of the diversion surface can be retained permanently along the stretch that provides private access to Yorkshire Water assets, this is along the route of an existing farm track and includes the permanent Bridge 1. The remaining stretch along with temporary Bridge 2, associated working and laydown areas will be temporary and thus will be designed to be removed following construction. Bridge 1 will be permanent

Northern Access Route

2.5.7 The Northern Access route and Access Point 7 has been designed to be temporary in nature and will be made of stone. The route has been designed taking into account a range of factors including topography, utilities, landowner and environmental constraints.

2.6 Layout

2.6.1 An indicative layout for the SEC has been derived following considerations of the spatial requirements of the key components of the SEC together with technical/site constraints. The SEC compound design is based on safely and efficiently containing the required plant and equipment whilst complying with the relevant safety, security and technical standards.

2.7 Amount and Scale

SEC

2.7.1 The footprint of the SEC will be approximately 36m x 67.9m to the fence line. There will be a planting exclusion zone outside of the fence line; this will increase the SEC footprint to approx.40m x 75m (i.e. a 2m planting exclusion beyond the fence line). The size of the SEC is determined by the requirement to maintain electrical safety clearances between equipment.

2.7.2 Proposed equipment to be installed at the SEC will include:

- 400kV Cable;
- Cable sealing ends;
- Surge arrestors;
- Earth switches;
- busbars;
- Cabinet for monitoring of fence and electrical equipment; and
- Full line tension gantries.

2.7.3 The highest points within the proposed SEC are the landing gantries at approximately 14.9m high (Planning Drawing PDD-33492-LAY-003).

2.7.4 Construction of the SEC is likely to take approximately 20 weeks (excluding any cable installation works).

Trans Pennine Trail Diversion

2.7.5 The Trans Pennine Trail diversion will be approximately 1700m in length and be typically 7m wide comprising of 5m compacted hard surface for users and 1m embankment on either side. It will be built on a 300mm embankment (approximate) above the existing surface, with the sides chamfered down to the existing ground level. The excavated surface will be lined with geotextile and filled with Type 1 granular sub-base and finished with a layer of Hoggin (Planning Drawing PDD-33492-LAY-055).

2.7.6 The permanent replacement bridge (Bridge 1) will be approximately 8.3m in length with timber side barriers. The temporary bridge (Bridge 2) will be approximately 36.5m long and span the River Don and its banks. It will have solid wooden boarded sides as deemed preferable for equestrian use through stakeholder discussions. Both Bridges 1 and 2 and the TPT diversion have been designed to the 1:100 flood level.

Northern Access Route

2.7.7 The Northern access route will be constructed from stone and will be 4m wide throughout the majority of the route. At the Access Point from Brook Hill Lane (AP7) the access road will be wider than this at approximately 5m. The Northern access route and AP7 will be temporary, and the land will be reinstated following construction.

2.8 Landscaping

SEC

2.8.1 An area of landscape mitigation planting is proposed around the SEC site to help integrate the site into the receiving landscape. The development of the design and siting of the SEC has also looked to retain key areas of existing trees and shrubs to aid integration and visual screening. The mitigation planting will comprise tree and shrub planting designed at a thickness and density to maximise screening from sensitive visual receptors. Locally appropriate native tree and shrub species will be used within the planting mix. A combination of large standard trees and smaller whips and transplants (trees and shrubs) will be incorporated in the planting mixes to provide a level of instant screening at year 0, and which will mature to further screen the SEC at year 15.

2.8.2 Landscape mitigation plans for the SEC site are provided in the Outline Landscape and Ecological Management Plan (LEMP)(Appendix 2B.3 of the CEMP).

2.9 Appearance

SEC

2.9.1 The appearance of the SEC primarily derives from the functional need and the safety requirements. The majority of the structures will be finished in galvanised steel; busbars connectors and fittings will be copper/aluminium, and insulators will be cross-linked polyethylene (XLPE). All supporting structures will be set in concrete. Internal surfaces will be covered with stone chippings, the colour of which will be chosen to blend in with the surrounding hues of the landscape and land cover to minimise potential visual impact. Category 2 permanent fencing will enclose the proposed SEC which will typically be galvanised steel palisade fencing painted in RAL 7013 Brown Grey (matt finish) to blend in with the surrounding landscape (approximately 2.4m high) topped with electric pulse fencing for security. The total height of the fencing will be up to 3.4m high.

2.9.2 Surfacing is proposed to match the colour of the surfacing at the existing SEC.

Trans Pennine Trail Diversion

2.9.3 The surface of the Trans Pennine Trail Diversion will be lined with a geotextile and filled with Type 1 granular sub-base and finished with a layer of hoggin to create a surface sitting above the surrounding land.

2.9.4 Hoggin is a compactable fill material that is composed of a mixture of clay, gravel, and sand or granite dust that produces a buff-coloured permeable surface.

Northern Access Route

2.9.5 The Northern Access route will have a stone surface.

3 ACCESS

SEC

3.1.1 Permanent access to the SEC will be via the Dunford Bridge car park and along the Trans Pennine Trail (see Planning PDD_33492_LAY_049 (Sheet 4 of 4). The permanent access will be gated at its junction with the Trans Pennine Trail to prevent animals leaving Wogden Foot LWS, and unfenced within Wogden Foot LWS to allow the free movement of animals across the site).

3.1.2 The surface of the access track will be grasscrete to minimise the landscape and visual impacts and integrate with the landscape. Vehicles used for maintenance will be subject to a weight limit to ensure that infrastructure limits on the Victorian culverts under the Trail and the Trail surface are not exceeded and to prevent damage. Due to the infrequency of vehicle movements associated with SEC maintenance, the Trans Pennine Trail will remain open to the public with control measures such as speed, warning signs, banksmen etc. implemented as required. In the unlikely event that more frequent access be required for unforeseen maintenance or emergency works temporary closures or diversions may be required; this would be discussed with Barnsley MBC.

3.1.3 The SEC site will not be open to members of the public and will have no permanent staff on the site.

Trans Pennine Trail Diversion

3.1.4 After the opening of the temporary Trans Pennine Trail Diversion to members of the public, the existing Trans Pennine Trail route will be closed to the public and used as the main access track for access to the SEC.

3.1.5 However, there is still anticipated to be occasional vehicle movement from the Northern Access route and utilising Bridge 2 (anticipated a maximum of 10 per day during peak construction). Two pedestrian barriers will be installed at either end of this section to prevent potential conflict between Trans Pennine Trail diversion users and the construction traffic that will move between the SEC and the north side of the River Don. These barriers will be in the open position at all times to allow the free movement of pedestrians and other users along the diversion. During periods of construction, passing vehicle movements will require the closure of the barriers; a site operative will be positioned at each gate to control the movements in a safe manner.

3.1.6 Following construction of the temporary Trans Pennine Trail Diversion a four-week handover period will be implemented during which both the existing Trans Pennine Trail and the temporary diversion will be open for use by the public. This four-week handover period will be required following construction of the diversion (prior to the Trans Pennine Trail being closed for public use).

3.1.7 Following construction of the SEC, undergrounding of the cable, and reinstatement, the diversion of the Trans Pennine Trail will cease, and members of the public will use the existing Trans Pennine Trail. A four-week handover period will be required following the completion of construction works on the Trans Pennine Trail (with cables beneath it) and before the reinstatement of the diversion can take place.

Northern Access Route

3.1.8 Prior to the opening of the Trans Pennine Trail Diversion, access to the proposed SEC during construction will initially be via the Northern vehicle access route utilising the proposed temporary bridge (Bridge 2) over the River Don at Wogden Foot which will also be used for the Trans Pennine Trail Diversion. Once the diversion is open the majority of construction traffic will use the existing Trans Pennine Trail route.

3.1.9 There is a PROW that will be intersected by the Northern Access route. National Grid's Principal Contractor will seek any consents required for the PROW that crosses the Northern Access route. Discussions with the PROW officer have indicated that a system of manged priority could be put in place during the construction works, with priority for construction traffic during working hours.

4 CONCLUSION

SEC

4.1.1 The SEC location was selected as part of the options appraisal process which included discussions with stakeholders.

4.1.2 The SEC compound design is based on safely and efficiently containing the required plant and equipment whilst complying with the relevant safety, security and technical standards. An indicative layout for the SEC has been derived following considerations of the spatial requirements for each of the key components of the SEC.

4.1.3 The appearance of the SEC primarily derives from the functional need and the safety requirements. An area of landscape mitigation planting is proposed around the SEC to integrate the site into the receiving landscape. The mitigation planting maximises screening from sensitive visual receptors. The muted colour of the security fencing, surface dressing of the SEC and permanent SEC access (use of grasscrete) is proposed to minimise visual impact.

4.1.4 The SEC will be designed to be unmanned during operation. Infrequent visits will be required to visually inspect condition of non-mechanical equipment and structures. The SEC will not require day to day access and will not be open to the public. A permanent access track (accessed along the Trans Pennine Trail) will be provided to the SEC to facilitate future maintenance.

Trans Pennine Trail Diversion

4.1.5 The Trans Pennine Trail Diversion route has been selected so that it closely follows the route of the existing trail and still allows access from the Dunford Bridge car park.

4.1.6 The trail diversion has been designed to be accessible for all anticipated users. There is a short section of the diversion surfacing that will be permanently retained (approximately 410m) including Bridge 1; this is to enable Yorkshire Water to access to their assets. The diversion itself is temporary and will be in place for up to 1.5 years. Following the reinstatement of the existing Trans Pennine Trail the diversion will be removed and the land reinstated.

Northern Access Route

4.1.7 The Northern Access route will be used to provide access to the proposed SEC prior to the opening of the Trans Pennine Trail diversion. The access track will be temporary and following the construction phase will be removed and the land reinstated.