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3. DESCRIPTION OF THE PROPOSED DEVELOPMENT

3.1 Introduction

3.1.1 This provides a description of the key components and information regarding the construction, operation and maintenance of the Proposed Development. The Proposed Development is shown on **Volume 3, Figure 3.1: Proposed Development**.

3.2 Location of the Proposed Development

3.2.1 The Proposed Development is located in Aberdeenshire. The Site Boundary is located approximately 7.5 km to the west of Peterhead, 1 km to the southeast of Longside, and adjacent to the south of Flushing on the A950 highway (National Grid Reference: NK052460). The proposed buildings and building platforms have been located towards the central area of the Site where possible, and therefore the closest building to Longside is approximately 1.3 km to the southeast, and approximately 500 m south of Flushing. The Proposed Development covers an area of approximately 230 ha and has an elevation ranging from approximately 30 m above Ordnance Datum (AOD) at its lowest point in the northern end of the Site, rising to approximately 65 m AOD in the southern area of the Site.

3.2.2 The Site is located on agricultural land with residential areas to the north and northwest. The Site has good access to the existing overhead lines (OHL) between New Deer and Boddam and has good access for future transmission connections. It also has favourable topography which is relatively flat and has good accessibility from the A950 highway. The Site in relation to environmental features and designated sites in the local and wider Aberdeenshire area is shown on **Volume 3, Figure 3.2: Environmental Features Plan**.

3.3 Proposed Development Components

3.3.1 The Proposed Development would include a series of buildings, up to a height of approximately 30 m, to house the site services and control equipment. The key components (please refer to the **Glossary** for a definition of components) of the Proposed Development are shown on **Volume 3, Figure 3.1: Proposed Development**, and would consist of:

- 400 kV Substation;
- 132 kV Substation;
- High Voltage Direct Current (HVDC) Switching Station;
- Spittal to Peterhead HVDC Converter Station;
- Eastern Green Link 3 HVDC Converter Station; and
- Operations Depot and Spares Buildings.

3.3.2 The substations, converter stations and switching station equipment would be housed indoors, with buildings likely to comprise a steel portal frame with metal cladding and roof designed to reduce visual and noise impact. The colour of the buildings is anticipated to be a range of relatively muted and medium to dark locally natural colours, including greens and browns (see **paragraph 3.13.2** for further information on the proposed colour strategy).

3.3.3 The elements of the Proposed Development subject to the requirement for planning permission are discussed further below. Please note that all dimensions provided are approximate and provide a realistic worst case for the purposes of the EIA.

400 kV Substation and 132 kV Substation

3.3.4 A series of buildings would be situated on a joint 400 kV/132 kV Substation platform. The platform footprint would be 322 m width by 380 m length. The buildings that would be situated on the platform include:

- 400 kV Substation building (a photograph of example 400 kV Substation is shown on **Plate 3-1**), with dimensions: 20 m height, 151 m width at its widest point and 148 m length. This would house the gas insulated busbar (GIB), gas insulated switchgear (GIS) and the control building;

- a 132 kV Substation building would provide 132 kV connections for existing and future third-party connection applications, it would connect directly into the proposed 400 kV Substation. Indicative building dimensions: 16 m height, 45 m width and 100 m length;
- two 400 kV/132 kV Super Grid Transformer (SGT) buildings, with dimensions: 21 m height, 45 m width and 81 m length; and
- 33 kV Switchroom Building with dimensions: 8 m height, 9 m width and 22 m length.

3.3.5 The 400 kV and 132 kV substations would both be GIS substations. Within a GIS substation, live electrical equipment uses a dense gas as the insulating medium, usually Sulphur Hexa-Fluoride (SF₆); however, SSEN Transmission would, where available, use an alternative SF₆ free technology solution in support of their commitments and responsibilities to the decarbonisation of the electricity network. GIS typically allows safe clearance distances between live conductors to be reduced. This results in a smaller footprint compared to the more traditional substations comprising Air Insulated Switchgear (AIS). There is a requirement for small sections of AIS equipment immediately to the south and west of the 400 kV building. The AIS would connect the proposed Beauly to Blackhillock to New Deer to Peterhead 400 kV OHL and the proposed Netherton/Peterhead 400 kV OHL Diversion and Repurposing circuits prior to the transition into GIB/GIS. The AIS equipment for each circuit would be in an area approximately 28 m width by 10 m length, with the majority of AIS equipment expected to be less than 10 m in height.



Plate 3-1 Example 400 kV Substation

HVDC Switching Station

3.3.6 The transmission hall (expected to be a switching station) would be made up of multiple interlinked buildings, the specifics of which will be subject to detailed design and will not be confirmed until a supplier is appointed. Indicative combined building dimensions are as follows: height of up to 30 m, 245 m width, 319 m length. The footprint of the platform to support the buildings is expected to be approximately 395 m width by 370 m length.

Spittal to Peterhead HVDC Converter Station

3.3.7 A HVDC converter station is required to enable a proposed 2 GW 525 kV HVDC link to Spittal, Caithness, in the far north of Scotland. This would enable the efficient high volume power transmission from generators at Spittal to the network at the Netherton Hub for further transmission to demand centres as appropriate. The standard station would be composed of a series of buildings enclosing all apparatus and providing office, welfare and spare storage. The indicative combined

building dimensions are as follows: height of 29 m, width 206 m and length 200 m, the alternating current halls would sit separate to, but aligned with, the arms of the u-shaped building and have indicative building dimensions as follows: height of 27 m, width 84 m and length 64 m. The footprint of the platform to support the buildings is expected to be approximately 288 m width by 358 m length. This arrangement is based on the standard HVDC converter station design and may differ dependent on the chosen supplier.

Eastern Green Link 3 HVDC Converter Station

- 3.3.8 A HVDC converter station would be required at the Proposed Development site to enable a proposed 2 GW, 525 kV HVDC link to South Humber, England. This would enable the efficient high volume power transmission from generators in the north-east of Scotland to demand centres in the south of England. The station would be composed of a series of buildings enclosing all apparatus and providing office, welfare, and spare storage (see a conceptual indicative design shown on **Plate 3-2**). The indicative combined building dimensions are as follows: height of 29 m, width 206 m and length 200 m, the alternating current halls would sit separate to, but aligned with, the arms of the u-shaped building and have indicative building dimensions as follows: height of 27 m, width 84 m and length 64 m. The footprint of the platform to support the buildings is expected to be approximately 288 m width by 358 m length. This arrangement is based on the standard HVDC converter station design and may differ dependent on the chosen supplier.

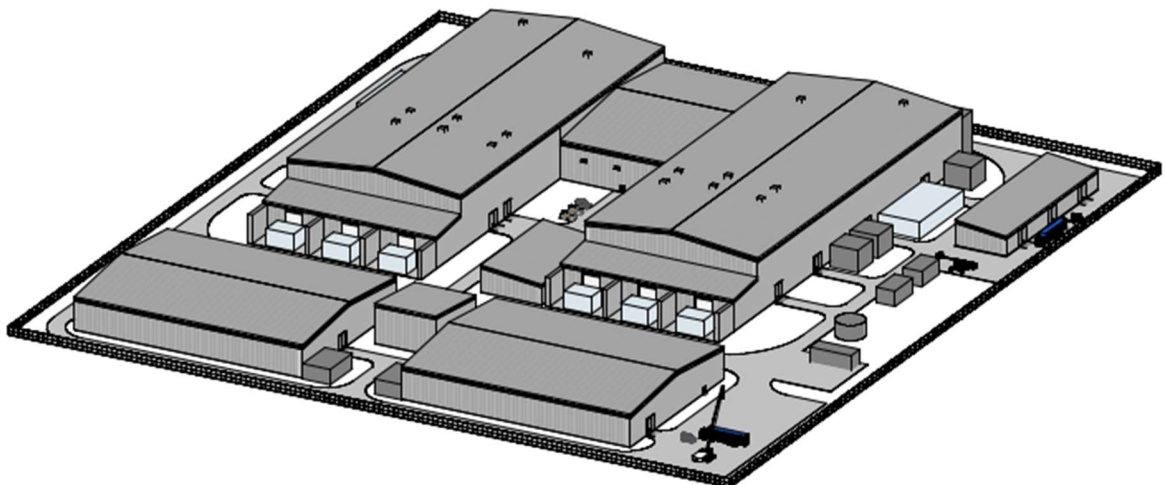


Plate 3-2 Indicative conceptual design for 2GW 525kV converter station

Operations Depot and Spares Buildings

- 3.3.9 The Operations Depot and Spares buildings would consist of buildings for offices, training facilities, car parking and storage facilities for strategic spares. The Operations Depot indicative dimensions are a height of 8 m, width of 30 m and length of 42 m, with an overall platform of 93 m width and 96 m length. Approximate dimensions for the spares building are a height of 24 m, 61 m width and 125 m length, on a platform of 125 m width and 250 m length.

Underground Cabling

- 3.3.10 Underground cables would connect the components within the Site. These would consist of circuits of multiple feeder circuits at 132 kV and 400 kV alternating current (AC), as well as 525 kV HVDC cables. All cables will be installed in troughs or trenches and will be connected (terminated) in the relevant substation or converter station. All cable will consist of cross-linked polyethylene (XLPE) insulation and would be type-tested and built to industry standards. Where required, joint bays will be installed to facilitate connection of short lengths of cable.

Drainage

- 3.3.11 A surface and foul water drainage strategy (see **Volume 4, Technical Appendix 3.1: Drainage Strategy**) has been prepared for the Proposed Development, which includes drainage and sustainable drainage systems (SuDS). SuDS mimic natural drainage processes to reduce the effect on the quality and quantity of runoff from developments and provide

benefits to amenity and biodiversity. The SuDS have been integrated within the landscape proposals to enhance amenity, biodiversity, and habitat, whilst protecting and/or enhancing water quality.

- 3.3.12 Three waterbodies were identified within the Site and surrounding area, including an existing unnamed ditch, the Burn of Faichfield and the Burn of Ludquharn. No public foul, surface or combined water sewers have been identified within the Site.
- 3.3.13 The proposed surface water drainage network has been designed so that runoff from highways and landscaped areas would be collected and conveyed by a series of swales, with the building platforms drained by a separate underground gravity pipe network. The swales would be implemented to treat and attenuate the surface water runoff from the Site before discharging to detention basins located within the Site Boundary. North of the platform development area, the topography allows for an area of the below ground drainage network that then rises to combine with the overland swale network. Runoff is conveyed to relatively small intermediate detention basins at key points in the network to slow and attenuate runoff and contain flooding that would otherwise occur at low points and points of restriction (a photograph of an example small detention basin is shown on **Plate 3-3**). This practice reduces velocities and the diameters of the downstream pipe network. The final attenuation feature for each catchment is a large detention basin for attenuation prior to a flow restriction device. Final discharge would then be routed to discharge into the Burn of Ludquharn and Burn of Faichfield. The detention basins are designed to be up to 2.6 m depth, with 1 in 3 side slopes, in line with Construction Industry Research and Information Association (CIRIA) guidance¹¹.
- 3.3.14 The Proposed Development has been designed to provide adequate capacity to contain flooding within the drainage network for a critical 1 in 30 year storm event, and flood water generated for up to a 1 in 200 year (plus climate change allowance of 37%) storm event. This allows for a suitably controlled flooding areas within the Site Boundary in the most extreme events. The Scottish Environment Protection Agency (SEPA) online flood maps¹² identify that there is an area within the northwest part of the Site (near to Flushing) that is at high risk of pluvial flooding. The flooding occurs along the north boundary of the Site and the A950 highway. The drainage strategy proposes to reduce the catchment size upstream of the flooding zone, as well as provide an attenuation feature to contain flows. This is designed to reduce pluvial flooding to the existing area, and to ease the demand on the Burn of Faichfield downstream that is currently shown to have fluvial flooding.
- 3.3.15 The unnamed ditch located within the Site Boundary would be realigned to the west of its existing alignment, increasing the length of the ditch before connecting to a detention basin in the northwest area of the Site. The realigned watercourse is shown in **Volume 3, Figure 3.1: Proposed Development**.
- 3.3.16 The proposed foul water drainage scheme, including domestic flows from the office and welfare facilities, would be conveyed across Site via a below ground pipe network to a package sewage treatment plant located close to the western Site Boundary. The treated runoff will then discharge into the Burn of Ludquharn to the west of the Proposed Development. All discharges would be subject to prior approval by the SEPA. A permanent potable water supply for operational buildings would be routed to the Site via an underground pipeline from an existing Scottish Water main within the Turriff Water Treatment Works catchment. A temporary potable water supply during the construction phase would also be routed to site via an underground pipeline from an existing Scottish Water main within the Turriff Water Treatment Works.

¹¹ Construction Industry Research and Information Association (CIRIA) C753, (2015). The SUDS Manual.

¹² Scottish Environment Protection Agency (SEPA). Flood maps. [Online] Available at: <https://beta.sepa.scot/flooding/flood-maps/> (Accessed: July 2024).



Plate 3-3 Example Small Detention Basin

Lighting

- 3.3.17 Floodlights would be installed but would only be used in the event of a fault during the hours of darkness; during the over-run of planned works; or when sensor activated as security lighting for nighttime access. The roads would not be lit under normal operation. A light would also be provided at the access gates.

Security Fencing

- 3.3.18 A 3 to 4 m height palisade fence would be installed around platforms. In addition, a standard post and wire perimeter fence would be installed around the Site Boundary, this would be a stock/deer proof fence to exclude grazing animals and allow establishment of landscaping and screen planting. Native hedgerows are present at the site perimeter with occasional tree groups, it is anticipated that the stock/deer proof fence would be installed on the inside of the existing hedgerows.

Design and Access

- 3.3.19 The design principles of the Proposed Development have been driven by a combination of technical requirements, and adopted design principles to ensure the Proposed Development is sensitively sited and designed (see **Volume 2, Chapter 4: Site Selection and Alternatives**). Mitigation, in the form of landscape planting and mounding has been included in the final design (see **Volume 3, Figure 8.5: Illustrative Landscape Masterplan**) to provide habitat biodiversity and minimise potential landscape and visual impacts where possible.
- 3.3.20 It is anticipated that a new permanent access would be created from the A950 to the north of the Site. The alignment of the access road has been designed to prevent direct views of the Proposed Development. There may also be a requirement for some public road improvements within the Site Boundary.
- 3.3.21 The proposed Site landform is in keeping with the existing natural landform contours of the area and would restrict visibility of the Proposed Development for vehicles passing on the A950. A secondary site entrance/exit to the south is also proposed, primarily from a health and safety perspective to ensure the Site is not limited to a single access point. The on-site access track layout has been designed to connect the various Proposed Development elements, whilst minimising hardstanding and maximising available land for landscape landform and planting.
- 3.3.22 Construction access to the Proposed Development is discussed in **Section 3.8** of this chapter.

Earthworks

- 3.3.23 The proposed earthworks will extend over most of the Site. In general, unnecessary earthworks have been avoided so there is some land that will remain unworked mainly towards the southern boundary, west and northwest of the Site. Ground within the Site would be changed in level, to flatten it for proposed building platforms and graded for road profile or sloped between infrastructure interfaces. The infrastructure has been designed to be as tightly configured as possible, while maintaining the required separation, to minimise the extent of the earthworks.
- 3.3.24 All hardcore and earthworks materials for the construction of the Proposed Development would either be won on site, through cutting of the existing surface to construct the platforms or imported locally. This would generally comprise of cut required for the creation of the building platforms, mostly found at the HVDC Switching Station and converter stations, and fill, the majority of which would be required for the construction of landscape bunds, with smaller localised areas of fill found elsewhere on the Site. Cut would also be required to construct the detention basins and parts of the internal non-public access roads which serve the platforms. The temporary construction compound and laydown areas will require cut, which would be reinstated in line with the landscaping strategy post construction. It is anticipated that surplus topsoil following the earthworks, would be used as part of the landscaping strategy. The Site has been designed to have a cut and fill balance, to minimise the amount of imported material required and in turn minimise the construction traffic.

3.4 Typical Construction Activities

- 3.4.1 Key tasks during construction of the Proposed Development would relate to:
- enabling works, site clearance and demolitions;
 - platform earthworks and creation of a level platforms;
 - bund/screening earthworks;
 - construction of perimeter and site drainage, including SuDS;
 - construction and installation of the buildings;
 - installation of electrical plant;
 - erection of a palisade security fence up to approximately 3 to 4 m in height around platforms;
 - commissioning; and
 - reinstatement and planting.

3.5 Enabling Works

- 3.5.1 The enabling works will include (but not be limited to) existing utilities diversions, installation of new temporary and permanent water, electrical and telecommunication services, public road improvements and establishment of a temporary construction compound including welfare facilities.

3.6 Site Clearance and Demolitions

- 3.6.1 The following buildings have been identified for demolition:
- All buildings associated with Netherton Farm, including a derelict farmhouse and outbuildings, a derelict single story building and ruin.
 - All buildings associated with Inverveddie House, including, one residential property and a commercial property.
 - A residential property at Roer Teach.
- 3.6.2 Where required, vegetation would be carefully removed from within the Site, including trees and hedgerows subject to any ecological considerations relating to timing and method of working. Where possible, existing vegetation would be retained. The **Illustrative Landscape Masterplan (Volume 3, Figure 8.5)** indicates the existing hedgerows and trees that would be retained on Site. The intention is to retain as much of the perimeter hedgerows as possible within the technical requirements of the Proposed Development.

3.7 Construction Programme, Employment and Working Hours

- 3.7.1 It is anticipated that construction of the Proposed Development would take place over a five to eight year programme, subject to consents and resource availability.
- 3.7.2 Every effort would be made to cause least disturbance to landowners and local residents during construction by providing regular updates on works via the on-site Construction Manager and Community Liaison Officer.
- 3.7.3 The Applicant takes community responsibilities seriously. The delivery of a major programme of capital investment provides the opportunity to maximise support of local communities. Employment of construction staff will be the responsibility of the Principal Contractor, but SSEN Transmission encourages the Principal Contractor to make use of suitable labour and resources from areas local to the location of the works.
- 3.7.4 It is envisaged that there would be a number of separate teams working at the same time at different locations across the Proposed Development site. The resource levels would be dependent on the final construction sequence and would be determined by the Principal Contractor.
- 3.7.5 Construction working is likely to be during daytime periods only. Working hours are anticipated seven days a week between approximately 07.00 to 19.00 March to September and 07.30 to 17.00 (or within daylight hours) October to February. Any out of hours working would be agreed in advance with Aberdeenshire Council.

3.8 Construction Traffic

- 3.8.1 A Construction Traffic Management Plan (CTMP) would be prepared by the Principal Contractor prior to any works commencing, in consultation with Aberdeenshire Council and Transport Scotland, as required. The CTMP would describe all mitigation and signage measures proposed on the public road network. An Outline CTMP is provided in **Volume 4, Technical Appendix 11.1: Outline Construction Traffic Management Plan**. Further detail on the anticipated traffic movements associated with construction of the Proposed Development, and an assessment of the likely effects and suggested mitigation measures, is provided in the Traffic and Transport chapter (**Volume 2, Chapter 11: Traffic and Transport**).

Access during Construction

- 3.8.2 Vehicles would primarily access the Proposed Development by a proposed permanent entrance to the A950 highway to the north of the Site (see **Volume 3, Figure 3.1: Proposed Development**). It is anticipated that the majority of construction traffic will use the A950 to the east, when entering and leaving the Site. The A950 connects to the A90 using the Howe O'Buchan Roundabout, approximately 5 km to the east of the proposed Netherton Hub. The A90 is part of the strategic road network, in addition to supporting access to the Port of Peterhead.

Construction Traffic Numbers and Traffic Management

- 3.8.3 An estimate of the type and volume of site traffic anticipated for a project of this scale is included in the Outline CTMP (**Volume 4, Technical Appendix 11.1: Outline Construction Traffic Management Plan**). The Principal Contractor, once appointed, will prepare a detailed CTMP in consultation with the Applicant, Aberdeenshire Council and Transport Scotland, as required.
- 3.8.4 The largest plant items for the Proposed Development would be the 17 transformers and two reactors. Whilst the transformer manufacturer has not been confirmed at the time of writing, it is anticipated that these items would be classed as abnormal loads. Indicative dimensions of the transformers are approximately 9 m length, 6 m width and 6 m height. It is anticipated that there would be up to 38 abnormal load vehicle movements to the Proposed Development (defined as trips in and out of the Site), during the duration of the construction works.

Delivery of Structures and Materials

- 3.8.5 All materials would be delivered to their allocated construction compound within the Site, and it is anticipated that concrete would be delivered to Site pre-mixed.

3.9 Temporary Construction Compound

- 3.9.1 A temporary construction compound would be required to provide welfare facilities for site staff, parking, temporary office cabins and a stores and maintenance area. An area for the compound has been identified in the southern area of the Site, as shown on **Volume 3, Figure 3.1: The Proposed Development**.

3.10 Environmental Management during Construction

- 3.10.1 The assessment in this EIA Report has been carried out on the basis that all works would be carried out in accordance with industry best practice construction measures, guidance and legislation, together with the following documents and procedures.

General Environmental Management Plans and Species Protection Plans

- 3.10.2 General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs) have been developed by the Applicant, with SPPs agreed with NatureScot (formerly Scottish Natural Heritage (SNH)). The GEMPs and SPPs considered relevant for the Proposed Development are identified in **Volume 4, Technical Appendix 3.2: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)**.

Construction Environmental Management Plan

- 3.10.3 A contractual management requirement of the Principal Contractor will be the development and implementation of a Construction Environmental Management Plan (CEMP). This document will detail how the Principal Contractor would manage the Site in accordance with all commitments and mitigation detailed in the EIA Report, statutory consents and authorisations, and industry best practice and guidance. **Volume 2, Chapter 17: Schedule of Environmental Mitigation** provides a summary of all mitigation measures included in this EIA Report.
- 3.10.4 The CEMP will also reference the aforementioned GEMPs and SPPs. The implementation of the CEMP will be managed by a suitably qualified and experienced Environmental Clerk of Works (EnvCoW), with support from other environmental professionals as required. The Applicant will carry out regular inspections and audits to monitor the implementation of the CEMP.
- 3.10.5 Authorisation would be required and obtained from SEPA in accordance with the Controlled Activity Regulations (CAR) prior to any construction works commencing on site. This would specify the controls and measures that would be used at site to safeguard the water environment.

3.11 Reinstatement

- 3.11.1 Following commissioning of the Proposed Development, all temporary work areas would be reinstated to an agreed standard with landowners for future use. Reinstatement would form part of the contract obligations for the Principal Contractor and include the removal of all temporary works areas. Some temporary areas of hardstanding would be required, reinstatement would involve topsoil re-spread and the areas sown with suitable wildflower grass meadow with shrub and tree planting, where applicable.

3.12 Mitigation Proposals

- 3.12.1 A series of mitigation measures have been identified to reduce the potential environmental effects of the Proposed Development. These measures are set out in **Volume 2, Chapter 17: Schedule of Environmental Mitigation**. For ease of reference, general mitigation measures are set out in **Table 3-1**.

Table 3-1 General Mitigation Measures

ID	Title	Description
General Mitigation Measures		
GE1	Construction and Employment and Hours of Work	Construction working is likely to be during daytime periods only. Working hours are anticipated seven days a week between approximately 07.00 to 19.00 March to September and 07.30 to 17.00 (or within daylight hours) October to February. Any out of hours working will be agreed in advance with Aberdeenshire Council.
GE2	Best Practice Construction Measures, GEMPs and SPPs	All works will be carried out in accordance with industry best practice construction measures, guidance, and legislation, together with GEMPs and SPPs that have been developed by the Applicant (the GEMPs and SPPs relevant to the Proposed Development are provided in Volume 4, Technical Appendix 3.2: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)).
GE3	Construction Environmental Management Plan (CEMP)	<p>A contractual management requirement of the Principal Contractor will be the development and implementation of a CEMP. This document will detail how the Principal Contractor will manage the Site in accordance with all commitments and mitigation detailed in the EIA Report, statutory consents and authorisations, and industry best practise and guidance. The CEMP will also include the following measures:</p> <ul style="list-style-type: none"> • Erection of tree protection fencing around retained trees at the Site in accordance with British Standard BS5837:2012¹³. • Any excavations to be back-filled or covered overnight, or a 45-degree ramp will be left to allow wildlife to escape should they fall in and become trapped. • Storage of materials, waste, plant, and vehicles to be a minimum of 30 m from the Burns of Faichfield and Ludquharn. • Dampening down of potential sources of dust. • Pollution prevention measures which align to best practice e.g. Guidance for Pollution Prevention (GPP) documents¹⁴, including specific protocols for construction of the outfalls (e.g. enhanced silt protection). • General compliance measures for working in adverse weather conditions – particularly for works associated with the surface water outfalls. • Working hours to be restricted to daylight as far as reasonably possible. • Specific roles, responsibilities, and reporting requirements. • The materials and waste associated with construction activities will be captured and managed through a Materials Management Plan and Site Waste Management Plan. They will detail the material, efficient use of material to minimise waste, and other waste management measures.
GE4	Restoration and Reinstatement	All temporary work areas will be reinstated to an agreed standard with landowners for future use. Reinstatement will form part of the contract obligations for the Principal Contractor and include the removal of all temporary works areas. Some temporary areas of hardstanding will be required, reinstatement will involve topsoil re-spread and the areas sown with suitable wildflower grass meadow with shrub and tree planting, where applicable.

¹³ British Standards Institution, (2012). BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations. British Standards Institution, London.

¹⁴ NetRegs. Guidance for Pollution Prevention (GPP) documents. [Online] Available at: <https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/> (Accessed: August 2024).

ID	Title	Description
GE5	Environmental Manager	An Environmental Manager will be appointed by the Principal Contractor for the duration of the construction phase. Their role would include coordinating input from specialists, reviewing incoming information from additional surveys, and coordinating any subsequent recommendations of mitigation measures and licensing requirements. The Environmental Manager will be responsible for continued review of incoming information and coordinating any additional specialist input to meet the Proposed Development's environmental obligations.
GE6	Environmental Clerk of Works (EnvCoW)	An EnvCoW will be appointed by the Principal Contractor to monitor, report and advise on the environmental compliance of the construction works. The EnvCoW will report to the Environmental Manager and Applicant. The EnvCoW will be competent, demonstrated by relevant experience and accreditations.
GE7	Outdoor Access Plan	Where there may be interactions with recreational users during the construction of the Proposed Development, an Outdoor Access Plan will be prepared as part of the Principal Contractor's CEMP (see ID: GE3), and signage will be erected at suitable locations to warn of construction traffic.

3.13 Landscape Mitigation Measures and Biodiversity Enhancement

- 3.13.1 Landscape mitigation measures have been proposed for the Proposed Development to mitigate potential adverse effects on local landscape character and visual amenity. The objective for landscape mitigation is to use landform and planting to minimise potential impacts, which has emerged by responding to the local rural landscape character, the natural contours and vegetation pattern. A series of development platforms have been designed to sit within the landscape, partially hiding the Proposed Development from surrounding visual receptors. Working with the levels to create the development platforms the predicted fill generated has been used within the design to create a series of landforms to partially screen potential views from surrounding residential properties, public highways and footpath routes.
- 3.13.2 An environmental colour study has been undertaken to identify the natural hues and tones found within the local landscape. Photographs were used from winter and summer months from four selected viewpoints to test and identify an appropriate colour strategy to be adopted as part of a Design Code for the final design. The objective of the colour strategy is to reduce the scale of the mass of built form and to marry the buildings into the natural characteristic hues and tones of the rural landscape. A range of styles were used to test various colour patterns with a range of colours found naturally within the locality.
- 3.13.3 Once created the new landforms and detention basins would then be vegetated by sowing them with wildflower meadow or planted with occasional shrubs, hedgerows and woodland plantations. The woodland would vary in type from a mixed conifer/deciduous woodland to broadleaved woodland to wet woodland on low lying areas. Some low lying areas such as the base of landforms, ditches and detention basins would be allowed to regenerate naturally.
- 3.13.4 The proposed planting and reinstatement works would be designed to create a variety of natural habitats, characteristic of this part of Aberdeenshire with the intention to improve the biodiversity of the Site. Local types of habitat were identified with an emphasis on delivering target habitats considered desirable such as wetland and broadleaved and mixed woodland. Native hedgerows are present locally but often infrequent and gappy. The proposed landscape strategy would fill hedgerow gaps, creating a series of natural wildlife corridors to assist in movement across the Site and connecting with the surroundings.
- 3.13.5 In addition, specific habitat would be created to support bank nesting Sand Martin (*Riparia riparia*) as a biodiversity enhancement.
- 3.13.6 Further details on the landscape mitigation strategy are provided in **Volume 2, Chapter 8: Landscape and Visual Impact**, and a plan showing indicative landscaping measures is included in **Volume 3, Figure 8.5: Illustrative Landscape Masterplan**.

- 3.13.7 Visualisations of the Proposed Development have been produced from 11 locations within the vicinity of the Site and are included in **Volume 3, Figures 8.18A to 8.41**. The visualisations provide post mitigation photomontages and wirelines, illustrating the Proposed Development at Year 1 and at Year 15 when operational, with the establishment of the proposed planting.
- 3.13.8 In addition, the Applicant will develop a long-term Landscape and Ecology Management Plan to ensure measures are in place for the long-term maintenance of the proposed planting, habitat and biodiversity enhancement measures.

3.14 Biodiversity Net Gain

- 3.14.1 Biodiversity Net Gain (BNG) is a process which leaves nature in a better state than it started. SSEN Transmission has developed a BNG toolkit based upon the Natural England metric¹⁵, which aims to quantify biodiversity based upon the value of habitats for nature. It is an efficient and effective method for demonstrating whether development projects have been able to maintain or increase the biodiversity value of a development site after construction works. SSEN Transmission use their BNG approach as a valid method to demonstrate positive effects for biodiversity as required under NPF4. Please see **Volume 4, Technical Appendix 9.4: Biodiversity Net Gain Assessment** for further information on the assessment methods, results, and how the Proposed Development would comply with NPF4 Policy 3 Biodiversity.
- 3.14.2 For BNG to be used appropriately and to generate long-term gains for nature, the good practice principles established by the Business and Biodiversity Offset Programme (BBOP)¹⁶ have been followed. These principles have been established in the context of UK development by the CIRIA, the Chartered Institute for Ecology and Environmental Management (CIEEM) and the Institute of Environmental Management and Assessment (IEMA).

SSEN Transmission's Biodiversity Ambition

- 3.14.3 SSEN Transmission is committed to protecting and enhancing the environment by minimising the potential impacts from their construction and operational activities. As part of this approach, SSEN Transmission has made a commitment to deliver 10 % BNG, in addition to their previous Sustainability Strategy (2018)¹⁷ commitments to:
- ensure natural environment considerations are included in decision making at each stage of a project's development;
 - utilise the mitigation hierarchy to avoid impacts by consideration of biodiversity in project design;
 - positively contribute to the United Nations and Scottish Government biodiversity strategies by achieving an overall net gain on new infrastructure projects gaining consent;
 - work with their supply chain to gain the maximum benefit during asset replacement and upgrades;
 - avoid all impacts on irreplaceable habitats, wherever possible. Where there is an unavoidable impact SSEN Transmission commits to mitigate, restore more than what is lost, and enhance to support greater biodiversity growth in the long term; and
 - No Net Loss (NNL) of woodland cover with tree loss only considered as a last resort. Where unavoidable, compensatory planting of native species mitigates any woodland loss to enhance local ecosystems and create a biodiversity net gain.

- 3.14.4 The construction and operation of the Proposed Development will be carried out in line with these commitments.

3.15 Future Maintenance of the Proposed Development

- 3.15.1 It is expected that the Proposed Development would require approximately 20 permanent staff onsite during operation. These would be housed in the onsite Operations Depot building.

¹⁵ Natural England Biodiversity Metric 3.1. [Online] Available at: <http://publications.naturalengland.org.uk/publication/6049804846366720> [Accessed: July 2024].

¹⁶ Guidance Notes to the Standard on Biodiversity Offsets (2012). Business and Biodiversity Offsets Programme (BBOP). [Online] Available at: https://www.forest-trends.org/wp-content/uploads/imported/BBOP_Standard_Guidance_Notes_20_Mar_2012_Final_WEB.pdf.

¹⁷ Delivering a smart, sustainable energy future: The Scottish Hydro Electric Transmission Sustainability Strategy, (2018). [Online] Available at <https://www.ssen-transmission.co.uk/about-us/sustainability-and-environment/sustainability-strategy/>.

- 3.15.2 The Proposed Development plant requires maintenance and inspection at regular intervals. It is expected this would consist of a monthly inspection, whilst varying degrees of maintenance would be undertaken annually. There would be other visits as required for operational duties.
- 3.15.3 At detailed design, a comprehensive Landscape and Ecology Management Plan would be formulated working alongside the SSEN Estates Team to ensure the delivery of a range of natural habitats are achievable in the short term and long-term meeting the objectives of the environmental mitigation in relation to landscape character, visual amenity, BNG and protected species considerations.
- 3.15.4 A full SuDS maintenance plan would be produced as part of the detailed drainage design. The maintenance of the drainage network will be the responsibility of SSEN Transmission.

3.16 Decommissioning

- 3.16.1 Planning permission is sought in perpetuity. Should the Proposed Development be decommissioned full details of the decommissioning plan would be agreed with the appropriate authorities and the landowners prior to any decommissioning works commencing.