

Kintore to Tealing 400 kV OHL
Environmental Impact Assessment (EIA)
Volume 5 | Appendix 11.5

Outline Biodiversity Enhancement Plan

August 2025

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LIST OF ABBREVIATIONS

AWI:	Ancient Woodland Inventory
BEP:	Biodiversity Enhancement Plan
BNG:	Biodiversity Net Gain
BU:	Biodiversity Units
Defra:	Department for Environment, Food and Rural Affairs
EclA:	Ecological Impact Assessment
EIA:	Environmental Impact Assessment
EIAR:	Environmental Impact Assessment Report
ESA:	Ecology Survey Area
LA:	Local Authority
LBAP:	Local Biodiversity Action Plan
LDP:	Local Development Plan
LNCS:	Local Nature Conservation Site(s)
LOD:	Limit of Deviation
LU (H):	Linear Units (Hedgerows and treelines)
LU (W):	Linear Units (Watercourses)
LUC:	Land Use Consultants
MAGIC:	Multi-Agency Geographic Information for the Countryside
NBN Atlas:	National Biodiversity Network Atlas
NESBiP:	North-East Scotland Biodiversity Partnership
NESBReC:	North-East Scotland Biodiversity Records Centre
NGO:	Non-Governmental Organization
NPF4:	National Planning Framework 4
NVC:	National Vegetation Classification
OHL:	Overhead Line
SBL:	Scottish Biodiversity List
SSEN Transmission:	Scottish and Southern Electricity Networks Transmission
SUDS:	Sustainable Drainage Systems
UKHab:	UK Habitat Classification

1. INTRODUCTION

1.1. Scope of this Appendix

- 1.1.1. This appendix presents information relevant to the Kintore to Tealing 400 kV Overhead Line (OHL). It should be read in conjunction with **Volume 2, Chapter 11: Ecology** and **Volume 1, Chapter 2: Established Need for the Proposed Development** of the **EIA Report** (EIAR) for full details of the Proposed Development.
- 1.1.2. This appendix supports the Ecological Impact Assessment (EcIA) in addition to the following appendices (**Volume 5**):
- **Appendix 11.1: Desk Study and Legal/Policy Context;**
 - **Appendix 11.2: Habitat and Vegetation Survey Report;**
 - **Appendix 11.3: Protected Species Survey Report;**
 - **Appendix 11.4: Bat Survey Report;** and
 - **Appendix 11.6: Confidential Protected Species Survey Report.**
- 1.1.3. This appendix is supported by the following:
- **Volume 3, Figures 11.3.1 to 11.3.38: Habitat Survey Results;**
 - **Volume 3, Figures A11.5.1a to 11.5.1ai: Baseline Habitats used in BNG Assessment;**
 - **Annex 11.5.1: Biodiversity Net Gain Assessment Report;**
 - **Annex 11.5.2: Aberdeenshire and Angus Project Toolkits for Kintore to Tealing 400 kV OHL;** and
 - **Annex 11.5.3: SSEN Transmission's Biodiversity Net Gain and Irreplaceable Habitat Off-Site Strategy for Kintore to Tealing 400 kV OHL.**
- 1.1.4. In addition, this appendix should be read in conjunction with the following appendices:
- **Volume 5, Appendix 3.3: Outline Site Restoration Plan;** and
 - **Volume 5, Appendix 9.6: Outline Landscape Mitigation Design Guide.**

1.2. Requirement for the Report

- 1.2.1. LUC was commissioned by the Applicant to develop an Outline Biodiversity Enhancement Plan (BEP) to deliver the requirements of National Planning Framework 4 (NPF4)¹ in relation to biodiversity, and to inform the design of the Proposed Development. In addition, the Applicant is committed to delivering 10% Biodiversity Net Gain (BNG) on all projects gaining consent². This document seeks to meet the Applicant's commitments, and presents an assessment of BNG using the SSEN Transmission Biodiversity Project Toolkit ('the Toolkit').
- 1.2.2. The purpose of the Outline BEP is to support the EcIA presented in **Volume 2, Chapter 11: Ecology**, to demonstrate how the Applicant will meet the requirements of national and local planning policy and deliver enhancement of biodiversity in relation to the Proposed Development.
- 1.2.3. The Outline BEP makes use of the assessment of the habitats and species that will be affected by the Proposed Development and the proposed mitigation (see **Volume 2, Chapter 11: Ecology**); this Outline BEP presents a qualitative assessment of the proposed mitigation (in terms of avoidance, reduction, restoration and compensation) and, further, outlines principles and proposals for the delivery of biodiversity enhancement.
- 1.2.4. In addition, a quantitative assessment is presented in the BNG Assessment Report (**Annex 11.5.1: Biodiversity Net Gain Assessment Report**), in which the on-site baseline and post-works biodiversity units (BU's) of the Proposed Development are calculated. The requirement for off-site BU delivery is discussed, and the mechanisms by which this will be delivered to ensure ecological enhancement and a 10% net gain are outlined.

¹ Scottish Government, 2023. National Planning Framework 4. [Online] Available at: <https://www.gov.scot/publications/national-planning-framework-4/> [Accessed January 2025].

² SSEN Transmission, 2024. Sustainability Strategy: Pathway to 2030. [Online] Available at: <https://www.ssen-transmission.co.uk/about-us/sustainability/sustainability-strategy/> [Accessed January 2025].

1.2.5. This Outline BEP includes:

- **Section 1.4–1.5:** An overview of national, local and SSEN Transmission policy specific to biodiversity enhancement, and how it integrates with the EIA process;
- **Section 2.1–2.2:** A description of the desk-based and field-based approaches that underpin the baseline understanding of the ecological context of the Proposed Development;
- **Section 2.3:** A description of the assumptions and parameters of the post-development target habitats and condition, needed for calculating the post-development Units;
- **Section 2.4:** An outline of the approach to identifying and securing off-site projects and partners for delivery of biodiversity enhancement (including off-site BNG);
- **Section 3.1–3.3:** An outline of best practice and principles that guide delivery of biodiversity enhancement;
- **Section 3.4:** An outline of principles that will be applied to on-site habitat restoration and enhancement;
- **Section 4:** A summary of BNG calculations including baseline, post-development, and required off-site BU requirement; and
- **Section 5:** An overview of the habitat creation or enhancements required to achieve biodiversity enhancements, both on and off-site, and a qualitative assessment of how these enhancements will meet the ecological principles set out in this appendix.
- **Annex 11.5.1: Biodiversity Net Gain Assessment Report:**
 - A calculation of baseline units for the Proposed Development following the guidance outlined within the Applicant's Biodiversity Net Gain Toolkit User Guide ('the User Guide');
 - A prediction of the post-development on-site Units, following construction of the Proposed Development and application of the principles that guide restoration, compensation and enhancement, contained within the Outline BEP, the Outline Site Restoration Plan and the Outline Landscape Mitigation Design Guide (see also **Volume 3, Figures 3.1 to 1-3.1.29 Proposed Development for which Section 37 Consent (Electricity Act, 1989) is sought**), **Volume 5, Appendix 3.3: Outline Site Restoration Plan**, and **Volume 5, Appendix 9.6: Outline Landscape Mitigation Design Guide**); and
 - A prediction of the extent of off-site biodiversity proposals required to deliver the Applicant's commitment to 10% BNG.
- **Annex 11.5.2: Aberdeenshire and Angus Project Toolkits for Kintore to Tealing 400kV OHL:**
 - Unit Calculation and Dashboard tabs for each of the four toolkits.
- **Annex 11.5.3: SSEN Transmission's Biodiversity Net Gain and Irreplaceable Habitat Off-Site Strategy for Kintore To Tealing 400kV OHL.**

1.3. Terminology

1.3.1. The following terminology will be used throughout this report:

- **Proposed Development:** Defined as the infrastructure including towers, OHL conductors, access tracks, temporary working areas within the Limit of Deviation (LOD) (**Volume 3, Figures 3.1.1 to 3.1.29: Proposed Development for which Section 37 Consent (Electricity Act, 1989) is sought**; see **Volume 1, Chapter 3: Project Description**).
- **Proposed Alignment:** Defined as the centreline of the OHL (see **Volume 3, Figure 1.1: Overview of the Proposed Development**).
- **Limit of Deviation (LOD):** The area either side of the Proposed Alignment and ancillary works within which micro-siting may take place in accordance with the conditions of the Section 37 Consent.
- **Ecology Survey Area (ESA):** The LOD of the Proposed Development, plus relevant buffers (up to 250 m from the LOD, with the exception of access tracks, tie-ins and tie backs for which a buffer of up to 50 m from the associated LOD was applied), in which all ecology surveys were undertaken in line with good practice guidelines for all ecological features surveyed (see **Volume 3, Figures 11.1.1 to 11.1.23: The Proposed Development**).

and Ecology Survey Area; details of survey guidance and methods can be found in **Volume 5, Appendices 11.2 to 11.6**).

- **Section:** To aid the reader in comprehension of the geographic spread of the ecology baseline data and assessment, the Proposed Development has been divided into six sections (as defined fully in **Volume 1, Chapter 3: Project Description**); however, for reporting of calculations and toolkit purposes, results are presented in the context of the Local Authority boundaries.

1.4. Legislation, Policy and Guidance

- 1.4.1. Key elements of legislation and policy relevant to ecological assessment are detailed in **Volume 5, Appendix 11.1: Desk Study and Legal/Policy Context**, with a summary of elements specific to the delivery of biodiversity enhancement provided below.

Nature Conservation (Scotland) Act 2004

- 1.4.2. Section 1 of the Nature Conservation (Scotland) Act 2004³ (as amended) places a duty on all public bodies and officeholders in Scotland to further the conservation of biodiversity when carrying out their functions in so far as is consistent with the proper exercise of those functions. This duty applies to the Energy Consents Unit and planning authorities in their functions as competent authorities, and to SSEN Transmission as a statutory undertaker.

National Policy and Guidance

- 1.4.3. NPF4 Policy 3(b) provides that '*Development proposals for national or major development, or for development that requires an Environmental Impact Assessment will only be supported where it can be demonstrated that the proposal will conserve, restore and enhance biodiversity, including nature networks so they are in a demonstrably better state than without intervention*'. This will include future management. To inform this, best practice assessment methods should be used. Proposals within these categories will demonstrate how they have met the following criteria:
- 1.4.4. iv. significant biodiversity enhancements are provided, in addition to any proposed mitigation. This should include nature networks, linking to and strengthening habitat connectivity within and beyond the development, secured within a reasonable timescale and with reasonable certainty. Management arrangements for their long-term retention and monitoring should be included, wherever appropriate ...' ie it requires major developments to deliver clear, measurable improvements to biodiversity and nature networks.
- 1.4.5. The Scottish Government has produced draft planning guidance in relation to biodiversity⁴. It sets out expectations for implementing and delivering NPF4 policies in regard to the NPF4 outcome 'improving biodiversity'. The guidance makes clear that assessment may be qualitative or quantitative, and emphasises efficiency and avoidance of duplication in assessments, recommending alignment with existing statutory and other requirements. The Applicant is responsible for showing how biodiversity will be improved, depending on the nature of the project, its ecological context, and the requirements of the planning authority. Where appropriate, enhancements should aim to conserve, restore and enhance biodiversity, including nature networks, and support the use of nature-based solutions.
- 1.4.6. The Scottish Biodiversity Strategy to 2045⁵ outlines the ambition for Scotland to become Nature Positive by 2030 and achieve full biodiversity restoration and regeneration across land, freshwater and seas by 2045. The strategy states that Nature Networks across the landscape will underpin the resilience and health of species and habitats.

³ Scottish Government, 2004. Nature Conservation (Scotland) Act 2004. [Online] Available at: <https://www.legislation.gov.uk/asp/2004/6/contents> [Accessed August 2025].

⁴ Scottish Government, 2023. Biodiversity: draft planning guidance. [Online] Available at: <https://www.gov.scot/publications/scottish-government-draft-planning-guidance-biodiversity/> [Accessed January 2025].

⁵ Scottish Government, 2023. Scottish Biodiversity Strategy to 2045: Tackling the Nature Emergency in Scotland. [Online] Available at: <https://www.gov.scot/publications/scottish-biodiversity-strategy-2045-tackling-nature-emergency-scotland-2/> [Accessed January 2025].

Local Policy and Guidance

- 1.4.7. The Proposed Development is covered in the south by the Angus Council Local Development Plan (LDP)⁶. Angus Council has begun the process for a new LDP, but the existing LDP remains in force at the time of writing. Key policies are PV4 Sites Designated for Natural Heritage and Biodiversity Value and PV5 Protected Species.
- 1.4.8. Angus Council is covered by the Tayside Local Biodiversity Action Plan (LBAP)⁷. As part of the actions of the LBAP, and to contribute to requirements of NPF4 Policy 4, a network of Local Nature Conservation Sites (LNCS) has been identified across the Angus Council area⁸. Angus Council has also published Biodiversity: A Developer's Guide, which offers practical advice on integrating biodiversity into development proposals⁹. While not specific to BNG, it supports the delivery of biodiversity enhancements in line with national and local policy. This guidance complements the Tayside LBAP and promotes habitat creation, enhancement, and connectivity.
- 1.4.9. In the north of the Proposed Development, the area is covered by the Aberdeenshire LDP¹⁰. The key policy in this LDP is E1 Natural Heritage, which addresses 'Nature Conservation Sites', 'Protected Species', and 'Wider Biodiversity and Geodiversity'. Additionally, Policy P1 provides that "Measures require to be identified to enhance biodiversity in proportion to the opportunities available and the scale of the development opportunity. In very rare circumstances, when it is not practical to meet biodiversity net gain within a development site, we may require off-site contributions towards biodiversity enhancement within the settlement or near to the site. These obligations may be controlled by conditions.". Aberdeenshire Council has also published Planning Advice PA2023-10 'Securing positive effects for biodiversity in new development'¹¹, which outlines local expectations for BNG delivery, including alignment with NPF4 and local biodiversity priorities.
- 1.4.10. Aberdeenshire is covered by the North-East Scotland Biodiversity Partnership (NESBiP). The associated LBAP¹² has defined a series of locations, habitats and species that are important for biodiversity in northeast Scotland. To contribute towards the LBAP, Aberdeenshire has identified a network of LNCS as part of the Aberdeenshire LDP¹⁰.

SSEN Transmission Policy and Guidance

- 1.4.11. The Applicant is committed to protecting and enhancing the environment by minimising potential impacts from construction and operational activities. As part of this approach, SSEN Transmission's Sustainability Strategy² commits to delivering 10% BNG and leaving a positive legacy for nature on all projects gaining consent².
- 1.4.12. The Applicant has developed the Toolkit as a BNG calculation tool that builds on the Defra Biodiversity Metric 3.1 and adapts it to suit the Scottish context. To support this, a detailed User Guide¹³ for the application of the Toolkit and provision of guidance factors, such as Irreplaceable Habitats¹⁴, has been employed for the assessment.

1.5. Integration with the EIA Process

- 1.5.1. **Volume 2, Chapter 11: Ecology** assesses the potential impacts on important ecological features as a result of the Proposed Development in accordance with the requirements of EIA and guidance on ecological impact

⁶ Angus Council, 2016. Angus Local Development Plan 2016. [Online] Available at:

https://www.angus.gov.uk/media/angus_local_development_plan_adopted_september_2016 [Accessed January 2025].

⁷ Tayside Biodiversity Partnership, 2015. Tayside Local Biodiversity Action Plan 2016-2026. [Online] Available at:

<https://www.taysidebiodiversity.co.uk/action-plan/action-plan-new-lbap-2015/> [Accessed January 2025].

⁸ Angus Council, 2023. Angus Local Nature Conservation Sites: Local Biodiversity Sites Initial Phase Report. [Online] Available at:

https://www.angus.gov.uk/the_environment/sustainable_angus/biodiversity [Accessed January 2025].

⁹ Angus Council, 2006. Biodiversity: A Developer's Guide. Available at:

<https://www.angus.gov.uk/sites/default/files/Biodiversity%20a%20developers%20guide.pdf> [Accessed 26 May 2025].

¹⁰ Aberdeenshire Council, 2023. Aberdeenshire Local Development Plan 2023. [Online] Available at:

<https://www.aberdeenshire.gov.uk/planning/plans-and-policies/ldp-2023> [Accessed January 2025].

¹¹ Aberdeenshire Council, 2023. Planning Advice PA2023-10: Securing positive effects for biodiversity in new development.

Available at: <https://publications.aberdeenshire.gov.uk/planning-advice/> [Accessed 26 May 2025].

¹² North-East Scotland Biodiversity Partnership, n.d. Biodiversity Information for Developers. [Online] Available at:

<https://www.nesbiodiversity.org.uk/biodiversity-information-for-developers/> [Accessed January 2025].

¹³ SSEN Transmission, 2022. Biodiversity Net Gain Toolkit User Guide: TG-NET-ENV-526.

¹⁴ The Applicant considers irreplaceable habitats within their network to be Ancient Woodland (categories 1a & 2a of the AWI), ancient or veteran trees, and blanket bog or raised bog in Good or Moderate condition.

assessment¹⁵. It includes details of mitigation measures that will be delivered in accordance with the mitigation hierarchy to avoid and reduce potential effects. In addition, proposals and opportunities for on-site habitat restoration, creation and enhancement are considered.

- 1.5.2. The assumptions and parameters of habitat loss and restoration presented in **Section 2.3** of this Appendix, form the foundation of the calculations presented in this Outline BEP (the quantitative assessment), and underpin the assessment of habitat losses presented in **Volume 2, Chapter 11: Ecology**. These calculated habitat losses also inform the assessment of impacts to protected species presented in **Volume 2, Chapter 11: Ecology**.
- 1.5.3. The Applicant's commitments with regards to national and local planning policy, and internal policy for the delivery of 10% BNG on all projects gaining consent, will be delivered through a combination of on-site habitat restoration, compensation and enhancement proposals, and off-site biodiversity enhancement projects, in collaboration with landowners and partner organisations.
- 1.5.4. A qualitative assessment is also presented in this Outline BEP, addressing the potential for ecological benefits as a result of changes to the habitat mosaic along the Proposed Development. The full details of off-site delivery are not confirmed at present; therefore, this Outline BEP presents the approach that will be taken to secure off-site enhancement. In addition, the Outline BEP outlines the principles underpinning the identification of partners for the delivery of off-site biodiversity enhancement projects, and therefore the nature of biodiversity enhancement that will be delivered. A final, detailed Biodiversity Enhancement Plan will be submitted for approval in accordance with planning conditions, ensuring that all required enhancements are provided within a reasonable timescale and with reasonable certainty, as required by NPF4 Policy 3(b)(iv).

¹⁵ CIEEM, 2024. Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.3. [Online] Available at: <https://cieem.net/wp-content/uploads/2018/08/EcIA-Guidelines-v1.3-Sept-2024.pdf> [Accessed January 2025].

2. METHODOLOGY

2.1. Desk-Based Assessment

- 2.1.1. A desk study was undertaken to obtain historical ecological information relating to the Proposed Development and its surrounding area. This included the collation and characterisation of information on statutory and non-statutory designated sites, and records of protected and notable species. The purpose of this step was to establish an understanding of the ecological context of the Proposed Development and surrounding landscape, to inform the assessment of potential ecological impacts and opportunities for biodiversity enhancement, and to guide further survey effort. Full details of the desk study methods and findings are provided in **Volume 5, Appendix 11.1: Desk Study and Legal/Policy Context**, which also outlines the legal protections afforded to relevant habitats and species.
- 2.1.2. Datasets that were consulted include:
- NatureScot SiteLink website¹⁶;
 - Ancient Woodland Inventory (AWI)¹⁷;
 - Multi-Agency Geographic Information for the Countryside (MAGIC)¹⁸;
 - Scotland's Environment Mapping Service¹⁹;
 - Tayside Local Biodiversity Action Plan (2016-2026)⁷;
 - North-East Scotland Biodiversity Partnership¹²;
 - North-East Scotland Biodiversity Records Centre (NESBReC)²⁰;
 - The Carbon and Peatland Map²¹; and
 - National Biodiversity Network (NBN) Atlas Scotland²².
- 2.1.3. To support early decision-making and maximise potential biodiversity enhancement and BNG delivery opportunities, a high-level optioneering assessment was undertaken using GIS data to map habitat characteristics (type, condition, connectivity, and strategic significance) along potential route options. This spatial data was then input into the Applicant's Site Optioneering Toolkit¹³ to calculate and compare potential Biodiversity Units and Linear Units, helping to identify routes that avoid high-value habitats and offer the greatest scope for biodiversity enhancement and BNG.

2.2. Field Assessment

- 2.2.1. Field surveys were undertaken as part of the EclA during the survey seasons of 2023 and 2024. Full details are available in **Volume 5, Appendix 11.2: Habitat and Vegetation Survey Report, Appendix 11.3: Protected Species Survey Report, Appendix 11.4: Bat Survey Report, and Volume 6, Appendix 11.6: Confidential Protected Species Survey Report**.
- 2.2.2. Surveys undertaken included:
- UK Habitat (UKHab) Classification Survey²³ between June to October 2023, and April to October 2024²⁴;

¹⁶ NatureScot, n.d. SiteLink. [Online] Available at: <https://sitelink.nature.scot/home> [Accessed January 2025].

¹⁷ NatureScot, n.d. Ancient Woodland Inventory. [Online] Available at: <https://spatialdata.gov.scot/geonetwork/srv/api/records/A091F945-F744-4C8F-95B3-A09E6EF6AE33> [Accessed January 2025].

¹⁸ Department for Environment, Food and Rural Affairs et al, n.d. Multi-Agency Geographic Information for the Countryside. [Online] Available at: <http://magic.defra.gov.uk> [Accessed January 2025].

¹⁹ Scottish Environment Protection Agency, n.d. Scotland's Environment Map. [Online] Available at: <https://map.environment.gov.scot/sewebmap/> [Accessed January 2025].

²⁰ North East Scotland Biological Records Centre, n.d. NESBReC. [Online] Available at: <https://nesbrec.org.uk/> [Data received July 2024].

²¹ Scotland's Soils, 2016. Carbon and Peatland Map. [Online] Available at: <https://soils.environment.gov.scot/maps/thematic-maps/carbon-and-peatland-2016-map/> [Accessed January 2025].

²² National Biodiversity Network Atlas, n.d. National Biodiversity Network Atlas, Scotland. [Online] Available at: <https://scotland.nbnatlas.org/> [Accessed January 2025].

²³ UK Hab, 2020. UK Habitat Classification Version 1.1. [Online] Available at: <https://ukhab.org/> [Accessed January 2025].

²⁴ Some limited additional survey was undertaken in December 2024 and January 2025; this additional survey targeted some minor data gaps in areas dominated by farmland with only limited extents of potentially sensitive habitats.

- National Vegetation Classification (NVC) survey of potential habitats of conservation concern²⁵ between June to October 2023, and April to October 2024²⁴;
- Condition assessment of each habitat type using the relevant Habitat Condition Sheets published by Natural England²⁶; and
- A range of protected species surveys between June to October 2023, April to October 2024, and December 2024 to March 2025.

2.2.3. The Proposed Development does not result in any loss of Irreplaceable Habitats; therefore, these habitats have not been considered further at this stage. The Applicant considers Irreplaceable Habitats within their network area to be Ancient Woodland (categories 1a & 2a of the AWI), ancient or veteran trees, and blanket bog or raised bog in Good or Moderate condition. This will be kept under review during development of the final detailed Biodiversity Enhancement Plan pre-energisation.

2.3. Approach to On-site Biodiversity Enhancement

The Process for Developing Enhancement Proposals

- 2.3.1. The development of enhancement proposals is based on both desk-based and field survey data collected across the Proposed Development. At this stage, detailed physical interventions (such as specific habitat creation or restoration measures, and their locations) have not yet been fully defined. This is because site-specific proposals depend on further design, landowner engagement, and post-consent information.
- 2.3.2. The process to date has involved:
- Using survey data to map habitat types, conditions, and ecological constraints/opportunities along the route.
 - Reviewing local habitat pressures and restoration potential.
 - Applying best practice principles to identify broad types of enhancement actions that would be suitable in principle for the area (eg scrub regeneration, hedgerow planting, woodland compensation).
 - Indicating whether on-site measures are feasible or sufficient, so that appropriate off-site locations and opportunities can be sought.
- 2.3.3. To support this process, **Volume 2, Chapter 11: Ecology** has considered the types of habitat impacted and the extent of impacts. The chapter includes a commitment to offset unavoidable losses of habitats through habitat restoration and compensation, and further to deliver biodiversity enhancement for habitats (through the application of this Outline BEP). Opportunities for on-site habitat restoration, compensation and enhancement have been identified as a collaboration between technical disciplines (see **Volume 5, Appendix 9.6: Outline Landscape Mitigation Design Guide**); the proposals have been developed to align with this Outline BEP and to contribute towards the delivery of biodiversity enhancement. These proposals are subject to landowner agreement and are therefore not confirmed at this stage. On-site measures will be developed in line with the principles contained within **Volume 5, Appendix 9.6** and this Outline BEP (see **Section 3**), as well as in accordance with **Volume 5, Appendix 3.3: Outline Site Restoration Plan**.
- 2.3.4. In addition to the consideration of habitats, mitigation proposed in **Volume 2, Chapter 11: Ecology** in relation to protected species includes a commitment to offset losses of features confirmed to be used by protected species (and in accordance with licensing requirements and the Applicant's Species Protection Plans ((SPPs); see **Volume 5, Appendix 3.2: General Environmental Management Plans (GEMPS) and Species Protection Plans (SPPs)**), as well as key features noted to have potential to be used by protected species. Such offsetting will be in the form of compensation through installation of, for example, bat boxes, pine marten boxes, red squirrel nest boxes. Compensation will be provided through agreement with landowners, and priority will be given to securing compensation in areas that are adjacent to or in proximity to the location of impact, with consideration given to the

²⁵ Habitats of conservation concern include habitats considered conservation priorities in the *Habitats Directive* (Annex I habitats); habitats considered to indicate potential groundwater dependency; habitats included on the Scottish Biodiversity List; and habitats included in local biodiversity policy.

²⁶ Panks, S. et al., 2022. Biodiversity Metric 3.1 Auditing and accounting for biodiversity - User Guide.

connectivity of compensatory features to features that have been lost. In addition, to ensure that biodiversity enhancement proposals deliver for a wide range of ecological features, opportunities will be identified to install additional features that offer shelter for wildlife within on-site areas; this would target the protected species noted, as well as species such as reptiles, amphibians and invertebrates, and would be tailored to existing or target habitats or species, as appropriate to the specifics of the location.

- 2.3.5. A detailed, site-specific enhancement plan will be developed after planning approval, as more information and stakeholder input becomes available, and on-site landowner agreements are secured.
- 2.3.6. It is anticipated that biodiversity enhancement will be delivered through a combination of on-site restoration, compensation and enhancement measures, secured through agreement with landowners, and off-site areas with biodiversity project partners. The Toolkit is the method by which biodiversity enhancement with respects to habitats will be quantified. This will be underpinned by sound ecological principles (see **Section 3**), thereby ensuring that final proposals are appropriate to the local context and deliver benefits for a wide range of ecological features.

Assessment for Quantitative Targets – BNG Calculations

- 2.3.7. The quantitative assessment uses a two-step approach:
- Baseline units: Calculated using habitat and condition data from field and desk-based surveys along the Proposed Development.
 - Post-development units: Estimated using broad, precautionary assumptions about habitat restoration and creation, because details of specific on-site interventions are not yet available. The development process for these assumptions follows key principles, aiming to restore or create habitats that are ecologically appropriate for the local context and capable of delivering long-term biodiversity benefits.
- 2.3.8. This ensures that the BNG calculation is robust and conservative at this stage, providing confidence that policy targets can be met, even as details are refined in later phases. The quantitative BNG assessment was completed within the Toolkit following the User Guide¹³. This method was revised to align with Natural England Biodiversity Metric 3.1²⁷ and adapted to reflect the requirements of Scottish habitats, to quantify losses and gains of biodiversity across habitat types. To determine the pre-construction baseline and therefore the baseline biodiversity Units, data were collected on type, area, and condition of habitats impacted by the Proposed Development. The Toolkit was used to calculate the difference in Units resulting from both the Proposed Development (reduction in Unit due to habitat loss or alteration) and on-site habitat creation after works (increase in Units from planned on-site habitat restoration and compensation measures). The outcome of these calculations has been used to identify the need for off-site biodiversity delivery, ensuring biodiversity targets are met for the Proposed Development.
- 2.3.9. The Toolkit assesses losses of area and linear habitats separately. The Toolkit produces Unit scores across three categories:
- BU: Biodiversity Units for area-based habitats;
 - LU (H): Linear Units covering hedgerow and treeline habitats; and
 - LU (W): Linear Units covering watercourse habitats.
- 2.3.10. Four Toolkits have been produced as follows:
- Area-based habitats: Angus;
 - Linear habitats: Angus;
 - Area-based habitats: Aberdeenshire; and
 - Linear habitats: Aberdeenshire.
- 2.3.11. A BNG Assessment Report underpins the results presented in this appendix and is provided in **Annex 11.5.1: Biodiversity Net Gain Assessment Report**.

²⁷ Natural England (2022). *Biodiversity Metric 3.1 Calculation Tool*. Available at: <https://publications.naturalengland.org.uk/file/5450039124819968> [Accessed 26 May 2025]

Assumptions and Parameters for On-Site BNG Calculations

2.3.12. At this stage, assumptions are used to calculate losses, from on-site habitat impacts, and gains, from on-site restoration and creation (losses and gains are both calculated in terms of BU, LU(H) and LU(W)). The resulting shortfall indicates the additional units that will need to be delivered off-site to achieve biodiversity enhancement as quantified by the 10% BNG target. These assumptions are outlined below.

Assumptions Related to the Permanence of Habitat Change

2.3.13. Elements of the Proposed Development vary in their permanence, including permanent elements (such as tower bases and permanent access tracks), and temporary elements (such as temporary working areas and temporary access tracks). The latter group of elements will be restored upon completion of the works, with potential for effects during the construction phase only. However, the word “temporary” has a specific definition in BNG calculations in that it applies only to situations in which the habitat impacted will be restored to the baseline condition (or better) within *two years* of initial disturbance. Where this is the case, they are considered to be “retained” and are excluded (along with other retained features) from the BNG calculations in accordance with SSEN Transmission methodology. The relevant habitats and associated timescales for return to baseline condition are defined by guidance²⁶. As such, construction elements that are anticipated to last up to 1 year are considered temporary for the purpose of BNG assessment where they coincide with habitats which will revert to baseline condition within 1 year following the cessation of works. Where these habitat parameters are met, the following construction elements are therefore excluded from calculations:

- Locations where temporary access is provided through use of ‘trackways’ with a width of 5 m or less;
- Conductor pulling areas; and
- Locations where scaffolding is required to support temporary protection of roads and watercourses.

Assumptions Related to Post-Development Habitat Restoration and Creation

2.3.14. A range of habitat restoration assumptions have been used to allow parameters to be standardised and applied to the BNG calculations:

- Habitats impacted by temporary construction activities, will be restored to the baseline habitat type and condition (where possible), as part of completion of works. Where relevant, this will include restoration of hedgerows (see **Table 11.5.1: Assumptions and Parameters Used to Inform the Post-Development On-Site BNG Calculations** below).
- Woodland habitats and trees removed to facilitate permanent infrastructure will not be reinstated within the permanent operational corridor due to a requirement to maintain conductor clearance distances. Based on habitats observed during field surveys along existing OHLs, it is assumed that in areas of conifer plantation where felling is required to facilitate the permanent operational corridor, clear-felled habitats will naturally develop into a form of scrub in enclosed lowland areas, and in unenclosed upland areas will form heathland habitats (such as in Fetteresso Forest and Durris Forest) (see **Table 11.5.1** below). Therefore, these areas are assumed to regenerate naturally into these open habitat types, depending on whether they are lowland or upland habitats.
- Where woodland is removed outwith this corridor, for example where conifers are felled to a windfirm edge in areas of plantation (‘management felling’), the baseline woodland habitat type and condition will be restored in line with Scottish Government policy²⁸ and in agreement with the landowner.

Assumptions Related to the Target Condition of the Post-Development Habitat Restoration and Creation

2.3.15. The Toolkit requires definition of the target habitat condition, that post-development restoration will achieve (excluding habitats that are lost to permanent infrastructure). The assumptions are designed at this stage to ensure a precautionary assessment and are based on observations made regarding the baseline habitat types present within

²⁸ Scottish Government, 2009. The Scottish Government’s Policy on Control of Woodland Removal. [Online] Available at: <https://www.forestry.gov.scot/publications/285-the-scottish-government-s-policy-on-control-of-woodland-removal> [Accessed June 2025]

the ESA. For coniferous plantation, this includes existing OHL operational corridors, located through similar woodland habitats.

- 2.3.16. The habitat type and condition assumptions are summarised in **Table 11.5.1: Assumptions and Parameters Used to Inform the Post-Development On-Site BNG Calculations**. These habitat types and condition reflect conservative expectations of post-development outcomes, primarily based on passive regeneration in the absence of defined on-site enhancement interventions at this stage.
- 2.3.17. These assumptions are intended to ensure a precautionary BNG calculation. As a result, target habitats and conditions have been set conservatively to reflect the current stage of design and the absence of confirmed, active habitat restoration and enhancement interventions. In line with best practice, "Poor" condition has been assumed where habitats are expected to regenerate passively or where operational or land-use constraints are likely to limit ecological recovery. These assumptions ensure that biodiversity gains are not overestimated. This approach is taken to ensure that on-site proposals are achievable in the absence of confirmed agreement with landowners (as at present), and that there is no shortfall of required off-site provision for biodiversity enhancement and BNG delivery.
- 2.3.18. As per **Volume 5, Appendix 9.6: Outline Landscape Mitigation Design Guide**, opportunities for on-site habitat restoration, creation and enhancement have been identified. These opportunities are not reflected in the calculations presented at this stage in this Outline BEP, due to the conservative approach taken. The details of on-site habitat proposals are subject to landowner agreement; as such, on-site proposals for habitat restoration, creation and enhancement are expected to be refined as the Proposed Development progresses and commitments are secured. Further, additional on-site opportunities which are not currently identified in **Volume 5, Appendix 9.6** may be identified and developed during detailed discussions with landowners.

Table 11.5.1: Assumptions and Parameters Used to Inform the Post-Development On-Site BNG Calculations

Habitat Type	Assumption
Cropland and Grassland Habitats	Return to the same habitat type and condition, with the exception of the habitat within tower bases, where reversion to Modified grassland is assumed due to likely soil compaction, restricted vegetation growth, and routine maintenance requirements associated with permanent infrastructure. Target condition: Poor. NB: No Scottish Biodiversity List (SBL) grassland habitats are anticipated to be impacted by temporary construction works.
Scrub, Heathland, Wetland Habitats	Develop into the same habitat type. Target condition: - Scrub: Same baseline condition considered likely to be achievable. - Heathland: Poor condition. - Wetland: Poor condition.
Broadleaved & Mixed Woodland Habitats	Infrastructure felling (i.e. operational corridor is retained): due to vegetation clearance and ongoing operational management requirements, natural regeneration into scrub woodland is limited. Therefore: - Upland: Develop naturally into Upland heathland, target condition Poor. - Lowland: Develop naturally into Modified grassland, target condition Poor. Felling associated with temporary works: - Within operational corridor: Treated as per infrastructure felling, no replanting, habitat and target condition dependent on upland or lowland context. - Outside operational corridor: Baseline habitat type will be replanted, target condition Poor.
Coniferous Woodland Habitats	Infrastructure felling (i.e. operational corridor is retained): - Upland: Develop naturally into Upland heathland, target condition Poor. - Lowland: Develop naturally into Gorse scrub, target condition Poor. Felling associated with temporary works: - Within operational corridor: Treated as per infrastructure felling, no replanting, habitat and target condition dependent on upland or lowland context. - Outside operational corridor: Baseline habitat type will be replanted, target condition Poor.

Habitat Type	Assumption
Linear Habitats	- Watercourses: No losses anticipated. - Hedgerows: Reinstated to baseline habitat type outwith permanent infrastructure only, target condition Poor. - Line of Trees: Reinstated to baseline habitat type outwith operational corridor and permanent infrastructure only, target condition Poor.

2.4. Identification of Off-Site Biodiversity Enhancement Opportunities and Requirements

- 2.4.1. As a result of the limited on-site opportunity to deliver biodiversity enhancement, off-site opportunities are being explored at locations remote from the Proposed Development but within the Angus Council and Aberdeenshire Council areas, in line with the policy commitments of the Applicant and expected planning requirements.
- 2.4.2. Discussions are being advanced with potential partners (site owners/project developers) regarding projects and sites are being evaluated based on their location, and their potential to provide strategic and holistic biodiversity gain for the area.
- 2.4.3. The sites that are shortlisted for further assessment will be surveyed by environmental contractors using the Toolkit to measure their BNG potential. Partners will also be assessed, and due diligence will be undertaken of potential projects prior to the agreement of heads of terms with partners. At this stage, SSEN Transmission is engaged in ongoing discussions with potential project partners for off-site biodiversity enhancement. Final agreements regarding delivery and management will be concluded following planning consent, consistent with the approach set out in the SSEN Transmission Off-Site Strategy for Kintore to Tealing 400kV OHL (Annex 11.5.3: SSEN Transmission's Biodiversity Net Gain And Irreplaceable Habitat Off-Site Strategy For Kintore To Tealing 400 kV OHL).
- 2.4.4. The chosen biodiversity enhancement sites will adhere to the Applicant's key BNG goals, namely, to compensate for losses through habitat creation and enhancement, to collaborate with landowners, partners and consultants and to positively impact local Council areas.
- 2.4.5. Mitigation proposed in **Volume 2, Chapter 11: Ecology** in relation to protected species includes a commitment to offset losses of features confirmed, or with potential, to be used by protected species as places of shelter. As noted, priority will be given to securing compensation in areas close to the location of impact, ideally on-site, subject to landowner agreement; consideration will also be given to delivering this type of compensation in off-site project areas where appropriate. Furthermore, to ensure that biodiversity enhancement proposals deliver for a wide range of ecological features, additional features for wildlife to shelter will be installed in off-site project areas, including boxes for protected and notable species; these will be tailored to existing or target habitats or species, and appropriate to the specifics of the off-site project.
- 2.4.6. Biodiversity enhancement will be delivered through a combination of on-site measures, and off-site projects in agreement with partners. The Toolkit is the tool by which biodiversity enhancement with respects to habitats will be quantified, underpinned by sound ecological principles (see **Section 3**).

3. BIODIVERSITY ENHANCEMENT PRINCIPLES

- 3.1.1. Ecological principles have been incorporated into the development of this Outline BEP, to influence the delivery of detailed proposals for biodiversity enhancement, and to meet biodiversity enhancement commitments (including the Applicant's BNG policy²⁹), both on and off-site. The aim of these principles is to guide the Applicant's approach towards achieving meaningful and lasting biodiversity enhancement outcomes. The principles are split into two categories:
- Ecological principles, centred on ecological science to inform the selection, design and management of biodiversity enhancement projects; and
 - Delivery mechanism principles, focussing on the practical and administrative aspects of implementing biodiversity enhancement and BNG delivery.
- 3.1.2. The ecological principles aim to ensure that biodiversity enhancement projects align with the ecological needs of the local environment, promote species diversity and enhance ecosystem resilience.
- 3.1.3. Overarching principle: Enhancement must contribute to ecologically functional landscapes by supporting processes that maintain resilient populations. BNG proposals will therefore be developed and delivered that improve habitat extent, quality, and connectivity to form functional ecological networks and thereby benefit a wide range of ecological features.

3.2. Ecological Principles for Design

- 3.2.1. The following principles are applied specifically in the context of delivering biodiversity enhancement (and specifically BNG as defined by the Applicant's methodology), with an emphasis on measurable gains from habitat creation and restoration. Where broader ecological goals are referenced, they are supplementary and do not part of the Applicant's more specific BNG commitment.
- Apply the mitigation hierarchy, with a particular emphasis on avoiding impacts to statutory designated sites and Irreplaceable Habitats;
 - Ensure additionality: Gains must be above what would occur independently of the development. Exceptions to this principle may be justified in limited circumstances (for example where additional interventions would enhance biodiversity above the level that is planned or legally required), although this requires careful planning and clear justification;
 - Prioritise proximity while aligning with strategic objectives;
 - Maximise connectivity, recognising that extent and quality are as important as linkages, i.e. the Bigger, Better and More approach²⁹;
 - Favour ecological equivalence or better – deliver "like for like or better" habitats. This principle is required by the Applicant's approach to BNG calculation and delivery¹³;
 - Promote habitat diversity and avoid over-reliance on easily restorable types by favouring habitat mosaics that reflect local ecological variation and resilience; and
 - Public access: Manage public access where applicable to avoid disturbance to sensitive habitats, in line with the Scottish Outdoor Access Code³⁰.

²⁹ Lawton, J.H., Brotherton, P.N.M., Brown, V.K., Elphick, C., Fitter, A.H., Forshaw, J., Haddow, R.W., Hilborne, S., Leafe, R.N., Mace, G.M., Southgate, M.P., Sutherland, W.J., Tew, T.E., Varley, J., & Wynne, G.R., 2010. Making Space for Nature: a review of England's wildlife sites and ecological network. Report to Defra.

³⁰ NatureScot, 2005. Scottish Outdoor Access Code. [Online] Available at: <https://www.outdooraccess-scotland.scot/doc/scottish-outdoor-access-code> [Accessed January 2025].

3.3. Delivery Mechanisms Principles

3.3.1. The delivery mechanism principles aim to encompass the practical strategies and operational mechanisms for successfully implementing commitments regarding biodiversity enhancement and BNG delivery.

- Establish effective stewardship and governance: The approach to stewardship and governance for off-site biodiversity enhancement is guided by the SSEN Transmission Off-Site BNG Strategy (see **Annex 11.5.3**). The strategy emphasises the importance of working closely with landowners and delivery partners to develop clear management objectives, define responsibilities, and ensure long-term monitoring and adaptive management of biodiversity projects. It sets out that delivery and ongoing maintenance of off-site enhancement sites will be the responsibility of the landowner and/or third-party facilitator, with SSEN Transmission providing oversight and support to ensure the intended biodiversity outcomes are achieved and sustained. Regular monitoring and reporting are established to track progress and enable responsive management throughout the duration of the agreement.
- Promote proactive delivery where feasible: Early biodiversity gains can reduce the risk of delay or loss. While proactive off-site delivery (such as biodiversity banking) is not proposed for this project, as the Applicant is currently developing an approach to identifying off-site partners and projects, exploring opportunities for early or advance BNG delivery remains an industry best practice for future consideration.

3.4. Habitat Restoration and Enhancement

3.4.1. The following restoration and enhancement measures reflect the application of the ecological and delivery mechanism principles set out in **Sections 3.1 and 3.2** in the context of Kintore to Tealing 400 kV OHL:

- Hedgerows will be reinstated to baseline conditions where they are affected by temporary construction works. Where hedgerows are affected by permanent infrastructure, the priority will be to create new hedgerows within proximity to the Proposed Development where possible (subject to landowner agreement). Off-site creation of hedgerows will be used to deliver compensation where on-site options are not sufficient.
- Treelines will be reinstated to baseline conditions where they are affected by temporary construction works. Where treelines are affected by permanent infrastructure, the priority will be to create new treelines within proximity to the Proposed Development where possible (subject to landowner agreement). Off-site creation of treelines will be used where on-site options are not sufficient.
- Watercourses will be retained. The design of watercourse crossings will minimise risk physical disturbance, hydrological disruption, and degradation of in-stream habitat quality, including:
 - Use of bottomless arch or single span crossings wherever possible;
 - Retention/recreation of natural stream beds wherever possible;
 - Closed pipes used as a last resort; and
 - Commitment to set any pipe culverts below the existing watercourse bed wherever possible and to make use of natural bed material.
- Habitats affected by temporary construction works will be restored to the baseline habitat type and condition.
- Woodland habitats within the permanent operational corridor will be replaced with new open habitat types, enabling maintenance of the required clearance. Opportunities for on-site woodland compensation and enhancement will be identified and considered where possible (subject to landowner agreement). Where clearance of low-value plantation woodland (eg Sitka spruce) is required, there may be opportunities to deliver on-site BNG through the establishment of native scrub or low-growing tree habitats compatible with operational requirements. However, compensation for woodland loss is still expected to be delivered largely through off-site projects.
- Wider opportunities for habitat restoration within the Proposed Development, such as control of invasive non-native species (eg rhododendron *Rhododendron ponticum*), will be considered where these are identified on-site (subject to landowner agreement) as a means to enhance habitat condition and support biodiversity gains.

3.4.2. Further detail on opportunities for landscape-led on-site habitat restoration approaches, including planting palettes and species selection, are provided in **Volume 5, Appendix 9.6: Outline Landscape Mitigation Design Guide**.

This guidance for on-site restoration and enhancement has been designed to accord with the principles presented in this Outline BEP. However, as stated in **Section 2.3** of this Appendix, these opportunities are not reflected in the assumptions applied to the calculations presented in this Outline BEP, due to the conservative approach taken and the need to secure landowner agreement prior to factoring them into final, detailed calculations.

- 3.4.3. Where habitat compensation and enhancement cannot be fully delivered on-site, off-site projects will be identified and developed to deliver the outstanding requirements of 10% BNG, and these will be in accordance with the ecological and delivery mechanism principles of this Outline BEP.

4. SUMMARY OF BNG CALCULATION

- 4.1.1. The following summary presents the results of the BNG calculation using the Applicant's Toolkit. The figures illustrate the biodiversity value of habitats before development (baseline), after construction (post-development), and the expected uplift resulting from on-site enhancement measures. The calculations are expressed in terms of the three categories of units (BU, LU (H), and LU (W)), and provide the basis for determining whether the Proposed Development achieves the required 10% BNG. Where on-site measures are insufficient, these figures also inform the extent of off-site delivery required.
- 4.1.2. It should be noted that watercourses within the Proposed Development boundary will be retained and protected during construction, with no anticipated loss or degradation. As a result, no loss or gain in Watercourse Units has been calculated, and they are excluded from the figures below.
- 4.1.3. Details of the BNG calculations are provided in Annex 11.5.1: Biodiversity Net Gain Assessment Report. Further detail on the results of BNG calculations is provided below in **Table 11.5.2: Summary of BNG Calculations**, which below disaggregates the results by habitat distinctiveness to transparently demonstrate how the 10% BNG target is met for each habitat class. This level of detail is important to uphold the principle of "like for like or better."

4.2. Aberdeenshire

- 4.2.1. The baseline Units of the Proposed Development have been calculated as follows:
- Area-Based Habitats: 970.20 BU.
 - Linear Hedgerow (H) Habitats: 44.88 LU (H).
- 4.2.2. The post-development Units have been calculated as follows:
- Area-Based Habitats: 642.44 BU.
 - Linear Hedgerow (H) Habitats: 15.81 LU (H).
- 4.2.3. The Proposed Development is therefore predicted to result in a net change in Units as follows:
- Area-Based Habitats: -327.76 BU.
 - Linear Hedgerow (H) Habitats: -29.07 LU (H).
- 4.2.4. The following BU's are required to achieve a 10% net gain from the baseline
- Area-Based Habitats: 424.78 BU.
 - Linear Hedgerow (H) Habitats: 33.56 LU (H).

4.3. Angus

- 4.3.1. The baseline Units of the Proposed Development have been calculated as follows:
- Area-Based Habitats: 483.28 BU.
 - Linear Hedgerow (H) Habitats: 43.68 LU (H).
- 4.3.2. The post-development Units have been calculated as follows:
- Area-Based Habitats: 279.21 BU.
 - Linear Hedgerow (H) Habitats: 14.16 LU (H).
- 4.3.3. The Proposed Development is therefore predicted to result in a net change in Units as follows:
- Area-Based Habitats: -204.07 BU.
 - Linear Hedgerow (H) Habitats: -29.52 LU (H).
- 4.3.4. The following BU's are required to achieve a 10% Net Gain from the baseline:
- Area-Based Habitats: 252.40 BU.
 - Linear Hedgerow (H) Habitats: 33.89 LU (H).

Table 11.5.2: Summary of BNG Calculations

Habitat Type	Distinctiveness*	Baseline BU	Target for 10% BNG	On-Site Post Development BU	Off-Site BU Requirements
Aberdeenshire					
Area Habitats	High	170.26	187.28	60.05	127.23
	Medium	256.30	281.93	77.22	204.71
	Low	543.64	598.00	505.17	92.84
Linear Hedgerows	Medium	13.58	14.94	4.41	10.53
	Low	31.06	34.17	11.20	22.97
	Very Low	0.24	0.26	0.20	0.06
Angus					
Area Habitats	High	176.22	193.84	82.67	111.17
	Medium	101.64	111.81	39.74	72.07
	Low	205.42	225.97	156.80	69.17
Linear Hedgerows	Medium	16.82	18.50	3.97	14.53
	Low	25.30	27.83	9.10	18.73
	Very Low	1.56	1.72	1.08	0.64

5. HABITAT RESTORATION AND BIODIVERSITY ENHANCEMENT

- 5.1.1. The BNG calculations presented above adopt a cautious (ie precautionary) approach in regard to the assumptions and parameters applied at this stage; this ensures that biodiversity targets will be met, even under worst-case scenarios. In practice, however, the Proposed Development provides an opportunity to deliver substantially greater ecological benefits and biodiversity enhancement, both on-site and off-site.
- 5.1.2. On-site restoration of temporary working areas, in line with **Volume 5, Appendix 3.3: Outline Site Restoration Plan**, will ensure residual habitat loss is minimised wherever possible. Further, habitat creation will be delivered within the permanent operational corridor within areas of woodland requiring felling. The assumptions that have been used to underpin the calculations at this stage are intentionally conservative (for example, assuming that only Poor condition will be achieved); this serves the twin aims of ensuring a robust assessment whilst driving an ambitious programme of off-site delivery of biodiversity enhancement, and specifically ensuring that the commitment to 10% BNG will be delivered with minimised potential for delays.
- 5.1.3. Opportunities have been identified to deliver on-site landscape mitigation (see **Volume 5, Appendix 9.6: Outline Landscape Mitigation Design Guide**) and it is anticipated that detailed proposals for such mitigation will also deliver ecological benefits through increased structural and functional habitat diversity. However, the locations of these interventions are subject to landowner agreement and are therefore not confirmed at this stage. It is anticipated that detailed proposals will be developed during the next design phase, informed by further survey data and landowner engagement.
- 5.1.4. Off-site, partnerships with local stakeholders will enable larger scale enhancements to be delivered that will contribute towards the overall target of at least 10% BNG, where this cannot be fully realised from on-site habitat enhancement.
- 5.1.5. The headline actions to deliver habitat restoration and biodiversity enhancement include:
 - Hedgerow reinstatement and creation: Reinstating hedgerows affected by the works wherever possible, and introducing new native hedgerow planting both on-site (where possible) and off-site to compensate for permanent losses;
 - Scrub/heath regeneration: Removing plantation conifers in the operational corridor and allowing a transition to more diverse open habitat types (heath or scrub), in line with **Volume 5, Appendix 9.6: Outline Landscape Mitigation Design Guide**; and
 - Woodland compensation: Creating or enhancing native woodland on-site (where possible) and off-site to compensate for unavoidable permanent losses.

5.2. Overview of Habitat Benefits

- 5.2.1. Key habitats targeted for enhancement include grasslands, scrub, woodland edges, and hedgerows. In areas dominated by existing conifer plantations of Sitka spruce (*Picea sitchensis*), the permanent operational corridor will be allowed to regenerate naturally into scrub or heath (depending on the context), delivering a more varied and open habitat structure that benefits invertebrates, birds and small mammals. In lower lying farmland, hedgerow reinstatement and development of areas of rough grassland with limited management will improve connectivity across the landscape.
- 5.2.2. These habitat enhancements offer direct advantages for pollinators, bats, birds, and various small mammals. New woodland edge habitats also create important transitional zones (ecotones), supporting higher local biodiversity than closed canopy conifer blocks. In addition, by creating diverse areas of semi-natural habitat, more resilient ecosystems are supported, with greater species and structural diversity enabling habitats to better adapt to pressures such as climate change, and to provide wider ecosystem services.

5.3. Application of Principles

- 5.3.1. Throughout the design process, the mitigation hierarchy (avoid, minimise, restore, offset) has shaped how habitats are protected or restored. Emphasis has been placed on connectivity (eg aligning replacement woodlands with existing semi-natural woodland blocks) and added ecological value (eg increasing hedgerow density where

previously not existing). It is acknowledged that long term partnerships with landowners and stakeholders are critical to advancing off-site projects, ensuring successful long-term management of biodiversity enhancement measures.

5.4. Trading Rules and Distinctiveness

- 5.4.1. Where construction and operation of the Proposed Development results in habitat loss, “like for like or better” habitat replacement is pursued wherever possible, either on-site or off-site, depending on feasibility and operational constraints (eg replacing low distinctiveness grassland with more diverse meadow habitats, where feasible and appropriate, in line with the ‘like for like or better’ principle. Trading rules are documented in **Annex 11.5.1: Biodiversity Net Gain Assessment Report** and will be confirmed in the final BNG calculations post-energisation.

5.5. On-site Benefits

- 5.5.1. Allowing permanent corridors through conifer plantations to regenerate into scrub or heath delivers notable ecological gains, including increased edge habitat with greater structural and functional diversity, and therefore higher species diversity. This approach - guided by the principles contained within **Volume 5, Appendix 9.6: Outline Landscape Mitigation Design Guide** - may also contribute to wider environmental benefits, including improved visual character in line with local landscape context.

5.6. Off-site Requirements

- 5.6.1. Certain large-scale enhancements - such as native woodland establishment or heathland restoration - will require to extend beyond the physical limits of the Proposed Development. In line with the approach set out in the SSEN Transmission Off-Site BNG Strategy (see **Annex 11.5.3**), off-site enhancements will be developed in partnership with local stakeholders and targeted to reinforce existing ecological networks and local priority habitats. This strategy supports project success, ensures long-term stewardship, and enables delivery of the additional units required to meet the 10% BNG objective.

5.7. Alignment with Policy and Commitments

- 5.7.1. The on- and off-site enhancements are designed to meet the following policy objectives and commitments:
- NPF4 requirements for national or major developments to enhance biodiversity;
 - LDP policies across Aberdeenshire and Angus, especially regarding LNCS sites and protected species; and
 - SSEN Transmission’s internal commitment to deliver 10% BNG and leave a lasting positive effects for biodiversity.

5.8. Next Steps

- 5.8.1. Following consent, the principles of this Outline BEP will be applied, in conjunction with **Volume 5, Appendix 3.3: Outline Site Restoration Plan** and **Volume 5, Appendix 9.6: Outline Landscape Mitigation Design Guide**, through the detailed design and construction of the Proposed Development. Detailed landowner agreements and partnerships will be secured, and habitat management and biodiversity enhancement proposals (including site management plans) will be developed and finalised for both on-site habitat restoration and creation (where possible) and off-site biodiversity enhancement projects.
- 5.8.2. The actions undertaken and commitments secured to deliver biodiversity enhancement will be captured in a final detailed Biodiversity Enhancement Plan, to be produced pre-energisation and upon agreement with local partners and landowners. This will accurately capture the post-development status of the Proposed Development once constructed, including confirmed locations of habitat losses and modification, as well as the measures implemented to deliver habitat restoration, creation and enhancement. As-built habitat data and confirmed on- and off-site biodiversity enhancement delivery actions will be used to finalise the BNG calculations, ensuring the 10% target is achieved.
- 5.8.3. Long term monitoring will form part of the final detailed Biodiversity Enhancement Plan to verify outcomes, with contingency measures prepared to address known potential risks, such as delayed landowner permissions, or poor rates of seed germination or sapling success.

5.8.4. Management and monitoring arrangements will be confirmed and agreed with the consenting authority pre-energisation, but are anticipated to include the following:

- Checks will be carried out to assess early establishment of new hedgerows, treelines and scrub, and measures will be implemented to replace failures within plantings.
- Woodland planting will be assessed with regards to establishment success of young trees, with replacement planting implemented where necessary. Woodland plots will be subject to an appropriate regime of -up checks, to assess the requirement for further woodland management measures.
- Should monitoring reveal substantial failures, replanting, adaptive management, or supplemental off-site measures will be implemented promptly, to ensure the Proposed Development remains on track to deliver 10% BNG.

5.8.5. This approach to habitat management and monitoring ensures that biodiversity enhancements are successful and sustained in the long-term, and that the trajectory of habitat establishment and condition remains aligned with the Applicant's commitment to leaving the environment in a demonstrably better state.

6. ANNEX 11.5.1 BIODIVERSITY NET GAIN ASSESSMENT REPORT

6.1. Executive Summary

- 6.1.1. This Annex sets out the results of the Biodiversity Net Gain (BNG) calculations and the approach to delivering on SSEN Transmission's BNG commitments for the Project.
- 6.1.2. It details the BNG assessment undertaken for the Proposed Development.
- 6.1.3. This Annex includes:
- A calculation of baseline Biodiversity Units (BU) for the Proposed Development following the guidance outlined within SSEN Transmission's Biodiversity Net Gain Toolkit User Guide¹³;
 - A prediction of the post development on-site BU, based on habitat change assumptions outlined in **Volume 5, Appendix 11.5: Outline Biodiversity Enhancement Plan, Assumptions and Parameters** section; and
 - A qualitative assessment against the Biodiversity Net Gain Good Practice Principles
- 6.1.4. In Aberdeenshire, the report found that the baseline biodiversity units was 970.20 BU and 44.88 LU (H), while the post development BNG was 642.44 BU and 15.81 LU (H). Overall the Proposed Development will result in a -33.78% decrease in on-site biodiversity of area-based habitats (equivalent to -327.76 BU) and -64.77% decrease of linear habitats (equivalent to -29.07 LU (H)); therefore, off-site compensation is required to ensure the Proposed Development has an overall 10% net gain in biodiversity.
- 6.1.5. In Angus, the report found that the baseline was 483.28 BU and 43.68 LU (H), while the post development was 279.21 BU and 14.16 LU (H). Overall the Proposed Development will result in a -42.23% decrease in on-site biodiversity of area-based habitats (equivalent to -204.07 BU) and -67.59% decrease of linear habitats (equivalent to -29.52 LU (H)); therefore, off-site compensation is required to ensure the Proposed Development has an overall 10% net gain in biodiversity.
- 6.1.6. Irreplaceable Habitats are habitats which are technically very difficult or impossible to restore, recreate, or replace once destroyed. SSEN Transmission consider Irreplaceable Habitats within their network area to be ancient woodland (categories 1a & 2a of the Ancient Woodland Inventory (AWI)), individual ancient or veteran trees, and blanket bog or raised bog in Good or Moderate condition. Any loss or deterioration of an Irreplaceable Habitat will be recorded by area (hectares) outwith the Toolkit to allow for bespoke compensation. This project does not cause a loss or a deterioration of any Irreplaceable Habitats.

6.2. Introduction

Background of the Report

- 6.2.1. Scottish and Southern Electricity Networks Transmission (SSEN Transmission), operating under licence held by Scottish Hydro Electric Transmission plc, to operate and develop the high voltage electricity transmission system in the north of Scotland and remote islands, commissioned LUC to undertake a Biodiversity Net Gain (BNG) assessment for the Kintore to Tealing 400 kV OHL (hereafter referred to as "the Proposed Development"), using the SSEN Transmission Biodiversity Project Toolkit Version 3.0 ('the Toolkit').
- 6.2.2. Consent for the Proposed Development is sought from Scottish Ministers under Section 37 of the Electricity Act 1989.
- 6.2.3. Full background information, site description and context of the Proposed Development are provided in the EIAR (see **Volume 1, Chapter 2: Established Need for the Proposed Development** and **Volume 2, Chapter 11: Ecology**), and context on the BNG assessment is set out in **Volume 5, Appendix 11.5: Outline Biodiversity Enhancement Plan**. Details on how this assessment integrates with the overall project design and the Ecological Impact Assessment (EclA) are set out in **Volume 2, Chapter 11: Ecology** and supporting appendices (**Volume 5**) of the EIAR.

Scope of the study

- 6.2.4. This report sets out the results of the BNG assessment and the approach to delivering on SSEN Transmission's BNG commitments for the Project. This report identifies the baseline biodiversity measured in Biodiversity Units (BU), to achieve positive effects for biodiversity. Further details on mitigation, compensation, and restoration measures can be found in **Volume 2, Chapter 11: Ecology** of the EIAR.

SSEN Transmission BNG Commitments

- 6.2.5. 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 commitments within its Sustainability Strategy² to deliver 10% biodiversity net gain and leave a positive legacy for nature on all projects gaining consent. **Volume 2, Chapter 11: Ecology** of the EIAR describes how these commitments integrate with national and local planning policy, and how BNG requirements align with other environmental assessments.

Legislation and Planning Policy

- 6.2.6. Relevant legislation and policy, including the *Nature Conservation (Scotland) Act 2004* (as amended) and National Planning Framework 4 (NPF4), are discussed in detail in **Volume 5, Appendix 11.1: Desk Study and Legal/Policy Context** of the EIAR.
- 6.2.7. The mitigation hierarchy, as presented in NPF4, has been applied to avoid impacts to biodiversity, where avoidance is not possible, these impacts have been minimised. This is aligned to the Scottish Government's NPF4 Policy 3 for proposed developments to contribute to biodiversity enhancement:
- Avoid – by removing the impact at the outset;
 - Minimise – by reducing the impact;
 - Restore – by repairing damaged habitats; and
 - Offset – by compensating for the residual impact that remains, with preference to on-site over off-site measure.

6.3. Methodology

Area and Surveys

Desk-Based Assessment

- 6.3.1. A detailed account of all desk-based activities (datasets, planning documents, site designations, etc.) is presented in **Section 2 of Volume 5, Appendix 11.5: Outline Biodiversity Enhancement Plan**. Key datasets reviewed include:
- Scotland's Environment Map (covering Ancient Woodland Inventory, National & Local Site Designations, and the Carbon and Peatland Map);
 - Local Biodiversity Action Plans (eg Tayside and North-East Scotland); and
 - Relevant planning documents (eg Local Development Plans).

Field Assessment

- 6.3.2. Field surveys, including UK Hab Classification, National Vegetation Classification (NVC) for conservation-interest habitats, and protected species surveys, were carried out in 2023/2024 as detailed in **Section 2.2 of Volume 5, Appendix 11.5: Outline Biodiversity Enhancement Plan**. Standard methods were followed, and any habitat translations are described in **Volume 5, Appendix 11.2: Habitat and Vegetation Survey Report**. Specialist ecology teams performed all surveys in line with current guidance.

Evidence of Technical Competence

- 6.3.3. All fieldwork was carried out by suitably qualified ecologists with membership in relevant professional bodies (CIEEM). A statement of expertise is included in **Volume 5, Appendix 5.1: The EIA Team** of the EIAR.

Limitations and Assumptions

Desk-Based

- 6.3.4. The data sources listed in **Section 2.1 of Volume 5, Appendix 11.5: Outline Biodiversity Enhancement Plan** may contain temporal or spatial gaps.
- 6.3.5. There is some overlap between the footprint of the OHL and the Emmock and Hurlie substations. The polygons associated with these overlaps, comprising a total of 6 towers and a limited number of access tracks, have been identified during the processing of baseline data and therefore excluded from the OHL calculations. The affected areas (arable land and Sitka spruce plantation) are of limited ecological value, and therefore any slight over- or underestimation of impacts that may result from excluding the land already assessed within the substation boundaries, is unlikely to notably affect the calculations due to the limited area and habitats of limited value present. This limitation does not materially affect the overall conclusions or robustness of the assessment.

Fieldwork

- 6.3.6. Constraints and Limitations relating to the collection of baseline habitat data are covered in detail in **Appendix 11.2: Habitats and Vegetation Survey Report**. There were no issues that are considered to materially affect the overall conclusions or robustness of the assessment.
- 6.3.7. Watercourses have been assigned default conditions in line with interim guidance (SSE Renewables User Guide for watercourses).
- 6.3.8. Due to ongoing construction works, access was not possible within the construction boundary surrounding the existing Kintore Substation and extension. This affected data collection in relation to a single tower (N1) and the working area of an existing tower that is proposed to be dismantled.

Project

- 6.3.9. Some project components will result in delayed habitat restoration due to the duration of construction impacts. For construction elements such as tower footprints, new stone access tracks, and tower working areas, a delay of up to four years has been applied before habitat restoration, creation or enhancement can commence. Temporary construction elements (e.g. trackway access, scaffolds, and EPZs) are assumed to be in position for one year. Similarly, it is assumed that there will be a 1 year delay to the recovery of habitats within areas of infrastructure felling, as these areas are expected to be subject to works to prepare for the installation of conductors, and a 1 year delay to any replanting within areas of management felling as consultation with landowners will be required and tree planting will require to be undertaken during the appropriate season. These delays are accounted for in the BNG calculations to ensure a precautionary and realistic estimate of habitat recovery timelines.
- 6.3.10. Post-development habitat condition assumptions are summarised in Section 2.3 of the **Volume 5, Appendix 11.5: Outline Biodiversity Enhancement Plan**.
- 6.3.11. Woodland adjacent to the Noran Water is listed as Ancient Woodland (category 2a) on the AWI to the east of the Proposed Development. However, woodland continues upstream along this watercourse, intersecting with the Proposed Development. Field surveys noted that there was no clear distinction in the canopy composition of the woodland that intersects with the Proposed Development relative to the mapped AWI woodland to the east, and old Ordnance Survey maps indicate that woodland has been present along the length of this watercourse since the 1860s. As such, and because the AWI dataset is considered to be a "provisional guide" to the location of ancient woodlands, the woodland that intersects with the Proposed Development is likely to have a similar level of continuity and antiquity as the mapped area of category 2a woodland. This woodland is mapped in **Volume 2, Chapter 8: Forestry** as requiring infrastructure felling to maintain the clearance distances from the conductors of the Proposed

Development. However, the landform at this location comprises steep wooded slopes leading down to the edge of the Noran Water (part of the River South Esk SAC), and the mitigation proposed in **Volume 2, Chapter 11: Ecology** requires sensitive forestry methods to be employed in this location, and a detailed. It is therefore anticipated that the majority of canopy trees would be retained, and methods such as pruning, crown reduction and/or topping will be utilised. Due to the proximity to the SAC, this area of felling will be subject to the production of detailed, site-specific proposals for works, as per the mitigation proposed in **Volume 2, Chapter 11: Ecology**. It is therefore anticipated that the woodland and its associated understorey and ground flora will persist in this location, and that the condition (currently Moderate) will be maintained, and as such this area of felling is excluded from the Toolkit.

6.3.12. There are areas of woodland adjacent to the River South Esk and River Dee which are within the SAC boundaries and which are proposed for felling, notably near Craigeassie in Angus, and adjacent to the Burn of Sheechoch and south of the River Dee in Aberdeenshire. With the exception of a small extent of Upland Birchwoods along the Burn of Sheechoch, these woodlands comprise non-SBL woodland (either broadleaved or mixed). These woodlands are not qualifying features of either SAC (which are designated for aquatic species), although the habitats are recognised as important components of the riparian corridors that support the qualifying features. Habitats within the River South Esk SAC and River Dee SAC boundaries are excluded from the BNG calculations in accordance with SSEN Transmission guidance. SSEN Transmission are actively engaging with NatureScot in relation to forthcoming guidance on how to approach mitigation and compensation of any impacts of developments within designated sites under NPF4. This guidance is expected to be published during the determination period for the project. This collaboration ensures SSEN Transmission's approach remains aligned with the most current regulatory expectations and best practices. The focus for SSEN Transmission is anticipated to be directly addressing the specific pressures and challenges faced by designated sites, not limited to land within their legal boundaries, allowing for a more targeted and meaningful contribution to their long-term resilience and ecological integrity, but will be confirmed following NatureScot publication of guidance.

6.4. Results

Biodiversity Baseline

- 6.4.1. The baseline habitats predicted to be impacted by the Proposed Development are shown in the baseline habitat map (see **Volume 3, Figures 11.2.1 - 11.2.5 Designated Sites within 10 km, 5 km and 2 km of the Proposed Development** of the EIAR) and are summarised here:
- 6.4.2. For Aberdeenshire:
- The total baseline area units are 970.20 BU; and
 - The total baseline linear (hedgerows) units are 44.88 LU (H).
- 6.4.3. For Angus:
- The total baseline area units are 483.28 BU; and
 - The total baseline linear (hedgerows) units are 43.68 LU (H).
- 6.4.4. Watercourse crossings are proposed in both Angus and Aberdeenshire; however, the extent and condition of watercourses are not affected in BNG terms and watercourses are therefore considered to be retained. As such, watercourses have been excluded from the calculations.
- 6.4.5. Baseline habitats have been summarised in **Table 11.5.1.1: Summary of Baseline Habitats Impacted by Area (ha) or Length (km)** below.

Table 11.5.1.1: Summary of Baseline Habitats Impacted by Area (ha) or Length (km)

Habitat Type (UKHab)	Condition	Total Habitat Area (ha) or Length (km)	Biodiversity Units (BU) or Linear Units (LU)
Aberdeenshire			
Cropland - Cereal Crops	N/A - Agriculture	66.74	133.50
Cropland - Horticulture	N/A - Agriculture	1.13	2.26
Cropland - Non-cereal crops	N/A - Agriculture	17.41	34.84
Cropland - Temporary grass and clover leys	N/A - Agriculture	11.64	23.28
Grassland - Bracken	N/A - Agriculture	0.35	1.40
Grassland - Lowland dry acid grassland	Moderate	0.02	0.30
Grassland - Modified grassland	Good	0.00	86.76
	Fairly Good	0.00	
	Fairly Poor	4.82	
	Poor	36.14	
Grassland - Other lowland acid grassland	Moderate	0.07	0.77
	Fairly Poor	0.01	
	Poor	0.23	
Grassland - Other neutral grassland	Fairly Good	0.01	80.75
	Moderate	3.92	
	Poor	1.26	
	Fairly Poor	2.06	
Grassland - Upland acid grassland	Poor	0.44	2.97
Heathland and shrub - Gorse scrub	Fairly Poor	0.46	4.02
	Poor	1.32	
Heathland and shrub - Mixed scrub	Moderate	0.05	0.56
	Fairly Poor	0.02	
	Poor	0.15	
Heathland and shrub - Upland Heathland	Moderate	1.77	60.45
	Fairly Poor	0.33	
	Poor	3.93	
Rivers and Lakes - Natural lake or pond	Poor	0.26	1.72
Wetland - Lowland fens	Moderate	0.03	0.46
Wetland - Purple moor grass and rush pastures	Moderate	0.26	10.61
	Fairly Poor	0.54	
	Poor	0.08	
Woodland and forest - Felled	Poor	29.04	59.92
Woodland and forest - Lowland mixed deciduous woodland	Moderate	0.00	0.00
Woodland and forest - Other coniferous woodland	Fairly Poor	3.69	197.73
	Poor	89.41	
Woodland and forest - Other Scots Pine woodland	Moderate	12.77	123.61
	Fairly Poor	2.48	
	Poor	0.04	

Habitat Type (UKHab)	Condition	Total Habitat Area (ha) or Length (km)	Biodiversity Units (BU) or Linear Units (LU)
Woodland and forest - Other woodland; broadleaved	Moderate	3.25	83.38
	Fairly Poor	7.78	
	Poor	1.17	
Woodland and forest - Other woodland; mixed	Moderate	2.51	46.44
	Fairly Poor	3.20	
	Poor	0.60	
Woodland and forest - Upland birchwoods	Moderate	0.16	1.47
Woodland and forest - Wet woodland	Fairly Good	0.15	13.00
	Moderate	0.58	
	Fairly Poor	0.13	
Hedge Ornamental Non Native	Poor	0.24	0.24
Line of Trees	Fairly Poor	1.27	8.38
	Poor	2.30	
Line of Trees - Associated with bank or ditch	Moderate	1.29	5.74
	Poor	0.29	
Line of Trees (Ecologically Valuable)	Moderate	0.82	7.72
	Poor	0.29	
Line of Trees (Ecologically Valuable) - with Bank or Ditch	Moderate	0.33	2.64
Native Hedgerow	Moderate	0.67	8.18
	Poor	2.74	
Native Hedgerow with trees	Moderate	0.75	8.76
	Fairly Poor	1.92	
Native Species Rich Hedgerow	Moderate	0.36	3.22
Angus			
Cropland - Arable field margins	N/A - Agriculture	0.00	0.00
Cropland - Cereal Crops	N/A - Agriculture	62.87	125.81
Cropland - Non-cereal crops	N/A - Agriculture	10.24	20.44
Cropland - Temporary grass and clover leys	N/A - Agriculture	7.58	15.14
Grassland - Bracken	N/A - Agriculture	3.89	15.56
Grassland - Lowland dry acid grassland	Fairly Poor	0.01	0.11
Grassland - Modified grassland	Poor	16.73	33.46
	Moderate	1.65	
	Fairly Poor	0.07	
Grassland - Other neutral grassland	Poor	2.73	40.91
	Moderate	0.00	
	Poor	5.39	
Grassland - Upland acid grassland	Moderate	0.00	35.51
	Poor	5.39	
Heathland and shrub - Gorse scrub	Poor	0.07	0.14
Heathland and shrub - Lowland Heathland	Moderate	0.50	7.59
Heathland and shrub - Mixed scrub	Fairly Poor	0.29	2.39
	Poor	0.76	

Habitat Type (UKHab)	Condition	Total Habitat Area (ha) or Length (km)	Biodiversity Units (BU) or Linear Units (LU)
Heathland and shrub - Upland Heathland	Poor	9.97	75.60
Rivers and Lakes - Natural lake or pond	Poor	0.06	0.33
Wetland - Lowland fens	Moderate	0.01	0.15
Woodland and forest - Felled	Poor	2.40	5.34
Woodland and forest - Lowland mixed deciduous woodland	Moderate	0.09	0.83
Woodland and forest - Other coniferous woodland	Poor	1.35	2.70
Woodland and forest - Other Scots Pine woodland	Moderate	0.09	1.57
	Poor	0.20	
Woodland and forest - Other woodland; broadleaved	Moderate	2.26	32.58
	Fairly Poor	1.12	
	Poor	1.32	
Woodland and forest - Other woodland; mixed	Moderate	0.92	16.26
	Fairly Poor	1.36	
	Poor	0.02	
Woodland and forest - Upland birchwoods	Fairly Good	0.15	34.845
	Moderate	3.01	
	Fairly Poor	0.79	
Woodland and forest - Wet woodland	Good	0.49	16.02
	Moderate	0.16	
	Poor	0.32	
Hedge Ornamental Non Native	Poor	1.57	1.56
Line of Trees	Moderate	0.62	9.49
	Fairly Poor	1.89	
	Poor	0.66	
Line of Trees - Associated with bank or ditch	Fairly Poor	0.45	4.27
	Moderate	0.73	
Line of Trees (Ecologically Valuable)	Moderate	1.26	14.06
	Fairly Poor	0.49	
	Poor	0.26	
Native Hedgerow	Moderate	0.08	8.38
	Fairly Poor	1.98	
	Poor	1.06	
Native Hedgerow with trees	Moderate	0.49	3.16
	Poor	0.60	
Native Species Rich Hedgerow	Moderate	0.15	2.76
	Fairly Poor	0.20	

Temporary Impacts

- 6.4.6. Where a habitat is disturbed for a short period of time, it may be considered temporary loss and is treated as 'retained' in terms of the SSEN Transmission Biodiversity Toolkit. To be considered as a temporary impact, the habitat must be restored in full to its baseline condition (or better) within two years of the initial impact. Where the habitat cannot be fully restored to its baseline value within two years from the date of impact this is treated as a loss of the baseline habitat, and the reinstatement of the baseline habitat is treated as a creation of that habitat.
- 6.4.7. The following construction elements are anticipated to last up to 1 year:
- Locations where temporary access is provided through use of 'trackways' with a width of 5 m or less;
 - Conductor pulling areas; and
 - Locations where scaffolding is required to support temporary protection of roads and watercourses during conductor stringing.
- 6.4.8. Within the Proposed Development boundary, only **Cropland** and **Modified Grassland** in **Poor condition** are habitat types that could potentially revert to their original condition within two years. As such, where these habitat types intersect with the above noted construction works, the impacts are considered to be temporary in BNG terms and are excluded from the calculations.
- 6.4.9. The temporary impacts relating to the Proposed Development have been identified below in **Table 11.5.1.2: Summary of Temporary Habitat Loss**.

Table 11.5.1.2: Summary of Temporary Habitat Loss

Habitat Type (UKHab)	Condition ²⁶	Total Habitat Area (ha) or Length (km)
Aberdeenshire		
Cropland - Cereal Crops	N/A - Agriculture	57.41
Cropland - Horticulture	N/A - Agriculture	<0.01
Cropland - Non-cereal crops	N/A - Agriculture	9.18
Cropland - Temporary grass and clover leys	N/A - Agriculture	6.57
Grassland - Modified grassland	Poor	20.48
Angus		
Cropland - Cereal Crops	N/A - Agriculture	34.69
Cropland - Non-cereal crops	N/A - Agriculture	2.28
Cropland - Temporary grass and clover leys	N/A - Agriculture	4.33
Grassland - Modified grassland	Poor	13.78

Forecast On-site Post-Development Biodiversity Units

- 6.4.10. The post-development BU for Aberdeenshire have been summarised here, with further details provided in **Table 11.5.1.3: Summary of the Post-Development Habitats On-Site**:
- The total post-development area units are 642.44 BU; and
 - The total post-development linear (hedgerows) units are 15.81 LU (H).
- 6.4.11. The post-development BU for Angus have been summarised here, with further details provided in **Table 11.5.1.3: Summary of the Post-Development Habitats On-Site**:
- The total post-development area units are 279.21 BU and
 - The total post-development linear (hedgerows) units are 14.16 LU (H).

Table 11.5.1.3: Summary of the Post-Development Habitats On-Site

Habitat Type (UKHab)	Condition	Total Habitat Area (ha) or Length (km)	Biodiversity Units (BU) or Linear Units (LU)
Aberdeenshire			
Cropland - Cereal Crops	N/A - Agriculture	63.53	106.35
Cropland - Horticulture	N/A - Agriculture	1.05	1.76
Cropland - Non-cereal crops	N/A - Agriculture	16.31	27.32
Cropland - Temporary grass and clover leys	N/A - Agriculture	10.79	18.06
Grassland - Bracken	N/A - Agriculture	0.26	0.87
Grassland - Lowland dry acid grassland	Moderate	0.02	0.04
Grassland - Modified grassland	Poor	45.66	78.79
Grassland - Other lowland acid grassland	Moderate	0.05	0.51
	Poor	0.23	
Grassland - Other neutral grassland	Moderate	1.16	41.17
	Fairly Poor	0.06	
	Poor	5.25	
Grassland - Upland acid grassland	Poor	0.01	0.06
Heathland and shrub - Gorse scrub	Fairly Poor	0.39	47.79
	Poor	25.30	
Heathland and shrub - Mixed scrub	Moderate	0.01	0.07
	Poor	0.02	
Heathland and shrub - Upland Heathland	Poor	52.66	179.35
Rivers and Lakes - Natural lake or pond	Poor	0.10	0.62
Urban - Developed land; sealed surface	N/A - No biodiversity value	16.92	0.00
Wetland - Lowland fens	Poor	0.03	0.05
Wetland - Purple moor grass and rush pastures	Poor	0.88	1.35
Woodland and forest - Other coniferous woodland	Poor	53.27	89.84
Woodland and forest - Other Scot's Pine woodland	Poor	8.82	16.13
Woodland and forest - Other woodland; broadleaved	Moderate	0.01	32.31
Hedge Ornamental Non Native	Poor	0.24	0.20
Line of Trees	Poor	1.98	3.50
Line of Trees - Associated with bank or ditch	Poor	0.29	0.49

Habitat Type (UKHab)	Condition	Total Habitat Area (ha) or Length (km)	Biodiversity Units (BU) or Linear Units (LU)
Line of Trees (Ecologically Valuable)	Poor	0.54	1.88
Line of Trees (Ecologically Valuable) - with Bank or Ditch	Poor	0.33	1.10
Native Hedgerow	Poor	2.52	4.43
Native Hedgerow with trees	Poor	1.60	2.79
Native Species Rich Hedgerow	Poor	0.36	1.43
Angus			
Cropland - Cereal Crops	N/A - Agriculture	58.42	97.80
Cropland - Non-cereal crops	N/A - Agriculture	9.87	16.51
Cropland - Temporary grass and clover leys	N/A - Agriculture	7.16	11.97
Grassland - Bracken	N/A - Agriculture	3.77	13.25
Grassland - Lowland dry acid grassland	Poor	0.01	0.02
Grassland - Modified grassland	Poor	20.69	36.13
Grassland - Other neutral grassland	Moderate	0.22	23.00
	Fairly Poor	0.01	
	Poor	3.77	
Grassland - Upland acid grassland	Moderate	0.00	28.30
	Poor	4.79	
Heathland and shrub - Gorse scrub	Poor	3.75	6.88
Heathland and shrub - Mixed scrub	Fairly Poor	0.29	1.85
	Poor	0.70	
Heathland and shrub - Upland Heathland	Poor	9.10	29.03
Rivers and Lakes - Natural lake or pond	Poor	0.06	0.31
Urban - Developed land; sealed surface	N/A - No biodiversity value	11.92	0.00
Woodland and forest - Other coniferous woodland	Poor	0.12	0.19
Woodland and forest - Other Scot's Pine woodland	Poor	0.16	0.27
Woodland and forest - Other woodland; broadleaved	Moderate	0.01	13.72
	Poor	4.04	
Hedge Ornamental Non Native	Poor	1.20	1.08
Line of Trees	Poor	1.42	2.52

Habitat Type (UKHab)	Condition	Total Habitat Area (ha) or Length (km)	Biodiversity Units (BU) or Linear Units (LU)
Line of Trees - Associated with bank or ditch	Poor	1.18	1.98
Line of Trees (Ecologically Valuable)	Poor	0.75	2.55
Native Hedgerow	Poor	2.18	3.78
Native Hedgerow with trees	Poor	0.49	0.82
Native Species Rich Hedgerow	Poor	0.34	1.42

6.4.12. The on-site habitat restoration described in **Section 2.3 of Volume 5, Appendix 11.5: Outline Biodiversity Enhancement Plan** has not yet been fully quantified in these preliminary BNG calculations as discussions with landowners are ongoing; once these proposals and calculations are finalised, it will be determined whether on-site measures alone can achieve the 10% net gain target, especially in relation to the wooded areas.

6.4.13. Given current assumptions, it is expected that off-site habitat creation or enhancement will be required. SSEN Transmission is actively assessing a pipeline of off-site projects, working with landowners and other partners to identify suitable areas for habitat compensation. Once these off-site opportunities are confirmed, site-specific BNG calculations will be undertaken to ensure the 10% target is met, and SSEN Transmission's commitment to leaving the natural environment in a demonstrably better state is achieved.

Forecast Change in High Distinctiveness Habitats

6.4.14. High Distinctiveness habitats hold particularly important ecological value and often cannot be replaced with lower distinctiveness habitats under "like-for-like or better" rules. Therefore, they are presented separately to highlight any specific losses or gains and to ensure they are assessed and compensated appropriately, reflecting their higher ecological priority. High Distinctiveness habitats are recorded in the table below outlining the net change in BU.

Table 11.5.1.4: Summary of High Distinctiveness Habitats (Areas and BUs)

High Distinctiveness Habitats	Baseline Area (ha)/Length (km)	Baseline BU	Post-development BU	% Change in BU
Aberdeenshire				
Grassland - Lowland dry acid grassland	0.02	0.30	0.04	-85.98
Grassland - Other neutral grassland	7.25	80.75	41.20	-48.98
Grassland - Upland acid grassland	0.44	2.97	0.06	-97.93
Heathland and shrub - Upland Heathland	6.03	60.45	14.93	-75.30
Rivers and Lakes - Natural lake or pond	0.26	1.72	0.62	-63.87
Wetland - Lowland fens	0.03	0.46	0.05	-88.85
Wetland - Purple moor grass and rush pastures	0.88	10.63	1.35	-87.29
Woodland and forest - Wet woodland	0.86	12.98	1.79	-86.23
Angus				
Grassland - Lowland dry acid grassland	0.01	0.11	0.02	-85.13

High Distinctiveness Habitats	Baseline Area (ha)/Length (km)	Baseline BU	Post-development BU	% Change in BU
Grassland - Other neutral grassland	4.45	40.91	23.00	-43.78
Grassland - Upland acid grassland	5.39	35.51	28.30	-20.31
Heathland and shrub - Lowland Heathland	0.50	7.59	0.00	-100.00
Heathland and shrub - Upland Heathland	9.97	75.60	29.03	-61.60
Rivers and Lakes - Natural lake or pond	0.06	0.33	0.31	-6.90
Wetland - Lowland fens	0.01	0.15	0.00	-100.00
Woodland and forest - Wet woodland	0.97	16.01	2.03	-87.35

Off-Site BNG

6.4.15. Off-site habitat creation and enhancement is only required when all options for on-site BNG requirements have been considered. If on-site opportunities are not sufficient to deliver 10% BNG, off-site habitat creation and enhancement will be undertaken but kept, wherever possible, within the locale of the Proposed Development. Compensation is targeted at delivering biodiversity net gains that are ecologically equivalent in type and condition to the habitats lost, following the 'like for like or better' principle. The off-site habitat will be assessed using the Toolkit to take into consideration the existing biodiversity present and aims to maximise benefits for biodiversity in accordance with local and national strategies.

6.4.16. After accounting for units associated with the post-development on-site habitats, the units required from off-site habitat creation in order to achieve 10% BNG are:

- Aberdeenshire:
 - Area-based habitats: 424.78 BU;
 - Linear habitats: 33.56 LU (H);
- Angus:
 - Area-based habitats: 252.40 BU; and
 - Linear habitats: 33.89 LU (H)

6.4.17. A pipeline of restoration and enhancement projects with local stakeholders is currently being evaluated. Once these off-site opportunities are confirmed, site-specific BNG calculations will be undertaken to ensure the 10% target is met for all affected habitats, in line with the relevant trading rules and the Applicant's commitment to leaving the natural environment in a demonstrably better state.

Additional Ecological Benefits

6.4.18. Opportunities will be identified to deliver additional ecological benefits as a result of habitat creation and enhancement on-site and off-site.

6.4.19. In addition to numerical BNG gains, future detailed assessments will consider broader ecological and community benefits. This will include consideration of opportunities to contribute towards national biodiversity targets, alignment with local plans and strategies, integration of habitats and/or collaboration with adjacent land managers, and potential to deliver community benefits.

6.4.20. As part of this process, appropriate implementation, maintenance and monitoring procedures will be developed and agreed with stakeholders for embedding into the final detailed Biodiversity Enhancement Plan. These measures will ensure that habitat enhancements remain sustainable in the long-term.

6.5. Summary

- 6.5.1. This section summarises the baseline units associated with habitats of the Proposed Development, the units required to achieve a 10% net gain, the predicted post-development units, and the resulting changes for both area and linear habitats in Aberdeenshire and Angus. The final column shows the additional units that must be delivered off-site to meet the 10% BNG target for each area. The results of the on-site BNG assessment are summarised in **Table 11.5.1.5: Summary of the On-Site Biodiversity Units**.

Table 11.5.1.5: Summary of the On-Site Biodiversity Units

	Baseline Units	Units Needed to Meet 10% Gain	Post Development Units	Difference Change in Units	Difference Change in Units (%)	Units Required Off-site
Aberdeenshire						
Area	970.20	1067.22	642.44	-327.76	-33.78	424.78
Linear (H)	44.88	49.37	15.81	-29.07	-64.77	33.56
Angus						
Area	483.28	531.61	279.21	-204.07	-42.23	252.40
Linear (H)	43.68	48.05	14.16	-29.52	-67.59	33.89

Biodiversity Outcomes

- 6.5.2. The Proposed Development will deliver biodiversity enhancement as required by NPF4 Policy 3, and in accordance with the principles presented in **Volume 5, Appendix 11.5: Outline Biodiversity Enhancement Plan**. The additional biodiversity outcomes delivered by the Proposed Development will be confirmed in the final detailed Biodiversity Enhancement Plan and associated BNG reporting. A summary of how the Proposed Development has applied good practice principles for BNG is provided in Appendix C.

APPENDIX A: APPROACH TO BIODIVERSITY NET GAIN

- 6.1.1 A full BNG Assessment was undertaken for the Proposed Development to quantify the change in biodiversity. The BNG assessment was completed within the Toolkit following the SSEN Transmission Biodiversity Net Gain Toolkit User Guide³¹. This method has been revised to align with Natural England Biodiversity Metric 3.1³², adapted to reflect the requirements of Scottish habitats.
- 6.1.2 A habitat survey of the Proposed Development was undertaken between June to October 2023, and April to October 2024³³. The survey was based on the methods described within the UK Habitat Classification User Manual³⁴.
- 6.1.3 The baseline multiplication uses the following characteristics of the habitats, as shown below in **Plate A1**:
- Habitat area (hectares) or length (kilometres);
 - Distinctiveness;
 - Condition;
 - Connectivity; and
 - Strategic significance.

Plate A1: Pre-intervention biodiversity calculation



- 6.1.4 Habitat Distinctiveness for the habitats relevant to the Proposed Development were assigned as per **Appendix C: Good Practice Principles for Biodiversity Net Gain**, and scored as:
- High = 6;
 - Medium = 4;
 - Low = 2;
 - Very low LU (H) = 1³⁵; and
 - Very low = 0 [except for Hedge Ornamental Non-Native which has a score of 1, aligning with Statutory Biodiversity Metric].
- 6.1.5 Each habitat parcel recorded was assigned a condition score (Good, Moderate, Poor, or N/A) determined by the Natural England Biodiversity Metric 3.1 Habitat Condition Assessment sheets³⁶ which have been adopted into the Toolkit's methodology.
- 6.1.6 The following scores were assigned to conditions:

³¹ SSEN Transmission, 2023. TG-NET-ENV-526 Rev 2 - Biodiversity Net Gain Toolkit User Guide.

³² Natural England, 2022. Biodiversity Metric 3.1. [Online] Available at: <https://publications.naturalengland.org.uk/publication/5850908674228224>

³³ Some limited additional survey was undertaken in December 2024 and January 2025; this additional survey targeted some minor data gaps in areas dominated by farmland with only limited extents of potentially sensitive habitats.

³⁴ UKHab Ltd, 2023. UK Habitat Classification Version 2.0. [Online] Available at: <https://ukhab.org/>.

³⁵ In alignment with Statutory Biodiversity Distinctiveness which has a Distinctiveness score of 1 for Very Low (hedgerow module). This score only applies to Hedge Ornamental Non Native type in both methods.

³⁶ Natural England, 2022. Biodiversity Metric 3.1 Habitat Condition Sheets with Instructions. [Online] Available at: <https://publications.naturalengland.org.uk/file/5450039124819968>

- Good = 3;
- Fairly Good = 2.5;
- Moderate = 2;
- Fairly Poor = 1.5;
- Poor = 1;
- N/A – Agriculture = 1; and
- N/A - No biodiversity value = 0.

6.1.7 The SSEN Transmission User Guide is awaiting the Scottish Biodiversity Metric to propose a watercourse condition assessment. In this interim period, SSEN Transmission has adopted the SSE Renewables User Guide³⁷ approach to watercourse condition assessments. This approach recommends that the condition is related to distinctiveness of the habitat, i.e.:

- High distinctiveness = Good condition;
- Medium distinctiveness = Moderate condition; and
- Low distinctiveness = Poor condition.

6.1.8 The SSEN Transmission User Guide has adopted the Natural England Beta Biodiversity Metric 2.0 method of assigning connectivity. The connectivity of a habitat parcel is determined based on the distinctiveness of the habitat. High distinctiveness habitats are assigned with a Moderate connectivity multiplier, whereas Moderate and Low distinctiveness habitats are assigned a Low connectivity.

6.1.9 The following scores were assigned for connectivity:

- High = 1.15;
- Moderate = 1.1; and
- Low = 1.

6.1.10 Strategic significance scores have been assigned as follows, based on habitats identified to be of local importance:

- High = Formally identified in local strategy, plan or policy = 1.15;
- Medium = Location ecologically desirable but not identified in a local strategy, plan or policy = 1.1; and
- Low = Not identified in a local strategy, plan or policy or no strategy or plan is in place in the area = 1.

Plate A2: Post-intervention biodiversity calculation

POST-intervention biodiversity calculation (for newly created habitat)

Size of habitat parcel	x	Distinctiveness	x	Condition	x	Strategic location	x	Connectivity	x	Difficulty	x	Time to target condition	x	Spatial Risk	=	Biodiversity units
10 (ha)	x	6 (high)	x	3 (good)	x	11.5 (high)	x	1.15 (high)	x	0.7 (med)	x	0.8 (5 yrs)	x	0.75	=	178 units

=

The net effect of an intervention (or a series of interventions) on biodiversity is calculated as follows:

POST units	-	PRE units	=	Outcome
178 units	-	238 units	=	- 60 units

 Habitat parcel	 Risk factor
 Measure of biodiversity quality	 Value in biodiversity units

³⁷ SSE Renewables. 2024. SSER Biodiversity Net Gain Toolkit User Guide V2.2 [Online] Available at: https://www.sserenewables.com/media/iz2jbehn/sser-bng-toolkit-user-guide_v2-2.pdf

6.1.11 The creation and enhancement of habitats has a delivery risk multiplier assigned to each habitat to represent the difficulty in creating or restoring that habitat. The delivery risk multipliers are taken from the Biodiversity Metric 3.1 Technical Supplement:

- Very High = 0.1;
- High = 0.33;
- Medium = 0.67; and
- Low = 1.

6.1.12 Time to target condition scores were assigned based on the Biodiversity Metric 3.1 Technical Supplement³⁸, which provides tables with estimated time to target for habitat creating and enhancement, as detailed below in Table A1. The delay to creation and/or enhancement is added on to the time to target found in the Technical Supplement to account for the Proposed Development timeline.

Table A1: Time To Target Condition multiplier

Time to Target Condition			
Time (years)	Multiplier	Time (years)	Multiplier
0	1	17	0.546
1	0.965	18	0.527
2	0.931	19	0.508
3	0.899	20	0.490
4	0.867	21	0.473
5	0.837	22	0.457
6	0.808	23	0.441
7	0.779	24	0.425
8	0.752	25	0.410
9	0.726	26	0.396
10	0.700	27	0.382
11	0.676	28	0.369
12	0.652	29	0.356
13	0.629	30	0.343
14	0.607	31	0.331
15	0.586	32+	0.320
16	0.566		

6.1.13 Off-site habitat creation and enhancement is only required when all options for on-site BNG requirements have been considered. If no on-site opportunities can be identified, off-site habitat creation and enhancement will be undertaken. The Toolkit has a spatial risk multiplier to encourage off-site compensation work to occur in the locale of the Proposed Development, with reference to Local Authority (LA) boundary. The Spatial Risk Categories are displayed below:

³⁸ Natural England. 2022. Biodiversity Metric 3.1 Technical Supplement. [Online] Available at: <https://publications.naturalengland.org.uk/publication/5850908674228224>

- Habitat provides compensation within the local LA area = 1;
- Habitat provides compensation outwith the local LA but within neighbouring LPA = 0.75; and
- Habitat provides compensation outwith the local LA and neighbouring LPAs = 0.5.

6.1.14 The same Toolkit was used to calculate the net biodiversity change between the baseline habitats and the post-development habitats.

6.1.15 An impact to a habitat which is reversible and can return to baseline extent and ecological condition or better within two years of the initial impact, can be considered a temporary impact. Temporary impacts have not been included in the Toolkit calculations as there are no permanent adverse impacts.

6.1.16 Retained habitats are also excluded from the Toolkit as there is no recordable impact.

6.1.17 The Toolkit assesses both the area and linear habitat separately within the same Toolkit. The Toolkit produces a Biodiversity Unit value for the three categories of habitat type: Area Biodiversity Units (BU), Linear Hedgerow Biodiversity Units (LU H) and Linear Watercourse Biodiversity Units (LU W). These units are not interchangeable.

APPENDIX B: ASSIGNED HABITAT DISTINCTIVENESS

Table B1: Habitat Distinctiveness Assigned in Project Toolkits

Cropland - Arable field margins	Medium	Rivers and Lakes - Natural lake or pond	High
Cropland - Cereal Crops	Low	Woodland and forest - Felled	Low
Cropland - Horticulture	Low	Woodland and forest - Lowland mixed deciduous woodland	Medium
Cropland - Non-cereal crops	Low	Woodland and forest - Other coniferous woodland	Low
Cropland - Temporary grass and clover leys	Low	Woodland and forest - Other Scots Pine woodland	Medium
Grassland - Bracken	Medium	Woodland and forest - Other woodland; broadleaved	Medium
Grassland - Lowland dry acid grassland	High	Woodland and forest - Other woodland; mixed	Medium
Grassland - Modified grassland	Low	Woodland and forest - Upland birchwoods	Medium
Grassland - Other lowland acid grassland	Low	Woodland and forest - Wet woodland	High
Grassland - Other neutral grassland	High	Native Species Rich Hedgerow	Medium
Grassland - Upland acid grassland	High	Native Hedgerow with trees	Low
Heathland and shrub - Gorse scrub	Low	Native Hedgerow	Low
Heathland and shrub - Lowland Heathland	High	Hedge Ornamental Non-Native	Very Low
Heathland and shrub - Mixed scrub	Low	Line of Trees (Ecologically Valuable) - with Bank or Ditch	Medium
Heathland and shrub - Upland Heathland	High	Line of Trees (Ecologically Valuable)	Medium
Wetland - Lowland fens	High	Line of Trees - Associated with bank or ditch	Low
Wetland - Purple moor grass and rush pastures	High	Line of Trees	Low

APPENDIX C: GOOD PRACTICE PRINCIPLES FOR BIODIVERSITY NET GAIN

6.1.18 The Proposed Development has applied the UK good practice principles for BNG³⁹ as detailed in **Table C1: Good Practice Principles for Biodiversity Net Gain**, below.

Table C1: Good Practice Principles for Biodiversity Net Gain

Principle	Summary of Proposed Development actions
Apply the mitigation hierarchy	The route alignment and site layout were designed to avoid sensitive habitats wherever feasible. Minimisation of effects, restoration and compensation measures have been integrated to reduce residual impacts, and off-site BNG will compensate for any remaining losses.
Avoid losing biodiversity that cannot be offset elsewhere	Irreplaceable habitats (e.g. ancient woodland or high-value peatland) have been carefully avoided through route selection and design refinements. No such habitats are impacted, negating the need for bespoke compensation in this instance.
Be inclusive and equitable	Local landowners, community groups, and NGOs were engaged during project development. This ensures long-term stakeholder support for on-site restoration and off-site enhancement projects, with an aim to benefit both wildlife and the surrounding communities.
Address risk	Conservative assumptions were used in BNG calculations to account for uncertainties in restoration success (see Section 2.3 of Volume 5, Appendix 11.5: Outline Biodiversity Enhancement Plan). Contingency measures (e.g. additional off-site habitat creation) have been identified for implementation, should on-site restoration be unable to fully meet the 10% BNG target.
Make a measurable net gain contribution	The SSEN Transmission Biodiversity Toolkit is being used to quantify baseline habitats, likely on-site gains, and any required off-site offsets, ensuring a robust metric-based assessment that targets at least 10% net gain in area units.
Achieve the best outcomes for biodiversity	Habitat selection and design (e.g. converting conifer blocks to scrub/heath) focusses on enhanced ecological value over pure like-for-like replacement, integrating climate resilience and local conservation priorities (e.g. farmland birds, pollinators, and woodland edges).
Be additional	BNG actions exceed standard mitigation requirements and are designed to provide habitat enhancements beyond mere legal compliance, leveraging both on- and off-site improvements.
Create a net gain legacy	Long-term habitat management plans, in conjunction with committed partnerships, will ensure that enhanced and newly created habitats remain viable beyond construction, into operation and beyond, delivering lasting biodiversity improvements across the region.
Optimise sustainability	The Proposed Development aligns with SSEN Transmission's wider sustainability goals and integrates with landscape mitigation measures (see Landscape Mitigation Design Guide), providing both ecological and visual benefits at a landscape scale.
Be transparent	All BNG data, including methodology, assumptions, and final calculations, are disclosed in the EIA and supporting appendices. Ongoing progress will be reported through stakeholder engagements and post-construction monitoring updates.

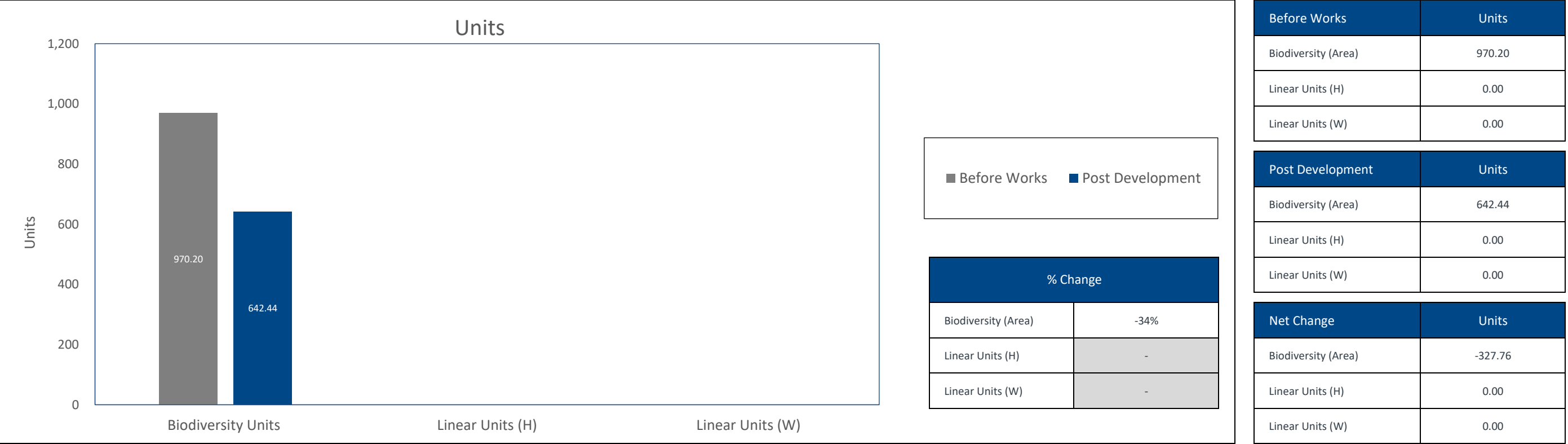
³⁹ CIEEM, CIRIA, IEMA. 2020. C776a. Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide. [Online] Available at: <https://cieem.net/resource/biodiversity-net-gain-good-practice-principles-for-development-a-practical-guide/>

ANNEX 11.5.2: ABERDEENSHIRE AND ANGUS PROJECT TOOLKITS FOR KINTORE TO TEALING 400 KV OHL

ABERDEENSHIRE PROTECTED AREA TOOLKIT

Summary outputs

Review the automatically updated biodiversity unit and linear habitat (hedgerow (H) and water courses (W)) results graphs to help the optioneering process and site selection.

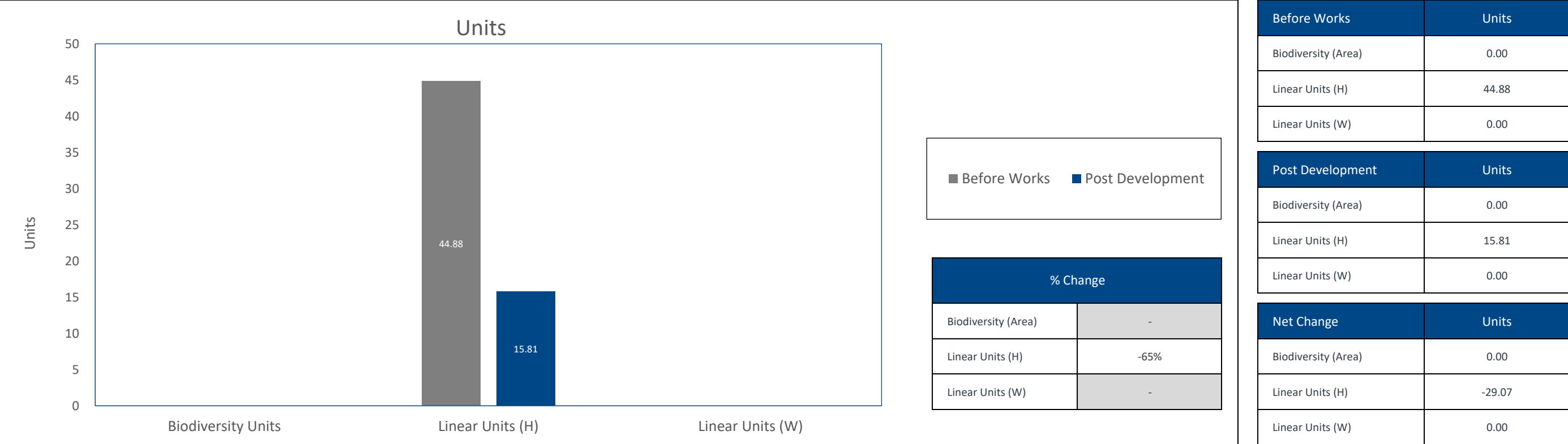


[illegible]

ABERDEENSHIRE UNPROTECTED LINEAR AREA TOOLKIT

Summary outputs

Review the automatically updated biodiversity unit and linear habitat (hedgerow (H) and water courses (W)) results graphs to help the optioneering process and site selection.

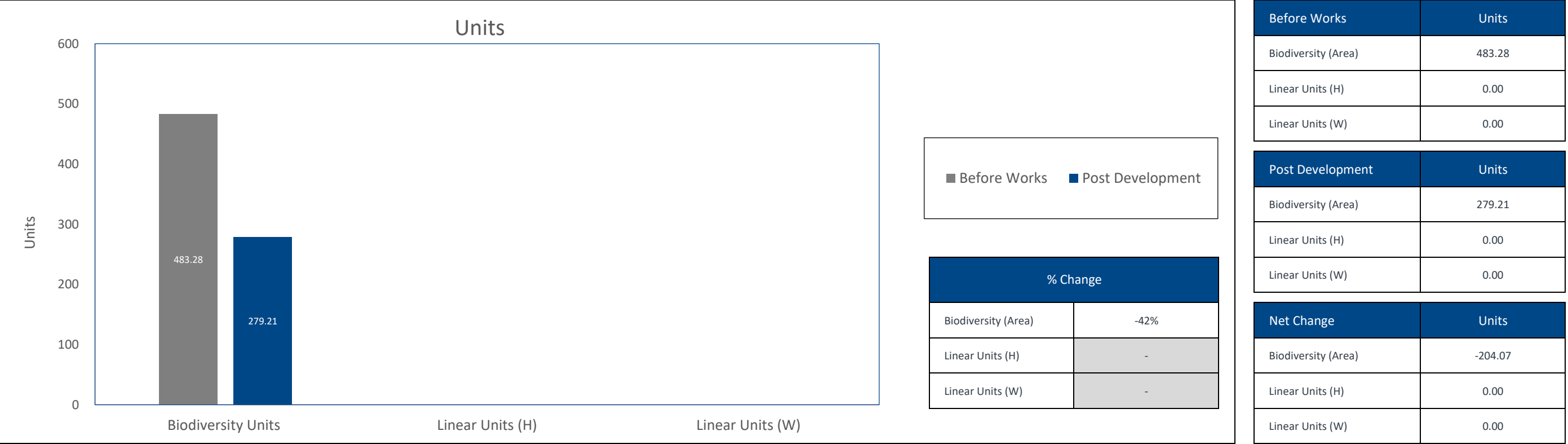


[illegible]

ANGUS PROTECTED AREA TOOLKIT

Summary outputs

Review the automatically updated biodiversity unit and linear habitat (hedgerow (H) and water courses (W)) results graphs to help the optioneering process and site selection.





Biodiversity Unit Calculation

Calculate biodiversity and linear (hedgerow (H) and watercourses (W)) units of your site by: (1) establishing the habitat; (2) identifying the condition, connectivity and strategic significance of that habitat, and; (3) entering the hectares (ha) or linear metres (m).

[illegible]

ANGUS UNPROTECTED LINEAR TOOLKIT

Summary outputs

Review the automatically updated biodiversity unit and linear habitat (hedgerow (H) and water courses (W)) results graphs to help the optioneering process and site selection.



Biodiversity Unit Calculation

[illegible]

ANNEX 11.5.3: SSEN TRANSMISSION'S BIODIVERSITY NET GAIN AND IRREPLACEABLE HABITAT OFF-SITE STRATEGY FOR KINTORE TO TEALING 400 KV OHL

SSEN Transmission's Biodiversity Net Gain and Irreplaceable Habitat Off-Site Strategy for Kintore to Tealing 400 kV OHL



	Name	Title
Author		Nature Delivery Officer
Checked by		Nature Strategy Manager
Approved by		Head of Consents & Environment

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2 Introduction

2.1 Background

2.1.1 Scottish Hydro Electric Transmission plc, operating and known as Scottish and Southern Electricity Networks Transmission ("SSEN Transmission"), own, operate and develop the high voltage electricity transmission system in the north of Scotland and remote islands.

2.1.2 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 commitments within its Sustainability Strategy to deliver 10% biodiversity net gain (BNG) and leave a positive legacy for nature on all projects gaining consent. Where this cannot be delivered on-site, SSEN Transmission must identify off-site opportunities for biodiversity enhancement.

2.1.3 In line with the requirements and guidance of Policy 3 of the Scottish Government's National Planning Framework 4 (2023) (NPF4), developers are obligated to ensure projects leave nature in a 'demonstrably better state than without intervention'¹. This involves adhering to the NPF4 mitigation hierarchy:

- **Avoid:** Remove impacts at the outset.
- **Minimise:** Limit direct and indirect impacts.
- **Restore:** Repair damaged habitats.
- **Offset:** Compensate for losses, with a preference for on-site measures.

2.1.4 This document sets out SSEN Transmission's methodology for off-site BNG and irreplaceable habitats following application of the mitigation hierarchy throughout the development's *routeing selection* and design process.

With specific reference to the Proposed Development, the Biodiversity Net Gain Assessment Report (**Appendix 11.5: Biodiversity Net Gain Assessment**) identifies for Aberdeenshire, an area-based habitats baseline of 594.81 biodiversity units (BU), with a 10% BNG target of 654.29 BU, and baseline hedgerow linear units of 44.50 (H). Of these, 401.27 BU and 14.60 Linear Units (H) are capable of being delivered on site. The remaining 253.03 BU and 34.34 Linear Units (H), as well as [insert baseline watercourse linear unit] Linear Units (W), will be delivered at locations remote from the Site but within the Aberdeenshire area, in accordance with the off-site BNG methodology set out in the following sections.

For Angus, the assessment identifies a baseline of 406.44 area-based biodiversity units (BU) with a 10% BNG target of 447.09 BU, and 41.76 baseline hedgerow linear units (H). Of these, 253.86 BU and 11.35 Linear Units (H) are capable of being delivered on site. The remaining 193.22 BU and 34.59 Linear Units (H), as well as [insert baseline watercourse linear unit] Linear Units (W), will be delivered at locations remote from the Site but within the Angus area, in accordance with the off-site BNG methodology set out in the following sections.

¹ Scottish Government. 2023. National Planning Framework 4. [Online] Available at: [National Planning Framework 4 - gov.scot](https://www.gov.scot/national-planning-framework-4)

3 Biodiversity Net gain and irreplaceable habitat

3.1 Overview

- 3.1.1 Biodiversity Net Gain (BNG) is an approach to development that ensures natural habitats are left in a better state than they were before the development. This means that any development project must result in a measurable improvement in biodiversity.
- 3.1.2 Irreplaceable habitats (IH) are habitats which are technically very difficult or impossible to restore, recreate, or replace once destroyed. SSEN Transmission considers irreplaceable habitats within their network to be Ancient Woodland (categories 1a & 2a of the Ancient Woodland Inventory (AWI)); individual ancient or veteran trees; and blanket bog or raised bog in good or moderate condition. Any loss or deterioration of an irreplaceable habitat will be recorded by area (hectares) or number of trees to allow for bespoke compensation in line with relevant NatureScot standing advice².
- 3.1.3 In response to the publication of NPF4 in February 2023, which steers planning policy towards tackling the climate and nature crises, SSEN Transmission produced a range of internal guidelines and methodology that aim to support delivery of biodiversity enhancement and irreplaceable habitat compensation. In May 2023, SSEN Transmission brought forward the commitment to deliver 10% BNG on all projects gaining consent. As such, SSEN Transmission is committed to delivering BNG on all major projects gaining consent and to leaving the natural environment in a better state than its baseline.
- 3.1.4 A Biodiversity Projects Toolkit has been developed by SSEN Transmission as a BNG calculation tool that builds on the DEFRA Biodiversity Metric version 3.1³ and adapts it to suit the Scottish context. The Biodiversity Net Gain Assessment Report summarising the calculations and is appended to **Chapter 11: Ecology (Appendix 11.5: Outline Biodiversity Enhancement Plan)**.
- 3.1.5 SSEN Transmission, as a Transmission Operator (TO), is regulated by Ofgem. As part of this regulatory process, all funding for SSEN Transmission operations, including any nature commitments such as BNG / IH compensation, must be submitted as a funding request to Ofgem for each regulatory period. In the most recent funding cycle SSEN Transmission submitted a Sustainability Action Plan which included all aspects of Nature funding. As a regulated business, SSEN Transmission is legally obligated to deliver on the nature commitments made.
- 3.1.6 Within the framework of this funding mechanism, SSEN Transmission will, therefore, look to fund appropriate development works, capital works, ongoing maintenance and/or adaptive management where a project opportunity exists that meets the business commitment to deliver 10% BNG and IH.

² NatureScot. 2024. [Online] Advising peatland and carbon rich soils and priority peatland habitats for development management. Available at: <https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management>

³ Natural England. 2023. [Online] Biodiversity Metric 3.1. Available at: <https://publications.naturalengland.org.uk/publication/5850908674228224>

4 Methodology for Biodiversity Units and Irreplaceable Habitat Compensation

4.1 Off-Site Biodiversity Enhancement

4.1.1 Off-site habitat creation and enhancement is only required when all options for on-site BNG requirements have been considered, and insufficient on-site opportunities exist. In these circumstances off-site habitat creation and enhancement will be undertaken. Compensation is targeted at delivering biodiversity net gains that create and improve natural habitats.

4.1.2 SSEN Transmission will complete baseline surveys of potential sites to be considered for offsetting that deliver Biodiversity Units. The steps SSEN Transmission will take include:

1. Site Identification and Initial Assessment:

- Identify potential sites for biodiversity compensation, where possible, within Aberdeenshire and Angus Council.
- Conduct an initial assessment to determine the suitability of each site.
- The approach to landscape and restoration management is set out in [Section 3.3](#).

2. Habitat Classification and Condition Assessment:

- Classify each individual habitat feature into UKHab-based types as listed in the SSEN Transmission Biodiversity Projects Toolkit V3.0.
- Perform a Biodiversity Condition Assessment of each habitat feature, using Biodiversity Metric 3.1 Habitat Condition Assessment criteria, within the site boundary, as agreed with SSEN Transmission's internal Nature Team and landowner.

4.2 Bespoke Compensation for Irreplaceable Habitat

4.2.1 SSEN Transmission provides bespoke compensation for peatland (in good or moderate condition), Ancient Woodland (categorised as 1a and 2a on the AWI), and individual ancient and veteran trees restoration, and where recognised, in line with NatureScot standing advice⁴⁵.

1. Peatland:

- Identify peatland restoration sites that, for open hill peatland restoration, aligned with the eligibility criteria for Peatland Action and Peatland Carbon Code⁶⁷.
- SSEN Transmission is committed to explore Forest to Bog (F2B) restoration opportunities as, due to practical considerations, funding options can be limited for landowners and partners. Forest to bog restoration is an evolving

1.1

⁴ NatureScot.2023. [Online] A guide to understanding the Scottish Ancient Woodland Inventory (AWI). Available at: <https://www.nature.scot/doc/guide-understanding-scottish-ancient-woodland-inventory-awi>

⁵ NatureScot. 2024. [Online] Advising peatland and carbon rich soils and priority peatland habitats for development management. Available at: <https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management>

⁶ NatureScot. 2025. [Online] Peatland Action. Available at: <https://www.nature.scot/peatland-action-processing-and-assessing-applications>

⁷ IUCN. 2025. [Online] Peatland Code. Available at: <https://www.iucn-uk-peatlandprogramme.org/peatland-code-0>

practice and SSEN Transmission will work with key partners to identify Forest to bog opportunities and deliver restoration utilising the most relevant and progressive techniques to restore these vital bog areas⁸⁹.

- Conduct surveys and develop restoration/enhancement plans.
- The approach to landscape and restoration management is set out in [Section 3.3](#).

2. Ancient Woodland and Ancient and Veteran Trees:

- Identify Ancient Woodland sites (1a and 2a – AWI or sites that should be included under this categorisation) and ancient and veteran trees and sites where Ancient and Veteran Trees (AVT) options exist.
- Conduct surveys and produce reports on the condition of the sites.
- Develop and implement restoration/enhancement plans with long-term management objectives.
- The approach to landscape and restoration management is set out in [Section 3.3](#).

4.3 [Outline Landscape Management Plan](#)

SSEN Transmission will work with landowners to design an outline landscape management plan that delivers a biodiversity uplift and / or restoration of irreplaceable habitat on the site, in line with the SSEN Transmission's BNG Guidance and Biodiversity Toolkit V3.0. The steps include:

1. Develop Management Objectives:

- Define clear management objectives aimed at enhancing biodiversity on the site.
- Ensure objectives align with SSEN Transmission's BNG Guidance and Biodiversity Toolkit V3.0, where relevant.

2. Management Actions:

- Outline specific management actions required to achieve the biodiversity uplift, or condition enhancement.
- Include actions such as habitat restoration, creation, and enhancement.

3. Monitoring and Reporting:

- Develop a monitoring plan to track the progress of the management actions.
- Establish reporting protocols to provide regular updates to the SSEN Transmission and relevant stakeholders.

4. Legal Agreement:

- SSEN Transmission propose to put in place agreements with partners to ensure the long term stewardship of the land.

1.1

⁸ NatureScot. 2025. [Online]. Peatland ACTION - Technical Compendium - Restoration - 8 Forest to bog restoration. Available at: <https://www.nature.scot/doc/peatland-action-technical-compendium-restoration-8-forest-bog-restoration>

⁹ IUCN. 2024. Forest to Bog Restoration - Demonstrating Success. Available at: www.iucn-uk-peatlandprogramme.org

5 Exploring Nature opportunities

- 5.1.1 A range of projects are being explored with local and strategic partners to identify suitable sites for biodiversity enhancements *and / or* IH compensation. These projects will involve details of baseline habitat types and creation or enhancement proposals. SSEN Transmission is committed to the successful delivery through ongoing monitoring and maintenance of these projects. The proposed offsetting projects will be located within Angus and Aberdeenshire LPAs and this will allow the Proposed Development to achieve - **a minimum 10% BNG.**
- 5.1.2 To date SSEN Transmission have engaged with strategic national stakeholders and local landowners. At this stage, engagement includes discussions about what sites are available and what kind of partnership could be established within the Angus and Aberdeenshire areas to ensure an appropriate geographical spread of biodiversity enhancement *and/or* IH compensation across the affected region. Biodiversity *and/or* IH sites are chosen due to their location and their potential to provide strategic and holistic biodiversity enhancement for the area, and where applicable, landscape scale restoration.
- 5.1.3 Examples of SSEN Transmissions commitment to nature:
- In December 2024, SSEN Transmission became the first energy company to partner with nature charity, SCOTLAND: The Big Picture, to help facilitate nature restoration efforts in the north of Scotland. The partnership will help SSEN Transmission deliver its nature commitments through supporting the charity's Northwoods Rewilding Network, a Scotland-wide chain of landholdings which are all committed to nature restoration.
 - In order to deliver the required Biodiversity Enhancement for two infrastructure projects located in Loch Lomond and the Trossachs National Park, SSEN Transmission has partnered with RSPB to enhance their Inversnaid Nature Reserve. The partnership will implement a 10-year restoration and herbivore management strategy aimed at restoring natural habitat diversity and reducing pressures from wild herbivores across an area some 218 hectares. Through controlled herbivore management, SSEN Transmission and RSPB aim to create a healthier, more balanced ecosystem that supports native species such as Black Grouse, Golden Eagles, and the scarce Yellow-ringed Carpet moth.
 - In 2023/24, SSEN Transmission supported the completion of 42.5 hectares (ha) of native broadleaf woodland planting at Borralan, north of Ullapool and SSEN Transmission are on track to complete 127ha of predominantly native woodland planting at Achlain near Dalmally.
 - SSEN Transmission have also supported control of invasive non-native rhododendron in North Argyll, supporting the recovery of native vegetation.

6 Conclusion

- 6.1.1 This methodology ensures a structured approach to delivering off-site BNG and IH compensation, aligning with National and SSEN Transmission's guidelines and

requirements. By following these steps, SSEN Transmission will achieve a measurable improvement in biodiversity, ensuring that natural habitats are left in a better state than they were before the development.

7 References

The documents detailed in

Table 7.1 - Scottish and Southern Electricity Networks Documents, should be used in conjunction with this document.

Table 7.1 - Scottish and Southern Electricity Networks Documents

Reference	Title
TEM-NET-ENV-508	Biodiversity Net Gain Assessment Report
FC-NET-ENV-500	Biodiversity Net Gain Flowchart

8 Revision History

No	Overview of Amendments	Previous Document	Revision	Authorisation
01				

XX(X)-NET-XXX-XXX	Biodiversity Net Gain and Irreplaceable Habitat Off-Site Strategy for <i>Kintore to Tealing</i> 400 kV OHL		Applies to
			Transmission ✓
Revision: 1.00	Classification: Public	Issue Date: May 2025	Review Date: May 2028