Scottish & Southern Electricity Networks
TRANSMISSION

TEM-NET-ENV-
Environmental

Biodiversity Net Gain Assessment Report

Bingally 400 kV Substation Overhead Line Tie-in

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Executive Summary

This report 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.

This report details the BNG assessment undertaken for Bingally 400kV Substation Overhead Line (OHL) Tie-in (hereafter referred to as the 'Proposed Development').

This report 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 Guide (hereafter referred to as 'the User Guide'.
- A prediction of the post development on-site BU following successful implementation of a Landscape & Habitat Management Plan.
- A qualitative assessment against the Biodiversity Net Gain Good Practice Principles; and
- Details of the required habitat creation or enhancements required to achieve biodiversity enhancements. Many of the works within the Site are not permanent (e.g. temporary access tracks), therefore it is the intent that the same baseline habitats will be reinstated. However, woodlands within the wayleave of the OHL cannot be replaced, this will be replaced by Mixed scrub. There will be loss of irreplaceable blanket bog, however the area of loss is small (0.19 ha).
- The BNG calculation, subject to the assumptions and limitations set out in the report, indicates the Proposed Development will result in an overall net loss in area-based BUs, for which off-site measures are required to achieve +10% net gain.

Irreplaceable habitats are acknowledged for their particular importance, therefore appropriate mitigation has been identified for impacts on these habitats. SSEN Transmission consider irreplaceable habitats within their network to be Ancient Woodland (categories 1a & 2a of the Ancient Woodland Inventory (AWI)), ancient or veteran trees, and blanket bog or raised bog in good or moderate condition. There will be loss of irreplaceable blanket bog, however the area of loss is small (0.05 ha), recommendations are given to compensate for this loss. Compensation for this loss has been considered in terms of area lost rather Biodiversity Units in line with NatureScot's standing advice[1]. |

The OHL is immediately adjacent to the proposed Bingally 400kV Substation development. There will be an overlap in construction areas for the two projects, to avoid double counting the impacts, where there is overlap, the habitat loss has been considered within the Substation BNG assessment[2], as this will be constructed first.

The OHL will result in a 68% loss in biodiversity value, due to a loss of 22.58 BU's. To achieve a 10% gain, a total 25.93 BU's will be required. It is recommended opportunities to provide these off-site are explored, targeting habitat creation or enhancement of upland heath and acid grassland, as the main habitats where subject to losses in BU's.

1.1

[1] https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management#Enhancement

[2] AECOM (2024) Biodiversity Net Gain Assessment - Bingally Substation BNG Assessment

1 Introduction

1.1 Background of the Project

1.1.1 Scottish and Southern Electricity Networks (SSEN Transmission) (hereafter referred to as 'the Applicant'), operating under a 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 AECOM to undertake a Biodiversity Net Gain (BNG) assessment for Bingally 400kV Substation Overhead Line (OHL) Tie-in (hereafter referred to as the 'Proposed Development'). The purpose of this report is to assess the biodiversity net gains or losses resulting from the impacts of the Proposed Development.

1.1.2 This BNG Assessment Report has been prepared to accompany an application for consent under Section 37 of the Electricity Act (1989).

1.2 Site Description

1.2.1 The extent of the Proposed Development site (hereafter referred to as the 'Site') is shown on the Baseline and Post-Development habitat plans in **Appendix B** and **Appendix C** respectively.

1.2.2 The Site is located approximately 2.2 km south of Tomich and 5.4 km east of the existing Fasnakyle Substation at the transition between two landscape types characterised by agricultural land to the west transitioning east to more steeply sloping, rocky moorland plateau. The proposed Bingally substation site sits within an area of moorland immediately adjacent to a recently felled block of plantation woodland. The Site generally follows the existing OHL corridor at the boundary between woodland and upland moor.

1.2.3 The vegetation within the Site mostly comprises wet upland heath with heather *Calluna vulgaris*, purple moor-grass *Molinia caerulea* and cross-leaved heath *Erica tetralix* and blanket bog on deep peat with Sphagnum mosses including *Sphagnum capillifolium*, along with occasional patches of purple moor-grass, other upland acid grassland, dry upland heath and bracken. Forestry operations, including felling, are commonplace within the wider area.

1.2.4 Four statutory designated sites for nature conservation are within the Zone of Influence (ZoI) of the Proposed Development. These are two European sites: the Strathglass Complex Special Area of Conservation (SAC), which is located approximately 1.2 km west of the Proposed Development; and, the River Moriston SAC, located approximately 10 km south of the Proposed Development. There are two designated sites of National importance: Glen Affric Site of Special Scientific Interest (SSSI), located approximately 1.2 km southwest of the Proposed Development and Glen Affric National Nature Reserve (NNR), located immediately southwest of the Site, at its closet point.

1.2.5 There is also one non-statutory designated site for nature conservation, the Corrimony RSPB Nature Reserve, located 3 km northeast of the Site. The RSPB reserve is primarily managed for ornithological interests, most notably for black grouse.

1.3 Proposed Development Description

1.3.1 Components of the Proposed Development which are subject to consent under Section 37 consists of:

- Two new permanent towers (Tower 79R and Tower 78R) up to a maximum height above ground level of approximately 64 m located along the existing Beauly-Denny OHL to make the connection into and out of the proposed Bingally substation, along the north / northwestern boundary of the proposed Bingally substation;
- Tower 78R will be the terminal tower with downleads connecting to two overhead line gantries within the proposed Bingally substation. These gantries will sit at 337 m above ordnance datum (AOD), each between 12 and 14 m in height above the finished proposed Bingally substation level;
- Short term temporary OHL diversions during construction comprising two temporary towers (Tower 79T and Tower 78T) up to a maximum height above ground level of approximately 61 m;
- Temporary works areas including an 80 x 80 m tower working area for tension towers and 60 x 60 m tower working area for suspension towers at permanent and temporary tower positions;
- Temporary access track spurs and new permanent stone access (branching off the proposed Bingally substation access track) to facilitate the construction and maintenance of the OHL; and
- Following connection to the proposed Bingally substation, dismantling of the two redundant temporary towers (Tower 79T and Tower 78T).

1.4 Scope of Study

1.4.1 This report sets out the results of the BNG assessment and the approach to delivering on SSEN Transmission's BNG commitments for the Site. This report identifies the baseline biodiversity measured in BU's, to achieve positive effects for biodiversity.

1.5 Policy and Legislation

1.5.1 National Planning Framework 4[3] (NPF4) requires biodiversity enhancements be provided in addition to any proposed mitigation. By implementing measures to achieve net gain, the Proposed Development will achieve compliance with this aspect of NPF4, and this BNG assessment provides details of how this will be achieved. This is aligned to the Scottish Government's NPF4 Policy 3 for proposed developments to contribute to biodiversity enhancement.

1.5.2 A biodiversity site optioneering assessment was undertaken early in the project design to inform the site selection process based on the habitats identified through this assessment. The mitigation hierarchy has been applied to avoid impacts to biodiversity, where avoidance is not possible, these impacts have been minimised.

1.5.3 The Highland Nature: Biodiversity Action Plan 2021- 2026[4] also identifies where positive biodiversity action can be taken to conserve and enhance important habitats and species.

2 Methodology

2.1 Area and Surveys

Desk Based Assessment

2.1.1 A desk study to help establish baseline conditions has been completed, this information was also used to inform strategic significance values. Ecological features searched for included:

- Any designated nature conservation sites, including locally-designated sites listed in the Local Development Plan (LDP) or Local Biodiversity Action Plan (LBAP);
- Priority habitats listed in the LBAP or Scottish Biodiversity List (SBL) that might reasonably occur within the Site; and
- Records of protected and / or notable habitats and species.

1.1

[3] Scottish Government (2023). Available at: National Planning Framework 4

[4] Highland Nature: Biodiversity Action Plan 2021- 2026. Available at: Highland_Nature_Biodiversity_Action_Plan_2021_____2026.pdf] [Accessed: 30 October 2024]

2.1.2 The following sources were used for the desk study:

- Highland Council LDP[5];
- Highland Nature: Biodiversity Action Plan 2021 – 2026[6];
- NatureScot SiteLink webpage[7];
- NatureScot Natural Spaces webpage[8] (for details on the Ancient Woodland Inventory);
- National Biodiversity Network (NBN) Atlas Scotland[9];
- Ordnance Survey (OS) 1:25,000 maps and aerial photography[10]; and
- Scottish Forestry Open Data[11].

2.1.3 The information from The Highland Council LDP and Highland Nature LBAP was obtained to assess the strategic significance scores, these have been assigned as follows, based on habitats identified of local importance:

- Woodlands (with the exception of non-native plantation), upland heath and blanket bog have been assigned high strategic significance, as habitat listed in the LBAP;
- All habitats which are not formally identified but ecologically desirable have been assigned medium strategic significance; and
- Habitats which are neither formally identified nor ecologically desirable such as urban habitats, plantation woodland (including felled plantation) have been assigned low strategic significance.

1.1

[5] Highland Council website. [Online] available from: https://www.highland.gov.uk/downloads/file/1506/proposals_map

[6] Highland Environment Forum. [Online] available from: https://www.highlandenvironmentforum.info/biodiversity/action-plan/

[7] Nature Scot. SAC, RAMSAR and SSSIs. [Online] available from: https://sitelink.nature.scot/home

[8] Nature Scot. Natural Spaces webpage. AWI and NWSS for Scotland [Online] available from NatureScot Spatial Data Hub

[9] NBN Atlas Scotland. Commercially available records of protected species. [Online] available from: https://scotland.nbnatlas.org/

[10] Bing Maps. OS 1:25,000 maps and aerial photography. [Online] available from: https://www.bing.com/maps/

[11] Scottish Forestry Open Data. Caledonian Pinewood Inventory. [Online] available from: https://open-data-scottishforestry.hub.arcgis.com/

Field Assessment

2.1.4 A UK Habitat (UKHab) habitat survey was completed within the Site. The survey followed the standard methods described by UKHab guidance[12] and drew upon the formatting styles used in the Joint Nature Conservation Committee (JNCC) Phase 1 habitat survey guidance[13], by which areas of land are assigned standard habitat types and ecological notes are recorded. Notes were made for each habitat of dominant, typical and notable plant species, and relevant ecological characteristics (particularly where relevant to habitat condition) reflecting conditions at the time of survey.

2.1.5 The survey was conducted within the Site and to 50 m beyond the Site. The habitat survey was carried out between May and June 2024, by a suitably experienced ecologist. The habitat data was refined as necessary using desktop ESRI ArcGIS and recent aerial photography, to maximise habitat mapping accuracy.

2.1.6 In areas of important habitat identified by the habitat survey (e.g., GWDTE[14] or priority habitats listed on the SBL), where further botanical assessment was recommended, a National Vegetation Classification (NVC) survey was carried out. Homogenous vegetation stands were classified according to the NVC as described in the relevant original NVC volumes[15], with reference also to the NVC review and other guidance[16] that describe some additional vegetation types not covered in the original NVC volumes or provide additional advice.

2.1.7 Relevant attribute data extracted from ESRI ArcGIS, including area / length, habitat category and habitat condition, were fed into the Toolkit. Connectivity and strategic significance were added, to enable the Toolkit to calculated baseline biodiversity units.

Evidence of technical competence

2.1.8 The survey work was completed by a Full member of CIEEM and a Chartered Ecologist with 20 years experience and the report check by a highly experienced, senior ecologist within AECOM, whom is an Associate member of CIEEM. The report was verified by a full member of CIEEM and a Chartered Environmentalist, with over 20 years' professional experience leading BNG assessments across the UK.

1.1

[12] UKHab (2023) UK Habitat Classification. Available at: https://ukhab.org/. [Accessed: 30 August 2024].

[13] JNCC (2010). Handbook for Phase 1 habitat survey – a technique for environmental audit. Joint Nature Conservation Committee, Peterborough.

[14] SEPA (2017). Land Use Planning System SEPA Guidance Note 31: Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems (Version 3). Available from at: https://www.sepa.org.uk/media/144266/lups-gu31-guidance-on-assessing-the-impacts-of-development-proposals-on-groundwater-abstractions.pdf [Accessed 30 August 2024]

[15] Rodwell, J.S. (ed.) (1995). British Plant Communities Volume 4 Aquatic Communities, Swamps and Tall-herb Fens. Cambridge University Press, Cambridge; Rodwell, J.S. (ed.) (2000). British Plant Communities Volume 5 Maritime Communities and Vegetation of Open Habitats. Cambridge University Press, Cambridge.; Rodwell, J.S. (ed.) (1992). British Plant Communities Volume 3 Grassland and Montane Communities. Cambridge University Press, Cambridge.; Rodwell, J.S. (ed.). (1991a). British Plant Communities Volume 1 Woodlands and Scrub. Cambridge University Press, Cambridge; Rodwell, J.S. (ed.) (1991b). British Plant Communities Volume 2 Mires and Heaths. Cambridge University Press, Cambridge.

1.5

2.2 Approach to Biodiversity Net Gain

2.2.1 A full BNG Assessment was undertaken for the Site. The BNG assessment was completed within the SSEN Biodiversity Toolkit following the User Guide (2022)[17]. This method has been revised to align with Natural England Biodiversity Metric 3.1[18], adapted to reflect the requirements of Scottish habitats and transmission operator specific infrastructure, to quantify losses and gains of biodiversity. Data were collected on type, area, and condition of the habitat of the Proposed Development, indicating the biodiversity present on-site before the work begins. The same Toolkit was used to calculate the biodiversity losses and the units resulting from the proposed habitat creation after works. The outcomes have been used to ensure the biodiversity targets are being met for the Proposed Development. There are no linear hedgerows within the Site and as such linear hedgerow units are not presented.

2.2.2 The loss of irreplaceable habitat blanket bog in moderate or good condition is reported as an area rather than Biodiversity Units.

2.2.3 **Appendix A** sets out a qualitative assessment against the BNG Good Practice Principles[19].

2.3 Limitations and Assumptions

2.3.1 To produce this assessment, certain assumptions have been made:

- Where habitat edges are sharp and coincide with features on basemapping or aerial photography that are considered correct, their placement is based on the accuracy of that data in GIS. Otherwise, habitat edges are best estimates as judged in the field. Note also that habitat transitions can be gradual without sharp boundaries;
- Areas within the Site outside of proposed permanent or temporary works are assumed to be unaffected, or impacts will be very slight and recoverable within 2 years of works commencing in the relevant area - these areas have been excluded from the Toolkit in accordance with the User Guide;
- Following contractor advice, Equipotential Zone (EPZs) are assumed to be largely unaffected, except for an area of 25 x 50 m where, as a worst case, habitat loss has been assumed, to be reinstated post-works; in the absence of information as to where the disturbance will occur within the EPZs, an assumption has been made that the most common habitat within them will be affected, which is wet heath;

1.1

[16] Rodwell, J.S., Dring, J.C., Averis, A.B.G., Proctor, M.C.F., Malloch, A.J.C., Schaminée, J.N.J. and Dargie, T.C.D. (2000). Review of coverage of National Vegetation Classification, JNCC Report No. 302. Joint Nature Conservation Committee, Peterborough. Averis, A., Averis, B., Birks, J., Horsfield, D., Thompson, D. and Yeo, M. (2004). An Illustrated Guide to British Upland Vegetation. Joint Nature Conservation Committee, Peterborough.; Hall, J.E., Kirby, K.J. and Whitbread, A.M. (2004). National Vegetation Classification: Field guide to woodland. Joint Nature Conservation Committee, Peterborough.

[17] SSEN(2022) Biodiversity Net Gain Toolkit User Guide V2. (TG-NET-ENV-526)

[18] Gov.uk (2023) *Statutory biodiversity metric calculation too.* [Available at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides [Accessed: 23 September 2024].

[19] https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf

- With further regard to EPZs, it is further assumed that patches of blanket bog habitat within EPZs will be avoided as a matter of best practice (since they contain more significant peat) in favour of the more extensive wet heath and other less valued habitats;
- Where temporary works impact upon blanket bog (whether intact or degraded), it is assumed that peat and vegetation will be removed, correctly stored, maintained and replaced in sequence post-works; however, it is also assumed that the vegetation will be initially poor and will take 20 to 30 years to return to Moderate condition - this is the minimum period given in Defra Metric 3.1 for creation of Moderate blanket bog; for degraded blanket bog in Moderate condition, reinstatement has, by professional judgement, been reduced to 20 years (Defra Metric 3.1 does not provide timescales for degraded bog, but 20 years is the period given for creation of wet heath in Moderate condition, a related habitat), in addition to this, an additional 5 years has been added to account for the construction period;
- Watercourses, all of which are very small / minor, and will be spanned by the OHL and do not lie within the works areas except in part of an EPZ and the edge of a ‘crossing scaffold update’ area. No culverting has been stipulated for the latter and it has been assumed that it will not be directly affected. As such there are no watercourse units calculated.
- It is assumed that habitats created / enhanced as part of the Proposed Development will be subject to appropriate ongoing management and monitoring to ensure correct establishment and growth, and that remedial action will be taken if this does not proceed as expected, so that assigned target conditions are reached;
- Calculations involving habitat areas / lengths are rounded to two decimal places in the Toolkit, therefore the calculations are to that level of accuracy; and
- Baseline habitats and conditions may change with further elapsed time since the field surveys informing this BNG assessment were completed. However, it is unlikely given the current ownership and management of the Site, and the nature of habitats, that there would be significant changes to baseline habitats for several years at least.

3 Results

3.1 Biodiversity Baseline

3.1.1 The baseline habitats impacted by development are shown in the baseline habitat plan (**see Appendix B**) detailed in the Toolkit and are summarised here:

Irreplaceable habitat

- Blanket bog (0.19 ha).

Non-irreplaceable habitat

- Upland Heathland (1.61 ha, 28.16 BU);
- Woodland and forest- Other Coniferous woodland (0.23 ha, 0.46 BU);
- Other woodland, broadleaved (0.60 ha, 2.76 BU);
- Artificial unvegetated, unsealed surface (0.17 ha, 0 BU);
- Upland acid grassland (0.13 ha, 1.97 BU);
- Mixed scrub (0.04 ha, 0.09 BU);

3.1.2 Blanket Bog of 0.19 ha, in good and moderate condition, is assumed to be active and therefore considered irreplaceable.

3.1.3 The total baseline area BUs are 33.43 (excluding irreplaceable habitat, which assessed separately).

3.2 Temporary Impacts

3.2.1 Impacts to habitats which are reversible and can return to the same extent and ecological condition within two years of the initial impact, can be considered temporary, and where this is the case there is considered no impact and it is not included within the Toolkit. However, some temporary works will result in impacts that will take longer than two years to recover and these instances are therefore included within the Toolkit (e.g. through laying of crushed stone, for temporary compounds, etc). The Toolkit takes account for the timescales required for reinstatement as factors in the construction period (in this case which is five years)

3.3 Post-development Biodiversity Units

3.3.1 The predicted post-development BU's for area habitats are 10.84.

3.4 Habitat Creation (Within the Proposed Development Boundary)

3.4.1 Where habitats will be lost temporarily to facilitate the Proposed Development, these will be reinstated to their baseline habitat type, targeting moderate condition. The only exception to this is where non-native Sitka spruce plantation is to be removed, in these locations, upland heath will be created, this improving the biodiversity value, through the creation of a higher distinctiveness habitat.

3.4.2 With respect to the other habitats lost, the following approaches will be taken:

- Degraded blanket bog will be reinstated using temporarily removed peat / vegetation (this may be resown if necessary);
- Upland acid grassland targeting moderate condition will be created by resowing an appropriate acid grassland mix where there is currently upland acid grassland in a range of conditions (good, moderate and poor);
- Upland Heathland targeting moderate condition will be created by sowing an appropriate heathland mix where there is currently upland heathland in a range of conditions (good, moderate and poor);
- Mixed scrub targeting moderate condition will be created by planting appropriate species, where there is currently mixed scrub in poor condition;
- Broadleaved woodland will target moderate target condition through planting appropriate species where there is currently broadleaved woodland in poor condition; and
- The post-development BU's (excluding impacts on irreplaceable blanket bog discussed in the paragraph below) achieved by on-site habitat reinstatement total 10.84 BU's. This is not sufficient to achieve a biodiversity gain on-site and results in -68% net loss.

3.4.3 The above does not account for a small loss of irreplaceable blanket bog in good and moderate condition. A total of 0.05 ha will be permanently lost, 0.14 ha will be reinstated. It is assumed that excavated peat and vegetation in these small areas will be appropriately stored and reinstated. However, realistically the condition following reinstatement is unlikely to exceed moderate.

3.5 Habitat Creation (Off-site)

3.5.1 Off-site habitat creation is only required when all options for on-site biodiversity enhancement provision has been explored. If no on-site opportunities can be identified, off-site habitat creation will be undertaken, but kept within the locale of the Proposed Development. Compensation is targeted at delivering net gains that are ecologically equivalent in type and condition to the habitats lost, following the 'like for like or better' principle.

3.5.2 The Proposed Development will result in a 68% loss in biodiversity value, due to a loss of 22.586 BU's. To achieve a 10% gain, a total 25.93 BU's will be required. It is recommended opportunities to provide these off-site are explored, targeting habitat creation or enhancement of upland heath and acid grassland, as the main habitats where subject to losses in BU's. An appropriate location for off-site measures has not been identified at this stage. However, the on-site habitat impacts are small-scale, given the nature of the Proposed Development, so suitably small-scale off-site habitat enhancement measures could be carried out in order for the Proposed Development to achieve 10% biodiversity net gain.

3.5.3 There are no predicted effects to watercourses and as such there is no requirement to compensation or enhance the watercourses.

3.5.4 A small area of blanket bog will be permanently lost to the Proposed Development, 0.05 ha, for which compensation maybe required, however it is noted that this is a relatively small area. NatureScot recommend a 1:10 compensation ratio for peatland loss[20], plus an additional 10% to provide an enhancement in addition to the compensation. Taking this into account, it is recommended that an area of 0.505 ha of blanket bog restoration is sort to compensate for the loss as a result of the Proposed Development. In addition to the blanket bog to be permanently lost, 0.12 ha of good condition blanket bog and 0.02 ha of moderate condition blanket bog will be affected during the construction period, this will be restored on competition of construction. In acknowledgement of the temporary loss of this habitat and that it is not likely to be possible to fully restore the good condition blanket bog, back to good condition, an additional 0.14 ha of blanket bog restoration will be targeted offsite.

1.1

[20] NatureScot (2023) Advising on peatland, carbon-rich soils and priority peatland habitats in development management [online] Available at: https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management (Accessed: January 2025)

4 Summary

4.1.1 The post-development area BU's are 10.84 which is a predicted loss of 68% in biodiversity value.

4.1.2 The habitat reinstatement should be achieved within a reasonable timeframe and with reasonable certainty as the outcomes from the Toolkit have been informed by the Natural England Biodiversity Metric 3.1. However, it is acknowledged that off-site measures are required to achieve net gain, which remain to be specified.

4.1.3 Off-Site habitat creation will be required to achieve a 10% gain in area-based habitat units. The 25.93 BU's are required from off-Site habitat creation to achieve a 10% gain.

4.1.4 A small area of blanket bog will be permanently lost to the Proposed Development, 0.05 ha, compensation maybe required, however it is noted that this is a relatively small area

4.1.5 NatureScot recommend a 1:10 compensation ratio for peatland loss, with an additional 10% of the area to be lost to be provided above the compensation ratio, to provide a biodiversity enhancement. In this instance this equates to 0.505 ha. SSE are committed to providing this area of peatland restoration/ enhancement offsite. In addition to this 0.12 ha of good condition blanket bog and 0.02 ha of moderate condition blanket bog will be affected during the construction period, this will be restored on competition of construction. In acknowledgement of the temporary loss of this habitat and that it is not likely to be possible to fully restore the good condition blanket bog, back to good condition, an additional 0.14 ha of blanket bog restoration will be targeted offsite. Thus the total area of offsite peatland restoration to be provided will total 0.645 Ha.

4.1.6 The project will achieve positive effects for biodiversity if sufficient off-site habitat measures are identified and implemented, and if this is ensured then the project will leave the natural environment in a demonstrably better state than before development work began.

4.2 Summary of Results

Table 1. Summary of biodiversity units

Habitat Type	Base Line BUs	Post-Development Biodiversity Units	Difference in Biodiversity Units	Difference in Biodiversity Units (%)	Biodiversity Units Required Off-site
Area	33.43	10.84	-22.58	-68%	25.93

4.2.1 With regard to irreplaceable habitat there will be a very small loss (0.05 ha) of blanket bog in good / moderate condition, for which compensatory enhancement of the same off-site will be sought, with a further area of 0.14 ha of blanket bog being restored off-site to a moderate or good condition, at a 1:1 ratio to account for the temporary loss of blanket bog during the construction period.

4.3 Biodiversity Outcomes

4.3.1 The outcomes of the proposed habitat works and further biodiversity enhancement measures will be:

- Where habitats are reinstated following temporary loss, the same habitats will be created in as good as condition as is considered reasonably achievable.
- The location for off-site enhancements has currently not been identified, but the intention is to carry out a sufficient off-site enhancement to achieve 10% gain.
- For loss of irreplaceable habitat (blanket bog), compensation will be provided at a suitable level.

4.4 Implementing and Monitoring

4.4.1 All habitat creation measures will be initiated during construction of the Proposed Development, and then managed for a minimum of five years after completion or until establishment is ensured.

4.4.2 To ensure positive enhancements are achieved long term, monitoring and maintenance procedures will be implemented.

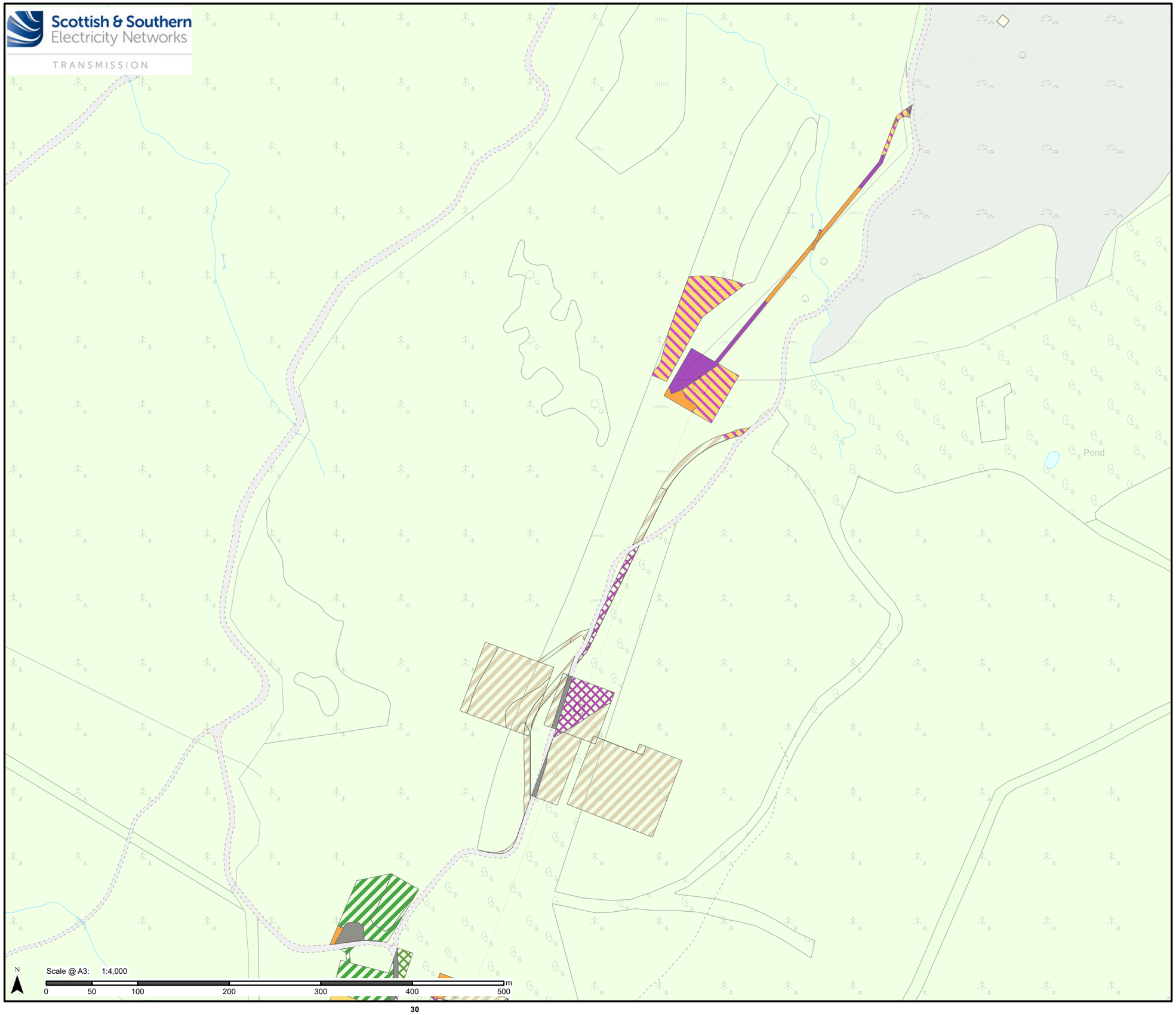
Appendix A Good practice principles for biodiversity net gain

The project has applied the UK good practice principles for biodiversity net gain (CIRIA C776a Biodiversity net gain. Good practice principles for development. Part A: A practical guide) below:

Principle	Summary of project actions
Apply the mitigation hierarchy	The mitigation hierarchy has been applied during this assessment by engaging with the Applicant team and finding the best ecological solutions for the Site.
Avoid losing biodiversity that cannot be offset elsewhere	A small area (0.05 ha) of blanket bog in good condition will be permanently lost. Compensation for this loss will be provided, following NatureScot standing advice, it is recommended that this is provided at a 1:10 ratio, plus an additional 10%, 0.14 ha will be temporarily lost, this will be reinstated following completion of the Proposed Development, with a further area of 0.14 ha of blanket bog being restored off-site to a moderate or good condition, at a 1:1 ratio to account for this temporary loss. Thus, the total area of offsite peatland restoration to be provided will total 0.645 Ha.
Be inclusive and equitable	Wider stakeholder engagement was not necessary for the project; however, the SSEN Transmission operation team have been consulted throughout the assessment, including to avoid conflicts with other land use management plans.
Address risk	The key potential risks to the Proposed Development achieving a 10% net gain in biodiversity was total loss of habitat within the Proposed Development. These risks were addressed by securing habitat creation and enhancements to improve the condition of retained habitats outside of the Proposed Development area, resulting in an overall net gain.
Make a measurable net gain contribution	A measurable net gain will be sought for the Proposed Development, with offsite habitat creation / enhancement will be explored to ensure a 10% net gain is achieved.
Achieve the best outcomes for biodiversity	Habitat restoration and creation opportunities will be explored to achieve a 10% net gain, this should target heathland and acid grassland habitats

Principle	Summary of project actions
	as these are the main habitats that will be lost as a result of the Proposed Development.
Be additional	Further to the habitat reinstate to be implemented on Site, additional off-site habitat creation or restoration will be sought to ensure a 10% gain is achieved.
Create a net gain legacy	The proposed created / enhanced habitats can be expected to persist in the long-term and thus represent a net gain legacy.
Optimise sustainability	BNG has been integrated from the start of the initial development design stages with input across multiple disciplines to optimise the sustainability of the final Proposed Development.
Be transparent	SSEN Transmission are keen to ensure that approaches following on from this project are shared to ensure that any lessons learnt through BNG assessment, habitat enhancement / creation and habitat management can be factored into future projects. Opportunities to share information on the Project and its approach will be sought.

Appendix B Baseline Habitat Plan

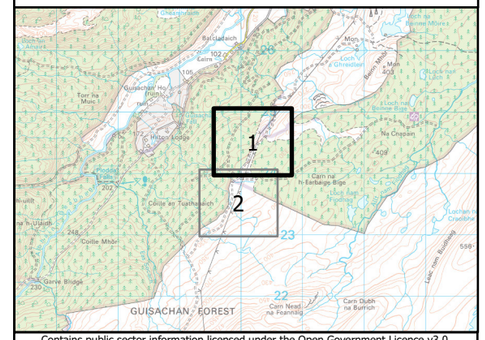


Legend

UK Habitat Classification

- f1a5 Blanket bog (H7130)
- f1a6 Degraded blanket bog (H7130)
- g1b6 Other upland acid grassland
- g1c Bracken
- h1b5 Dry heaths; upland (H4030)
- h1b6 Wet heathland with cross-leaved heath; upland (H4010)
- h3 Scrub
- u1c Artificial unvegetated; unsealed surface
- w1g Other broadleaved woodland
- w2c - Other coniferous woodland (felled)

***NOTE:**
Where the OHL Proposed Development footprint overlaps with the footprint of the Proposed Substation, habitats have been considered within the BNG assessment for the Substation.



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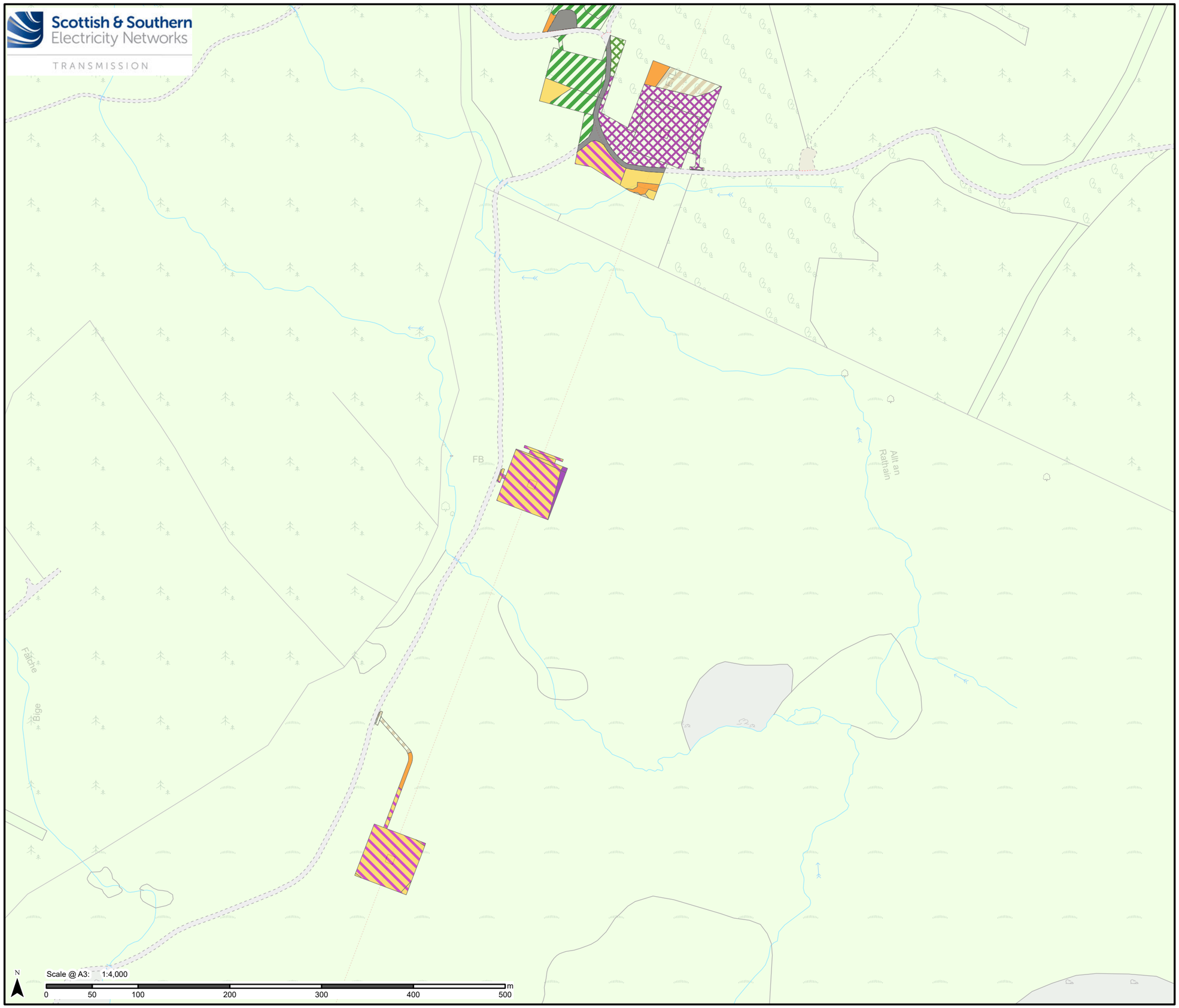
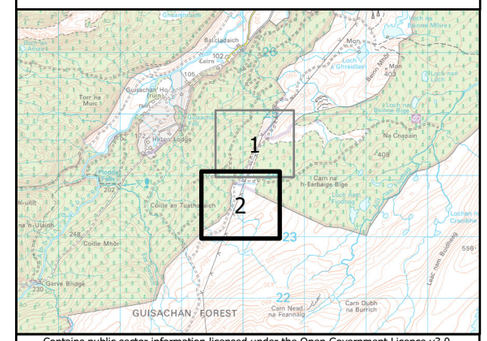


Legend

UK Habitat Classification

- f1a5 Blanket bog (H7130)
- f1a6 Degraded blanket bog (H7130)
- g1b6 Other upland acid grassland
- h1b5 Dry heaths; upland (H4030)
- h1b6 Wet heathland with cross-leaved heath; upland (H4010)
- h3 Scrub
- u1c Artificial unvegetated; unsealed surface
- w1g Other broadleaved woodland
- w2c - Other coniferous woodland (felled)

***NOTE:**
Where the OHL Proposed Development footprint overlaps with the footprint of the Proposed Substation, habitats have been considered within the BNG assessment for the Substation.



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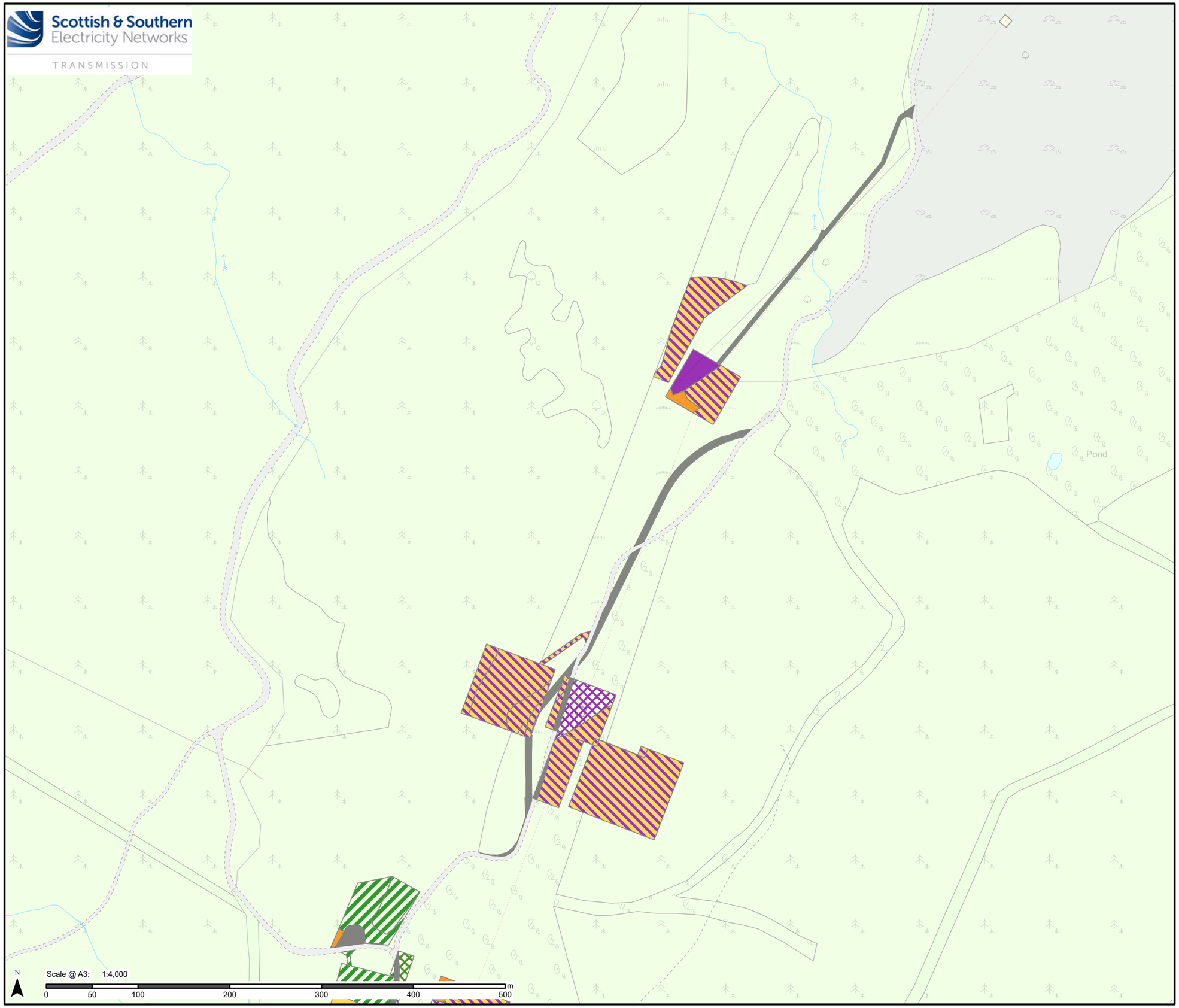
Appendix C Post Development Plan showing habitats to be reinstated

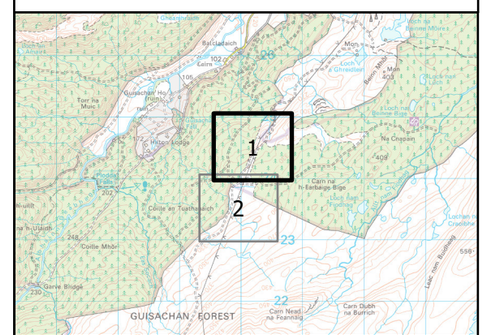


Legend

Post Habitat Plan

- f1a5 Blanket bog (H7130)
- f1a6 Degraded blanket bog (H7130)
- g1b6 Other upland acid grassland
- h1b5 Dry heaths; upland (H4030)
- h1b6 Wet heathland with cross-leaved heath; upland (H4010)
- h3h Mixed scrub
- u1c Artificial unvegetated; unsealed surface
- w1g Other broadleaved woodland

***NOTE:**
Where the OHL Proposed Development footprint overlaps with the footprint of the Proposed Substation, habitats have been considered within the BNG assessment for the Substation.



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Scottish & Southern Electricity Networks
TRANSMISSION

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FB

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Bige

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23

N

Scale @ A3: 1:4,000

0 50 100 200 300 400 500 m

30

Legend

Post Habitat Plan

- f1a5 Blanket bog (H7130)
- f1a6 Degraded blanket bog (H7130)
- g1b6 Other upland acid grassland
- h1b5 Dry heaths; upland (H4030)
- h1b6 Wet heathland with cross-leaved heath; upland (H4010)
- h3h Mixed scrub
- u1c Artificial unvegetated; unsealed surface
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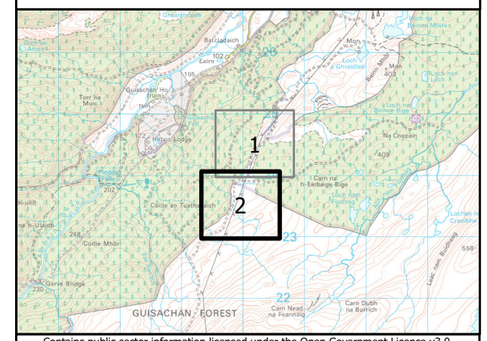

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Project: Bingally 400kV Overhead Line Tie-in

Title:

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Drawing: Appendix C