Scottish & Southern Electricity Networks

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Spittal to Loch Buidhe to Beauly 400 kV OHL Connection Environmental Impact Assessment Volume 5 | Technical Appendix

Appendix 12.1 | Scope and Method of Assessment

July 2025

Scottish & Southern Electricity Networks
TRANSMISSION

VOLUME 5: APPENDIX 12.1 – SCOPE AND METHOD OF ASSESSMENT

1. SCOPE AND METHOD OF ASSESSMENT

1.1 Introduction

1.1.1 This document describes the scope and methodology used for the assessment of potential impacts and the resultant significance of effect. It describes the process of integration and outcomes of consultation undertaken with Historic Environment Scotland (HES), The Highland Council Historic Environment Team (THC HET) and community stakeholders and presents a guide for a mitigation approach, pre-commencement and during construction, as well as the residual effects.

1.1.2 This document forms a Technical Appendix to the Cultural Heritage EIA Report Chapter (**Chapter 12**).

Legislation, Policy and Guidance

1.1.3 The cultural heritage EIA is undertaken within the following legislative, policy and guidance context.

Statute

- The Ancient Monuments and Archaeological Areas Act 1979;
- The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997; and
- The Historic Environment (Amendment) (Scotland) Act 2011.

Policy

National

- National Planning Policy Framework 4 (NPF4) (Scottish Government 2023, revised 2024);
- Scottish Planning Policy (2014); and
- Historic Environment Policy for Scotland (HEPS; HES 2019).

Local

- The Highland-Wide Local Development Plan (2012);
- Caithness and Sutherland Local Development Plan (CaSPlan) (2018); and
- Ross and Cromarty East Local Plan (As continued in force, April 2012).

Guidance

- Standard and Guidance for Historic Environment Desk-Based Assessment (Chartered Institute for Archaeologists 2017, updated 2020);
- Environmental Impact Assessment Handbook (SNH & HES 2018);
- Designation Policy and Selection Guidance (HES 2019);
- Managing Change in the Historic Environment: Setting (HES 2016, updated 2020);
- Historic Environment Circular 1 (HES 2016).
- Planning Advice Note (PAN) 2/2011: Planning and Archaeology;
- Delivery of Public Benefit and Social Value for Archaeology in the Planning Process (ALGAO: Scotland 2023);
- Our Past, Our Future: The Strategy for Scotland's Historic Environment (HES 2023); and
- Principles of Cultural Heritage Impact Assessment (IEMA 2021).

Consultation

1.1.4 THC HET and HES were consulted prior to and during the Scoping process. Scoping comments and responses related to the Proposed Development are included in **Volume 5, Appendix 6.3: Scoping Matrix**. A summary of the additional consultation undertaken in relation to cultural heritage throughout the EIA process is included in **Chapter 12: Cultural Heritage**, including paragraph 12.3.20 and **Table 12.1**.

Defining the Scope of Assessment

1.1.5 The Cultural Heritage assessment was undertaken in accordance with the national legislation of the United Kingdom, Scottish legislation and policy, HES guidance, international guidance (where relevant), and industry-specific best practice. This section describes the process adhered to in the development of a proportionate Cultural Heritage baseline against which the potential effects of the Proposed Development could be assessed.

Effects Assessed

1.1.6 The following effects have been considered for assessment:

Direct Effects

1.1.7 Physical alteration of a cultural heritage asset as a result of Propsoed Development activity and/or operational processes, e.g., truncation, erosion, damage, or removal of an asset's physical fabric. Direct effects are able to be identified and represented spatially by assessing and understanding the location of known/anticipated cultural heritage assets relative to the footprint of the Proposed Development and associated construction/operational activities.

Indirect Effects

1.1.8 Change to the baseline condition of a cultural heritage asset as a result of Propsoed Development activity and/or operational processes beyond the boundaries of the asset. Indirect impacts can take a variety of forms, such as, where a development generates vibration or affects the water table, resulting in saturation/desiccation of buried archaeological remains and the erosion/loss of their stratigraphy and any inherent artefacts/organic residues.[1]

Setting Effects

1.1.9 Change to the setting of a cultural heritage asset, as a result of the introduction of the Proposed Development, resulting in a reduction in the asset's cultural significance or the ability to understand, appreciate and/or experience it. Such effects typically derive from changes to views/inter-visibility from and towards cultural heritage assets, but may also derive from non-visual considerations, e.g., changes in historical associations/inter-relationships, reduction of an asset's prominence, changes to landscape character, etc. Not all aspects of an asset's setting will contribute to its cultural significance or to the ability to understand, appreciate and experience it. It is only when changes, to those aspects that do make such a contribution, result from the introduction of the Proposed Development, that an adverse effect will be reported, and an appraisal of the impact upon the 'integrity' of the setting will be undertaken.

[1] Given the nature of the development indirect effects are anticipated to be limited to the construction phase and will be largely negligible in nature. While any noise generated will be integrated into the assessment of experience within setting.

Table 1.1: Potential Impact Sources and Proposed Study Areas by Phase

Propsoed Development Phase/ Impact Source	Activity with Potential Impact	Propsoed Development Study Area
Construction	• Excavation and other ground disturbance (including management felling within the Operational Corridor) • Changes to setting • Generation of dust • Vibration • Compaction • Saturation, desiccation, changes to soil PH and other conditions • Restriction of public access	• 10 km for setting impacts to designated assets • 1 km for changes to non-designated assets (Direct and Indirect impacts)
Operation	• Changes to setting (incl. noise) • Restriction of public access	• 10 km for setting impacts to designated assets
Cumulative	• Excavation and other ground disturbance (including management felling) • Changes to setting • Generation of dust • Vibration • Compaction • Saturation, desiccation, changes to soil PH and other conditions • Restriction of public access	• Selected projects that impact assets affected by the Proposed Development

1.2 Potential Effects Scoped Out

1.2.1 The Scoping Report proposed that the assessment of certain effects be scoped out of this assessment. Following consultee agreement, assessment of the effect of the Proposed Development on the following has been scoped out:

- maritime archaeological resources within the Study Areas, as these resources all lie offshore and would not be adversely affected by the Proposed Development; and
- the settings of World Heritage Sites, Inventory Gardens and Designed Landscapes, and Inventory Historic Battlefields beyond 10 km (unless specifically identified for inclusion).

1.2.2 The WHS site, The Flow Country (List entry: 1722)[2], has been scoped out of the assessment following review and subsequent inputs into the World Heritage Toolkit preliminary review (**Volume 5, Appendix 8.10: WHS Assessment Report**). It has been concluded that the Natural categorisation, alongside an assessment of the component sensitivities (inscribed under criterion *(ix)*[3]) of the listing, did not require an impact assessment to

[2] The Flow Country - UNESCO World Heritage Centre
[3] UNESCO World Heritage Centre - The Criteria for Selection

report potential effects to the heritage value of the WHS. This results from the WHS making no material contribution to, or being inscribed as a result of, cultural heritage.

1.2.3 Direct impact to designated heritage assets has been scoped out. The Proposed Development Limit of Deviation (LoD) has been amended where possible to ensure that they are excluded and preserved in-situ (mitigated by design). Where assets remain present within the LoD there is a commitment to observe a variety of precautionary measures to ensure no physical interaction. Such measures would primarily include the exclusion of construction activity within a defined radius surrounding sensitive assets and/or the use of a barrier, such as Heras fencing, to demarcate and protect sensitive assets during the course of any proximate construction activity. Where designated asset boundaries would be over-sailed by the proposed cabling, there is a commitment for no physical change to/impact upon those assets.

1.2.4 There are two primary exceptions where the Proposed Development is present within the boundary of designated cultural heritage assets, for which the impact is assessed in this EIA:

- Fairburn GDL (GDL00174), where a small degree of direct (physical) impact would result from Towers S182 to S186 being erected within the western boundary planation woodland area, to include tree felling within the Operational Corridor; alternatives to this have been considered throughout the optioneering process and have been fully discussed in consultation with HES.
- Settlement 600m E of Invershin Primary School (SM5498), where a forestry track subject to major upgrades runs the length of the asset boundary north to south. Subject to future discussions with HES, this is highly likely to require Scheduled Monument Consent for works within the asset boundary.[4]

1.2.5 Further exceptions, listed below, relate to instances of oversailing or asset presence within the Propsoed Development LoD, for which the impact is assessed in this EIA:

Oversailing

- Carbisdale battlefield (BTL19); and
- Settlement 700m north of Balcragie Lodge (SM5230).

Present within LoD (Working Corridor)

- Chambered Cairn 230m WSW of Balnacrae (SM2396); and
- Settlement and burnt mound 500m east of Invershin Farm (SM5497).

Present within LoD (Access Tracks)

- Dun Garbhlaich, Fort (SM2422) – Permanent;
- Standing stone 220m ENE of Invershin Farm (SM1791) – Temporary;
- Settlement 600m E of Invershin Primary School (SM5497) – Permanent; and
- Settlement and burnt mound 500m east of Invershin Farm (SM5497) – Permanent.

Present within LoD (Forestry Tracks)

- Cladh Churadain, chapel and burial ground (SM5007) – Minor upgrade; and
- Novar (GDL00303) – Minor upgrade.

[4] To limit impact within the scheduled monument boundary and facilitate works expediently, priority for design considerations that minimise intrusive works, such as floating roads, should be made for the required 'Major' upgrades to the forestry track.

1.2.6 Direct impacts to heritage assets beyond the Proposed Development LoD are not anticipated and have been scoped out of any further consideration.

1.2.7 Direct (physical) impacts resulting from ground disturbance, are scoped out for assets within the Operational Corridor management felling and additional felling areas,[5] as there is no potential for affective ground disturbance. Considerations for monitoring and mitigation will be presented for these areas.

1.2.8 Indirect effects are not anticipated to be of significance and have been scoped out of any further consideration. The nature of the development negates the potential for any material indirect impacts; any that might occur would be entirely negligible in extent, and limited to the construction phase such that any further consideration of them would be disproportionate. Where the potential for indirect impacts are identified during archaeological monitoring, a proportionate approach shall be developed by a suitably qualified archaeologist, alongside the Principal Contractors. Operational noise as a sensory factor has been considered as part of the experiential aspect of the setting assessment, where appropriate.

1.2.9 Temporary adverse setting impacts resulting from construction-related activities have been scoped out, and are not considered within the assessment, given the nature of the impact.

1.2.10 Assessment of the effect of the Proposed Development on the settings of significant non-designated heritage assets more than 1 km from the proposed alignment, has been scoped out. None have been identified through initial analysis as having settings sensitive to adverse effects from the Proposed Development.

1.2.11 Assets identified during the setting sieving exercise (see **Volume 2, Chapter 12: Cultural Heritage**, paragraphs 12.3.7 and 12.3.18), as having no contribution to cultural significance derived from setting, or assets with no potential to be impacted by the introduction of the Proposed Development, have been scoped out for setting effect assessment.

1.2.12 Assets not identified as having the potential for impact as a result of changes to setting following the introduction of the Proposed Development are outlined in sections 1.5.5-8. Following consultation with HES, fieldwork and the sieving exercise, it was agreed to scope out setting assessment for the below assets, since they are unlikely to experience significant effects as a result of the Proposed Development. Some have been included in **Volume 5, Appendix 12.6: Setting Assessment Tables**, due to the potential for non-significant impacts:

- Achingale Mill (LB14976);
- Dunbeath Castle (LB7936);
- Dunbeath Castle Inventory Garden and Designed Landscape (GDL00150);
- Helmsdale Bridge (LB7193);
- Loth Parish Church (LB7149);
- Foulis Castle (LB7911);
- Tulloch Castle, Caisteal Gorach (LB24520);
- Castle Leod (LB7826);
- Novar (GDL00303);
- Castle Leod (GDL00094) and

[5] Additional felling areas beyond the Operational Corridor are not within the EIA mitigation purview, and the responsibility lies with the landowner/operator.

- Contin Bridge over River Black Water (LB1789).

1.2.13 Following the sieving exercise and field setting assessment, it was concluded that it was appropriate to scope out further setting assessment for the four conservation areas present within the baseline, as the potential for impact as a result of the Proposed Development was assessed as 'No Impact', given the screened townscape setting and lack of visibility and external view contributing to their heritage significance:

- Beauly Village Square (CA102);
- Dingwall (CA107);
- Strathpeffer (CA123); and
- Lybster (CA114).

1.3 Study Areas

1.3.1 The Study Areas adopted for purposes of cultural heritage assessment are set out below. These Study Areas were all agreed to be suitable during stakeholder consultation at Scoping stage[6] (see **Volume 2, Chapter 12: Cultural Heritage, Table 12.1**).

Baseline Data Collection and Assessment

1.3.2 For designated heritage assets, the following Study Areas were agreed[7].

- 10 km from the centreline of the proposed alignment for:
  - World Heritage Sites
  - Scheduled Monuments
  - Category A Listed Buildings
  - Gardens and Designed Landscapes
  - Registered Battlefields
  - Conservation Areas
- 5 km from the centreline of the proposed alignment for:
  - Category B Listed Buildings
  - Category C Listed Buildings

1.3.3 For non-designated heritage assets, the following Study Area was agreed:

- 1 km from the centreline of the proposed alignment

Gazetteer and Impact Assessment

1.3.4 For purposes of determining direct impacts, a 5 m buffer around the Propsoed Development LoD was considered, to ensure that regard was given to any possible direct impacts within special arrangement areas (as appropriate) and along the course of proposed access tracks (existing roads with no planned upgrades were excluded).

[6] Caveat: Use of specific radius acts as a guide, where an approach using professional judgement allows for nuance in the Study Areas based on the ZTV analysis and expert knowledge that may seek to include assets with potential for impacts beyond the stated Study Area buffers.

[7] Note: An approach is utilised that sees professional judgement to consider receptors beyond the reported Study Area distance, where appropriate, based on a review of longer distance considerations, while maintaining a reasonable Study Area for assessment in relation to the Proposed Development.

1.3.5 Impact was assessed in relation to the physical footprint of the Proposed Development, with presence within the LoD alone not necessarily considered as a direct impact. Should the design be updated post-EIA Report, a strategy for managing heritage impact is outlined in **Volume 5, Appendix 12.7: Mitigation Summary**.

1.3.6 For purposes of determining setting impacts, all designated heritage assets within 10 km, except Category B and C Listed Buildings assessed within 5 km, and non-designated assets within 1 km of the centreline of the Proposed Development were considered, provided they were identified as:

- susceptible to impact, during the bare-earth Zone of Theoretical Visibility (ZTV) analysis and sieving exercise; and
- deriving value from any aspects of their setting that might be changed by the Proposed Development.

1.3.7 Receptors beyond the 10 km Study Area have been included, where necessary, based on professional opinion.

1.4 Desk-Based Assessment

1.4.1 A desk-based assessment was undertaken in order to define the existing baseline historic environment conditions, to characterise the archaeological potential of the Study Areas, and identify the cultural significance of heritage assets with the potential to undergo changes to their existing condition, landscape character or setting. The desk-based assessment was informed by a wide range of datasets, as follows:

- HES Spatial Data Warehouse: for current data on the locations and extents of Scheduled Monuments, Listed Buildings, Conservation Areas, Inventory status Garden and Designed Landscapes and Inventory status Historic Battlefields;
- THC Historic Environment Record (HER): for current data within the Proposed Development's Study Areas;
- The National Record of the Historic Environment (NHRE) database (Canmore): for any information additional to that contained in the HER;
- Map Library of the National Library of Scotland: for Ordnance Survey maps and other historical map resources;
- A 'worst-case' bare-earth ZTV (Zone of Theoretical Visibility) model (projected at 70 m height from indicative tower locations);
- A ' true-design' bare-earth ZTV model (using design heights from proposed tower locations);
- 3D projected model (as below);
- Historic Land-Use Assessment Data for Scotland (HLAMap): for information on the historic land use character of the Proposed Development and the surrounding area; and
- Modern vertical aerial satellite imagery (Google Earth and ESRI World Imagery): examined to obtain information on current land-use and evidence for continuing survival of sites and features identified through other desk-based resources.

1.5 Setting Assessment

1.5.1 The objective of the setting assessment is to determine the contribution (if any) that setting makes to the cultural significance of a heritage asset (or group of heritage assets), assess the magnitude of impact to the setting of said asset from the Proposed Development, and determine the resulting effect upon cultural

significance, and a statement of whether the anticipated impact to setting should be considered 'significant' in the context of the EIA regulations.

1.5.2 'Managing Change in the Historic Environment: Setting' (HES 2016, updated 2020; hereafter referred to as 'Managing Change') was adhered to, consistent with HES's Scoping recommendation. This industry standard guidance provides that:

"Setting can be important to the way in which historic structures or places are understood, appreciated and experienced. It can often be integral to a historic asset's cultural significance."

"If proposed development is likely to affect the setting of a key historic asset, an objective written assessment should be prepared by the applicant to inform the decision-making process. The conclusions should consider the significance of the asset and its setting and attempt to quantify the extent of any impact. The methodology and level of information should be tailored to the circumstances of each case."[8]

1.5.3 The guidance advocates a three-stage approach to determining impact to heritage setting, as follows:

Stage 1: Identify the historic assets that might be affected by the proposed development.

Stage 2: Define and analyse the setting by establishing how the surroundings contribute to the ways in which the historic asset or place is understood, appreciated and experienced.

Stage 3: Evaluate the potential impact of the proposed changes on the setting, and the extent to which any negative impacts can be mitigated.

1.5.4 'Managing Change' is referred to in HEPS (2019) and comprises the key guidance document used in determining impacts upon the setting of heritage assets. Produced and endorsed by HES, Managing Change defines setting as *'…the way the surroundings of a historic asset or place contribute to how it is understood, appreciated and experienced'*.

Setting Sieving Exercise

1.5.5 The above methodology for cultural heritage settings assessment has been adopted for the purposes of this assessment. The Setting Sieving Exercise represents **Stage 1** of the three-stage approach advocated in Managing Change. For the purposes of this assessment, whether an asset is inspected or not, is independent of its inherent cultural significance and its sensitivity to alterations to its setting.

1.5.6 With reference to the language of Managing Change (Stage 1), those assets *'that might be affected by the proposed development'* were considered to be those for which the Proposed Development might reasonably be considered to impact their cultural significance, or the ability to understand, appreciate and experience them. In determining this, a preliminary review of potential impact, guided by a bare-earth ZTV, was undertaken, enabling intervisibility, landscape accessibility, prominence and other relevant setting factors to be considered.

1.5.7 Those assets identified as potentially susceptible to impact to their cultural significance as a result of changes to setting (listed in the gazetteer **Volume 5, Appendix 12.4**, and see **Volume 3, Figure 12.5-7**), were then progressed to Managing Change **Stage 2** and **3** and assessed in detail (**Volume 5, Appendix 12.6: Setting Assessment Tables** and **Volume 5, Appendix 12.8: Cultural Heritage Visualisations, 12.8.1: Wireframes and Photomontages and 12.8.2: 3D Renders; Volume 3, Figures 12.5-7**). Consultation was undertaken with HES and THC HET to confirm the results of Stage 1, agree the scope of the settings assessment and

[8] Ibid, p5

determine potential visualisation requirements. The Stage 2 and 3 assessments included desk-based, field inspection (set out in **Section 1.6**) and detailed modelling (see **Volume 5, Appendix 12.6 and 12.8)** analysis.

1.5.8 Those assets that would *not* be affected by the Proposed Development – e.g., where the Proposed Development site was found *not* to form an aspect of their setting, to form an aspect of their setting that does *not* contribute to their cultural significance or the ability to understand, appreciate and experience them, or where setting was seen to contribute to asset significance, but no material change was anticipated as a result of the introduction of the Proposed Development – were not progressed to Stages 2 and 3 of the settings assessment and were scoped out of any further assessment. Again, the results of the Setting Sieving Exercise and the scope of the settings assessment were confirmed in consultation with HES and THC HET.

Setting Assessment

1.5.9 In order to understand the contribution of setting to an asset's cultural significance and the sensitivity of its setting to change, site visits were undertaken by ERM and AOC Archaeology Group (based on the designs up to November 2024, see 1.6.10-12; and **Volume 5: Appendix 12.9 – appendix 3**). Following this, preliminary assessments and advice on mitigation approaches were provided to the design team and fed into an iterative process of design changes aimed at avoiding or minimising potential adverse effects, where possible, alongside the outcome of a number of focussed consultation workshops with HES.

1.5.10 In line with managing change **Stage 2**, the detailed assessment of setting contribution[9], is presented in a series of tables that breakdown the process of assessment (**Volume 5, Appendix 12.6: Setting Assessment Tables**), defining the setting contribution to asset significance.[10]

1.5.11 **Stage 3** utilised desk-based review (incorporating the modelling outputs defined below: 1.5.22-24 and 1.5.25) alongside observations from field investigations and the resultant design amendments, to define and assess the potential changes to setting and impact for each identified asset and understand *'… the magnitude of the proposed change relative to the sensitivity of the setting of an asset*'.[11]

1.5.12 Initially, the likely impact to each asset's setting contribution is assessed in relation to the sensitivity of the asset to changes in their setting, with the anticipated change being narratively presented.

1.5.13 In order to understand the relative impact to the overall cultural significance of the asset (given the assessment aims to identify likely effects only to the setting contribution), a calibration of the impact is then undertaken to determine the resultant effect on the asset as a whole, in line with the criteria outlined in **Section 1.8**. Setting contribution, is not considered an asset in and of itself, but a portion of the value attribution of a given asset.[12]

1.5.14 The inclusion of management felling in the setting assessment has been limited in scope. The consideration of felling within the Proposed Development Operational Corridor has been factored into the overall setting assessment, while felling activity beyond is assumed to be temporary in nature, following an assumption of replanting, and is thus not considered when appraising the impact and effect to the setting of cultural heritage assets. Management felling would potentially increase the adverse effects to setting temporarily during

[9] To note: Setting contribution is scale using the following terms: Major, Moderate, Some and Minimal, wherein it remains a possibility that none of these degrees of contribution represent primacy as a contributor.
[10] HES. 2016, updated 2020. Managing change, pg 8-9.
[11] HES. 2016, updated 2020. Managing Change, pg 11.
[12] It is the approach of this project, that the assessment of setting, independent of the asset, is not reflective of the impact and effect of the asset as a whole, given 'setting's' participatory nature in the overall cultural significance (value) of an asset.

construction in some instances, this would not be anticipated to materially affect the findings of the assessment presented, or the reliability of those findings (see paragraph 1.2.6-8).

Assessment of Integrity

1.5.15 In line with NPF4,[12] provision is made within the setting assessment to present an appraisal of whether the reported adverse effect for an asset significantly adversely impacts the 'integrity' of its setting.

1.5.16 In accordance with HES guidance provided in 'Managing Change: Setting' (read alongside the policy statements of NPF4 - Policy 7[13]), analysing whether the integrity of setting may be undermined involves a consideration of the way the surroundings of an historic asset or place contribute to how it is understood, appreciated, and experienced, and the manner of the anticipated impact and effect.

1.5.17 This will lead to this EIA Report provision of two separate assessments within **Volume 5, Appendix 12.6: Setting Assessment Tables**, which relate to differing thresholds:

- *Significance of effect*: a reasoned anticipation of an adverse or beneficial effect on a cultural heritage asset resulting from changes in setting introduced by the Proposed Development, which may be considered significant or not in line with the EIA regulations.
- *Statement on integrity*: an appraisal of the significance of effect to assess whether the 'integrity' of the asset's setting has been subject to '*significant adverse impacts'*.[12]

1.5.18 For the purposes of this assessment the following statement, as given in evidence by HES as part of a recent planning appeal,[13] has been adopted as the standard for the appraisal of 'integrity' as part of this assessment:

'Changes to factors of setting that contribute to cultural significance such that the understanding, appreciation and experience of an asset are not adequately retained will affect the integrity of setting'.[14]

1.5.19 For the purposes of this assessment, the reporting of a **Significant** adverse effect (in EIA terms) as a result of changes in setting, does not automatically result in an asset's integrity not being *adequately retained*.

1.5.20 An appraisal of all assets, where a significant adverse effect as a result of changes to setting has been reported, is conducted to assess the potential for impact to the 'integrity' of setting, and the extent of any such impact.

1.5.21 Where the identified level of adverse effect upon an asset is found to be **Not Significant**, it is considered that its 'integrity' would remain unchanged.

Zone of Theoretical Visibility (ZTV)

1.5.22 An initial model of potential visual prominence / accessibility generated using the relative locations (XYZ) of cultural heritage receptors and the Proposed Development is used to inform the setting sieving exercise. A worst-case scenario was modelled, with maximal potential tower heights, set at 70 m, and unscreened topography the only surface present ('bare earth'), using a 5 m digital terrain model (DTM).[15]

[13] Scottish Government. 2024. NPF4 – Policy 7. Available: Part 2 – National Planning Policy - National Planning Framework 4 - gov.scot.
[14] Appeal Decision Notice – Rigg Hill Wind Farm. 2022. Ref: PPA-310-2034. Available: https://www.dpea.scotland.gov.uk/Document.aspx?id=879832.
[15] The visual sphere (accessibility) of each tower was set at 10 km, in line with the setting Study Area.

1.5.23 Following the confirmation of the Proposed Development design (April 2025), a revised ZTV was produced, and a reassessment of the baseline was undertaken to affirm/update the results of the Setting Sieving Exercise (Managing Change Stage 1).

1.5.24 The ZTV was used to identify those heritage assets from which there would be theoretical visibility of the OHL (including towers) and to assess the degree of potential visibility (**Volume 3, Figure 12.5: Sieved Setting Assets with ZTV**). Consideration was also given to designated heritage assets outwith the direct inter-visibility identified by the ZTV, where changes in the wider landscape might adversely affect their setting.

3D Modelling

1.5.25 To assist with the Impact Assessment, the following digital visualisation modelling was undertaken to generate illustrative 3D renders of the Proposed Development in context (**Volume 5, Appendix 12.8: Cultural Heritage Visualisations, 12.8.2: 3D Renders; Volume 3, Figure 12.6: Cultural Heritage 3D Visualisations Locators)**.

1.5.26 The 3D model creation process[16] involves the following:

1.5.27 Base Model Creation:

- Software: GlobalMapper, Adobe Photoshop, Topaz3D.
- Data Sources: Ordnance Survey 5-meter resolution digital terrain data, 25cm aerial imagery, and 1:25 k scale colour raster.
- Process: GIS software to import OS data and exported to individual terrain tiles. Adobe Photoshop to do colour correction if required. Topaz 3D to overlay aerial imagery and colour raster map onto each tile and combine all tiles together to create the overall 3D environment.

1.5.28 Detailed Modelling:

- Detailed Modelling including buildings, trees, roads, and key areas within the central study areas. The central study area was identified and agreed with SSE, to cover all route options.
- Buildings: Low-level building data was used to model all buildings in simple boxes with roof structures.
- Trees: 3D representative trees were added using National Tree Map data.
- Roads: Major roads were modelled for enhanced definition beyond aerial imagery.
- Key Areas: Key areas were identified in collaboration with the SSE team, these areas were modelled to a high level of detail, incorporating photographic details.
- Software: Adobe Photoshop, Google Earth, Microsoft Excel, Topaz3D.
- Data: LOD2 building data & National Tree Map data
- Process: Adobe Photoshop for processing and editing photos taken on site. Google Earth for reference and helping with detailed modelling. Microsoft Excel for organising National Tree Map Data. Topaz 3D for importing data and modelling.

1.5.29 Infrastructure Modelling:

- Infrastructure Modelling including existing and proposed overhead lines and substations.

[16] Summary below provided by originator of the model used: 3dwTech.

- Software: Adobe Acrobat, Adobe Photoshop, Microsoft Excel, Google Earth, GlobalMapper, 3DS Max, Topaz3D.
- Data: 2D/3D drawings provided by SSE and its consultants.
- Process: Adobe Acrobat for reading PDF files. Microsoft Excel for reading and organising alignment schedules. Google Earth for existing structure reference. GlobalMapper for import and export 2D drawings. 3DS Max for import and export 3D drawings. Topaz 3D for detailed modelling.

1.5.30 Interactive Features:

- Navigation: Users can smoothly navigate to any position within the 3D environment.
- 3D Terrain Overlays: Users can toggle between aerial imagery and the 1:25k colour raster map.
- Before and After: Users can toggle proposed structures on and off to compare existing and proposed views from any location.
- Viewpoint: The model is built on the OSGB36 British Grid, allowing users to navigate to specific viewpoints by entering coordinates or a postcode.

Photomontages and Wireframes

1.5.31 To assist with the impact assessment, the following 54 photomontages and wireframes modelling was undertaken and adheres to NatureScot guidance[17] (see **Volume 5, Appendix 12.8: Cultural Heritage Visualisations, 12.8.1: Wireframes and Photomontages; Volume 3, Figure 12.7: Cultural Heritage Photomontages / Wireframes Locators**).

1.5.32 The following is a summary of the methods used to generate the figures, for a more detailed methodology see **Volume 5, Appendix 7.3: Technical Methodologies for Visual Representation**.

1.5.33 The viewpoint information captured onsite is entered into Autodesk Civil 3D 2023 along with the geolocated 3D model if one is provided. This is overlaid on top of Ordnance Survey contour tiles, which are used to create a 3D terrain surface model.

1.5.34 The single frame photographs are opened in Adobe Photoshop CC 2021 where they are checked, and any camera sensor dust spots are removed before being saved as high-resolution TIFF images. If required, discreet colour and tonal adjustments (in line with Scottish Natural Heritage's 'Visual Representation of Windfarms, version 2.2 - February 2017' guidance) may be made to each frame before they are saved.

1.5.35 If a stitched panorama is being used, the individual images making up the required field of view are stitched together in PTGui Pro version 10.0.12 professional photographic stitching software using the required projection settings. These are saved as high-resolution TIFF images.

1.5.36 The 3D model of the proposed development is then built (unless one has been supplied by the client). If necessary, this is geo-referenced accurately in 3D space along the X, Y and Z axis.

1.5.37 The model is then imported into Autodesk 3DS Max 2023 along with the previously plotted viewpoint locations. A 3D terrain mesh (DTM) is prepared and added to the 3D model of the proposed development. Virtual cameras are set up for each of the viewpoint locations. These are then aligned to the 3D model using the

[17] NatureScot (2017), Visual Representation of Wind Farms (Version 2.2)

surveyed reference points. Virtual lighting for the 3D model is configured to match the date, time and location of the photography.

1.5.38 If required, a materials library is prepared and added to the 3D model in line with the project architect's instructions.

1.5.39 Photomontages are prepared and exported out of Autodesk 3DS Max 2023. They are then opened in Adobe Photoshop CC 2021 where minor changes are made such as placing relevant tree/building/hedge screening or telegraph wires over the proposed development where necessary.

1.5.40 The final images are cropped to the proportions required for the LVIA-CH figures and named in line with the cultural heritage viewpoint ('CHVP-XX').

1.6 Field Survey

Walkover Survey

1.6.1 An archaeological walkover survey was conducted by AOC Archaeology Group between April and November 2024 (**Volume 5, Appendix 12.9: Walkover Survey Report**). The survey focussed on the proposed alignment options and their respective LoD's before focusing on the EIA alignment and associated access tracks during the survey programme (including design amendments and alignment selections), within a 200 m survey corridor. The survey aimed to:

- confirm the presence/absence, extent and condition of any known heritage assets;
- identify any previously unknown/potential heritage assets; and
- recover any surface remains considered to be at risk.

1.6.2 The Proposed Development's alignment options were refined during the programme of work, with sections added and removed as the design progressed through various consultations and revisions. Walkover and windscreen surveys were also undertaken for proposed permanent and temporary access tracks. The data structure report (DSR) presents the findings in detail as they pertain to the latest (November 2024) route alignments and access arrangements provided to AOC Archaeology Group, however all heritage asset data collected during the course of the works was retained in the gazetteer for posterity and was submitted with the bulk dataset.

1.6.3 Alignment options were separated into five sub-sections (A-E), with some sub-sections further divided. In total, fourteen sub-sections form part of the formal Proposed Development proposals (A1.1-A1.5, B1.1, B1.2, C1.1, C1.2, D1.1., D1.2, E1.1-E1.3). The report was laid out using these as a framework, though arbitrary sub-sections are used herein to present a cohesive baseline and dataset, defining the sub-sections through towers ranges.

1.6.4 The assessment identified the cultural heritage baseline of the Proposed Development inasmuch as is possible for the scale of the proposal. Defined survey corridors were used to identify the known upstanding heritage resource present within the potential works areas for the overall Proposed Development's alignment, where access was available. Further, the archaeological potential for hitherto unidentified archaeological remains within those corridors were inferred based on the presence of similar remains within the local surrounds up to 1km distant from the alignments. Potential direct impacts to the known heritage resource within the Proposed Development and LoD were considered and preliminary mitigation considerations laid out therein.

1.6.5 The assessment considered the archaeological potential across the alignment corridors to range from Negligible to High, with archaeological importance of assets similarly ranging from Negligible to High. There is

considered to be a Low potential generally for remains of Early Historic, Medieval and Modern date. The High potential across portions of the route is predominantly for post-medieval archaeological remains, with prehistoric remains following. The archaeological importance of such assets generally ranges between Negligible and Low for the post-medieval remains, and while broadly similar for the prehistoric period archaeological remains, there are some instances where potentially Medium and High importance archaeological remains may be present. As a broad rule, this archaeological potential is highest within the more sheltered areas of the alignment, within settings such as straths, glens or broad south and southeast-facing slopes, which offer hospitable environments for settlement and agricultural activities. The archaeological potential tends to diminish in the very upland and less hospitable portions of the alignment corridors.

1.6.6 In sum, the survey identified or confirmed the condition and presence/absence of 1267 assets.

1.6.7 The full dataset recovered during the walkover survey is provided in full in **Volume 5, Appendix 12.9**. It is possible that later design changes will be surveyed and reflected in a revised version of the DSR, or in a supplementary report and data submission.

1.6.8 Following the completion of the archaeological walkover survey, further mitigation design changes occurred. However, the results of the survey undertaken to date are considered reliable, and sufficient to inform the present assessment.

1.6.9 In line with the design changes, together with incomplete survey coverage due to inaccessible areas or weather constraints, further pre-construction survey may be required (see **Volume 5, Appendix 12.7: Mitigation Summary,** paragraphs 1.3.6 and 1.4.10). This would comprise a mix of walkover (open areas) and windscreen survey (existing tracks/roads).

Setting Assessment Fieldwork

1.6.10 To complement the desk-based assessment defined in **Section 1.4** above, field assessment of the setting of heritage assets was undertaken by ERM. This involved the following steps:

- the assets and their settings were inspected on foot;
- written observations were recorded and illustrative photographs taken of key inward and outward views and of any important spatial relationships, within the context of the Proposed Development;
- the requirement for any wireframes/photomontages/3D model visualisations was identified, and the relevant imagery prepared following consultation with HES and THC HET; and
- further desk-based review, informed by the field data and modelling, was then undertaken to enable informed analysis of:
  - whether setting contributes to the cultural significance of any heritage assets, or to the ability to understand, appreciate and experience them; if so,
  - what specific aspects of setting make such a contribution, how and to what extent;
  - whether and to what extent those contributing aspects would change under the Proposed Development; and
  - whether that change would have an adverse effect on the assets' cultural significance, or the ability to understand, appreciate and experience it.

1.6.11 AOC Archaeology Group ran a parallel setting assessment of 103 of the 192 designated (and significant non-designated grouped) assets accessible within or nearby the Propsoed Development LoD to compliment the ERM setting assessments. AOC Archaeology Group sought to provide additional experience and commentary on the setting of assets proximate to the proposed alignment. The reporting aimed to provide initial design mitigation (following design changes up to November 2024) to be incorporated into the further design iteration

process, and assess the relative contribution of setting to each asset's cultural significance alongside the anticipated sensitivity of the setting to change.

1.6.12 A workshop was subsequently held in June 2025 between ERM and AOC Archaeology Group to discuss the integration and potential significant effects as a result of setting effects, based on the resultant design for submission (April 2025), following the continued iterative process of design changes.

1.6.13 ERM accompanied HES on a site visit 7th-10th April 2025, wherein discussions concerning potential setting impacts took place in the field, using available visualisations, and advice was provided by HES.[18] This was followed, in June 2025, by a workshop to discuss the potential effects and the approach to mitigation post-submission.

1.7 Assessment Caveats

1.7.1 The below described caveats to the approach, do not limit the reliability of the assessment undertaken, but should be taken into account.

1.7.2 Any assessment of heritage is inherently subjective. The significance, contribution of setting to cultural significance, sensitivity to change, nature and extent of impact and effect, are all open to professional judgement. Such judgment derives from the experience and expertise of those involved in the assessment and chapter preparation, and has been guided by stakeholder consultation, including HES and The Highland Council (THC), workshops and communication alongside overlapping setting assessment surveys between ERM and AOC Archaeology Group, using the industry prescribed assessment methodology, as set out in this document and in **Volume 2, Chapter 5: EIA Process and Methodology**.

1.7.3 Data sources such as Canmore and the HER (the curated Historic Environment Record) may contain errors, including human error, locational accuracy, areal and transposal errors, outdated information, time delays in the incorporation of data into the databases, incompleteness, inadequate or false recording and representative reductionism (linear features as points).

1.7.4 Visualisation models, while detailed, remain only a figurative representation of real human experience, which is kinetic and sensory in numerous other regards as well as visual.

1.7.5 Areas subject to design changes or that were inaccessible during the site surveys may contain previously unidentified buried archaeological remains. This may be mitigated by a qualified archaeologist conducting additional site visits as required and/or via archaeological monitoring (e.g., watching brief) during construction and advising on micro-siting within the LoD.

1.8 Assessment of Effects

1.8.1 The effects of the Proposed Development on heritage assets have been assessed based on their type (direct impacts, impacts on setting and cumulative impacts) and nature (adverse or beneficial).

- Adverse effects are those that detract from or reduce cultural significance or the ability to understand, appreciate and experience heritage assets.
- Beneficial effects are those that preserve, enhance or better reveal the cultural significance of heritage assets or the ability to understand, appreciate and experience them.

[18] Feedback and outcomes from the site visit have been integrated into the mitigation approach.

1.8.2 The term “heritage assets” refers to all aspects of the historic environment, including buried archaeological remains, archaeological earthworks, built heritage structures and areas of historic landscape where they retain aesthetic, historic, scientific or social value for past, present or future generations (cultural significance).

Criteria for Assessing Value (Cultural Significance)

1.8.3 NPF 4 Policy 7 a) provides as follows:

‘Development proposals with a potentially significant impact on historic assets or places will be accompanied by an assessment which is based on an understanding of the cultural significance of the historic asset and/or place.’

1.8.4 The Glossary to NPF 4 (Part 3 – Annexes, p.147) defines ‘cultural significance’ as follows:

‘Cultural significance means aesthetic, historic, scientific or social value for past, present or future generations. Cultural significance can be embodied in a place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.’

1.8.5 This same definition is adopted in Historic Environment Policy for Scotland (HEPS) (2019).

1.8.6 Cultural significance may change over time, for example as use changes or as understanding develops owing to new information or changes in ideas or values.

1.8.7 The assessment considers the relative contributors of *value* to assets, as it relates to the overall cultural significance of heritage assets, including any value contribution made by their setting. The contribution of setting is noted as either: Major, Moderate, Some or Minimal, as appropriate, although none of these levels necessarily equates to setting being considered the primary contributor to cultural significance.

1.8.8 Designation of heritage assets, whether by statute or other national regulatory mechanisms such as addition to one of HES’s Inventories, recognises the elevated level of cultural significance of certain cultural heritage assets, and provides an elevated level of protection for them within the planning process. Designated heritage assets are those considered to be of ‘national importance’ or to retain ‘special architectural or historic interest’. They also include World Heritage Sites inscribed, in whole or in part, for their ‘Outstanding Universal Value’.

1.8.9 The nature and level of protection provided, and the prescribed manner in which a designated asset is to be treated within the planning system, varies depending upon the type of designation and the relevant laws and policies in place.[19]

1.8.10 All other aspects of the historic environment that retain cultural significance are considered to be non-designated cultural heritage assets. Unless they are of acknowledged equivalent cultural significance to a designated heritage asset, such non-designated cultural heritage assets are afforded lower levels of policy protection within the planning system, reflecting their lower levels of cultural significance.

1.8.11 **Table 1.2** summarises the relative value of designated and non-designated cultural heritage assets relevant to the Proposed Development.

[19] Designation Policy and Selection Guidance (HES, 2019)

Table 1.2: Cultural Significance of Heritage Assets

Cultural Significance	**Criteria**
High	• World Heritage Sites; • Scheduled Monuments; • Category A Listed Buildings; • Inventory Gardens and Designed Landscapes; • Conservation Areas; • Registered Battlefields; and • Non-designated assets that meet the relevant criteria for designation.
Medium	• Category B Listed Buildings; • Some Conservation Areas (as defined by the relevant Local Development Plan); • Non-Inventory Designed Landscapes, where these are recorded in Council HERs; and • Archaeological remains and other cultural heritage assets of regional value, i.e., which contribute to the aims of regional research frameworks (referred to as Significant non-designated).
Low	• Category C Listed Buildings; and • Unlisted historic buildings and townscapes, and archaeological remains of local value.
Negligible	• Aspects of the historic environment that retain little or no aesthetic, historic, scientific or social value for past, present or future generations, and are therefore of little or no value (cultural significance), e.g., artefact find-spots, poorly preserved examples of minor historic/recent landscape features such as quarries, dilapidated sheepfolds etc.

Criteria for Assessing the Magnitude of Impact

1.8.12 Magnitude of impact (adverse or beneficial) has been assessed as 'high', 'medium', 'low' or 'negligible', based upon the criteria presented in **Table 1.3**.

Table 1.3 Magnitude of Impact

Magnitude of Impact	**Criteria**	
	Adverse	Beneficial
High	Changes to the fabric or setting of a heritage asset resulting in the complete or near complete loss of the asset's cultural significance. Changes that substantially detract from how a heritage asset is understood, appreciated and experienced.	Preservation of a heritage asset in situ where it would otherwise be completely or almost completely lost. Changes that appreciably enhance the cultural significance of a heritage asset or how it is understood, appreciated and experienced.
Medium	Changes to those elements of the fabric or setting of a heritage asset that contribute to its cultural significance such that this quality is appreciably altered.	Changes to important elements of a heritage asset's fabric or setting, resulting in its cultural significance being preserved (where this would otherwise be lost) or restored. Changes that improve the way in which the heritage asset is understood, appreciated and experienced

Magnitude of Impact	Criteria	
	Adverse	Beneficial
	Changes that appreciably detract from how a heritage asset is understood, appreciated and experienced.	
Low	Changes to those elements of the fabric or setting of a heritage asset that contribute to its cultural significance such that this quality is slightly altered. Changes that slightly detract from how a heritage asset is understood, appreciated and experienced.	Changes that result in elements of a heritage asset's fabric or setting detracting from its cultural significance being removed. Changes that result in a slight improvement in the way a heritage asset is understood, appreciated and experienced.
Negligible	Changes to fabric or setting of a heritage asset that leave its cultural significance unchanged overall and do not affect how it is understood, appreciated and experienced.	

1.9 Cumulative Effects

1.9.1 The assessment of cumulative effects on heritage assets is based upon consideration of the anticipated effects of other developments upon designated cultural heritage assets affected by the Proposed Development.

1.9.2 The assessment of cumulative effects has been undertaken by geographical Section A-E. It comprises intra-project cumulative effects, i.e., additional effects due to the combination of the Proposed Development and Associated Developments, namely the Banniskirk 400 kV Substation and High-Voltage Direct Current (HVDC) Converter Station, Carnaig 400 kV Substation, and Fanellan 400 kV Substation and Converter Station. It also comprises inter-project cumulative effects i.e additional effects dure to the combination of the Proposed Development and other SSEN Transmission and third-party projects. A list of intra- and inter- project cumulative developments is provided in **Volume 2, Chapter 5: EIA Process and Methodology**.

1.9.3 The assessment has considered the relative scale of the identified developments, their distance from affected assets, and the potential degree of visibility of the various developments from the assets under consideration.

1.9.4 **Volume 2, Chapter 17: Cumulative Effects** sets out the results of the assessment of interactive cumulative effects of the Proposed Development on key sensitive receptors, i.e. effects resulting from the interaction between impact types.

1.10 Criteria for Assessing Effects

1.10.1 The cultural significance of the asset (**Table 1.2**) and the magnitude of the predicted impact (**Table 1.3**) have been used to assess the potential significance of the resultant effect. **Table 1.4** provides the matrix via which effects are calculated. Where applying the matrix (**Table 1.4**) indicates two possible outcomes then professional judgement, supported by reasoned justification, has been employed to determine the level of significance, as being either one level or the other. A reported effect to a cultural heritage asset will never be reported as a split effect; for example 'Moderate / Minor', but rather 'Moderate' or 'Minor'.

1.10.2 For purposes of the EIA Regulations, Major and Moderate effects are considered to be 'Significant'.

1.10.3 All Minor and Negligible effects are considered to be 'Not Significant'.

Table 1.4 Significance Criteria

Significance of Effect		Cultural Significance of Receptor/Receiving Environment				
		High	**Medium**	**Low**	**Negligible / Low**	**Negligible**
Magnitude of Impact	**High**	Major	Major / Moderate	Moderate / Minor	Minor	Negligible
	Medium	Major / Moderate	Moderate / Minor	Minor	Minor / Negligible	Negligible
	Low	Moderate / Minor	Minor	Minor	Minor / Negligible	Negligible
	Negligible / Low	Minor	Minor / Negligible	Minor / Negligible	Minor / Negligible	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible

Areas of Elevated Archaeological Potential (EAPs)

1.10.4 EAPs represent areas (detailed in **Volume 5, Appendix 12.7: Mitigation Summary**, Section 1.5) of established and/or anticipated focussed archaeological potential, wherein a more detailed mitigation response is likely to be required. Identification of these areas has been informed by the following:

- where there is a known concentration of significant and/or coherent archaeological activity, e.g., areas where multiple significant and/or inter-related assets are concentrated, or
- where the topographic/environmental conditions raise the potential for a significant level of unrecorded archaeological activity, within the context of the local prehistoric/historic settlement pattern.

1.10.5 The identification of EAPs provides a mechanism for recognising and flagging those areas that, based upon the above criteria and professional judgment, are considered to retain a notable potential for further unrecorded significant archaeological remains to survive buried. This enables them to be effectively factored into the application and post-consent strategies. It is important to recognise that this characterisation represents a preliminary understanding of the resource and is limited to consideration in association with the Proposed Development, while the potential may extend beyond the illustrated boundary, it was not considered to be at risk; and that the potential for unrecorded archaeology to be present along the Proposed Development outside of these areas remains.

1.10.6 EAPs do not represent cultural heritage assets in and of themselves, and they do not have any formal recognition / designation, e.g., by HES or the THC HET. Rather, they are based upon ERM's professional opinion informed by the substantive level of assessment and analysis undertaken in the preparation of this EIA Report.

1.10.7 EAPs will form the focus of pre-construction archaeological investigations. However, it is expected that the number and extent of EAP areas will change as new information is generated and discoveries made during the course of the further investigation and mitigation works. Where investigations identify that archaeological potential is absent or lesser than anticipated, the approach in that area may be modified based on those findings. Conversely, where pre-commencement investigations identify previously unknown remains, detailed mitigation plans may be developed and incorporated into the CEMP.

1.10.8 Further non-intrusive and intrusive investigations are required to mitigate and manage the loss of the known assets subject to direct impacts, understand the location, extent and presence of associated features, and identify the presence / absence of previously unknown archaeological remains. These investigations will modify our understanding both of the extent and value of any known assets, and also of the presence of other previously unidentified remains, which will need to be incorporated into any mitigation design.

1.10.9 These EAP areas are outlined in **Volume 5, Appendix 12.7: Mitigation Summary** and proposed boundaries for impact are shown on **Volume 3, Figure 12.8: Elevated Archaeological Potential Areas.**

1.11 Mitigation

1.11.1 A mitigation design approach is presented in **Volume 5, Appendix 12.7: Mitigation Summary**, with the mitigation measures integrated into **Volume 2, Chapter 19: Schedule of Mitigation**.

1.11.2 Mitigation measures will be developed in line with the requirements of national, regional and local planning policy. Suitable programmes of mitigation would be prepared and presented in a Written Scheme of Investigation (WSI), approved by THC and implemented in accordance with NPF4 Policy 7 (O), Planning Advice Note (PAN) 1/2013: Environmental Impact Assessment (revised 2017)[20] and PAN 2/2011: Planning and Archaeology, prior to the commencement of any construction works.[21] PAN 1/2013 describes mitigation as a hierarchy of measures, as follows:

- prevention;
- reduction; and
- compensatory (offset) measures.

1.11.3 Provision would be made within the WSI for an appropriate programme of investigation and recording of any archaeological remains identified as a result of any mitigation works undertaken in advance of, or during construction works, that cannot be preserved in situ.

1.11.4 All works would be conducted by a professional archaeological organisation (Archaeological Clerk of Works (ACoW)).

1.11.5 The archaeological mitigation works would include the consequent production of written reports on the findings of the archaeological work conducted, with post-excavation analyses, publication and archiving of the results of the work where appropriate. Written guidance will be made available to all construction contractors, outlining the need to avoid causing unnecessary damage to heritage assets and procedures for reporting damage or chance identification. The guidelines, to be contained with the CEMP, shall outline the process for accessing professional archaeological support in the event that features of potential archaeological interest (such as building remains, human remains, artefacts etc) are discovered in areas not subjected to archaeological

[20] Planning Advice Note 1/2013: Environmental Impact Assessment
[21] Planning Advice Note 2/2011: Planning and archaeology

monitoring. The guidance would make clear the legal responsibilities placed upon those who disturb archaeological features, artefacts or human remains.

1.11.6 Prevention and reduction measures can be achieved through design, whilst compensatory measures offset effects that have not been prevented or reduced. The emphasis in NPF4 Policy 7 (O) [and PAN 2/2011: Planning and Archaeology] is for the preservation of important remains in situ where practicable and by record where it is not.[22] The mitigation approach herein, is aligned with this guidance.

1.11.7 An iterative process of design review and amendment was undertaken throughout the EIA pre-submission phase. The Cultural Heritage considerations were platformed and weighed against other Propsoed Development constraints in workshop/forum-style optioneering meetings, which included the developer's environmental, social and engineering specialists. Options presented derived from a variety of sources, for example: topic team change request, stakeholder consultation/feedback, community responses, or access concerns / alternative development area requirements.

1.11.8 A summary of assets discussed with HES following iterative design changes and consultation are presented in **Volume 2: Chapter 4, Table 4.6: HES Consultation Review**. Wherein specific assets with setting concerns are reviewed and noted for detailed mitigation consideration in line with the approach outlined in **Volume 5, Appendix 12.7: Mitigation Summary,** paragraph 1.4.13.

1.11.9 NPF4 states within Policy 7 (O) for Historic Assets and Places states that where impacts to the heritage resource cannot be avoided there is an expectation that some public benefit will be generated through development:

'Where it has been demonstrated that avoidance or retention is not possible, excavation, recording, analysis, archiving, publication and activities to provide public benefit may be required through the use of conditions or legal/planning obligations.'

1.11.10 Guidance issued by ALGAO, to be viewed alongside Our Past, Our Future: The Strategy for Scotland's Historic Environment[23] for the delivery of public benefits relating to cultural heritage and archaeology states that:

'To achieve the policy aim of 'public benefit' and the wider Scottish Government legislative background of adding social value to works, Applicants/Developers and their Archaeological Contractors are expected to include public engagement and social value opportunities, as appropriate, in each of their developments, where archaeological works to mitigate and offset harm to heritage assets is required. The emphasis is to be proportionate and reasonable at all times.…'.[24]

1.11.11 The proposed Framework Mitigation Approach and the accompanying curation of the associated written reports and physical archive go somewhat towards achieving the desired outcome of public engagement and social

[22] Planning Advice Note 2/2011: Planning and archaeology

[23] HES. 2023. Our Past, Our Future: The Strategy for Scotland's Historic Environment. Available at: Our Past, Our Future | Historic Environment Scotland | History

[24] ALGAO Scotland 2023. *Delivery of Public Benefit and Social Value for Archaeology in the Planning Process*. Available at https://www.algao.org.uk/news/tue-14022023-0904-delivery-public-benefit-and-social-value-archaeology-planning-process [Accessed 10/07/2024]

value, with information becoming publicly available through the records within the HER and grey literature reports available through the Archaeology Data Service (ADS) and Discovery and Excavation Scotland (DES).

1.11.12 Further action to promote Public Benefit may be considered as part of the post-submission mitigation design that aims to enhance the heritage resource (see **Volume 5, Appendix 12.7 Mitigation Design**, Section 1.14.14). Approaches to creating Public Benefit may include:

- consultation with communities and relevant heritage societies and groups to understand local perspectives, usage and opportunities;
- removing barriers to accessibility, including the promotion of fitness and a healthy lifestyle;
- widening the understanding and recognition of the historic environment;
- educational partnerships, provisions and resources;
- employment/employability and training opportunities;[25] and
- sustainability.

1.11.13 All mitigation works presented in **Volume 5, Appendix 12.7: Mitigation Summary**, would take place prior to, or, where appropriate, during, the construction of the Proposed Development. All works would be conducted by a professional archaeological organisation, and the scope of works would be detailed in one or more Written Scheme(s) of Investigation (WSI) and Project Plans (PP) developed in consultation, and agreed, with THC HET.

Mitigation Design

1.11.14 A supplementary Mitigation Design document will be compiled by the ACoW to outline the detailed mitigation approach for the Propsoed Development. This will be integrated, where applicable, into the Principal Contractor's Construction Environmental Management Plan (CEMP)[26] and include:

- an overall Written Scheme of Investigation (WSI);
- a methodology for non-intrusive survey methods, e.g., geophysical survey;
- project plans for intrusive pre-commencement works, e.g., trial trenching, targeted excavation etc;
- a methodology for construction phase archaeological monitoring, chance finds recovery, and adherence to embedded mitigation. Considerations for public benefits and community engagement/involvement in works, where appropriate, will also be set out in the CEMP documentation via the archaeological management plan.

1.11.15 Impact was assessed in relation to the proposed locations of Propsoed Development elements. The presence of heritage assets within the LoD, that are not within these proposed locations, are considered not to result in a direct impact. The approach to mitigating and managing heritage impact of any design iterations within the LoD post-EIA Report submission is as follows:

1. **Embedded mitigation**: develops the framework from which the detailed design interpreting the outlined approaches to avoidance, minimisation and reduction of impact to heritage assets that are universal across the Proposed Development, will be detailed through documentation (CEMP/WSI/PP) of the specific mitigation works.

[25] SSE. 2024. Supplier Diversity Strategy at SSE. Available at: sse-supplier-diversity-strategy.pdf

[26] Where works are undertaken outside of the scope, or prior to the involvement, of the Principal Contractor, the reports generated will be incorporated to inform the CEMP documentation and attached as supplements.

2. **Secondary mitigation**: outlines areas of EAP with relevant indicative mitigation approaches.
3. **Tertiary mitigation**: presents initial mitigation considerations for inclusion in the detailed design based on observations from field investigations during this EIA.

1.12 Assessment of Residual Effects

1.12.1 An assessment of residual effects considers the mitigation proposed and the effectiveness of that mitigation in avoiding, reducing or offsetting the predicted effects. Where a predicted impact is avoided through micro-siting, this would result in no residual effect.

1.12.2 Where an asset cannot be avoided, but where the proposed mitigation would ensure that the affected asset is subject to an appropriate level of archaeological investigation and recording, resulting in its preservation by record, the significance of the residual effect is accordingly lessened, although this may not reduce the reported level of effect.

1.12.3 Where an asset (usually one of little or no heritage value) is lost without any mitigation, or where a predicted effect is not mitigated, the residual effect remains the same as the predicted effect.

1.12.4 In cases where an asset of negligible cultural significance is subject to a high magnitude of impact (per the Table 1.3 criteria) the residual effect, being on an asset of negligible value (per the Table 1.2 criteria) would not exceed Minor adverse, which would be Not Significant in EIA terms.

1.12.5 Residual effects may be mitigated and/or offset through the curation of written reports and the physical archive for public use, and potentially supplemented by additional actions aiming to promote public benefit through the enhancement of the heritage resource as part of the Proposed Development's mitigation approach.