



Cultural Heritage Impact Assessment

Glenrothes BESS

07/12/2022



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1. EXECUTIVE SUMMARY

- 1.1. Neo Environmental Ltd has been appointed by Glenrothes BESS Ltd to undertake a Cultural Heritage Impact Assessment for a proposed battery energy storage system and associated infrastructure on lands northeast of Ballingall Farm, Leslie, Glenrothes, KY6 3HD.
- 1.2. Designated heritage assets such as Scheduled Monuments, Historic Parks and Gardens, Listed Buildings, Conservation Areas, World Heritage Sites, Registered Battlefields and Heritage Coasts have been assessed for potential impacts within a 2km study area of the Proposed Development. Non-designated sites within the local Historic Environment Records were also identified within a 1km study area. Baseline information was also obtained through a site walkover survey and desk-based analysis of sources including historic maps, aerial photography, lidar data and consultation with relevant records and databases.
- 1.3. No designated or non-designated heritage assets are located within the extent of the Application Site, while no internal features of archaeological interest were identified through the site visit or analysis of historic maps, aerial imagery and lidar data. As such, the Proposed Development will **not result in any direct impacts to known archaeology and heritage assets and will not require any mitigation measures.**
- 1.4. The archaeological potential of the Application Site is expected to be limited, with no specific indicators for sub-surface remains identified from any of the sources. While surviving remains from any period within the greenfield site cannot be fully dismissed, it is expected that the potential for such remains is Low. **It is therefore not anticipated that any pre-construction evaluation or mitigation work will be required.** Nonetheless, in the event that sub-surface remains survive, the ground disturbance involved in the construction of the BESS and its access track would result in their complete destruction within the extent of the red line boundary. As such, it may be prudent to incorporate a planning condition with any consent which mandates **construction stage monitoring by a qualified archaeologist (watching brief) for all topsoil stripping associated with the access track and battery storage footprint.**
- 1.5. The implementation of such would allow for the identification and preservation by record and/or *in-situ* of any hitherto unknown sub-surface remains present within the greenfield site. However, all decisions relating to fieldwork and mitigation strategies will be at the discretion of Fife County Archaeologist Douglas Speirs.
- 1.6. Indirect effects upon the surrounding heritage assets have been assessed as **Low** for the category C listed Ballingall Farmhouse (NA07) and **Negligible** for all other designated and non-designated assets. As a result, **no specific mitigation is considered to be necessary for the reduction of any visual impacts.**

2. INTRODUCTION

BACKGROUND

- 2.1. Neo Environmental Ltd has been appointed by Glenrothes BESS Ltd (“the Applicant”) to undertake a Cultural Heritage Impact Assessment (CHIA) for a proposed battery energy storage system (BESS) and associated infrastructure (the “Proposed Development”) on lands northeast of Ballingall Farm, Leslie, Glenrothes, KY6 3HD (the “Application Site”).

DEVELOPMENT DESCRIPTION

- 2.2. The proposal is for a battery storage facility, substation, control buildings, storage buildings, new compound, fencing, and associated infrastructure.

SITE DESCRIPTION

- 2.3. The area of the proposed Development (the “Application Site”) lies at an elevation of approximately 134 – 157m AOD and covers a total area of c. 1.28 hectares. It is centred at approximate National Grid Reference (NGR) E 325228 N 703115. The Proposed Development is located c. 1.5km north of the A911, The Proposed Development is located c. 1.45km north of Leslie, Fife and c. 3km northeast of Glenrothes.
- 2.4. Comprising of a single field of agricultural land, access will be gained from the existing entrance to the northwest of the site via an unnamed road to the west, which connects to the A911 to the south.

SCOPE OF THE ASSESSMENT

- 2.5. The assessment has been produced to evaluate the cultural heritage assets and archaeological remains relevant to the Application Site. A search of designated heritage assets including Scheduled Monuments, Listed Buildings, World Heritage Sites, Inventory Parks and Gardens, Inventory Battlefields and Heritage Coasts has been carried out within a 2km study zone of the Proposed Development. This study zone is in line with previous similar assessments produced by Neo Environmental and allows heritage assets to be appropriately considered for indirect impacts within a comprehensive area, both on the assets themselves and their settings.

- 2.6. Non-designated archaeology and heritage sites within the local Historic Environment Record have been assessed within a 1km study zone. These sites are usually of a lower sensitivity to visual impacts but both features and events within the record can be a good indication of the likely archaeological potential of land within the Application Site.
- 2.7. Where appropriate, sites of exceptional value or sensitivity outside the study zones have also been assessed. The aims of the assessment are as follows:
- To identify all known heritage assets within the study zone based on all available public resources;
 - To identify the archaeological potential of the Application Site;
 - To determine what if any level of recording will be required for any extant remains;
 - To assess the significance of any direct or indirect effect of the Proposed Development on cultural heritage assets and their settings and potential archaeological remains within the study zone, from construction through to decommissioning;
 - To identify mitigation measures where possible and aid in the design process to reduce the potential impacts of the proposed scheme;
 - To provide recommendations for any further archaeological/heritage assessment work that should be undertaken as part of the Proposed Development.
- 2.8. The report is supported by the following Figures and Technical Appendices:
- Appendix A: Figures
 - Figure 1 – Designated Heritage Assets
 - Figure 2 – Non-designated Heritage Assets
 - Figure 3 – Roy Military Survey Map 1747-55
 - Figure 4 – OS 1856 Map
 - Figure 5 – OS 1896 Map
 - Figure 6 – OS 1949 Map
 - Figure 7 – Lidar Data
 - Figure 8 – 1945 Aerial Image
 - Appendix B: Tables

- Appendix C: Plates

STATEMENT OF AUTHORITY

- 2.9. The assessment has been conducted by registered archaeologists with the Chartered Institute for Archaeologists (CIfA), of Associate (ACIfA) level or above. The assessment has been conducted in accordance with the appropriate professional guidance outlined in the Code of Conduct¹ and Standards and Guidance for Desk-based Assessment² from the Chartered Institute for Archaeologists (CIfA).
- 2.10. Michael Briggs BSc (Hons) MSc ACIfA MIAI was the primary author of this assessment. He has undertaken a large number of cultural heritage and archaeological impact assessments for developments across the UK and Ireland, with a particular focus on renewable projects, including numerous solar farms throughout the Republic of Ireland and Northern Ireland. He has over nine years of professional experience, including assessments for the initial stages of feasibility and heritage impacts through to a wide variety of fieldwork and mitigation measures.
- 2.11. Paul Neary BA H.Dip MA MSc MEnvSc MIAI ACIFA CEnv was the primary editor of this report. Paul is dual-qualified as a Chartered Environmentalist and archaeologist. Paul has over 16 years of archaeology and heritage experience, the majority of which relates to Ireland. Paul has worked on large road projects, EIA developments and energy projects across Ireland and the UK. He is licensed to direct archaeology work in the Republic of Ireland and has also held archaeology director licenses in Northern Ireland.

CONSULTATION

- 2.12. Pre-application responses from Fife Council were received in April and August 2022. A summary of their key comments is contained below.

EIA Screening Response (Fife Council) 18th April 2022

“The Ballingall place-name is of interest. It is Gaelic, and means ‘Farm of the foreigners’. It was probably coined in the late 11th or the early 12th century and unusually, it appears to relate to the peaceful settlement of Scandinavians (Vikings) here. Whilst this is unusual, because most of Fife’s ‘gall’ place-names (gall is Gaelic for foreigner) relate to the settlement of Norman French lords in Fife during the 12th century, no significant archaeology is recorded in or around

¹ CIfA (2014) *Code of Conduct*. Chartered Institute for Archaeologists.

² CIfA (2014) *Standards and Guidance for desk-based assessment*. Chartered Institute for Archaeologists.

this proposed battery site and archaeological considerations are unlikely to feature as a significant matter in the development of this site.

It is therefore concluded that development would not have a significant negative impact on the wider archaeological landscape. With respect to the cultural heritage context, nearby Ballingall Farmhouse is C-Listed, but topography and existing natural screening means that there would be no likely impact on this asset.”

Email Consultation (Douglas Speirs, Fife County Archaeologist) 29th August 2022

- 2.13. Email consultation with Douglas Speirs was undertaken at the end of August 2022. No issues were highlighted from the response, and it was noted that the chance for sub-surface archaeology was relatively unlikely.

3. LEGISLATION AND PLANNING POLICY CONTEXT

3.1. This Cultural Heritage Impact Assessment has been considered with regard to all relevant national, regional and local planning policy and guidance:

- Scottish Planning Policy (2014)³
- Historic Environment Policy for Scotland (2019)⁴
- Historic Environment Circular 1 (2016)⁵
- Planning Advice Note 2/2011 (PAN 2); Planning and Archaeology⁶
- Historic (Environment) Scotland: Managing Change in the Historic Environment (2016)⁷
- Ancient Monuments and Archaeological Areas Act (1979)⁸
- Planning (Listed Buildings and Conservation Areas) (Scotland) Act (1997)⁹
- Town and Country Planning (General Development Procedure) (Scotland) Order (1992)¹⁰
- FIFEplan – Adopted Plan: Written Statement¹¹

3.2. The most relevant policy documents to this impact assessment are discussed in more detail below.

³ The Scottish Government (2014) *Scottish Planning Policy*. Edinburgh.

⁴ Historic Environment Scotland (2019) *Historic Environment Policy for Scotland May 2019*. Edinburgh.

⁵ Historic Environment Scotland (2016) *Historic Environment Circular 1*. Edinburgh.

⁶ The Scottish Government (2011) *Planning and Archaeology — Planning Advice Note 2/2011*. Edinburgh.

⁷ Historic (Environment) Scotland (2016) *Managing Change in the Historic Environment*. Edinburgh.

⁸ HMSO (1979) *Ancient Monuments and Archaeological Areas Act 1979*. London (Reprinted 1996).

⁹ HM Government (1997) *Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997*.

¹⁰ HM Government (1992) *The Town and country Planning (General Development Procedure) (Scotland) Order 1992*.

¹¹ Fife Council (2017) *FIFEplan Adopted Plan: Written Statement*. Fife Council.

SCOTTISH PLANNING POLICY 2014

- 3.3. Scottish Planning Policy (SPP) was published on June 23, 2014. It sets out the national planning policies which reflect Scottish Ministers' priorities for the operation of the planning system and for the development and use of land. The SPP promotes consistency in the application of policy across Scotland whilst allowing sufficient flexibility to reflect local circumstances. Policies relevant to this impact assessment are located within the "Valuing the Historic Environment" section of the SPP. These policies define the various categories of heritage assets that will be assessed in this report.

Paragraph 141 — Listed Buildings

"Change to a listed building should be managed to protect its special interest while enabling it to remain in active use. Where planning permission and listed building consent are sought for development to, or affecting, a listed building, special regard must be given to the importance of preserving and enhancing the building, its setting and any features of special architectural or historic interest. The layout, design, materials, scale, siting and use of any development which will affect a listed building or its setting should be appropriate to the character and appearance of the building and setting. Listed buildings should be protected from demolition or other work that would adversely affect it or its setting."

Paragraph 143 — Conservation Areas

"Proposals for development within conservation areas and proposals outwith which will impact on its appearance, character or setting, should preserve or enhance the character and appearance of the conservation area. Proposals that do not harm the character or appearance of the conservation area should be treated as preserving its character or appearance. Where the demolition of an unlisted building is proposed through Conservation Area Consent, consideration should be given to the contribution the building makes to the character and appearance of the conservation area. Where a building makes a positive contribution the presumption should be to retain it."

Paragraph 145 — Scheduled Monuments

"Where there is potential for a proposed development to have an adverse effect on a scheduled monument or on the integrity of its setting, permission should only be granted where there are exceptional circumstances. Where a proposal would have a direct impact on a scheduled monument, the written consent of Scottish Ministers via a separate process is required in addition to any other consents required for the development."

Paragraph 147 — World Heritage Sites

“World Heritage Sites are of international importance. Where a development proposal has the potential to affect a World Heritage Site, or its setting, the planning authority must protect and preserve its Outstanding Universal Value.”

Paragraph 148 — Gardens and Designed Landscapes

“Planning authorities should protect and, where appropriate, seek to enhance gardens and designed landscapes included in the Inventory of Gardens and Designed Landscapes and designed landscapes of regional and local importance.”

Paragraph 149 — Battlefields

“Planning authorities should seek to protect, conserve and, where appropriate, enhance the key landscape characteristics and special qualities of sites in the Inventory of Historic Battlefields.”

- 3.4. This impact assessment will identify all of the designated heritage assets defined in policies 141, 143, 145, 147, 148 and 149 that are within the locality of the proposed development and assess their significance and the level of impact that the proposed solar farm will have upon them. More detail on how this is done is found in the Methodology section. It is understood that the proposed development has the potential to directly and indirectly impact upon local heritage assets and that views to and from a heritage asset, as well as any meaningful intervisibility shared with the surrounding landscape, can be significant.

Paragraph 150 — Archaeology

“Planning authorities should protect archaeological sites and monuments as an important, finite and non-renewable resource and preserve them in situ wherever possible. Where in situ preservation is not possible, planning authorities should, through the use of conditions or a legal obligation, ensure that developers undertake appropriate excavation, recording, analysis, publication and archiving before and/or during development. If archaeological discoveries are made, they should be reported to the planning authority to enable discussion on appropriate measures, such as inspection and recording.”

- 3.5. This policy highlights the potential need for addressing any archaeological remains that may be affected by development. This impact assessment will therefore consider the potential for, and the significance of, any archaeological remains that may be impacted as a direct result of the proposed development and assess whether it can be justified to preserve these remains in situ. If not, then provisions for appropriate excavation and recording will be considered where required.

Paragraph 151 —Other Historic Environment Assets

“There is also a range of non-designated historic assets and areas of historical interest, including historic landscapes, other gardens and designed landscapes, woodlands and routes such as drove roads which do not have statutory protection. These resources are, however, an important part of Scotland’s heritage and planning authorities should protect and preserve significant resources as far as possible, in situ wherever feasible.”

- 3.6. An assessment of the Aberdeenshire HER identifies the known archaeological and historical assets within the locality of the proposed development that are not designated. This process enables non-designated assets to also be assessed for their significance and any potential impacts upon them as a result of the proposed development.
- 3.7. Under this policy document archaeological sites, buildings, parks and gardens, conservation areas, battlefields or other aspects of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest are considered heritage assets. These heritage assets include both designated sites and non-designated sites identified by the LPA and must be a consideration in the planning process due to their heritage interest. This impact assessment will consider all heritage assets defined in this document in detail in order to comply with the above policies.
- 3.8. The proposed solar farm has been sensitively designed to reflect the special characteristics of all identified heritage and cultural assets and this assessment will set out any necessary mitigation measures to ensure that any impact is minimal.

HISTORIC (ENVIRONMENT) SCOTLAND: MANAGING CHANGE IN THE HISTORIC ENVIRONMENT 2016

- 3.9. Managing Change is a series of non-statutory guidance notes which discuss the value and sensitivity of the historic environment to new development. The notes mainly offer guidance and advice regarding consideration of the setting of heritage assets. It is contextualised by the SPP and the Historic Environment Scotland Policy Statement 2016.
- 3.10. There are useful concepts regarding setting illustrated throughout the documents in the series, and it lays out the recommended procedure for assessing the effects a development proposal may have on the surrounding assets and their settings. The document defines setting as the surroundings in which an asset is experienced, and discusses the effects that developments can have on the different types of setting heritage assets have.
- 3.11. Relevant documents within the series discuss ‘Castles and Towerhouses’, ‘Gardens and Designed Landscapes’, ‘Historic Battlefields’, ‘New Design in Historic Settings’, ‘Setting and World Heritage’. Therefore, this assessment takes into account the setting of all identified heritage assets and determines the impact that the Proposal may have on them. It is

understood that views to and from the heritage asset, as well as any meaningful intervisibility that it shares with its surrounding landscape, can constitute significance.

- 3.12. Historic Environment Scotland, therefore, are not seeking to ensure that heritage assets do not preclude development and their protection should not prevent change. However, the more important a designated asset the greater the weight should be given to its conservation. This assessment will identify the significance of designated and non-designated heritage assets and apply appropriate weight to the potential impact on them.

FIFEPLAN – ADOPTED PLAN: WRITTEN STATEMENT

- 3.13. The adopted FIFEplan was adopted on the 21st September 2017. Like the SPP, the policies are structured around the categories of heritage assets and contain specific regulations designed to achieve the broader goals of protection and conservation within the SPP. Archaeology and heritage is covered within a single, broad policy as below.

Policy 14: Built and Historic Environment

Six qualities of successful places

The Council will apply the six qualities of successful places when considering development proposals. New development will need to demonstrate how it has taken account of and meets each of the following six qualities:

- 1. distinctive;*
- 2. welcoming;*
- 3. adaptable;*
- 4. resource efficient;*
- 5. safe and pleasant; and*
- 6. easy to move around and beyond.*

Guidance on how these qualities will be interpreted by the Council and addressed by those proposing development will be provided in the Making Fife's Places Supplementary Guidance.

Designated sites and buildings

Development which protects or enhances buildings or other built heritage of special architectural or historic interest will be supported. Proposals will not be supported where it is considered they will harm or damage:

- *the Outstanding Universal Value of the World Heritage Site and its setting;*

- *the character or special appearance of a conservation area, and its setting having regard to Conservation Area Appraisals and associated management plans;*
- *listed buildings or their setting, including structures or features of special architectural or historic interest;*
- *sites recorded in the Inventory Historic Gardens and Designed Landscapes and other non-inventory gardens and designed landscapes of cultural and historic value;*
- *Scheduled Ancient Monuments, including their setting;*
- *patterns of traditional orchards and medieval garden riggs;*
- *inventory Historic Battlefields; or*
- *the preservation objectives of Historic Marine Protected Areas*

For all historic buildings and archaeological sites, whether statutorily protected or not, support will only be given if, allowing for any possible mitigating works, there is no adverse impact on the special architectural or historic interest of the building or character or appearance of the conservation area .

Enabling development may be acceptable where it can be clearly shown to be the only means of preventing the loss of the asset and securing its long-term future.

All archaeological sites and deposits, whether statutorily protected or not, are considered to be of significance. Accordingly, development proposals which impact on archaeological sites will only be supported where:

- *remains are preserved in-situ and in an appropriate setting; or*
- *there is no reasonable alternative means of meeting the development need and the appropriate investigation, recording, and mitigation is proposed.*

In all the above, development proposals must be accompanied with the appropriate investigations. If unforeseen archaeological remains are discovered during development, the developer is required to notify Fife Council and to undertake the appropriate investigations.”

4. ASSESSMENT METHODOLOGY

DESK BASED ASSESSMENT

- 4.1. The desk-based assessment was conducted to ascertain all historical and archaeological information relevant to the Application Site and the local area. A search of designated heritage assets such as Scheduled Monuments, Listed Buildings, World Heritage Sites, Inventory Gardens and Designed Landscapes, Inventory Battlefields and Heritage Coasts has been carried out within a 2km study zone of the Proposed Development. Non-designated sites within the Perth and Kinross Heritage Trust (PKHT) Historic Environment Record (HER) and Angus HER sources have also been identified within a 1km study zone, with additional consultation done for the National Record of the Historic Environment, accessible via the Canmore portal.
- 4.2. Study zones were implemented around the extent of all proposed construction works and do not include any existing access routes that do not require additional construction. The sizes of these study zones were selected to ensure that comprehensive and informative data was collated to characterise the direct and indirect impacts that the Proposed Development may have on historical and archaeological assets within the local area. Due to the nature of the records, some degree of overlap is possible (for example a site that has been recorded within both the HER and as a Listed Building) and some assets may therefore have been repeated.
- 4.3. Where appropriate, sites of exceptional value or sensitivity outside the study zones have also been assessed.
- 4.4. Historical databases and various archives were consulted to identify the designated assets and undertake the assessment. The main sources which were consulted include the:
- National Monuments Record of Scotland (NMRS);
 - Fife HER;
 - National Record of the Historic Environment (NRHE/Canmore);
 - Register of Parks and Gardens of Special Historic Interest (Historic Environment Scotland);
 - Register of Historic Battlefields (Historic Environment Scotland);
 - GIS shapefiles hosted via UK/Scottish Government and Local Authority links;
 - Defra Data Services Platform (Lidar data);

- Aerial imagery via Google Earth, Bing Maps, World Imagery Wayback and ArcGIS Pro global mapping;
- National Collection of Aerial Photography;
- Cambridge University Collection of Aerial Photography;
- <http://www.britainfromabove.org.uk/>;
- Excavation reports hosted by Archaeology Data Service and OASIS; and
- Historic Maps accessible via the OS and National Library of Scotland.

PROFESSIONAL GUIDANCE

4.5. The assessment has been conducted in accordance with the appropriate professional guidance, which includes:

- Code of Conduct, Chartered Institute of Field Archaeologists (CIfA) (2014)¹²
- Standards and Guidance for Archaeological Desk Based Assessment, CIfA (2014)¹³

MAP REGRESSION ANALYSIS

4.6. Analysis of historic maps can reveal the changes in land use and field boundaries in the area and can highlight potential areas of archaeological interest that may have been lost in the subsequent years. Relevant maps were consulted to undertake this analysis as part of the desk-based assessment and site walkover survey.

AERIAL PHOTOGRAPHY

4.7. To identify potential archaeological features within the Application Site that are not recorded within the relevant databases, aerial photography of the land was examined in order to identify any cropmarks or markings within the Application Site that may be indicative of previously unknown features. This includes both modern and historical aerial imagery.

¹² CIfA (2014) *Code of Conduct*. Chartered Institute for Archaeologists.

¹³ CIfA (2014) *Standards and Guidance for desk-based assessment*. Chartered Institute for Archaeologists.

ASSESSMENT OF DIRECT EFFECTS

- 4.8. Potential direct effects during the construction phase are considered as physical disturbance of known or associated archaeological remains. These impacts can be caused through the construction processes within the footprint of the Development, including ancillary works such as access tracks. Direct impacts can affect both above ground and subsurface remains, which will both be considered within this assessment. The presence and character of any existing archaeological features will be identified within the site boundary, and the archaeological potential of the site assessed through a desk-based assessment of the surrounding archaeological resource and landscape. The significance of any impacts will be determined by considering the construction methodology within the Application Site and to what extent this would disturb any sub-surface remains.

ASSESSMENT OF INDIRECT EFFECTS

- 4.9. The assets that were identified through the sources previously listed were assessed for their significance using the criteria presented in **Table 1: Appendix B**. The magnitude of the visual impacts upon these assets was determined by considering the views and intervisibility shared with the Proposed Development, as well as the nature, character, date, extent, setting and surviving remains of the feature where relevant. Indirect effects were then assigned using this information on the following scale:

- Major
- Major to moderate
- Moderate
- Moderate to low
- Low
- Low to negligible
- Negligible

- 4.10. Indirect effects of 'moderate' or above are considered significant and appropriate mitigation measures have been recommended where appropriate to lower the potential impact.

Visual Impact Assessment

- 4.11. A Zone of Theoretical Visibility (ZTV) was produced to identify sites with a greater potential for being indirectly impacted by the Proposed Development. The ZTV has been overlaid on

the heritage assets within the study zones, to identify those that will potentially be visually impacted by the Proposed Development during the operational phase.

- 4.12. Digital Terrain Modelling sourced from digital height data derived from Ordnance Survey Ireland, with the viewer height set at 2m high was used to calculate the ZTV. The produced ZTV was 'bare earth' and therefore did not account for any elements in the landscape such as trees, hedgerows, walls or buildings that may help screen views, nor account for the influences of the weather upon any views.

The Importance of Setting

- 4.13. Setting can be important to the way in which historic assets or places are understood, appreciated and experienced.
- 4.14. Where development is proposed it is important to identify and define the setting of the heritage asset and to assess how development might impact upon this resource. Setting often extends beyond the property boundary, or 'curtilage', of an individual historic asset into a broader landscape context. Less tangible elements can also be important in understanding the setting. These may include function, sensory perceptions or the historical, artistic, literary and scenic associations of places or landscapes. In the light of this guidance, development proposals should seek to avoid or mitigate detrimental impacts on the settings of historic assets.

SITE VISIT

- 4.15. A walkover survey was conducted at the Application Site on the 1st September 2022. The primary aim of the survey was to identify any potential archaeological or historical features within the Application Site that are not recorded. The land and fields within the Application Site were documented photographically along with any possible features identified. The results of this survey also considered available information on the known designated and non-designated sites within and close to the Application Site. Possible views and intervisibility with surrounding heritage assets were therefore also considered during the visit.

ASSESSMENT LIMITATIONS

- 4.16. The consulted sources contain records of known archaeological and historic features. The record is not an exhaustive record of all surviving historic environment features and does not preclude the possible existence of archaeological remains of significance within the study zone, which are at present unknown or have been added to the records recently. It was assumed that official data provided by public bodies was accurate and up-to-date.

- 4.17. Views and effects were carefully assessed, but restrictions due to accessibility because of private land ownership or issues regarding Health and Safety may have limited assessment. However, no significant issues were encountered during the walkover survey.

5. BASELINE CHARACTERISATION

5.1. The following section outlines the historical and archaeological background within the extent of the study zones and the local area. This provides a clear depiction of the context and significance of the heritage assets that could potentially be impacted by the Proposed Development. The report outlines an assessment of the direct and indirect impacts of the Proposed Development and proposed mitigation measures. The potential for disturbing any remains within the footprint of the Proposed Development has been assessed and recommendations produced for any further investigative work.

ARCHAEOLOGICAL PERIOD CLASSIFICATIONS

5.2. The period classifications below provide chronological context for the archaeological assets which are discussed as part of this report.

- Mesolithic (10,000BC – 4,100BC)
- Neolithic (4,100BC – 2,500BC)
- Bronze Age (2,500BC – 800BC)
- Iron Age (800BC – AD400)
- Roman (AD70 – AD165)
- Early Medieval (AD400 – AD900)
- High Medieval (AD900 – AD1286)
- Late Medieval (AD1200 – AD1500)
- Post Medieval & Modern (AD1500 onwards)

ARCHAEOLOGICAL AND CULTURAL HERITAGE ASSETS

5.3. Both designated and non-designated heritage assets have been identified within the relevant study zones and are considered along with the results of other baseline elements in order to assess the archaeological potential within the Application Site. These results inform part of the direct impacts assessment. Designated heritage assets are also considered for indirect impacts resulting from the Proposed Development.

- 5.4. The full list of designated and non-designated heritage assets identified within their respective study zones is presented within **Tables 2 & 3: Appendix B**. A total of one Scheduled Monument, one inventory garden and designed landscape, one conservation area and 79 listed buildings (including one Category A, 31 Category B and 47 Category C) were identified within the 2km study zone (**Figure 1: Appendix A**). In addition, nine distinct non-designated sites (that are not already protected as listed buildings) were identified within the 1km study area, including four records from the Fife Historic Environment Record (HER) and five additional sites from the National Record of the Historic Environment (NRHE/Canmore) (**Figure 2: Appendix A**).
- 5.5. The record of known heritage and archaeological assets within the study area is largely limited to features from the post-medieval and modern periods, with the bulk of the features associated with the mid-20th century development of Glenrothes. Some earlier post-medieval assets are recorded in the study areas, such as Pitcairn House (NA01) and Leslie House (NA82), as well as several 19th century farmsteads, but the records do not indicate any heightened potential for prehistoric, Romano-British or medieval remains within the Application Site. The exception to this may be the placename of Ballingall, which was highlighted from the consultation responses to be a Gaelic name meaning ‘Farm of the Foreigners’, possibly in reference to the settlement of Scandinavians and coined in the late 11th or early 12th century. However, no further records in the immediate area appear to reinforce this.
- 5.6. Where the construction elements of the Proposed Development are predicted to intersect with any of these features, mitigation measures may be necessary to ensure their preservation *in-situ* or by record.

MAP REGRESSION ANALYSIS

- 5.7. Various historic maps, both OS and non-OS, are consulted as part of the map regression analysis for the Application Site. These maps show the progression of land use and field boundaries in the area and can highlight potential areas of archaeological interest that may have been lost in the subsequent years. Selected historic maps are contained within the appendices as follows:
- **Figure 3** – Roy Military Survey Map 1747-55
 - **Figure 4** – OS 1856 Map
 - **Figure 5** – OS 1896 Map
 - **Figure 6** – OS 1949 Map
- 5.8. The Roy Military Survey Map shows the region containing the Site in the mid-18th century, specifically the settlements, rivers and approximate topography in the landscape. The map shows a number of small labelled and unlabelled settlements, but of primary note is the

depiction of the Leslie House ('Lesly house') demesne to the south of the Application Site, which is shown to have comprised a number of well-contained enclosures over a relatively large area, including what appears to be formal gardens, structures, parkland, woodland, tree-lined avenues and possible orchards. The area lies within what is now the modern urban environs of Leslie and Glenrothes. The Application Site appears to lie within cultivated land on the map, but no specific detail is shown.

- 5.9. The 1856 OS map shows land within and around the Application Site in considerably more detail, illustrating that it was likely in agricultural use associated with the labelled Ballingall farmstead (NA07) to its south and southwest. The only internal features depicted are thick, wooded field boundaries dividing the areas, two of which appear to have likely drainage ditches depicted alongside them. As well as the farmstead, two other non-designated assets are depicted on this map; specifically, an unroofed building (NB04) and dovecot (NB07), both associated with Ballingall.
- 5.10. The 1896 OS map shows only limited changes to the area, including the removal of an internal field boundary and the unroofed building NB04, as well as its adjoining circle of trees that were previously depicted. An unroofed structure was present at the location of the dovecot NB07, assumed to be remains of this structure. No other features of note are discernible near to the site.
- 5.11. The 1949 OS map also shows only limited changes in this time, including the addition of an internal field boundary at a similar location to the previously removed one. The Ballingall farmstead has been extended slightly on its southeast side, while the unroofed structure across the road to the west is now labelled as 'Ballingall Dovecot', confirming these remains. No other features of note are discernible near to the site.

AERIAL PHOTOGRAPHY

- 5.12. No features or cropmarks likely to indicate archaeological significance are discernible from a review of modern (21st century) aerial photography on Google Earth, Bing Maps, World Imagery Wayback and ArcGIS Pro global mapping. These images confirm the removal of two internal field boundaries since their depiction on the 1949 OS map, but a number of newer post-and-wire fences divide the land.
- 5.13. Historical aerial photography of the Site was also identified from the consulted sources, including the National Collection of Aerial Photography (NCAP), Cambridge University Collection of Aerial Photography (CUCAP) and the Britain from Above (BfA) databases.

However, while there are numerous images of the built environs within and around nearby Leslie¹⁴¹⁵¹⁶, no images specifically showing land within the Application Site were identified.

- 5.14. Vertical imagery of the entire Site from 1945 (**Figure 8: Appendix A**) is also contained within Google Earth, confirming the composition of the site shown on the 1949 OS map but not identifying anything of archaeological interest.

LIDAR DATA

- 5.15. **Figure 7: Appendix A** contains the 1m DTM Lidar data of the Application Site. This data was reviewed in order to identify the potential for hitherto-unknown archaeological features as well as identify the possible extents of known features.
- 5.16. The only clear internal features that show up are linear features associated with internal field divisions through the Application Site, which were verified during the site visit. The topographical rise to the northwest of the proposed battery storage area is visible on the data but appears to be natural in origin. No other features or markings of note are discernible within the data.

SITE VISIT

- 5.17. An archaeological site visit and walkover survey of the Application Site was conducted on 1st September 2022 by Michael Briggs of Neo Environmental. Chosen plates from the photographic survey are referred to below and are contained within **Appendix C** attached to this assessment.
- 5.18. Conditions during the survey were overcast and dry, with ground underfoot being similarly dry. Land use within Field 1 at the time of the survey was grassland/paddocks used for horses (**Plate 1**), divided up by post-and-wire fencing and gates, while Field 2 was more overgrown, occupied by wild vegetation but with worn tracks through the area from walking and horse riding (**Plate 2**).

Field 1

- 5.19. The land rises noticeably towards the north of the site, both in Fields 1 and 2. As a result, the proposed access track route runs along elevated land where clear views over Leslie and

¹⁴ <http://www.britainfromabove.org.uk/en/image/SPW040411>

¹⁵ <http://www.britainfromabove.org.uk/en/image/SPW040412>

¹⁶ <http://www.britainfromabove.org.uk/en/image/SPW040413>

Glenrothes, as well as Ballingall farmstead (NA07), are possible (**Plate 1**). However, as no standing infrastructure is proposed here, the ground-level access track is not expected to result in any significant visual effects to the listed building or its setting.

- 5.20. The proposed access runs along the top of Field 1 and through the tree-lined boundary and stream between Fields 1 and 2. Crossing at this point of the stream is currently marked by some planks laid over the ditch (**Plate 3**), with a water marker next to this.
- 5.21. No features or artefacts of archaeological interest were identified in the field during the walkover survey.

Field 2

- 5.22. Field 2 comprises the remainder of the access track and its connection to the BESS area, which itself is located on lower and marshier land (**Plate 4**). Views from the lower-lying BESS are notably more screened due to the surrounding topography and woodland. Views with the listed farmhouse are mostly prevented but some partial views of its roof were possible (**Plate 5**). As such, some views of the Proposed Development may be possible from the upper storeys of the house, but they are not expected to be likely and any partial views will be low in magnitude.
- 5.23. No features or artefacts of archaeological interest were identified in the field during the walkover survey. Drainage ditches were confirmed along the internal field boundaries, while the visible rise in the field is expected to be natural topography, similar to undulations visible to the north of the site (**Plate 6**) and marked on the OS 1949 map (**Figure 6: Appendix A**).

6. ASSESSMENT OF DIRECT EFFECTS

KNOWN ARCHAEOLOGICAL AND HERITAGE ASSETS

- 6.1. No designated or non-designated heritage assets are located within the extent of the Application Site, while no internal features of archaeological interest were identified through the site visit or analysis of historic maps, aerial imagery and lidar data. As such, **the Proposed Development will not result in any direct impacts to any known archaeology and heritage assets.**

ARCHAEOLOGICAL POTENTIAL

- 6.2. In consideration of the desk-based information gathered, the site walkover survey and consultation responses, the archaeological potential of the Application Site is expected to be limited, with no specific indicators for sub-surface remains identified from any of the sources.
- 6.3. While surviving remains from any period within the greenfield site cannot be fully dismissed, it is expected that the potential for such remains is **Low**. Nonetheless, in the event that sub-surface remains survive, the ground disturbance involved in the construction of the BESS and its access track would result in their complete destruction within the extent of the red line boundary, as discussed below.

GROUND DISTURBANCE FROM CONSTRUCTION METHODS

- 6.4. Different levels of intrusion and disturbance are anticipated for different construction elements. As such, the potential for impacting upon sub-surface remains is dependent on the type and scale of each construction element. Construction involving topsoil stripping has, in general, a lower potential for impacting upon sub-surface remains below the archaeological horizon, but retains a similar potential for encountering archaeological remains as construction involving deeper excavation work.
- 6.5. The majority of the Proposed Development constitutes an overall compound area of irregular shape for the BESS and an associated access track leading from its north side and across the western field to connect with the public road. As such, a worst-case scenario comprising all land within the red line boundary on **Figure 1 of Volume 2** to be disturbed is assumed, although the overall area is noted to be relatively small at 1.28ha. In consideration with the known assets and the archaeological potential of the land, the likelihood for encountering or disturbing sub-surface archaeological remains is anticipated to be **Low**.

7. ASSESSMENT OF INDIRECT EFFECTS

- 7.1. The calculated ZTV was overlain onto the heritage assets map in order to identify those which have a greater potential to be visually impacted by the Proposed Development. The ZTV does not account for intervening hedgerows, trees or built structures, which will limit the intervisibility between the building/monument and the Proposed Development.
- 7.2. Within their respective study zones, a total of 22 category B listed buildings, 36 category C listed buildings, one inventory gardens and designed landscape and one conservation area are located within the calculated ZTV. These assets are therefore assessed for indirect impacts below. In addition, eight non-designated heritage assets within the 1km study area lie within the calculated ZTV. Where such features are identified to have substantial standing remains and/or sensitive settings, these will also be considered for indirect effects.
- 7.3. There were no scheduled monuments, category A listed buildings, World Heritage Sites, Inventory Battlefields or Heritage Coasts identified to lie inside the calculated ZTV for the 2km study area. As such, these resources are not considered to be at risk of indirect effects.

LISTED BUILDINGS

Listed Buildings within Leslie (NA03, NA04, NA09, NA11, NA17 – 67, NA71, NA75, NA78 & NA79)

- 7.4. Numerous listed buildings within the calculated ZTV, including category A, B and C, are located within the extent of Leslie c. 0.95 – 1.8km to the south of the Application Site. These structures represent the post-medieval development of Leslie, and many are located within its associated conservation area (NA81), which defines its historic core. In addition, the historic gardens and designed landscape of Leslie House (NA82) also abuts this conservation area to its southeast and contains several of these listed buildings. Together these assets constitute the historic post-medieval fabric of the village and present a shared wider group setting, which may be potentially sensitive to visual impacts that affect their relationship with one another.
- 7.5. Views of the historic buildings from the proposed BESS area were not identified to be possible during the site visit due to screening effects from dense woodland along its southern boundary (see **Plate 5: Appendix C**). However, views of the rooftops of numerous buildings within the western extent of Leslie were identified to be possible from points along the proposed access route (see **Plate 1: Appendix C**). These views indicate that infrequent and partial views of the access track may be possible from the upper storeys of some of these assets, but as this element will be at ground level the magnitude of any such views would be minor and not at all harmful to the setting of any the listed buildings in this western section of Leslie.

- 7.6. Views with listed buildings within the eastern sections of Leslie, including the conservation area and Leslie House, were not identified to be possible from the proposed access track area or the proposed BESS area. Indirect effects are therefore anticipated to be **Negligible** for all listed buildings within Leslie.

Ballingall Farmhouse (NA07)

- 7.7. Ballingall Farmhouse is a category C listed building located c. 0.25km to the southwest of the Application Site. It is depicted and labelled on the OS 1856 map (**Figure 4: Appendix A**) onwards and is described within the Historic Environment Scotland database as:

“18th century in origin with early extension, later additions at rear. 2-storey, 12-bay farmhouse and hayloft (formerly 3 cottages and 1 stable/hayloft)? Harled (white) with painted margins [...] The original fabric is believed to have provided shelter for the Earl of Rothes after the fire at Leslie House in 1760.”¹⁷

- 7.8. As such, the house retains heritage value from its architectural merit as well as its social history. Its farmstead setting and courtyard also make a positive contribution to its character and value, particularly its southern curtilage where its adjacent woodland encloses a well-defined garden area on the south side of the courtyard. Its setting is therefore considered to be sensitive to visual impacts which occur upon this southern curtilage, and slightly less sensitive to visual impacts which occur from other directions such as the Application Site.
- 7.9. The site visit identified that the farmhouse and setting are clearly visible from the location of the proposed access track, but as this element will be at ground level the magnitude of any such views would be minor and not out of character for the land. These views would therefore not be considered significantly harmful to the setting. Views from the proposed BESS area are much more screened due to its lower elevation and the presence of intervening woodland, over which only very partial views of the rooftop are possible (see **Plate 5: Appendix A**). Such views and intervisibility would be similarly minor in magnitude and will not result in significant impacts to the farmhouse or its setting. Overall, indirect effects upon Ballingall Farmhouse as a result of the Proposed Development are anticipated to be **Low**.

CONSERVATION AREAS

Leslie (NA81)

- 7.10. Leslie Conservation Area constitutes the historic core of the village, containing numerous category B and C listed buildings which represent its post-medieval development. The conservation area therefore provides a beneficial group setting for these listed buildings which may be potentially sensitive to visual impacts that affect their relationship with one

¹⁷ <http://portal.historicenvironment.scot/designation/LB9691>

another. However, as previously mentioned, views with listed buildings within the conservation area were not identified to be at all possible from the proposed access track area or the proposed BESS area. Indirect effects are therefore anticipated to be **Negligible**.

INVENTORY GARDENS AND DESIGNED LANDSCAPES

Leslie House (NA82)

- 7.11. Leslie House is an Inventory Garden and Designed Landscape located c. 1.1km to the south-southeast of the Application Site and dating from the late 17th century onwards. It is depicted on the Roy Military Survey Map ('Lesly house') as comprising a number of well-contained enclosures over a relatively large area, including what appears to be formal gardens, structures, parkland, woodland, tree-lined avenues and possible orchards.
- 7.12. The area lies within what is now the modern urban environs of Leslie and Glenrothes, but retains various original elements such as its principal house, formal gardens, outbuildings and ancient woodland, which all contribute to a group setting highly beneficial to its heritage value. As such, despite its changes and reduced size, this setting is considered to be sensitive to any visual impacts which occur within its grounds. However, as previously mentioned, views with listed buildings within Leslie House were not identified to be at all possible from the proposed access track area or the proposed BESS area. Indirect effects are therefore anticipated to be **Negligible**.

NON-DESIGNATED HERITAGE ASSETS

- 7.13. A total of nine records were identified within the 1km study area from the Fife HER and NRHE databases, eight of which lie within the calculated ZTV. However, none of the sites lie within or adjacent to the Application Site and no notable visual impacts are expected to occur upon any of their settings. These have been considered briefly below:
- Christ's Church (NB01) and 18/19 Greenside (NB02/03) c. 0.95km to the south-southeast – historic buildings located amongst the concentration of listed buildings in the easternmost extent of Leslie Conservation Area. These buildings are considered to share the setting and views of those previously assessed and indirect effects are therefore also anticipated to be **Negligible**;
 - Ballingall, Unroofed Building (NB04) c. 0.35km to the southwest – a single unroofed building annotated as 'ruin' on the OS 1856 map (**Figure 4: Appendix A**), but no longer appears to have any visible remains. Indirect effects will therefore be **Negligible**;

- Pitkey Farmstead (NB06) and Limestone Quarry (NB09) c. 0.35-0.4km to the northwest – a farmstead visible on the OS 1856 map, with associated range buildings, dam, sluice, wells, limestone quarries and lime kilns. While the setting of the farmstead has changed significantly since this depiction, including the addition of numerous large agricultural buildings which now dominate its northern extent, the farmhouse appears to retain original architectural value. However, no views with this asset were identified to be possible during the site visit. Similarly, the associated quarry is not considered to be sensitive to visual impacts and likewise had no identifiable views. Indirect effects are therefore anticipated to be **Negligible**;
- Ballingall Dovecot (NB07) c. 0.3km to the southwest – a dovecot with no visible remains and is recorded as probably demolished¹⁸. No remains could be identified from views within the Application Site. Indirect effects will therefore be **Negligible**; and
- Lomond Quarry Rig and Furrow (NB08) c. 0.8km to the southwest – Rig and furrow remains indicative of possible medieval or post-medieval cultivation remains. They are not considered to be sensitive to visual impacts from the Proposed Development and the Application Site does not make any contribution to its setting. Indirect effects will therefore be **Negligible**.

7.14. In consideration of the above, indirect effects upon non-designated heritage assets within the 1km study area are anticipated to be **Negligible** overall.

¹⁸ <https://canmore.org.uk/site/293885/ballingall-dovecot>

8. MITIGATION MEASURES

DIRECT EFFECTS UPON KNOWN ASSETS

- 8.1. No designated or non-designated heritage assets are located within the extent of the Application Site, while no internal features of archaeological interest were identified through the site visit or analysis of historic maps, aerial imagery and lidar data. As such, the Proposed Development will **not result in any direct impacts to known archaeology and heritage assets and will not require any mitigation measures.**

ARCHAEOLOGICAL POTENTIAL

- 8.2. The archaeological potential of the Application Site is expected to be limited, with no specific indicators for sub-surface remains identified from any of the sources. While surviving remains from any period within the greenfield site cannot be fully dismissed, it is expected that the potential for such remains is Low. **It is therefore not anticipated that any pre-construction evaluation or mitigation work will be required.** Nonetheless, in the event that sub-surface remains survive, the ground disturbance involved in the construction of the BESS and its access track would result in their complete destruction within the extent of the red line boundary. As such, it may be prudent to incorporate a planning condition with any consent which mandates **construction stage monitoring by a qualified archaeologist (watching brief) for all topsoil stripping associated with the access track and battery storage footprint.**
- 8.3. The implementation of the above would allow for the identification and preservation by record and/or *in-situ* of any hitherto unknown sub-surface remains present within the greenfield site. However, all decisions relating to fieldwork and mitigation strategies will be at the discretion of Fife County Archaeologist Douglas Speirs.

INDIRECT EFFECTS

- 8.4. Indirect effects upon the surrounding heritage assets have been assessed as Low for the category C listed Ballingall Farmhouse (NA07) and Negligible for all other designated and non-designated assets. As a result, **no specific mitigation is considered to be necessary for the reduction of any visual impacts.**

9. RESIDUAL EFFECTS

- 9.1. No designated or non-designated heritage assets are located within the extent of the Application Site, while no internal features of archaeological interest were identified through the site visit or analysis of historic maps, aerial imagery and lidar data. As such, the Proposed Development will not result in any direct impacts to known archaeology and heritage assets and will not require any mitigation measures. Therefore **no residual direct effects on known heritage and archaeology assets will occur.**
- 9.2. Similarly, following the implementation of an appropriate programme of mitigation such as a construction stage watching brief, measures will be place for the investigation, recording and preservation (in-situ or by record) of any sub-surface archaeological remains within the Application Site. As such, residual direct effects upon hitherto-unknown archaeology within the site will be **Negligible.**
- 9.3. No specific mitigation is considered to be necessary for the reduction of any visual impacts and residual indirect effects upon the surrounding heritage assets would therefore be **Low** for the category C listed Ballingall Farmhouse (NA07) and **Negligible** for all other designated and non-designated assets.

10. SUMMARY

- 10.1. Neo Environmental Ltd has been appointed by AE Associates Ltd to undertake a Cultural Heritage Impact Assessment for a proposed battery energy storage system and associated infrastructure on lands northeast of Ballingall Farm, Leslie, Glenrothes, KY6 3HD.
- 10.2. No designated or non-designated heritage assets are located within the extent of the Application Site, while no internal features of archaeological interest were identified through the site visit or analysis of historic maps, aerial imagery and lidar data. As such, the Proposed Development will **not result in any direct impacts to known archaeology and heritage assets and will not require any mitigation measures.**
- 10.3. The archaeological potential of the Application Site is expected to be limited, with no specific indicators for sub-surface remains identified from any of the sources. While surviving remains from any period within the greenfield site cannot be fully dismissed, it is expected that the potential for such remains is **Low. It is therefore not anticipated that any pre-construction evaluation or mitigation work will be required.** Nonetheless, in the event that sub-surface remains survive, the ground disturbance involved in the construction of the BESS and its access track would result in their complete destruction within the extent of the red line boundary. As such, it may be prudent to incorporate a planning condition with any consent which mandates **construction stage monitoring by a qualified archaeologist (watching brief) for all topsoil stripping associated with the access track and battery storage footprint.**
- 10.4. The implementation of such would allow for the identification and preservation by record and/or *in-situ* of any hitherto unknown sub-surface remains present within the greenfield site. However, all decisions relating to fieldwork and mitigation strategies will be at the discretion of Fife County Archaeologist Douglas Speirs.
- 10.5. Indirect effects upon the surrounding heritage assets have been assessed as **Low** for the category C listed Ballingall Farmhouse (NA07) and **Negligible** for all other designated and non-designated assets. As a result, **no specific mitigation is considered to be necessary for the reduction of any visual impacts.**

11. LIST OF APPENDICES

Appendix A – Figures

- Figure 1 – Designated Heritage Assets
- Figure 2 – Non-designated Heritage Assets
- Figure 3 – Roy Military Survey Map 1747-55
- Figure 4 – OS 1856 Map
- Figure 5 – OS 1896 Map
- Figure 6 – OS 1949 Map
- Figure 7 – Lidar Data
- Figure 8 – 1945 Aerial Image

Appendix B – Tables

Appendix C – Plates