



# Archaeology and Cultural Heritage Additional Information

## Torfichen Wind Farm

### Renewable Energy Systems Ltd

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## 1.0 Introduction

Chapter 7: Archaeology and Cultural Heritage of the Environmental Impact Assessment (EIA) report presents the findings of the assessment of the potential impacts on cultural heritage assets resulting from the Proposed Development submitted to the Energy Consents Unit (ECU) (ECU00004661) on 03/11/2023.

This AI (Additional Information) Report supplements Chapter 7 of the EIA Report and sets out clarifications, responses and updates to any information provided in the EIA Report as a result of responses from the statutory consultees (**Table 1**).

The following key documents should be read in conjunction with this AI:

- Environmental Impact Assessment Report Volume 1 Chapter 7: Archaeology and Cultural Heritage
- Environmental Impact Assessment Report Volume 2: Figures 7.1-7.13
- Environmental Impact Assessment Report Volume 4 Appendix 7.1: Gazetteer Assets
- Environmental Impact Assessment Report Volume 4 Appendix 7.2: Appraisal of Designated Heritage Assets within 10km
- Torfichen Wind Farm: EIA Scoping Report
- Torfichen Wind Farm EIA Scoping Report Appendix 5.1: Appraisal of Designated Heritage

### 1.1 Consultee Responses to Application

Consultee responses to the EIA Application concerning cultural heritage are outlined in **Table 1**.

**Table 1: Application Responses**

Consultee	Date	Summary of Key Points	Response
Historic Environment Scotland (HES)	29 <sup>th</sup> February 2024	<p><b>Arniston House and Arniston Inventoried Garden and Designed Landscape</b></p> <p>HES notes that the house and Inventoried Garden and Designed Landscape should have been assessed separately as they have separate settings receptors.</p> <p>HES were unable to determine whether the Proposed Development would raise issues of national interest for their remit. This is due to the requirement for further visualisations to understand the potential for potential impacts on Arniston House (LB808) and Arniston Inventoried Garden and Designed Landscape (GDL00029). HES requested photomontages looking along the axial view from the principal rooms, produced in winter to show the lowest level of tree coverage. At this point, they <b>object</b> until sufficient information is provided.</p> <p><b>Impact on Other Assets</b></p>	<p>Arniston House and Arniston GDL are assessed separately as part of <b>Section 2</b> of this AI Report supplementing the assessment carried out in the EIA.</p> <p>Three photomontages, showing the requested views through 'The Wilderness' have been appended to this report.</p> <p>The comments of HES regarding the methodology of the assessment are</p>



Consultee	Date	Summary of Key Points	Response
		<p>HES disagrees with the methodology and approach for the assessment of the following assets:</p> <ul style="list-style-type: none"> <li>• Middleton Hall (LB806)</li> <li>• Preston Hall A-Listed Buildings and Garden and Designed Landscape (LB775, LB777, LB113, LB746, GDL00320)</li> <li>• Oxenfoord Castle (LB768)</li> <li>• Crichton Castle (SM805)</li> <li>• Borthwick Castle (LB805)</li> <li>• Borthwick and Crichton Conservation Area</li> </ul> <p>Whilst HES disagree with the methodology and aspects of the assessments for these assets, they agree that the impact from the Proposed Development would not be significant in EIA terms.</p> <p><b>Jeffries Corse Cairn (SM3527)</b></p> <p>HES disagree with the assessment of the setting proposed for Jeffries Corse cairn within the EIA chapter. HES believe that the Proposed Development has the potential to impact the ability to understand and appreciate the relationship with the South Esk Valley entrance and the nearby Dundreich Cairn (SM2777). However, they are content that the Proposed Development will not have a significant impact on the integrity of the monuments setting and that the impacts would be of such significance that they would object.</p> <p><b>EIA Report</b></p> <p>HES note that the wording of the conclusion of <b>Section 7.10</b> is inconsistent with the methodology proposed in <b>Section 7.4</b>.</p> <p>HES note that the grouping of several assets together in <b>Appendix 7.2</b> means that they have not been adequately assessed for potential impacts. They suggest that a different approach is taken for future applications.</p> <p><b>Mitigation</b></p> <p>If the current proposals are amended or redesigned, HES would encourage further</p>	<p>acknowledged and will be taken on board for future applications.</p>



Consultee	Date	Summary of Key Points	Response
		steps to reduce the significant impact on the setting of Jeffries Corse cairn (SM3527).	
<p>East Lothian Council                      Archaeology Service                      (ELCAS) on Behalf of Midlothian Council</p>	<p>14<sup>th</sup> March 2024</p>	<p>ELCAS note that the assessment does not adequately assess the impacts of the proposals on the historic environment, with further work needed.</p> <p><b>General Comments</b></p> <p>ELCAS presents general comments which are expanded on in later sections of the response, these comments are generally themed on the lack of robustness in the presented methodology and the need for a further assessment of all assets.</p> <p><b>Construction Impacts</b></p> <p>ELCAS note that the baseline presented within the EIA chapter is limited and lacking in detail. They also state that a systematic walkover survey should have been carried out to aid in the design process. They believe that a number of sites and surveys were not included in the DBA and state that the full extent of sites should be shown on figures.</p> <p>ELCAS state that the archaeological potential section does not adequately assess the potential for heritage assets within the site and as such has impacts on the proposed mitigation.</p> <p>ELCAS present general comments about the mitigation presented in the EIA chapter, providing a generalised methodology that may be applicable to similar sites. They note that no mitigation has been proposed for the development footprint where it does not intersect with known heritage assets. They also note that no provision has been made to consider public benefit or enhancement as part of the proposed mitigation.</p> <p><b>Operational Impacts</b></p> <p>ELCAS state that overall the EIA chapter and appendices would benefit from clearer language and structure, with further work needed to justify the conclusions reached. They note that in some cases the settings of the assets have not been fully defined.</p> <p>ELCAS note that some assets have been scoped out at appraisal or have been given a lower level of impact than warranted. They</p>	<p><b>General Comments</b></p> <p>Clarifications in response to comments about methodology have been provided in <b>Section 5</b> of this report.</p> <p><b>Construction Impacts</b></p> <p>An update to the EIA baseline has been presented in <b>Section 4.1</b> of this report. This includes further description of the targeted walkover, as agreed at scoping, and an updated assessment of the archaeological potential of the Proposed Development.</p> <p>An assessment for the potential for direct impacts as a result of the Proposed Development and an mitigation proposal are presented in <b>Section 4.2</b>. These have been expanded upon and clarified but their conclusions remain the same.</p> <p><b>Operational Impacts</b></p> <p>In regard to the assessment of impacts on the setting of heritage</p>



Consultee	Date	Summary of Key Points	Response
		<p>highlight the lack of consideration of C Listed Buildings in the assessment and state that cumulative impacts should not just be undertaken for those assets where a significant setting impact is predicted.</p> <p>ELCAS provide a series of specific comments relating to the operational impacts, summarised below:</p> <ul style="list-style-type: none"> <li>• Appendix 7.2 lacks detail in places and doesn't consider the full setting of each asset before scoping out;</li> <li>• ELCAS raise issues with the assessment of Hirendeane Castle and Moorfoot Chapel, highlighting the need to assess views to each asset, the contribution of the Moorfoot Hills to a sense of isolation and defence, and the potential for noise impacts;</li> <li>• Middleton Hall's assessment did not fully consider the historic long-distance views to the south and south-west and should have included an estimated wireline.</li> <li>• In reference to Loquhariot fort, intervisibility with other forts and long-distance views to the south should have been considered in the assessment;</li> <li>• A visualisation from Gladhouse Reservoir and Villa would have been helpful in assessing impacts;</li> <li>• In reference to Maudslie Farm, the assessment doesn't take into account the proximity to hill pasture for pastoral farming, nor the assets sense of place at the foot of the hill. ELCAS note that there is a potential for adverse impacts on these elements of the assets setting.</li> <li>• ELCAS note that the assessment of Crichton Castle and Borthwick and Crichton Conservation Area should have been assessed separately and fully.</li> <li>• ELCAS note that Arniston House and GDL has not been assessed fully and additional visualisations are</li> </ul>	<p>assets as a result of the Proposed Development, updated assessments for Arniston House and GDL can be found in <b>Section 2</b> of this report and updated assessments for Crichton Castle and Borthwick and Crichton Conservation Area are found in <b>Section 3</b>.</p> <p>Clarifications in regards to comments about Methodology can be found in <b>Section 5</b> of this report. Clarification in regards to comments about Category B Listed Buildings can be found in <b>Section 6</b> of this report.</p> <p>Clarifications in regard to Loquhariot Fort and Middleton Hall can be found in <b>Section 7</b> and <b>Section 8</b> respectively.</p> <p>Appendix 7.2 of the EIA was originally submitted as Appendix 5.1 of the Scoping report, with the methodology and scope agreed upon by consultees. The appendix was amended in part to reflect changes of design over the application process. As the scope and methodology was</p>





Consultee	Date	Summary of Key Points	Response
		needed from key points within the GDL to support this assessment.	agreed at scoping Appendix 7.2 of the EIA Report has not been updated as part of this report.



## 2.0 Arniston House

In response to the application response from Historic Environment Scotland (HES), dated 29<sup>th</sup> February 2024, it is acknowledged that there is a need for further visualisations to be able to fully understand and assess the potential effects of the Proposed Development on the setting of Arniston House (LB808) and Arniston Inventory Garden and Designed Landscape (GDL00029).

In their response, HES noted the importance of the axial view through 'The Wilderness', to the south of the house and requested photomontages to be taken from two principal rooms along this view. Three photomontages have been produced along this view and appended to this report. These photomontages have been taken from the ground level externally (**Figure 1**), the ground floor Oak Room (**Figure 2**), and from the flat roof outside of the first-floor Drawing Room (**Figure 3**).

The following assessments (**Section 2.1** and **Section 2.2**) have been updated taking into account HES's comments from the application and the findings of the photomontages.

### 2.1 Arniston House (LB808)

Arniston House is a Georgian mansion, primarily designed by William Adam, a renowned architect. The house was originally designed in 1726 for Robert Dundas the elder of Arniston, the Second Lord Arniston, who came from a prestigious Scottish political and legal family and was himself a renowned politician and lawyer. Arniston estate had been in the family since 1571, with an earlier house occupying its place. The majority of the original tower house is no longer visible, however, part of it has been incorporated into the oak room on the ground floor.

The Corps de Logis is three storeys high with a nine-bay front and is connected by two two-storey wings to twin two-storey three-bay pavilions. The main entrance to the house is to the south, where a large entrance driveway is situated between the centre house and the two pavilions. The principal rooms of the house are to the south, with the Oak Room being located in the south centre of the ground floor and the Drawing Room located at the south centre of the first floor. These rooms overlook the formal gardens to the south. The house has many interesting architectural features, including a Dundas and Oliphant coat of arms, continuous dentil moulded cornice with coped balustrade, and ionic columns on the northern elevation and Corinthian columns on the southern elevation.

In addition, the interior of the house retains many period features, including a baroque plasterwork entrance hall by Joseph Enzer (1730-1735), a basket-arched William Adam fireplace, and a plasterwork library designed by Enzer with elaborate friezes and plaster vaults.

Whilst the building was originally designed by William Adam, it was developed over time by multiple architects. For example, Robert and John Adam completed the western third of the house between 1750-1755, Wardrop and Reid added an elaborate entrance porch in 1876, and the northern pediment was rebuilt by Robert Rowand Anderson in the late 19<sup>th</sup> century.

The Listing for Arniston House also includes the stable block, outbuildings, orangery, ha-ha and sundial. The orangery is located directly to the west of the main house, along with some other outbuildings, and was originally constructed in 1753. This building is two-storey and was originally u-shaped, however, the courtyard now has a roof. The stables are to the east of the house, along with a series of outbuildings. The ha-ha is located c.0.1km to the north of the house and is made of stone. The sundial is at the centre of the south lawn, with egg and dart carving, gadrooning and a raised thistle ornamentation.

Primarily, Arniston House and its associated outbuildings and structures are designated for their architectural and historical interest. The asset's historic interest derives from its



longstanding connection to the Dundas family, who have owned the estate since 1571, the present house from 1726 and still inhabit the estate today. The Dundas family were a powerful political and legal family, both in Edinburgh and across Great Britain in general. Furthermore, the design and construction of the house by prominent architects, including William Adam and his sons Robert and John, hold significant historic interest. The Adams are known for their Adam-style architecture, an 18<sup>th</sup>-century neoclassical style that was used in many of their famous projects, such as Hopetoun House (LB613) near South Queensferry.

Arniston House's outbuildings that are included in this specific listing draw some significance from their setting, which is comprised of their proximity and connection to Arniston House itself. Together, these assets form Arniston Estate and the way that they are understood and appreciated relies on their continued visual and spatial connection.

Arniston House derives part of its significance from its setting. Arniston House is located within a designed landscape, today designated as Arniston Garden and Designed Landscape (GDL) (GDL00029). The Arniston GDL is described in full in **Section 2.2**. The Arniston GDL forms the setting for Arniston House, which is the historic land of the Dundas family and was designed specifically to complement the house at its completion of construction. As such, Arniston House is understood and experienced through its positioning in the GDL.

The main approach through the estate and towards the house is along the north drive. This entrance passes through the North Lodge entrance (LB814), with two prominent lodges flanking the gate. Once passing the farmstead (LB45130), the trees become less dense and open up views across the estate's lawns, with the woodland band along the River South Esk visible to the west, and Arniston House appearing upon the approach. This approach, and the selective gaps in the tree planting, creates designed, focused views of the house from a distance. With the final portion of the drive opening up to full views of the house, it creates a sense of spectacle in the reveal of the property. The east and south driveways are more practical, with less distance to travel to the house, but treelines and small areas of dense woodland are also used to prevent full views of agricultural areas, acting as screening to the more practical elements of the estate. The east and south drives also have approaches to the house which have focused views of appreciation to the house, maintaining it as the central focus of the estate.

All key approaches to the house through the designed landscape are screened in part through historic deciduous tree plantation, designed originally to focus views on the house itself and limit views of surrounding agricultural land. Whilst the nature of deciduous trees means that there will be periods with little or no leaf cover, the density of planting along these driveways and through the planned woodland area would still act as a screen for long-distance views.

Views outwards from the principal rooms are clear to the north, looking over the north drive, due to the open parkland in that direction. On a clear day, there may be long-distance views towards the Firth of Forth and the Lomond Hills and over the Arniston Estate from the upper floors of the house<sup>1</sup>, with the siting and orientation of the house likely intentional in part for this purpose. However, a small rise in the topography to the north would restrict these views from ground level.

Views to the south from the main house are more restricted due to the design of the formal gardens, focusing the appreciation inward. To the south of the house is an area called 'The Wilderness', which is a designed formal garden dotted with trees. These trees have a maintained axial view (**Figures 1 – 3**) that orientates southwest and provides focused views

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<sup>1</sup>Haynes, N. (2020) *William Adam and Antiquity: an Arcadian Retreat at Arniston* in Humm, L., Lowrey, J., and Mackechnie, A. (eds) *The Architecture of Scotland, 1660-1750*. Edinburgh University Press, pp.379-404.



from both the gardens and the principal rooms within the house. This view may have originally included a cascade water feature, which once stood at the southern end of the estate, however, this feature no longer exists. This view is described and assessed in full in **Section 2.3** of this report.

The ZTV (**Figure 7.2 EIA**) indicates that 18 proposed turbines would be visible from the northern drive. Historic tree planting both along the drive and to the south of Arniston House would restrict views southwards and screen the Proposed Development to some extent. In the areas along the north drive where there are focused views of Arniston House, the ZTV indicates that 18 proposed turbine tips would be visible. However, this does not take into account the presence of the house itself in these views, nor the trees to its east and west screening wider views. The proposed turbines would not appear behind the house in views from the drive due to their distance from the asset and placement at a lower elevation. As such, any views of proposed turbines would not be to such an extent that they would detract from the ability to understand, appreciate or experience the house within its estate setting.

Due to the orientation of the Proposed Development to the south of the asset, any views north from both outside the house and any north-facing windows in principal rooms would not be impacted by the Proposed Development.

Views out to the south of the property and along the axial view of The Wilderness show the historic deciduous tree plantation, which restricts views south and long-distance views out to the Moorfoot Hills. The hills are only available to be viewed out of the maintained corridor. This is shown prominently in **Figures 1-3** which were taken in April 2024, before the regrowth of leaves on the trees and provides a worst-case scenario for the visibility of the proposed turbines.

**Figures 1-3** show that a maximum of three blade tips and two hubs (Turbines 1-3) would be visible along the axial view, from all selected viewpoints. The hub of proposed Turbine 3 is currently screened by commercial forestry and if this was removed, then a total of three hubs and three blade tips would be visible along the axial view. The proposed turbine tips and hubs would be present in long-distance views along this designed avenue towards the Moorfoot Hills and towards the location of the former cascade feature. It can be said that the presence of the proposed turbines would distract from the ability to appreciate and experience the views along the southwest-facing axis from the principal rooms from Arniston House.

Whilst the Proposed Development is anticipated to be visible in part from this axial view, this view is only part of the aspects of Arniston Houses setting which contribute to its significance. Arniston House's setting is formed by its placement within the GDL as a whole. As previously stated, the Proposed Development would not impact the ability to appreciate, understand, or experience views north from the house nor points of appreciation of the house along the approaches/driveways. As such, **a low adverse** magnitude of impact would be anticipated, resulting in an overall **Minor** level of impact. This is not significant in EIA terms.

## **2.2 Arniston Inventoried Garden and Designed Landscape (GDL00029)**

As noted in **Section 2.1**, Arniston House (LB808) is a Georgian mansion, primarily designed by William Adam, a renowned architect. The designed landscape that encircles Arniston House was formalised specifically for the current house by William Adam in the early 1700s and updated in the 18<sup>th</sup> and 19<sup>th</sup> centuries. The gardens and landscape maintain key aspects of the earliest iterations of the formalised landscape. Arniston House sits within the southern portion of the designed landscape.



Arniston GDL has historic and architectural interest, detailed in **Section 2.1**. A selection of the further listed buildings present within the estate include the Arniston Polices Grotto (LB811), ornamental pillar (LB810), north lodge and elephant gates (LB814), and Arniston Mains farmhouse (LB45130). Together, the buildings within the GDL provide architectural interest.

The majority of the GDL is situated on the east bank of the River South Esk, which runs through the western portion of the estate. The estate is bounded to the northeast by the A7 and the south and southeast by the B6472. The village of Gorebridge is located to the north and northeast and the village of Temple is located to the southwest. The Gore Water runs through the GDL to the north and the Purvies Hill Burn runs through the GDL to the south. The majority of the estate sits within a plateau mostly bounded by the three watercourses. Due to the relative elevation above the surrounding watercourses, the GDL offers long-distance views in places, primarily to the north towards the Firth of Forth and to the south towards the Moorfoot Hills. The estate's layout reflects the merging of the Shank Estate and Arniston Estate, with the Shank Estate within the north and the Arniston component comprising the majority of the land toward the south. The Shank Estate was incorporated into the Arniston Estate after its purchase in 1753.

The designed landscape is made up of parkland, woodland, formal gardens and walled gardens. Parkland is present on all sides of the house and comprises mainly open fields. The current scheme of woodland within the estate was part of the improvements from the early 19<sup>th</sup> century, with the key pieces of woodland focussed along the River South Esk in the west of the estate, and along the northern estate boundary. Many of the drives, rides and approaches of the estate are routed through the woodland areas. There are two walled gardens within the estate, with the original Arniston walled garden located to the south of the house and the walled garden of the Shank Estate located to the north.

The gardens which are immediately located to the south of the house are extensive and grand in their design. The key portion of these gardens is 'The Wilderness', an area of tree plantation and shrubbery along with designed alleyways throughout. A larger avenue can be seen on the original plans for the garden by William Adam (The General Plan of Arniston House Parkes and Gardens, 1726.), later maps of the estate such as Roys Military Survey of Scotland 1752-55 (Strip/Section: 7/5f) and has been replicated to a similar manner today. The avenue is orientated to the southwest, aligning with views out of the principal rooms of the main house. A sunken garden was located at the south of this avenue, which originally formed part of a water cascade feature and pond. These features are no longer present but may have been a focus of the axial view<sup>2</sup>. Furthermore, these southwest views are oriented to the western extent of the Moorfoot Hills, however, it is unknown if views of the hills were the sole intended focus. An ornamental pillar (LB810) is located at the end of the formalised axial view, dated to 1784, and whilst not part of Adam's original design, it was likely intended to be viewed from the main house.

Arniston has three key approaches, which correlate with three lodges; North (LB814), East (LB45133) and South (LB812).

The main approach into the estate is along the mostly tree-lined north drive. This entrance passes through the North Gate, with two prominent lodges flanking the gate. Once passing the farmstead (LB45130), the trees become less dense and open up views across the estate's lawns, with the woodland band along the river visible to the west, and the Arniston House appearing upon the approach. This approach, and the selective gaps in the tree planting, creates designed, focused views of appreciation of the house from a distance. The

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<sup>2</sup> Haynes, 2020.



house itself and the historic tree plantation surrounding it screen views further south, obscuring views towards the Moorfoot Hills.

The east and south driveways are more practical than their northern counterpart, with less distance to travel to the house, but treelines and small areas of dense woodland are also used to prevent full views of agricultural areas and the long-distance landscape. The south driveway passes along 'Beech Avenue', a treelined avenue likely intended to obscure outside views.

Views to the north from the main house would provide long-distance views across the parkland, and views from the upper floors would stretch to the Firth of Forth. Views to the south from the parkland at the north of the house would include parts of the Moorfoot Hills to the east and west, however, the house itself and the surrounding woodland provide screening in this direction.

The Proposed Development is located c.3.6 km to the south of the asset. The bare earth ZTV (**EIA Figure 7.2**) analysis indicates that in a bare earth scenario, all 18 of the proposed turbines would be visible from the majority of the estate, however, as previously established the presence of the house itself and the historic tree plantation throughout the estate mean that the Proposed Development would be effectively screened. This includes views from the main approaches, views to the north from the principal rooms and views to the south from the north of the house.

The only area that has the potential for impact from the Proposed Development is The Wilderness, to the south of the house. Primarily, the views with potential for impact are along the axis of the formal garden, especially from views from the Oak Room and Drawing Room on the ground and first floors.

**Figures 1-3** show that a maximum of three blade tips and two hubs would be visible along the axial view, from all selected viewpoints. These are from proposed Turbines 1-3. The hub of the proposed Turbine 3 is currently screened by commercial forestry. The proposed turbine tips and hubs would be present in long-distance views along this designed avenue towards the Moorfoot Hills and towards the location of the former cascade feature. Whilst it is not known which aspect of the landscape the axial view was its primary focus; it can be said that the presence of the proposed turbines would distract from the ability to appreciate and experience the views along the southwest-facing axis. The woodland of 'The Wilderness' obscures views in most directions and focuses all views within the gardens along this specific axis.

The proposed turbines have the potential to impact the ability to appreciate and experience this designed view, as they would form a distraction at the southern end of the axial view.

However, as noted above this is a singular part of the designed elements of the GDL's setting which contributes to its significance. The Proposed Development will not impact the ability to appreciate, understand, or experience the other aspects of the assets setting or its group value with Arniston House. As such, the Proposed Development would erode to a minor extent the cultural significance of the asset.

As an Inventoried Garden and Designed Landscape, the Arniston GDL is of high cultural significance. The magnitude of impact would be considered to be **low adverse** and as such, there would be an overall significance of effect of **Minor**. This is not significant in EIA terms.





### 3.0 Crichton Castle (SM13585) and Borthwick and Crichton Conservation Area

Taking into account the comments provided in both HES and Midlothian Council's application responses (**Table 1**), Crichton Castle and Borthwick and Crichton Conservation Area (CA343) have been re-assessed separately within this AI Report. The updated assessments can be found in **Section 3.1** and **Section 3.2**.

#### 3.1 Crichton Castle (SM13585) Updated Assessment

Crichton Castle is a ruinous castle, originally constructed in approximately 1400AD, having originally been constructed by John de Crichton and formed the seat of power for the Crichton Family. The castle is a medieval courtyard castle, having begun its life as a tower house and in the 1580s the 5th Earl of Bothwell transformed the castle into a renaissance palace. There is a two-storey building to the south of the castle, which is believed to be a stable block. A rampart is located downslope to the west of the castle and there are earthworks to the east. The castle was constructed using local stone, quarried from sites to the east-southeast and south-southeast of the structure.

The Crichton Family forfeited the lands in 1483, having been supporters of Alexander Stewart, the Duke of Albany, who was sentenced for treason. The castle was given to the 1st Earl of Bothwell and eventually passed to the 4th Earl of Bothwell, 3rd husband of Mary Queen of Scots. The Queen is thought to have visited on at least one occasion. After the 4th Earl of Bothwell was accused of the murder of Lord Darnley in 1567, the Crichton estate and title of the 5th Earl of Bothwell was given to John Stewart, the illegitimate son of King James V. The 5th Earl of Bothwell lost the favour of King James VI, being accused of witchcraft, and was made to forfeit Crichton Castle in 1592. The castle was eventually given to the son of the 5th Earl, but financial pressures meant the castle was sold to the Hepburns of Humble, before being passed through the family and eventually into state care in 1956. The castle is the subject of a painting by JMW Turner and is mentioned in Sir Walter Scott's poem Marmion.

The asset's significance is partially derived from its potential to add to our understanding of late medieval and post-medieval domestic fortified dwellings. Whilst ruinous, the castle retains many significant architectural features and decorative characteristics, which have the potential to help our understanding of historical building techniques and styles. Furthermore, any archaeological investigation of the building has the potential to further our understanding of the building's inhabitants and society and the economy at the time the building was inhabited. Due to the prominence of the building's inhabitants, the castle is well documented and this historical importance helps support our understanding of the castle and its function.

The castle is placed on a west-facing slope at approximately 180m AOD. The castle is not positioned at the top of the slope, which eventually reaches a peak at Harle Rigging, c.2km to the east. This positioning likely shielded the castle from the east, providing a degree of shelter and protection from those approaching from the east. The Tyne Water River runs through a valley c.0.23km to the west. Tyne Water runs from the southeast to the south of the asset before turning north and passing the asset to the west.

Whilst the watercourse cannot be seen from the ground level of the castle, both the watercourse and the valley that it inhabits form a natural defensive barrier to the west. This natural defence is enhanced by the presence of the aforementioned ramparts downslope to the west, showing that defence in this direction was of significant importance to the inhabitants of the castle.

The elevated position of the castle, above both the valley to the west and with long-distance views to the south and north along the direction of the valley allows the inhabitants to



monitor their land, control access through their land and along the valley, as well as assert their dominance through the imposing visual stature of their castle to anyone approaching.

The castle's setting is also made up of its association with other structures constructed around the same time, including Crichton Kirk (LB753) which is located c.0.4km to the north of the asset. Whilst having been majorly restored and altered over time, the church was originally constructed in 1449 by Sir William Crichton. The proximity to this church helps our understanding of the land that the inhabitants commanded.

Borthwick Castle (LB805) is located c.1.6km southeast of the asset, with the inhabitants of Borthwick Castle also being a historically significant family. Whilst Crichton Castle was built at a similar time to Borthwick Castle (c.1430), the placement of Borthwick Castle within the lower ground of the Gore Water valley means that there is no visual connection between the two assets. As such, whilst a spatial and historical connection between Crichton Castle and Borthwick Castle helps our understanding of the political landscape of the period of their construction and usage, there is no visual connection which contributes to their significance.

The ZTV indicates that all proposed turbine tips would be visible from Crichton Castle, with visualisation Heritage Viewpoint 5 (**EIA Figure 7.8**) confirming this. The closest turbine would be Turbine 16 located c.6km southwest of the asset. The turbines would be present in views to the southwest, particularly from the south of the castle. The ZTV also indicates that any approaches along the valley of Tyne Water would not have visibility of the proposed turbines due to the steep sides of the valley.

Views from the south, looking towards the asset to the north would not include views of the Proposed Development due to its placement to the rear. Furthermore, views directly to the east and west would not have views of the proposed turbines due to the positioning of the Proposed Development. As such, the Proposed Development would not impact the ability to understand the asset's defensive positioning above the valley to the west.

Long-distance views to the southwest would contain visibility of the proposed turbines, both from the asset itself and during the approach from the asset from the north. These turbines would not sit behind the asset when approaching from the north and the asset would still maintain its visual impressiveness when approaching from the direction of Crichton Kirk. Long-distance views to the southwest from the castle would contain the proposed turbines and would create a distraction to the viewer when looking in this direction. However, these views are a minor part of the asset's setting and the ability to understand the castle's placement along the elevated land above the river valley is maintained.

As such, the Proposed Development would not impact the ability to understand, appreciate or experience the majority of the asset's aspects of its setting which contribute to its significance, namely, its defensive positioning above Tyne Water, its ability to monitor and control access through the landscape and its visual impressiveness when approaching from all directions.

As a scheduled monument, the asset is considered to be of high cultural significance. The magnitude of impact is anticipated to be **low adverse** and as such the significance of effect is **Minor**. This is not significant in EIA terms.

## 3.2 Borthwick and Crichton Conservation Area (CA343) Updated Assessment

The Borthwick and Crichton Conservation Area is approximately 1180ha in size and covers the settlement of Borthwick to the south and the settlement of Crichton to the north, as well as many intervening smaller settlements and farmsteads. The Conservation Area contains two prominent castles, Crichton Castle (**SM13585**) and Borthwick Castle (**LB805**), their historic landscapes and multiple other historic buildings.





Crichton Castle (**SM13585**) has been described in **Section 3.1** of this report. Borthwick Castle (**LB805**) is a well-preserved example of a 15th century Scottish keep, that is still in use today. It is located on the south of Gore Water within the Gore Valley and forms the heart of Borthwick Village. The castle was constructed in 1430 by Sir William Borthwick and has an extensive history, including housing Mary Queen of Scots and her husband Lord Bothwell after the murder of Lord Darnley in 1567. The Castle was attacked by Oliver Cromwell's forces in 1650 and has surviving visible damage.

Whilst not forming part of the current Midlothian Local Development Plan (2017), the Borthwick and Crichton Conservation Area appraisal<sup>3</sup> provides an appraisal of the Conservation Area highlighting the aspects of the conservation which provide its character.

The architectural style of the buildings within the Conservation Area is noted as key to its character. As well as the two aforementioned castles, other key structures within the Conservation Area include Crichton Kirk (**LB753**) and Borthwick Kirk (**LB804**). These churches were originally medieval in date and, whilst having been renovated over the years, still maintain their medieval character. These churches and castles, as well as manses, schoolhouses, and some domestic dwellings in Borthwick and Crichton maintain the medieval and historic character of the Conservation Area.

The Conservation Area is dominated at either end by the two castles, Crichton in the north and Borthwick in the south. Borthwick, its castle and other buildings form a cohesive group in the south. Crichton castle, the church and the hamlet of Crichton are more separated to the north. The two settlements and their valleys are divided by the Borders Rail Line, which runs east to west across the conservation area. Apart from the two settlements, the Conservation Area is primarily rural, lying within the valleys of Gore Water and Tyne Water, and surrounded by open agricultural land. The Borthwick and Crichton Conservation Area appraisal states that the '*valleys possess a strong visual enclosure where they are dominated by the two castles*'. Furthermore, the character appraisal states that the small amount of development within the conservation area allows for '*dramatic settings with long views to both castles*'.

In addition, the appraisal notes a few views of significance through the Conservation Area:

- The view along the valley to Borthwick Castle and beyond from the lay-by on the A7;
- The view to the east from the slope above Borthwick adjacent to Middleton Road, showing the grouping of buildings in Borthwick;
- The view from the unclassified road from Gorebridge (approximately 55.83183823849674, -3.013219338865718), showing Borthwick castle;
- The view from Colegate Road (approximately 55.84022352042109, -2.9996784337596356), looking east to Crichton Castle;
- Views northwest to the Pentland Hills and north to Fife; and
- Views south to the Moorfoot Hills.

Whilst these views themselves do not provide the character of the Conservation Area, they are spots that are noted as providing areas to appreciate the character of the Conservation Area. Whilst the long-distance views of the Pentland Hills, Fife and Moorfoot Hills do enhance the rural nature of the Conservation Area to a small degree, they do not contribute to the medieval character of the Conservation Area.

In summary, the character of the Conservation Area derives from its unimproved nature, with a sense of isolation created by the surrounding landscape. This unimproved nature has contributed to the almost medieval feel.

The ZTV (**EIA Figure 7.2**) indicates that there would be a range of proposed turbines visible throughout the Conservation Area, with no visibility of the proposed turbines at the base of

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<sup>3</sup> Midlothian Strategic Services (n.d.) *Borthwick & Crichton Conservation Area*.



the valleys and visibility of all 18 turbine tips at the top of the surrounding hills. The Proposed Development is located c.2km southwest of the Conservation Area, with the closest proposed turbines being Turbine 16 and Turbine 17 both located c.3km southwest. As previously stated in **Section 3.1** of this report, Crichton Castle has the potential for visibility of all 18 proposed turbine tips. Borthwick Castle, located at the base of the Gore Water Valley, has the potential for visibility of three proposed turbine tips.

As set out in **Section 3.1**, a singular aspect of the setting of Crichton Castle will be impacted by the Proposed Development and the ability to understand, appreciate and experience its setting as a whole would not be impacted.

The setting of Borthwick Castle comprises its defensive positioning along the Gore Water valley, allowing the inhabitants of the asset to monitor and control access along the valley, as well as providing an aspect of natural defence from the steeper valley sides. The ZTV indicates that the Proposed Development would not be visible in approaches towards the castle along the valley floor and that views of the Proposed Development would be limited from the castle itself, only present when looking directly to the southwest. This is not a key view from the castle as it is not focussed along the valley and as such, the ability to appreciate, understand and experience the overall setting of Borthwick Castle would be maintained.

In reference to the key views noted within the Conservation Area document, each has a varying range of visible proposed turbines. The Proposed Development falls in views looking out of the Conservation Area towards the Moorfoot Hills, particularly from Crichton Castle. Despite this, the Proposed Development would not impact upon any major views within the Conservation Area and the ability to appreciate its architectural, medieval and rural character as well as retaining the setting of key buildings. As the Conservation Area is of medium cultural significance, the magnitude of impact is anticipated to be **very low adverse**, and as such, the significance of effect is **negligible**. This is not considered significant in EIA terms.



## 4.0 Updated Baseline and Archaeological Potential

The Updated Baseline presented in **Section 4** takes into account the comments made by ELCAS in their response dated 14<sup>th</sup> March 2024.

All heritage assets within the site and 1km of this area are shown on **EIA Figure 7.1**. All recorded non-designated heritage assets within the site and 1km of the site are listed in the gazetteer that is contained within **Appendix 7.1** of the EIA Report.

### 4.1 Current Baseline

#### 4.1.1 Nationally Important Designated Heritage Assets

There are no designated heritage assets within the site.

There are 91 heritage assets of national importance within 10 km of the proposed turbine locations, consisting of 53 Scheduled Monuments, 32 Category A Listed Buildings, six Inventoried GDLs, and one Inventoried Battlefield. There are 54 assets of Regional Importance within 5 km of the proposed turbine locations, 51 Category B Listed Buildings and three Conservation Areas.

#### 4.1.2 Known Heritage Assets

##### 4.1.2.1 Prehistoric and Roman Context

There is a single prehistoric heritage asset recorded within the site, a potential burnt mound (SLR2) noted on the northern slope of Torfichen Hill, c.0.12 km southeast of proposed Turbine 6. Whilst the walkover survey undertaken in May 2023 did not identify the presence of SLR2, a previous walkover survey on the same site by Rathmell Archaeology (2021) noted it as present, so it can be inferred to still be present.

A single prehistoric findspot was noted within 1km of the site. A findspot for a cremation urn (SLR1) is recorded north of the site, c.1.1 km north of Turbine 9. The urn is noted as being Bronze Age in date and was found within a small, paved pit, containing the remains of an adult, a burnt flint flake and a bone artefact.

There are no recorded Roman assets within the Site, nor within the 1km study area. The closest evidence of Roman activity is a portion of Dere Street (SM2962), a Roman road from the 1<sup>st</sup> Century AD. This portion of Dere Street is located c.10km east of the site.

#### 4.1.3 Medieval Context

There are no recorded medieval heritage assets within the site or 1km of the site boundary. However, there is known medieval activity within the wider landscape, with the Moorfoot Chapel and monastic grange (SM5976) located c.2.5km southwest of Turbine 1. Given the later agricultural use of the land within the Site, it is likely that the site was already in use for agricultural purposes at this point in time. However, continued agricultural use in later periods may have removed any earlier remains.

#### 4.1.4 Post-Medieval

There are 12 recorded post-medieval heritage assets within the site boundary.

The majority of the post-medieval assets within the Site are agricultural in nature, seemingly split between the two farmsteads located roughly at the east and west of the site.



SLR21 is the location of a house and enclosure, named as Sowburnrig on the 1853 Ordnance Survey historic mapping<sup>4</sup>. It is located c.0.12km north of Turbine 16. A sheephouse (SLR7), likely associated with Sowburnrig due to its proximity, is located c.0.16km south of Turbine 16 and c.0.28km south of SLR21.

A farmstead with a series of enclosures is noted on the 1853 Ordnance Survey historic mapping<sup>5</sup>. This farmstead is named Pigsknowes (SLR33) and is located c.0.42km northeast of Turbine 2. A sheepfold (SLR32) is located c.45m northeast of SLR33 and is likely associated. A wall (SLR63) is located within the Pigsknowes farmstead and is still extant today.

A further five post-medieval sheepfolds or enclosures are recorded within the site boundary. SLR8 is located c.0.38km southwest of Turbine 3, SLR34 and SLR35 are located c.0.3km north and northwest of Turbine 1, SLR28 is located c.0.28km west of Turbine 10 and SLR29 is located c.0.3km south of Turbine13.

All of the above assets demonstrate the agricultural nature of the land within the site during the post-medieval period, with two named farmsteads. The presence of sheepfolds throughout the site demonstrates that the land was primarily used for grazing.

Broadlaw Quarry and associated trackway (SLR31) are located in the south and southwest of the site. The asset was a granite quarry, which was first used in the late 19th century for a short period before quarrying was restarted in the 1950s. The quarry is now disused. A series of quarry workers' cottages (SLR30) are located 0.3 km to the east of the quarry, now comprising an unroofed and ruinous structure.

In addition to the post-medieval assets within the site boundary, there are seven recorded post-medieval heritage assets within 1km of the site. These assets are mainly agricultural in nature, with the majority of the assets comprising farmsteads or other agriculture-related buildings.

There are three estate cottages (SLR5, SLR6, SLR18), constructed as part of the Arniston Estate, located 1.1 km south-west of Turbine 2. Mauldslie Farmhouse (LB45814, SLR14) is located c.1.4 km southwest of Turbine 2. A sheep house (SLR20) is located c.1.2 km northeast of Turbine 17.

Furthermore, two limeworks (SLR36, SLR37) are located to the north of the site, indicating some industrial exploitation of the surrounding landscape.

#### 4.1.5 Undated Features or Structures

There are 13 undated heritage assets on the Historic Environment Record (HER) noted within the site, with the majority of these sites being agricultural in nature. There are eight undated enclosures/sheepfolds throughout the site<sup>6</sup>, two structures that are likely agricultural in nature (SLR53, SLR54), and an area of ridge and furrow along the southeastern site boundary (SLR60). There are two areas of clearance cairns throughout the site (SLR43, SLR45), indicating agricultural land use in the surrounding area. There is a cluster of smaller areas of quarrying (SLR56, SLR57, SLR58), located in the northwest portion of the site c.0.7 km north of Turbine 7. An earthwork bank (SLR64) is recorded c.0.3km east of Turbine 4. The majority of these agricultural assets are likely post-medieval in date, due to their proximity to known post-medieval agricultural heritage assets, however, a period has not been recorded within the HER.

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<sup>4</sup> Edinburghshire, Sheet 19

<sup>5</sup> Edinburghshire, Sheet 19

<sup>6</sup> SLR42, SLR44, SLR49, SLR50, SLR51, SLR52, SLR62, SLR65



A further three undated heritage assets were identified during the walkover survey in May 2023. Prior to the undertaking of the walkover survey, a search of available historic mapping, aerial photography and LiDAR data was undertaken and areas of interest were highlighted.

SLR101 is a series of enclosures that were visible on both LiDAR data and in person, as a series of small turf-covered walls, located c.0.2 km south-west of Turbine 12. They cover a visible area of approximately 100m by 75m. A distinctive cross-shaped set of walls was identified both on the LiDAR and during the walkover.

SLR102 is a circular turf covered feature, with a hollowed out interior area, located c.0.13 km north of proposed Turbine 12. Whilst a singular feature was identified during the walkover, further analysis of LiDAR shows a potential three more circular features within the vicinity of SLR102.

SLR103 is a circular turf-covered feature, approximately 80 m in diameter, appearing to be a mound with a distinctive ditch encircling it. There are no obvious entrances to the feature. This feature was identified on LiDAR prior to the walkover, it is not present on historic mapping. LiDAR analysis shows a smaller enclosure, c.22m in diameter, directly to the east of SLR103. This was not present during the site visit. SLR103 is located c.0.17 km northeast of proposed Turbine 2.

Photographs of SLR101, SLR102 and SLR103 can be found in the accompanying Appendix A.

There are a further six undated heritage assets within the 1 km study area. These comprise two enclosures (SLR55, SLR61), three areas of quarrying (SLR56, SLR57, SLR58) and a clearance cairn (SLR59).

#### 4.1.6 Site Walkover

As agreed upon at scoping, a targeted site walkover was undertaken for the EIA chapter on the 2<sup>nd</sup> of May 2023. The site visit aimed to visit all known heritage assets within the site, the proposed turbine locations and any potential assets highlighted through assessment of historic mapping, LiDAR data and aerial photography prior to the visit.

Access to Turbines 16, 18 and 19 and the associated fields in the freeze layout was prohibited due to lambing season.

The presence of the majority of previously recorded assets were confirmed as present within the Site. However, SLR2, SLR44, SLR51, SLR64, and SLR65 could not be located. This does not mean that these assets are not present within the study area, and likely means that vegetation height was not conducive to identifying the assets.

Furthermore, at the time of the survey, SLR7, SLR21, SLR42, and SLR43 were not accessible due to livestock restrictions.

As previously stated, a further three assets were identified during the walkover (SLR101, SLR102, SLR103). Photographs of these assets are available in **Appendix A** of this report. Two areas of further interest were identified on LiDAR prior to the survey. An area c.80m north of Turbine 13 can be seen on LiDAR, showing what appears to be some intersecting walls, likely enclosures of some sort. These were not able to be found during the walkover, likely due to the overgrowth of vegetation.

A further area of interest, c.0.37km north of Turbine 15 was identified on LiDAR. The asset was inaccessible due to the livestock restrictions, however, from a distance it appeared to be a series of walls forming an enclosure with a modern static caravan in the centre.



#### 4.1.7 Historic Mapping and Historic Land Use Assessment

Assessment of the Historic Land Use Assessment (HLA) map indicates that the land within the site boundary was primarily used as an area of rough grazing and unimproved rough pasture. The entry for the rough grazing category of land use notes that areas of rough grazing were associated with pre-19th century agriculture and settlement and may contain remains dating back to the prehistoric period. The description states that 'Archaeological landscapes are most likely to survive in this type of modern land use. Nevertheless, there will be extensive areas with little sign of historic use'. Smaller areas of the site are currently in use as forestry plantations. The quarry in the southern part of the site is noted.

A review of the online historic mapping available from the National Library of Scotland was undertaken. The site is first seen in detail on the Roy Military Survey of Scotland Map from 1747-1755. There is a settlement noted within the site boundary named Recthouse. This appears to be small and agricultural in nature (e.g., a farmstead). Whilst all settlements do not directly map to any known heritage assets, due to the scale of the map, there is potential that 'Recthouse' is the farmstead of Pigsknowes (SLR33), first labelled on the 1st edition Ordnance Survey Map of 1853.

Ordnance Survey Mapping from 1853 shows the site as unenclosed rough grazing land. As previously stated, the farmsteads of Pigsknowes and Sowburnrig are shown, along with their respective enclosures.

The Ordnance Survey mapping dated 1892<sup>7</sup> shows the land as unenclosed rough grazing, with the continued presence of Pigsknowes and Sowburnrig farmsteads. The quarry in the south of the site (SLR31) is noted, and observed as disused, with the quarry workers' cottages (SLR30) already described as ruins. A set of ruins is located within the quarry itself, appearing to be a set of two conjoined roofless rectangular structures, however, their function is not detailed on the map.

By 1905<sup>8</sup> Pigsknowes farmstead is no longer named however the structures are still present. Compared to the structures depicted on the 1853 mapping, Pigsknowes appears to be in some state of disrepair, with the surrounding enclosed land parcels no longer having full borders. The landscape of the site appears to still be unenclosed rough grazing.

#### 4.1.8 Previous surveys

Two previous surveys were undertaken within the Study area, both in 2021.

In March and April 2021, GUARD Archaeology undertook a desk-based assessment and walkover survey along the access track and the site of Broadlaw Quarry (SLR31), which lies along the southern edge of the site boundary. The HER entry states that three heritage assets were identified within their proposal area, which was the quarry, the access track and a small structure within the quarry. They further identified a sheepfold to the north of the access track (SLR29) and an area of quarry workers housing (SLR30).

A second survey was undertaken in 2021, by Rathmell Archaeology. This was to inform a planting scheme within their study area. They identified 16 heritage assets within their study area, mostly agricultural in nature, with the presence of SLR2 being confirmed. During their walkover survey, they were unable to ascertain the presence of SLR44, SLR51, SLR64 and SLR65.

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<sup>7</sup> Edinburghshire, Sheets XX.NE and XX.NW

<sup>8</sup> Ordnance Survey Edinburghshire Sheets XX.NE and XX.NW





## 4.1.9 Aerial Photography and LiDAR

LiDAR data for the site was reviewed and used to inform the site walkover, as described in **Section 4.1.6**.

The online aerial imagery of NCAP and publicly available satellite photography were examined for evidence of archaeological sites. No further archaeological sites were identified.

### 4.1.10 Discussion of Site

There is limited evidence of prehistoric activity within the site, with one potential prehistoric (Bronze Age) burnt mound (SLR2) identified in the south of the site and a singular find spot, a Bronze Age cremation urn (SLR1) within 1 km of the site. This provides evidence of some level of prehistoric occupation within the vicinity of the site, albeit focussed on the Bronze Age with no earlier remains currently identified. Burnt mounds are often found separated from settlements, close to watercourses, and often, but not always, in an upland environment<sup>9</sup>. There is a potential for further burnt mounds to be identified in the vicinity of SLR2, on the northern slope of Torfichen Hill. There is unlikely to be any evidence of settlement within the vicinity of SLR2, however, that does not completely rule out settlement activity within the Site in general.

The limited evidence for prehistoric within the site and the surrounds may be due to a genuine lack of intensive occupation and activity through the majority of the site, however, it may also be the result of the loss of once extant sites due to agricultural activity throughout the Site which has been documented within the historic record.

As such, there is a low potential for further unrecorded prehistoric heritage assets within the majority of the site. However, the potential for prehistoric activity may be higher around the known location of SLR2.

There is no evidence of Roman activity within the Site nor the 1km study area. As such, there is a very low potential for unknown Roman heritage assets within the site.

There is no evidence of medieval heritage assets within the site, nor within the 1km study area. However, there is known medieval activity within the wider landscape. Any medieval activity within the site is likely to have been agricultural in nature and any later agricultural activity may have removed any earlier medieval remains. As such, there is a very low potential for unknown medieval heritage assets within the site.

There is a high amount of post-medieval activity within the site and 1km of the site, mainly consisting of agricultural activity. This activity was likely split between the two named farmsteads that are visible on historic mapping within the site, Pigsknowes and Sowburnrig. However, there is the potential for earlier post-medieval activity within the site that is unrecorded within the historic mapping, due to the continuous agricultural nature of the area from an early time. Whilst the assets from the post-medieval period are relatively well recorded, due to the prevalence of historic mapping and their presence on available LiDAR, the identification of unrecorded heritage assets, likely of post-medieval date during both the 2021 Rathmell Archaeology Walkover and the 2023 walkover provide a medium potential for unrecorded post-medieval assets within the site boundary. Any unrecorded or unknown post-medieval heritage assets within the site are likely to be agricultural in nature, potential field boundaries, enclosures, or other associated features.

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<sup>9</sup> Biggar Archaeology Group (2013) *Burnt Mounds, Unenclosed Platform Settlements and information on burnt stone activity in the River Clyde and Tweed valleys of South Lanarkshire and Peeblesshire*. Available at: [https://biggararchaeology.org.uk/wp-content/uploads/2018/09/Burnt-Mounds\\_Platform-Settlements\\_Lo.pdf](https://biggararchaeology.org.uk/wp-content/uploads/2018/09/Burnt-Mounds_Platform-Settlements_Lo.pdf)



## 4.2 Assessment of Potential Impacts and Proposed Mitigation

The following Assessment of Potential Impacts and Proposed Mitigation has been clarified in response to comments from ELCAS.

### 4.2.1 Construction Effects

Assessment of potential direct impacts on heritage assets is based on the maximum likely impact that could be caused by the Proposed Development.

Direct impacts would derive from any groundworks or other ground disturbance undertaken as part of the construction phase of the Proposed Development. Specific activities which have the potential to cause impacts in this way include:

- excavation of turbine bases, substation foundations, crane hardstandings, borrow pits and cable trenches; and
- construction and upgrading of access tracks, working compounds and laydown areas.

Where significant ground disturbance takes place, these activities would remove or change any heritage assets located within the area of ground disturbance. This damage would be irreversible and permanent.

With reference to **Figure 7.1** of the EIA Report, the Proposed Development has the potential for a direct impact on the following known assets recorded within the site:

- SLR35 – Sheepfold, located adjacent to track leading to proposed Turbine 1; and
- SLR42 – Enclosure, located within potential borrow pit location at the east end of the site.

With reference to **Table 7.2** of the EIA Report, these assets are of low cultural significance. Due to their location within the site boundary and their proximity to the proposed infrastructure, direct impact on these assets would constitute a **high adverse** impact in the worst case. The overall significance of effect would be **minor**. This is not a significant impact in EIA terms.

The potential for previously unrecorded heritage assets within the Site boundary cannot be ruled out. Whilst earlier assets may be present, the baseline assessment (**Section 4.1.1.**) infers that as of yet unrecorded assets would most likely be of post-medieval date and agricultural in character. Earlier remains may be present, however, due to the agricultural use of the Site throughout history, earlier remains have likely been removed through later farming activity. This would not be able to be confirmed without further archaeological investigation. Furthermore, **Section 4.1.1.** of this report highlighted a heightened potential for unrecorded prehistoric heritage assets in the vicinity of SLR2.

As the nature of any as-of-yet undiscovered and unrecorded heritage assets cannot be ascertained, their cultural significance cannot be determined. However, it can be noted that any groundbreaking activities have the potential to fully remove or change them. Proposed mitigation is suggested in **Section 4.2.1** of this report.

### 4.2.2 Proposed Mitigation

In their application response, ELCAS provided a mitigation approach which they note had been '*proven to be effective on similar project in similar landscapes.*' Due to the level of potential direct impact described in **Section 4.2.1** of this report, it is believed that ELCAS's methodology is disproportionate in scope. An outlined mitigation was proposed in the EIA Report and has been clarified below.





Suitable measures for minimising impacts through ground disturbance might include, but are not limited to:

- the micro-siting of Proposed Development infrastructure away from sensitive locations;
- the fencing off or marking out of heritage assets or features in proximity to construction activity in order to avoid disturbance where possible;
- a programme of archaeological work where required, such as an archaeological watching brief during construction activities in or in proximity to areas of archaeological sensitivity, or excavation and recording where impact is unavoidable; and/or
- a working protocol to be implemented should unrecorded archaeological features be discovered.

Mitigation through design has taken place for the Proposed Development, aiming to mitigate direct impacts on heritage assets through avoidance from careful design and positioning of the proposed infrastructure away from all known heritage features.

In respect to SLR35 and SLR42, the following mitigation is proposed:

- fencing off and avoidance of SLR35, in order to avoid damage during construction works; and
- a targeted watching brief on SLR42.

With respect to as-of-yet unrecorded heritage assets, the following mitigation is proposed:

- Archaeological watching brief on the construction activities associated with Turbine 6 and its related infrastructure (e.g., hardstanding) due to the sensitivity of the area surrounding prehistoric asset SLR2; and
- A working protocol will be implemented with the construction team to facilitate the reporting of unrecorded archaeological features and their subsequent recording.

The precise scope of the programme of mitigation would be negotiated with the East Lothian Council Archaeology Officer (on behalf of Midlothian Council), on behalf of the Applicant. The agreed mitigation programme would be documented in an agreed Written Scheme of Investigation.



## 5.0 Methodology

Within the response to the EIA Chapter from ELCAS, there were multiple comments made about the methodology presented within the chapter. These comments are referred to below.

### Legislation, Policy and Guidance

In the General Comments section, ELCAS referenced the need for policy and guidance to be presented within the correct sections. A corrected list of legislation, policy and guidance is provided below:

The assessment was undertaken in accordance with the following principal relevant legislation:

- The Ancient Monuments and Archaeological Areas Act 1979;
- The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997;
- The Historic Environment (Amendment) (Scotland) Act 2011; and
- Scottish Statutory Instrument No. 101 The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

The Scottish Government and HES have issued a number of statements of policy with respect to dealing with the historic environment in the planning system:

- National Planning Framework 4 (NPF4; 2023);
- Historic Environment Policy for Scotland (HEPS 2019);
- Midlothian Local Development Plan (2017); and
- Onshore Wind Turbines: Planning Advice (2014).

Relevant guidance and technical standard documents comprise:

- Historic Environment Scotland Guidance on Managing Change in the Historic Environment: Setting (2020);
- Planning Advice Note 2/2011: Planning and Archaeology;
- A Guide to Climate Change Impact: On Scotland's Historic Environment (2019);
- Our Past, Our Future (2023) ;
- NatureScot and Historic Environment Scotland Environmental Impact Assessment Handbook: Guidance for competent authorities, consultation bodies, and others involved in the Environmental Impact Assessment Process in Scotland (2019); and
- Chartered Institute for Archaeologists Standard and Guidance for Historic Environment Desk-Based Assessment (2014, updated 2020).

### Category C Listed Buildings

The ELCAS comments state that '*Category C listed buildings in particular should not just be automatically considered to be of low/local significance. These are nationally listed assets, and should be assessed individually on a case by case basis. They should be included as such in the assessment of indirect operational effects. Similarly, some Cat B buildings can be considered to be of more than regional importance.*'

In addition, ELCAS stated have stated '*This has resulted in some assets being scoped out in the basic appraisal (Appendix 7.2), or a lower level of impact being concluded than there potentially ought to be. C listed building have not been considered in the assessment [...]*'



It is agreed that there is a discrepancy in the approach towards Category C Listed Buildings, with **Table 5.2** of the EIA Scoping Report including them as 'Sites of Regional/local importance' and **Table 7.2** of the EIA Report categorising them as 'Assets of local importance'.

However, as stated in **Section 5.8** of the EIA Scoping Report, Category C Listed Buildings were scoped out of assessment at this stage. This methodology was agreed with Midlothian Council, per the response dated 13<sup>th</sup> February 2023. As such, all Category C Listed Buildings have been scoped out of assessment for the EIA Report.

## Terminology

ELCAS have made the following comment in reference to terminology used within the Methodology (**Section 7.4**) of the EIA Chapter.

*'Language needs to be standardised in Tables 7.2 and 7.5: 'none' is not an appropriate definition-if they are identified heritage assets then they will not have a nil significance. Negligible is the accepted terminology.'*

This methodology was agreed with Midlothian Council at Scoping, per the response dated 13<sup>th</sup> February 2023. For the purposes of this assessment, the terminology agreed at Scoping was continued to be used.

## Cumulative Impacts

In regards to the assessment of cumulative impacts, ELCAS stated *'Cumulative impacts should not just be undertaken for those assets where a significant setting impact has been predicted. Managing Change states that individual developments may not cause significant impacts on their own, but may do so when they are combined.'*

It is agreed that Managing Change states that individual developments may not cause significant impacts on their own, but may do so when they are combined.

Within the EIA Report, cumulative effects were considered for those assets where the effect upon setting from the Proposed Development alone was assessed to be of a moderate or greater significance of effect. This is because it was assessed as unlikely that cumulative effects upon the setting of assets that would be subject to lower-level effects from the Proposed Development alone would be unlikely to reach a significant impact in EIA terms as a result of cumulative impacts.

## Visualisations

Concerning the provision of Visualisations, ELCAS stated *'Visualisations should be produced for all assets being assessed in detail, with photomontages preferable, but at the very least wireframes with an associated photograph. In some cases, more than one visualisation would have been helpful in order to aid assessment and a review of the conclusions reached.'*

Whilst visualisations may assist in the identification of the significance of effect on an asset as a result of the Proposed Development, visualisations should be produced in proportion to the predicted level of impact. Furthermore, no comments were made by Midlothian Council in regards to the request for specifications for visualisations as stated in **Section 5.9** of the Scoping Report.

Further visualisations have been provided with this report to supplement the assessment for Arniston House and Arniston GDL at the request of HES.



## 6.0 Category B Listed Buildings

### 6.1 Gladhouse Villa (LB14633) and Gladhouse Reservoir Including Dam, Weirs, Revetments, Gangway, Measuring House, Tweeddaleburn Aqueduct and Bridges over Tributaries (LB45811) (EIA Figure 7.2)

Gladhouse Villa and Reservoir were assessed within **Sections 7.6.113-7.6.120** of the EIA Report.

In regards to the assessment of Gladhouse Reservoir and Villa, ELCAS commented, *'Gladhouse reservoir, and villa-the development has the potential to be a very prominent feature in the immediate surroundings of these assets. At least one visualisation from the villa would be helpful to aid in supporting the statement that that the development will be 'peripheral in views' from this asset.'*

As noted in **Section 5** of this report, visualisations should be produced in proportion to the predicted level of impact. Due to the predicted significance of effect being negligible, no further visualisations will be provided for Gladhouse Villa and Reservoir.

### 6.2 Mauldslie Farmhouse and Steading (LB45814) (EIA Figure 7.2, Figure 7.3, Figure 7.7)

Mauldslie Farmhouse and Steading is assessed in **Sections 7.6.121 - 7.6.128** of the EIA Report.

In regards to Mauldslie Farmhouse and Steading, ELCAS commented *'Mauldslie farm-the setting here is described as being related to the fertile agricultural land away from the Moorfoot hills to the north, and that contributes to how the setting of the asset is best understood. The assessment doesn't take into account any other potential reasons for siting, such as proximity to hill pasture for pastoral farming, not the sense of place being at the foot of the hills. Based on the photomontage, the development has the potential to intrude and adverse impact on these elements of the assets setting.'*

As per the Designation Policy and Selection Guidance (HES 2019), sense of place is not a criterion for the designation of Listed Buildings. As per the designation description and its statement of special interest, the asset's functionality as a farmhouse and its architectural interest is where its significance derives from. The assets setting helps inform on the asset's functionality as a farmhouse, which is expanded upon both in the EIA Report and below.

As stated in **Section 7.6.124** and **7.6.125** of the EIA Report, the proximity of Mauldslie Farm to the Moorfoot Hills and the use of the landscape for agricultural land, rough grazing and pastoral farming is acknowledged. The setting of the asset derives from its placement within this agricultural and pastoral land, enabling our ability to understand and appreciate the reason for the siting of the asset.

The proposed turbines would be prominent in views to the east and northeast of the asset, as shown in **EIA Figure 7.7**. The asset is surrounded by agricultural and pastoral land in all directions, with a large portion of this land still used for these functions today. Whilst present in views, the Proposed Development would not impact the ability to understand the asset's immediate agricultural and pastoral setting as this would remain intact.

The Moorfoot Hills are present in long-distance views to the south, east and northeast of the asset. These do not form part of the immediate agricultural setting of the asset, however, it is acknowledged that the asset may have utilised parts of this hill range for pastoral farming. Views to the south and southeast towards the Moorfoots would remain intact, allowing for the continued understanding of the potential pastoral connection hill range. Views to the east



and northeast would be impacted to some degree, with the Proposed Development forming a distraction when viewing the hill range in this direction. However, it must be noted that the Proposed Development would not fully screen views of the Moorfoot Hills to the east and northeast, with the spacing between the proposed turbines offering the ability to understand the connection between the farmstead and the hill range.

These aspects of the asset's setting contribute to the significance of the asset, alongside its architectural quality (**EIA Section 7.6.121**). A singular aspect of the asset's setting is anticipated to be impacted by the Proposed Development, views towards the Moorfoots to the east and northeast, with views to the south and southeast remaining intact.

As such, the magnitude of impact as a result of the Proposed Development would be **very low adverse**; defined in **Table 7.3** of the EIA Report as '*The Proposed Development would erode to a very minor extent the cultural significance of the affected asset, or the ability to understand, appreciate and experience it.*' As a Category B Listed Building, the asset is considered of Medium cultural significance. As a result, the significance of effect would be **Negligible**. This is not Significant in EIA Terms.

## 7.0 Loquhariot, fort 500m SW of (SM6260)

In regards to Loquhariot Fort (SM6260), ELCAS note '*Intervisibility with other hillforts to the south of Loquhariot fort haven't been considered in the assessment, and only a cumulative wireline produced. Impacts to the setting of the fort have largely been confined to considering its prominent location in relation to the Gore Water and valley without considering the contribution to setting of distant views further south.*'

Within the EIA Chapter, the setting of Loquhariot Fort was considered, with its primary contributors to its significance from its setting being its proximity and prominence overlooking Gore Water and Tyne Water, as well as its proximity to several other forts in the surrounding landscape. Intervisibility with these forts is considered in the chapter, however, due to the topography of the surrounding landscape it is unlikely that played a part in their relationship.

There are several forts and defensive settlements located south of the asset, including Nether Brotherstone fort (SM1177), located c.8.5km southeast, Corsehope Rings fort (SM1166), located c.8.9km south and Halltree Rings (SM1170), located c.9km south. The forts and defensive settlements to the south of the asset do not share intervisibility, due to the surrounding topography. In the case of Corsehope Rings and Halltree Rings, the Moorfoot Hills would screen any views between the asset and the more southerly forts. In the case of Nether Brotherstone fort, the asset is placed on a south facing slope and would not have intervisibility.

Furthermore, the slopes on the southern side of the Gore Water valley act as a visual barrier in views south from the asset. These slopes restrict any long-distance views to the south, to the extent that they cannot be monitored or experienced in detail when standing at the fort. As such, long distance views to the south are not considered to be part of the assets setting which contribute to its significance.

## 8.0 Middleton Hall including gatepiers, gates, Ha-ha and boundary walls (LB806)

In regards to Middleton Hall, ELCAS note '*Middleton Hall originally had more designed long-distant views to the south and south-west (see historic maps), which incorporate the wider landscape views along the valley in this direction, and includes Middleton South Burn which runs through the designed garden landscape and into the development area. Little has been discussed in relation to this other than that views of the development would be screened by estate woodland. Whilst access wasn't granted for photography, an estimated wireline could have been produced based on grid reference and building height.*'



Upon review of available historic mapping, it is agreed that there may have been some degree of long-distance views south facing views were intended from the gardens of Middleton Hall, particularly along the path of the Middleton South Burn. The orientation of the house itself, with principal rooms facing east and west, does not include these south facing views, and any views along the burn towards the Proposed Development would not include the hall. Whilst the designed landscape and former estate of Middleton Hall do form part of the assets setting, these long-distance south facing views do not comprise a point of appreciation for the house itself. As such, long distance views southwards that include the Proposed Development would not impact the ability to understand, appreciate or experience the significance of Middleton Hall itself.



## 9.0 Conclusion

This AI Report has been produced to supplement Chapter 7: Archaeology and Cultural Heritage of the EIA Report. It has been produced to set out clarifications and updates in response to comments by HES and ELCAS on behalf of Midlothian Council. This report has updated the assessments of potential impacts as a result of the Proposed Development on Arniston House (LB808), Arniston Inventory Garden and Designed Landscape (GDL00029), Crichton Castle (SM13585) and Borthwick and Crichton Conservation Area (CA343). In addition, this report has updated the archaeological baseline of the Proposed Development, in order to aid in a more accurate appraisal of the archaeological potential of the site and update the potential for direct impacts on heritage assets. An updated mitigation methodology has been suggested and will be negotiated with ELCAS on behalf of Midlothian Council. Furthermore, a series of comments have been clarified with regards to the methodology of the EIA Report, assessment of some Category B Listed Buildings, and further assets which warranted clarification.





# Appendix A Newly Identified Assets

## Archaeology and Cultural Heritage Additional Information

Torfichen Wind Farm

Renewable Energy Systems Ltd

SLR Project No.: 405.P64791.00001

21 August 2024





**Photograph 1: Photograph of northern extent of SLR101, facing south. The majority of the feature was obscured due to high vegetation.**



**Photograph 2: Photograph of SLR102, looking northwest. The asset presents as a circular turf covered feature with a hollowed out interior.**







**Photograph 1: Photograph of northern extent of SLR101, facing south. The majority of the feature was obscured due to high vegetation.**



**Photograph 3: Photograph of SLR103, taken from the southwest looking northeast. The feature presents as a circular mound, approximately 80m in diameter.**





**Photograph 1: Photograph of northern extent of SLR101, facing south. The majority of the feature was obscured due to high vegetation.**



**Photograph 4: Photograph from centre of SLR103, looking to southwest, showing the elevation of the feature compared to the surrounding landscape.**



