Chapter 10
Cultural Heritage

This page is intentionally blank.

10 Cultural Heritage

Contents

Figures

Figures (Volume 2)

Visualisations (Volume 3)

Appendices

10 Cultural Heritage

10.1 Executive Summary

10.1.1 This chapter has considered the potential effects of the Proposed Development on cultural heritage. The assessment has identified one designated heritage asset, a Scheduled Monument (**SM 2848**), within the site, and 43 non-designated heritage assets. In the absence of mitigation, there is potential for construction works to result in direct impacts upon five non-designated heritage assets. More generally, there is a **low** to **moderate** potential for encountering hitherto unrecorded, buried archaeological remains within the site.

10.1.2 Assessment of the operational impacts of the Proposed Development on the settings of heritage assets has resulted in the identification of one effect of **moderate** significance (significant in EIA terms). All other effects on the settings of heritage assets within the Outer Study Area are assessed as being of no greater than **minor** significance (not significant in EIA terms).

10.1.3 Additional mitigation measures have been recommended to supplement the embedded mitigation already apparent in the design and layout of the Proposed Development. The requirement for archaeological mitigation measures to avoid, reduce, and offset the effects of the Proposed Development would be at the discretion of the West of Scotland Archaeology Service (WoSAS) acting on behalf of the Local Authority. Any requirements would need to be agreed with WoSAS and detailed in a Written Scheme of Investigation.

10.2 Introduction

10.2.1 This chapter considers the likely significant environmental effects arising from the construction, operation, and decommissioning of the Proposed Development on cultural heritage (historic environment sites and features, archaeology and built heritage), hereafter referred to as 'heritage assets.' The chapter details the results of a desk-based assessment and a field survey of the Proposed Development area ('the site') undertaken by CFA Archaeology Ltd (CFA), using information provided by Historic Environment Scotland (HES) and by the West of Scotland Archaeology Service (WoSAS).

10.2.2 The specific objectives of the study were to:

- identify the cultural heritage baseline within and in the vicinity of the Proposed Development site;
- consider the Proposed Development site in terms of its archaeological potential;
- appraise the effects of the construction and operation (including cumulative effects) of the Proposed Development on the cultural heritage resource; and
- propose measures, where appropriate, to mitigate any predicted significant adverse effects.

10.2.3 This chapter is supported by the following figures and technical appendices:

- EIA Report Volume 2: Figures
  - Figures 10.1a-b: Cultural Heritage: Inner Study Area;
  - Figures 10.2a-b: Cultural Heritage: Outer Study Area; and
  - Figures 10.3a-b: Cultural Heritage: Cumulative Developments.
- EIA Report Volume 3: Visualisations
  - Figures 10.4 to 10.14: Cultural Heritage Visualisations.

- EIA Report Volume 4: Technical Appendices
  - Technical Appendix 10.1: Heritage Assets within the Inner Study Area; and
  - Technical Appendix 10.2: Heritage Assets within the Outer Study Area.

10.3 Scope of the Assessment

Effects Assessed in Full

10.3.1 The following effects have been assessed in full:

- Direct and indirect effects on designated and non-designated cultural heritage sites or features within the site.
- Impacts on the settings of cultural heritage assets with statutory and non-statutory designations within 10 km of the outermost turbines of the Proposed Development and within 5 km of the proposed solar and BESS components. Scheduled Monuments, Category A and B Listed Buildings, Conservation Areas and Inventory Historic Battlefields where present within the blade-tip height Zone of Theoretical Visibility (ZTV) and within 10 km of the outermost turbines, are included in the assessment.
- Cumulative operational effects on the setting of cultural heritage assets resulting from the Proposed Development in combination with other wind farms that are either operational, consented, under construction, or at the application stage.

Effects Scoped Out

10.3.2 On the basis of the desk-based study and field survey work undertaken, the professional judgement of the EIA team, experience from other relevant projects and policy guidance or standards, and feedback received from consultees, the following effects areas have been 'scoped out' of detailed assessment, as proposed in the EIA Scoping Report.

10.3.3 Assessment of the effect of the Proposed Development on Listed Buildings that lie within urban settings has been scoped out. Their settings are constrained to, and defined by, their locations within the built environment and their relationships with surrounding buildings and the local townscape. As such, their settings would not be adversely affected by the Proposed Development.

10.3.4 Category C Listed Buildings are of local heritage value (low sensitivity) and generally have localised settings. Heritage assets described in the Historic Environment Record (HER) as being potentially of national importance (NSR codes C and V), Category C Listed Buildings, and Non-Inventory Designed Landscapes (NIDLs) which lie beyond 5 km of the outermost turbines or solar and BESS components have been excluded from the assessment. No such assets beyond 5 km have been identified with the potential to be subject to adverse effects on their setting as a result of the Proposed Development.

10.3.5 Assessment of direct (physical) impacts on heritage assets during the operational and decommissioning phases of the Proposed Development has been scoped out. Any maintenance, repair or replacement, and decommissioning work, would utilise the as-built infrastructure.

10.3.6 Assessment of the effect on the settings of heritage assets during the construction and decommissioning phases of the Proposed Development has been scoped out. Any such effects would be short-term and temporary. The operational phase represents the worst-case scenario and is sufficient for assessing setting impacts overall.

10.4 Legislation, Policy and Guidelines

10.4.1 The assessment has been carried out in accordance with 'Principles of Cultural Heritage Impact Assessment in the UK' (IEMA 2021), the Chartered Institute for Archaeologists 'Code of Conduct' (CIfA 2014, updated 2022) and 'Standard and Guidance for Historic Environment Desk-Based Assessment' (CIfA 2017), and with reference to the relevant statutory and planning framework for cultural heritage.

Legislation

10.4.2 Relevant legislation and guidance documents have been reviewed and taken into account as part of this assessment. Of particular relevance are:

- The Ancient Monuments and Archaeology Areas Act 1979 (as amended by Town and Country Planning (Historic Environment Scotland) Amendment Regulations 2015);
- The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended by Town and Country Planning (Historic Environment Scotland) Amendment Regulations 2015);
- Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 as amended; and
- Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

Planning Policy

10.4.3 The Planning Statement associated with this Section 36 application sets out the planning policy framework that is relevant to the EIA. This section considers the relevant aspects of National Planning Framework 4 (NPF4), Planning Advice Notes, the South Lanarkshire Local Development Plan (LDP) (2021), the East Ayrshire LDP (2024), and other relevant guidance. Of relevance to the assessment presented within this chapter, regard has been had to the following policies:

- National Planning Framework for Scotland 4 (NPF4);
- Historic Environment Policy for Scotland (HEPS) (HES 2019a);
- East Ayrshire Local Development Plan 2 (2024):
  - Policy HE1: Listed Buildings;
  - Policy HE2: Conservation Areas;
  - Policy HE3: Scheduled Monuments, Historic Battlefields and other Archaeological and Historic Environment assets;
  - Policy HE4: Gardens and Designed Landscapes;
  - Policy RE1: Renewable Energy; and
- South Lanarkshire Local Development Plan 2 (2021):
  - Policy NHE1: New Lanark World Heritage Site;
  - Policy NHE2: Archaeological Sites and Monuments;
  - Policy NHE3: Listed Buildings;
  - Policy NHE4: Gardens and Designed Landscapes;
  - Policy NHE5: Historic Battlefields;
  - Policy NHE6: Conservation Areas; and
  - Policy RE1: Renewable Energy.

Guidance

10.4.4 Recognisance has been taken of the following best practice guidelines/guidance:

- Scottish Natural Heritage (SNH, now NatureScot) and Historic Environment Scotland (HES) (2018) Environmental Impact Assessment Handbook;
- Institute of Environmental Management and Assessment (IEMA) (2021) Principles of Cultural Heritage Impact Assessment in the UK;
- Planning Advice Note 1/2013 (PAN 1): Environmental Impact Assessment (revised 2017);
- Planning Advice Note 2/2011 (PAN 2): Planning and Archaeology;
- HES (2020a) Designation Policy and Selection Guidance;
- HES (2020b) Managing Change in the Historic Environment: Setting;
- Chartered Institute for Archaeologists (CIfA) (2014a) Code of Conduct: professional ethics in archaeology (revised 2022);
- CIfA (2014b) Standard and Guidance for Commissioning Work or Providing Consultancy Advice on Archaeology and the Historic Environment (updated 2020);
- CIfA (2014c) Standard and Guidance for Historic Environment Desk-Based Assessment (updated 2020);
- UK Forestry Standard: The Governments Approach to Sustainable Forestry (Forestry Commission 2017);
- UK Forestry Standard Guidelines: Forests and the Historic Environment (Forestry Commission Scotland 2011);
- Forests and Historic Environment: Information and Advice (Forestry Commission Scotland 2016);
- Scotland's Woodlands and the Historic Environment (Forestry Commission Scotland 2008); and
- South Lanarkshire Council (SLC) (2015) Supplementary Guidance 9: Natural and Historic Environment.

10.5 Consultation

10.5.1 Consultation undertaken to date mainly pertains to the EIA Scoping Report, including updates in 2024. Scoping responses received at the time of writing that are relevant to this chapter are captured in **Table 10.1**.

Table 10.1 – Consultation Responses

Consultee and Date	Consultation Type	Issue Raised	Response / Action Taken
EAC 25 October 2022	Scoping Opinion (1)	Content that the scope and methodology proposed for the assessment, as set out in the Scoping Report, is appropriate and that the proposed study areas are adequate.	Noted. The methodology and study areas used for the assessment are set out in **Section 10.6**.
		Content that the list of proposed visualisations is adequate, pending any further comments from WoSAS or HES.	Noted.

Consultee and Date	Consultation Type	Issue Raised	Response / Action Taken
HES 26 October 2022	Scoping Opinion (1)	Content that the scope and methodology proposed for the assessment, as set out in the Scoping Report, is appropriate and that the proposed study areas are adequate.	Noted. The methodology and study areas used for the assessment are set out in **Section 10.6**.
		Welcomed inclusion of certain assets beyond 10 km from the Proposed Development in the assessment: New Lanark World Heritage Site, Dumfries House (**LB 14413** & **GDL 149**) and Cairn Table (**SM 4631**). Requested additional assessment of potential impacts on setting of Blacksidend cairn (**SM 2924**) and Cairn Kinney (**SM 4275**).	Noted. The blade-tip ZTV (**Figure 10.2**) indicates that there is no predicted visibility of the Proposed Development from the New Lanark World Heritage Site. A tabulated assessment for this site is provided in **Appendix 10.2**, but it is not subject to further assessment within this chapter. Detailed assessment of other external receptors is included in **Section 10.8**.
		Advised that two sets of monuments in the area could receive moderate or greater impacts from the Proposed Development, comprising seven hilltop cairns (**SM 2469**; **SM 2848**; **SM 2924**; **SM 4275**; **SM 4361**; **WoSASPin 9685**; **WoSASPin 9121**) and two industrial works (**SM 2931**; **SM 6640**).	Noted. Detailed assessment of external receptors is included in **Section 10.8**.
WoSAS 30 January 2023	Scoping Opinion (1)	Content that the scope and methodology proposed for the assessment, as set out in the Scoping Report, is appropriate and that the proposed study areas are adequate.	Noted. The methodology and study areas used for the assessment are set out in **Section 10.6**.
		Welcomed recommendation for appointment of an Archaeological Clerk of Works (ACoW).	Noted.
HES 12 June 2023	Online Meeting between HES and Applicant team.	Comments were made around the layout presented within the Scoping Report, noting concern regarding the proximity of Turbine 6 (scoping layout) to Dungavel Hill, cairn (**SM 2848**) and the intervisibility with Cairn Table, two cairns (**SM 4631**).	The Applicant amended the position of Turbine 6 in the scoping layout, refer to **Chapter 2**.
HES 18 March 2024	Online Meeting between HES and Applicant team.	Verbal discussion on HES updated scoping opinion (about to be issued), noting concern around Turbine 8 (scoping update layout) and the intervisibility of Dungavel Hill, cairn	Changes were made to the scoping update layout improve views from Dungavel Hill, Cairn which included removal of

Consultee and Date	Consultation Type	Issue Raised	Response / Action Taken
		(**SM 2848**) with Cairn Table, two cairns (**SM 4631**), as well as the number nubs appearing above the horizon in southern and western views	Turbine 2 and relocation of Turbine 3 as well as removal of Turbine 7 to improve views to Cairn Table.
HES 4 April 2024	Updated Scoping Opinion (2)	Content that assets beyond the proposed study areas will be considered and had no further assets to add to the list of those included for detailed assessment.	Noted. An assessment of potential impacts, including effects on setting of heritage assets in the Outer Study Area, is included in **Section 10.8** and tabulated in **Appendix 10.2**.
		Advised that mitigation must be put in place to ensure that there are no accidental incursions on Dungavel Hill, cairn (**SM 2848**), located within the site.	Noted. Mitigation measures are included in **Section 10.9**.
		Requested that visualisations be provided that centre Cairn Table, two cairns (**SM 4631**) in the view from Dungavel Hill, cairn (**SM 2848**) and that a visualisation from Cairn Table (**SM 4631**) be cross-referenced from the LVIA chapter for the assessment.	Noted. The list of agreed visualisations to accompany detailed assessment of effects on setting of heritage assets in the Outer Study Area, is included in **Section 10.8.**
		Advised that design mitigation should seek to avoid significant impacts resulting from placement of turbines which interrupt views between Dungavel Hill, cairn (**SM 2848**) and surrounding hilltop cairns.	Further consultation and design iteration, reviewed in visualisations from Dungavel Hill, cairn (**SM 2848**) was undertaken with HES as outlined below.
WoSAS 10 April 2024	Updated Scoping Opinion (2)	Content that the scope and methodology proposed for the assessment, as set out in the Scoping Update, is appropriate. Welcomed further consultation on extents of field survey and treatment of currently forested areas.	Noted.
HES 17 April 2024	Design Iteration Consultation	Welcomed removal of Turbines T3 and T7, resulting in positive improvements to the potential impact on Dungavel Hill, cairn (**SM 2848**). Advised that there remained potential for intervisibility with Glen Garr cairn and Blacksidend cairn to be interrupted, in addition to Turbine T6 appearing dominant in close proximity to the monument.	Noted. The finalised layout of the Proposed Development (as shown on **Figures 10.1a-b**), including turbine numbers, positioning, and height, has been determined through iterative design consultation with HES (see **Section 10.9**).

Consultee and Date	Consultation Type	Issue Raised	Response / Action Taken
HES 16 July 2024	Design Iteration Consultation	Welcomed reduction in tip height of Turbine T6 and noted that removal of additional turbines to the east of Dungavel Hill have opened up views. Potentially significant impacts to the monument are no longer likely to warrant an objection.	Noted. The finalised layout of the Proposed Development as shown on **Figures 10.1a-b** has been informed by the response.
HES 21 January 2025	Pre-Application Consultation	Agreed final list of visualisations, including the removal of a viewpoint from the New Lanark World Heritage Site due to a lack of predicted visibility indicated by the blade-tip ZTV.	The list of agreed visualisations provided for the assessment is included in **Table 10.5**.

10.6 Assessment Methodology and Significance Criteria

Study Area

10.6.1 Two study areas have been used for the assessment:

- The Inner Study Area (**Figure 10.1**): The Proposed Development site, defined by the redline boundary within which components of the Proposed Development are to be sited (the site), forms the study area for the identification of heritage assets that could receive direct effects arising from the construction of the Proposed Development. **Figures 10.1a-b** show the site boundary, the Proposed Development layout, and the locations of heritage assets within the site (described in **Technical Appendix 10.1**).
- The Outer Study Area (**Figure 10.2**): a study area extending 10 km from the outermost turbines and 5 km from the solar and BESS components of the Proposed Development, was used for the identification of heritage assets whose settings may be affected by the operation of the Proposed Development (external receptors). The study area extent was agreed by HES and WoSAS as being appropriate. **Figures 10.2a-b** show the infrastructure of the Proposed Development alongside the blade-tip and combined ZTVs, in addition to the location of heritage assets from which there will be a theoretical view of the infrastructure. A list of these heritage assets is provided in **Technical Appendix 10.2**, which also provides a tabulated summary assessment of the predicted effects on their settings on a case-by-case basis.

Desk Study

10.6.2 The following information sources were consulted as part of the desk-based assessment work:

- East Ayrshire and South Lanarkshire HERs: a digital database extract was obtained from WoSAS in March 2024 for all assets within 10 km from Proposed Development. This extract was refreshed in October 2024 and no significant changes to the dataset were noted.
- The National Record of the Historic Environment (NRHE) (HES 2025a): for any information additional to that contained in the HERs.
- HES Spatial Data Warehouse (HES 2024): for up-to-date data on the locations and extents of Scheduled Monuments, Listed Buildings, Conservation Areas, Inventory Garden and Designed Landscapes and Inventory Historic Battlefields.
- Historic Land-Use Assessment Data for Scotland (HLAMap) (HES 2025b): for information on the historic land use character of the site and the surrounding area.

- National Library of Scotland Map Library: for Ordnance Survey maps (principally first and second editions) and other historical map resources.
- Modern aerial photographs available through Google Earth and Bing Maps.
- Scottish Remote Sensing Portal (Scottish Government 2022): for 1 m DTM Lidar data (where available) covering the Inner Study Area.
- Relevant bibliographic references and on-line historic resources were consulted to provide background and historic information.

Field Surveys

10.6.3 A walkover field survey was carried out covering the southern development area between 26 September and 7 October 2022, with the following aims:

- Assess the baseline condition of the known heritage assets identified through the desk-based assessment.
- Identify any further features of cultural heritage interest not detected through the desk-based assessment that could be affected by the Proposed Development.
- Identify areas with the potential to contain currently unrecorded buried archaeological remains.

10.6.4 All data were captured electronically using a Trimble TDC600 Handheld GNSS with sub-metre accuracy. The baseline condition of identified assets was recorded on pro-forma monument recording sheets and by digital photography.

10.6.5 No intrusive archaeological interventions have been carried out as part of this assessment.

Assessment of Potential Effect Significance

10.6.6 The effects of the Proposed Development on heritage assets have been assessed on the basis of their type (direct (physical) impacts, indirect (physical) impacts, setting impacts, and cumulative impacts) and nature (adverse or beneficial). Effects can be permanent (lasting for a long time or forever), temporary (not lasting for very long) and/or reversible (can be changed back to what it was before). The assessment has taken into account the value/sensitivity of the heritage asset, and its setting, and the magnitude of the predicted impact.

- Direct (physical) impacts: occur where the physical fabric of the asset is removed or damaged, or where it is preserved or conserved, as a direct result of the proposal. Such impacts are most likely to occur during the construction phase and are most likely to be permanent.
- Indirect (physical) impacts: occur where the fabric of an asset, or buried archaeological remains, is removed or damaged, or where it is preserved or conserved, as an indirect result of the proposal even though the asset may lie some distance from the proposal. Such impacts are most likely to occur during the construction phase and are most likely to be permanent; however no indirect impacts have been identified during this assessment.
- Setting impacts: these are generally direct and result from the proposal causing change within the setting of a heritage asset that affects its cultural significance or the way in which it is understood, appreciated, and experienced. Such impacts are generally, but not exclusively, visual, occurring directly as a result of the appearance of the proposal in the surroundings of the asset. However, they may relate to other senses or factors, such as noise, odour or emissions, or historical relationships that do not relate entirely to intervisibility, such as historic patterns of land-use and related historic features. Such impacts may occur at any stage of a proposal's lifespan and may be permanent, reversible, or temporary.

- Cumulative impacts: can relate to impacts on the physical fabric or on the setting of assets. They may arise as a result of impact interactions, either of different impacts of the proposal itself, or additive impacts resulting from incremental changes caused by the proposal together with other projects already in the planning system or allocated in a Local Development Plan.
- Adverse effects are those that detract from or reduce cultural significance or special interest of heritage assets.
- Beneficial effects are those that preserve, enhance or better reveal the cultural significance or special interest of heritage assets.

Sensitivity

10.6.7 Cultural heritage assets are assigned value/importance through the designation process. Designation ensures that sites and places are recognised and protected by law through the planning system and other regulatory processes. The level of protection and how a site or place is managed varies depending on the type of designation and the laws and policies that apply to it (HES 2020a). **Table 10.2** summarises the relative sensitivity of key heritage assets (including their settings) relevant to the Proposed Development, based on the guidance set out in the SNH/HES EIA Handbook (version 5; 2018).

Table 10.2 – Sensitivity of Heritage Assets

Sensitivity of Asset	Definition / Criteria
High	Assets valued at an international or national level, including: • World Heritage Sites; • Scheduled Monuments; • Category A Listed Buildings; • Inventory Gardens and Designed Landscapes; and • Non-designated archaeological sites that meet the relevant criteria for designation (including sites recorded in HERs as non-statutory register (NSR) sites of presumed national importance).
Medium	Assets valued at a regional level, including: • Archaeological sites and areas that have regional value (contributing to the aims of regional research frameworks); • Archaeologically Sensitive Areas (ASA) (where these are identified in Local Authority records); • Non-Inventory Designed Landscapes (NIDL) (where these are identified in Local Authority records); • Category B Listed Buildings; and • Conservation Areas.
Low	Assets valued at a local level, including: • Archaeological sites that have local heritage value; • Category C Listed Buildings; and • Unlisted historic buildings and townscapes with local (vernacular) characteristics.
Negligible	Assets of little or no intrinsic heritage value, including: • Artefact find-spots (where the artefacts are no longer in situ and where their provenance is uncertain); and • Poorly preserved examples of particular types of minor historic landscape features (*e.g.* quarries and gravel pits, dilapidated sheepfolds, *etc*).

Magnitude of Impact

10.6.8 The magnitude of impact (adverse or beneficial) has been assessed in the categories, high, medium, low and negligible as described in **Table 10.3**.

Table 10.3 – Magnitude of Impact

Magnitude of Impact	Definition / Criteria	
	Adverse	**Beneficial**
High	Changes to the fabric or setting of a heritage asset resulting in the complete or near complete loss of the asset's cultural significance, such that it may no longer be considered a heritage asset.	Preservation of a heritage asset in situ where it would otherwise be completely lost or almost completely lost in the do-nothing scenario.
Medium	Changes to the elements of the fabric or setting of a heritage asset that contribute to its cultural significance such that this substantially altered.	Changes to key elements of a heritage asset's fabric or setting, resulting in its cultural significance being preserved where this would otherwise be lost, or restored.
Low	Changes to the elements of the fabric or setting of a heritage asset that contribute to its cultural significance such that this quality is slightly altered.	Changes that result in elements of a heritage asset's fabric or setting that detract from its cultural significance being removed.
Negligible	Changes to fabric or setting of a heritage asset that leave its cultural significance unchanged.	

Significance of Effect

10.6.9 The predicted significance of the effect was determined through a standard method of assessment considering both the sensitivity of the asset (**Table 10.2**) and magnitude of predicted impact (**Table 10.3**) and detailed in **Table 10.4** below. Where two outcomes are possible through application of the matrix *e.g*. moderate/minor effect, professional judgment supported by reasoned justification, has been employed to determine the level of significance.

10.6.10 In the assessment that follows, **Major** and **Moderate** effects are considered to be 'significant' in the context of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations). **Minor** and **Negligible** effects are considered to be 'not significant'.

Table 10.4 – Significance Criteria

Magnitude of Impact	Sensitivity of Asset			
	High	**Medium**	**Low**	**Negligible**
High	Major	Major/Moderate	Moderate/Minor	Minor/Negligible
Medium	Major/Moderate	Moderate	Moderate/Minor	Minor/Negligible
Low	Moderate/Minor	Moderate/Minor	Minor	Negligible
Negligible	Minor/Negligible	Minor/Negligible	Negligible	Negligible

10.6.11 Where a significant effect on the setting of an asset is predicted as a result of change within its surroundings using the approach outlined above, an assessment will be made as to whether that effect would result in a significant adverse effect on the integrity of its setting (NPF4 Policy 7). For the purposes of the assessment, the integrity of the setting of an asset will be considered to be maintained if the settings' contribution to the cultural significance of the asset would not be compromised by the Proposed Development, either alone or cumulatively.

Assessing Effects on Setting

10.6.12 The SNH/HES EIA Handbook (2018) Appendix 1, paragraph 42 advises that:

> *"In the context of cultural heritage impact assessment, the receptors are the heritage assets and impacts will be considered in terms of the change in their cultural significance".*

10.6.13 Historic Environment Scotland's guidance document, 'Managing Change in the Historic Environment: Setting' (HES 2020b), notes that:

> *"Setting can be important to the way in which historic structures or places are understood, appreciated and experienced. It can often be integral to a historic asset's cultural significance."*
>
> *"Setting often extends beyond the property boundary or 'curtilage' of an individual historic asset into a broader landscape context".*

10.6.14 The guidance also advises that:

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

10.6.15 The guidance recommends that there are three stages in assessing the impact of a development on the setting of a historic asset or place:

- Stage 1: identify the historic assets that might be affected by the proposed Development;
- Stage 2: define and analyse the setting by establishing how the surroundings contribute to the ways in which the historic asset or place is understood, appreciated, and experienced; and
- Stage 3: evaluate the potential impact of the proposed changes on the setting, and the extent to which any adverse impacts can be mitigated.

10.6.16 The SNH/HES EIA Handbook (2018) Appendix 1, paragraph 43 advises that:

> *"When considering setting impacts, visual change should not be equated directly with adverse impact. Rather the impact should be assessed with reference to the degree that the proposal affects those aspects of setting that contribute to the asset's cultural significance".*

10.6.17 Following these recommendations, the combined ZTV has been used to identify those heritage assets from which there would be theoretical visibility of the Proposed Development and to assess the degree of potential visibility. Consideration has also been given to designated heritage assets where there is no predicted visibility of the Proposed Development from the asset but where views of or across the asset are important factors contributing to its cultural significance. In such cases, consideration was given to whether the Proposed Development could appear in the background of those views.

10.6.18 Scheduled Monuments, Category A and B Listed Buildings, Conservation Areas and Inventory Historic Battlefields, where present within the ZTV and within 10 km of the outermost turbines and within 5 km of the solar and BESS components, are included in the assessment. These assets are included in the tabulated assessments in **Technical Appendix 10.2**, using the parameters set out in **Table 10.2**, and they are shown on **Figures 10.2a-b**.

10.6.19 Heritage assets identified in the HER as sites of presumed national importance (NSR Codes C & V), Category C Listed Buildings and Non-Inventory Designed Landscapes (NIDLs) within 5 km of the outermost turbines or solar and BESS components are included in the assessment.

10.6.20 Consideration has also been given to designated heritage assets beyond the Outer Study Area where long-distance views and intervisibility are considered to be an important aspect of their settings. New Lanark World Heritage Site (NLWHS) and three Scheduled Monuments: Blacksidend, cairn (**SM 2924**); Cairn Kinney (**SM 4275**); and Cairn Table, two cairns (**SM 4631**); in addition to Dumfries

House (**LB 14413**) and GDL (**GDL 149**), were agreed through consultation with HES as having the potential to receive impacts to their settings and have been included in the assessment.

Assessment of Cumulative Effects

10.6.21 The assessment of cumulative effects on heritage assets is based upon consideration of the effects of the Proposed Development on the settings of assets with statutory and non-statutory designations within the Outer Study Area (which includes the Inner Study Area), in addition to the likely effects of cumulative developments. **Figures 10.3a-b** shows the Proposed Development along with other cumulative developments addressed in **Chapter 5**. For assessment of the potential cumulative effects on heritage assets, cumulative developments with footprints situated within the Outer Study Area of the Proposed Development are considered.

10.6.22 Operational, under construction developments, and existing grid infrastructure elements are considered as part of the baseline and taken to be such for the assessment of effects on the settings of heritage assets for the Proposed Development.

10.6.23 Other cumulative developments which are consented, at the application stage, or are reasonably foreseeable are considered as being potential additions to the baseline and considered in the cumulative impact assessment.

10.6.24 The assessment takes into account the nature and relative scales of the various developments, their distance from the affected assets, and the potential degree of visibility from the assets of the various developments.

Requirements for Mitigation

10.6.25 NPF4 (2023) provides a mitigation strategy: avoid, minimise, restore and offset. Avoidance and minimisation measures can be achieved through design, whilst compensatory measures offset effects that have not been avoided or minimised.

10.6.26 Historic Environment Policy for Scotland (HEPS) requires the recognition, care and sustainable management of the historic environment and the emphasis in Planning Advice Note 2/2011: Planning and Archaeology (PAN2) is for the preservation of important remains in situ where practicable and by record where preservation is not possible.

10.6.27 The mitigation measures presented in the assessment take this policy advice and planning guidance into account and provide various options for protection or recording to ensure that, where practical, surviving assets are preserved intact to retain the present historic elements of the landscape.

Assessment of Residual Effect Significance

10.6.28 Assessment of residual effects arising from construction of the Proposed Development in relation to direct effects on the cultural heritage resource within the site, will take proposed mitigation into account, determining the extent to which predicted direct impacts would be avoided, reduced or offset.

10.6.29 During its operational lifetime, the residual effects of the Proposed Development on the settings of heritage assets in the Outer Study Area, including effects in combination with cumulative schemes, will be the same as the predicted effects.

Limitations to Assessment

10.6.30 The desk-based assessment draws on the records in the HER, provided in a digital geographic information system (GIS) dataset acquired in October 2024. Designated heritage assets within the Outer Study Area (**Figures 10.2-10.3**) have been identified from the HES database downloaded from the HES website in February 2025. That data is assumed to have been current and up to date at the time of acquisition.

10.7 Baseline Conditions

Heritage Assets within the Inner Study Area (Figures 10.1a-b; Appendix 10.1)

10.7.1 Numbers in brackets in the following text refer to heritage asset numbers depicted on **Figures 10.1 a-b** and listed in **Technical Appendix 10.1**.

10.7.2 There is one Scheduled Monument within the Inner Study Area: Dungavel Hill Cairn (**SM 2848**). The monument comprises a prehistoric burial cairn situated upon a prominent hilltop within the northern development area. It is designated as having heritage value at the national level and is of high sensitivity.

10.7.3 There are no Listed Buildings within the Inner Study Area and no part of the Inner Study Area lies within an Inventory Historic Battlefield, Conservation Area or World Heritage Site.

Northern Development Area

Prehistoric

10.7.4 The HER records a possible hut platform (**43**) comprising a circular grassy area 20 m in diameter, identified during field survey in 1995 on the southern slopes of Auchingilloch Hill. As a potential feature of unverified but possibly prehistoric date, it is assessed as having heritage value at the local level and to be of low sensitivity.

10.7.5 The HER records a small cairn (**42**) depicted on modern Ordnance Survey maps on the south-west slopes of Auchingilloch Hill. The cairn now lies within dense commercial forestry plantation and has likely been removed by planting operations. Any surviving remains of the cairn are assessed as having heritage value at a local level and to be of low sensitivity.

10.7.6 Seventeen findspots (**23**-**39**) are recorded in the HER as the locations at which flints and stone tools were recovered along the Powbrone Burn. Two entries (**31** and **32**) record the locations of pollen analysis associated with the findspots. The artefacts have since been removed and the findspots are of little residual heritage value and of negligible sensitivity.

Medieval/Post-Medieval Agricultural

10.7.7 A circular sheepfold (**41**) depicted on the first and second edition Ordnance Survey maps (1864; 1899), survives on the north side of the Powbrone Burn, measuring 10 m in diameter. As a relict feature related to historic stock management, it is considered to have heritage value at a local level and to be of low sensitivity.

10.7.8 A polygonal enclosure (**40**), with an adjoining small pen, is depicted on the second edition Ordnance Survey map (1899) on the north side of the Powbrone Burn. The area has been impacted by forestry planting operations and no remains are visible on modern aerial photography. Any surviving remains of the enclosure are of little residual heritage value and of negligible sensitivity.

Southern Development Area

Prehistoric

10.7.9 The HER records the remains of a round cairn (**14**), 5 m in diameter, located on the crest of a ridge to the west of Linburn Farm. An early 20th-century excavation recovered Bronze Age pottery from the cairn, which was recorded to contain a stone-lined cist. The field survey confirmed the cairn to comprise a kerbed platform of subangular-stone in fair condition.

10.7.10 Less than 200 m to the north of the round cairn (**14**), another possible cairn (**13**) was identified atop a south-east facing slope within pastureland. The possible cairn comprised a partially turf-covered mound of shattered stones, measuring 1 m in height and 6 m in diameter. Erosion by livestock had exposed a sub-angular stone at the crest of the cairn of similar dimensions to that recorded at **14**.

10.7.11 The remains of what may be a teardrop-shaped burnt mound (**10**), 8 m long by 6 m wide, orientated north-east to south-west, are visible on Lidar imagery east of a the Lamon Burn. The field survey

confirmed the presence of the possible feature, which was visible as a steep-sided grassy mound over 2 m in height. A possible track was recorded to approach the mound from the east.

10.7.12 As the confirmed or possible remains of prehistoric activity, the above assets are assessed to be of regional heritage value and medium sensitivity.

Romano-British

10.7.13 The HER records the course of a possible Roman road (**3**) as described by Newall and Lonie (1972, 1984). This interpretation is disputed by the Ordnance Survey, however, which recorded no evidence for the road during visits in 1978. Likewise, the field survey observed no evidence for an overland route or water crossing along the purported line of the road, which is consequently assessed to be of residual heritage value and negligible sensitivity.

Medieval/Post-Medieval Agricultural

10.7.14 The majority of the heritage assets recorded in the southern development area, whether listed in the HER, recorded during the field survey, or identified on other desk-based sources (*e.g*. Lidar imagery or historic maps), are agricultural remains.

10.7.15 These include the sites of former and operational farmsteads (**4**, **5**, **9**, **15**, **21**), the remains of rig and furrow cultivation (**6**, **7**, **18**), other field systems (**12**), and the stone-and-turf remains of enclosures and a sheepfold (**8**, **17**, **19**). As minor surviving elements of the historic agricultural landscape, the assets are assessed to be of local heritage value and low sensitivity.

10.7.16 An additional field bank (**2**), less well-preserved than the above assets, is assessed to be of little residual heritage value and negligible sensitivity.

Post-Medieval Quarrying and Kilns

10.7.17 The HER records the site of a possible limestone clamp kiln (**1**) to the west of Harwood Burn, in an area of quarrying. The clamp comprised an oval mound measuring 5.7 m by 4.2 m, orientated north to south and rising to 1.5 m in height, with the centre visibly excavated.

10.7.18 Another kiln (**11**), with an attached barn at the west, was excavated in 1914 on the south side of the Lamon Burn. The kiln bowl measured 3 m in diameter and 1.5 m in depth, while the stone footings of the barn extended for around 2 m.

10.7.19 As the surviving remains of small-scale raw material processing likely undertaken alongside local farming – such as in the production of agricultural lime– both kilns are assessed to be of local heritage value and low sensitivity.

10.7.20 A limestone quarry (**16**), part of which remains in use, is shown on mid-19th and early 20th-century historic mapping to the immediate north of the Linburn Farmstead (**15**). Another quarry (**20**), comprising a circular pit around 12 m in diameter, was identified on lidar imagery to the west of Waterhead. A final quarry site (**5**), a possible quarry 'scoop' measuring 14 m by 7 m, was recorded during the field survey to the east of Middlefield Farm in an area of improved pasture.

10.7.21 As minor elements of the 19th-century industrial landscape, the quarries are assessed to be of little or no intrinsic heritage value, and of negligible sensitivity.

Archaeological Potential

10.7.22 The HLA map categorises the northern development area as predominantly 20th-century woodland around an island of moorland upon which the Dungavel Hill Cairn (**SM 2848**) is located, while the southern development area is characterised with a mixture of rough grazing and 18th-century rectilinear fields and farms.

10.7.23 Evidence from Ordnance Survey first (1864-64) and second (1898-99) edition maps shows the Proposed Development site to have historically been used primarily for sheep grazing, particularly to the north, with farmsteads located on lower-lying ground to the south, such as toward the Greenock Water.

10.7.24 Archaeological evidence recorded within the Proposed Development site emphasises the historic agricultural character of the site, with a number of historic farmsteads, field systems, and stock-management enclosures being located within the Inner Study Area.

10.7.25 In addition, the desk-based assessment has identified the presence of known or possible prehistoric remains within the Inner Study Area, in both northern (**SM 2848**; **42**-**43**, **23**-**39**) and southern (**10**, **13**-**14**) development areas. These remains include cairns, a possible burnt mound, and the locations at which flints and stone tools have been recovered along the Powbrone Burn.

10.7.26 Similar evidence for prehistoric activity in the Outer Study Area, including additional prehistoric funerary and ritual sites (**SM 2469**, **SM 2628**, **SM 4298; 9121**, **9645**, **9685**, **9869**), further highlights the potential for prehistoric remains to be encountered within the Proposed Development site.

10.7.27 Overall, the archaeological potential of the Proposed Development site differs depending on the varied landscape(s) of the site itself.

10.7.28 The part of the northern development area that is commercial forestry is likely to have a **low** archaeological potential. Forestry ploughing and drainage works, as well as subsequent root growth and the effects of wind-throw, are likely to have disturbed or destroyed the integrity of any surviving buried archaeological deposits. A similarly low archaeological potential is likely in areas subject to historic quarrying and mining activities (**15**-**16**, **20**), concentrated in the southern development area.

10.7.29 Conversely, those areas of the site which have historically been employed as farmland or rough grazing are likely to have a higher archaeological potential, with evidence for prehistoric activity recorded upon even the higher altitude areas of the northern development area (between 300 m and 400 m). This is the case, for instance, along one of the proposed tracks of the northern development area, in close proximity to which a string of prehistoric artefacts (**23**-**39**) was recovered along the Powbrone Burn. Although these finds have since been removed, and are not considered liable to receive direct construction impacts, they are indicative of a higher archaeological potential.

10.7.30 Consequently, in areas not subject to forestry or mining works, there is likely a **moderate** archaeological potential.

Heritage Assets within the Outer Study Area (Figures 10.2a-b; Appendix 10.2)

10.7.31 There are eight Scheduled Monuments within the Outer Study Area, not including the Dungavel Hill Cairn (**SM 2848**). These include additional examples of prehistoric funerary and ritual monuments (**SM 2469**, **SM 2628**, **SM 4298**), the remains of a late medieval castle (**SM 2619**), a pre-Reformation chapel and post-medieval farmstead (**SM 5405**), and industrial sites such as a tar works (**SM 6640**) and two ironworks (**SM 2931** and **SM 5537**). Of these, the closest to the Proposed Development site is the Glenbuck Ironworks (**SM 2931**), which is located 6.6 km south-east of the nearest turbine.

10.7.32 There are two Inventory Historic Battlefields in the Outer Study Area. One denotes the location of the 1307 Battle of Loudoun Hill (**BTL36**), the other the 1679 Battle of Drumclog (**BTL21**). Both lie approximately 4 km to the north-west of the nearest turbine.

10.7.33 Fifty-three Listed Buildings are located in the Outer Study Area: 46 Category B and 7 Category C. The closest Listed Building to the site is the Category B Listed Auchengilloch Monument (**LB 1279**), which is located 0.9 km north-east of the nearest turbine. The monument commemorates a tradition of conventicles (non-conformist religious services) held at the location.

10.7.34 Overall, the majority of the Listed Buildings in the Outer Study Area are rural residences, such as farms and farmhouses, along with functional and commemorative structures such as bridges and memorials. The settings of these designated assets are generally localised, with long-distance views not representing important aspects of the assets' settings. Twenty-one buildings are located in enclosed townscapes, such as the Sandford Conservation Area (below), where they are screened by the surrounding built environment.

10.7.35 Two Conservation Areas are located in the Outer Study Area, both around 8 km to the north of the nearest turbine. These are the Sandford Conservation Area (**CA394**), and the Strathaven Conservation Area (**CA395**).

10.7.36 In addition to the designated heritage assets described above, there are 21 heritage assets of presumed national importance (NSR codes C/V) within the Outer Study Area. In the main, these comprise remains of similar type and periodisation to the non-designated assets recorded within the Proposed Development site itself. Included are further examples of possible prehistoric sites of ritual or funerary significance (**9121**, **9645**, **9685**, **9869**), medieval to post-medieval agricultural structures and enclosures (*e.g*. **9100**, **9111**, **9684**, **12097**), and remains associated with coal mining and limestone quarrying (*e.g*. **12141**, **12944**, **12960**, **12962**).

10.7.37 A complete list of the heritage assets in the Outer Study Area, including those beyond 10 km identified via blade-tip height ZTV or included at the request of statutory consultees (see **Sections 10.5** and **10.8.3**), is provided in **Technical Appendix 10.2**.

10.8 Assessment of Potential Effects

Construction

10.8.1 Any ground-breaking activities associated with the construction of the Proposed Development, (such as those required for turbine bases and crane hardstandings, solar panel installation, battery storage substation footings, access tracks, cable routes, borrow pits, *etc*.) have the potential to disturb or destroy heritage assets. Direct impacts can also occur as result of above ground disturbance: for example, as a result of landscaping, vehicle movement over cultural heritage features, or from the storage of construction materials above them. Direct effects on heritage assets are normally adverse, permanent, and irreversible.

10.8.2 The Proposed Development has been designed to avoid impacts on heritage assets as far as possible (see **Section 10.9**); however, the following heritage assets could be directly affected by construction works associated with the Proposed Development:

Northern Development Area

- The site of Enclosure (**40**), an asset of negligible sensitivity, lies to the south-east of Turbine 10. The footprint of the enclosure, as shown on the second edition Ordnance Survey map (1899), partially overlaps with the turbine foundations and an area of permanent hardstanding. No above-ground remains of the enclosure are visible on aerial photography, and much of the former site has been planted with trees, likely disturbing any potential below-ground remains. It is assessed that groundworks would result in a **low** magnitude impact, resulting in an effect of **negligible** significance (not significant in EIA terms). No mitigation is recommended.

Southern Development Area

- The remains of a poorly-preserved field bank (**2**), an asset of negligible sensitivity, partially overlap with an area of proposed solar panelling and the route of an access track. Construction of the solar panelling will involve the installation of pile-driven solar arrays and excavation for cable trenches, which will not compromise the overall integrity of the linear feature (including surviving below-ground elements). Groundworks required for the construction of access tracks and inverter platforms are likely to be more intrusive, requiring the removal of topsoil. It is assessed that the groundworks would cumulatively result in a low/medium impact, resulting in an effect of **negligible** significance (not significant in EIA terms). No mitigation is recommended.

- The route of a possible Roman road (**3**) is posited to cross areas of proposed solar panelling and access tracks. No evidence for the suggested route is visible above ground or on Lidar imagery, and the asset is consequently of negligible sensitivity; however, it cannot be ruled out that evidence of the road could exist below the present ground surface. Construction of the solar panelling will involve the installation of pile-driven solar arrays and excavation for cable trenches, which will not compromise the overall integrity of any possible below-ground elements of the supposed road. Groundworks required for the construction of access tracks and inverter platforms are likely to be more intrusive, requiring the removal of topsoil. It is

assessed that the groundworks would cumulatively result in a low/medium impact, resulting in an effect of **negligible** significance (not significant in EIA terms). No mitigation is recommended.

- Two areas of rig and furrow cultivation (**6**-**7**), assets of low sensitivity, are located partially within an area of proposed solar panelling and a BESS site. Construction of the solar panelling will involve the installation of pile-driven solar arrays and excavation for cable trenches, which will not compromise the overall integrity of the linear features (including surviving below-ground elements). Groundworks required for construction of the BESS site are likely to be more intrusive, requiring the removal of topsoil. It is assessed that the groundworks would cumulatively result in a low/medium impact, resulting in an effect of **minor** significance (not significant in EIA terms). Mitigation measures to avoid or offset the predicted effect are set out below **Section 10.9**.

- Remains of a field system (**12**) comprising turf banks, an asset of low sensitivity, are located partially in an area of proposed solar panelling and the site of a borrow pit. Construction of the solar panelling will involve the installation of pile-driven solar arrays and excavation for cable trenches, which will not compromise the overall integrity of the linear features (including any possible below-ground elements). Groundworks required for the excavation of the borrow pit will be more intrusive. It is assessed that the groundworks would cumulatively result in a low impact, resulting in an effect of **minor** significance (not significant in EIA terms). Mitigation measures to avoid or offset the predicted effect are set out below **Section 10.9**.

10.8.3 A further two assets have been considered for the potential of construction effects from accidental damage or deviation from the proposed layout:

- The Dungavel Cairn Scheduled Monument (**SM 2848**): an asset of high sensitivity, is located in the northern development area, within an area of proposed wind turbines. No construction works are proposed within the scheduled area of the cairn, with the closest construction operations being circa 600 m away at the closest point. No access roads are proposed to pass near the cairn. Notwithstanding the above, direct effects from the accidental movement of construction equipment could result in a high impact, resulting in an effect of **major** significance (significant in EIA terms).

- The remains of a round cairn (**14**), an asset of medium sensitivity, are located within the easternmost solar panel array, under 50 m to the west of a proposed access track. The proposed placement of solar PV modules has been undertaken such as to avoid the remains.. Potential direct affects resulting from the accidental movement of construction equipment could, however, result in a medium/high impact, resulting in an effect of **moderate** significance (significant in EIA terms).

10.8.4 Mitigation measures to ensure the avoidance of accidental adverse effects are set out below in **Section 10.9**.

10.8.5 In addition to the impacts identified above, there is a possibility that any ground-disturbing works required for the construction of the Proposed Development could disturb or destroy hitherto unrecorded, buried archaeological remains present within the site. It has been assessed that there is a low potential for buried remains to survive within forested and quarried areas of the Inner Study Area, and a **moderate** potential elsewhere. Without mitigation, construction of the Proposed Development could result in direct impacts on any remains encountered.

Operation

10.8.6 The Proposed Development could result in adverse effects on the setting of cultural heritage assets within the Outer Study Area, although such effects would diminish with increasing distance from the site. At distances greater than 10 km, it is considered that, in most instances, the Proposed Development would not appreciably alter the settings of heritage assets, or the contributions which

setting makes to an asset's cultural significance. Neither would it appreciably alter how a heritage asset is experienced, appreciated, and understood.

10.8.7 The following heritage assets beyond 10 km of the outermost turbines were identified during scoping and in post-scoping consultation with HES as requiring consideration for potential setting affects arising from the Proposed Development:

- New Lanark World Heritage Site
- Backsidend Cairn (**SM 2924**) Scheduled Monument
- Cairn Kinney (SM **4275**) Scheduled Monument
- Two Cairns, Cairn Table (SM **4361**) Scheduled Monument
- Category A Listed Dumfries House (**LB 14413**) and Inventory Garden and Designed Landscape (GDL) (**GDL 00149**)

10.8.8 Upon appraisal of the blade-tip height ZTV (**Figure 10.2a**), it was confirmed that there will be no intervisibility between the Proposed Development and the New Lanark World Heritage Site. In consequence, the World Heritage Site is not discussed further here. A tabulated assessment is provided in **Technical Appendix 10.2**.

10.8.9 No further assets beyond 10 km have been identified through appraisal of the blade-tip height ZTV that require consideration of potential impacts on their settings.

10.8.10 The assessment of operational effects has been carried out with reference to the layout of the Proposed Development and the locations of heritage assets shown on **Figures 10.2a-b**. The criteria detailed in **Tables 10.2** to **10.4** have been used to assess the magnitude and significance of the effects which are set out in tabulated summary form in **Technical Appendix 10.2**.

10.8.11 Visualisations (**Figures 10.4 to 10.14**) are provided to inform the assessment of the identified heritage assets in the Outer Study Area. These are listed in **Table 10.5**. The visualisations were selected based on an asset's proximity to the Proposed Development in combination with an initial appraisal of the blade-tip ZTV, and have been agreed with HES through post-scoping consultation.

10.8.12 A baseline photograph from one heritage asset, Two Cairns, Cairn Table (**SM 4361**), is provided as an LVIA visualisation. This is referenced where appropriate and included in **Table 10.5.**

Table 10.5 – Cultural Heritage Visualisations

Figure No.	Asset Name	Status
10.4 & 10.14	Dungavel Hill Cairn (SM 2848)	Scheduled Monument
10.5	Harting Rig Cairn (9121)	HER (National)
10.6	Wetherhill Cairn (9685)	HER (Regional)
10.7	Glen Garr Cairn (SM 2469)	Scheduled Monument
10.8	Blacksidend Cairn (SM 2924)	Scheduled Monument
10.9	Cairn Kinney (SM 4275)	Scheduled Monument
10.10	Chapelhouse Chapel and Farmstead (SM 5405)	Scheduled Monument
10.11	Glenbuck Ironworks (SM 2931)	Scheduled Monument
10.12	Muirkirk Tar Works and Mines (SM 6640)	Scheduled Monument
10.13	Dumfries House (LB 14413) & Garden (GDL 00149)	Category A Listed Building and Inventory Garden and Designed Landscape
10.14	View from Dungavel Hill with Carin Table Centred in the View	Scheduled Monument

10.8.13 The above assets, which have been agreed through post-scoping consultation, are discussed in more detail below. Other designated heritage assets and non-statutory designated heritage assets from which there is some degree of theoretical visibility predicted by the blade-tip height ZTV, but for which there is no specific setting impact concern, are assessed in tabulated form in **Technical Appendix 10.2**.

Dungavel Hill Cairn (SM 2848)

10.8.14 The monument comprises the remains of a prehistoric ritual and funerary cairn within an area of rough pasture on Dungavel Hill. The cairn, which is visible as a stone mound, is roughly circular and measures approximately 12 m in diameter. As a Scheduled Monument, the cairn is of national heritage value and high sensitivity.

10.8.15 The cairn is located upon the summit of Dungavel Hill, affording extensive views over the lower-lying surrounding landscape, much of which is wooded (*e.g*. **Figure 10.4**, Sheets A-B). To the north, views are characterised in part by the presence of operational wind farms, such as the Dungavel and Kype Muir developments (**Figure 10.4**, Sheet D). To the south, the cairn looks across commercial forestry and moorland toward a horizon dotted with additional cairns and further wind turbines. These include the cairns at Glen Garr (**SM 2469**), approximately 9 km to the south-west, at Blacksidend (**SM 2924**) 11 km to the south-west, and at Cairn Table (**SM 4631**) approximately 12 km to the south. The cairn at Dungavel Hill may have been sited with deliberate intervisibility of these other monuments, with the group possessing what appears to be an intentional internal visual relationship.

10.8.16 The key setting characteristic of the Dungavel Hill Cairn, which most contributes to the monument's cultural significance, is consequently the views to and from the potential contemporary prehistoric monuments to the south.

10.8.17 The Proposed Development includes installation of wind turbines to the east, south, and west of the Dungavel Hill Cairn, with the nearest located approximately 0.6 km to the east. The combined ZTV indicates that there would be no visibility of solar and BESS elements, which would lie approximately 6 km to the south of the cairn (**Figure 10.2b**). The blade-tip height ZTV suggests that all 18 turbines would be visible from the cairn. Iterative design consultation has been undertaken with HES to limit the impact of the Proposed Development upon southern views from Dungavel Hill (see **Section 10.9**). A number of turbines have been removed (from a previous 26-turbine layout) and/or relocated, while others have been reduced in tip height in order to reduce setting impacts and improve intervisibility with Cairn Table (SM 4631), Blacksidend Cairn (SM 2924), and Glen Garr Cairn (**SM 2469**). Further details are provided within Chapter 2 of the EIA Report.

10.8.18 The Proposed Development will be concentrated to the south-east of the cairn, within a landscape predominantly characterised by commercial forestry. Eleven turbines would be visible in this direction, alongside the operational turbines of Dungavel and Kype Muir, and many others in the middle distance (**Figure 10.4**, Sheet A). By contrast, following a reduction in turbines and repositioning, only five turbines would be visible to the south-west (as shown in visualisations), with wide spacing of the turbines undertaken to ensure unobstructed sight lines to cairns in this direction (**Figure 10.4**, Sheet B). Two turbines would be visible to the north-west (as shown in (**Figure 10.4**, Sheet C), while no elements of the Proposed Development are predicted to be visible in views to the north-east (**Figure 10.4**, Sheet D). Consequently, although the Proposed Development will introduce a notable change to the monument's setting, it would remain possible to experience, appreciate, and understand the cultural significance of the cairn, including through the intervisibility with contemporary cairns in the wider landscape (**Figures 10.4 and 10.14**).

10.8.19 Overall, the impact of the Proposed Development on the Dungavel Hill Cairn is assessed to be of medium magnitude, resulting in an adverse effect of **moderate** significance (significant in EIA terms). In the context of NPF4 Policy 7, however, it is considered that the key setting aspects of the Dungavel Hill Cairn, and their capacity to inform and convey cultural significance, would be adequately retained such that the integrity of the setting would not be significantly compromised.

Harting Rig Cairn (9121)

10.8.20 The partly overgrown remains of a possible prehistoric cairn, approximately 8 m in diameter and 0.5 m in height. A number of large boulders, which may have formed part of the kerb, were previously recorded to project through the turf at various points on the periphery; however, there is now no indication of the possible kerb. The centre of the cairn is overlain by a modern marker cairn, and a barbed wire fence cuts across the centre of the cairn. The size of the cairn, which is comparatively smaller than other hilltop cairns in the region, may indicate that the asset is a post-medieval boundary marker rather than a cairn. As an NSR Site of schedulable quality, the asset is nevertheless of national heritage value and high sensitivity.

10.8.21 The possible cairn stands on a rocky knoll at the summit of Harting Rig, at a point where the existing Dungavel and Kype Muir Wind Farms meet. Harting Rig has a relatively low summit with views in all directions characterised by the presence of wind turbines. The landscape itself is occupied by both commercial forestry and rough pasture, with the latter most apparent in western views. To the south-east, the cairn looks toward the cairns of Wetherhill (**9685**) and Cairn Table (**SM 4361**), between 6 km and 12 km away respectively. To the south-west, Dungavel Hill (**SM 2848**) lies approximately 2 km away, while the cairns of Glen Garr (**SM 2469**) and Blacksidend (**SM 2924**) are located further, at a remove of 11 km and 12 km respectively.

10.8.22 If a prehistoric cairn, the asset is likely to have been sited to overlook the surrounding upland landscape. A key setting characteristic of the possible cairn, which contributes most to its cultural significance, would therefore be the views to the north-west. These views take in a landscape which, not having been developed for commercial forestry, remains open moorland. In addition, potential intervisibility with possible contemporary cairns in the wider landscape may also be important.

10.8.23 The Proposed Development includes the installation of wind turbines to the south, with the nearest turbine located approximately 1.1 km from the cairn. The combined ZTV indicates that there would be no visibility of solar and BESS elements, which would lie approximately 6.4 km to the south (**Figure 10.2b**). The blade-tip height ZTV suggests that all 18 turbines would be visible from the cairn, introducing a notable change to views to the south. The Proposed Development would, however, be primarily visible beyond the existing turbines of one or more operational wind farms, with the combined turbines effectively appearing as a single development (**Figure 10.5**, Sheets A-B). This change would moreover only be detectable in one direction, with other views, such as key views to the north-west, remaining unaffected. Where intervisibility may be attained with cairns to the south-east and south-west, visualisations indicate that the Proposed Development would not obstruct such views (**Figure 10.5**, Sheets A-B). In particular, open views would remain between Harting Rig Cairn and the nearest cairn, that of Dungavel Hill (**Figure 10.5**, Sheet B). It would consequently remain possible to experience, appreciate, and understand the cultural significance of the cairn insofar as this is conveyed through the asset's setting.

10.8.24 Overall, the change to the cairn's baseline setting introduced by the Proposed Development, whilst detectable, would give rise to impacts little greater than those resulting from the operational wind farms already present as elements of the cairn's setting. Because of this, the impact of the Proposed Development on the setting of the Harting Rig Cairn is assessed to be of low magnitude, resulting in an adverse effect of **minor** significance (not significant in EIA terms).

Wetherhill Cairn (9685)

10.8.25 The monument comprises a low stone cairn, circular and measuring 7.5 m in diameter, now surmounted by a modern cairn. The residual remains of a sheep shelter are visible amongst the cairn material. When excavated, the cairn produced a food vessel, fragments of a cinerary urn, and a deposit of charcoal and burnt bones. As an 'N' category NSR Site, the cairn is of regional heritage value and medium sensitivity.

10.8.26 The cairn is located at the western end of the Wether Hill ridge, atop an isolated knoll. Wether Hill overlooks a relatively secluded moorland landscape, with modern aerial photography indicating that large tracts of commercial forestry, now felled, once lay to the north and east of the cairn. The Ponesk Burn flows around the north, west, and south of the cairn, at a distance of approximately 500 m. It may be that proximity to the watercourse was a factor in the cairn's location. Ridges to the north, south, and west effectively enclose the cairn in three-sided plateau, partially limiting long-

distance views in these directions. To the east, the cairn has more open views across felled woodland toward an opencast mining site.

10.8.27 The key setting characteristics of the cairn are relatively localised, with the bend of the Ponesk Burn in which the cairn is located in effect enforcing a natural boundary and key element of the cairn's setting. Views to the east and south-east are also important, as the topography of the landscape works to naturally funnel views in this direction.

10.8.28 The Proposed Development, including solar and wind-farm elements, would be located to the north-west and west respectively. The combined ZTV suggests that both wind and solar elements of the development will be visible from the cairn (see **Figure 10.2b**); however, the extent of the visibility of wind-farm elements is limited. The blade-tip ZTV indicates that six turbines would be visible at tip-height, with the closest located 4.3 km away. No turbines would be visible at hub-height, with the raised ground level to the north-west serving to screen virtually all turbine elements excepting the uppermost tips (see **Figure 10.6**). Solar and BESS elements of the Proposed Development would be visible approximately 3 km to the west. Given the topography and layout of the solar and BESS elements, which extend east-west, the degree of visible solar elements would be minimal: effectively constrained to the easternmost solar panel arrays and BESS unit. The Proposed Development would introduce a barely noticeable change in the baseline setting of the cairn, with partial visibility of the Proposed Development confined to the north and west, and key open views to the east remaining unaffected. It would remain possible to experience, appreciate, and understand the cultural significance of the cairn insofar as this is conveyed through the asset's setting, such as the landscape relationship with Ponesk Burn and the cairn's topographical position.

10.8.29 Overall, the impact of the Proposed Development on the Wether Hill Cairn is assessed to be of negligible magnitude, resulting in an adverse effect of **negligible** significance (not significant in EIA terms).

Glen Garr Cairn (SM 2469)

10.8.30 The monument comprises the remains of a stone cairn, measuring around 1m in diameter and 2 m in height, located on Glen Garr Hill. There is evidence for stones having been removed from the cairn's surface, and indications of an attempted excavation. The core of the cairn is thought to be intact, although a modern marker cairn and two small shelters have been built upon it. As a Scheduled Monument, the cairn is of national heritage value and high sensitivity.

10.8.31 The cairn is located at the summit of Glen Garr Hill, within an isolated area of featureless moorland. There is little in the immediate landscape to break views in any direction, and the cairn consequently commands open views to the horizon in all directions. To the north-east, a number of existing wind farms are visible, including those of Bankend Rig, Kype Muir, and Cumberhead (**Figure 10.7**).

10.8.32 The key setting characteristics of the cairn, which most contribute to its cultural significance, include the cairn's seclusion within a relatively isolated section of moorland, with the nearest main road or settlement typically lying around 5 km away. Expansive views to the horizon in all directions further contribute to experience of the monument, and intervisibility with potentially contemporary cairns to the north, east, and south is particularly important. These include the cairns at Dungavel (**SM 2848**) approximately 9 km to the north-east, at Blacksidend (**SM 2924**) 2 km to the south-west, and at Cairn Table (**SM 4631**) approximately 15 km to the south-east. As noted above, the group may have been sited with deliberate intervisibility of one another, as they appear to possess a clear visual relationship.

10.8.33 The Proposed Development includes the installation of wind turbines over 8 km to the north-east, with the nearest turbine located 8.7 km away. The combined ZTV indicates that there would be no visibility of solar and BESS elements, which would lie approximately 7 km to the east (**Figure 10.2b**). The blade-tip height ZTV suggests that all 18 turbines would be visible from the cairn, introducing a change to distant views of the north-eastern horizon. Visibility of the Proposed Development would, however, be partially elided with that of the several operational wind farms already characteristic of this horizon, with the visible turbines effectively appearing as a single development (see **Figure 10.7**). The number, height, and placement of turbines associated with the Proposed Development have moreover been designed to preserve intervisibility between the Dungavel Hill Cairn (**SM 2848**) and Glen Garr Cairn as much as possible (see **Section 10.9**). Key views to the

Blacksidend Cairn (**SM 2924**), to the south-west, and Cairn Table (**SM 4631**), to the south-east, would be unaffected. These factors, in combination with the distance at which the Proposed Development would lie in relation to the cairn, mean that it would remain possible to experience, appreciate, and understand the cultural significance of the cairn, particularly such as this is conveyed through the cairn's isolation and intervisibility with other nearby cairns.

10.8.34 Overall, the impact of the Proposed Development on the Glenn Garr Cairn is assessed to be of low magnitude, resulting in an adverse effect of **minor** significance (not significant in EIA terms).

Blacksidend Cairn (SM 2924)

10.8.35 The monument comprises the partial, grass-covered remains of a round cairn, measuring 28 m by 23 m. Large stones previously recorded near the cairn may have marked the sites of short cists. The cairn was damaged during the building of an Ordnance Survey triangulation station, and there are now no traces of the cairn's kerb or any possible cists. Small modern shelters have been built upon the cairn. As a Scheduled Monument, the cairn is of national heritage value and high sensitivity.

10.8.36 The cairn is located on the hilly ground of Blacksidend, the most south-westerly summit of Blackside Massif. Long-distance views are attained in all directions from the cairn, with the ground level falling away to the north, east, and south to reveal lower-lying moorland and distant hills. To the west, the cairn looks further along the high, hilly ground of Blacksidend. To the north-east, the existing Bankend Rig Wind Farm is visible, as are elements of the Dungavel and Kype Muir Wind Farms (see **Figure 10.8**). The cairn is one of a group (see above) with shared intervisibility, and was possibly sited with such views in mind. Associated cairns include those at Glen Garr (**SM 2469**) and Dungavel (**SM 2848**), between 2 km and 11 km to the north-east respectively, and the cairns at Cairn Table (**SM 4631**), approximately 15 km to the south-east.

10.8.37 The key setting characteristics of the cairn, which most contribute to its cultural significance, include open views to the horizon in all directions, emphasising the upland landscape which the cairn was likely intended to overlook. Views to possibly contemporary cairns lying to the north-east and south-east are particularly important.

10.8.38 The Proposed Development, including solar and wind farm elements, would be located to the east and north-east of the cairn respectively. The combined ZTV suggests that both wind and solar elements of the development will be visible from the cairn (see **Figure 10.2b**); however, in each case, visibility would be limited by distance, with the nearest solar element lying 8.1 km away, and the nearest turbine located more than 10 km away. At over 8 km distance, solar and BESS elements of the Proposed Development would not represent a noticeable addition to landscape. The presence of solar and BESS elements in eastern views would be further lessened by both the minimal landscape presence of the solar arrays and BESS, particularly in terms of height, and screening provided by the intervening landscape. The blade-tip height ZTV suggests that all 18 turbines would be visible from the cairn, introducing a change to distant views of the north-eastern horizon. Visibility of the Proposed Development would, however, be partially elided with that of the several operational wind farms already characteristic of this horizon, with the visible turbines effectively appearing as a single development (see **Figure 10.8**). The number, height, and placement of turbines associated with the Proposed Development have moreover been designed to preserve intervisibility between the Dungavel Hill Cairn (**SM 2848**) and Blacksidend Cairn as much as possible (see **Section 10.9**). Key views to the Glen Garr Cairn (**SM 2469**) to the north-east, and to the Cairn Table (**SM 4631**) to the south-east would be unaffected. These factors, in combination with the distance at which the Proposed Development would lie in relation to the cairn, mean that it would remain possible to experience, appreciate, and understand the cultural significance of the cairn, particularly such as this is conveyed through the cairn's topographical position and intervisibility with other nearby cairns.

10.8.39 Overall, the impact of the Proposed Development on the Blacksidend Cairn is assessed to be of low magnitude, resulting in an adverse effect of **minor** significance (not significant in EIA terms).

Cairn, Cairn Kinney (SM 4275)

10.8.40 The monument comprises the partial remains of a grass-covered round cairn, measuring 12 m in diameter and 1.5 m in height. The centre of the cairn has been dug away and an Ordnance Survey

triangulation station erected in the resulting depression. No kerb stones appear to be extant. As a Scheduled Monument, the cairn is of national heritage value and high sensitivity.

10.8.41 The cairn is located at the top of Cairn Kinney summit, a child summit of Cairn Table. Open views of high, hilly moorland are attained in all directions, with some sections of commercial forestry visible to the north. Turbines associated with the operational Kennoxhead Wind Farm are visible in views to the north-west, with the cairns of Cairn Table (**SM 4361**) visible beyond the wind farm (**Figure 10.9**).

10.8.42 The key setting characteristics of the cairn, which most contribute to its cultural significance, include the cairn's location within a striking section of undulating moorland. Expansive views of the rising ground level in all directions further contribute to the experience of the monument, and intervisibility with the possibly contemporary cairns of Cairn Table to the north-west is particularly important.

10.8.43 The Proposed Development includes the installation of wind turbines over 15 km to the north-west, with the nearest turbine located 15.2 km away. The combined ZTV indicates that there would be no visibility of solar and BESS elements, which would lie in excess of 12 km to the north-west (**Figure 10.2b**). The blade-tip height ZTV suggests that all 18 turbines would be visible from the cairn, introducing a slight change to distant views of the north-western horizon. Visibility of the Proposed Development would not obstruct key sight lines to the Cairn Table, and the overall impact of the Proposed Development would be considerably less than the operational Kennoxhead Wind Farm, which already forms part of the cairn's setting (see **Figure 10.9**). These factors, in combination with the distance at which the Proposed Development would lie in relation to the cairn, mean that it would remain possible to experience, appreciate, and understand the cultural significance of the cairn, particularly such as this is conveyed through the cairn's topographic location and intervisibility with the Cairn Table.

10.8.44 Overall, the impact of the Proposed Development on the Cairn Kinney Cairn is assessed to be of negligible magnitude, resulting in an adverse effect of **negligible** significance (not significant in EIA terms).

Chapelhouse Chapel and Farmstead (SM 5405)

10.8.45 The monument comprises the remains of a pre-Reformation chapel and post-medieval farmstead. The chapel, now visible as wall footings, was a rectangular structure with a semi-circular or polygonal apse partitioned at the south. The chapel measured 4.6 m by 5 m, with the footings being 0.65 m thick. The farmstead is located 15 m to the north of the chapel, and dates to between the 18th and 19th centuries. The farmstead measures 22 m by 25 m; the walls, whilst somewhat depleted, remain to a height of 3 m. The chapel and farmstead are surrounded by a substantial stone and earth wall which varies in thickness from 1 m to 3 m. As a Scheduled Monument, the chapel and farmstead are of national heritage value and high sensitivity.

10.8.46 The monument, which has been interpreted as a single complex comprising a chapel and ecclesiastical residence, is located on the western bank of the Greenock Water. The ground level rises steeply on the eastern bank of the Greenock Water and remains at a higher level as the watercourse snakes around the monument to the south. The ground level also rises steeply into wooded scrubland to the immediate northeast of the monument. The effect is to situate the monument within a river basin enclosed by hills and woodland. This, in combination with the stone and earth wall which encloses the complex, provides a sheltered agrarian setting.

10.8.47 The key setting characteristics of the chapel and farmstead, which most contribute to the monument's cultural significance, include the sense of rural seclusion amidst the banks of the Greenock Water. The proximity of the watercourse is likely to make an auditory as well as visual contribution to the setting of the monument, which is overall relatively localised to this sheltered stretch of the Greenock Water.

10.8.48 The Proposed Development includes the installation of wind turbines to the north-east, with the nearest turbine located 7.3 km away. The combined ZTV indicates that there would be no visibility of solar and BESS elements, which would lie approximately 3 km to the east, as these are entirely screened by topography (**Figure 10.2b**). The blade-tip height ZTV suggests that 11 turbines would

be visible, four at hub height. In practice, however, the raised eastern bank of the Greenock Water, which encloses the monument at the north, east, and south, entirely screens the Proposed Development in views from the chapel and farmstead (see **Figure 10.10**). The Proposed Development would consequently not factor into the experience, appreciation, and understanding of the chapel and farmstead's cultural significance, with the secluded, agrarian riverbank setting remaining entirely unaffected.

10.8.49 Overall, there would be **no impact** on the setting of the Chapel House Chapel and Farmstead as a result of the Proposed Development.

Glenbuck Ironworks (SM 2931)

10.8.50 The monument comprises the remains of an 18th to early 19th-century ironworks, including the rubble-built remains of a blast furnace, the footings of worker housing, bell-pits, spoil heaps, and trackways. Much of the area is covered in earth and rubble. As a Scheduled Monument, the ironworks are of national heritage value and high sensitivity.

10.8.51 The ironworks are located on either side of the Stottencleugh Burn, which would have been exploited as a resource throughout the ironworking process. The collective elements of the ironworks, including both industrial and residential remains, are located the hills east of Muirkirk, in a relatively self-contained complex with a correspondingly localised setting. Elements of the ironworks, such as the blast furnace, are built into the hillside above the burn, further integrating the monument into the landscape.

10.8.52 The key setting characteristics of the ironworks, which most contribute to the monument's cultural significance, include the proximity of the Stottencleugh Burn, the sight and sound of which prompt appreciation of the role of waterpower in the historic ironworking process. The immediate hilly ground of which the ironworks are a part is also a key setting element, recalling the mineral deposits extracted at the site. Ultimately, the cultural significance of the ironworks is most related to the on-site preservation of the various stages of the ironworking process, with the setting being important insofar as these stages of the ironworking process are visible in the local environment. Long-distance views and the wider landscape are correspondingly less important to the monument's setting.

10.8.53 The Proposed Development includes the installation of wind turbines to the north-west, with the nearest turbine located 6.6 km away. The combined ZTV indicates that there would be no visibility of solar and BESS elements, which would lie approximately 5 km to the west (**Figure 10.2b**). The blade-tip height ZTV suggests that 2 turbines would be visible from the Proposed Development, and only one at hub-height. In practice, the hilly ground which encloses the monument screens all but one blade tip of the Proposed Development (**Figure 10.11**). This minimal visibility of the Proposed Development would not obstruct appreciation of any of the internal elements of the ironworks, including those setting elements, such as the burn and hillside, visible in the local landscape. It would remain possible to experience, appreciate, and understand the cultural significance of the ironworks, particularly as this is conveyed through the monument's localised hillside setting.

10.8.54 Overall, the impact of the Proposed Development on the Glenbuck Ironworks is assessed to be of negligible magnitude, resulting in an adverse effect of **negligible** significance (not significant in EIA terms).

Muirkirk Tar Works and Mines (SM 6640)

10.8.55 The monument comprises a varied group of 18th and early 19th-century industrial remains including a tar works and associated workers' cottages, coal mines and drainage system, and a limestone quarry. As a Scheduled Monument, the ironworks are of national heritage value and high sensitivity.

10.8.56 The monument is located in a wedge of moorland between the Garpel Water, which flows on a south-eastern orientation at the monument' west, and the Colt Burn, which borders the monument to the north on an east-west orientation. Proximity to these watercourses, in addition to nearby mineral resources, accounts for the location of the monument. The wider landscape is undulating moorland.

10.8.57 The key setting characteristics of the ironworks, which most contribute to the monument's cultural significance, include the proximity of the Garpel Water and Colt Burn, the sight and sound of which

prompt appreciation of the role that water played in historic industry. The watercourses also provide natural borders to monument's setting at the north, west, and south. The local hilly landscape in which mining and quarrying took place is also a key setting element, indicating the mineral deposits which prompted industrial activity at this site.

10.8.58 The Proposed Development includes the installation of a solar site and wind turbines to the north. The combined ZTV suggests that both solar and wind elements of the development will be visible from the monument (**Figure 10.2b**). The wind turbines would be located at a distance of over 8 km, with the nearest turbine lying 8.2 m away. The blade-tip height ZTV indicates that 14 turbines would be visible. Embedded mitigation measures to ensure wide spacing of turbines, and corresponding clear sight lines at several points through the site, have ensured that the Proposed Development does not constitute an overpowering presence on the horizon (see **Figure 10.12**, Sheet A). In practice, screening provided by topography and woodland ensure that actual visibility of the Proposed Development is drastically limited (**Figure 10.12**, Sheet B). The solar and BESS elements have theoretical visibility approximately 3.5 km to the north; however, again, woodland and the undulating topography of the landscape obstruct any such views (**Figure 10.12**, Sheet B). Whilst representing a noticeable addition to views to the north, visibility of the Proposed Development would not obstruct appreciation of any of the internal elements of the tar works, coal mines, and quarry sites, or those key setting elements, such as the burns and hillsides, visible in the local landscape. It would remain possible to experience, appreciate, and understand the cultural significance of the monument, particularly as this is conveyed through the monument's localised setting.

10.8.59 Overall, the impact of the Proposed Development on the Muirkirk Tar Works and Mines is assessed to be of negligible magnitude, resulting in an adverse effect of **negligible** significance (not significant in EIA terms).

Dumfries House (LB 14413) and Garden (GDL 00149)

10.8.60 The designed landscape comprises the 17th-century (or earlier) gardens, parkland, and woodland surrounding the Category A Listed Dumfries House. The gardens also feature a bridge, doocot, and temple, as well as sundial, icehouse, and coach house. The parkland includes woodland, wooded gardens, and a formal rose garden. As a Category A Listed Building set within an Inventory Garden and Designed Landscape, both Dumfries House and its garden are of national heritage value and high sensitivity.

10.8.61 The house and garden are located in the valley of Lugar, which provides a broad valley setting with gently sloping hills to the north and south. The house, which is set on the south side of the Lugar Water, commands views to the north, overlooking the river. These views are constrained by the rising topography and woodland.

10.8.62 The key setting characteristics of the house and garden derive from the immediate features of the designed landscape, including the designed approaches and sight lines across which visibility was intended to be attained to and from the house and gardens. The house itself is most prominently seen on approach from the north, along the main drive from Auchinleck, while the expansive woodland constitutes the most notable element of the garden visible from the exterior of the designed landscape. Woodland screening was intentionally planted to create a sense that the garden and designed landscape exist as part of a curated private environment.

10.8.63 The Proposed Development includes the installation of wind turbines to the north-east, with the nearest turbine lying 17 km from the garden and 19 km away from the house. The combined ZTV indicates that there would be no visibility of solar and BESS elements, which would lie approximately 15 km to the north-east (**Figure 10.2b**). The blade-tip visibility indicates that there will be no visibility of the Proposed Development from Dumfries House, while visibility from the garden will vary depending on from where views are attained. From any point north of Dumfries House, for example, there will be no visibility. From south of the house, toward the higher ground near the southern extent of the garden, the blade-tip ZTV indicates that most of the Proposed Development would be visible beyond the existing Bankend Rig Wind Farm. At over 17 km, however, and given the layout and spacing of turbines, the Proposed Development would represent a very minimal change to the north-eastern horizon (see **Figure 10.13**). It would still be possible to experience, appreciate, and

understand the cultural significance of the house and gardens as this is conveyed through its setting. Particular views of and approaches toward the house and gardens would not be compromised by the distant presence of the Proposed Development.

10.8.64 Overall, the impact of the Proposed Development on the Dumfries House and Garden is assessed to be of negligible magnitude, resulting in an adverse effect of **negligible** significance (not significant in EIA terms).

Two Cairns, Cairn Table (SM 4361)

10.8.65 The monument comprises two burial cairns, dated to between the late Neolithic and early Bronze Age, thought likely to cover one or more cist burials. The western cairn measures 12 m in diameter and 1 m in height. It has been heavily despoiled, with material taken to construct a modern memorial cairn nearby. A modern Ordnance Survey triangulation pillar now stands atop the western cairn. The eastern cairn lies 30 m away, and measures 16 m in diameter and 3.5 m in height, and is in comparatively far better condition. As a Scheduled Monument, the cairns are of national heritage value and high sensitivity.

10.8.66 The cairns are sited at the summit of a hill known as Cairn Table, which is among the highest in the area, affording long-distance views in all directions. The surrounding landscape includes commercial forestry, moorland, and hilly uplands. Amongst multiple other wind farms in the middle distance, the Bankend Rig, Dungavel, and Kype Wind Farms are visible to the north-west, on either side of Dungavel Hill, with which Cairn Table has intervisibility (see LVIA VP 4). Additionally, the cairns at Glen Garr (**SM 2469**) and Blacksidend (**SM 2924**) are visible around 15 km to the north-west, while the Cairn Kinney Cairn (**SM 4275**) lies at 6.5 km to the south-east. It has been speculated that the group of cairns share a deliberate visual relationship.

10.8.67 The key setting characteristics of the cairns, which most contribute to the monument's cultural significance, include the cairns' location upon the dramatic Cairn Table peak. Expansive views of the upland landscape in all directions further contribute to the experience of the monument, and intervisibility with the possibly contemporary cairns to the north and south is particularly important.

10.8.68 The Proposed Development, including solar, BESS and wind-farm elements, would be located to the north-west, with the solar/BESS at a distance of approximately 6 km and the nearest turbine at a distance of 10.1 km. The combined ZTV indicates that both solar and wind elements of the Proposed Development would be visible (**Figure 10.2b**). The solar/BESS elements would introduce a change to the lower-lying landscape to the north-west, with partial screening provided by the intervening natural environment. Those elements of the southern development area that are visible from the Cairn Table would not obstruct intervisibility with the surrounding cairns. The blade-tip height ZTV suggests that all 18 turbines would be visible from the cairn, introducing a change to views of the north-western horizon. The number, height, and placement of turbines have, however, been designed to preserve intervisibility between the Dungavel Hill Cairn (**SM 2848**) and Cairn Table as much as possible (see **Section 10.9**). When beheld from the Cairn Table, the visual impact of the Proposed Development is lessened by wide open spaces, with clear visibility of the Dungavel Hill (LVIA VP 4). The turbines would not appear at all in views toward the cairns of Glenn Garr (**SM 2469**), Blacksidend (**SM 2924**), and Cairn Kinney (**SM 4275**). These factors mean that it would remain possible to experience, appreciate, and understand the cultural significance of the cairn, particularly such as this is conveyed through the cairn's topographic location and intervisibility with cairns to the north and south.

10.8.69 Overall, the impact of the Proposed Development on the cairns at Cairn Table is assessed to be of low magnitude, resulting in an adverse effect of **minor** significance (not significant in EIA terms).

10.9 Mitigation

Environmental Measures Embedded into the Development Proposals

10.9.1 Embedded mitigation proposals are those mitigation measures that are inherent to the Proposed Development. Embedded mitigation includes all mitigation usually assumed to be in place during construction, operation, and decommissioning, and is generally regarded as industry standard or

Best Practice. Construction and environmental management plans are introduced in **Chapter 3: Project Description** with an outline CEMP provided in **Technical Appendix 3.1: Outline CEMP**.

10.9.2 The layout of the Proposed Development (**Figures 10.1a-b**), including the positioning, size, and number of turbines, and the siting of the solar array and other associated infrastructure, has been designed to avoid or minimise both construction and operational effects on heritage assets and their settings.

10.9.3 The consideration of cultural heritage constraints, including determination of the Proposed Development layout, has been informed by design iteration discussions with HES. Embedded mitigation measures adopted as the outcome of this design iteration consultation include:

- The removal of Scoping Turbines 3 and 7 to improve intervisibility between Dungavel Cairn (**SM 2848**) and the cairns at Cairn Table (**SM 4631**), Blacksidend Cairn (**SM 2924**), and Glen Garr Cairn (**SM 2469**).
- Reduction in height of Turbine 6 to 200 m in order that it appears less prominent when beheld from the Dungavel Cairn (**SM 2848**).
- The removal of additional turbines, with the total reduced from an original 26 within Dungavel Forest, and repositioning of the remaining 18 turbines to improve spacing between elements of the Proposed Development such that it is less visually dominant, with more open views now attained across the site to the wider landscape.
- Revision of the original layout of the southern development area to avoid direct impacts upon an area of ridge and furrow remains (**6**), which will consequently be preserved in situ.
- The appointment of an archaeological clerk of works to oversee and, where necessary, provide advice and instruction where construction works are undertaken upon or near areas of archaeological sensitivity.

Construction Phase

10.9.4 NPF4 (2024) provides a mitigation hierarchy of avoidance, minimisation, restoration, and offsetting. Avoidance and minimisation measures can be achieved through design (*e.g*. embedded measures outlined above), whilst compensatory measures offset effects that have not been avoided or minimised.

10.9.5 Historic Environment Policy for Scotland (HEPS) requires the recognition, care, and sustainable management of the historic environment, and the emphasis in Planning Advice Note (PAN) 2/2011: Planning and Archaeology (PAN2) is for the preservation of important remains in situ (where practicable) and by record where preservation is not possible.

10.9.6 All mitigation works presented below would take place prior to or, where appropriate, during the construction of the Proposed Development. The scope of works would be detailed in one or more Written Scheme(s) of Investigation (WSI) developed in consultation with WoSAS.

Preservation in Situ

10.9.7 The Dungavel Hill Cairn (**SM 2848**), a Scheduled Monument of high sensitivity, is located in the northern development area, within an area of proposed wind turbines. In this regard, it is noted that construction works would be at a distance of circa 600 m from the cairn at the closest point, with no construction access near the cairn. No construction works are therefore proposed to take place in close proximity to the scheduled area of the cairn, and no direct construction impacts would affect this asset. Notwithstanding the above, to ensure that no accidental construction impacts upon the monument occur the asset should be marked out for avoidance during the construction phase. An appropriate buffer around the scheduled area is recommended, and should be denoted with fencing or other high-visibility markers. The buffer should remain in place during the construction phase.

10.9.8 The remains of a round cairn (**14**), an asset of **medium** sensitivity, are located within the easternmost solar panel array, under 50 m to the west of a proposed access track, in the southern development area. The upstanding earthwork remains of the cairn have been avoided during the design of the Proposed Development, such that the asset is encircled (but not directly impacted) by solar panel arrays. To ensure that no accidental construction impacts upon the cairn occur, however, the asset should be marked out for avoidance during the construction phase. A buffer of 5 m around the visible remains of the cairn is recommended, and should be denoted with fencing or other high-visibility markers. The buffer should remain in place during the construction phase.

10.9.9 In the event of micro-siting of elements of the Proposed Development, where avoidance of heritage assets is not possible, archaeological monitoring in the form of a watching brief will be undertaken.

Additional Mitigation and Monitoring

10.9.10 Taking into account the above avoidance through design, and the character of the identified cultural heritage baseline, the following additional mitigation and monitoring is recommended:

- Post-felling walkover surveys undertaken in the northern development area where construction works necessitate the removal of woodland, to assess the archaeological potential of inaccessible wooded areas of the site.
- Archaeological monitoring (watching briefs) in areas of heightened archaeological sensitivity or potential, including:
  - Along the Powbrone Burn, in the northern development area, where numerous prehistoric artefacts (**23**-**39**) have been recovered along route of the proposed access tack and near the site of Turbine 10;
  - At the sites of surviving rig and furrow (**6**-**7**) and a field system (**12**), assets of **low** sensitivity, where areas of solar panelling, access tracks, and a bund are proposed, to record the character of the remains and clarify dating via the recovery of possible artefactual evidence; and
  - During groundworks for proposed solar panels (*e.g*. cable trenching) undertaken in close proximity to the remains of a round cairn (**14**), an asset of **medium** sensitivity.

10.9.11 Based on the results of the desk-based study and field survey, there are no other specific areas where construction works are expected to encounter buried archaeological remains; however, it has been assessed that there is low to moderate potential for hitherto undiscovered archaeological remains to be present within the site. Therefore, if required under the terms of a condition of consent, the scope of any other required archaeological watching brief(s) will be agreed in consultation with WoSAS in advance of development works commencing and would be set out in one or more WSIs.

Post-Excavation Assessment and Reporting

10.9.12 If archaeologically significant discoveries are made during any archaeological monitoring works, and it is not possible to preserve the discovered site or features in situ, provision would be made for the excavation, where necessary, of any archaeological remains encountered. The provision would include the consequent production of written reports on the findings, with post-excavation analysis and publication of the results where appropriate.

Construction Guidelines

10.9.13 Written guidelines would be issued for use by all construction contractors, outlining the need to avoid causing unnecessary damage to known heritage assets. The guidelines would set out arrangements for calling upon retained professional support (*e.g*. archaeological clerk of works) should buried archaeological remains of potential archaeological interest (such as building remains, human remains, artefacts, *etc*.) be discovered during construction activities.

10.9.14 The guidelines would make clear the legal responsibilities placed upon those who disturb artefacts or human remains.

Operational Phase

10.9.15 As the as-built infrastructure would be used to facilitate maintenance, repair, and replacement activities, no mitigation is required in relation to cultural heritage during the operational lifetime of the Proposed Development.

Decommissioning

10.9.16 The Dungavel Hill Cairn Scheduled Monument (**SM 2848**) lies within the northern development area. No decommissioning works would take place in close proximity to the scheduled area of the monument; however, to ensure no accidental construction impacts this asset would be marked out for avoidance during the decommissioning phase. An appropriate buffer around the scheduled area is recommended, and should be denoted with fencing or other visible markers. The buffer would remain in place during the decommissioning phase.

10.9.17 The remains of a round cairn (**14**) would be marked out for avoidance during the decommissioning phase. A buffer of 5 m around the visible remains of the cairn is recommended during decommissioning, and should be denoted with fencing or other visible markers. The buffer would remain in place during the decommissioning phase.

10.10 Residual Effects

Residual Construction Effects

10.10.1 The adoption of embedded and applied mitigation measures set out above will avoid, minimise, or offset the loss of any archaeological and/or cultural heritage remains that may occur as a result of the construction of the Proposed Development. Taking this proposed mitigation into account, any residual effects arising from the construction of the Proposed Development in relation to heritage assets would be of no more than **negligible** magnitude.

Residual Operational Effects

10.10.2 During its operational lifetime, the residual effects of the Proposed Development on the settings of heritage assets would be the same as the predicted effects.

10.10.3 One impact of **moderate** significance (significant in EIA terms) has been identified, affecting the setting of the Dungavel Hill Cairn (**SM 2848**), which lies inside the northern development area of the Proposed Development site.

10.10.4 Following the implementation of embedded mitigation measures at the design stage, no further mitigation is possible to offset the impact on this asset, and the residual effect will remain one of **moderate** significance (significant in EIA terms). These effects, however, would not compromise the integrity of the setting of the Dungavel Hill Cairn. It would remain possible to experience, appreciate, and understand the cairn within a landscape that contains additional renewable energy infrastructure.

10.10.5 All other impacts affecting the settings of heritage assets in the surrounding landscape would give rise to effects that are either of **minor** or **negligible** significance (not significant in EIA terms).

10.11 Cumulative Assessment

10.11.1 There are no other relevant large solar or BESS developments in planning, consented/under construction, or operational within close proximity of the Proposed Development at the time of assessment (March 2025); as such the cumulative assessment focuses only on cumulative wind developments. **Figures 10.3a-b** shows the Proposed Development alongside the locations of other operational/under construction wind farms, as well those either consented or at the application (in planning) stage, together with cultural heritage assets identified within Outer Study Area.

10.11.2 Cumulative developments that are operational or under construction are considered to form part of the baseline setting of the Outer Study Area, and are considered (where relevant) above (**Section 10.8**).

10.11.3 Based on professional judgement, appraisal of the blade-tip ZTV, and use of cumulative wireline visualisations (**Figures 10.4** to **10.14**), the following cumulative schemes (consented or at the application stage) have been identified to have a possible cumulative effect on heritage assets in combination with the Proposed Development:

- Bankend Rig Wind Farms II (consented) and III (application stage);
- Hawkwood Hill Wind Farm (application stage); and
- Mill Rig Wind Farm (consented).

10.11.4 Where visible from the designated heritage assets listed in **Table 10.5**, the above identified cumulative developments are shown on wireframes to support the assessment (**Figures 10.4** to **10.14**). Cumulative developments which are not considered to have potential to result in adverse cumulative effects in combination with the Proposed Development are also shown.

10.11.5 Cumulative impacts are assessed for the five scheduled monuments and single NSR site of schedule quality which have been identified above as liable to receive operational effects of greater than **negligible** magnitude as a result of the Proposed Development. The remaining assets in the Outer Study Area will not be subject to adverse effects resulting from the Proposed Development in combination with the above identified cumulative developments, and therefore would not contribute to cumulative setting impacts.

Dungavel Hill Cairn (SM 2848)

10.11.6 **Figure 10.4** shows that turbines of the Proposed Development would be visible alongside the Bankend Rig II and III Wind Farms in south-west facing views from the Dungavel Hill Cairn (**Figure 10.4**, Sheet B1). Bankend Rig II would be concentrated to the south-west and Bankend Rig III to the south-east. Cumulatively, the concentration of turbines is greatest to the south-east, while views to the south-west, encompassing key views to other cairns in the landscape, would remain comparatively open. Four turbines are visible in the foreground of views toward the Blacksidend **(SM 2924**) and Glen Garr (**SM 2469**) cairns, with only one of the turbines being associated with the Proposed Development; the other three comprise elements of Bankend Rig II. Views due south, such as toward the cairns of Cairn Table (**SM 6640**), would remain largely open and unobstructed (**Figure 10.14**).

10.11.7 The addition of turbines to south-facing views from the monument would constitute a recognisable change, both in views from the cairn and toward it from possible contemporary cairns to the south. Taking into account the embedded mitigation measures included in the Proposed Development, which improve spacing between turbines to preserve key open views to the south, it is considered that the Proposed Development would constitute the lesser part of this cumulative change.

10.11.8 Overall, because the Proposed Development has been designed to preserve key views toward cairns to the south, it is predicted that the cumulative impact on the setting of the Dungavel Hill Cairn (**SM 2848**) resulting from the addition of the Proposed Development to a baseline including other wind farms at the application stage, will be no greater than predicted for the Proposed Development alone, being of medium magnitude and **moderate** significance (significant in EIA terms).

Harting Rig Cairn (HER 9121)

10.11.9 **Figure 10.5** shows that the Proposed Development would be visible alongside the Bankend Rig II and III Wind Farms in south-facing views from the Harting Rig Cairn (**Figure 10.5**, Sheet B), beyond elements of the operational Dungavel Wind Farm in the foreground, with other wind farms including Mill Rig also visible in the distance. Cumulatively, the concentration of turbines is greatest due south, where elements of the Proposed Development and Bankend Rig III turbines are visible in addition to Dungavel Wind Farm in the foreground, while to the west fewer elements of both the Proposed Development and Bankend Rig II can be seen beyond Dungavel Hill, with the existing Dungavel Wind Farm dominating views in the foreground. Due to embedded mitigation within the Proposed

Development, views toward possible contemporary cairns to the south-west would remain comparatively open.

10.11.10 The addition of turbines to south-facing views from the cairn would constitute a discernible change to views in this direction; however, these views are already characterised by the presence of wind turbines associated with the Dungavel Hill Wind Farm, which will remain the dominant feature in views from this location.

10.11.11 The cumulative impact on the setting of the Harting Rig Cairn (**9121**) resulting from the addition of the Proposed Development to a baseline including other wind farms at the application stage, is assessed to be no greater than assessed alone, and therefore of low magnitude and **minor** significance (not significant in EIA terms). The developments would effectively form a single group alongside the operational Dungavel Wind Farm, which already represents an element of the cairn's setting, with each development appearing to continue the line of turbines of the other.

Glen Garr Cairn (SM 2469)

10.11.12 **Figure 10.7** shows that the Proposed Development would be visible alongside the Bankend Rig II-III, Hawkwood Hill, and Mill Rig Wind Farms, amongst others, in north-east facing views from the Glen Garr Cairn (**Figure 10.7**). The distance at which the wind farms would be visible from the monument means that, in effect, they would cumulatively appear as a single development, with the turbines of the Mill Rig and Bankend Rig II Wind Farms most prominent in the foreground.

10.11.13 The addition of the turbines from these projects to north-east facing views from the cairn would constitute a noticeable change to views in this direction, but with the Proposed Development set behind either consented or application-stage wind farms and not materially altering the future baseline position. Taking into account the embedded mitigation measures included in the Proposed Development, which improve spacing between turbines to preserve key open views to with cairns in this direction, it is considered that the Proposed Development would not noticeably contribute to this change, and other key views to cairns south-west and south-east would be unaffected.

10.11.14 The cumulative impact on the setting of the Glen Garr Cairn (**SM 2469**) resulting from the addition of the Proposed Development to a baseline including other wind farms either consented or at the application stage, is assessed to be no greater than assessed alone, and therefore of low magnitude and **minor** significance (not significant in EIA terms). The developments would effectively form a single group on the north-eastern horizon, alongside the operational Dungavel Wind Farm, with each development appearing to continue the line of turbines of the other. The greater influence on the setting of the cairn would arise from the Mill Rig and Bankend Rig II turbines, which lie in closer proximity to the monument.

Blacksidend Cairn (SM 2924)

10.11.15 **Figure 10.8** shows that the Proposed Development would be visible alongside the Bankend Rig II-III and Hawkwood Hill Wind Farms, and the blade tips of Mill Rig, amongst other wind farms in north-facing views from the Blacksidend Cairn (**Figure 10.8**). The distance at which the wind farms would be visible from the monument means that, in effect, they would cumulatively appear as a single development, with the turbines of Bankend Rig II Wind Farm most prominent in the foreground.

10.11.16 The addition of the turbines from these projects to north-east facing views from the cairn would constitute a noticeable change to views in this direction, with the Proposed Development set behind the Bankend Rig II Wind Farm. Embedded mitigation measures are included in the Proposed Development, which has been designed to improve spacing between turbines and preserve key intervisibility with cairns to the south, including Blacksidend Cairn. Key views from Blacksidend Cairn toward other cairns, such as to the south-east would be unaffected. .

10.11.17 The cumulative impact on the setting of the Blacksidend (**SM 2924**) resulting from the addition of the Proposed Development to a baseline including other wind farms at the application stage, is assessed to be no greater than assessed alone, and therefore of low magnitude and **minor** significance (not significant in EIA terms). The developments would effectively form a single group on the north-eastern horizon, alongside the operational Dungavel Wind Farm, with each development appearing to continue the line of turbines of the other. The greater influence on the

setting of the cairn would arise from the Bankend Rig II turbines, which lie in closer proximity to the monument.

Two Cairns, Cairn Table (SM 4361)

10.11.18 LVIA VP4 shows that the Proposed Development would be visible alongside the Bankend Rig II – III, Mill Rig and Hawkwood Hill wind farms, and a number of other operational and consented wind farms, in northern views from the Cairn Table (LVIA VP4, Sheet A). The distance at which the wind farms would be visible from the monument means that, in effect, they would cumulatively appear as a single development on a horizon otherwise characterised by renewable wind development.

10.11.19 The addition of turbines to north-facing views from the monument would constitute a discernible change to the northern skyline. Embedded mitigation measures are included in the Proposed Development, which has been designed to improve spacing between turbines and preserve key intervisibility with cairns to the south, including the cairns at Cairn Table .

10.11.20 The cumulative impact on the setting of the cairns of the Cairn Table (**SM 4361**) resulting from the addition of the Proposed Development to a baseline including other wind farms at the application stage, is assessed to be no greater than assessed alone, and therefore of low magnitude and **minor** significance (not significant in EIA terms).

10.12 Summary

10.12.1 This chapter has considered the potential effects of the Proposed Development on cultural heritage (historic environment sites and features, archaeology and built heritage). A desk-based assessment and site visits were carried out across two 'study areas' (Inner and Outer Study Areas) to establish baseline conditions, including the number and sensitivity of heritage assets present within both the site and the surrounding landscape.

10.12.2 The assessment has identified one Scheduled Monument within the Inner Study Area: the Dungavel Hill Cairn (**SM 2848**). Forty-three non-designated heritage assets are also recorded within the Inner Study Area, with the majority being post-medieval agricultural remains or the locations at which prehistoric artefacts, since removed, were recovered. Taking the identified baseline of the Inner Study Area into account, it is assessed that there is a **low** to **moderate** potential for encountering hitherto unrecorded, buried archaeological remains within the site.

10.12.3 In the absence of mitigation, there is potential for construction works to result in direct impacts to five heritage assets. These are:

- The site of an Enclosure (**40**): potential adverse effect of **negligible** significance (not significant in EIA terms).
- The remains of a poorly-preserved field bank **(2**): potential adverse effect of **negligible** significance (not significant in EIA terms).
- The route of a possible Roman road (**3**): potential adverse effect of **negligible** significance (not significant in EIA terms).
- Two areas of rig and furrow cultivation (**6**-**7**): potential adverse effect of **minor** significance (not significant in EIA terms).
- Remains of a field system (**12**): potential adverse effect **minor** significance (not significant in EIA terms).

10.12.4 Eight Scheduled Monuments, an Inventory Garden and Designed Landscape, and two HER sites of between national and regional significance, have been assessed for operational impacts resulting from the Proposed Development. These assets were determined based on an asset's proximity to the Proposed Development, appraisal of the blade-tip ZTV, and post-scoping consultation with HES.

10.12.5 Assessment of the impact of the Proposed Development on the settings of these assets has resulted in the identification of one effect of **moderate** significance (significant in EIA terms) on the setting of a Scheduled Monument: the Dungavel Hill Cairn (**SM 2848**). In this regard, the assessment

concluded that although the Proposed Development will introduce a notable change to the monument's setting, it would remain possible to experience, appreciate, and understand the cultural significance of the cairn, and it is therefore considered that the key setting aspects of the Dungavel Hill Cairn, and their capacity to inform and convey cultural significance, would be adequately retained such that the integrity of the setting would not be significantly compromised. All other effects on the settings of heritage assets within the Outer Study Area are assessed as being of no greater than **minor** significance (not significant in EIA terms).

10.12.6 Assessment of cumulative impacts resulting from Proposed Development in combination with other cumulative developments has resulted in the identification of one effect of **moderate** significance (significant in EIA terms) on the setting of a Scheduled Monument: the Dungavel Hill Cairn (**SM 2848**). In this regard, the assessment concluded that the cumulative impact on the setting of the Dungavel Hill Cairn resulting from the addition of the Proposed Development to a baseline including other wind farms at the application stage, will be no greater than predicted for the Proposed Development alone, being of medium magnitude and **moderate** significance (significant in EIA terms). All other cumulative effects on the settings of heritage assets within the Outer Study Area are assessed as being of no greater than **minor** significance (not significant in EIA terms).

10.12.7 The layout of the Proposed Development, including the positioning, size, and number of turbines, and the siting of the solar array and other associated infrastructure, has been designed to avoid or minimise both construction and operational effects on heritage assets and their settings. Construction works would proceed in accordance with a CEMP, and existing cultural heritage remains would be fenced off where necessary.

10.12.8 Additional mitigation comprising demarcation of sensitive areas, post-felling walkover surveys where construction works necessitate the removal of woodland, and archaeological monitoring (watching briefs) in areas of archaeological potential, have been recommended to further offset and/or reduce any possible effects upon cultural heritage as a result of the Proposed Development.

10.12.9 Should previously unidentified archaeological remains be encountered, they would be subject to a programme of archaeological works to be developed in consultation with WoSAS and detailed in a Written Scheme of Investigation (WSI).

Table 10.6 – Summary Table

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
During Construction & Decommissioning					
Impacts on identified heritage assets within the Inner Study Area, including hitherto unknown archaeological remains.	Minor to negligible	Adverse	Appointment of an archaeological clerk of works; Preservation in situ and adoption of buffer zones around visible remains *(e.g*. **SM 2848** & **14**), which will be fenced off or otherwise marked out during construction/decommissioning. Post-felling walkover surveys undertaken in the northern development area; and Archaeological monitoring (watching briefs) in areas of heightened archaeological potential and the sites of surviving historic agricultural remains (**6**-**7**, **12**). Mitigation to be agreed with WoSAS and detailed in a Written Scheme of Investigation (WSI).	Negligible	Adverse
During Operation					
Impacts on the settings of designated heritage assets and nationally and regionally significant non-designated heritage assets within the Inner and Outer Study Areas	Moderate to negligible	Adverse	Embedded mitigation measures developed in consultation with HES, including: • The removal of Scoping Turbines 3 and 7 to improve intervisibility between Dungavel Cairn **(SM 2848**) and possible contemporary cairns to the south. • Reduction in height of Turbine 6 to 200 m to appears prominent when beheld from the Dungavel Cairn (**SM 2848**). • The total number of turbines reduced from 26 to 18; repositioning of remaining turbines to improve spacing between elements of the Proposed Development and open views across the site.	Moderate to negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Cumulative Effects					
Impacts on the settings of designated heritage assets and nationally and regionally significant non-designated heritage assets within the Inner and Outer Study Areas	Moderate to negligible	Adverse	N/A	Moderate to negligible	Adverse

10.13 References

Cartographic Sources

Ordnance Survey (1872-5). 'Inverness-shire, Sheet LXXII-III and LXXXVII-III', six inches to one mile.

Ordnance Survey (1903). 'Inverness-shire, Sheet LXXII-III and LXXXVII-III', six inches to one mile.

Ordnance Survey (1941). 'GSGS 3906, Sheet 32/82,' 1:25,000.

Ordnance Survey (1969-71). 'NH70, NH71 and NH80', 1:10,000.

Roy, Gen. W. (1747-55) 'Military Survey of Scotland'.

Planning Legislation and Guidance

Chartered Institute for Archaeologists (CIfA) (2014). 'Standard and Guidance for Historic Environment Desk-Based Assessment'. CIfA, Reading. Available at: https://www.archaeologists.net/sites/default/files/2023-11/CIfA-SandG-DBA-2020.pdf

CIfA (2014). 'Standard and Guidance for Commissioning Work or Providing Consultancy Advice on Archaeology and the Historic Environment'. CIfA, Reading. Available at: https://www.archaeologists.net/sites/default/files/2023-11/CIfA-SandG-Archaeological-Consultancy-2020.pdf

CIfA (2014). 'Code of Conduct: professional ethics in archaeology', revised October 2022. CIfA, Reading. Available at: https://www.archaeologists.net/sites/default/files/2023-11/CIfA-Code-of-Conduct-2022.pdf

Historic Environment Scotland (HES) (2016). 'Managing Change in the Historic Environment: Setting'. Edinburgh. Available at: https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=80b7c0a0-584b-4625-b1fd-a60b009c2549

HES (2019a). 'Historic Environment Policy for Scotland'. Edinburgh. Available at: https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=1bcfa7b1-28fb-4d4b-b1e6-aa2500f942e7

HES (2019b). 'Designation Policy and Selection Guidance'. Edinburgh. Available at: https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=8d8bbaeb-ce5a-46c1-a558-aa2500ff7d3b

HM Government (1979). 'Ancient Monuments and Archaeological Areas Act 1979 (reprinted 1996)'. HMSO, London. Available at: http://www.legislation.gov.uk/ukpga/1979/46/pdfs/ukpga_19790046_en.pdf

Institute of Environmental Management and Assessment (IEMA), Institute of Historic Building Conservation (IHBC) & CIfA (2021). 'Principles of Cultural Heritage Impact Assessment in the UK.' IEMA, Lincoln. Available at: https://www.iema.net/resources/blogs/2021/07/20/iema-launch-of-principles-of-cultural-heritage-impact-assessment/

Scottish Government (1997). 'Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997'. KPS, Edinburgh. Available at: http://www.legislation.gov.uk/ukpga/1997/9/pdfs/ukpga_19970009_en.pdf

Scottish Government (2011). 'Planning Advice Note 2/2011: Planning and archaeology.' Available at: https://www.gov.scot/publications/pan-2-2011-planning-archaeology/

Scottish Government (2013). 'The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013.' KPS, Edinburgh. Available at: https://www.legislation.gov.uk/ssi/2013/155/made/data.pdf

Scottish Government (2013). 'Planning Advice Note (PAN) 1/2013: Environmental Impact Assessment.' Edinburgh, available at: https://www.gov.scot/publications/planning-advice-note-1-2013-environmental-impact-assessment/

Scottish Government (2017). 'The Electricity Works (Environmental impact Assessment) (Scotland) Regulations 2017.' KPS, Edinburgh. Available at: https://www.legislation.gov.uk/ssi/2017/101/made

Scottish Government (2024). 'National Planning Framework for Scotland 4 (NPF4).' Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2023/02/national-planning-framework-4/documents/national-planning-framework-4-revised-draft/national-planning-framework-4-revised-draft/govscot%3Adocument/national-planning-framework-4.pdf

SNH & HES (2018). 'Environmental Impact Assessment Handbook.' Scottish Natural Heritage and Historic Environment Scotland, Edinburgh. Available at: https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=6ed33b65-9df1-4a2f-acbb-a8e800a592c0

Online Resources

HES (2024). '*Historic Environment Scotland GIS downloader*.' Available at http://portal.historicenvironment.scot/spatialdownloads. Accessed in October 2024.

HES (2025a). 'H*istoric Environment Scotland's National Record of Historic Environment (NRHE) database (Canmore)*.' Available at: http://pastmap.org.uk. Accessed in February 2025.

HES (2024b). '*Historic Land-Use Assessment Data for Scotland (HLAmap)*.' Available at: http://hlamap.org.uk. Accessed in February 2025.

Scottish Government (2022). '*Scottish Remote Sensing Portal.'* Available at: https://remotesensingdata.gov.scot. Accessed in March 2022.