Hagshaw Long Duration Electricity Storage

Landscape and Visual Impact Assessment

for Hagshaw LDES Ltd

April 2025

Landscapevisual

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Contents

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1.0 Introduction

1.1. This Report

1.1.1. Landscape Visual Limited was appointed by Hagshaw LDES Ltd ('the Applicant') to prepare a landscape and visual impact assessment (LVIA) for a proposed Long Duration Electricity Storage (LDES) development ('the Proposed Development') on land at the M74 Heat and Power Park (now known as Conexus West), west of Junction 11 of the M74, Coalburn, Lanark, ML11 0RL ('the Site').

1.1.2. This LVIA report considers the impact of the Proposed Development on the landscape of the Site and surrounding area, and on local visual amenity and views.

1.1.3. This work has been undertaken by Rob Pile BSc DipLA CMLI and Angus Jeffery BSc PhD (Cantab) CMLI, chartered landscape architects with over 30 years' combined experience of the assessment of a wide variety of development proposals.

1.2. The Existing Site

1.2.1. The Site location is shown on **Figures 1a**, **1b**, **1c** and **1d**[1]. The Site comprises approximately 46 hectares (ha) (including the existing access road from the M74 junction) of predominantly brownfield land formally used for coal stocking and dispatch from the Dalquhandy Opencast Coal Site (which ceased operations in 2004). The Site now forms part of the Hagshaw Energy Cluster, an established strategic location for large scale renewable energy projects, close to the M74.

1.2.2. The Site is under an extant planning permission for the development of 140,000 m^2 of industrial / commercial units up to a height of 15 m.

1.2.3. Within the surrounding area:

- To the north is pastoral farmland, woodland/tree belts, and a small number of residential properties, with further pastoral farmland and woodland beyond;
- To the north-east is coniferous forestry (Poniel Hill), and the Dewar's bonded

[1] For brevity, within this document, figures are referred to without the project number 1363, i.e., **Figure 1a** and **Figure 1363/1a** are the same.

warehouse complex, with the M74 beyond;

- To the east and south-east is coniferous forestry and broadleaved woodland, some of it ancient, with the settlement of Douglas and pastoral farmland of the Douglas Valley beyond;
- To the south is a mix of coniferous and deciduous woodland and moorland / rough grazing, and the small former settlement of Douglas West;
- To the south-west is moorland / rough grazing, and the Hagshaw Hill and Hagshaw Hill Extension wind farms (the former under construction as a repowering);
- To the west are the Douglas West and Douglas West Extension wind farms (the latter under construction within an area of former coniferous forestry), with further coniferous forestry and other wind farms beyond; and
- To the north-west is moorland and woodland, and then the village of Coalburn.

1.2.4. The Site lies within the South Lanarkshire Council (SLC) area.

1.2.5. The Site lies outside of any national/statutory or local/non-statutory landscape designations. The locally designated Douglas Valley Special Landscape Area (SLA) lies to the immediate south of the Site.

1.3. The Proposed Development

1.3.1. This LVIA considers the proposed development of the Site for an LDES development and associated infrastructure and landscaping. The Proposed Development is described in **Section 4** and shown on the plans contained in **Appendix 2**.

1.4. Methodology

1.4.1. The study was undertaken in accordance with the following key references:

- Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA) (2013), *Guidelines for Landscape and Visual Impact Assessment (GLVIA): Third Edition*[i].
- LI (2024), *Notes and Clarifications on Aspects of Guidelines for Landscape and Visual Impact Assessment Third Edition* (GLVIA3)[ii].
- Natural England (2014), *An Approach to Landscape Character Assessment*[iii].
- Scottish Natural Heritage (SNH) and The Countryside Agency (2002), *Landscape Character Assessment: Guidance for England and Scotland*[iv].

- LI (2019), *Visual Representation of Development Proposals* - Landscape Institute Technical Guidance Note (TGN) 06/19[v].
- LI (2021), *Assessing Landscape Value Outside National Designations* – Landscape Institute Technical Guidance Note 02/21[vi].

1.4.2. The detailed LVIA methodology is contained in **Appendix 1**.

1.4.3. Fieldwork was undertaken in February and March 2025.

1.4.4. All measurements in this document are approximate and given to a level of accuracy which is appropriate to the assessment and consideration of the Proposed Development's effects. Distances to and from the Site are measured to the main structures within the Proposed Development, rather than the access roads. Co-ordinates and heights are stated in relation to the Ordnance Survey (OS) datum unless otherwise stated.

1.5. Consultation

1.5.1. An Environmental Impact Assessment (EIA) screening opinion was requested from Scottish Government Energy Consents Unit (the ECU) in February 2025, and the screening opinion was received back in March 2025. The Proposed Development was screened as non-EIA, and landscape and visual matters were not raised as being of specific concern in relation to the Proposed Development. It was however noted that *'appropriate siting, design and screening will avoid non-significant landscape and visual effects.'*

1.6. Approach to this Study

1.6.1. The following work stages have been undertaken:

1. Desk study collating information on potential receptors (landscape and visual).
2. Preparation of Geographic Information System (GIS)-based maps (the Figures list is in **Appendix 5**).
3. Fieldwork to photograph 11 representative viewpoints and assess the baseline landscape and visual environment.
4. Providing advice on landscaping as part of the Proposed Development.
5. Assessment of the value and susceptibility of the surrounding landscape/visual amenity, and thereby assessment of landscape and visual receptor sensitivity.

6. Assessment of potential direct and indirect impacts on the landscape and visual environment during construction, on completion, and during operation.

2.0 Policy Context

2.1. National Planning Policy Context

2.1.1. This section highlights the key national planning policy context as far as it relates to the landscape setting of the Site.

2.1.2. The current National Planning Framework (NPF) for Scotland is NPF4[vii], which was adopted on 13 February 2023. The most recent updates occurred in October 2024.

2.1.3. Policies 4, 6 and 11 are of relevance to this LVIA, as set out in **Table 2.1** below:

Table 2.1: Relevant NPF4 Policies

Policy	Policy Intent	Policy Outcomes
Policy 4: Natural Places	*'To protect, restore and enhance natural assets making best use of nature-based solutions.'*	▪ *'Natural places are protected and restored.* ▪ *Natural assets are managed in a sustainable way that maintains and grows their essential benefits and services.'*
Policy 6: Forestry, Woodland and Trees	*'To protect and expand forests, woodland and trees.'*	▪ *'Existing woodlands and trees are protected, and cover is expanded.* ▪ *Woodland and trees on development sites are sustainably managed.'*
Policy 11: Energy	*'To encourage, promote and facilitate all forms of renewable energy development, onshore and offshore. This includes energy generation, storage, new and replacement transmission and distribution infrastructure and emerging low-carbon and zero emissions technologies including hydrogen and carbon capture utilisation and storage (CCUS).'*	▪ *'Expansion of renewable, low-carbon and zero emissions technologies.* In particular: … *e) In addition, project design and mitigation will demonstrate how the following impacts are addressed:* *i. impacts on communities and individual dwellings, including, residential amenity, visual impact, noise and shadow flicker;* *ii. significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/or appropriate design mitigation has been applied, they will generally be considered to be acceptable;* *…'*

2.1.4. Policy 1 (Tackling the Climate and Nature Crises) is also of relevance, but is covered in the Planning Statement that accompanies the planning application.

2.2. Local Landscape Planning Policy

2.2.1. Assessment work has shown that landscape and visual effects would arise only in the SLC area. Relevant local planning policies are listed below, with detail on the policies

provided in **Appendix 3**.

South Lanarkshire Local Development Plan 2 (January 2021)

2.2.2. The South Lanarkshire Local Development Plan 2 (LDP2)[viii] was adopted in January 2021. Policies from Volume 1 of the LDP2 which are considered relevant to this assessment include:

- Policy 1: Spatial Strategy;
- Policy 2: Climate Change;
- Policy 4: Green Belt and Rural Area;
- Policy 5: Development Management and Placemaking;
- Policy 13: Green Network and Greenspace;
- Policy 14: Natural and Historic Environment; and
- Policy 18: Renewable Energy.

2.2.3. Relevant policies from Volume 2 include:

- GBRA1: Rural Design and Development;
- GBRA2: Business Proposals within Green Belt and Rural Area;
- NHE3: Listed Buildings;
- NHE4: Gardens and Designed Landscapes;
- NHE13: Forestry and Woodland;
- NHE16: Landscape;
- NHE18: Walking, Cycling and Riding Routes; and
- RE1: Renewable Energy.

2.2.4. In addition, the following Supplementary Guidance documents are also relevant to this LVIA:

- South Lanarkshire Core Path Plan;
- South Lanarkshire Landscape Character Assessment (2010) – superseded by NatureScot Scottish Landscape Character Types Map and Descriptions (2019);
- South Lanarkshire Validating Local Landscape Designations (2010); and
- Hagshaw Energy Cluster Development Framework (2023)[ix].

Hagshaw Energy Cluster Development Framework (2023)

2.2.5. The Framework sets out the strategy for the Hagshaw Energy Cluster (HEC), establishing the vision for renewable energy development, including coordinated nature and community enhancement. The Framework sets out initiatives for habitat restoration and community connectivity, including recreational opportunities. The Framework is supportive of energy-related development at the HEC and has helped to shape the approach to the Proposed Development.

3.0 Landscape and Visual Baseline Conditions

3.1. Landscape Baseline

Designated Landscapes

3.1.1. The Site is not located within any national/statutory or local/non-statutory landscape designations. The locally-designated Douglas Valley Special Landscape Area (SLA) lies to the immediate south of the Site – see **Figure 2b** and **Appendix 3**.

3.1.2. The Site and its environs are not noted as a Wild Land Area by Nature Scot[x].

3.1.3. There are no designated Gardens and Designed Landscapes (GDL) within the Site or its environs – see **Figure 3a**.

Designated Cultural Heritage

3.1.4. There are no designated heritage assets within the Site – see **Figure 3a**.

3.1.5. Within 1 km of the Site there is a single Listed Building (LB) – the Grade B Statue of a Highlander at West Toun, approximately 650 m to the north of the main Site.

3.1.6. Within 2 km of the Site there are further Grade A, B and C LBs and a Conservation Area in Douglas to the south of the Site.

3.1.7. Potential effects on heritage assets have been scoped out of the planning application.

Ecology Designations

3.1.8. There are no ecological or geodiversity designations within 1 km of the Site.

National Landscape Character

3.1.9. The Nature Scot / Scottish Natural Heritage National Landscape Character Assessment[xi] places the majority of the Site within Landscape Character Type (LCT) 213: *Plateau Moorlands – Glasgow & Clyde Valley*[2] – see **Figure 2b** and **Appendix 4a**. A small part of the Site to the east of the main proposed development area lies within LCT 207: *Upland River Valley – Glasgow & Clyde Valley* - see **Figure 2b** and **Appendix 4a**. However, the

[2] The national landscape character assessment identified 390 LCTs across Scotland, and is considered to provide sufficient detail to have superseded previous district-level character assessments such as the 2010 South Lanarkshire Landscape Character Assessment (as cited in [viii]).

landscape character of the part of the Site that lies within LCT 207 is considered to be more aligned with that of LCT213 than LCT 207. The 'on-the-ground' boundary between the two LCTs is therefore considered to be aligned with the woodland edge of Long Plantation, rather than where it is shown on the online LCT map.

3.1.10. Relevant key characteristics of LCT 213 are described as:

- *'Large scale landform.*
- *Undulating hills and sloping ridges in the western areas; a more even plateau landform in the east.*
- *Distinctive upland character created by the combination of elevation, exposure, smooth plateau landform, moorland vegetation.*
- *Predominant lack of modern development.*
- *Extensive wind turbine development, including one of the largest wind farms in Scotland, Black Law.*
- *Sense of apparent naturalness and remoteness which contrasts with the farmed and settled lowlands, although this has been reduced in places by wind energy development.'*

3.1.11. Perceptual aspects of the LCT are noted as:

'The landscape has an exposed and relatively remote character where wind turbines are not present, although enclosure within the forests can be well defined. Wind farms have reduced the perception of undeveloped character, although this is still associated with higher, exposed areas of remoter moorland. However, there have been signs of human activity in most areas of this Landscape Character Type now. Wildness levels on the western plateau are slightly higher than those in the Central Plateau.

Where forestry permits, views tend to be relatively open across the surrounding valleys and adjacent hill groups. There are a number of man-made features visible, particularly road corridors and electrical infrastructure, though few visual foci are present.'

3.1.12. Relevant key characteristics of LCT 207 are described as:

- *'A series of valleys formed along faultlines through the Plateau Moorlands and paired with valleys to the south and west in Ayrshire.*
- *South-west to north-east orientation of the valleys.*
- *Strong contrast between the wooded and settled character of the valleys and the exposed enclosing uplands.*
- *Transition from the exposed upper reaches to more sheltered lowland areas. Largest remaining intact*

raised bog in Britain at Flanders Moss, with international importance for nature conservation.'

3.1.13. Analysis and the field survey have shown that there may also be some very limited visibility from restricted parts of LCT 201: *Plateau Farmland – Glasgow & Clyde Valley*.

3.1.14. Relevant key characteristics of LCT 201 are described as:

- *'Extensive, open, flat or gently undulating landform.*
- *Dominance of pastoral farming, but with some mosses surviving.*
- *Limited and declining tree cover.*
- *Visually prominent settlements and activities such as mineral working.*
- *Rural character of the Plateau Farmland has reduced as tree cover has declined and the visual influence of settlements, transport infrastructure and mineral working has increased.'*

Landscape Character of the Site and Surrounding Area

3.1.15. **Table 3.1** contains a description of the Site and its immediate surroundings, based on fieldwork carried out in March 2025. This is supported by the annotated viewpoint photographs (**Figure 6**, particularly *Viewpoints 1*, *2*, *3* and *4*) which show the character of the Site in its landscape context and the wider Study Area.

Table 3.1: Site Description

Criterion	Commentary
Situation	The Site comprises ca. 46 ha of brownfield land within the former Dalquhandy Opencast Coal Mine, including rough grassland and hard standings. Ca. 17 ha would be used for the main structures. It lies between coniferous and ancient woodland (east/south), moorland with wind farms (west), and woodland and pastoral farmland (north).
Topography / Landform	The Site rises from ca. 215–235 m AOD (north) to 255 m AOD (south). The surrounding landscape is undulating, rising to Hagshaw Hill (south-west) and falling toward Douglas Water (south-east), with past mining having altered local topography. The extant planning permission includes local regrading to create level development platforms.
Geology / Hydrology	The Site has Giffnock soils: brown earths, peaty gleys, and non-calcareous gleys, likely altered by prior land use. It contains drainage ditches and burns, including Alder Burn to the west. The extant planning permission includes retention, realignment, and culverting of watercourses, and a SuDS system with attenuation basins.
Vegetation	The Site contains brownfield land with hard standings, access roads, and rough grassland, supporting pioneer/ruderal species. Woodland (a mix of commercial coniferous forestry and ancient woodland) borders the east, south, and north.

Criterion	Commentary
	The extant planning permission for the Site would see much of the Site cleared of vegetation to allow the construction of the permitted industrial buildings, with some areas of vegetation retained and managed for biodiversity gains.
Land Use	The biomass plant occupies the northern section, with hard standings, access roads, and a construction compound elsewhere. The extant planning permission for the Site is for employment uses – Class 4 (Business), Class 5 (General Industrial), and Class 6 (Storage and Distribution), with buildings up to 15 m high.
Notable Landscape Features	The biomass plant, the existing powerlines (on timber poles), and the access roads form notable landscape features within the Site. Within the wider area, the undulating landform, multiple wind turbines, and, in places, large-scale forestry are the main landscape features.
Boundaries / Edges	The Site is partially enclosed by post and wire fences and bunds, mainly along the northern, eastern, south-eastern, and western boundaries. The biomass plant within the Site is enclosed by a green paladin fence. Within the wider surrounding landscape, forestry areas are sometimes bounded by deer fences, and moorland grazing areas are bounded by post and wire stock fences. The extant planning permission for the Site would see the Site enclosed by steel palisade security fencing.
Scale / Enclosure	The Site is open internally but visually enclosed by woodland to the east and south, partially enclosed to the north, and open to moorland in the west. Surrounding enclosure varies: strong in forested areas, open in moorland. The buildings of the extant planning permission would increase internal enclosure.
Settlement / Townscape	Residential properties lie ca. 300 m north of the Site at Westerhouse, ca. 820 m to the east (Gardens House, which is entirely screened by Long Plantation) and ca. 1.1 km south-east at Douglas West. Nearby settlements include Douglas (1.5 km SE), and Coalburn (1.5 km NW). The existing settlement pattern would not be altered by the extant planning permission.
Built Features / Landmarks	Built features include the biomass plant, access roads, a construction compound, and powerlines. Landmarks in the surrounding landscape include wind turbines (not individually distinctive due to their number) and large forestry blocks. The buildings of the extant planning permission (up to 15 m) would become new features in the landscape.
Access[3]	The biomass plant is a secured area with no public access. The existing temporary construction compound within the Site is also a secured area.

[3] The Land Reform Scotland Act (2003) gives the public a right of responsible access, *'over most land and inland water in Scotland, including mountains, moorland, woods and forests, grassland, margins of fields in which crops are growing, paths and tracks, rivers and lochs, the coast and most parks and open spaces…'*

In addition, *'local authorities have powers to establish and maintain core paths. It is the duty of each local authority to draw up a plan for a system of core paths to give the public reasonable access throughout their area.'*

Criterion	Commentary
	There are a number of Core Paths (CPs, as shown on the South Lanarkshire Core Path Network online map[xii]) and Aspirational Core Paths (ACPs) within the Site and the wider study area, as well as a number of 'wider network' paths (WNPs). Some of these are noted in the LDP2 as being 'rights of way'[xiii]. See **Figures 3c** and **3d**.[4] • CP CL/5735 crosses the northern part of the Site, running from WNP CL/5157 which crosses Long Plantation to the east of the Site, to Wallace's Cave to the north-west of the Site, and then on to Coalburn via CP CL/5734. Grant-aided upgrades to the route have recently started (some of these within the Site). • ACP CL/5728 follows the existing wind farm access road through the Site, running from the north-east edge of the Site through to ASP CL/5736 which runs on through the Douglas West wind farm and on to Coalburn. • ACP CL/5729 follows the disused railway line within the Site, running from near the biomass plant to the junction of ACPs CL/5720, CL/5721 and CL/5733 to the south/south-west of the Site. • CP CL/3457 runs north-west from Douglas West to Arkney Hill and the conifer plantation to the north of Burnt Rig. • WNP CL/5171 runs north from CP CL/5735 towards West Toun and then Nethertown. As part of the extant planning permission for the Site, ACP CL/5729 would be diverted from the disused railway line to follow the edge of the woodland along the eastern and south-eastern edge of the Site. CP CL/5735 would be partly realigned towards the northern boundary of the Site. ACP CL/5728 would be retained on the existing alignment, following the existing wind farm access road.
Heritage	There are no designated heritage assets within the Site. The site was previously disturbed as part of the Dalquhandy opencast coal operations. The Historic Land Use Map for Scotland[xiv] categorises the modern use of the Site as *'energy, extraction and waste'*, specifically an *'opencast site'*. The eastern and north-western parts of the Site are categorised as *'moorland and rough grazing'*, specifically *'rough grazing'* – see **Figure 3b**.
Visual Connections with Adjacent Landscapes	Limited visibility to and from the north, east and south due to topography and tree cover. Medium-to-long-distance views across undulating moorland landscape to the south-west, west and north-west.
Perceptual Characteristics	The Site and surrounding area are dominated by operational and under-construction wind farms, giving it a busy, noisy character (as observed in Feb–Mar 2025, when multiple construction zones, vehicle movements, and stockpiles were present).

Core paths can be cross-country routes with variable states of surfacing, or they may follow hard-surfaced paths, roads or streets, sometimes in more urban areas.

In Scotland, 'rights of way' are typically *'traditional routes that are established under common law and there is no single statute governing them.'* (Scotways, 2025 – see reference [xii])

[4] Routes and codes shown on **Figures 3c** and **3d** show data downloaded from Spatial Hub Scotland, as the S. Lanarkshire data was not available for public download. There is some divergence in routes shown on the two datasets, and also variation in route codes. The LVIA report adheres to information shown on the South Lanarkshire Core Path Network online map.

3.2. Visual Baseline

Visibility of the Site from the Surrounding Area

3.2.1. Preliminary Zone of Theoretical Visibility (ZTV) plans were used during desk study and fieldwork as part of the baseline appraisal. Site work confirmed that the visibility of the Proposed Development from the surrounding area is more limited than shown on ZTV plans, which tend to show a worst-case theoretical visibility, for example due to local vegetation and other forms of screening not being included in the bare-earth ZTV model.

3.2.2. The preliminary bareground ZTV plan (**Figure 4a**), which is based on OS Terrain 5 data, indicates that the Proposed Development would be visible from some areas out to approximately:

- 5 km from the Site to the north;
- 5 km to the east;
- 3-3.5 km to the south-east;
- 4.5 km to the south;
- 3-4 km to the west; and
- 3-4 km to the north-west.

3.2.3. With woodland taken into account (modelled at 15 m high based on the National Forestry Inventory (see **Appendix A1.5**)), as shown in **Figures 4b** and **4c**, these views are further restricted to:

- Very limited areas of intermittent visibility within approximately 1.5 km to the north of the Site, with a further area of restricted visibility at Broken Cross Moor and the M74 (southbound) to the west of Broken Cross Moor;
- A very restricted area of visibility to the immediate east of the Site, between the Site and the edge of Long Plantation, with a further limited area of visibility on the western slopes of Robert Law, approximately 3.5 km to the east of the Site;
- Limited intermittent areas of visibility to the south-east of the Site:
    - on the former spoil heap at Mainshill (now managed by Forestry and Land

Scotland, FLS) between the B7078 and Egerton Bridge/New Mains[5], approximately 2.5-3 km from the Site;
    - on Parkhead Hill (3.5 km from the Site);
    - on Brown Hill (approximately 3 km from the Site); and
    - on Pagie Hill (approximately 3.5 km from the Site;
- Little or no visibility to the south of the Site, with views restricted by Long Plantation;
- A band of visibility out to approximately 2-2.5 km from the Site to the south-west, between woodland cover around Douglas West and the large-scale conifer plantation to the north of Arkney Hill and Burnt Rig (now partially felled as part of the Douglas West windfarm extension works);
- Land to the immediate west of the Site within the Douglas West wind farm, out to approximately 1 km from the Site; and
- A band of visibility between areas of forestry out to approximately 2 km from the Site to the north-west.

3.2.4. The field survey confirmed the extent of visibility as set out above, but also showed that unmapped vegetation reduces visibility of the Site even further.

Representative Viewpoints

3.2.5. Views towards the Site from the surrounding area have been considered using 11 representative viewpoints, the locations of which are shown on **Figures 5a** and **5b**. Details of these are provided in **Table 3.2**. Viewpoint photographs are shown on **Figures 6.1** to **6.11**.

3.2.6. The representative viewpoints for this LVIA includes a mix of receptor types, and a range of locations which are accessible under the Scottish Outdoor Access Code (SOAC), including local CPs. Most representative viewpoints are on CPs near to the Site as views from receptors in the wider landscape are more limited.

[5] Although managed by FLS, this area does not appear to be publicly accessible, with security fencing at the entrances, and no parking facilities.

Table 3.2: Representative Viewpoints

Viewpoint	Distance/ direction from Site	Description	Potential visual receptors
Viewpoint 1: Core Path CL/5735 to NNW of biomass plant (close to northern edge of Site)	Edge of Site N	The view is across rough grassland in the northern part of the main Site, towards the biomass plant (to the SE) and the Douglas West wind farm (to the SW). The existing temporary construction compound is visible, with woodland (Long Plantation) beyond. The northern buildings of the extant planning permission development would be clearly visible a short distance in front of the viewpoint, between the viewpoint and the biomass plant. The Site is clearly visible, occupying much of the land between the viewpoint and Long Plantation.	Recreational visitors
Viewpoint 2: Junction of Core Path CL/5735 and Footpath CL/5157 (also ACP CL/5728) on eastern edge of Site	Edge of Site E	The view is across the existing wind farm access road towards the biomass plant and associated hard standings, with the Douglas West wind farm visible beyond. The existing temporary construction compound within the Site is visible, with Long Plantation partially visible to the east of the compound. The buildings of the extant planning permission development would be clearly visible to the south and west of the biomass plant. The Site is clearly visible, occupying all of the foreground land.	Recreational visitors
Viewpoint 3: Footpath CL/5157 to east of Site	Ca. 75 m E	The view is across rough grassland and moorland towards the Douglas West wind farm. The existing temporary construction compound within the Site is visible a short distance in front of the viewpoint, and the biomass plant is visible to the north-east. The buildings of the extant planning permission development would be clearly visible to the west of the viewpoint. The main part of the Site is clearly visible, occupying the land beyond the foreground post and wire fence.	Recreational visitors
Viewpoint 4: Wind farm access road and ACP CL/5728 to west of Site	Ca. 50 m W	The view (along the wind farm access road) is across moorland and rough grassland towards the biomass plant and the woodland at Long Plantation and Poniel Hill. Higher ground beyond forms the distant horizon. The buildings of the extant planning permission development would be clearly visible to the east of the viewpoint. The main part of the Site is clearly visible, occupying much of the land between the viewpoint and Long Plantation.	Recreational visitors

Viewpoint	Distance/ direction from Site	Description	Potential visual receptors
Viewpoint 5: Wind farm access road and ACP CL/5728 to west of Site	Ca. 525 m W	The view is across moorland and rough grassland towards the biomass plant and the woodland at Long Plantation and Poniel Hill. Higher ground beyond the woodland areas forms the distant horizon, while wind turbines within the Douglas West wind farm dominate the foreground. The buildings of the extant planning permission development would be clearly visible to the west of Long Plantation. The main part of the Site is clearly visible, occupying land around the biomass plant and to the west of Long Plantation.	Recreational visitors
Viewpoint 6: Core Path CL/3457 to south-west of Site *Within the Douglas Valley SLA*	Ca. 1.3 km SW	The view is across moorland and rough grassland towards the woodland at Long Plantation and Poniel Hill. The biomass plant is visible in the northern part of the Site. Higher ground beyond the woodland areas forms the distant horizon, while wind turbines within the Douglas West wind farm dominate the foreground. The buildings of the extant planning permission development would be visible to the west of Long Plantation. The main part of the Site is clearly visible, occupying land around the biomass plant and to the west of Long Plantation.	Recreational visitors
Viewpoint 7: Core Path CL5735 (near Wallace's Cave) to north-west of Site	Ca. 1 km NW	The view is across moorland and rough grassland (with scattered trees in the foreground) towards the woodland at Long Planation and Poniel Hill. The biomass plant and the existing temporary construction compound are visible in the northern part of the Site. The distant horizon is formed by rising ground beyond Long Plantation, while wind turbines within the Douglas West wind farm are prominent to the south and south-west of the viewpoint. The buildings of the extant planning permission development would be visible to the west of Long Plantation. The majority of the main part of the Site is visible, occupying land around the biomass plant and to the west of Long Plantation.	Recreational visitors
Viewpoint 8: Westoun Road opposite access road to West Toun House to north of Site	Ca. 700 m N	The view is of small-scale pastoral fields and existing residential properties, surrounded by tree belts. The buildings of the extant planning permission development are unlikely to be visible from this location due to intervening vegetation. The Site is not visible from this location due to intervening vegetation.	Recreational visitors Residential occupiers

Viewpoint	Distance/ direction from Site	Description	Potential visual receptors
Viewpoint 9: Footpath CL5149 between Broken Cross Wind Farm and M74 to NNE of Site *Partially representative of views from M74 southbound.*	Ca. 3.5 km NNE	The view is across farmland and forestry towards the Douglas West wind farm. The M74 motorway lies on the far side of the foreground field, and views from southbound vehicles on the motorway are likely to be broadly similar albeit at a lower elevation. The biomass plant (within the Site) forms a barely discernible element in the view, while the Dewars bonded warehouse complex at Poniel to the north-east of the Site is much more prominent. There would be some limited visibility of the buildings of the extant planning permission development, but they would not be easily identified in the view. Restricted parts of the Site may be visible from both the viewpoint and the M74 southbound.	Recreational visitors Motorway users
Viewpoint 10: Core Path CL5735 to north of Site	Ca. 200 m N	The view is across undulating moorland and rough grassland (with scattered trees and shrubs in the foreground) towards the woodland at Long Plantation. The biomass plant and the existing temporary construction compound are visible in the northern part of the Site. The distant horizon is formed by Long Plantation, while wind turbines within the Douglas West wind farm are prominent to the south-west of the viewpoint. The buildings of the extant planning permission development would be visible to the west of Long Plantation. The majority of the main part of the Site is visible, occupying land around the biomass plant and to the west of Long Plantation.	Recreational visitors
Viewpoint 11: Old railway bridge (Brockley Bridge) (junction of CL/5733/1, CL/5721/1, and CL5720/1)	Edge of Site S	The view is across undulating moorland and rough grassland (with scattered trees and shrubs in the foreground) towards the woodland at Poniel Hill and around Westerhouse, Craigend and West Toun. The biomass plant and the existing temporary construction compound are visible in the northern part of the Site. Higher ground beyond the woodland areas forms the distant horizon (including turbines of the Broken Cross Wind Farm), while turbines within the Douglas West wind farm dominate the foreground. The buildings of the extant planning permission development would be visible to the west of Long Plantation. The majority of the main part of the Site is visible, occupying land around the biomass plant and to the west of Long Plantation.	Recreational visitors

Potential Visual Receptors

3.2.7. Potential visual receptors include the following:

- Local residents in nearby settlements and dwellings (see note in **Appendix A1.4**);
- Users of nearby roads;
- Users of local recreational routes.

3.2.8. People at their place of work, such as those involved in the construction, operation and maintenance of the wind farms or the biomass plant, are not considered to be sensitive visual receptors as their focus is unlikely to be on views of the surrounding area.

3.2.9. For brevity and to avoid duplication, potential visual receptors are listed in the visual assessment at **Section 5.2** of this report.

4.0 The Proposed Development

4.1. The Long Duration Electricity Storage System

4.1.1. Full planning permission and Section 36 consent under the Electricity Act 1989 (as amended) is sought for the installation of an LDES, together with site access; internal access tracks; security measures; access gates; substation and other ancillary infrastructure; and landscaping and ecological enhancement measures.

4.1.2. Within the approximately 46 ha Site:

- Approximately 17 ha would be occupied by the main structures of the Proposed Development;
- Approximately 3.5 ha is occupied by the existing access road from the M74; and
- Approximately 25.5 ha would be occupied by the existing wind farm access road, the existing biomass plant, drainage and SUDS features, landscaping and biodiversity enhancement measures, and the existing powerline wayleaves which cross the northern and eastern parts of the Site.

4.1.3. The Proposed Development would be operational for 40 years. At the end of the operational life of the Proposed Development the energy infrastructure elements would be removed, and the land returned to its previous state. All proposed planting and any other ecological enhancements would be retained.

4.1.4. Details of the proposed LDES are provided on the application drawings (see **Appendix 2** and accompanying **Planning Statement**).

4.1.5. The Proposed Development comprises:

- Landform remodelling to create development platforms;
- Approximately 13,600 triple-stacked battery containers (ca. 7.8 m overall height);
- Approximately 160 inverters (ca. 2.6 m high);
- Approximately1,140 string control units (ca. 2.4 m high);
- 5 customer switchgear units (ca. 3.2 m high);
- Energy management system unit (ca. 2.6 m high);
- A substation (operated by SP Energy Networks), comprising the network operator's building (ca. 4 m high) including customer switch room, grid transformers, and

outdoor electrical apparatus (ca. 12.9 m high);

- 2 water tanks (ca. 5 m radius and ca. 3 m high);
- 2 spare parts and 2 welfare containers (ca. 2.7 m high);
- Underground cabling;
- Green palisade security fencing (ca. 2.4 m high around battery compounds and ca. 3 m high around substation);
- CCTV cameras mounted on ca. 4 m high poles;
- Internal access roads and hard standings;
- SuDS infrastructure, including attenuation basins;
- Landscaping and biodiversity enhancement measures.

4.1.6. The battery units would be arranged in two separate areas on either side of the existing wind farm access road.

4.1.7. There would be no lighting within the Site other than passive infrared (PIR) lighting for emergency access and maintenance.

4.1.8. Access to the development would be via the existing wind farm access road from the M74.

4.1.9. The Proposed Development would also include the re-alignment of the existing ACP (CL/5729): the route currently follows the line of the disused railway within the Site, and would be re-aligned to follow the south-eastern boundary of the Proposed Development, as per the extant planning permission for the Site.

4.2. The Potential Landscape and Visual Effects of the Proposed Development

4.2.1. The construction phase would last for approximately 18-24 months and would give rise to relatively short-term landscape and visual effects. The construction phase effects would be distinct to the operational effects as they would include more activity on Site (the operational phase having relatively low activity associated with it). Further information is contained elsewhere in the application documentation.

4.2.2. Duration is one of the factors which is taken into consideration in determining the magnitude of landscape and visual effects (**Appendix A1.3**, sub-heading B). The construction-phase landscape and visual effects arising from the Proposed Development would be a secondary consideration to its 40-year long-term operational effects, which

are the focus of the assessment contained in **Section 5** of this report. Due to their short-term temporary nature, construction phase effects would not exceed the operational effects in magnitude or significance. The principal effects of the Proposed Development would relate to the operational phase; construction phase effects are therefore given no further specific consideration in this assessment.

4.2.3. The main features of the operational Proposed Development which could potentially result in landscape and visual effects are:

- Changes to land use and pattern;
- Landform remodelling;
- New elements such as containerised batteries; inverters, substation buildings, control rooms; and external electrical equipment; welfare units, security fencing; and CCTV cameras;
- Access arrangements;
- Hard surface areas;
- SuDS features; and
- The planting of new native trees and shrubs around the perimeter of the Site.

4.2.4. It is noted that the majority of the elements (the triple stacked flow battery units) within the Proposed Development would be up to ca. 7.8 m high. The proposed structures would therefore be considerably lower than the 15 m high industrial buildings consented under the extant planning permission for the Site. The Proposed Development is therefore likely to be less visible in many views from the surrounding landscape, and have lower indirect effects on off-site local landscape character, than the industrial/commercial development that would arise under the extant planning permission.

4.2.5. In addition, the Proposed Development would not generally be lit at night apart from during emergencies and essential maintenance work. Levels of illumination would therefore be considerably less than with the consented industrial/commercial scheme.

4.2.6. It is noted that earthworks will be required to create level platforms for the battery units within the Site however detailed earthworks designs are not available at this stage; this would normally be undertaken upon completion of a detailed programme of ground

investigation works post planning and prior to construction. Therefore, for the purposes of this assessment, a 'worst case' maximum height of 14 m above existing ground level within the northern part of the site was assumed for the purposes of producing the ZTVs. This is considered a significant over-estimate of the 'worst case' scenario for the Proposed Development but still falls within the 15 m high development envelope of the extant industrial/commercial planning permission at the Site.

4.3. Landscape Enhancement Measures

4.3.1. Landscape enhancement proposals are incorporated into the scheme design and are illustrated on the Landscape Proposals Plan – see **Figure 8**.

4.3.2. The key landscape mitigation measures are as follows:

- The planting of blocks and belts of native trees and shrubs along the northern, southern and western boundaries (33,516 m^2 native broadleaf tree and shrub planting); and
- The management of the proposed planting, the SuDS basins, and the rough grassland areas to maximise both landscape and biodiversity benefits.

4.3.3. The proposed tree and shrub planting would produce landscape features to provide effective screening towards the Proposed Development within 10 to 15 years (medium-term). The proposed elements would also be in keeping with and enhance the local landscape character.

5.0 Landscape and Visual Effects

5.1. Landscape Effects

Sensitivity of the Site and Surrounding Area

5.1.1. The sensitivity of landscape receptors depends primarily upon the value attached to the landscape and the landscape's susceptibility to the Proposed Development. These aspects of the Site's landscape are dealt with in the following sections.

Landscape Value

5.1.2. The overall character of the Site and surrounding area is defined by undulating topography, with a mix of moorland/rough grassland and woodland/coniferous forestry. The landscape is dominated by the presence of multiple wind farms. The Site and its immediate environs are brownfield land, being part of the former Dalquhandy Opencast Coal Mine site (though not an area where extraction took place). Surrounding land uses include wind farms (with rough grass/moorland beneath the turbines), forestry, some smaller pastoral fields surrounded by shelter belts, and the restored former open cast site. There is very little settlement within the immediate surroundings to the Site. The extant planning permission for the Site is for commercial/industrial/distribution development, with buildings up to 15 m high.

5.1.3. Clear views of the Site are possible from within the Site and from the open wind farm landscape within 1-2 km to the south-west, west and north-west. More restricted views are possible from the north, but visibility from the east and south is very restricted.

5.1.4. There are no designated heritage assets within the Site, and only a single LB within 1 km of the Site. The field survey has shown that existing intervening vegetation means that the Proposed Development is unlikely to be discernible in views from this LB.

5.1.5. There are also a number of such assets located within a 2 km radius of the Site, as noted at **Paragraph 3.1.6** above.

Table 5.1: Assessment of Landscape Value (after GLVIA3 Box 5.1 and TGN 02/21)

Factor	Commentary
Natural Heritage	The Site is disturbed brownfield land (a mix of rough grassland and hard standings/access roads), previously part of an open cast coal site. The rough grassland that covers much of the Site is considered to be of some ecological / biodiversity value. No clearly identified landscape-related geological interests.

Factor	Commentary
	The already consented development for the Site would replace much of the rough grassland with built form and hard infrastructure.
Cultural Heritage	No specific cultural or heritage connections. There is a history of open cast coal extraction within the Site and its environs, and the surrounding landscape is dominated by wind farms.
Landscape Condition	The landscape of the Site is considered to be in a condition typically associated with a former industrial site currently being used to facilitate nearby construction projects. The surrounding local landscape is considered to be in moderate condition.
Associations	No well-known associations with notable people, events or the arts.
Distinctiveness	The local landscape is not noted for being distinctive. The Site is recognised locally as a restored extractive industry site. The most notable parts of the adjoining Douglas Valley SLA are focussed around *'the sheltered upland river valley of the Douglas Water and Douglas village, enclosed by rolling moorland hills.'* The parts of the SLA closest to the Site (which would be affected by the Proposed Development) are considered to be peripheral parts of the SLA and noted as being affected by the Hagshaw Hill wind farm (and historically by open cast mining). *'It is considered that these developments are relatively limited or transient features that will not affect the key landscape characteristics sufficiently to be excluded from the designated area.'* – see **Appendix 4**. The extant permission would change the character of the Site to industrial / commercial development, but this would be no more distinctive than at present.
Recreational	There are a number of CPs, ACPs, and WNPs within the Site and its environs. There is therefore likely to be some level of recreational use of the Site. The consented development on the Site would result in ACP CL/5729 within the Site being realigned to the edge of the Site, while CP CL/5735 (crossing the northern part of the Site) would be partly realigned towards the northern boundary of the Site. ACP CL/5728 would be retained on its current alignment (following the wind farm access road through the Site).
Perceptual – Scenic	The Site and its environs were previously part of an open cast coal site, located amongst multiple wind farms and adjacent to a substantial area of woodland. The wind farms and associated construction works are the dominant force affecting views across the local landscape today, though the mix of forestry and moorland is also important in many views. Views from the east and south are heavily restricted by woodland. Views within and to/from the south western parts of the Douglas Valley SLA are already heavily influenced by the wind farms. Views to / from the Site to the main part of the Douglas Valley SLA (the meandering valley landscape associated with the Douglas Water) are screened by the Long Plantation. The extant planning permission for the Site would notably increase industrial development in views towards the Site and its environs from the south-west, west and north-west, with buildings of similar or larger scale than the existing biomass plant.
Perceptual – Wildness and Tranquillity	The local landscape is heavily influenced by historic and ongoing human activity, and is not designated as a Wild Land Area. Tranquillity is reduced at present by ongoing construction activities associated with the wind farms. The character of the Douglas Valley SLA is already strongly influenced by human activity.

Factor	Commentary
	The extant permission for the Site would introduce increased levels of built form and activity within the Site and its environs, during both the construction and operational phases of the consented development.
Functional	The local landscape does not provide the setting for any statutory/national designations, but the Site lies adjacent to the Douglas Valley SLA, and therefore provides some of the setting area for peripheral parts of the SLA. The character of the SLA is already heavily influenced by the presence of renewable energy development. The local landscape does not perform a specific landscape function in relation to nearby settlements other than for energy generation. The extant planning permission for the Site would result in industrial / commercial development on the Site which would be visible in views to and from peripheral parts of the SLA.

5.1.6. With the consented industrial / commercial development in place, the overall value of the landscape of the Site and its immediate environs is considered to be **low**. The value of the wider landscape surrounding the Site is considered to be **medium-low** due to the dominance of the wind farms and associated construction and maintenance activities. The value of the SLA landscape in the immediate vicinity of the Site is considered to be **medium**.

Susceptibility to Changes arising from Development of the Type Proposed

5.1.7. The following factors are considered relevant with respect to the susceptibility of the landscape to the Proposed Development:

- The extant planning permission for the Site which would see the construction of a number of 15 m high industrial / commercial buildings and associated infrastructure and landscaping;
- The existing brownfield nature of the Site and its environs, with a history of open cast mining activities;
- The existing woodland cover to the east and south of the Site, which limits visibility from these directions;
- Multiple timber pole-mounted powerlines in the northern and eastern parts of the Site, and the adjoining wind farm landscape (and associated construction activities). These elements are notable features in the landscape and reduce the susceptibility of the landscape to change arising from development of the type proposed (i.e., further electrical infrastructure).

5.1.8. On balance the susceptibility of the local landscape to development of the type proposed is judged to be **low** to **medium**.

Landscape Sensitivity

5.1.9. The NatureScot National Landscape Character Assessment does not provide a formal assessment of landscape sensitivity within LCTs 213, 207 and 201.

5.1.10. Overall, the above analysis supports the conclusion that:

- The landscape of the Site and its immediate environs is considered to be of **low** value and **low** susceptibility to development of the type proposed. The overall sensitivity is therefore assessed as **low**.
- The wider surrounding landscape is considered to be of **medium-low** value and **medium-low** susceptibility to development of the type proposed. The overall sensitivity is therefore assessed as **medium-low**.
- The landscape of the Douglas Valley SLA to the south-west of the Site is considered to be of **medium** value and **medium** susceptibility to development of the type proposed. The overall sensitivity is therefore assessed as **medium**.

Magnitude of Landscape Effects

5.1.11. The assessment considers scale, extent, and duration/reversibility as key aspects of the magnitude of landscape and visual effects. For the Proposed Development, these considerations are as follows:

- *Scale:* The scale of existing landscape elements that would be lost is minimal, and no greater than any losses that would arise as a result of the consented development. The scale of change that would arise from the introduction of new elements is considered to be small, and less than would arise as a result of the consented development as the structures within the Proposed Development would be of lower height than those in the consented scheme.
- *Extent:* The impact of the Proposed Development on landscape character would largely be contained within the Site and its immediate environs. There would also be some impacts on restricted parts of the local landscape up to approximately 1-2 km to the south-west, west and north-west of the Site from where the Proposed Development would be visible. Visibility would be much more restricted in other directions due to the adjacent woodland to the east and south of the Site, and there

would be only very limited experiential/perceptual effects on the wider setting of the Site. The extent of impacts would not be notably greater than would arise from the consented development due to the reduced height of the structures within the Proposed Development. The Proposed Development would however be of a higher density than the consented scheme.

- *Duration:* The Proposed Development would be operational for a period of 40 years and the duration of effects arising would, therefore, be medium-to-long-term when considering the establishment of mitigation. The consented development would be permanent, and the duration of effects arising from the Proposed Development would therefore be less than those arising from the extant permission.
- *Reversibility:* The impact of the Proposed Development could be reversed in the future with removal of the LDES equipment and infrastructure from the Site. Landscape enhancement measures instigated as part of the Proposed Development would remain once the proposed LDES is removed at the end of its life. The impact of the consented scheme would be irreversible.

Landscape Character Effects

5.1.12. The following **Table 5.2** provides an appraisal of the effects of the Proposed Development in relation to the different characteristics of the local landscape.

Table 5.2 Appraisal of Effects on Landscape Characteristics

Characteristic	Commentary
Topography/landform	The Proposed Development would have some limited effects within the Site as a result of the required landform remodelling. Effects on landform within the Site would be similar to those that would arise from the consented development. The undulating topography of the local area would combine with strong tree cover to the east and south (and to a lesser extent to the north) to limit the visibility of the Proposed Development in views from most directions.
Vegetation	No significant effects would arise from the removal of vegetation from the Site, and any effects would not be discernibly different to those that would arise from the consented development. The Site is partially contained by strong tree cover to the immediate east and south of the Site, with further tree cover to the north. As with the consented development, this tree cover helps to substantially reduce the visibility of the Proposed Development in many views towards the Site.
Land use	The Proposed Development would result in the land use within the Site changing from the current mix of rough grassland, the biomass plant and the temporary wind farm construction compound to electrical infrastructure. While the use of the Site would be different from the industrial / commercial buildings of the consented development, the structures within the LDES Site would be lower. Overall effects on land use would not be notably different to the extant permission.

Characteristic	Commentary
Scale/enclosure	The Proposed Development would result in electrical infrastructure being installed across much of the Site, with areas of native tree and shrub planting along the northern and western edges of the Site. Existing woodland to the north, east and south of the Site would not be affected, and would continue to reduce the visibility of the Proposed Development in views from these directions (as with the extant permission). While the scale of development on the Site would increase, such effects would not be notably different to those that would arise from the extant permission for the Site. The proposed planting belts along the northern and western sides of the Site would increase the level of enclosure within the Site, but would not alter the overall level of enclosure within the wider local landscape. Overall, neither the scale of the local landscape nor the levels of enclosure would be notably altered (compared to the consented scheme for the Site) as a result of the Proposed Development.
Settlement/townscape	No effects would arise on settlement pattern or townscape character. The ZTV (**Figure 4c**) indicates that there may be some very limited visibility of the Proposed Development from some of the properties to the north of the Site. However, the field survey has shown that such views are heavily restricted by intervening woodland. Visual effects are addressed in **Section 5.2**.
Visual connections with adjacent landscapes	Beyond the immediate vicinity of the Site, the Proposed Development would result in some limited changes to views towards the Site compared to the consented scheme. This is due to the limited height but increased development density of the Proposed Development, and the combination of strong tree cover and undulating topography within the surrounding landscape.
Landmarks/built features	Various landmarks and built development are present in the landscape within and near the Site, as described in **Table 3.1**, notably electricity infrastructure and forestry. In comparison with the consented scheme, the Proposed Development would not change the contribution of these features to existing local landscape character, with the majority of the proposed structures appearing as another form of industrial development.
Perceptual characteristics	The landscape of the Site and its immediate environs are dominated by the existing wind farms and the ongoing construction works relating to new wind farms and the repowering of existing wind farms. Woodland and forestry limits the visibility of existing built form on the Site (the biomass plant) from the north, east and south. Views of the Proposed Development from the surrounding landscape, and subsequent effects on the perceptual qualities of the landscape, would be broadly similar to those arising from the consented development. In the medium-to-long-term, the growth and establishment of the proposed planting on the northern and western edge of the Site would reduce visibility from the south-west, west and north-west. There is no such beneficial planting within the consented development scheme. Where visible, the Proposed Development would not be perceived as adding built form or other human influences to an otherwise remote or wild landscape, particularly when compared to the consented scheme. Where visible from the surrounding landscape, levels of traffic on the access road would be reduced compared to the consented development.

Magnitude of landscape effects

5.1.13. Direct landscape effects would be limited to the Site itself and would involve adding energy infrastructure and associated structures to a brownfield site that was previously part of an open cast coal site, and which has an extant planning permission for industrial

/ commercial development up to 15 m high. The Proposed Development also includes native tree and shrub planting and other biodiversity enhancement measures. The Proposed Development would not result in the introduction of electricity infrastructure or tree planting to a landscape where they are not already present. The LDES structures would result in the Site becoming less open than at present, but such change would not be notably different to that which would arise from the consented development.

5.1.14. The direct effects would occur across only a very small proportion of the host LCT 213: *Plateau Moorlands – Glasgow & Clyde Valley* (and to a very limited extent LCT 207: *Upland River Valley – Glasgow & Clyde Valley*) within the site boundary. Indirect perceptual effects would extend over a slightly greater area of these LCTs and also into LCT 201: *Plateau Farmland – Glasgow & Clyde Valley*, but notable effects would still be limited to within the environs of the Proposed Development.

5.1.15. The bulk of the structures within the Proposed Development would be ca. 7.8 m high, with some external electrical equipment reaching a maximum height of ca. 13 m within the substation compound. The structures would therefore be lower than those in the consented development (up to 15 m high). The majority of these proposed structures would also be lower than the established tree cover to the immediate east and south of the Site, with further tree cover to the north. Visibility of the Proposed Development would therefore predominantly be from areas to the south-west, west and north-west of the Site, and would be marginally more restricted than for the consented development. While the Proposed Development would result in some change to the character of the Site itself (compared to the extant permission), the limited extent of views from the landscape surrounding the Site would mean that effects on wider landscape character would be limited.

5.1.16. At Year 1, notable landscape effects arising from the Proposed Development would be limited to the Site itself and the immediate setting of the Site, predominantly within approximately 2 km to the south-west and north-west, and within approximately 1 km to the west. Whilst there would be some limited visibility and therefore perceptual influence beyond this, effects would be negligible and would not alter the overall perception of the local landscape. Apart from the proposed planting along the northern and western boundaries of the Site, landscape effects within the Site would be broadly similar to those that would arise from the consented development.

5.1.17. In the short term, effects on landscape character within the environs to the Site to the south-west, west and north-west would not be notably different to those that would arise from the consented scheme. In the medium-to-long-term, the growth and development of the proposed planting along the western and northern boundaries would reduce the visibility of the Proposed Development, resulting in a reduced effect on landscape character compared to the consented development

5.1.18. The assessment of landscape effects is set out in **Table 5.3**.

Table 5.3: Assessment of Landscape Effects (principal effects are those greater than moderate and are shaded in grey)

Receptor	Phase	Magnitude of Effect	Significance	Nature of Effect[6]
Site Predominantly within LCT 213: *Plateau Moorlands – Glasgow & Clyde Valley*) Partly within LCT 207: *Upland River Valley – Glasgow & Clyde Valley* Direct effects on fabric and character *Low sensitivity*	At Completion (Year 1)	Large vs existing landscape character	Moderate	Adverse
		Negligible vs extant permission	Negligible	-
	Medium-to-long-term (Year 15)	Large vs existing landscape character	Moderate	Adverse
		Negligible vs extant permission	Negligible	-
Site Environs within 1-2 km of the Site to the south-west, west and north-west Predominantly within LCT 213: *Plateau Moorlands – Glasgow & Clyde Valley*) Indirect effects on local landscape character *Medium-low sensitivity*	At Completion (Year 1)	Medium vs existing landscape character	Minor	Adverse
		Negligible vs extant permission	Negligible	-
	Medium-to-long-term (Year 15)	Medium vs existing landscape character	Minor	Adverse
		Negligible vs extant permission	Negligible	-

[6] For landscape and visual effects, the decision regarding whether effects are adverse, beneficial or neutral is set out in the conclusions for effects of *greater than negligible magnitude* and is made using professional judgement and separately to the determination of their magnitude. Refer to **Appendix 1**, subheading '*Adverse, Beneficial and Neutral Effects'*.

Receptor	Phase	Magnitude of Effect	Significance	Nature of Effect[6]
Wider local landscape beyond ca. 2 km to the south-west and north-west Predominantly within LCT 213: *Plateau Moorlands – Glasgow & Clyde Valley*) Restricted parts of LCT 201: *Plateau Farmland – Glasgow & Clyde Valley* Indirect effects on wider landscape character *Medium-low sensitivity*	At Completion (Year 1)	Small vs existing landscape character	Negligible	-
		Negligible vs extant permission	Negligible	
	Medium-to-long-term (Year 15)	Small vs existing landscape character	Negligible	-
		Negligible vs extant permission	Negligible	
Douglas Valley SLA Predominantly within 2 km to the south-west Indirect effects on local landscape character *Medium sensitivity*	At Completion (Year 1)	Medium vs existing landscape character	Moderate	Adverse
		Negligible vs extant permission	Negligible	-
	Medium-to-long-term (Year 15)	Medium vs existing landscape character	Moderate	Adverse
		Negligible vs extant permission	Negligible	-

5.1.19. All discernible direct and indirect effects on landscape character would arise within LCT 213: *Plateau Moorlands – Glasgow & Clyde Valley*), and restricted parts of LCT 207: *Upland River Valley – Glasgow & Clyde Valley* and LCT 201: *Plateau Farmland – Glasgow & Clyde Valley*.

5.1.20. As noted at Paragraph 3.2.3, the ZTV indicates some restricted areas of visibility (and therefore potential for indirect effects on perceived landscape character) on more distant higher ground 2.5-4.5 km to the east and south-east. These areas lie predominantly within LCT 213, and any indirect effects on landscape character in these locations are likely to be indiscernible.

5.2. Visual Effects

Zone of Theoretical Visibility

5.2.1. ZTVs of 40 reference points at the 'worst case' maximum heights of the different parts of the Proposed Development are shown on **Figures 4a** to **4c**. The extent of the ZTV is as described in the baseline visual appraisal at **Section 3.2**.

5.2.2. Fieldwork undertaken in the landscape surrounding the Site confirms that the visibility of the Site is more limited than as illustrated by the ZTV plans, due to the screening effects of unmodelled vegetation not included within the National Forestry Inventory dataset. While being more informative than the bareground ZTVs, fieldwork has confirmed that the screened ZTV model still exaggerates visibility compared to what is experienced on the ground. Within this undulating and often-forested landscape, development would be readily absorbed into the landscape, with visibility generally decreasing with increasing distance from the Site.

Effects on Visual Receptor Groups

5.2.3. In this section of the report, principal effects on the following visual receptors are considered:

- Local residents of nearby settlements and dwellings (very limited numbers of receptors), see note in **Appendix A1.4**).
- Users of nearby roads (also very limited numbers of receptors).
- Users of Core Paths and other recreational routes and areas.

5.2.4. The assessment for these receptors is contained in **Table 5.4**.

Settlement

5.2.5. This assessment gives an overview of visual effects on clusters of properties and settlements as a whole based on desk study and fieldwork in public areas. This is not a residential amenity assessment; refer to **Appendix 1**, **Section A1.4** for further details on scope and methodology.

5.2.6. Occupiers of residential properties are assessed to be of **high** sensitivity. It is assumed that residents would have a high interest in the landscape surrounding their properties.

Roads

5.2.7. Users of rural minor roads are considered to have **medium** sensitivity: lower speeds, reduced traffic densities, and the local character of these routes make receptors more likely to notice the surrounding landscape compared to main road users. In contrast, users of main roads are considered to have **low** sensitivity: higher traffic densities and speeds, along with the functional focus on direct connectivity, result in users being less sensitive to the surrounding landscape.

Users of Core Paths and Other Recreational Routes

5.2.8. The sensitivity of users of CPs, ACPs and other recreational routes would normally be considered to be **high** as appreciation of the surrounding countryside is likely to be an important component of users' enjoyment of the routes and local landscape. In the case of routes within and near the Proposed Development, the presence (and dominance) of the existing and under-construction wind farms in many local views, together with existing development within the Site (the biomass plant and wind farm access roads), means that sensitivity is reduced to **medium**.

Table 5.4: Effects on Local Visual Amenity (principal effects are those greater than moderate in significance and are shaded in grey)

Receptor	Description / Effect	Phase	Magnitude of Effect	Significance	Nature of Effect
Settlements / Local Residents					
Properties at Westerhouse, Craigend, West Toun and Nethertown *High sensitivity* 300 m to 1.4 km N of the Site	Views are of small-scale pastoral fields surrounded by shelterbelts and blocks of conifer woodland – see *Viewpoint 8*. The Proposed Development is unlikely to be visible from these properties. The level of visibility would not change noticeably over time.	At Completion (Year 1)	Negligible vs existing view	Negligible	-
			Negligible vs extant permission	Negligible	-
		Medium-to-long-term (Year 15)	Negligible vs existing view	Negligible	-
			Negligible vs extant permission	Negligible	-
Road Users (including cyclists and pedestrians)					
Minor road to north of Site to Westerhouse *Medium sensitivity* 300 m to 1.4 km N of the Site	Views are of small-scale pastoral fields surrounded by shelterbelts and blocks of conifer woodland – see *Viewpoint 8*. The Proposed Development is unlikely to be visible from this road. The level of visibility would not change noticeably over time.	At Completion (Year 1)	Negligible vs existing view	Negligible	-
			Negligible vs extant permission	Negligible	-
		Medium-to-long-term (Year 15)	Negligible vs existing view	Negligible	-
			Negligible vs extant permission	Negligible	-

Receptor	Description / Effect	Phase	Magnitude of Effect	Significance	Nature of Effect
M74 to north of Junction 11 (predominantly southbound users only) Very short section of the B7078 between M74 J11 and Lesmahagow (part of National Cycle Route (NCR) 74) *Low sensitivity* Ca. 3.5 km NNE of the Site	The view from the M74 (where not restricted by tree cover adjacent to the road) is across a landscape of undulating moorland and forestry, with some pastoral fields – see *Viewpoint 9*. Wind turbines and steel-lattice pylons are very prominent, in places dominant, in the view. The Dewars bonded warehouse complex at Poniel is clearly visible to the south-west of Junction 11, and the biomass plant (within the Site) is also visible in the distance passing views. Views from Carlisle Road are much more restricted. There would be some limited visibility of the Proposed Development from the M74, but it would form only a very minor component in the view, and would be no more visible than the consented industrial development. The scale of change would be very low and the geographic extent would be small.	At Completion (Year 1)	Small vs existing view	Negligible	-
			Small vs extant permission	Negligible	-
		Medium-to-long-term (Year 15)	Small vs existing view	Negligible	-
			Small vs extant permission	Negligible	-
Core Path Users and Other Recreational Receptors					
Core Path CL/5735 (within and to NW of Site) *Medium sensitivity* Partly within Site	CL/5735 crosses the northern end of the Site to the north of the Biomass plant, crossing Poniel Water and heading north-west towards Wallace's Cave.[7] Views are across undulating moorland and rough grassland towards the Douglas West wind farm, the existing biomass plant, and the existing wind farm access road – see *Viewpoints 1, 2, 7* and *10*. Woodland is also prominent in views from some sections of the routes.	At Completion (Year 1)	Large vs existing view	Major/ moderate	Adverse
			Negligible vs extant permission	Negligible	-

[7] As part of the extant planning permission for the Site, CP CL/5735 would be partly realigned towards the northern boundary of the Site and this is also proposed as part of this project.

Receptor	Description / Effect	Phase	Magnitude of Effect	Significance	Nature of Effect
	The consented development would be clearly visible from many sections of the route. The Proposed Development would also be clearly visible from many sections of the route, seen in the context of the biomass plant and the wind turbines. Further to the north-west, the western side of the Proposed Development would be visible to users travelling towards the Site, seen as a notable massing of built form. Overall effects on views would not be notably greater than those that would arise from the extant permission. In the medium-to-long-term, the woodland planting proposed as part of the Proposed Development would soften the appearance of the Proposed Development in views from sections of the route to the north and north-west of the Site. The scale of change would be high, and the geographic extent would be large.	Medium-to-long-term (Year 15)	Large vs existing view	Major/ moderate	Adverse
			Negligible vs extant permission	Negligible	-
Wider Network Path CL/5157 (to E of Site) *Medium sensitivity* Adjacent to the Site	CL/5157 runs south-east from CL/5735 then south through Long Plantation where it meets CL/5720 heading towards the village of Douglas. Most of the route is within the SLA. The northern section of the route is more open, allowing views across moorland towards the Douglas West wind farm – see *Viewpoint 3*. The rest of the route runs through mixed woodland (Long Plantation) with views correspondingly restricted. The consented development would be visible from the northern section of the route, but there would be only very limited visibility from the section within the woodland. There would be clear visibility of the Proposed Development from the northern section of the route only, with views further south again restricted by woodland cover.	At Completion (Year 1)	Overall negligible vs existing view	Overall negligible	-
			Negligible vs extant permission	Negligible	-
		Medium-to-long-term (Year 15)	Overall negligible vs existing view	Overall negligible	-

Receptor	Description / Effect	Phase	Magnitude of Effect	Significance	Nature of Effect
	The extent of change would be very low for most of the route, and the geographic extent would be very small.		Negligible vs extant permission	Negligible	-
Aspirational Core Path CL/5728 on existing wind farm access road through Site Aspirational Core Path CL/5736 to west and north-west of the Site *Medium sensitivity* Partly within Site	CL/5728 starts from CL/5714 to the north of the Site (on the existing access road), and follows the wind farm access road through the Site before continuing west onto gently rising ground within the Douglas West wind farm where it meets CL/5736. CL/5736 then runs north-west towards Coalburn. The views are across moorland and rough grassland towards the biomass plant and the woodland at Long Plantation and Poniel Hill. Higher ground beyond the woodland areas forms the distant horizon, while wind turbines within the Douglas West windfarm dominate the foreground from sections of the route further to the west – see *Viewpoints 2, 4* and *5*. The consented development would be clearly visible from the majority of this route, with the route passing between the two sections of the consented development. From further west (*Viewpoint 5*) the view is from moorland with a higher elevation than the Site. The Proposed Development would be similarly visible – the route would pass between the two parts of the developable area on a slightly revised alignment for the wind farm access road. Views from these sections would be different from the consented scheme, but would still be of industrial development seen at close range. As the route(s) continue west and north-west, the Proposed Development would remain visible, seen as a notable massing of built form. Overall effects on views would not be notably greater than those that would arise from the extant permission.	At Completion (Year 1)	Large vs existing view	Major / moderate	Adverse
			Negligible vs extant permission	Negligible	-
		Medium-to-long-term (Year 15)	Large vs existing view	Major / moderate	Adverse

Receptor	Description / Effect	Phase	Magnitude of Effect	Significance	Nature of Effect
	In the medium-to-long-term, the woodland planting proposed as part of the Proposed Development would soften the appearance of the Proposed Development in views from the western sections of the routes. The scale of change would be high, and the geographic extent would be large.		Negligible vs extant permission	Negligible	-
Aspirational Core Path CL/5729 on disused railway line through Site[8] *Medium sensitivity* Within or adjacent to Site	The disused railway line runs on an embankment towards the eastern edge of the Site and offers elevated views over the surrounding moorland. Views from this route are across undulating moorland and rough grassland (with scattered trees and shrubs) with woodland at Long Plantation, Poniel Hill and around Westerhouse, Craigend and West Toun also visible to the east and north. The biomass plant and the existing construction compound are visible in the northern part of the Site. In views from the southern section of the route, higher ground beyond the woodland areas forms the distant horizon to the north (including turbines of the Broken Cross Wind Farm), while turbines within the Douglas West wind farm dominate views to the south-west, west and north-west – see *Viewpoint 11*. Views to the south-west include turbines within the Hagshaw Hill wind farm. Both the consented development and the Proposed Development would divert this route to follow the edge of Long Plantation along the south-	At Completion (Year 1)	Large vs existing view	Major / moderate	Adverse
			Negligible vs extant permission	Negligible	-
		Medium-to-long-term (Year 15)	Large vs existing view	Major / moderate	Adverse
			Negligible vs extant permission	Negligible	-

[8] As part of the extant planning permission for the Site, ACP CL/5729 would be diverted from the disused railway line to follow the edge of the woodland along the eastern and south-eastern edge of the Site and the same is proposed for this project.

Receptor	Description / Effect	Phase	Magnitude of Effect	Significance	Nature of Effect
	eastern boundary of the Site, with multiple power lines between the route and the development areas. The Proposed Development would be clearly visible from the diverted route, but no more so than the consented scheme. Both developments would locate substantial areas of built form on the land beyond the power lines, restricting views towards the moorland to the west. The scale of change would be high, and the geographic extent would be large. Note: The multiple existing overhead powerlines which run along the south-eastern side of the Site prevent the implementation of mitigation planting in this part of the Site.				
Aspirational Core Paths CL/5733, CL/5720 and CL/5721 to immediate south and south-west of Site *Medium sensitivity* Adjacent to Site	CL/5720 runs from the village of Douglas north-west through Long Plantation to the southern edge of the Site, where it meets CL/5733 which then runs north-west to meet CL/5728 and CL/5736. CL/5721 runs south-south-west from the southern edge of the Site towards Douglas West. The majority of CL/5720 and all of CL/5721 are within the SLA. Views from CL/5733, CL/5721 and the north-western section of CL/5720 are across undulating moorland and rough grassland (with scattered trees and shrubs) with woodland at Long Plantation, Poniel Hill and around Westerhouse, Craigend and West Toun also visible to the east and north. The biomass plant and the existing temporary construction compound are visible in the northern part of the Site. Higher ground beyond the woodland areas forms the distant horizon to the north-north-east (including turbines of the Broken Cross wind farm), while turbines within the Douglas West windfarm dominate views to the south-west, west and north-west – see *Viewpoint 11*. Views to the south-west include turbines within the Hagshaw Hill wind farm. The south-eastern part of CL/5720 runs within the woodland of Long Plantation, with correspondingly restricted views. To the north-west CL/5733 climbs towards the conifer forestry at Arkney Hill (partially felled as part of the enabling works for the Douglas	At Completion (Year 1)	Large vs existing view	Major / moderate	Adverse
			Negligible vs extant permission	Negligible	-
		Medium-to-long-term (Year 15)	Large vs existing view	Major / moderate	Adverse
			Negligible vs extant permission	Negligible	-

Receptor	Description / Effect	Phase	Magnitude of Effect	Significance	Nature of Effect
	West wind farm extension) where it meets ACPs CL/5733 and CL/5736, while to the south-east CL/5720 passes into and through Long Plantation. The buildings of the extant planning permission development would be visible to the north of the routes and to the west of Long Plantation. The southern part (most notably the substation) of the Proposed Development would be clearly visible from the open sections of these routes, but no more so than the consented scheme. In the medium-to-long-term, the woodland planting proposed as part of the Proposed Development would soften the appearance of the Proposed Development in views from the western sections of the routes. The scale of change would be high, and the geographic extent would be large.				
Core Path CL/3457 to south-west of Site *Medium sensitivity* Ca. 1.2 km to SW	The route runs from Douglas West , following along Broadlea Burn, and then rising to Arkney Hill. The route is within the SLA. Views from this route are across undulating moorland and rough grassland with woodland at Long Plantation, Poniel Hill and around Westerhouse, Craigend and West Toun also visible to the east and north. The biomass plant and the existing temporary construction compound are visible in the northern part of the Site. Higher ground beyond these woodland areas forms the distant horizon to the north-east (including turbines of the Broken Cross wind farm), while turbines within the Douglas West windfarm dominate short and medium-range views – see *Viewpoint 6*. Views to the south-west include turbines within the Hagshaw Hill wind farm. The buildings of the extant planning permission development would be visible to the north-east of the route and to the west of Long Plantation. There would be similar levels of visibility for the Proposed Development, with the development appearing as broadly similar industrial development to the consented scheme, though with the	At Completion (Year 1)	Medium vs existing view	Moderate	Adverse
			Negligible vs extant permission	Negligible	-
		Medium-to-long-term (Year 15)	Medium vs existing view	Moderate	Adverse
			Negligible vs extant permission	Negligible	-

Receptor	Description / Effect	Phase	Magnitude of Effect	Significance	Nature of Effect
	substation in the southern part of the Site the nearest and most visible part of the built form. In the medium-to-long-term, the woodland planting proposed as part of the Proposed Development would help to soften the appearance of the Proposed Development in views from Arkney Hill. The scale of change would be medium, and the geographic extent would be medium.				

6.0 Cumulative Effects

6.1. Methodology

6.1.1. Cumulative landscape and visual effects, '*result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other developments.*' [xv]

6.1.2. GLVIA3[i] advises that '*the emphasis in EIA is on likely significant effects, rather than on comprehensively cataloguing every conceivable effect that might occur.*' Although the Proposed Development is non-EIA development, the same proportionate approach is considered appropriate.

6.1.3. The methodology for the cumulative assessment is contained in **Appendix A1.2**.

6.2. Scoping of LVIA Cumulative Energy Storage Schemes

6.2.1. The screening opinion received from the ECU did not specifically identify any other schemes in planning, which could potentially give rise to cumulative effects with the Proposed Development.

> *'Although some cumulative landscape and visual effects are possible, they are likely to be restricted in extent and would be unlikely to be significant.'*

6.2.2. Small amounts of energy storage capacity were included with a number of wind farm permissions in the Hagshaw Energy Cluster (HEC) but none of the storage components have ever been built out, therefore, these are not included within this assessment.

6.2.3. **Table 6.1** sets out the energy storage schemes to be considered in the cumulative assessment. The locations of these Cumulative Assessment Schemes (CASs) are shown on **Figure 8**.

6.2.4. **Sections 6.3** and **6.4** provide an assessment of the cumulative effects of the Proposed Development with energy storage CASs within ca. 6 km of the Site.

6.2.5. **Section 6.5** gives an overview of the potential cumulative effects arising from the operation of the Proposed Development with the wind farms within the HEC. Installed and under construction wind development is considered as part of the baseline assessment and not in this cumulative assessment.

Table 6.1: Scoping of Energy Storage Schemes to be included in the LVIA Cumulative Assessment

ID	Cumulative Assessment Scheme (CAS)	Status	Location from Proposed Development	LCT	Potential for:			Decision
					cumulative landscape effects	combined visual effects	sequential visual effects	
A	High Netherfauld I BESS (ECU Ref. 00006063)	Screening request submitted	3.1 km NE	Plateau Farmland	Medium	Very low	Medium	Include in cumulative landscape and sequential visual assessment only
B	Coalburn I BESS (ECU Ref. 00000348)	Under construction	3.3 km NE	Plateau Farmland	Medium	Very low	Medium	Include in cumulative landscape and sequential visual assessment only
C	Coalburn II BESS (ECU Ref. 00004608)	Consented development	4.1 km NE	Plateau Farmland	Medium	Very low	Very low	Include in cumulative landscape assessment only
D	Redshaw BESS (ECU Ref. 00005122)	Application submitted	5.5 km SE	Plateau Moorlands	Low	Negligible	Very low	Exclude from cumulative assessment
E	Carlisle Road BESS (ECU Ref: 00004799)	Application submitted	4.3 km N	Plateau Farmland	Medium	Very low	Low	Include in cumulative landscape assessment only
F	Glentaggart BESS (SLC Ref. P/25/0003/PAN)	Pre-application	6 km SE	Plateau Moorlands	Low	Negligible	Very low	Exclude from cumulative assessment

6.3. Cumulative Landscape Effects with Other Energy Storage Schemes

Table 6.2: Assessment of Cumulative Landscape Effects with Other Energy Storage Schemes
(the main effects are those greater than moderate in significance and are shaded in grey)

Receptor	Phase	Relevant CASs	Magnitude of Effect	Significance	Nature of Effect
Site Environs within 1-2 km of the Site to the south-west, west and north-west Predominantly within LCT 213: *Plateau Moorlands – Glasgow & Clyde Valley*) Indirect effects on local landscape character *Medium-low sensitivity*	At Completion (Year 1)	A, B	Small vs existing landscape character	Minor to Negligible	Adverse
			Negligible vs extant permission	Negligible	-
	Medium-to-long-term (Year 15)		Small vs existing landscape character	Minor to Negligible	Adverse
			Negligible vs extant permission	Negligible	-
Wider local landscape beyond ca. 2 km to the south-west, west and north-west Predominantly within LCT 213: *Plateau Moorlands – Glasgow & Clyde Valley*) Restricted parts of LCT 201: *Plateau Farmland – Glasgow & Clyde Valley* Indirect effects on wider landscape character *Medium-low sensitivity*	At Completion (Year 1)	A, B, C, E	Small vs existing landscape character	Minor to Negligible	Adverse
			Negligible vs extant permission	Negligible	-
	Medium-to-long-term (Year 15)		Small vs existing landscape character	Minor to Negligible	Adverse
			Negligible vs extant permission	Negligible	-
Douglas Valley SLA Predominantly within 2 km to the south-west Indirect effects on local landscape character *Medium sensitivity*	At Completion (Year 1)	A, B, C	Small vs existing landscape character	Minor	Adverse
			Negligible vs extant permission	Negligible	-
	Medium-to-long-term (Year 15)		Small vs existing landscape character	Minor	Adverse
			Negligible vs extant permission	Negligible	-

6.4. Cumulative Visual Effects with Other Energy Storage Schemes

Combined visual effects

6.4.1. From areas in which the Proposed Development would bring about a noticeable change in views by being present as more than a background component of the landscape, the CASs would not be present in views. No significant visual effects in combination would arise with any of the CASs.

6.4.2. The landscape near the Proposed Development and CASs is such that it is very unlikely that there are areas in the landscape where the Proposed Development and the CASs would bring about noticeable effects on views in succession.

6.4.3. No significant combined visual effects would arise.

Sequential visual effects

6.4.4. Sequential visual effects are considered for journeys on CPs where the Proposed Development as an individual project could give rise to effects of minor or greater significance (see **Table 5.4**) on the basis that any lesser effects would be very unlikely to give rise to significant sequential visual effects.

6.4.5. This includes any journey on:

- Core Path CL/5735 (within and to NW of Site)
- Aspirational Core Path CL/5728 on existing wind farm access road through Site
- Aspirational Core Path CL/5736 to west and north-west of the Site
- Aspirational Core Path CL/5729 on disused railway line through Site
- Aspirational Core Paths CL/5733, CL/5720 and CL/5721 to immediate south and south-west of Site.

6.4.6. The location of these Core Paths is shown on **Figures 3c** and **3d**.

Journey North from Site on Core Path Network

6.4.7. After crossing the Site or near to the Site using the above CPs (effects of the Proposed Development *in solus* of up to **major/moderate** significance with the existing view as the baseline, or **negligible** with the extant permission as the baseline), and heading north on CPs CL/5714/1, CL/5715/1, and CL/3319/2 and then the wider network alongside the B7078, there would be a distance of 3.5 km before CASs A and B were visible. After 1.5 km, there could then be views of CAS E. Over this ca. 5-6 km journey (ca. 1 hour on

foot at 5 km/h), the Proposed Development would be considered to make a **small** magnitude contribution to a **minor** sequential visual effect compared to the existing situation (**negligible** compared to the extant permission).

6.5. Cumulative Landscape and Visual Effects with the Hagshaw Energy Cluster

6.5.1. The Proposed Development is located in a landscape where wind energy substantially shapes existing character. Consented wind energy repowering and extension projects at the Hagshaw Energy Cluster (HEC) will intensify this.

6.5.2. Wind turbine development has different landscape and visual effects to energy storage development. Wind turbine development allows the underlying character to prevail, albeit often strongly modified within a wind farm site and its vicinity. Wind turbines activate the landscape but are visually diffuse and often sit as features in distant views across the landscape.

Cumulative landscape effects with the HEC

6.5.3. When taking into account the HEC, the cumulative landscape effects of the Proposed Development with the CASs (**Table 6.2**) would be considered to be heightened slightly to **minor** significance compared to existing character but **negligible** compared to the extant permission.

Cumulative visual effects with the HEC

6.5.4. When taking into account the HEC, combined views with the Proposed Development (in combination or in succession) are more likely to be a consideration as any number of HEC wind turbines are likely to be present in views where the Proposed LDES is a significant feature. Combined visual effects with the Proposed Development would be expected to be **moderate or minor** compared to existing views (**negligible** compared to the extant permission).

6.5.5. Sequential effects on views experienced by CP users on journeys through the HEC would be likely to be more significant, potentially heightened to **moderate to minor** significance compared to existing views (**negligible** compared to the extant permission).

7.0 Summary and Conclusions

7.1. Landscape Effects

7.1.1. A summary of operational phase landscape effects is provided in **Table 7.1**.

Table 7.1: Assessment of Landscape Effects

Receptor	Phase	Significance	Nature of Effect
Site Predominantly within LCT 213: *Plateau Moorlands – Glasgow & Clyde Valley*) Partly within LCT 207: *Upland River Valley – Glasgow & Clyde Valley* Direct effects on fabric and character *Low sensitivity*	At Completion (Year 1)	**Moderate** vs existing landscape character	Adverse
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Moderate** vs existing landscape character	Adverse
		Negligible vs extant permission	-
Site Environs within 1-2 km of the Site to the south-west, west and north-west Predominantly within LCT 213: *Plateau Moorlands – Glasgow & Clyde Valley*) Indirect effects on local landscape character *Medium-low sensitivity*	At Completion (Year 1)	**Minor** vs existing landscape character	Adverse
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Minor** vs existing landscape character	Adverse
		Negligible vs extant permission	-
Wider local landscape beyond ca. 2 km to the south-west and north-west Predominantly within LCT 213: *Plateau Moorlands – Glasgow & Clyde Valley*) Restricted parts of LCT 201: *Plateau Farmland – Glasgow & Clyde Valley* Indirect effects on wider landscape character *Medium-low sensitivity*	At Completion (Year 1)	**Negligible** vs existing landscape character	-
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Negligible** vs existing landscape character	-
		Negligible vs extant permission	-
Douglas Valley SLA Predominantly within 2 km to the south-west Indirect effects on local landscape character *Medium sensitivity*	At Completion (Year 1)	**Moderate** vs existing landscape character	Adverse
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Moderate** vs existing landscape character	Adverse
		Negligible vs extant permission	-

7.2. Visual Effects

7.2.1. A summary of operational phase visual effects is provided in **Table 7.2**.

Table 7.2: Assessment of Visual Effects
(the main effects are those greater than moderate and are shaded in grey)

Receptor	Phase	Significance	Nature of Effect
Settlements / Local Residents			
Properties at Westerhouse, Craigend, West Toun and Nethertown *High sensitivity* 300 m to 1.4 km N of the Site	At Completion (Year 1)	**Negligible** vs existing view	-
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Negligible** vs existing view	-
		Negligible vs extant permission	-
Road Users (including cyclists and pedestrians)			
Minor road to north of Site *Medium sensitivity* 300 m to 1.4 km N of the Site	At Completion (Year 1)	**Negligible** vs existing view	-
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Negligible** vs existing view	-
		Negligible vs extant permission	-
M74 to north of Junction 11 (predominantly southbound users only) Very short section of the B7078 between M74 J11 and Lesmahagow (part of NCR 74) *Low sensitivity* Ca. 3.5 km NNE of the Site	At Completion (Year 1)	**Negligible** vs existing view	-
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Negligible** vs existing view	-
		Negligible vs extant permission	-
Core Path Users and Other Recreational Receptors			
Core Path CL/5735 (within and to NW of Site) *Medium sensitivity* Partly within Site	At Completion (Year 1)	**Major/ moderate** vs existing view	Adverse
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Major/ moderate** vs existing view	Adverse
		Negligible vs extant permission	-
Wider Network Path CL/5157 (to E of Site) *Medium sensitivity* Adjacent to the Site	At Completion (Year 1)	Overall **negligible** vs existing view	-
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	Overall **negligible** vs existing view	-
		Negligible vs extant permission	-
Aspirational Core Path CL/5728 on existing wind farm access road through Site Aspirational Core Path CL/5736 to west and north-west of the Site	At Completion (Year 1)	**Major / moderate** vs existing view	Adverse
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Major / moderate** vs existing view	Adverse
		Negligible vs extant permission	-

Receptor	Phase	Significance	Nature of Effect
Medium sensitivity Partly within Site			
Aspirational Core Path CL/5729 on disused railway line through Site *Medium sensitivity* Within or adjacent to Site	At Completion (Year 1)	**Major / moderate** vs existing view	Adverse
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Major / moderate** vs existing view	Adverse
		Negligible vs extant permission	-
Aspirational Core Paths CL/5733, CL/5720 and CL/5721 to immediate south and south-west of Site *Medium sensitivity* Adjacent to Site	At Completion (Year 1)	**Major / moderate** vs existing view	Adverse
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Major / moderate** vs existing view	Adverse
		Negligible vs extant permission	-
Core Path CL/3457 to south-west of Site *Medium sensitivity* Ca. 1.2 km to SW	At Completion (Year 1)	**Moderate** vs existing view	Adverse
		Negligible vs extant permission	-
	Medium-to-long-term (Year 15)	**Moderate** vs existing view	Adverse
		Negligible vs extant permission	-

7.3. Cumulative Effects

Cumulative Effects with Other Energy Storage Schemes

7.3.1. Six BESS schemes within ca. 6 km have been considered. Of these, four (High Netherfauld I, Coalburn I & II, and Carlisle Road) were included in the cumulative assessment with moderate potential for landscape and/or sequential visual effects. Two (Redshaw and Glentaggart) were excluded with potential for only negligible impacts.

Cumulative Landscape Effects

7.3.2. Compared to existing character, **minor to negligible** adverse cumulative effects are predicted on landscape character both at completion and in the long-term (**negligible** compared to the extant permission).

7.3.3. For the Douglas Valley SLA, compared to existing character, **minor** adverse effects would arise at completion and in the long-term (**negligible** compared to the extant permission).

Cumulative Visual Effects

7.3.4. No significant combined visual effects would arise, as the Proposed Development would not be prominent in any views where the other BESS schemes are present.

7.3.5. Sequential visual effects could occur on a 5 - 6 km CP route northwards from the Site. Ca. 3.5 km after passing the Proposed Development, walkers would pass near to High Netherfauld I BESS, Coalburn I BESS, and Carlisle Road BESS. The effect would be **minor** compared to current conditions (**negligible** versus extant permission).

Cumulative Effects with the Hagshaw Energy Cluster (HEC)

7.3.6. The proposed development lies in a landscape already strongly influenced by wind energy. This will be intensified by consented / in planning projects in the HEC.

7.3.7. The presence of the HEC slightly increases cumulative landscape effects with the other energy storage schemes, though effects would still be **minor** (**negligible** versus extant permission).

7.3.8. When considering the HEC, combined and sequential views may reach **moderate to minor** significance compared to existing views (**negligible** versus extant permission).

7.4. Overall Conclusion

7.4.1. The Proposed Development is located on land within the existing M74 Heat and Power Park (now known as Conexus West). The Site is brownfield land, being part of a former open cast coal site. The Site is under an extant planning permission for the development of 140,000 m^2 of industrial / commercial units up to a height of 15 m.

7.4.2. The Site is visually well-contained to the north, east and south by existing woodlands and forestry. To the south-west, west and north-west there are views towards the Site within approximately 1-2 km of the Site. Beyond this, views towards the Site are limited by undulating topography and further conifer forestry. The surrounding landscape is dominated by wind farms, with further wind farm development under consideration.

7.4.3. The Proposed Development would be lower than the permitted scheme for the Site, with the LDES triple-stacked units being ca. 7.8 m in height. The Proposed Development also includes 33,516 m^2 native broadleaf tree and shrub planting on land to the south-west, west and north of the main LDES areas. The extant permission includes only very limited mitigation planting.

7.4.4. The brownfield nature of the Site, and the presence of multiple operational wind farms to the immediate south-west, west and north-west of the Site, means that effects on landscape character would be no greater than **moderate adverse** within the Site compared to the current landscape character, and **negligible** compared to the extant permission. Landscape character effects beyond the Site, mainly experienced within the wind farm landscape to the south-west, west and north-west within 1 km of the Site, would be **minor adverse** compared to the existing landscape character, and **negligible** compared to the extant permission.

7.4.5. Effects on peripheral parts of the Douglas Valley SLA to the immediate south of the Site would be at worst **moderate adverse** compared to the existing landscape character. It is also important to note that the Proposed Development would not be visible from the principal parts of the SLA, being the meandering valley landscape which lies beneath the Site, enclosed by the Long Plantation. Effects on the SLA would be **negligible** compared to the extant permission.

7.4.6. Whilst there would be views of the Proposed Development from the surrounding landscape, undulating topography and strong tree cover to the north, east and south of

the Site would limit effects on local visual amenity. There would be **major/moderate adverse** effects (compared to the current views) on visual amenity experienced by recreational users of the CPs and ACPs which pass through the Site and its immediate environs. Such effects would not be discernibly greater than those which would arise with the extant permission.

7.4.7. Effects on other visual receptors would be much more limited.

7.4.8. Cumulative landscape and visual effects arising from the Proposed Development in combination with other nearby energy storage developments would be at worst minor.

7.4.9. The assessment concludes that, while some effects would be large magnitude within the Site and its vicinity, these are relatively localised and there is capacity for this low or low-medium sensitivity landscape to accommodate the Proposed Development without causing unacceptable landscape or visual harm to the wider surrounding area. The Proposed Development would not result in any greater effects than would arise from the extant mixed-use permission for the Site.

Appendix 1: Methodology

Scope of Landscape and Visual Impact Assessment and this Study

The European Landscape Convention (ELC) defines landscape as, '*…an area, as perceived by people, whose character is the result of the action or interaction of natural and/or human factors*' (Council of Europe, 2000). The ELC supports a holistic approach to landscape planning and covers, '*…natural, rural, urban and peri-urban areas. It includes land, inland water and marine areas. It concerns landscapes that might be considered outstanding as well as everyday or degraded landscapes.*'

LVIA considers landscape and visual effects separately as '*related but very different considerations*' (LI and IEMA, 2013[i]; paragraph 2.20):

- **Landscape assessment** considers the effects of the proposed development on the landscape as a resource.
- **Visual assessment** considers the effects of the proposed development on specific views and on the general visual amenity experienced by people.

The scope of LVIA is derived from the Town and Country Planning (Environmental Impact Assessment (EIA)) Regulations 2011, Schedule 4 of which states that EIA must include: '*A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development…*' With respect to landscape and views, an LVIA typically considers the direct and indirect effects of a proposal, its potential cumulative effects, considers the changes which would arise over time, and whether those changes would be beneficial, neutral or adverse.

The proposed development has been screened as not requiring EIA. The study is a full LVIA and is provided as an independent and impartial assessment of the landscape and visual effects that would arise as a result of the proposed development. This LVIA considers the existing landscape, the sensitivity of landscape and visual receptors, and considers the magnitude and significance of landscape and visual effects which could arise. The approach followed is in line with guidance provided in *Landscape Institute Technical Guidance Note 2024/01*[ii].

This methodology is structured as follows:

A1.1 Study Area

The study area has been determined through fieldwork and desk study and has been informed by the appraisal itself. The study area is in proportion with the zone in which the principal landscape or visual effects could arise. Preliminary ZTVs were used to establish a preliminary 5 km radius area for desk study. In the landscape surrounding the Site, fieldwork indicated that topography and woodland mean that the principal landscape or visual effects of this development would be more local than this. Accordingly, the focus of this report is on receptors within 2 km of the Site. To keep the scope proportionate, only receptors within the study area for which or for whom noticeable effects could arise are considered.

A1.2 The Nature of Landscape and Visual Effects

Direct and Indirect Effects

The landscape and visual resource of an area can be affected both directly and indirectly. Visual impacts are always direct because an object needs to be seen for a visual impact to arise. Landscape impacts on the other hand can be either direct or indirect. Change which affects on-site physical features (i.e., vegetation, buildings and landform), or the character area in which the Site is located, is direct, whereas an impact on the character of surrounding landscape character areas is indirect. Indirect impacts tend to be less significant than direct ones.

In general, the scope of this LVIA is:

- **Direct** (primary) effects on landscape features, the character of the Site, and views; and
- **Indirect** (secondary) effects on the surrounding landscape character.

Cumulative Effects

The nature of cumulative landscape and visual effects are described in detail in section 7 of LI and IEMA (2013). As a summary, the following cumulative effects could potentially arise with

two or more developments (terms used are from Scottish Natural Heritage (SNH) (2012); pages 10/11, see also footnote 9):

- **Cumulative landscape** effects: where two or more projects in combination create new landscape types (e.g., similar to large-scale afforestation). Landscape effects are not necessarily negative and may include other pressures such as longer-term incremental change.
- **Combined visual** effects: where it is possible to see two or more projects from one location, either *in combination* (in the viewer's same field of view at any one time), or *in succession* (in different fields of view from the same location).
- **Sequential visual** effects: where the viewer has to move through the landscape to see different projects.

As with landscape and visual effects, cumulative effects vary depending on the sensitivity of the receptor and the magnitude of the change in terms of the scale, nature, duration, frequency of combined and sequential views (glimpses or more prolonged views; oblique, filtered or more direct views; time separation between sequential views). Cumulative effects also vary depending on the relative impact of each project with respect to visual amenity.

Assessment Timescales

In this assessment, potential effects are considered according to the following timescales, which allow an understanding of the changes which may occur in the landscape as a result of the development over time, and judgements to be made about the duration and reversibility of effects (see also the **Section A1.3B** on 'Magnitude' below):

- **During construction**: focussing on specific construction-related landscape and visual effects.
- **On completion**: the effects when the construction phase is complete and the operational phase of the project starts.

[9] Much of the expertise in cumulative assessment in recent practice is derived from LVIAs of windfarms which can have significant cumulative effects. SNH have led much of the research in this field, and while guidance on windfarms or SNH's influence is not specifically relevant to this LVIA, the thinking as set out by SNH is transferable to other forms of development and this report.

- **Medium-term**: taken to be up to 15 years post completion: this timescale allows the assessment to consider effects once the mitigation vegetation proposed for the Site has become established and has been managed to the stipulated height.
- **Long-term**: taken to be 15 to 40 years post completion and for the duration of the operational life of the Proposed Development.

Adverse, Beneficial and Neutral Effects

The methodological background to whether effects are adverse, beneficial or neutral is based on the aim for assessment work to influence a proposed development to reduce adverse effects:

> *'In reporting on the significance of the identified effects the main aim should be to draw out the key issues and ensure that the significance of the effects and scope for reducing any negative/adverse effects are properly understood by the public and the competent authority before it makes its decision' (LI and IEMA, 2013; paragraph 3.35).*

Whether effects should be adverse, beneficial or neutral is recognised as a 'challenging' aspect of assessment (LI and IEMA, 2013; 5.37). Further methodological background is provided in paragraphs 5.37 and 6.29 for landscape and visual effects respectively.

> *'One of the more challenging issues is deciding whether the landscape effects should be categorised as positive or negative. It is also possible for effects to be neutral in their consequences for the landscape. An informed professional judgement should be made about this and the criteria used in reaching the judgement should be clearly stated. They might include, but should not be restricted to:*
>
> - *The degree to which the proposal fits with existing character;*
> - *The contribution to the landscape that the development may make in its own right, usually by virtue of good design, even if it is in contrast to existing character.' (LI and IEMA, 2013; paragraph 5.37).*
>
> *'As with landscape effects an informed professional judgement should be made as to whether the visual effects can be described as positive or negative (or in some cases neutral) in their consequences for views and visual amenity. This will need to be based on a judgement about whether the changes will affect the quality of the visual experience for those groups of people who will see the changes, given the nature of their existing views.' (LI and IEMA, 2013; paragraph 6.29).*

Effects in this assessment are described as follows:

- **Adverse**, for example the loss of valuable landscape elements, degradation of

landscape character or loss of integrity in terms of designated landscapes.

- **Beneficial**, for example the removal of inappropriate or damaging landscape elements, enhancement of key landscape elements and landscape character, or introduction of positive landscape elements.
- **Neutral** effects are those which are on balance neither adverse nor beneficial. Neutral may reflect an absence of harm. Neutral may sometimes be used as a judgement where there are both adverse and beneficial aspects of an effect.

The decision regarding whether effects are adverse, beneficial or neutral is set out in the conclusions for effects of greater than negligible magnitude and is made using professional judgement and separately to the determination of their magnitude.

For adverse landscape or visual effects, mitigation is described or recommended (proposals for preventing/avoiding, reducing, or offsetting or compensating for the adverse effects), or has been recommended during previous iterations of the appraisal. Residual effects remaining after mitigation are summarised at the end of the report.

A1.3 Assessment Criteria

The following are the main terms used in this assessment:

- The **sensitivity** of receptors (landscape or visual)[10], which depends upon the value attached to the landscape or view and the susceptibility to harm due to the development proposal.
- The **magnitude** of an effect (the change brought about by the development proposal), which depends upon the scale and geographical extent of the change, and its duration and reversibility.
- The **significance** of an impact, which depends on the sensitivity of the receptor and the magnitude of the effect.

The above are determined using a combination of quantitative (objective) and qualitative

[10] Landscape receptors are *'defined aspects of the landscape resource that have the potential to be affected by a proposal.'* Visual receptors are *'individuals and/or defined groups of people who have the potential to be affected by a proposal.'* (From the glossary to LI and IEMA, 2013).

(subjective) methods, and are assessed using professional judgement.

A. Sensitivity

The sensitivity of landscape receptors depends primarily upon the value attached to the landscape and the landscape's susceptibility to the development proposal.

Landscape Value

'*Landscapes and their component parts may be valued at the community, local, national or international levels… A review of existing landscape designations is usually the starting point in understanding landscape value, but the value attached to undesignated landscapes also needs to be carefully considered and individual elements of the landscape – such as trees, buildings or hedgerows – may also have value*' (LI and IEMA, 2013; paragraph 5.19).

The following influence landscape value as determined in this assessment (LI and IEMA, 2013[i]; Box 5.1):

- '***Landscape quality (condition)****: a measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.*
- ***Scenic quality****: The terms used to describe landscapes that appeal primarily to the senses (primarily but not wholly to the visual senses).*
- ***Rarity****: The presence of rare elements or features in the landscape or the presence of a rare Landscape Character Type.*
- ***Representativeness****: Whether the landscape contains a particular character and/or features or elements which are considered particularly important examples.*
- ***Conservation interests****: The presence of features of wildlife, earth science or archaeological or historical and cultural interest can add to the value of the landscape as well as having value in their own right.*
- ***Recreation value****: Evidence that the landscape is valued for recreational activity where experience of the landscape is important.*
- ***Perceptual aspects****: A landscape may be valued for its perceptual qualities, notably wilderness and/or tranquillity.*
- ***Associations****: Some landscapes are associated with particular people, such as artists or writers, or events in history that contribute to perceptions of the natural beauty of the area.'*

TGN 02/21 was published by the LI in May 2021 (LI, 2021[vi]). The TGN refines the approach set out in Box 5.1, separating *'Conservation Interests'* into *'Natural Heritage'* and *'Cultural Heritage'*, and refining the definitions of some of the other terms used. The TGN also adds *'Functional Value'*, defined as *'landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the landscape'*.

Landscape value is illustrated by scale set out in **Table A1.1**.

Table A1.1: Landscape Value

Value	Typical criteria
High	High landscape quality and scenic quality. Particularly important/representative landscapes or landscape elements. Important conservation interests and recreational value due to landscape quality. Highly valued perceptual aspects or cultural/historical associations.
Medium	Medium landscape quality and scenic quality. May contain some important/representative elements. May contain some conservation interests and recreational value and/or perceptual aspects or cultural/ historical associations of moderate value.
Low	Low landscape quality and scenic quality. Common landscapes which are not particularly important/representative examples. More limited conservation interests and recreational value and/or more limited perceptual aspects or cultural/historical associations of value.

Landscape Susceptibility

Susceptibility can be defined as, '*the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic or perceptual aspect) to accommodate the proposed development without undue negative consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies*' (LI and IEMA, 2013; paragraph 5.40).

Susceptibility of landscape areas is influenced by their characteristics and is often considered in district or county landscape character assessments or capacity studies. For designated landscapes, susceptibility may also relate to the special qualities for which the designation is made. The activity and expectations of people within landscapes which are used for access or recreation may also influence susceptibility.

Individual assessment of the susceptibility of receptors is made in relation to the specific development proposal as part of the assessment of effects. Landscape susceptibility is determined according to the scale set out in **Table A1.2**.

Table A1.2: Landscape Susceptibility

Susceptibility	Typical criteria
High	A low potential to accommodate the specific proposed development without undue negative consequences. A more vulnerable landscape unlikely to be able to accommodate the Proposal with a low risk of harm.
Medium	A moderate potential to accommodate the specific proposed development without undue negative consequences. A moderately vulnerable landscape which may be able to accommodate the Proposal with a low risk of harm.
Low	A high potential to accommodate the specific proposed development without undue negative consequences. A less vulnerable landscape likely to be able to accommodate the Proposal with a low risk of harm.

Landscape Sensitivity

Table A1.3 illustrates typical judgements which might be made in assessing landscape receptor sensitivity, which take account of landscape value and landscape susceptibility. It should be noted that, '*there can be complex inter-relationships between the value attached to landscape receptors and their susceptibility to change which are especially important when considering change within or close to designated landscapes*' (LI and IEMA, 2013; paragraph 5.46). For this reason, judgements relating to how value and susceptibility combine to determine sensitivity are made on a case-by-case basis and explained in the assessment as necessary.

Table A1.3: Landscape Sensitivity

Sensitivity	Typical criteria
High	A high-quality landscape of particular importance or representativeness, with important conservation or recreational value and valued perceptual aspects or cultural or historic associations. A landscape valued at an international, national or regional scale. A landscape which has a high susceptibility to the proposed change. Minor changes cannot be accommodated without impact on value and/or loss of character or no more than minor changes can be compensated by replacement or substitution.
Medium	A medium-quality landscape which may contain some important or representative elements, and have some conservation or recreational value, and valued perceptual aspects or cultural or historic associations. A landscape valued at a regional, district or community scale. A landscape of medium susceptibility to the proposed change. Minor to moderate change may be accommodated but needs to be carefully dealt with. Minor changes can be accommodated without impact on value and/or loss of character or moderate changes can be reduced or eliminated by replacement or substitution.
Low	A low-quality landscape which is not particularly important or is representative of a common type with limited conservation or recreational interests, or limited value placed in perceptual aspects or cultural or historic associations. A landscape valued at the district or community scale. Potentially a damaged or derelict landscape.

	A low susceptibility to the proposed change. Moderate changes can be accommodated without impact on value and/or loss of character or more substantial changes can be reduced or eliminated by replacement or substitution.

Visual Sensitivity

The sensitivity of visual receptors can depend on:

- Their **susceptibility** to change, which is, '*mainly a function of the occupation or activity of people experiencing the view at particular locations and the extent to which their attention or interest may therefore be focussed on the views and the visual amenity they experience at particular locations*' (LI and IEMA, 2013; paragraph 6.32).
- The **value** attached to the view, for example whether it appeals to locals, visitors, or whether it is cited in books, guides and maps, or whether the view might be recognised through planning designations or in relation to heritage designations.

For visual receptors, value and susceptibility are closely related. Individuals or groups of receptors are assessed on a case-by-case basis and the thinking in relation to judgements is recorded in the assessment. **Table A1.4** illustrates the typical judgements which may be made in assessing the sensitivity of visual receptors.

Table A1.4: Visual Receptor Sensitivity (information adapted in part from LI and IEMA, 2013; paragraphs 6.33 and 6.34)

Sensitivity	Typical criteria
High	People at viewpoints in a high-value landscape, recognised in published maps or guides (e.g., visitors to nationally designated areas of public and private open space such as National Parks, Areas of Outstanding Natural Beauty or Heritage Coasts). Residents at home where views contribute to the landscape setting enjoyed by residents. People who are engaged in leisure activities intrinsic to which is an appreciation of the landscape or surroundings, for example users of national trails, long-distance paths or local footpaths through high-valued landscapes. Visitors to heritage assets or other important attractions, or travellers on routes where views are important to the experience.
Medium	People at viewpoints in a medium-value landscape (e.g., visitors to locally designated areas of public and private open space such as Areas of Great Landscape Value, or Country Parks). People who have a moderate interest in their surroundings whilst working or engaged in leisure activities, for example those engaged in outdoor sports such as fishing or golf, or using local footpaths through moderately valued landscapes, or users of local roads designated as National Cycle Routes or national trails. Travellers on road, rail or other routes may fall into an intermediate category depending on whether travel involves appreciation of the landscape.
Low	People at viewpoints in a low-value landscape. People involved in outdoor sport or recreation not involving or depending upon appreciation of views in the landscape.

	People at places of work whose attention is focussed on their work or activity, not on their surroundings, and where the setting is not important to quality of working life. People who have a transient interest in the surrounding landscape whilst engaged in other activities, for example while working or travelling through an area on an occasional or functional basis (e.g., users of major roads, employees of businesses and industry, users of local public rights of way associated with highways or local routes whose primary function is access between two places).

B. Magnitude

The assessment considers **scale**, **extent** and **duration/reversibility** as key aspects of the magnitude of landscape and visual effects (LI and IEMA, 2013; paragraphs 5.48 and 6.38).

Scale

For **landscape** receptors, scale relates to:

- '*the extent of existing landscape elements that will be lost, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape – in some cases this may be quantified;*
- *the degree to which aesthetic or perceptual aspects of the landscape are altered either by the removal of existing components of the landscape or by addition of new ones – for example, removal of hedges may change a small-scale, intimate landscape into a large-scale, open one, or introduction of new buildings or tall structures may alter open skylines;*
- *whether the effect changes the key characteristics of the landscape, which are critical to its distinctive character*' (LI and IEMA, 2013; paragraph 5.49).

For **visual** receptors, scale relates to:

- '*the scale of the change in the view with respect to the loss or addition of new features in the view and changes in its composition, including the proportion of the view occupied by the proposed development;*
- *the degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, height, colour and texture;*
- *the nature of the view of the proposed development, in terms of the relative amount of time over which it will be experienced and whether views will be full, partial or glimpses*' (LI and IEMA, 2013[i]; paragraph 6.39).

Extent

For **landscape** receptors, extent is the '*geographical area over which the landscape effects will be felt*' (LI

and IEMA, 2013; paragraph 5.50). Generally, effects may occur:

- '*at the site level, within the development site itself;*
- *at the level of the immediate setting of the site;*
- *at the scale of the landscape type or character area within which the proposal lies;*
- *on a larger scale, influencing several landscape types or areas.*'

For **visual** receptors extent is likely to reflect:

- '*the angle of view in relation to the main activity of the receptor;*
- *the distance of the viewpoint from the proposed development;*
- *the extent of the area over which the changes would be visible*' (LI and IEMA, 2013; paragraph 6.40).

Duration and reversibility

For both **landscape** and **visual** receptors: '*These are separate but linked considerations. Duration can usually be simply judged on a scale such as short term, medium term, or long term, where, for example, short term might be zero to five years, medium term five to ten years and long term ten to twenty-five years. There is no fixed rule on these definitions…Reversibility is a judgement about the prospects and practicality of the particular effect being reversed in, for example, a generation*' (LI and IEMA, 2013; paragraphs 5.51, 5.52 and 6.41).

Table A1.5 illustrates the judgements made with respect to magnitude, which take account of **scale**, **extent** and **duration/reversibility**. Effects are judged on a case-by-case basis applying professional judgement for the specific project and host landscape.

Table A1.5: Magnitude

	Landscape	**Visual**
	The magnitude of change in relation to ***physical elements and/or landscape character****. Considerations include* ***scale****,* ***extent****, and* ***duration/reversibility****.*	*The magnitude of change in relation to* ***views and/or visual amenity as generally perceived by observers*** *– this is related to the degree of landscape impact magnitude. Considerations include* ***scale****,* ***extent****, and* ***duration/reversibility****.*
Negligible	Indiscernible or barely discernible change - project components would tend to go unnoticed in the wider landscape.	Indiscernible or barely perceptible change - project components would tend to go unnoticed in views.
Small	Small levels of change - project components would be present in the landscape but would generally be perceived as a background component of the wider landscape.	Small levels of change to views - project components would be present in the landscape but as a background component of views and would easily go unnoticed.

	Landscape	Visual
Medium	Medium levels of change – project components would be relatively prominent in the landscape but would generally appear subservient to, or in equilibrium with, the prevailing landscape characteristics.	Medium levels of change to views - project components would be relatively prominent but generally subservient, or in equilibrium with, the prevailing landscape characteristics, and would easily be noticed.
Large	Large levels of change – project components would be prominent in the landscape and would generally be perceived as a determining factor of local character.	Large levels of change to views - project components would be prominent, perceived as a determining factor in views, and would be difficult not to notice.
Very Large	Very large levels of change – project components are very prominent in the landscape and are the determining factor of local character.	Very large levels of change to views – project components would be very prominent, perceived as the determining factor in views, and would be extremely difficult not to notice.

C. Significance

Judgements about the sensitivity of a landscape or visual receptor and the magnitude of a landscape or visual effect are combined to draw conclusions about significance. Note that for both landscape and visual receptors, '*there are no hard and fast rules about what makes a significant effect, and there cannot be a standard approach since circumstances vary with the local and landscape context and with the type of proposal*' (LI and IEMA, 2013[i], paragraphs 5.56 and 6.44).

Landscape Effects

'*Significance can only be defined in relation to each development and its specific location. It is for each assessment to determine how the judgements about the landscape receptors and landscape effects should be combined to arrive at significance and to explain how the conclusions have been derived*' (LI and IEMA, 2013; paragraph 5.54). In broad terms, the significance for landscape effects can be illustrated by the extremes illustrated in the following table.

Table A1.6: Significance of Landscape Effects

More likely to be significant	Major loss or irreversible negative effects, over an extensive area, on elements and/or aesthetic and perceptual aspects that are key to the character of nationally valued landscapes.
Less likely to be significant	Reversible negative effects of short duration, over a restricted area on elements and/or aesthetic and perceptual aspects that contribute to but are not key characteristics of landscapes of community value.

Visual Effects

'*Significance of visual effects is not absolute and can only be defined in relation to each development and its specific location. It is for each assessment to determine the approach…*' (LI and IEMA, 2013; paragraph 6.42). In broad terms, the significance of visual effects can be illustrated by the extremes in the following

table.

Table A1.7: Significance of Visual Effects

More likely to be significant	Effects on people who are particularly sensitive to changes in views and visual amenity.
	Effects on people at recognised and important viewpoints or from recognised scenic routes.
	Large-scale changes which introduce new, uncharacteristic or discordant or intrusive elements.
Less likely to be significant	Effects on people who are less sensitive to changes in views and visual amenity.
	Effects on people at local incidental viewpoints, or from local routes, the primary purpose of which is to connect two places.
	Small-scale changes which introduce forms which are already present and characteristic, or unobtrusive elements.

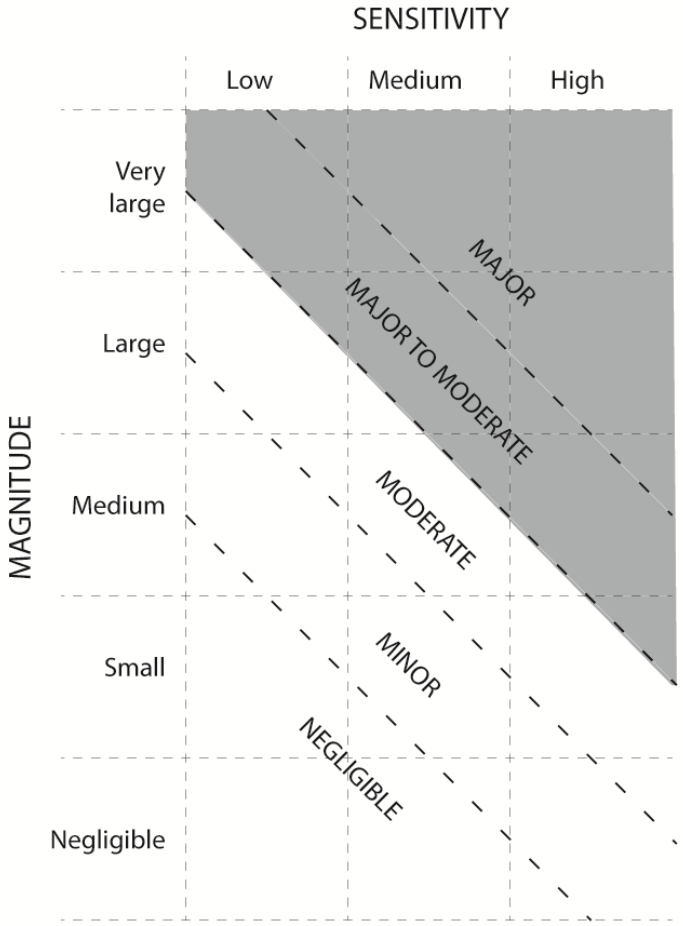
Table A1.8 illustrates how sensitivity and magnitude may combine to determine significance. Judgements are made on a case-by-case basis.

Effects of **moderate/major** or **major** significance (shaded grey in **Table A1.8**) are 'significant' in that they are the principal landscape or visual effects of the Project. The identification of 'significant' effects equally does not necessarily mean that effects would be unacceptable. Effects considered to be 'not significant' are not completely disregarded in the assessment (LI and IEMA, 2013; paragraph 3.34) but are lesser effects which are considered, with professional judgement, to be less important in decisions regarding the landscape and visual effects of the Project.

The significance classifications in **Table A1.8** run diagonally. This reflects that professional judgement is used in determining how sensitivity and magnitude combine to give significance. For example, for a medium sensitivity receptor, an effect of medium magnitude will often but not always give rise to a moderate significance effect; the effect could be judged to be major-to-moderate or moderate-to-minor in some circumstances. The reasoning behind judgements made in the assessment are explained in the assessment text.

Conclusions regarding significance are also expressed in terms of whether effects are adverse, beneficial or neutral as is described under the subheading 'Adverse, Beneficial and Neutral Effects', **Section A1.2** above.

Table A1.8: Significance (Landscape Visual Limited)



A1.4 Residential Amenity

The emphasis of the visual assessment is on publicly available views. Paragraph 6.17 of LI and IEMA (2013) notes that, '*in some instances it may [also] be appropriate to consider private viewpoints, mainly from residential properties…. Effects of development in private property are frequently dealt with mainly through 'residential amenity assessments*". Residential amenity assessments are separate from LVIAs and are normally only provided if it is considered likely at the scoping stage that effects on visual aspects of residential amenity are likely to give rise to significant effects. The assessment has not identified this as a concern for this development; no further consideration is given to effects on residential amenity in the LVIA. The assessment considers the changes in views which could arise for groups of properties near the Site based on fieldwork on the Site and in publicly accessible areas.

A1.5 Zone of Theoretical Visibility Analysis

The ZTV of 40 reference points at the maximum heights of the proposed battery units within the Proposed Development is shown on **Figures 4a** to **4c**. The maximum height used allowed for a 'worst case' landform remodelling. Viewer height was assumed to be 1.75 m.

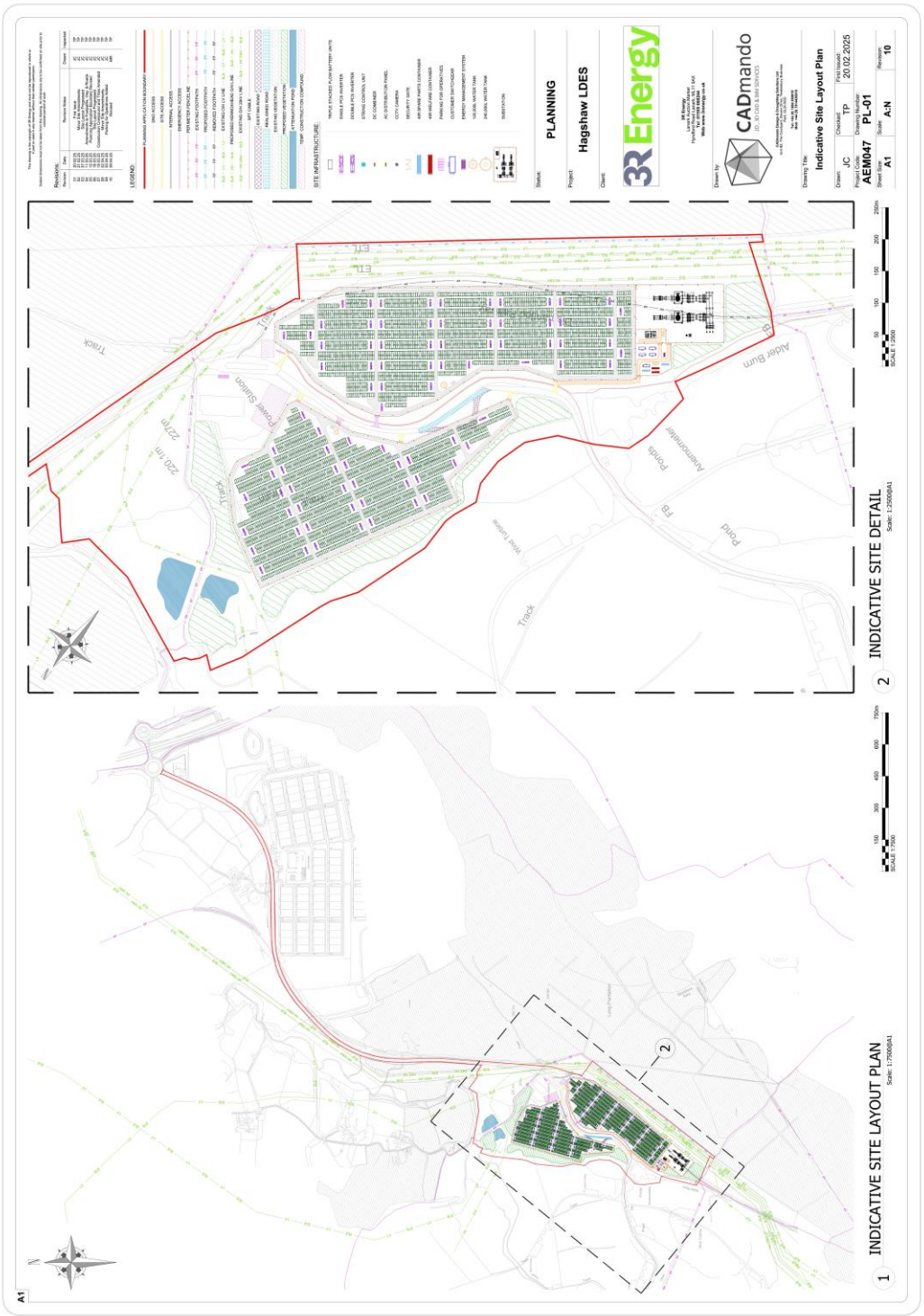
The bareground ZTV (**Figure 4a**) is based on OS Terrain 5 data. The screened ZTVs (**Figures 4b** and **4c**) are based on OS Terrain 5, with principal blocks of woodland shown in the National Forestry Inventory modelled at 15 m.

ZTVs were prepared using the Grass version 7.4.1 *r.viewshed* script (Toma, Zhuang, Richard and Metz, 2017).

The ZTVs should be interpreted with reference to the notes on the ZTV plans.

Appendix 2: Proposed Development

Site Layout (April 2025)



Appendix 3: Douglas Valley Special Landscape Area

4 Douglas Valley

Name and Location

Douglas Valley

Located centrally within South Lanarkshire along the Douglas Water, either side of the M74 corridor and centred on the village of Douglas.

Landscape Character Types

5 Plateau Farmland
7 Rolling Moorlands
8 Upland River Valley
8A Upland River Valley Opencast Mining
9 Broad Valley Upland
10 Foothills

Overview

The Douglas Valley is a sheltered valley containing a well preserved designed landscape with significant mature woodland planting. It is centred around the historic village of Douglas and provides an accessible, contained and tranquil landscape in contrast to the open and expansive rolling moorland to both the south and north of the valley. It has an existing Area of Great Landscape Value designation.

Landscape Description

To the east of its confluence with the Glespin Burn the character of the Douglas Water valley changes: it widens a little and the Douglas Water swings in a series of attractive meanders across a fertile, narrow floodplain. The valley slopes comprise a mixture of improved, gently rolling pasture and woodland, predominantly coniferous. A considerable amount of woodland is associated with the designed landscape to the east of Douglas. Much of this is beech, oak, Scots pine and larch. Elsewhere within the valley there are shelter belts and small groups of field boundary trees or individual specimens, many of which have considerable presence within the landscape. These serve to mark a strong contrast with the surrounding, relatively bleak and open moorland to the south, north and upstream of Glespin.

The valley's historic role as a communication corridor is reflected in the presence of castles and motes. Much of the history of the valley bound with the history of the Douglas family who have been associated with the area for circa. 1000 years. The designed landscape to the east of Douglas includes three lochs adjacent to the river, the remains of Douglas Castle, referred to as "Castle Dangerous" after being utilised as a setting for a Walter Scott novel, and well preserved stone boundary walling and other associated masonry work such as bridges associated with the estate. The village itself contains monuments to the Covenanter James Gavin and the Cameronians regiment, raised by James Douglas, Earl of Angus in 1689 and disbanded in 1968. A memorial garden near the village celebrates the wartime presence of Polish soldiers in the viallage.

There have been works in recent years to improve and create accessible footpaths within this area, with associated environmental and habitat improvements. This has included access into the designed landscape and as a result there are a number of recreational opportunities linking directly to Douglas.

The Douglas Valley contains a rich coal seam and formerly contained coal mines. In relatively recent years there have been considerable open cast workings. There is presently a large working to the immediate south of Glespin (excluded from the proposed western boundary of the SLA) and a new site to the east of Douglas at Mainshill Wood has begun working. Additionally to the north and west of Douglas the presence of the windfarm on Hagshaw Hill influences the landscape.

Choice of Boundary

The boundary considers the visual envelope and setting of the valley. To the southwest, it reflects the change in character as the Douglas Water follows a more meandering route, downstream from the confluence of the Glespin Burn. It also includes Hagshaw Hill which encloses the valley in views to the west and north. The boundary follows watercourses and boundaries to the Douglas Water just east of Glespin.

To the south the boundary follows the minor road to the west of Glespin Burn, then the watercourse itself to the forestry boundary, to head northeast and follow the crest of the watershed in Rolling Moorland, including Auchensauth Hill, Pagie Hill and Park Hill, crossing the M74 to Limmer Hill and Robert Law.

The eastern boundary descends the hill to take in shelterbelts around Newtonhead, crossing the A70 and Douglas Water at Easter Tofts, missing out mine tips but including the woodland adjacent to the B7078 and Happendon Wood.

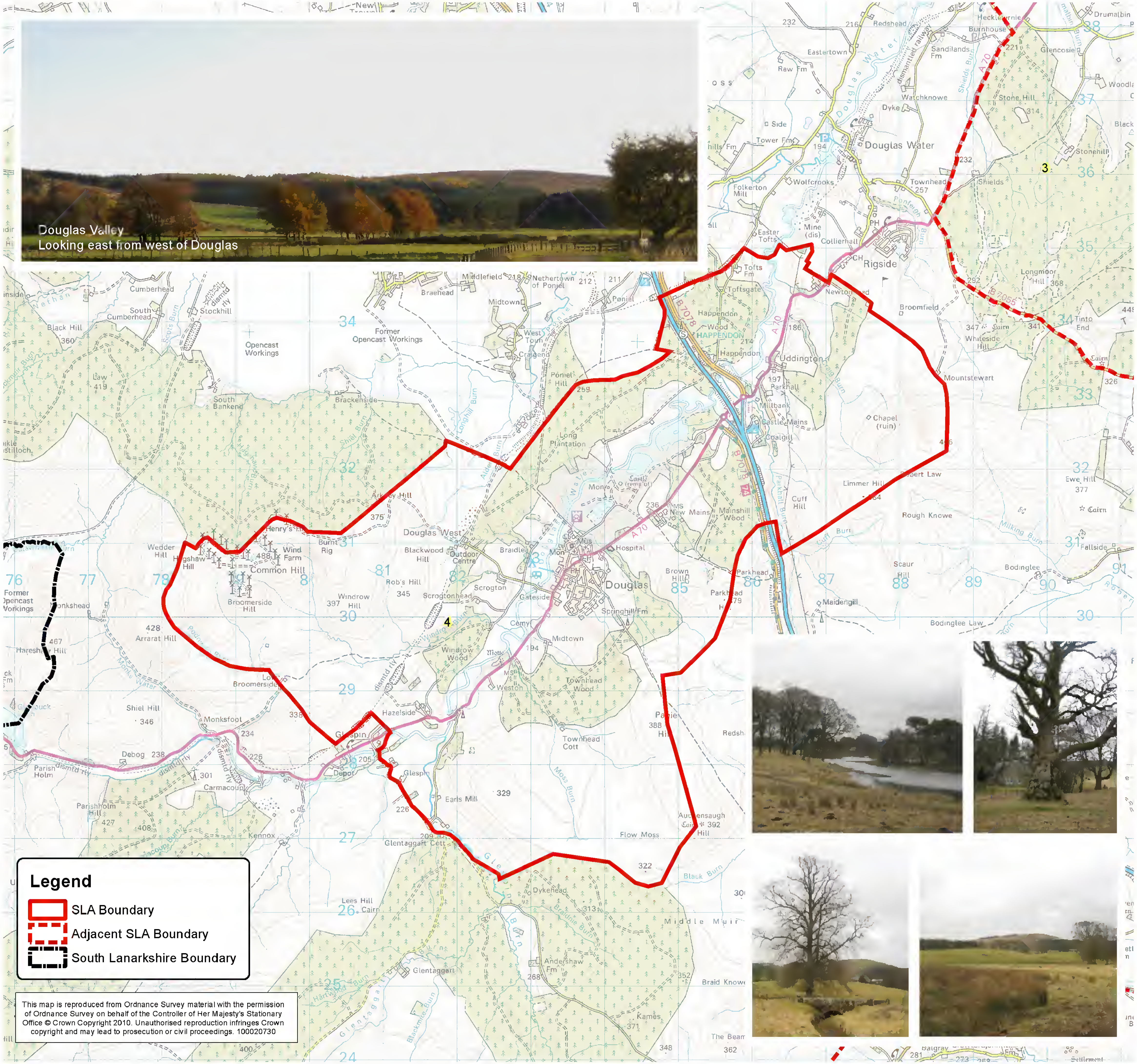
The northwestern boundary crosses the M74 south of Happendon junction, following the hill crest and forestry boundary of Curly Brae towards Douglas West. It then rises to meet the hill crest and forestry on Hagshaw Hill to join the western boundary at Wedder Hill.

Conservation and Opportunity for Change

The following landscape conservation issues and positive opportunities for change have been identified:

- Continue to develop footpath and recreational opportunities.
- Encourage replanting of shelterbelts, field boundaries and hedges.

- Protect and enhance historic landscapes and monuments, encouraging low-key sustainable tourism.
- Support semi-natural regeneration of existing woodland through careful management.
- Consider potential for improvements to landscape and habitat value that may occur, such as new woodland, through landscape restoration of open-cast sites including the newly opened Mainshill to the east of Douglas.



Douglas Valley
Looking east from west of Douglas

South Lanarkshire

Validating Local Landscape Designations

The Douglas Valley is a sheltered valley containing a well preserved designed landscape with significant mature woodland planting. It is centred around the historic village of Douglas and provides an accessible, contained and tranquil landscape in contrast to the open and expansive rolling moorland to both the south and north of the valley. It has an existing Area of Great Landscape Value designation.

The proposed SLA is a relatively compact area focused around the sheltered upland river valley of the Douglas Water and Douglas village, enclosed by rolling moorland hills. Whilst containing many features typical of the hills and valleys of South Lanarkshire, the combination of features and overall scenic quality and condition of the landscape distinguishes this area from other similar settings and from areas disturbed by opencast mining further upstream or downstream. The expanded Hagshaw Hill windfarm and opencast mining have and will continue to affect the landscape. However, it is considered that these developments are relatively limited or transient features that will not affect the key landscape characteristics sufficiently to be excluded from the designated area.

The significance of the Douglas Valley relates to a combination of scenic and cultural features:

- scenic compositional qualities of a meandering upland river passing through a sheltered, mature pastoral landscape enclosed by moorland hills;
- cultural features include the designed landscape of Douglas Castle and the historic village of Douglas together and their historic associations with the Douglas family, the Cameronians regiment and literary associations with Sir Walter Scott;
- a network of mature policy woodlands and shelterbelts and a high quality water environment;
- frequently visited, as the M74 passes through the eastern end of the designated area and intersects with the main east-west route of the A70 which passes along the valley. The village and castle are visitor destinations with well maintained footpaths through the designed landscape.

The Douglas Valley has long been recognised as an AGLV. The area merits continued designation as a Special Landscape Area.

The boundary of the proposed area is defined by the combination of hills and valley providing the broader setting or 'visual envelope' focused on Douglas. To this end it follows the moorland watersheds to the northwest and south east and the boundaries of relatively undisturbed fields and woodlands to the southwest and northeast. The boundaries are slightly changed from the original AGLV to be better defined by landscape features.

Designation recognises the scenic and historic qualities of the Douglas Valley and its setting. A coherent set of landscape management and promotion policies can be based around this combination of features.

Figure 6iv
Special Landscape Area 4
Douglas Valley

N

Scale 1:50k 0 0.5 1 2 km

Ironside Farrar NOVEMBER 2010

Appendix 4A: LCT213: Plateau Moorlands – Glasgow & Clyde Valley

Scottish Natural Heritage
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SNH National Landscape Character Assessment

Landscape Character Type 213

PLATEAU MOORLANDS – GLASGOW & CLYDE VALLEY

Location and Context

The *Plateau Moorlands - Glasgow & the Clyde Valley* Landscape Character Type occurs in extensive areas in two parts of Glasgow and the Clyde Valley – the western part of South Lanarkshire on the Ayrshire Rim, where it extends into East Ayrshire, and the Central Plateau on the eastern boundary of North and South Lanarkshire. There are other areas of Plateau Moorland with Wind Farms in the Glasgow and Clyde Valley area at Whitelee which are a separate Landscape Character Type.

Key Characteristics

- Large scale landform
- Undulating hills and sloping ridges in the western areas; a more even plateau landform in the east.
- Distinctive upland character created by the combination of elevation, exposure, smooth plateau landform, moorland vegetation.
- Predominant lack of modern development.
- Extensive wind turbine development, including one of the largest wind farms in Scotland, Black Law.
- Sense of apparent naturalness and remoteness which contrasts with the farmed and settled lowlands, although this has been reduced in places by wind energy development.

Landscape Character Description

Landform

Both the areas of the *Plateau Moorlands – Glasgow & Clyde Valley* grow in scale as they approach the Southern Uplands. The moors along the Ayrshire Rim, for example, rise from about 300 metres at Kype Muir in the north, to over 450 metres in the south. This area of Plateau Moorland is characterised by individually defined hills, frequently dissected by drainage lines rather than forming a continuous flat plateau. The hills are neatly rounded or

have gently sloping ridges – often named 'rigs' – extending from them. The moors along the Central Plateau rise from about 250 metres in the north to about 350 metres in the south. Here, the topography is rather less varied and it forms a more level plateau.

This Landscape Character Type is distinguished geologically. The Ayrshire Rim is underlain by resistant basalts and tuffs. Rivers draining these hills tend to follow fault lines and many have been glacially enlarged to form important lowland corridors through the moorlands. These valleys are described separately as *Upland River Valley – Glasgow & Clyde Valley*.

The Central Plateau is underlain by coal measures, though a number of significant igneous intrusions and dykes (to the east of Airdrie for example) are present. The area is less faulted than the Ayrshire Rim, and river valleys, such as that of the North Calder and Luggie Water are much less significant features. Both areas have a number of waterbodies, many of them enlarged to provide water supplies for the Glasgow conurbation.

Landcover

The Plateau Moorlands consist of blanket bog, heather and grass moorland. The large-scale topography is comparatively level and regular, with extensive shallow basins rising to soft contoured ridges. Farmland, often with wind bent trees and thorn hedges, extends onto the lower slopes, particularly on the Central Plateau where altitude and exposure is less extreme. The landscape is of an open, exposed and rather remote character despite occasional isolated hill farms, and sheep and cattle grazing. Mosses, comprising areas of extensive peatland, form an important ecological and landscape component of the plateau moorlands.

Both areas of plateau moorland have had extensive conifer plantations, although areas of these have been felled to accommodate wind farm development. Examples along the Ayrshire Rim include the plantations which cover Black Loch Moss, Nutberry Hill and the slopes of Cairn Table to the south. Examples on the Central Plateau include Kingshill Plantation above Carluke and Worm Law to the east. The afforestation has significantly modified the original character in terms of colour, textures and the length of views possible. However, there is a general lack of elevation which means that the forests create dark horizons, rather than being visible in their full extent. New plantations appear as dark speckled landscapes from a distance. The open ground and surrounding moorland contrasts with this, with its mosaics of brown and ochre colours.

Settlement

Settlement within these exposed landscapes has been historically sparse, although several cairns exist on higher ground. Along the Ayrshire Rim, farmsteads, villages and towns usually favoured more sheltered valley locations. Although the same is generally true of the central plateau, the lower altitude, together with a series of important transport corridors linking Glasgow and Edinburgh, means that settlement is more extensive. The moorlands provide long views across the Glasgow conurbation, emphasising the contrast between the more remote upland and the developed lowlands. Many of the villages in the area have grown incrementally over time.

Modern development in these areas takes a number of forms and can be very prominent in

this otherwise open, expansive and simple landscape. Tall structures are often visible over a considerable distance. There has been significant wind energy development on the Plateau Moorlands, taking advantage of their upland exposure, yet relative proximity to large centres of population. South of the Avon Valley is Bankend Rig wind farm, and Hagshaw Hill and Nutberry developments are located to the north of the Douglas Valley. On the Central Plateau Black Law wind farm also forms a distinctive point feature. Examples of other tall structures include the dense cluster of communication masts and electricity pylons on the moorland ridge above Paisley, the communications mast on Ballageich Hill south of Newton Mearns, and the masts on either side of the M8 motorway near Harthill.

The presence of coal reserves and, to a lesser extent, hard rock deposits, has had a major effect on the landscape within the Central Plateau area. Coal working has experienced a number of clear phases of development. Historically it would have been worked on a small scale with surface pits, drift mines and shallow pits. Up until recent decades deep mining also took place, though this has been replaced by open-cast working, often on a very large scale. Extensive commercial peat extraction has also been carried out. Cumulatively, these activities have had a major influence on the landscape in the form of bings and tips, areas of derelict land, operating open-cast workings (such as those to the south of Shotts) and associated Industrial infrastructure including disused railway embankments. Hard rock quarries are also visible features in some areas. Several former extraction sites are now used for the landfilling of waste in North Lanarkshire.

Perception

The landscape has an exposed and relatively remote character where wind turbines are not present, although enclosure within the forests can be well defined. Wind farms have reduced the perception of undeveloped character, although this is still associated with higher, exposed areas of remoter moorland. However, there have been signs of human activity in most areas of this Landscape Character Type now. Wildness levels on the western plateau are slightly higher than those in the Central Plateau.

Where forestry permits, views tend to be relatively open across the surrounding valleys and adjacent hill groups. There are a number of man-made features visible, particularly road corridors and electrical infrastructure, though few visual foci are present.

This is one of 390 Landscape Character Types identified at a scale of 1:50 000 as part of a national programme of Landscape Character Assessment republished in 2019.

The area covered by this Landscape Character Type was originally included in the Glasgow and Clyde Valley LCA (Land Use Consultants), published 1999.

Appendix 4B: LCT207: Upland River Valey – Glasgow & Clyde Valley

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SNH National Landscape Character Assessment

Landscape Character Type 207

UPLAND RIVER VALLEY – GLASGOW & CLYDE VALLEY

Location and Context

The *Upland River Valley – Glasgow & Clyde Valley* Landscape Character Type is found where found where tributaries of the Clyde have cut shallow valleys into the plateau moorland and farmland between the Clyde Basin and the Ayrshire Basin. This Landscape Character Type is found at Neilston, Avon Water, Douglas Water, Duneaton Water and Inverkip, occurring in South Lanarkshire, East Renfrewshire and Inverclyde local authority areas.

Key Characteristics

- A series of valleys formed along faultlines through the Plateau Moorlands and paired with valleys to the south and west in Ayrshire.
- South-west to north-east orientation of the valleys.
- Strong contrast between the wooded and settled character of the valleys and the exposed enclosing uplands.
- Transition from the exposed upper reaches to more sheltered lowland areas.

Landscape Character Description

Landform

While the *Upland River Valley – Glasgow & Clyde Valley* landscapes do not form breach valleys through the upland mass, they tend to follow fault lines generally with a south-west north-east trend, and are often mirrored by similar valleys to the west of the *Plateau Moorlands – Glasgow & Clyde Valley* watershed. To the north, the valleys cut through basalts and millstone grits. Further south, they cut through the complex mixture of sandstones, limestones, millstone grits and coal measures which lie along to the north of the Southern Upland Fault. The Duneaton Water marks the transition from Central Valley to the

Southern Uplands.

Although each of these valleys has its own distinctive character, they share a number of common features, largely as a result of their small scale, orientation, contained nature and relationship with neighbouring areas of moorland.

Landcover
There has been loss and decline of mature farm and policy woodlands which help to integrate valley floor and side slopes and which provide contrast with the moorland hills which are often visible on higher ground to the north and south. The characteristic pattern is that of lines of field boundary trees (often beech), together with small to medium scale woodland belts (often coniferous) which extend up the slopes often following drainage channels, hugging gullies and framing terraces. The woodlands are predominantly broadleaf, although small conifer plantations (usually distinctive pine belts), occupy sites on the valley slopes. In the lower parts of some of these valleys, conifer woodlands form policies as part of designed landscapes. The upper parts of these valleys have been forested in some areas. Generally, the large scale of these semi-upland landscapes, and the visual links with moorland plantations means that the effect of these woodlands is relatively limited.

This landscape is predominantly agricultural, encapsulating a transition from arable cultivation on some lower parts of the valley floor to grazing of diminishing quality on the valley sides. The resulting combination of colours and textures, together with the pattern of woodland and tree cover, make an important contribution to landscape character.

Settlement
Settlement within the valleys is comparatively limited and influence of the conurbation decreases as one moves south. The valleys provide important transport corridors through the moorland hills. Although several modem road links (or sections thereof) pass over the moorland itself rather than following these valleys, their importance remains, e.g. for the A70 which follows the Douglas Water, the A71 along the Avon Water and the A726 following the Levern Water. There are extensive mineral workings through the Douglas Valley, including the now spent open cast coal sites, some of which are still to be restored.

Although there are no operational wind farms in this Landscape Character Type, several wind turbine developments appear on skylines in views from within these valleys.

Perception
The influence of settlement decreases through the valleys moving north to south, away from denser areas of population. Some parts of the upper reaches are undeveloped, perceived as having wild character.

Variation
The valley **by Neilston**, actually incorporating parts of the Lugton Water, Cowden Bum and Levern Water (as distinct from the River Leven which drains into the Clyde from Loch Lomond), comprises a narrow south west to north east oriented valley. Its northern edge is defined by the steep slopes along the Lochliboside Hills and Fereneze Hills. The southern edge of the valley is less well defined, comprising a series of low craggy hills. There is little

or no floodplain, and the river drops about 100 metres in 10 kilometres. Loch Libo is found at the head of the valley. Although of modest size, the valley provided an important communication route, at one time accommodating two railway lines and two roads. Agriculture remains the dominant land use within the valley, with improved grassland covering the valley sides. Woodland is limited in extent, comprising areas of broadleaves and a number of shelterbelts. Settlement within the valley comprises a scatter of farmsteads and the later industrial and residential settlements of Neilston and Barrhead. Nineteenth century industry included water powered mills. Today, a series of high voltage transmission cables cross the valley on pylon, radiating from the electricity distribution station to the north-west.

The valley of the **Avon Water**, to the south west of Strathaven, forms the broadest and shallowest of these valleys. However, rising land to the south (e.g. at Side Hill) and north (e.g. Mossmulloch) creates a sense of enclosure, and contrasts with the Improved pastures of the valley floor and lower slopes. Loudoun Hill, a volcanic plug, is a prominent feature just beyond the boundary into Ayrshire. The Avon Water (and its principal tributary the Glengavel Water) meanders across a broad, level floodplain in its upper reaches, entering a narrower valley downstream near the town of Strathaven.

Agriculture is dominated by pastoral farming, and the area has a quite dense scatter of farmsteads. In contrast with the afforested moorland to the north and south, there is little woodland in this open valley. The exception is a series of shelterbelts which run at right angles to the river, and lines of beech trees along some field boundaries. However, the spread of forestry from neighbouring upland areas into the upper reaches of the Avon Valley is resulting in some loss of local character. Wind farm development to the northwest and south of the valley provides a prominent skyline feature influencing the landscape character. Like other valleys, the valley of the Avon Water has provided an important communication route between the lowlands. A Roman road is known to have passed along the southern side of the valley, while a disused railway line and the existing A71 point to its more recent role. The upper part of the valley contains significant deposits of glacial sand and gravel. Many of these have been eroded by water courses to create steep 'inner' valleys. Several areas have been worked in the past or are currently subject to mineral extraction.

The valley of the **Douglas Water**, west of Douglas, is more tightly enclosed between the steeply rising slopes leading to high ground to the north and south. The river once flowed into the Tweed but was captured by the more aggressive Clyde. Below Douglas, the river valley broadens, but remains predominantly upland in character until its confluence with the River Clyde to the south of Lanark. In its upper section, the valley is narrow, almost V-shaped with little or no floodplain. The valley slopes comprise rough moorland. Below its confluence with the Glespin Burn the valley widens a little and the Douglas Water swings in a series of meanders across a narrow floodplain. The valley slopes comprise a mixture of improved pasture and coniferous woodland. A considerable amount of woodland is associated with the designed landscape to the east of Douglas. Much of this is beech, Scots pine and larch. The valley's historic role as a communication corridor is reflected in the presence of castles and mottes. A dismantled railway runs along the north side of the valley, running alongside the existing A70 where it passes through the narrow, twisting part of the valley approaching the Ayrshire border. There are extensive areas of former opencast coal

working on the Plateau Moorland around Douglas and Glespin, within the valley to the east of the M74. More evident are the wind farm cluster on the hills to the west of and the motorway where it crosses the valley.

The valley of the **Duneaton Water**, west of Crawfordjohn, lies close to the boundary of the Southern Uplands. The valley is sinuous in form, swinging in a series of broad curves. Like the Douglas, this river once formed one of the headwaters of the Tweed, but has since been 'captured' by the Clyde. In its upper sections, the valley flows through unsettled moorland, draining an extensive area of upland plateau. Lower and more sheltered areas in its middle section accommodate areas of pasture, enclosed by a series of shelterbelts around the village of Crawfordjohn. Down river from Crawfordjohn, Black Hill fort and Craighead prehistoric settlements occupy elevated positions on the southern slope of Black Hill, north of Duneaton Water. Like the other Upland River Valleys, the valley of the Duneaton accommodates a communication route, in this case the B740 between Sanquhar and the M74 corridor. More minor roads and tracks feed off into side valleys, several leading to the mineral working area of Leadhills and Wanlockhead to the south. Wind farm developments have been constructed to the northwest of Crawfordjohn.

The valley extending from **Greenock towards Inverkip** forms a narrow corridor of lowland enclosed within the rugged moorland hills of Inverclyde. Although the steeper slopes, and more exposed upper slopes remain as open moorland, settlement has had a major influence on the landscape character of the valley. In particular, Greenock has expanded southwards from its coastal centre, occupying the northern part of the floor and valley sides. Modern factories cover much of the valley floor, although some buildings (such as those at the old IBM factory) have been removed, with future development of housing, retail, business, industry and a prison planned. The A78 cuts through the valley, avoiding the more circuitous coastal route via Gourock.

This is one of 390 Landscape Character Types identified at a scale of 1:50 000 as part of a national programme of Landscape Character Assessment republished in 2019.

The area covered by this Landscape Character Type was originally included in the Glasgow and Clyde Valley LCA (Land Use Consultants), published 1999.

Appendix 5: Figures

Figure 1363/1a: Location Plan (OS base 1:40,000)

Figure 1363/1b: Location Plan (OS base 1:20,000)

Figure 1363/1c: Location Plan (OS base 1:10,000)

Figure 1363/1d: Location Plan (Aerial photo base 1:10,000)

Figure 1363/2a: Topography (OS base 1:40,000)

Figure 1363/2b: LCTs (OS base 1:40,000)

Figure 1363/3a: Designated Cultural Heritage (OS base 1:15,000)

Figure 1363/3b: Historic Land Use Assessment (OS base 1:15,000)

Figure 1363/3c: Access (OS base 1:15,000)

Figure 1363/3d: Access (Aerial photo base 1:10,000)

Figure 1363/4a: Bareground Zone of Theoretical Visibility of the Proposed Development to 5 km (OS base 1:40,000)

Figure 1363/4b: Screened Zone of Theoretical Visibility of the Proposed Development to 5 km (OS base 1:40,000)

Figure 1363/4c: Screened Zone of Theoretical Visibility of the Proposed Development to 3 km (OS base 1:20,000)

Figure 1363/5a: Viewpoint locations (OS base 1:25,000)

Figure 1363/5b: Viewpoint locations (OS base 1:12,500)

Figure 1363/5c: Viewpoint locations (Aerial photo base 1:10,000)

Figures 1363/6.1 to 6.11: Representative viewpoints – existing views (A1)

Figure 1363/7: Landscape Proposals

Figure 1363/8: LVIA Cumulative Assessment Schemes

Appendix 6: Abbreviations

ACP	Aspirational Core Path
AGL	Above Ground Level
AOD	Above Ordnance Datum
BESS	Battery Energy Storage System
CAS	Cumulative Assessment Scheme
CCTV	Closed Circuit Television
CP	Core Path
DNO	Distribution Network Operator
ECU	(Scottish Government) Energy Consents Unit
EIA	Environmental Impact Assessment
ELC	European Landscape Convention
FLS	Forestry and Land Scotland
GDL	Garden and Designed Landscape
GIS	Geographical Information System
GLVIA3	The Guidelines for Landscape and Visual Impact Assessment, Third Edition[i]
HEC	Hagshaw Energy Cluster
IEMA	Institute of Environmental Management and Assessment
LB	Listed Building
LCT	Landscape Character Type
LDES	Long Duration Electricity Storage
LDP	Local Development Plan
LI	Landscape Institute
LiDAR	Light detection and ranging (a survey method)
NCR	National Cycle Route
NPF	National Planning Framework
LVIA	Landscape and Visual Impact Assessment
OS	Ordnance Survey
PROW	Public Right of Way
PV	Photovoltaic

SM	Scheduled Monument
SNH	Scottish Natural Heritage (now NatureScot)
SLC	South Lanarkshire Council
SOAC	Scottish Outdoor Access Code
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
TGN	Technical Guidance Note
TPO	Tree Preservation Order
WNP	Wider Network Path
ZTV	Zone of Theoretical Visibility

Appendix 7: References

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