Chapter 6 Landscape and Visual Impact Assessment

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List of Abbreviations

Abbreviation	Definition
AOD	Above Ordnance Datum
CLVIA	Cumulative Landscape and Visual Impact Assessment
DS	Design Statement
EIA	Environmental Impact Assessment
GDLs	Gardens and Design Landscapes
GLVIA3	3rd Edition of Guidelines for Landscape and Visual Impact Assessment
HGV	Heavy Goods Vehicle
Km	Kilometre
LCCS	Landscape Capacity and Cumulative Impact study
LCT	Landscape Character Type
LDP	Local Development Plan
LVIA	Landscape and Visual Impact Assessment
m	metre
NPF4	National Planning Framework 4
NSA	National Scenic Area
PV	Photovoltaics
RVAA	Residential and Visual Amenity Assessment
SBC	Scottish Borders Council
SBLDP	Scottish Borders Local Development Plan
SG	Supplementary Guidance
SLA	Special Landscape Area
T1, T2, …	Turbine 1, turbine 2 (and subsequent numbering)
VP	Viewpoint
ZTV	Zone of Theoretical Visibility

Glossary

Abbreviation	Definition
The Applicant	Fred. Olsen Renewables Limited
Cumulative effects	The additional changes caused by a proposed development in conjunction with other similar developments or as the combined effect of a set of developments, taken together
Cumulative visual effects	Effects that can be caused by combined visibility, which occurs where the observer is able to see two or more developments from one viewpoint and/or sequential effects which occur when the observer has to move to another viewpoint to see different developments
Direct effects	Effects directly attributable to the Proposed Development.
EIA Regulations	The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.
Environmental Impact Assessment	Environmental Impact Assessment (EIA) is a means of drawing together by the developer, in a systematic way, a description of the development and information relating to of the likely significant environmental effects arising from a proposed development.
Environmental Impact Assessment Report	A document reporting the findings of the EIA and produced in accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
Indirect effects	Effects resulting indirectly from the Proposed Development as a consequence of the direct effects. Indirect effects often occur away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects.
Natural Power	The lead consultant EIA co-ordinator is: Natural Power Consultants Limited
Proposed Development	The proposed Lees Hill Renewable Energy Park as described om Chapter 4 of this EIAR
Proposed Development Site	The project development area within the site boundary as shown in Figure 1.2.
Landscape character	The distinct and recognisable pattern of elements that occur consistently in a particular type of landscape that makes one landscape different from another, rather than better or worse.
Landscape receptors	Aspects of the landscape resource that have the potential to be affected by the Proposed Development.
Landscape value	The relative value or importance attached to different landscapes by society. A landscape may be valued by different stakeholders for a variety of reasons (often as a basis for designation or recognition), because of its quality, special features (including perceptual aspects such as scenic beauty), tranquillity or wildness, cultural associations, or other conservation issues.
Magnitude (of change)	The combination of judgements about the size and scale of the predicted effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.

Residual effects	Effects attributable to the Proposed Development following assessment of any proposed design mitigation/ enhancements.
Residential Visual Amenity Threshold	Where visual effects would result in serious harm to living conditions or residential amenity
Photomontage	A visualisation which superimposes an image of a proposed development upon a photograph or series of photographs.
Scenarios	Combinations of wind farm developments at different stages in the planning system, used in the cumulative assessment
Sensitivity	The specific receptors' (landscape or visual) vulnerability to change. Sensitivity is assessed by combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor. Viewpoint sensitivity depends on: the context of the viewpoint; its importance; the current occupation and viewing opportunity of the groups of people being considered; and the number of people affected.
Significance of effect	A measure of the importance or gravity of the environmental effect as defined by significance criteria specific to the environmental topic
Visual amenity	The overall pleasantness of views enjoyed by people of their surroundings or to the visual setting or backdrop to the activities they enjoy whilst: living; working; recreating; visiting or travelling through an area.
Visual receptors	Individuals and/ or groups of people who have the potential to be affected by the Proposed Development.
Wireline	A 2D visualisation which lays a grid over the 3D terrain model to illustrate landform.
Zone of Theoretical Visibility (ZTV)	A map, usually digitally produced, showing areas of land within which a development is theoretically visible

6. Landscape and Visual Impact Assessment

6.1. Introduction

6.1.1. This chapter of the Environmental Impact Assessment Report (EIA Report) identifies and assesses the potential effects that the proposed Lees Hill Renewable Energy Park (hereafter referred to as the 'Proposed Development') will have on the landscape, views and visual amenity of the local environment.

6.1.2. Landscape and visual assessments are separate, though related processes. Effects on the landscape as a resource may be caused by changes to the constituent elements of the landscape, its aesthetic or perceptual qualities and character. Visual effects as experienced by people may be caused by changes in the appearance of the landscape (views) resulting from the Proposed Development.

6.1.3. This chapter sets out the baseline for the Landscape and Visual Impact Assessment (LVIA), but assesses landscape and visual effects separately, followed by an assessment of cumulative effects. The reporting of assessments focuses on likely significant effects that may arise from the Proposed Development, and those that are informative to the decision maker.

6.1.4. This chapter is supported by the following Technical Appendices (Voume 4):

- TA6.1: Methodology for the Landscape and Visual and Cumulative Assessments;
- TA6.2: Landscape Character Assessment
- TA6.3: Visual Effects Assessment
- TA6.4: Cumulative Assessment
- TA6.5: Implications for Designated Landscapes
- TA6.6: Residential Visual Amenity Assessment
- TA6.7: Visibility of Aviation Warning Lights
- TA6.8: Aviation Lighting Assessment

6.2. Legislation Policy and Guidance

6.2.1. The development plan relevant to this project is the National Planning Framework 4 (NPF4)[1] and the Scottish Borders Council Local Development Plan 2016[2] (SBLDP). Since NPF4 is more recent, coming into effect in February 2023, it takes precedence as a matter of law over LDP polices where there are material conflicts between policies.

6.2.2. Relevant national and regional planning policies are set out below but are discussed in Chapter 5: Planning and Legal Context, Volume 2.

National Legislation and Policy

6.2.3. The NPF4 is the national development plan for Scotland. The overarching themes of NPF4 are climate change and the nature crisis. Key policies that are relevant to landscape and visual matters relating to the Proposed Development are so far as relevant to this chapter listed below.

[1] *Scottish Government National Planning Framework 4 (NPF4). Adopted February 2023.*

[2] *Scottish Borders Council (2016) Local Development Plan.*

Policy 4 – Natural Places

6.2.4. The parts of this policy relevant to the potential landscape and visual effects of the Proposed Development are:

"4c) *Development proposals that will affect a National Park, National Scenic Area, Site of Special Scientific Interest or a National Nature Reserve will only be supported where:*

i. The objectives of designation and overall integrity of the areas will not be compromised; or

ii. Any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance.

4d) *Development proposals that affect a site designated as a local nature conservation site or landscape area in the LDP will only be supported where:*

i. Development will not have significant adverse effect on the integrity of the area or the qualities for which is has been identified; or

ii. Any significant adverse effects on the integrity of the area are clearly outweighed by social, environmental or economic benefit of at least local importance."

Policy 11 – support for all forms of renewable technologies

6.2.5. Policy 11 a) notes that *"development proposals for all forms of renewable, low carbon and zero emissions technologies will be supported"*. Policy 11 e) relates to project design and mitigation which is required to demonstrate how the following impacts are addressed:

i Impacts on communities and individual dwellings (RVAA)

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"*

vii Impacts on historic environment

x Impacts on trees, woods and forests

xi decommissioning proposals including ancillary infrastructure and site restoration

xiii cumulative impacts

Local Policy

6.2.6. The Proposed Development will be located within the Scottish Borders Council (SBC) administrative area and the study area for the LVIA (45 km radius) extends northwards into the administrative area of East Lothian, and southwards into the Northumberland County Council and the Northumberland National Park authority areas.

6.2.7. The relevant local policies for the Proposed Development are within the Scottish Borders Council Local Development Plan 2016. Key policies relating to the Proposed Development are listed below.

LDP Policy ED9: Renewable Energy Development

6.2.8. This policy is generally supportive of renewable energy proposals and refers to the principles set out in the Scottish Planning Policy (2014) which is now replaced by NPF4.

LDP Policy HD3 Protection of Residential Amenity

6.2.9. This policy notes that:

"Development that is judged to have an adverse impact on the amenity of existing or proposed residential areas will not be permitted."

A Residential Visual Amenity Assessment is provided (Technical Appendix 6.6: Residential Visual Amenity Assessment, Volume 4) which addresses potential impacts on residents.

LDP Policy EP4 National Scenic Areas

6.2.10. This policy, relevant to the Eildon Hills NSA (located within 25 km of the Proposed Development Site), notes that: *"Development that may affect National Scenic Areas will only be permitted where:*

a) The objectives of designation and the overall landscape value of the site and its surrounds will not be compromised, or

b) Any significant adverse effects on the qualities for which the site or its surrounds have been designated are clearly outweighed by social or economic benefits of national importance."

LDP Policy EP10 Gardens and Designed Landscapes

6.2.11. This policy, relevant to the Gardens and Design Landscapes (GDLs) located within 25 km of the Proposed Development Site, notes that: *"The Council will support development that safeguards or enhances the Landscape Features. Character or setting of:*

a) sites listed in the Inventory of Gardens and Designed Landscapes, or

b) sites included in historic gardens and designed landscapes records.

LDP Policy EP13 Trees, Woodlands and Hedgerows

6.2.12. This policy, relevant to changes to the landscape fabric of the Proposed Development Site, notes that: *"Any development that may impact on the woodland resource should:*

a) aim to minimise adverse impacts on the biodiversity value of the woodland resource, including its environmental quality, ecological status and visibility; and

b) where there is unavoidable loss of woodland resource, ensure appropriate replacement planting, where possible, within the area of the Scottish Borders; and

c) adhere to any planning agreement sought to enhance the woodland resource.

Scottish Borders Council Supplementary Guidance, Renewable Energy, 2018

6.2.13. This document provides a spatial framework for wind energy development and a Landscape Capacity Study. It is relevant to note that:

- The Proposed Development Site is predominantly within an Area with potential for wind farm development (Figure 6: Spatial Framework);
- Paragraph 1.5 states that *"It is emphasised that this is a strategic level landscape and visual study, providing context for considering the capacity for, and cumulative effects of, existing and potential future wind turbines developments in Scottish Borders. No site specific conclusions should be drawn from it in relation to current, proposed or future wind energy schemes."*

6.3. Method of Assessment

6.3.1. The methodology is set out in Technical Appendix 6.1: Methodology for the Landscape and Visual and Cumulative Assessment, Volume 4. It should be noted that:

- The methodology follows guidance set out in the Guidelines for Landscape and Visual Impact Assessment (Landscape Institute and the Institute of Environmental Assessment, 2013, 3rd edition, known as GLVIA3);
- Mitigation of landscape and visual effects has been undertaken through design modifications and input to the design process. The design evolution is set out in Chapter 3: Site Selection and Design Evolution, Volume 2 and the accompanying Design Statement (DS). As all mitigation is embedded within the final design for the Proposed Development, all effects identified are residual effects;
- Effects considered to be significant for the purposes of the EIA Regulations are those classified as being 'major' or 'moderate'.
- Using a precautionary approach, and although people may consider the appearance of wind farms to be positive for a variety of reasons, all likely landscape and visual effects are identified as adverse.

Scope of the Assessment

6.3.2. As stated in Technical Appendix 6.1: Methodology for the Landscape and Visual and Cumulative Assessment, Volume 4, the LVIA considers effects during construction and operation, on landscape character and views including effects on dusk views of aviation lighting; cumulative effects (additional and combined) with potential future wind farms, and the implications of these landscape and visual effects on designated landscapes.

6.3.3. Technical Appendix 6.1: Methodology for the Landscape and Visual and Cumulative Assessment, Volume 4 also sets out that the assessment considers potential effects across the wider study area, but that reporting is focussed on effects that are significant or pertinent to the meaningful discussion of landscape and visual effects of the Proposed Development.

6.4. Consultation

Table 6.1: Consultation

Consultee / date of response	Request/ Issue Raised	Response / Action Taken
NatureScot **14 Sept 2022** **(Scoping response)**	Requests: • Reference to guidance and provide explanation where deviation from this • Refer to previous Inch Moor scheme (withdrawn) • Include Eildon-Leaderfoot NSA Key Concerns: • L+V of key concern including cumulative and aviation lighting • Effects on Dirrington Laws as landmarks	• Design development and reference to guidance provided in Chapter 3: Site Selection and Design Evolution, Volume 2 and the Design Statement • This scheme, dated 2016, and was considered in a very different planning and policy context to the present time, predating NPF4 and the Climate Emergency. Further discussion is set out in Chapter 5: Planning and Legal Context, Volume 2 • The effects on the NSA considered in TA6.6 Key concerns are noted and are assessed

		in the LVIA
Scottish Borders Council **8 Sept 2022** **(Scoping response)**	• Scheme to be assessed against the current Supplementary Guidance on Renewable Energy (SG) and Landscape Capacity and Cumulative Impact study (LCCS) • Insufficient reference to Inch Moor withdrawn scheme • Confirmed approach to LVIA is generally acceptable. • Wind and solar elements should be considered both separately and in conjunction • Effects on the Lammermuir Hills SLA should be assessed • Southern Upland Way and several local roads are identified as important receptors. • Aviation lighting should be assessed as a discrete section within the LVIA. 3 dusk montages may not be sufficient, additional montages requested for 15-20km away (e.g. A697, VP8, VP9, VP12 or VP13). Combined effects of lights with Crystal Rig IV to be assessed • GDLs (inventory and non-inventory) should be included in the LVIA • Additional viewpoints requested for 15-20 km range, including on several identified roads (Swinton – Fishwick, north of Kelso, and A6105 Berwick to Duns, A697) • Cumulative effects to be assessed. SBC express concern over relationship with existing Black Hill in terms of separation, layout and scale. Landscape officer notes that scoping stage sites as part of emerging clusters should be included, SBC recommend those within 15-20 km should be included. • RVAA to include settlements and properties within 3 km. welcome use of LI guidance	• The relationship of the Proposed Development to the SG is discussed in the LVIA and Chapter 5: Planning and Legal Context, Volume 2. • As noted above, this scheme had a very different planning and policy context to the present time • Noted • Noted, the LVIA accommodates this approach • Effects on the SLA considered in TA 6.5 • SUW and local roads assessed • Aviation lighting assessed in Technical Appendix 6.8: Aviation Lighting Assessment, Volume 4 and the requirement for sufficient 'night time' views is noted. Cumulative effects with Crystal Rig IV also considered (TA6.8) • GDLs included in the Designations Appendix of the LVIA (TA 6.5) • Additional viewpoints within 15-20 km have been added • SBC concerns are noted and addressed in the LVIA and in accordance with current guidance. • Scoping stage sites are considered in the cumulative assessment • The LI Residential Visual Amenity Assessment Technical Note 2/19 notes that the requirement by local authorities for larger study area (3km-5 km) *"fails to recognise that the RVAA is a stage beyond LVIA"* (para 4.6), and recommends a preliminary study area of approximately 1.5-2km radius (para 4.7). However, the scope of the RVAA is extended to approximately 2.5 km.

Northumberland County Council **8 Sept 2022** **(Scoping response)**	• ZTV provided does not include cumulative sites • Effects on Northumberland to be considered	• The LVIA considers patterns of cumulative development within 45 km and focuses on approximately 15-20 km radius area where effects are most likely to be significant. • Relevant viewpoint within the NCC area (based on the ZTV of the finalised layout) included: VP22 Longridge Towers.
Northumberland National Park **(Scoping response)**	• Cumulative effects to consider Black Hill and proposed Black Rigg • NP 23km away, suggested key receptors on Pennine Way National Trail at White Law and on the Cheviot plateau. However, NNPA recognises that significant effects are unlikely, and is content that a viewpoint within the NP is not required.	• CLVIA will consider all existing and proposed wind farms as set out in the Scoping Report. It is noted that no reference to a Black Rigg wind farm has been found[3]. • Noted
Gavinton, Fogo & Polworth Community Council **(community consultation)**	• 12 potential viewpoints were identified by the community council as possible additional viewpoints	Four viewpoints are incorporated into the representative viewpoint list including: • VP at eastern end of Gavinton, at a location where visibility would be considered to be 'worst-case' (as per guidance) (VP5) • VP at Woodend on A6015 replacing the Choicelee viewpoint (VP6) • A VP from half way along the Marchmont House avenue to provide worst-case visibility and context for Cothill (VP11) Other viewpoints that were not included were: • Alternative views from Gavinton dismissed due to lack of visibility • Bogend can be represented by Marchmont Avenue viewpoint • Ladyflat is a private location not suitable for LVIA, view can be represented by Marchmont Avenue • Alternative views from Polworth dismissed due to lack of visibility • Hardens area – difficult to find a suitable viewpoint that represents the roads and wider receptors - other representative viewpoints illustrate

[3] *Extensive research into cumulative sites did not reveal any information about a Black Rigg Wind Farm, such that this may be an error or typo.*

6.5. Baseline

The Proposed Development Site

6.5.1. The Proposed Development Site is located to the west of Duns, in the Scottish Borders. It lies to the south of the part of the Southern Uplands hill range known as the Lammermuir Hills. The Proposed Development Site includes the south facing slopes of Hardens Hill (351 m AOD) and Hen Law (303 m AOD), Lees Hill (265 m AOD) and part of Camp Moor north of the B6456 (descending to approximately 220 m AOD). The Proposed Development Site includes the Foul Burn and parts of the Blackrig Burn and Wellcleugh Burn valleys. The Proposed Development Site is of open moorland or rough grazing with one field south of Langtonlees cultivated as arable land. There are several coniferous plantations as shelterbelts, and some riparian woodland.

6.5.2. The southern edge of the site is bound by the B6456 and to the north by an unnamed road (referred to as Hardens Hill road) between Longformacus and Duns. Within 10 km there is one existing wind farm, to the north of the Proposed Development on Black Hill (22 turbines of 78 m to tip height).

The Surrounding Study Area

6.5.3. The initial study area of 45 km radius from the outermost turbines in all directions (see Figure 6.1, Volume 3b) extends from Edinburgh to the Cheviot Hills, and Hawick and Innerleithen to the coast (and offshore). This extensive area was reduced to enable a more focussed assessment, to approximately 25 km from the Proposed Development, which extends from Berwick to Melrose and Dunbar. The Study Area includes the coast, lowland, valley and upland landscapes, and visibility of tall features such as turbines is greatly influenced by topography, as illustrated by the Zone of Theoretical Visibility (ZTV) (see Figure 6.1, Volume 3b and subsequent figures).

6.5.4. The location of the Proposed Development Site on upland moor towards the edge of the Lammermuir Hills gives rise to theoretical visibility of the Proposed Development both across the hills and out across the lowlands to the east and south-east where the Merse lowlands extend to the coast. In other directions theoretical visibility is more limited by the hills and high ground extending along the Lammermuir Hill range to the north-east and south-west.

6.5.5. Considering how topography affects the ZTV, it can be seen on Figure 6.1, Volume 3b that the Proposed Development will be visible from extensive areas. However, the lowlands to the south and east of the Proposed Development Site are characterised by frequent hedges, field boundary trees and woodland blocks and shelterbelts. As such, actual visibility will be considerably more limited as vegetation and frequent buildings close to the viewer will often screen distant views. There will be locations with open views, these are represented by the selected viewpoints considered in the LVIA.

Existing Wind Farms

6.5.6. There are existing wind farms across the study area, which are set out in Table 6.2 below and shown on figures including Figure 6.9, Volume 3b. There are no wind farms currently under construction. These wind farms, as existing features, are included in the baseline throughout the LVIA and form the baseline described as the ‘Existing Scenario’.

Table 6.2: Existing Wind Farms

Wind Farm	Number of turbines	Blade tip height (m)	Approximate distance (from nearest turbine)
Aikengall I	16	125	15 km north
Aikengall II	19	145	13 km north
Aikengall IIa	19	145	12 km north
Black Hill	22	78	1.5 km north
Brockholes	3	79	13 km north-east
Crystal Rig I	25	100	14 km north-west
Crystal Rig II	60	115	15 km north-west
Crystal Rig III	6	125	17 km north-west
Drone Hill	22	76	17 km north-east
Dun Law	26	63.5	24 km west
Dun Law Extension	35	75	23 km west
Fallago Rig	48	125	13 km north-west
Hoprigshiels	3	115	15 km north
Howpark	8	100	17 km north-east
Keith Hill	5	76	24 km west
Kinegar	2	110	17 km north
Moorhouse	2	54	18 km north-east
Penmansheil	14	100	16 km north-east
Pogbie	6	77	25 km west
Pogbie Extension	6	77	25 km west
Quixwood	13	100	11 km north-east

Landscape Baseline

6.5.7. The Study Area includes a range of landscapes from the coast, arable lowland; well wooded pasture lands, policy woodlands, to slopes with large coniferous plantations; open hills and plateaux; and narrow valleys and wooded glens.

6.5.8. Landscape character is defined as a distinct, recognisable and consistent pattern of elements in the landscape that makes one tract of land different from another. Landscape character

types (LCTs) refer to distinct tracts of land that are relatively homogenous in character. LCTs are generic in nature and can occur more than once in different parts of the country.

6.5.9. The LCTs across the Study Area are identified in the Scottish Landscape Character data (updated in 2019 by Scottish Natural Heritage (now NatureScot)[4]), as shown on Figure 6.5, Volume 3b. The western half of the Proposed Development Site is located within the 'Upland Fringe Moorland with Hills' (LCT105) and the eastern part falls within the 'Upland Fringe with Prominent Hills' (LCT102). Adjacent LCTs reflect changes in topography, landuse and settlement.

Designated Landscapes

6.5.10. There are no designated landscape areas that cover the Proposed Development Site. The closest designated landscape is the Lammermuir Hills Special Landscape Area (SLA), which is an extensive area and lies 0.5 km away from the Proposed Development Site at its closest point. Locally and nationally designated landscapes in the surrounding area are listed in Table 6.3 below, and shown on Figure 6.6, Volume 3b.

Table 6.3: Designated Landscapes within 20 km of the Proposed Development Site

Designated Landscape Name	Approximate Distance and Direction
Eildon and Leaderfoot National Scenic Area (NSA)	19 km south-west
Lammermuir Hills Special Landscape Area (SLA)	0.5 km west
Tweed Lowland SLA	16 km south-west
Berwickshire Coast SLA	17 km north-east
East Lothian SLAs including:	
Lammermuir Moorlands SLA	10 km north-west
Whiteadder SLA	11 km north-west
Monynut to Blackcastle SLA	12 km north
Danskine to Whitecastle SLA	16 km north-west
Lammer Law Hopes to Yester SLA	17 km north-west
Hails to Bransley Hill SLA	17 km north
Whittingehame to Deuchrie SLA	18 km north-west
Thortonloch to Dunglass Coast SLA	19 km north
Gardens and Designed Landscapes including:	
Duns Castle GDL	3.5km east
Marchmont GDL	3.5km south
Manderston GDL	8 km east
Wedderburn GDL	8 km east
Kimmerghame GDL	8 km east
Mellerstain GDL	13.5 km south-west

[4] *Scottish Natural Heritage (2019) National Landscape Character Areas and Descriptions*

Designated Landscape Name	Approximate Distance and Direction
Newton Don Garden GDL	14 km south
The Hirsel GDL	14 km south-east
Dunglass GDL	16 km north
Hendersyde Park GDL	16 km south
Ladykirk GDL	16.5 km south-east
Thirlestane Castle GDL	17 km west
Floors Castle GDL	17 km south
Carolside & Leadervale GDL	19 km south-west
Yester House GDL	20 km north-west

6.5.11. It is noted that Northumberland National Park lies to the south-east of the study area. Its closest point is 23 km away. At this distance and with limited theoretical visibility, there will be no likelihood of effects on special qualities.

Visual Amenity Baseline

6.5.12. The landscape around the Study Area changes from open sea and coast; to farmland; to moorland plateaux; to hills and valleys. Visibility around the study area is reflective of the topography and woodland cover, with views from many locations limited or framed by adjacent slopes and woodlands, yet views from more open locations and hill tops are panoramic and long-ranging. There are therefore divergent viewing experiences from different parts of the study area.

6.5.13. Further detail regarding the existing views from particular locations is contained in the visual assessment, in Technical Appendix 6.3: Visual Effects Assessment, Volume 4.

6.6. Assessment of Potential Effects

6.6.1. This section of the Chapter provides summary information on the assessment of potential effects of the Proposed Development, the detail of which is contained in the appendices to the chapter (Technical Appendix 6.2-6.8, Volume 4).

6.6.2. The LVIA includes existing wind farms as part of the baseline[5]. This is later referred to as the Existing Scenario in the cumulative assessment, in which increasingly speculative cumulative scenarios (with consented, in-planning and scoping schemes) are considered separately.

The Proposed Development

6.6.3. The Proposed Development is described in full in Chapter 4: Project Description, Volume 2. The elements with the potential to affect the landscape and visual amenity of the study area are:

- Wind turbine generators – six turbines of up to 200m to blade tip with internal transformer housing;
- On-site access tracks and hardstanding areas;
- Photovoltaic panels with associated fencing and transformers;
- Sub-station/ site control building;

[5] *The LVIA would also consider wind farms under construction as part of the baseline, but there are none in the study area at the time of assessment.*

- Aviation lighting, required by law, comprising a 2000 candela steady red light on top of the nacelle of three turbines[6] which will be dimmed to 200cd in conditions of good visibility (over 5 km). The lights will be designed to have a horizontal beam with decreasing intensity/brightness below the horizontal until they are effectively screened at about -4° (see Technical Appendix 6.7: Visibility of Aviation Warning Lights, Volume 4);
- Battery storage units and compound;
- Any retained off-site highway improvements and any new roads for HGV deliveries established during the construction phase of the Proposed Development; and
- Construction activities relating to the construction of the above elements, and decommissioning at the end of the operational phase.

6.6.4. The Proposed Development will have construction, operation and decommissioning phases. The operational life of the Proposed Development will be 35 years, and effects are considered to be long term, and although ultimately reversible, the Proposed Development has been assessed as if it is to be permanent.

6.6.5. The design evolution for the Proposed Development is set out in Chapter 3 Site Selection and Design Evolution, Volume 2. This sets out that early design iterations for the Proposed Development envisaged seven turbines of 200 m to blade tip, including the layout proposed in the Scoping Report. For most viewpoints, the Scoping Layout appeared balanced, with the curved rows perceptible, and no turbines as outliers. Overlapping and uneven spacing in some views was noted. The proximity of the site to the Dirrington Laws, and the relative scale of the proposed turbines compared with existing turbines of Black Law Wind Farm, and to the Dirrington Laws was identified as a key consideration at an early stage. The proximity of the proposed turbines to residential properties was also noted at an early stage, in particular the proximity to Old Langtonlees. An early site visit along the track past Old Langtonlees was undertaken, and it was identified that although there is woodland behind (west of) the property, tree losses during recent storms meant that it is not fully effective as a screen. It was deemed appropriate to remove T7 that was closest to the property, with other turbines set beyond the immediate land form near the property (Lees Hill), and less prominent in potential views. Smaller turbines were considered during a very early feasibility stage, but 200 m was set as a minimum viable specification post scoping. Larger turbines, up to 230 m to blade tip were also considered during design stages, but were considered to increase significant landscape and visual effects, and required separation distances that could not be accommodated given on-site constraints. Further design input sought to maintain a balanced layout for the group as a whole.

6.6.6. Early design iterations for the solar arrays include a large portion of the site. Solar areas were reduced in extent to increase set-back from public roads, and in response to the topography of the interior of the Proposed Development Site.

6.6.7. Overall, the location of the Proposed Development and its setting mean that turbines on the site will be visible from the immediate surroundings and parts of the wider area (see the ZTV), including from the Dirrington Laws, Greenlaw Common, the B6456 to Westruther, and from the Hardens Hill minor road that passes the site with open views down over it. However, through the iterative process of design, the turbine layout has been designed to create a balanced grouping in views from most directions, while avoiding on-site constraints.

[6] *Consultation with the Civil Aviation Authority (CAA) confirmed a reduced lighting scheme whereby only three turbines will be lit (T1, T4 and T5).*

Construction and Decommissioning Effects

6.6.8. During construction, vehicle movements and other activities associated with the construction of access tracks, compounds and substation, import of materials, turbine installation, and reinstatement works at the end of the construction phase will have direct effects on the Proposed Development Site. As set out in Technical Appendix 6.2: Landscape Character Assessment, Volume 4, the effect of construction works on the Proposed Development Site, involving ground disturbances and activity is judged to be **significant (moderate)** for the duration of the construction period.

6.6.9. Effects during decommissioning will be similar to those during the construction phase, but will reduce to **not significant (negligible to none)** upon completion of decommissioning.

Landscape Assessment

6.6.10. The landscape assessment for the Existing Scenario (which includes existing wind farms) is set out in Technical Appendix 6.2: Landscape Character Assessment, Volume 4 and considers the changes to the character of the surrounding area that will result from the Proposed Development during the operational phase.

6.6.11. Key findings of the landscape assessment in Technical Appendix 6.2: Landscape Character Assessment, Volume 4:

- Effects during operation were identified as being significant out to approximately 6 km to the west and will not be as distant in other directions. These include:
  - significant (major) direct and indirect effects on the character of the LCT105 Upland Fringe Moorland with Hills as a whole. This LCT will host part of the Proposed Development and extends approximately 6 km westwards beyond the Dirrington Laws.
  - Direct and indirect significant (major) effect will also occur for LCT102 Upland Fringe with Prominent Hills within approximately 3 km southwards to Greenlaw Moor, and northwards to the Hardens Hill ridge.
  - Indirect significant (moderate) effects will occur for LCT107 Rolling Lowland Margin to the west of Duns, within approximately 5 km of the Proposed Development.
- For other LCTs around the study area, significant effects will not occur, due largely to intervening distance, landforms and vegetation giving the sense of the Proposed development being set away from the immediate landscape. The Proposed Development will be introduced as background features to most LCTs, at a distance and without altering local character.

6.6.12. The landscape assessment in Technical Appendix 6.2: Landscape Character Assessment, Volume 4 sets out that effects on LCT105 Upland Fringe Moorland with Hills relate to the introduction of the Proposed Development partly within that LCT including five of the six proposed turbines, and most of the solar arrays, as well as much of the access infrastructure, such that there will be both direct and indirect effects. The LCT is a relatively small area (10 km across north to south), and is a gently sloping moorland platform, interrupted by the Dirrington Laws as domed hills to the north of the B6456 and the Kaims eskers as low meandering ridges to the south of the road. This unit is the single occurrence of the LCT within the Scottish Borders. The sensitivity is judged to be high. The Proposed Development will be visible from most of the LCT as tall turbines and ground level solar arrays. The turbines will be perceived as large, moving, man-made structures set approximately 2.5 km away from the hills. With hubs at similar heights to the tops of the hills and tips above the heights of the hills the turbines will be large, although the relative heights will be difficult to gauge depending on viewing distance, perspective and with moving parts. There will be a perceptible set-back from the hills, but a contrast in form between the hills and the turbines, and the turbines be eye-catching, moving features next to the hills. The introduction of ground level solar arrays

will bring a man-made land-covering into the LCT, relating in part to crop nets used on fields within the adjacent LCT102 Upland Fringe with Prominent Hills, albeit that the crop nets are seasonal and different fields are used each year. These changes, with the high sensitivity of the LCT, is judged to result in a significant (major) effect for this LCT as a whole.

6.6.13. For the LCT102 Upland Fringe Moorland with Hills, the landscape assessment in Technical Appendix 6.2: Landscape Character Assessment, Volume 4 sets out that effects relate to the introduction of one of the six proposed turbines, part of the PV arrays, as well as much of the access infrastructure including the substation, battery storage and batching plant, and the access off the B6456. There will therefore be both direct and indirect effects on the LCT. The Knock Hill unit of this LCT (considered here) contains some hills that are recognisable including Knoch Hill and Cockburn Law, although other units of the LCT contain hills that are more prominent (for example the Eildon Hills in the Eildon unit). The sensitivity of the LCT is judged to be medium. The visibility of the proposed turbines across the LCT will be restricted by the summits of Hardens Hill and higher land to the north, and southwards by the top of Greenlaw Moor. Mature woodland will further restrict visibility, including over the wooded parts of the Duns Castle GDL that lie within the LCT. The proposed turbines will be larger than the turbines of Black Hill wind farm which is located within the LCT unit. The scale of the turbines relative to Black Hill will be perceptible from nearby vantage points, although perspective will play a part in disguising this in some views from within the LCT. The solar arrays will form a man-made land-covering which may appear similar to seasonal crop nets used on fields within the LCT. The substation, battery and batching facilities will be within the LCT, and visible from the Hardens Hill road, and from the B6456 as it passes over Camp Moor, with the access to the Proposed Development coming off the B6456. The Proposed Development will form a prominent feature in the landscape south of Hardens Hill, will increase the presence of wind turbines in the landscape, and introduce man-made land coverings (the solar arrays). North of Hardens Hill the Proposed Development will be at a distance from the immediate surroundings, ‘over there’ beyond Hardens Hill and Black Hill wind farm. With the medium sensitivity, and geographical extent of higher changes to the south of Hardens Hill, the extent of significant effects will be across the Proposed Development Site and extending to Hardens Hill and Greenlaw Moor (within approximately 2-3 km to the north and within approximately 4 km to the south), judged to be significant (major) within this area and not significant elsewhere.

6.6.14. For non-host LCTs, only LCT107 Rolling Lowland Margin was found to receive a significant effect in the landscape assessment (Technical Appendix 6.2: Landscape Character Assessment, Volume 4). For this LCT, which is a transitional farmed and well-wooded landscape, the sensitivity to development outside the LCT is judged to be low. The ground level elements of the Proposed Development will not be visible from the LCT (with minimal theoretical visibility plus likely screening by trees). Perception of the turbines will be of large structures over nearby wooded horizons from the area west of Duns. From east of Duns they will be at a distance from the immediate surroundings beyond Duns Law and Knock Hill. With the low sensitivity to development outside the LCT, and the geographical extent of higher changes being limited to the west of Duns, significant (moderate) effects were identified for that area, which lies within approximately 5 km of the Proposed Development Site.

Visual Assessment

6.6.15. The visual assessment for the Existing Scenario considers the effects of changes to the views that people will see from the surrounding area as a result of the introduction of the Proposed Development to the existing landscape. The assessment was carried out using the methodology set out in Technical Appendix 6.1: Methodology for the Landscape and Visual and Cumulative Assessment, Volume 4, and is set out in Technical Appendix 6.3: Visual

Effects Assessment, Volume 4. Accompanying graphics include baseline figures and the ZTVs (Figures 6.1-6.11, Volume 3b) and visualisations (Figures 6.12-6.34, Volume 3c).

Analysis of the Zone of Theoretical Visibility of the turbines

6.6.16. The ZTV (shown on Figure 6.1, Volume 3b and subsequent figures) is an analysis of the theoretical visibility of the proposed turbines based on a 'bare earth' model and as such represents the maximum visibility of the turbines. The actual visibility is expected to be less in some parts of the study area due to screening afforded by vegetation/woodland and buildings.

6.6.17. The ZTV illustrates that theoretical visibility of the turbines is generally curtailed by the uplands within the northern and western areas. Theoretical visibility is generally to the south of the Proposed Development and within its immediate vicinity. The main points regarding theoretical visibility are noted as follows:

- The Proposed Development Site and its immediate surroundings to approximately 2-3 km away will have visibility of the turbines.
- The landform associated with Hardens Hill curtails potential visibility to the north-east of the Proposed Development Site area within 5 km of the Proposed Development. Similarly there will be 'visibility shadows' beyond Raecleugh Head Hill, the Dirrington Laws and Kyles Hill beyond approximately 2-3 km from the Proposed Development;
- The uplands of the Lammermuir Hills filter theoretical visibility of the proposed turbines within the northern section of the site in general. There will be theoretical visibility for upland slopes to the north and west where they face the Site, with decreasing visibility beyond approximately 10 km such that more distant hills have visibility only from high ridges and tops and no visibility beyond approximately 18 km of the Study Area to the north-north-west;
- There will be patchy visibility from along the fringes of the Southern Uplands hill range to the north-east and south-west relating to views from higher ridges and hills that face the Proposed Development Site. Theoretical visibility to the west and south-west becomes fragmented and patchy from approximately 15 km of the Proposed Development;
- Extensive yet patchy theoretical visibility will occur across the Merse to the south-east and east of the Proposed Development, relating to the undulating lowlands with drumlin landforms and more incised river valleys;
- The areas of most sustained theoretical visibility occur in the following locations:
  - Over the moorland associated with Greenlaw Moor to the south-west;
  - Along the lowland on the northern bank of the Blackadder Water valley;
  - Around the village of Westruther;
  - On the northern banks of the River Tweed between Kelso and Coldstream.
- There will be limited visibility from the Tweed valley, but theoretical visibility from north facing slopes beyond the valley, within Northumberland. The Cheviot foothills, approximately 22 km south of the Proposed Development Site area restrict visibility further southwards;
- In general, theoretical visibility becomes more patchy from 12 km to 15 km to the south-west, and approximately 17 km to 20 km south-eastwards; and
- There will be no visibility from beyond the Lammermuir Hills (to the north-west); nor along the coast.

6.6.18. The ZTV to hub height (Figure 6.3, Volume 3b) indicates that hubs will be visible across the same areas as the tip ZTV, but with some reduction around the edges. The greatest difference in visibility will be across the Southern Uplands where local variations in topography may screen hubs but not tips.

6.6.19. It is noted that the Study Area includes many well-wooded landscapes with frequent shelterbelts, roadside vegetation, and plantations. Actual visibility of the Proposed

Development will therefore be considerably more limited than indicated by the ZTV, and is explored through the visual assessment.

Theoretical Visibility of Solar PV Arrays

6.6.20. The ZTV for the solar arrays is shown on Figure 6.4, Volume 3b, using a series of points around the edges and within the solar development area modelled to the height of the solar panels (3 m). Analysis is run to 5 km, as ground level structures are likely to be more difficult to make out beyond this distance. This can be used as a proxy for theoretical visibility of other ground-level elements such as the battery storage plant, substation and tracks.

6.6.21. Figure 6.4, Volume 3b shows two ZTVs, one is a bare-ground ZTV run using digital terrain data, which does not take account of screening by vegetation in the landscape; the other is a ZTV run using digital surface model data, which is data derived from LIDAR mapping and includes surface features such as woodlands, trees and buildings. The surface model ZTV therefore illustrates visibility that is likely to be closer to actual visibility.

6.6.22. The ZTVs indicate that the arrays will be visible from:

- The northern part of the Proposed Development Site and its immediate surroundings to the Hen Law - Hardens Hill ridgeline and to the top of Lees Hill, Raecleugh Head, and the ridge to the west of the Foul Burn on Inch Moor;
- More limited visibility across the south and east parts of the Proposed Development Site, around Raecleugh Head and north of Choicelee, but with notable screening (by woodland shelterbelts) as indicated by the surface model ZTV;
- From the east facing flanks of the Dirrington Laws;
- From the B6456 between Inch Moor and the rising ground to White Knowe to the west of Kettelshiel and briefly at Hurd Law. There will be screening afforded by the woodlands around Kettelshiel; and
- From the rising moor up to Kyles Hill to the south of the B6456 and across Dogden Moss;
- Intermittently to the south-east around Polwarth and Fogo, with notable screening by surface features including vegetation.

Visual Effects

6.6.23. Viewers within the Study Area who will be affected by the changes in views and visual amenity include local residents, tourists, walkers and recreational route users, road users etc. The assessment of visual effects considers the changes that people will see in views from various locations around the Study Area, using representative viewpoints, as well as considering views from settlements and from along routes. The assessments are set out in detail in Technical Appendix 6.3: Visual Effects Assessment, Volume 4 and summarised below.

6.6.24. The Proposed Development will be located to the south of the existing Black Hill Wind Farm. Given the presence of existing turbines (albeit smaller) and rising land in that direction which limits the ZTV, there will be limited significant visual effects from the north.

Summary of Findings of the Visual Assessment

6.6.25. The Proposed Development will be six tall turbines with solar arrays, battery storage units and ground level structures, in the fringe of the uplands. The turbines will be theoretically visible from extensive areas of lowlands, but these areas are well wooded so that actual visibility will be glimpsed and rarely prolonged. Visual analysis of the routes reveals that across the lowlands, routes to the south-west have more open views, those to the south and south-east are very constrained by hedges and vegetation. As an example, the A697 runs through more open landscapes between Houndslow and Hexpath, and views are frequently interrupted by vegetation between Greenlaw and Coldstream. As such, although the turbine ZTV shows extensive areas of theoretical visibility from the south and east of the Study Area, there will be

relatively few actual open views in these areas. Settlements tend to have their own containment (screening by buildings and vegetation) and open views from public spaces are limited. As such, although the turbine ZTV shows extensive areas of theoretical visibility from the south and east of the Study Area, there will be very few actual open views in these areas. To the north within the Southern Uplands, views will be more varied with topography and screening by plantation woodlands, but otherwise tend to be more open (with more moorland and fewer trees). However, it is noted that most viewers are in the lowland parts of the study area, and there are fewer routes that people will be on in the Southern Uplands. Although there is a network of paths, these are fewer and less frequented than the network of roads across the lowlands.

6.6.26. There are existing wind farms are present in the hills such that turbines are an existing feature of the hill horizon seen from the lowlands. The location of the Proposed Development Site at the fringe of the hills means that the turbines will be seen in front of the hill horizon from some viewpoints to the south of the hill range, closer in the view than existing wind farms.

6.6.27. The solar PV arrays and ground level structures will have relatively limited visibility, both theoretical (see Figure 6.4, Volume 3b) and actual. The arrays will be most visible from the south-west, from the B6456 and from across Inch Moor and Polwarth Moss within 3.5-4 km, although shelterbelts to the south-west of the site obscure some parts of the site. However, it is noted that there are fields with crop nets around Langtonlees Farm and in other parts of the local area, such that there is a precedent for man-made field coverings, albeit temporary with seasons and on different fields each year. Beyond approximately 1-2 km the visual influence of the PV arrays will drop, such that visual effects of the solar arrays will be very localised.

6.6.28. The Proposed Development will be most visible from the south-west, where the landscape is more open and views from along roads will be prolonged (such as from the B6456 and the A6105 and the section of the A697 from Houndslow to Greenlaw).

6.6.29. The turbines will be larger than those of Black Hill wind farm, but this will not be perceptible from many locations. Often in views there will be an element of perspective, such that most viewers will read the turbines as closer or further than they are rather than of different sizes. From certain viewpoints, however, the differences in size will be clear.

6.6.30. Significant effects identified for viewpoints are set out in Table 6.4 below. It should be noted that eleven of the 23 viewpoints are within 5 km of the Proposed Development and were included to provide visualisation of ground level infrastructure related to the solar arrays seen from locations nearby. Visual effects on open views of turbines of current commercial scales are inevitably significant at this distance range.

Table 6.4: Summary of Significant Visual Effects

Receptor	Distance from nearest turbine	Effect
VP1: Hardens Hill Road	476 m south	Significant (major)
VP2: Langton Edge	1.6 km	Significant (major)
VP3: Raecleugh Head Fort	1.8 km	Significant (major)
VP4: A6105 Duns east	6.7 km	Significant (moderate)
VP5: Gavinton	4.7 km	Significant (moderate)
VP6: A6105 Woodend	3.3 km	Significant (major)

VP7: B6456 Inch Moor	932 m	Significant (major)
VP8: B6456 West of Kettlesheil	2.7 km	Significant (major)
VP9: Westruther	8.5 km	Significant (moderate)
VP10: A6105 Polwarth	2.3 km	Significant (moderate)
VP11: Marchmont House avenue	3.8 km	Significant (moderate)
VP12: A6105 Greenlaw Moor	4.4 km	Significant (moderate)
VP13: Dirrington Great Law	2.5 km	Significant (major)
VP14: Watch Water Reservoir	5.7 km	Significant (major)
VP15: Twin Law Cairns	9.5 km	Significant (moderate)
VP16: Wrunk Law	6.6 km	Significant (moderate)
VP19: A697 Houndslow	10.0 km	Significant (moderate)
VP20: Hume Castle	10.7 km	Significant (moderate)
VP21: A697 north of Coldstream	13.7 km	Not significant (minor)
VP22: A698 Longridge Towers	22.8 km	Not significant (negligible)
VP23: Lauder Common	23.4 km	Not significant (minor)
Gavinton	3.5 km	Not significant (minor)
Duns	5.5 km	Not significant (negligible)
Westruther	8.5 km	Not significant (minor)
A6105 (through Greenlaw, Duns and Chirnside)	-	Significant (major) from Gavinton to Polwarth (approximately 3 km long and within 5 km of the Proposed Development turbines Significant (moderate) for the section over Greenlaw Moor (approximately 3 km, and within 5 km of the turbines)
A697 (through Houndslow, Greenlaw, Coldstream)	-	Significant (moderate) for Houndslow to Greenlaw
A6112 (Coldstream to Duns and Grantshouse)	-	Significant (moderate) between Nisbet Hill and Duns
B6456 (Westruther to Polwarth)	-	Significant (major) Hurd Law to Choicelee Significant (moderate) Westruther to Hurd Law
B6460 (Greenlaw to Paxton)	-	Significant (moderate) between the A697 and Charterhall Woods (approximately 2km of the route) and from Fogorig to Kimmerghame (approximately 5 km)

Hardens Hill Road	-	Significant (major) from Langton Edge to the Kippetlaw Burn (approximately 4.5 km and passing the site). Significant (moderate) for the open section north of Longformacus up to Wrunk Law (approximately 1 km, and within 6 km of the turbines)
Southern Upland Way	-	Significant (moderate) around the Watch Water Reservoir, (approximately 3 km, and within 7.5 km)
Core Path around Piersknowe	4 km	Not significant (negligible)
Core Path Fogo to Gavinton	4 km	Significant (moderate)
Core Path through Duns Wood	4 km	Not significant (moderate)
Rights of Way over Greenlaw Moor, Inch Moor and between the Dirrington Laws	Within 5 km	Significant (major) for sections of the routes east of the Dirrington Laws and over Greenlaw Moor
Right of Way Camp Moor to Langtonlees Farm	700 m	Significant (major)
Right of Way Sisterpath to Chesters	4.5 km	Not significant (minor)
Promoted Path Hardens Hill Black Hill to Millburn Bridge and Jeanie's Wood	2 km	Not significant (minor)

6.6.31. From the above table it can be seen that significant effects will occur within approximately 11 km (the most distant is 10.7 km at Hume Castle), resulting primarily from the turbines. The visual influence of the solar arrays will be limited to the immediate surroundings of the site (within approximately 1-2 km). These are considered to be no more than would be expected for a development of this scale in this type of landscape.

Cumulative Assessment

6.6.32. The assessment of cumulative effects is set out in Technical Appendix 6.4: Cumulative Assessment, Volume 4, and considers the additional effects of the introduction of the Proposed Development with cumulative wind farms. There are a number of wind farms consented, in-planning or at scoping stage within approximately 25 km of the Proposed Development, as set out in Table 6.5 below and shown on Figure 6.9, Volume 3b[7].

Table 6.5: Cumulative Wind Farms

Wind Farm	Status (September 2023)	Number of Turbines	Blade Tip Height	Approximate Distance and direction
Crystal Rig IV	consented	11	200 m	13 km north
Huntershall	consented	1	75 m	24.5 km west

[7] *No wind farms were under construction at the time of assessment.*

Dunside	application	15	220 m	10 km west-north-west
Ditcher Law	application	9	200 m	21 km west
Wedderlie Farm	scoping	5	149.9 m	5.5 km west
Monashee	scoping	4	200 m	9 km north-east
Newlands Hill	scoping	17	200 m	15 km north-west
Longcroft	scoping	24	220 m	15.5 km west
Linton Hill	scoping	4	100 m	23 km south
Housebyres	scoping	1	77 m	23.5 km south-west

6.6.33. The cumulative assessment in Technical Appendix 6.4: Cumulative Assessment, Volume 4 considered the potential additional effects of the Proposed Development in three scenarios:

- a Consented Scenario with consented wind farms present in the baseline (in addition to existing wind farms), i.e. a likely future scenario;
- an In-Planning Scenario with undetermined proposals in planning present (in addition to the above), i.e. a less certain future scenario; and
- a Scoping Scenario with wind farm developments currently at scoping stage included as well, i.e. a more speculative future scenario.

6.6.34. In the Consented Scenario, Crystal Rig IV (adjacent to the Crystal Rig group) and Huntershall (within the Dun Law group) will be present but will not alter the pattern of development around the study area. With the baseline for this scenario so similar to the existing baseline, there will be no cumulative (additional) effects relating to the introduction of the Proposed Development, as identified in Technical Appendix 6.4: Cumulative Assessment, Volume 4.

6.6.35. In the In-planning Scenario, Ditcher Law will extend the Dun Law group south-eastwards; and Dunside will be adjacent to Fallago Rig on its south-east side, bringing turbines closer to the Proposed Development Site. It is considered that potentially significant cumulative effects might occur for receptors located between the Proposed Development Site and Dunside, and for receptors either side of this north-east to south-west line between them, with similar distances to each scheme. The assessment of cumulative (additional) effects in the In-planning Scenario focussed on receptors in these areas, roughly from the Proposed Development Site to Twin Law Cairns and from Houndslow to the Whiteadder Water valley. The findings of the assessment of additional effects set out in Technical Appendix 6.4: Cumulative Assessment, Volume 4 included:

- With Dunside (and Dichter Law) present, the landscape of LCT90 Dissected Plateau Moorland will have additional large turbines present within it (in addition to existing ones); and other LCTs (LCT102 Upland Fringe with Prominent Hills; LCT105 Upland Fringe Moorland with Hills; LCT115 Upland Valley with Mixed Farmland; and LCT99 Rolling Farmland Borders) will have additional turbines in the wider landscape nearby to the north-west. The change to the character of the landscape in these areas (the likely effect attributable to the Proposed Development on the character of the LCT) will be reduced compared with that predicted in the LVIA (in the Existing Scenario). However, the levels of magnitude of change and findings of significance will not be altered. This is the case for:
  - LCT105 Upland Fringe Moorland with Hills (a host LCT), for which effects will remain significant (major);

- LCT102 Upland Fringe with Prominent Hills (a host LCT), for which effects will remain significant (major) within 2-4 km;
- LCT115 Upland Valley with Mixed Farmland, for which effects will remain not significant;
- LCT99 Rolling Farmland Borders, for which effects will remain not significant; and
- LCT90 Dissected Plateau Moorland, for which effects will remain not significant.

- Dunside and Dichter Law will be present in views from the wider landscape, as additional turbines close to Fallago Rig and the Dun Law group respectively. With these wind farms present, there will be a greater presence of turbines in views from around the study area, but also different visual relationships between groups of turbines in the views. Visual effects of the addition of the Proposed Development to the In-planning Scenario baseline will be different and generally reduced, relative to the Existing Scenario, but there will be few alterations to the levels of magnitude of change or findings of significance. Alterations to significance of effect are identified for:
  - VP15 Twin Law Cairns: reduced from significant (moderate) to not significant (minor). Dunside will be approximately 1.5 km from this viewpoint; and
  - the SUW section around the Watch Water Reservoir: reduced from significant (moderate) to not significant (minor).
  - Other visual effect will remain as identified in the LVIA (for the Existing Scenario).

6.6.36. There are no instances in which the effects of the Proposed Development in the context of those wind farms is judged to be increased above the LVIA finding.

6.6.37. The Scoping Scenario is highly speculative and is not assessed in detail. However, it is noted that there may be a notable relationships with Wedderlie Farm, on the west side of the Dirrington Laws, and with Monashee north-west of Chirnside. These relationships would be likely to give rise to some significant effects. These effects have not been examined in further detail due to the speculative nature of the scenario.

Combined Cumulative Effects

6.6.38. The assessment of additional cumulative effects in Technical Appendix 6.4: Cumulative Assessment, Volume 4 follows current guidance and considers the effect of the introduction of the Proposed Development to the landscape in addition to other wind farms and considers three possible cumulative scenarios. It is acknowledged that this does not provide a view on the role of the Proposed Development in the overall combined effect of all wind farm developments that may occur depending on which proposed wind farms are consented and built[8].

6.6.39. The future pattern of development is likely to lie somewhere between no additional development, and a maximum of all currently proposed (and potentially more proposals not currently in the planning system) being consented and built. In the minimum scenario, the future pattern of development will be very similar to the current pattern, as assessed in the LVIA. In the maximum development scenario, existing wind farm clusters may be enlarged, others may be introduced, and clusters may start to coalesce. Whilst this may be evident when looking at maps of developments, it will not necessarily be evident on the ground when moving around the landscape.

6.6.40. An LVIA assesses the effect on landscape character resulting from introducing the development into the landscape. Several developments of the same type lead to an

[8] *The additional effects consider the change with one more wind farm present (the Proposed Development as the 3rd, 4th or 8th wind farm for example), whereas combined effects consider the suite of windfarms together, and identify the role of the Proposed Development within that experience.*

accumulation of effect on landscape character. In an assessment of cumulative effects on landscape character the increasing influence of turbines on landscape character types or areas may be described with terminologies reflecting a succession of landscape change. Terms may include 'landscapes with occasional wind farms', through to 'landscapes with wind farms', and 'wind farm landscapes'.

6.6.41. **Existing Scenario:** The Crystal Rig group is a large group of 91 turbines with tip heights of 100-125 m. Fallago Rig, the Dun Law group and the Penmanshiel group also form clusters of turbines on different part so the Southern Upland Hill range, with Black Hill, Quixwood, Brockholes, Hoprigshiels and Kinegar forming group of turbines on the hills (as do Toddleburn and Longpark also). Black Hill, Quixwood, Brockholes, and Longpark are located in the southern hills of the Southern Uplands hill range, where the other larger groups are further north on generally higher ground. The Southern Uplands can be described as a 'landscape with occasional wind farms or wind farm clusters' at a regional scale, even though at a more local scale they will each form 'wind farm landscapes'. The southern fringe of the Southern Uplands can be described as a 'landscape with occasional wind farms'.

6.6.42. The Proposed Development will contribute to this scenario as an additional group of turbines located close to Black Hill, towards the southern fringe of the uplands. It will change the experience of the landscape of the wider area slightly in terms of the pattern of wind farm development, as it will be of larger turbines located on lower slopes further south than existing windfarms. It will be seen to be closer to the settled lowlands in some views from the south and south-east. The southern fringe of the hill range will remain 'with occasional wind farms' on the introduction of the Proposed Development.

6.6.43. **Consented Scenario:** With consented wind farms present as well as existing wind farms, the Crystal Rig group will be slightly larger with Crystal Rig IV, and Huntershall will increase the Dun Law group by one turbine in the middle. There will be essentially neither change in the pattern of development nor the role of the Proposed Development in the perception of wind energy development in the study area when compared with the Existing Scenario. The southern fringe of the hill range will remain 'with occasional wind farms' with the introduction of the Proposed Development.

6.6.44. **In-planning Scenario:** With in-planning wind farms present as well as consented and existing wind farms, Fallago Rig will form a group with Dunside extending further south-east, and the Dun Law group will be enlarged eastwards with Ditcher Law. Although the groups across the Southern Uplands will be larger, there will be essentially little change in the overall pattern of development. The role of the Proposed Development as additional turbines to the south of Black Hill in the perception of wind energy development in the study area will be relatively little altered. The southern fringe of the hill range will remain 'with occasional wind farms' following the introduction of the Proposed Development.

6.6.45. **Scoping Scenario:** This is a highly speculative scenario, but with wind farms currently at scoping stage present (as well as the in-planning, consented and existing wind farms), Longcroft and Newlands Hill may form groups that start to link up the existing wind farm clusters along the northern Lammermuirs, and Monashee and Wedderlie Farm will increase the number of developments with small numbers of turbines in the southern fringes of the Lammermuir Hills. This may lead to the southern fringes of the Lammermuir Hills becoming a 'landscape with wind farms'. The Proposed Development will form an additional wind farm in the southern fringes of the hill range 'with wind farms'.

Aviation Lighting Assessment

6.6.46. During dark hours (from half an hour after dusk to half an hour before dawn), when aviation lighting will be on (see Technical Appendices 6.7: Visibility of Aviation Warning Lights and 6.8: Aviation Lighting Assessment, Volume 4), the Proposed Development Site is not lit but there

are lights at Langtonlees Farm and at other nearby properties. Other lights include those of vehicles on the Hardens Hill road to the north of the site, and the B6456 to the south of the site. It is noted that the Duns Motorcross site to the north of the Proposed Development Site is open for users till 5 or 6 pm throughout the year, and there are therefore moving bike headlights on the tracks after dark during winter.

6.6.47. Further afield, lights tend to be associated with properties, and brighter lights at farms. Street lighting and better-lit areas are found within Gavinton and Duns and other settlements across the study area. The southern half of the study area is more settled with frequent properties, farms and a network of roads such that there are lights visible from most locations. Through the Southern Upland hills across the northern part of the study area there is less settlement, and more uninhabited open space that is unlit (moorland, forest etc). Lights are therefore less frequent and the landscape is darker. However, from more elevated locations (rather than enclosed valleys), views extend further towards more settled landscapes with lights. From many places the glow of the conurbation of Edinburgh lights the sky. There are a number of telecommunications masts in the study area, including the Selkirk Transmitting Station[9] and nearby Ashkirk Transmitting Station[10], both to the south-west of the study area (visible from VP2 Langton Edge).

6.6.48. It is also noted that fewer people tend to be in more remote places after dark, such that most night time viewers are more likely to be on the road network or around properties and settlements. People are likely to be focussing their attention on parts of their surroundings that they can see (associated with lit areas such as the road ahead within the beam of headlights) but may also be drawn to noticing lights in darker parts of the view (stars, aeroplane lights, and lights in the landscape.

6.6.49. In agreement with the CAA, the Proposed Development will be lit with three turbines, T1, T4 and T5, each having medium intensity 2000cd steady red lights on the top of the hub (a second light on each hub will be installed as backup but will not be lit when the primary light is functional). No mid-tower lights will be used. The hub lights will come on at half an hour after sunset and will be switched off at half an hour before sunrise (to be on during nautical twilight). Agreed mitigation includes the reduction of intensity of the lights during conditions of clearer visibility, such that the lights will only operate at full intensity of 2000 cd when visibility is less than 5 km; at other times they will be at 10 %, i.e. 200cd. Meteorological data for the local area suggests that the 2000cd lights will be at 2000cd for 7-10 % of the time and at 200cd for 90-93 % of the time. The lights used will be designed to emit a horizontal beam of light with reduced upward and downward spill of light, such that the brightness of the light emitted is decreased for viewers close to the turbines viewing the lights from below.

6.6.50. The assessment of the effects of the lighting on views after dark considered each viewpoint and selected routes and assessed the appearance of the proposed lighting relative to existing lights in the views and the change to the night time viewing experience. Off-road locations are likely to have very few viewers, but the potential for people to be out at night is also considered for the Southern Upland Way and off-road viewpoints.

6.6.51. Seen from the public road network, the lights will be at their brightest from the Hardens Hill Road on Langton Edge, at viewpoint VP2 given the proximity to the site (minimal attenuation by distance) and elevated route of the road that brings viewers to a similar elevation to the lit hubs (minimal reduction of intensity due to downward angle). In poor conditions when the lights are operated at 2000 cd, the lights will be seen as bright from VP2, similar to the brake

[9] *Selkirk Transmitting Station: 229m at 350060 629420*

[10] *Ashkirk Transmitting Station: 229m at 347000 624425*

lights of a car approximately 1 km away or at Langtonlees Farm. This is judged not to incur significant visual effects during dark hours. In good visibility conditions, the lights will be reduced to 200 cd and will be noticeably less bright.

6.6.52. An important factor for perception of light is the way in which human eyes adapt to different light environments. Dark adaptation of the human eye is related to the 'rods' and 'cones', light detecting cells in the back of the eye that have different roles in low light levels, with rods taking over from cones when it is dark. Cones detect colour and are used in the light (being less sensitive in low light levels), while rods are not as good with colour but can pick up faint lights (they switch off in bright light). Dark adaptation is when the rods can fully activate and can make out faint lights in a dark environment, but as soon as a light is switched on, even briefly, cones take over again and it takes time for the rods to reactivate. Lights clearly visible to dark-adapted eyes may be imperceptible when other lights are first switched off (before dark adaptation can occur), or when in a bright place such as under street lights or from within a dark vehicle when much of the attention is on the pool of light from the headlights. In these environments dark adaptation cannot occur in full as the rods in our eyes cannot fully take over. It is noted that most people will be close to lights after dark, either in lit houses/properties, or in vehicles with headlights on. This makes the perception of other lights more difficult, and will contribute to the perception of the aviation lighting on the Proposed Development.

6.6.53. Whilst the lights will be visible as low to very low intensity red lights from most viewpoints and from routes around the study area, no significant effects are identified as arising from aviation lighting during dark hours, as set out in Technical Appendix 6.8: Aviation Lighting Assessment, Volume 4.

Implications for Designated Landscapes

6.6.54. There are numerous designated landscapes within approximately 20 km of the Proposed Development as shown on Figure 6.6, Volume 3b. The implications of the findings of the LVIA for the designated landscapes are considered in Technical Appendix 6.5: Implications for Designated Landscapes, Volume 4.

6.6.55. Many of the designated landscapes have limited or no ZTV coverage, and are scoped out of detailed consideration as having no likelihood that their special qualities and reasons for designation will be affected by the Proposed Development. Those considered further include the Eildon and Leaderfoot NSA; the Lammermuir Hills SLA; and five GDLs: Duns Castle, Marchmont, Manderston, Wedderburn, and Kimmerghame.

6.6.56. **Eildon and Leaderfoot NSA** – This area is 19 km from the Proposed Development at its closest point. There will be limited ZTV coverage, with the turbines of the Proposed Development visible from the summits and high slopes within the NSA only. It is considered that whilst the proposed turbines will be visible from the Eildon Hills, they would appear as small elements within a panoramic view that is currently influenced by wind turbines in several directions, including the direction towards the Proposed Development Site. It is judged that there will be no discernible change to the special qualities of the NSA as a result of the Proposed Development.

6.6.57. **Lammermuir Hills SLA** - this is an extensive area that comes to approximately 0.5 km of the Proposed Development and includes the Dirrington Laws and land northwards to the Crystal Rig group and west to the Dun Law group. It hosts parts of these wind farm groups, plus Fallago Rig wind farm.

6.6.58. The Proposed Development will be outside the SLA but visible from the Dirrington Laws and from the area immediately surrounding these hills, and from Twin Law Cairns and other hills within approximately 10-12 km. The proposed turbines will not add new element into the

landscape as there are existing turbines present within and around the SLA, although the turbines will be larger than those of Black Hill. The solar PV arrays will be visible and noticeable only from east of the Dirrington Laws. Aviation lights will be visible from Wrunk Law and the minor road through Longformacus, and from the B6456 along the southern edge of the SLA. Off-road locations have few viewers at night, although walkers on the SUW were considered in Technical Appendix 6.8: Aviation Lighting Assessment, Volume 4.

6.6.59. The scale of the turbines, views of the solar arrays, and location of the Proposed Development approximately 2.5 km away from the hills mean that significant landscape effects have been identified for the south-eastern part of the SLA that includes the Dirrington Laws and is within approximately 6 km of the Proposed Development Site (corresponding to LCT105, Upland Fringe Moorland with Hills). This is a relatively small part of the SLA extent. From locations around the Dirrington Laws, the apparent scale of the hills may be affected by the scale of the proposed turbines for some viewers, although the hills will remain prominent and recognisable landscape feature rising abruptly from open moorland.

6.6.60. As discussed in Technical Appendix 6.3: Visual Effects Assessment, Volume 4, the qualities of the SLA other than the surroundings of the Dirrington Laws will not be affected by the Proposed Development. It is judged therefore, that although the Proposed Development will alter aspects of the character of the south-eastern part of the SLA, it will not undermine the integrity of the designated area, and the reasons for designation will remain intact for the Lammermuir Hills SLA as a whole.

Residential Visual Amenity Assessment

6.6.61. An assessment of the effects on the visual aspects of residential amenity is set out in Technical Appendix 6.6: Residential Visual Amenity Assessment, Volume 4. There are 24 properties within 2.5 km of the Proposed Development, as shown on Figure 6.36, Volume 3c. These have been considered as 13 individual properties or groups. Grouped properties have similarity of location, setting, outlook and screening. Most properties are located to the east or south-east of the site, on lower lying land, with a few properties along the B6456 or Hardens Hill road. Given the topography of the area, most properties look south-eastwards out across lower land rather than up towards the hills.

6.6.62. The residential visual amenity assessment (RVAA) considered the change to visual amenity at each property, including consideration of likely views from the property, its curtilage (garden) and approach. Properties for which a high magnitude of change is identified are considered further with respect to whether or not the effect would reach what in current guidance is called a 'Residential Visual Amenity Threshold'[11]. It is noted that although the Proposed Development includes solar arrays, battery storage units, and other ground level infrastructure elements, it is the turbines that are most likely to affect visual aspects of residential amenity. At night, aviation lighting will theoretically be visible from some of the properties considered, although with strong downward angles at which the lights will emit light at limited intensities, such that the lights will have low brightness, including some properties for which the angle of view is -4° or below such that the lights will theoretically not be visible (see also Technical Appendices 6.7: Visibility of Aviation Warning Lights and 6.8: Aviation Lighting Assessment, Volume 4).

6.6.63. The assessment of the properties around the Proposed Development Site found that there will be medium to high magnitude of change to the views from most properties within approximately 2.5 km. Those with a high magnitude of change, including Old Langtonlees,

[11] *Landscape Institute (March 2019) Residential Visual Amenity Assessment (RVAA). Technical Guidance Note 2/19.*

Langtonlees Farm (group), Langtonlees Cottages (group), and Dronsheil, were considered further. The RVAA found that effects at the properties would not reach the Residential Visual Amenity Threshold.

6.6.64. For the closest property at Old Langtonlees, which lies to the east of the proposed turbine locations and will be 1.1 km from the nearest turbine, the turbines will be present to the north west on the hillside behind the property which has a primary view direction looking south-east. However, it is judged that the turbines will not become overbearing, and as set out in Technical Appendix 6.6: Residential Visual Amenity Assessment, Volume 4, the threshold will not be reached.

6.6.65. Langtonlees Farm is located amongst large farm buildings with open views to the south and south-east only. Turbines T1 and T2 will be visible to the south-west beyond the farm buildings adjacent to the property, but primary views from the property will not be affected. As set out in Technical Appendix 6.6: Residential Visual Amenity Assessment, Volume 4, the threshold will not be reached.

6.6.66. Langtonlees Cottages 1-2 (group) are located on south facing slopes above Langtonlees Farm. They have open views to the south and south-east, albeit that some views are obscured by garden vegetation. The turbines will be visible to the west beyond the buildings of the working farm. The primary view direction from the property will not be affected. Solar arrays will be visible on the land to the west of the properties, beyond the farm buildings, not affecting primary views. As set out in Technical Appendix 6.6: Residential Visual Amenity Assessment, Volume 4, the RVAA threshold will not be reached.

6.6.67. Dronshiel is located in the Stobswood Burn valley to the north of the Hen Law ridge. This property has an open setting, and views of wind farms to the east (Black Law) and north-east (Crystal Rig group). The turbines of the Proposed Development will be beyond the horizon and at 2.5 km will not be so close as to be overbearing at the property. Although there are other wind farms visible from the property, the RVAA threshold will not be reached (see Technical Appendix 6.6: Residential Visual Amenity Assessment, Volume 4).

6.7. Mitigation and Residual Effects

6.7.1. As stated above, mitigation of landscape and visual effects has been undertaken through design modifications and input to the design process (as set out in Chapter 3: Site Selection and Design Evolution, Volume 2) and the Design Statement). All effects identified are therefore residual effects.

6.8. Conclusions

Statement of Significance

6.8.1. The Proposed Development will consist of six turbines of 200 m to blade tip, plus ground level structures including solar arrays, a battery storage unit, and substation.

6.8.2. The turbines will be large, larger than the existing turbines at Black Hill approximately 1.5 km north of the Proposed Development Site. The difference in scale between the proposed turbines and those of Black Hill will not be noticeable from many viewpoints as perspective will play apart in viewers' perception of scale, but will become apparent when moving around the landscape.

6.8.3. The ZTVs and visualisations indicate that the turbines of the Proposed Development will be visible from the immediate vicinity of the Proposed Development Site, up to hills/ridges within approximately 3-4 km, and beyond that visibility will depend more on topography and woodland cover. Views from the northern half of the study area, across the Southern Uplands, will be strongly influenced by topography. Views from the southern half of the study area,

although theoretically widespread due to being lowland, will be considerably more limited by the well wooded nature of the landscape and local topographic variations created by the drumlin landforms. To the south-west the landscape is more open and of gentler topography, and correspondingly, the proposed turbines will be more visible.

6.8.4. The solar arrays will be seen within 5 km as low-level structures creating a man-made surface to parts of the Proposed Development Site. Visibility will depend on local topographic and vegetation screening as the arrays will be 3 m at their highest points. Different viewing directions will look at the south-facing surface or rear undersides of the panels, with the surfaces often taking on colours from the sky. Glint and glare from the sun or bright skies will be seen from a few locations nearby during earlier or later parts of the day. From beyond 5 km away solar arrays will be little noticed.

6.8.5. Three of the turbines will be lit from half an hour after dusk to half an hour before dawn with aviation safety lights on the hubs. The lights will be operated at 2000cd in conditions of low visibility (within approximately 5 km), and at a reduced brightness of 200cd in clearer visibility conditions. The lights will be specified so that there is a horizontal beam that should not be seen from below -4°. Attenuation by downward view angle (the reduction in brightness when seen from below) will greatly reduce the brightness of the lights seen from locations close to the Proposed Development, whilst attenuation by distance plays a part in reducing perceived brightness across the wider area. It is also important to note that darkness adaptation will affect the perception of brightness, with most viewers affected by existing lights around them either in or near lit houses, or in vehicles with headlights on (further information on these points is contained in Technical Appendices 6.7: Visibility of Aviation Warning Lights and 6.8: Aviation Lighting Assessment, Volume 4).

6.8.6. Seen from the public road network, the lights will be at their brightest from the Hardens Hill Road on Langton Edge, at viewpoint VP2 given the proximity to the site (minimal attenuation by distance) and elevated route of the road that brings viewers to a similar elevation to the lit hubs (minimal reduction of intensity due to downward angle). In poor conditions when the lights are operated at 2000 cd, the lights will be seen as bright from VP2, similar to the brake lights of a car approximately 1km away or at Langtonlees Farm. This is judged not to incur significant visual effects during dark hours. In good visibility conditions, the lights will be reduced to 200 cd and will be noticeably less bright.

6.8.7. Off-road locations are likely to have very few viewers, but the potential for people to be out at night was considered for the Southern Upland Way and off-road viewpoints. Whilst the lights will be visible as low to very low intensity red lights from most viewpoints and from routes around the study area, no significant effects are identified as arising from aviation lighting during dark hours. The LVIA considered effects arising from the introduction of the Proposed Development, including consideration of all component elements and aviation safety lighting at night. The LVIA included existing wind farms in the baseline. Cumulative effects were considered using three potential future scenarios.

6.8.8. The significant landscape effects identified in the LVIA occur for three LCTs within approximately 6 km of the outermost turbines of the Proposed Development, and are limited to the slopes of Hardens Hill and the Dirrington Laws, down to Greenlaw Moor and Gavinton west of Duns. This is considered to be a contained extent of significant landscape effects for the scale of development proposed.

6.8.9. Significant visual effects will occur within 11 km, although most significant effects will occur within 7 km.

- Viewpoints were carefully selected as locations with maximum visibility of the Proposed Development. 18 of 23 viewpoints were identified to have significant visual effects, but it

should be noted that 11 of these were within 5 km of the Proposed Development and were selected in order to explore visibility of the ground level solar arrays from nearby.

- Settlements tend to have their own containment (screening by buildings and vegetation) and open views from public spaces are limited. As such, no significant effects on settlements have been identified.
- Routes will generally have relatively little visibility of the Proposed Development due to both topography and screening vegetation. More prolonged visibility will be experienced from routes over the Inch and Greenlaw Moors to the south-west of the Proposed Development Site. Significant effects on the experience of routes (generally for intermittent route sections with visibility), are judged to occur within 7 km of the site, also reflecting topography, woodland cover, and more open prolonged views from the south-west.

6.8.10. Given the theoretical visibility indicated on the ZTVs, and the scale of the turbines, the significant effects identified are considered to contained and no more than would be expected for a development of this scale in this type of landscape.

6.8.11. In the cumulative scenarios considered, there will be an increase in wind energy development in the wider landscape through the enlargement of existing turbine groups and introduction of new turbine groups. No changes to effects were identified to occur with consented schemes. Two effects were found to be reduced should in-planning schemes be present, for receptors close to the proposed scheme at Dunside (where Dunside would be closer). Scoping stage schemes were also considered more briefly as being more speculative.

6.8.12. The implications of the findings of the LVIA for designated landscapes found that for most designated landscapes across the study area there would be no alterations to their integrity or reasons for designation. For the Lammermuir Hills SLA which comes to within 0.5 km of the Proposed Development Site, the Proposed Development will affect the south-eastern part of the SLA with respect to landscape character and the surroundings of the Dirrington Laws. It will not undermine the integrity of the designated area as a whole, and the reasons for designation will remain intact for the Lammermuir Hills SLA.

Statement of Competence

6.8.13. This chapter has been prepared by MVGLA, led by Beatrice Dower, Chartered Member of the Landscape Institute (CMLI), Director of MVGLA Ltd, who has over 22 years' experience of LVIA.