6 Landscape & Visual Impact Assessment

6.1 Introduction

6.1.1 This chapter provides a revised assessment of the likely significant landscape and visual effects associated with the construction and operation of the revised proposed development. It details the post-submission consultation responses and how these have been addressed, relevant changes in policy, legislation and guidance, and the amendments to the original proposed development detailed and assessed in the EIA Report October 2023.

6.1.2 As interrelationships exist between the assessment of effects on landscape and visual resources and certain other disciplines, reference should be made to the following chapters of the AEI:

- **AEI Chapter 3: Revised Proposed Development Description**; and
- **AEI Chapter 7: Cultural Heritage & Archaeology**.

6.1.3 This Landscape and Visual Impact Assessment (LVIA) has been carried out by Alister Kratt BA (Hons) Fellow Member of the Landscape Institute (FMLI) and Nicholas Atkinson MA (Hons) Chartered Member of the Landscape Institute (CMLI), both of LDA Design. Together, they share over 40 years of experience of undertaking LVIA for similar proposals. This LVIA has also been peer-reviewed by the original LVIA author who is a CMLI with over 20 years of experience preparing LVIAs for similar proposals.

6.1.4 This AEI Chapter is supported by the following figures and technical appendices, which are referenced in the text, where relevant:

- AEI LVIA Figures:
  - **AEI Figure 6.1**: **Site Location & Context;**
  - **AEI Figure 6.2: Landscape Policy Context;**
  - **AEI Figure 6.3: Landscape Character;**
  - **AEI Figure 6.4: Topography;**
  - **AEI Figure 6.5: Zone of Theoretical Visibility (ZTV) Study – Bareground (45km);**
  - **AEI Figure 6.6: Zone of Theoretical Visibility (ZTV) Study – Including Woodlands and Settlements (45km);**
  - **AEI Figure 6.7: Landscape Character & ZTV study (including Woodlands and Settlements) Combined;**
  - **AEI Figure 6.8: Cumulative Development within 35km;**
  - **AEI Figure 6.9: Cumulative Zone of Theoretical Visibility (ZTV) Study: Operational and consented schemes – including woodlands and settlements**
  - **AEI Figure 6.10: Cumulative Zone of Theoretical Visibility (ZTV) Study: Schemes in Planning – including woodlands and settlements;**
  - **AEI Figure 6.11: Existing Light Pollution;**
  - **AEI Figure 6.12: Zone of Theoretical Visibility (ZTV) Study – 2000 Candela Nacelle Light Visibility;**
  - **AEI Figure 6.13: Zone of Theoretical Visibility (ZTV) Study – Theoretical Lighting intensity – Including Woodlands and Settlements; and**
  - **AEI Figures 6.14 – 6.49: Wireline and photomontage visualisations.**

- AEI LVIA Technical Appendices:
  - **AEI Technical Appendix 6.1: Glossary and Methodology;**
  - **AEI Technical Appendix 6.2: Key Viewpoints extracted from Midlothian Council and East Lothian Council landscape capacity studies for wind turbine development;**
  - **AEI Technical Appendix 6.3: Residential Visual Amenity Assessment; and**
  - **AEI Technical Appendix 6.4: Viewpoint Descriptions.**

6.2 Legislation, Policy and Guidance

6.2.1 A full review of planning policy of relevance to the revised proposed development can be found in the **Planning Statement Update**, which accompanies this AEI. Only those policies of direct relevance to this LVIA are considered below.

6.2.2 Since the submission of the EIA Report October 2023, no new planning legislation, national policy and/or guidance relevant to this LVIA, have been published. Only at a local planning level has policy been updated and adopted since October 2023.

6.2.3 Relevant information to the LVIA is set out in the following sections, within relevant landscape designations and policy areas illustrated on **AEI Figure 6.2**.

National Planning Policy

6.2.4 Relevant national planning policy is expressed in the *National Planning Framework 4* (February 2023) (NPF4)[1]. NPF4 sets out the spatial principles, regional priorities, national developments and national planning policy for Scotland. It is supported by development specific guidance within the *Onshore Wind: Policy Statement 2022*.

6.2.5 Key policies contained within NPF4 that are of relevance to this LVIA include:

- **Policy 4: Natural Places** states, at paragraph (d):
  "Development proposals that affect a site designated as a local … landscape area in the LDP will only be supported where:
  i) Development will not have significant adverse effects on the integrity of the area or the qualities for which it has been identified; or
  ii) Any significant adverse effects on the integrity of the area are clearly outweighed by social, environmental or economic benefits of at least local importance."
- **Policy 11 Energy** states, at paragraph (e):
  "...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;
  iii) public access, including impact on long distance walking and cycling routes and scenic routes; …"

[1] Scottish Government. (February 2023). National Planning Framework 4. Available at: https://www.gov.scot/publications/national-planning-framework-4/

Local Planning Policy

6.2.6 The site lies within the north of the Scottish Borders Council area, close to the boundary with both East Lothian and Midlothian Councils.

6.2.7 Since the submission of the EIA Report October 2023, the Scottish Borders *Local Development Plan* (LDP2)[2] has been updated and was adopted on 22 August 2024. It is supported by approved planning guidance. Consideration is given to the LDP2 and its associated planning guidance, were relevant in this LVIA.

6.2.8 East Lothian Council, Midlothian Council, City of Edinburgh Council, West Lothian Council, South Lanarkshire Council, Fife Council, Northumberland County Council and Northumberland National Park Authority are also located within the study area (see **AEI Figure 6.2**).

6.2.9 Policy for these districts is only relevant to this LVIA insofar as it identifies locally valued landscapes and their purposes of designation. The following local plans have been reviewed:

- East Lothian Council *Local Development Plan* (2018)[3] – identifies Local Landscape Areas (LLA) (Policy DC9) and Gardens and Designed Landscapes (GDL) (Policy CH6);
- Midlothian Council *Local Development Plan* (2017)[4] – identifies the Pentland Hills Regional Park (Policy RD3), Country Parks (Policy RD4), LLAs (Policy ENV6) and GDLs (Policy ENV20);
- Edinburgh *Local Development Plan* (2016)[5] – identifies GDLs (Policy Env 7), LLAs (Policy Env 11) and the Pentland Hills Regional Park (Policy Env 17);
- West Lothian *Local Development Plan*[6] (2018) – identifies LLAs (Policy ENV 1) within the study area;
- South Lanarkshire *Local Development Plan 2* (2021)[7] identifies LLAs (Policy NHE16) within the study area;
- Fife Council *Adopted Local Development Plan – FIFE plan* (2017)[8] – identifies LLAs (Policy13) and GDLs (Policy 14);
- Northumberland *Local Plan 2016-2036* (2022)[9] – identifies no local landscape designations; and

[2] Scottish Borders Council (August 2024). Local Development Plan (LDP2). Available at: https://www.scotborders.gov.uk/plans-guidance/local-development-plan

[3] East Lothian Council. (September 2018). East Lothian Local Development Plan. Available at: https://www.eastlothian.gov.uk/downloads/download/13023/local_development_plan_2018

[4] Midlothian Council. (November 2017). Midlothian Local Development Plan 2017. Available at: https://www.midlothian.gov.uk/info/205/planning_policy/286/development_plans_and_policies

[5] City of Edinburgh Council. (November 2016). Edinburgh Local Development Plan. Available at: https://www.edinburgh.gov.uk/local-development-plan-guidance-1/edinburgh-local-development-plan

[6] West Lothian Council. (September 2018). West Lothian Local Development Plan 2018. Available at : https://www.westlothian.gov.uk/media/38765/West-Lothian-Local-Development-Plan-Adopted-2018/pdf/West_Lothian_Local_Development_Plan_-__Adopted_final_Web_Version_Amended_-_2020-01-08.pdf

[7] South Lanarkshire Council. (January 2021). South Lanarkshire Local Development Plan 2. Available at: https://www.southlanarkshire.gov.uk/info/200145/planning_and_building_standards/39/development_plans/2

[8] Fife Council. (September 2017). Fife Council Adopted Local Development Plan – FIFEplan. Available at: https://www.fife.gov.uk/kb/docs/articles/planning-and-building2/planning/development-plan-and-planning-guidance/local-development-plan-fifeplan

[9] Northumberland County Council. (March 2022). Northumberland Local Plan 2016 – 2036. Available at: https://www.northumberland.gov.uk/Planning/Planning-policy/Plan.aspx

- Northumberland National Park *Local Plan* (2020)[10] – identifies no local landscape designations.

Scottish Borders Council Local Development Plan (2024)

6.2.10 The following adopted policies are relevant to the revised proposed development and this LVIA:

- **Policy PMD2: Quality Standards** requires the *"scale, massing, height and density"* of development to be appropriate to its surroundings and respect the character of the surrounding area.
- **Policy ED9: Renewable Energy Development** states that the council will support proposals for wind development where "*they can be accommodated without unacceptable significant adverse impacts or effects*". The policy highlights the planning context in which development will be considered and sets out key considerations for wind development, such as landscape and visual impact and residential amenity.
- **Policy HD3: Protection of Residential Amenity** aims to protect residential properties from adverse impacts, including visual impacts.
- **Policy EP4: National Scenic Areas** states that development will only be permitted where the objectives of the designation and overall value of the site and its surroundings will not be compromised, and where any significant adverse effects are clearly outweighed by social or economic benefits of national importance.
- **Policy EP5: Special Landscape Areas** states that the council will safeguard the landscape quality of Local Landscape Areas (the new name for designated areas previously identified in policy as 'Special Landscape Areas') against a proposed development, including the visual impact. It notes significant adverse effects will only be permitted where the landscape impact is clearly outweighed by social or economic benefits of national or local importance.
- **Policy EP9: Conservation Areas** requires development to preserve or enhance the character and appearance of conservation areas.
- **Policy EP10: Gardens and Designed Landscapes** states that the council will support development that safeguards or enhances the landscape features, character or setting of GDLs.
- **Policy IS5: Protection of Access Routes** states that development that has an adverse impact upon public access routes will not be permitted unless a suitable diversion or appropriate alternative route can be provided.

6.3 Consultation

6.3.1 For the EIA Report October 2023, a formal scoping report was issued to the Energy Consents Unit (ECU) in March 2023, with a response provided in June 2023. NatureScot, Scottish Borders Council and East Lothian Council were also engaged in further dialogue to finalise matters raised in the comments. These comments were primarily associated with the final selection of viewpoints and the type of visualisations to be produced from each location.

6.3.2 The scoping comments were reviewed, and a formal response was issued as part of a Gatecheck Report in September 2023, which detailed how the comments would be addressed.

[10] Northumberland National Park. (July 2020). Local Plan. Available at: https://www.northumberlandnationalpark.org.uk/planning/planning-policy/local-plan/

6.3.3 **AEI Table 6.1** provides a summary of the consultation responses received on the EIA Report since it was submitted in October 2023.

AEI Table 6.1: Summary of Consultation Responses on the EIA Report October 2023

Consultee / Date	Consultee Comment	Applicant Response / Action
Consultation Responses received since the EIA Report October 2023		
NatureScot 26 January 2024	Landscape We recognise that significant landscape and visual impacts are likely to arise as a result of this application and there may be scope to reduce these impacts through appropriate design mitigation. However, our approach to advising on wind farm applications is to focus upon impacts on Scotland's landscapes that potentially raise issues of national interest (i.e. as identified in our guidance). In this case, we do not consider that the landscape and visual effects of the proposal will raise natural heritage issues of national interest, and therefore we are not providing specific advice.	NatureScot's advice is noted.
East Lothian Council 03 July 2024	Landscape Officer conclusions 126. To summarise from a landscape perspective the proposed Longcroft wind farm development introduces more wind turbines and hubs into views from and of the East Lothian landscape and new turbines onto the Lammermuir skyline in views from the north. These are generally clustered, and read, with the existing wind farm of Fallago Rig in views from East Lothian. In general this retains the cluster and space pattern across the Lammermuir Hills. The proposed turbines are of a larger height and mass than the existing turbines at Fallago Rig however their location further south helps to reduce the scale contrast between the Longcroft Wind Farm proposal and the Fallago Rig Wind Farm in some views.	East Lothian Council's commentary of the original proposed development detailed in the EIA Report October 2023, is noted. This chapter reconsiders the potential for significant effects upon landscape and visual receptors associated with the construction, operation and decommissioning of the revised proposed development, as described in **AEI Chapter 3: Revised Proposed Development Description**. The assessment is based on a revised proposed development that supersedes the original proposed development detailed in EIA Report October 2023.

Consultee / Date	Consultee Comment	Applicant Response / Action
	127. At present there are three groups of wind farms with Crystal Rig and Aikengall to the east end of the Lammermuirs and Dunlaw, Keith Hill and Pogbie to the west end. The central area has Fallago Rig wind farm visible as mainly tips with a number of hubs kept low to the horizon. The recent proposal at Dunside if built would extend the spread of wind turbines eastwards within the central section of the Lammermuirs. The Longcroft application would extend this central section of turbines further west by a similar distance to Dunside to the east. The design in most views from the north keeps the majority of visibility of the hubs closer to the Fallago Rig turbines with the visibility reducing to tips further west towards Lammer Law. The turbines are of a greater scale than the turbines at Fallago Rig, similar to those proposed at Dunside. In general however, as with Dunside, in views from the agricultural plain to the north of East Lothian the turbines are mainly kept lower on the horizon with only blades and hubs visible. This generally gives a sense of containment of the proposed Longcroft wind farm by the hills. The turbines appear set back and contained within the hills. This ties in with the designs of Fallago Rig and Crystal Rig wind farms. The proposals read with Fallago Rig wind farm in most views from the agricultural plain and lowland ridges from the north retaining the pattern of cluster and space along the Lammermuir skyline in most views.	An assessment of cumulative effects is included within this chapter, including cumulative developments that have submitted applications since the submission of the EIA Report October 2023.
	128. In a number of views there is conflict of scale between the proposed turbines and the turbines of Fallago Rig and overlapping of turbines of the schemes. Turbine 11 of the Longcroft proposal causes most of this conflict.	East Lothian's comments are noted.

Consultee / Date	Consultee Comment	Applicant Response / Action
	129. This scheme introduces minor visibility of wind turbines tips into small areas of the southern area of the agricultural plain. It has no greater visibility than Fallago Rig wind farm within the Lammer Law, Hopes to Yester SLA or Whiteadder SLA, thereby retaining the visual relief from development offered by these areas. It is not visible from within the majority of the Designed Landscape of Yester. Hub visibility, other than from the plateau of the Lammermuirs, is limited to areas southeast of Haddington and the raised land around Pencraig and Traprain Law, as well as the raised land of the Elphinstone ridge area southwest of Tranent and the agricultural plain between Gullane and Whitekirk, both of which are over 20km from the site.	An assessment of LLAs and other landscape designations is included within this chapter, as well as an assessment of cumulative effects which includes cumulative developments that have submitted applications since the submission of the EIA Report October 2023.
	130. The LVIA has identified that the wind farm will create a significant adverse effect in some day time views from East Lothian, most notably from Lammer Law, but with limited change to the views from the agricultural plain to the north. The proposals do not generally introduce views of turbines into the landscape where there are currently none. The granting of Crystal Rig IV with visible night time aviation lighting has set a precedent for turbine lighting within the Lammermuirs. The proposals will increase the number of aviation lights visible within the night time skyline. For most views from the plain this is limited to one or two lights (generally turbine 11 and 13). From most viewpoints these are in a new area to the lights of Crystal Rig IV. This introduces night views of turbines into the landscape where there are currently none visible at night. The proposals include mitigation to limit the lighting as far as possible. Where there is hub visibility from the agricultural plain this is mainly beyond 15km which will also help to reduce the intensity of any visible lighting.	An assessment of night time effects, and commentary on mitigation, is included within this chapter. This is supplemented by night-time ZTVs and photomontages. Mitigation measures relevant to this chapter, including night-time mitigation, are embedded within the design of the revised proposed development. Further detail of the design evolution can be found within **Chapter 2: Design Evolution & Alternatives** of this AEI.

Consultee / Date	Consultee Comment	Applicant Response / Action
	131. The location and design of the turbines, although increasing the number of turbines visible from East Lothian, retains the current character of the skyline where the skyline of the hills is retained as the dominant element and the turbines are set back and contained by the hills. However the visuals have shown that the omission of turbine 11 would create a more balanced scheme. It would remove conflict between the competing scales of the turbines at Fallago Rig and the proposed turbines in a number of views. It would also remove visible aviation lighting from large areas of the agricultural plain where it is only the hub of turbine 11 of the proposed lit turbines that is visible.	Mitigation measures relevant to this chapter, including night-time mitigation, are embedded within the design of the revised proposed development. Further detail of the design evolution can be found within **Chapter 2: Design Evolution & Alternatives** of this AEI.
	Policy conclusion – landscape 132. NPF Policy 9 supports renewable energy and notes that significant landscape and visual effects are expected for some forms of renewable generation, and that where these are localised or appropriate design mitigation has been applied, they will generally be considered acceptable. As detailed by the Landscape Officer, the effects of this proposal are extensive and not localised. Appropriate design mitigation has not been fully applied. Further mitigation, in the form of removal of Turbine 11, would be appropriate as this turbine has landscape and visual effects which are not acceptable. Therefore, while recognising that it is to be expected that renewable energy proposals will have significant landscape and visual effects as noted in Policy 9, the proposal does not meet the terms of Policy 14 on design, nor the terms of LDP design policies. Removal of Turbine 11, including its lighting, would address this. 133. Schedule 9 part 3 to the Electricity Act requires that Scottish Ministers should have regard to the desirability of preserving natural beauty of the countryside in considering proposals such as this, and that the applicant should do what they reasonably can to mitigate any effect on this. As detailed above, the proposal adversely impacts on the natural beauty of the countryside. The applicant has taken steps to	Matter concerning policy are presented in the **Planning Statement Update** submitted with this AEI. Mitigation measures relevant to this chapter, are embedded within the design of the revised proposed development. Further detail of the design evolution can be found within **Chapter 2: Design Evolution & Alternatives** of this AEI.

Consultee / Date	Consultee Comment	Applicant Response / Action
	mitigate this. Further mitigation should be considered including removal of Turbine 11.	
	134. Aviation lighting from an increasing number of wind turbine developments has a potentially significant impact over a wide area. Therefore, the ECU may want to consider whether or not there is another solution to aviation safety that has less of an impact than the use of visible spectrum aviation lighting.	Mitigation measures relevant to this chapter, including night-time mitigation, are embedded within the design of the revised proposed development. Further detail of the design evolution can be found within **Chapter 2: Design Evolution & Alternatives** of this AEI.
Oxton & Channelkirk Community Council 13 February 2024	Comments and Representations The following comments and representations are made: 7. The Landscape effect and Visual Impact on the community is considered to be significant and adverse. We therefore object to the application on the grounds of: a. The cumulative effect on the landscape and visual impact when considering the adjacent Ditcher Law application. b. The size of the windfarm (19 turbines) and proposed height (220m), making this substantially larger in size and impact than any other windfarms in the local area. c. The highly prominent visibility of the turbines from all areas of the community on the primary aspect. This is particularly adverse for more elevated areas, which already have a visual impact from existing windfarms. d. The location of the windfarm being further south than the majority of the community and other existing and proposed windfarms. This leads to the impression of the community being surrounded by windfarms. e. disagrees with the assessment (Chapter 1, schedule 6) which suggests the impact from the viewpoints in the community is medium-low. This is particularly notable when the	Oxton & Channelkirk Community Council's comment are noted. Assessments of visual receptors (including the nearby settlements); cumulative effects and night time effects, are included within this chapter, including cumulative developments that have submitted applications since the submission of the EIA Report October 2023. Mitigation measures relevant to this chapter, are embedded within the design of the revised proposed development. Further detail of the design evolution can be found within **Chapter 2: Design Evolution & Alternatives** of this AEI.

Consultee / Date	Consultee Comment	Applicant Response / Action
	impact from the same viewpoints in the Ditcher Law application (a smaller windfarm) have been assessed as significant.	

6.4 Scope of Additional Environmental Information

6.4.1 For the AEI and this LVIA, this chapter considers the likely significant effects that could arise from the revised proposed development upon those landscape and visual resources (including designated landscapes).

6.4.2 To provide a proportionate update for the AEI, it is considered reasonable to reassess only those landscape and/or visual resources identified in the original EIA Report October 2023 that were assessed as potentially experiencing effects greater than a Negligible magnitude and/or Minimal significance rating. The likelihood of effects increasing as a consequence of changes to the original proposed development are unlikely, and therefore, the original LVIA in the EIA Report October 2023 continues to apply.

6.4.3 Since the EIA Report October 2023 was submitted, LDA Design has updated its methodology to reflect recent case law and advice from the applicant's legal representatives. The following sections describe the methodology used for this LVIA, with supplementary methodological information documented in **AEI Technical Appendix 6.1**.

6.5 Methodology

Scope of Assessment

6.5.1 "*Landscape and Visual Impact Assessment is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right and people's views and visual amenity."* (*Guidelines for Landscape and Visual Impact Assessment*, 3rd Edition[11] (GLVIA3), para. 1.1).

6.5.2 Paras. 2.20-2.22 of the same guidance indicate that the two components (assessment of landscape effects, and assessment of visual effects) are *"related but very different considerations"*.

6.5.3 The assessment method for this LVIA draws upon the following established guidance:

- GLVIA3;
- Landscape Character Assessment Guidance for England and Scotland (Scottish Natural Heritage and The Countryside Agency, 2002)[12];
- LI Technical Guidance Note 02/2019 Residential Visual amenity assessment (RVAA)[13];
- Landscape Institute's Technical Guidance Note 02/21: Assessing landscape value outside national designations[14];
- LI Technical Guidance Note 06/19 Visual Representation of development proposals[15];
- NatureScot Guidance on Aviation Lighting Impact Assessment[16];
- Nature Scot Visual Representation of Wind Farms[17]; and
- NatureScot Assessing the Cumulative Landscape and Visual Impact of Onshore Wind Energy Developments[18].

6.5.4 **AEI Technical Appendix 6.1** contains supporting information concerning the LVIA methodology; supplementing the information provided in this section.

[11] Landscape Institute (2013). Guidelines for Landscape and Visual Impact Assessment, 3rd Edition. Available at: https://www.landscapeinstitute.org/technical/glvia3-panel/

[12] Scottish Natural Heritage and The Countryside Agency (2002). Landscape Character Assessment Guidance for England and Scotland. Available at: https://digital.nls.uk/pubs/e-monographs/2020/216649977.23.pdf

[13] Landscape Institute (2019). Technical Guidance Note 02/2019: Residential Visual Amenity Assessment (RVAA). Available at: https://www.landscapeinstitute.org/technical-resource/rvaa/

[14] Landscape Institute (2021). Technical Guidance Note 02/21: Assessing Landscape Value Outside National Designations. Available at: https://www.landscapeinstitute.org/publication/tgn-02-21-assessing-landscape-value-outside-national-designations/

[15] Landscape Institute (2019). Technical Guidance Note 06/19: Visual Representation of Development Proposals. Available at: https://www.landscapeinstitute.org/visualisation/

[16] NatureScot (2024). Guidance on Aviation Lighting Impact Assessment. Available at: https://www.nature.scot/doc/guidance-aviation-lighting-impact-assessment

[17] NatureScot (2017). Visual Representation of Wind Farms, version 2.2. Available at: https://www.nature.scot/doc/visual-representation-wind-farms-guidance

[18] NatureScot (2021). Assessing the Cumulative Impact of Onshore Wind Energy Developments. Available at: https://www.nature.scot/doc/guidance-assessing-cumulative-landscape-and-visual-impact-onshore-wind-energy-developments

Baseline Characterisation

Study Area

6.5.5 It is accepted practice within LVIA work that the extent of the study area for a development proposal is broadly defined by the visual envelope of the development proposal and the anticipated extent of visibility arising from the development proposal itself, based on the ZTV study.

6.5.6 In this case a study area of 45 km from the proposed wind turbines is considered appropriate to cover all potentially material landscape and visual impacts.

6.5.7 Further detailed study areas are used for the purposes of the LVIA, as follows:

- 15 km from the proposed wind turbines for detailed assessment of effects on landscape character (daytime);
- 20 km from the proposed wind turbines for night-time effects;
- 35 km from the proposed wind turbines for cumulative effects; and
- 2.5 km from the proposed wind turbines for the residential visual amenity assessment.

6.5.8 The extent of each study area described above remains as per the LVIA that accompanied the EIA Report October 2023, although their geographical locations has shifted to reflect the revised proposed development, which has reduced its spread. As such, this LVIA has determined whether or not any landscape and visual resources previously identified now lie outside of the new study areas used in this chapter. It should also be noted that no significant effects were identified in the EIA Report October 2023 beyond the extents of the original study areas.

6.5.9 LDA Design's analysis has shown that most of the previously identified landscape and visual resources will be included in the new study areas, and where those periphery resources are now situated outside each study area, the anticipated effects on these landscape / visual resources would be no greater than a Negligible magnitude and/or Minimal Significance. In line with this chapter's scope (see Section 6.4), these newly outlying landscape / visual resources are not considered in this LVIA.

Desk Study / Field Survey

6.5.10 A baseline study has been conducted to establish the existing and future baseline conditions at the site and in the surrounding area.

6.5.11 For this assessment, this has comprised a desk-based review of the relevant current national and local planning policy, designations, character assessments and other key considerations.

6.5.12 ZTV studies have been undertaken to help identify the potential visual effects and therefore the scope of receptors likely to be affected. This has been tested on-site during fieldwork in February 2025.

6.5.13 Full details of the approach to the baseline study are included in **AEI Technical Appendix 6.1**.

Assessment Terminology and Judgements

6.5.14 A full glossary is provided in **AEI Technical Appendix 6.1**. The key terms used within this assessment, as derived from GLVIA3, are:

- Susceptibility and Value – which contribute to Sensitivity of the receptor;
- Scale, Duration and Extent - which contribute to the Magnitude of effect; and
- Significance – which results from the combination of Sensitivity and Magnitude. A final statement is then made on whether the effect is considered significant in relation to the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

6.5.15 These terms are described in more detail in the following sections which covers the Assessment Criteria.

Sensitivity Criteria

Landscape Sensitivity

6.5.16 Susceptibility of landscape character areas is influenced by their characteristics and is frequently considered (though often recorded as sensitivity rather than susceptibility) within documented landscape character assessments and capacity studies. For wind projects, characteristics of relevance include landscape scale; landform and landscape pattern; perceptual qualities such as remoteness and tranquillity; views and visibility, including intervisibility with adjacent landscapes; and degree of man-made influence. Landscape susceptibility is described as high, medium or low.

6.5.17 Susceptibility of designated landscapes is influenced by the nature of the special qualities and purposes of designation and/or the valued elements, qualities or characteristics, indicating the degree to which these may be unduly affected by the development proposed. These special qualities and purposes are usually identified in legislation or policy that creates the designation, or in management plans for the designated areas. Landscape designation susceptibility is described as high, medium or low.

AEI Table 6.2: Landscape Susceptibility

	Higher	⟷	Lower
Landscape susceptibility	The characteristics of the landscape offer limited scope to accommodate the type of development proposed without fundamental change to the baseline landscape character.	⟷	The characteristics of the landscape are robust and resilient to the type of development proposed.
Landscape designation susceptibility	The special qualities and purposes of designation offer limited scope to accommodate the type of development proposed without fundamental change.	⟷	The special qualities and purposes of designation are robust and resilient to the type of development proposed.

6.5.18 Landscape value is *"the relative value that is attached to different landscapes by society"* (GLVIA3, page 157). Consideration is given to designations at both the national and local level. The Landscape Institute's *Technical Guidance Note 02/21: Assessing landscape value outside national designations* provides a series of criteria to consider for those areas of landscape outside of nationally designated landscapes, which are natural heritage; cultural heritage; landscape condition; associations; distinctiveness; recreational value; perceptual (scenic) qualities; perceptual (wildness and

tranquillity) qualities; and function. Landscape value is described as National/International, Local, Community or Limited, with the following definitions as shown in **AEI Table 6.3**

AEI Table 6.3: Landscape Value

National/International	Landscapes which are nationally or internationally designated for their landscape value.
Local	Locally or regionally designated landscapes; also areas which documentary evidence and/or site observation indicates as being more valued than the surrounding area.
Community	Landscape which is appreciated by the local community but has little or no wider recognition of its value.
Limited	Despoiled or degraded landscape with little or no evidence of being valued by the community.

6.5.19 Landscape sensitivity is assessed by combining the considerations of susceptibility and value described above.

AEI Table 6.4: Landscape Sensitivity

Landscape Sensitivity		Susceptibility		
		High	**Medium**	**Low**
Value	**National/International**	High	High-Medium	Medium
	Local	High-Medium	Medium	Medium-Low
	Community	Medium	Medium-Low	Low
	Limited	Low	Low-Negligible	Negligible

Visual Sensitivity

6.5.20 For visual receptors, susceptibility and value are closely linked – the most valued views are also likely to be those where viewer's expectations will be highest. Susceptibility of visual receptors is primarily a function of the expectations and occupation or activity of the receptors (GLVIA3, para **6.33**). The value attributed relates to the value of the view, e.g. a National Trail is nationally valued for access, not necessarily for the available views. Consequently, separate criteria for susceptibility and value are not provided and instead typical examples of visual receptor sensitivity are indicated in Table 6.5 below.

AEI Table 6.5: Visual Sensitivity

Visual Receptor Sensitivity		Susceptibility		
		High	**Medium**	**Low**
Value	**National/International**	High (1)	High-Medium (4)	Medium (8)
	Local	High-Medium (2)	High-Medium (5)	Medium (8)
	Community	High-Medium (3)	Medium (6)	Medium-Low (9)
	Limited	Medium	Medium-Low (7)	Low (10)

1. Visitors to valued viewpoints or routes which people might visit purely to experience the view, e.g. promoted or well-known viewpoints, routes from which views that form part of the special qualities of a designated landscape can be well appreciated; key designed views; panoramic viewpoints marked on maps.
2. People in locations where they are likely to pause to appreciate the view, such as from local waypoints such as benches; or at key views to/from local landmarks. Visitors to local attractions, heritage assets or public parks where views are an important contributor to the experience, or key views into/out of Conservation Areas.
3. People in the streets around their home, or using public rights of way, navigable waterways or accessible open space (public parks, open access land).
4. Users of promoted scenic rail routes.
5. Users of promoted scenic local road routes.
6. Users of cycle routes, local roads and railways.
7. Outdoor workers.
8. Users of A-roads which are nationally or locally promoted scenic routes.
9. Users of sports facilities such as cricket grounds and golf courses.
10. Users of Motorways and A-roads; shoppers at retail parks, people at their (indoor) places of work.

Magnitude of Effect

6.5.21 The Magnitude of effect is informed by combining the scale, duration and extent of effect. Scale of effect identifies the degree of change which will arise from the development. Duration of effect identifies the time period over which the change to the receptor as a result of the development will arise. Extent of effects indicates the geographic area over which the effects will be felt.

AEI Table 6.6: Magnitude of Effect

	Higher	⟷	Lower
Scale	Total or major alteration to key elements, features, qualities or characteristics of the landscape or view, such that post development the baseline will be fundamentally changed.	⟷	Very minor alteration to key elements, features, qualities or characteristics of the landscape or view, such that post development the baseline will be fundamentally unchanged with barely perceptible differences.
Duration	The change is expected to be permanent and there is no intention for it to be reversed.	⟷	The change is expected to be in place for 0-2 years and will be reversed, fully mitigated or no longer occurring beyond that timeframe.
Extent	Effects would be experienced over a wide geographic area.	⟷	Effects would be experienced at the site level or within its immediate context.

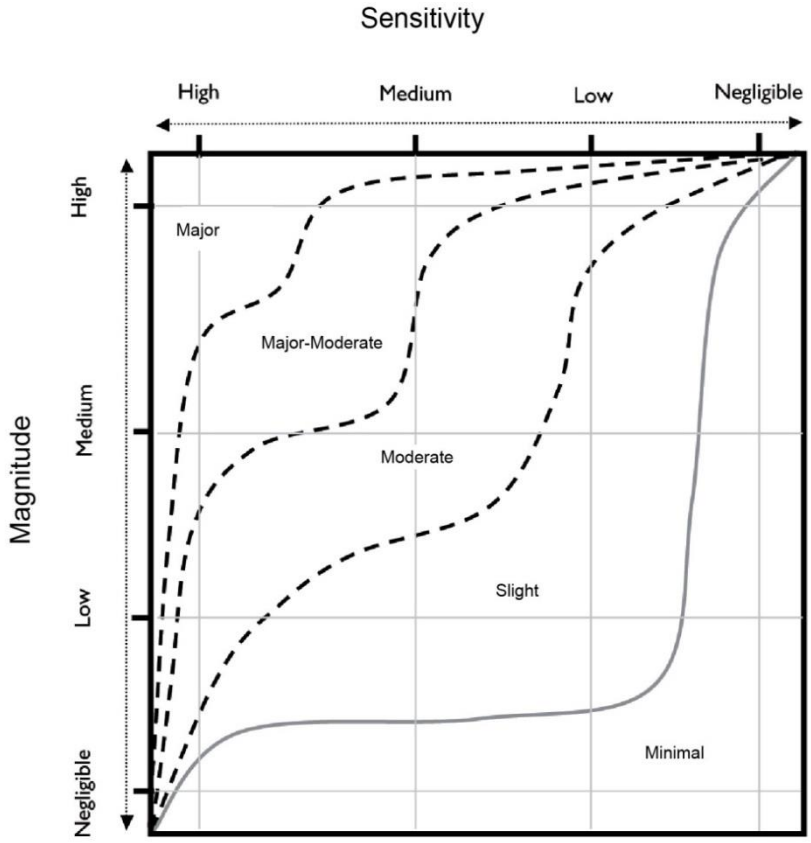
6.5.22 The effects are considered to be reversible after a period of 50 years, as the revised proposed development will be removed, unless a further application to extend the life of the revised proposed development is applied for and granted, or an alternative application to 'repower' with new wind turbines and associated infrastructure is applied for and granted. The effects of the revised proposed development on the landscape are substantially reversible.

6.5.23 Judgements on the magnitude of landscape effect (nature of landscape effect) are recorded as high, medium, low or negligible and are guided by **Table 6.6** above. Scale is the primary factor in determining magnitude; magnitude will typically be judged to be the same as scale but may be higher if the effect is particularly widespread and long lasting, or lower if it is constrained in geographic extent or timescale. Where the Scale of effect is judged to be Negligible the Magnitude is also assumed to be Negligible and no further judgement in relation to Magnitude is required.

Significance Criteria

6.5.24 The process of forming a judgement as to the degree of significance of the effect is based upon the assessments of magnitude of effects and sensitivity of the receptor to come to a professional judgement of how important this effect is. This judgement is illustrated by **Diagram 6.1** below:

AEI Diagram 6.1: Significance



6.5.25 The significance ratings indicate a 'sliding scale' of the relative importance of the effect, with Major being the most important and Minimal being the least. Effects that are Major-Moderate or Major are considered to be Significant in EIA terms. Effects of Slight significance or less are *"of lesser concern"* (GLVIA3, para 3.35) and Not Significant in EIA terms. Moderate effects are considered to be potentially significant, and professional judgment is used to determine whether the effect in question is Significant or Not Significant, with analysis provided to justify the rating. An effect is likely to be assessed as Significant where the sensitivity of the receptor combined with magnitude of change results in a degree of effect that is towards the higher end of the Moderate range (illustrated in **Diagram 1** above) and is therefore judged more *"likely to influence the eventual decision"*. It should also be noted that whilst an effect may be Significant, that does not necessarily mean that such an impact should be found unacceptable or should necessarily be regarded as an *"undue consequence"* (GLVIA3, para 5.40).

6.5.26 Where intermediate ratings are given, e.g. "*Moderate-Slight*", this indicates an effect that is both less than Moderate and more than Slight, rather than one which varies across the range. In such cases, the higher rating will always be given first; this does not mean that the impact is closer to that higher

rating but is done to facilitate the identification of the more significant effects within tables. The judgments relating to intermediate ratings may also be used for judgements of Magnitude.

Beneficial / Neutral / Adverse

6.5.27 Effects are defined as Beneficial, Neutral or Adverse. Neutral effects are those which overall are neither Adverse nor Beneficial but may incorporate a combination of both.

6.5.28 The finding of a significant effect and the decision regarding whether an effect is beneficial or adverse are entirely separate. For example, a rating of Major and Beneficial would indicate an effect that was Significant and Positive. An effect identified as Major and Adverse would also be Significant in EIA Regulation terms.

6.5.29 Whether an effect is Beneficial, Neutral or Adverse is identified based on professional judgement. GLVIA3 indicates at paragraph 2.15 that this is a "*particularly challenging*" aspect of assessment, particularly in the context of a changing landscape.

6.5.30 For wind farm developments, as a worst-case scenario, it is assumed that most effects are Adverse, unless effects are of such a small magnitude that they are barely perceivable and are therefore considered to be Neutral.

Night Time Assessment

6.5.31 Since the submission of the EIA Report October 2023, best-practice concerning night time assessment has been updated, as follows.

6.5.32 All structures of 150 m and above in height require mandatory visible spectrum aviation lighting. Night time assessment of visible aviation lighting for onshore wind turbines on landscape and visual receptors is a relatively new area and there is as yet no specific policy or guidance on the subject. Emerging best-practice, including NatureScot *Guidance on Aviation Lighting Impact Assessment* (2024)[19], is followed in undertaking this assessment.

6.5.33 A study area of 20 km for night time effects has selected as appropriate for this assessment. Beyond 20 km lighting from other sources, such as from settlements, roads or cumulative developments, will result in the revised proposed development being seen as a minor element within the view. The NatureScot Guidance indicates: *"The study area will normally be a smaller area than used in the LVIA day-time assessment. Experience suggests that a study area of between approximately 10km - 20km, depending on the extent of predicted visibility and relevant sensitivities, should be sufficient to ensure significant effects are captured".*

6.5.34 For the purposes of the EIA Report October 2023, East Lothian Council requested night time viewpoints at two locations outside of the originally proposed night time assessment study area, at Viewpoints 11 and 30 (**AEI Figures 6.24** and **6.43**).

6.5.35 These have been retained for this chapter's purposes, to maintain consistency between the EIA Report October 2023 and this LVIA, and to allow East Lothian Council to understand likely night time

[19] NatureScot. (September 2024). Guidance on Aviation Lighting Impact Assessment. Available at: https://www.nature.scot/doc/guidance-aviation-lighting-impact-assessment#appendices

effects from within their administrative area. It is acknowledged that viewpoint 11 would now lie within the 20 km study used for the night-time assessment.

Night Time Effects on Landscape Character

6.5.36 The NatureScot *Guidance on Aviation Lighting Impact Assessment* concentrates predominantly on the visual effects of nighttime lighting, although it does not overtly exclude the need to consider effects on landscape character at night. However, the findings of the Scottish Ministers in the Crystal Rig IV decision (Case reference WIN-140-8, ECU reference ECU00000607) indicate in the first paragraph on page 12 of the Decision Notice that: *"It is noted that the Reporters conclude that proposed aviation lighting would be a visual impact alone and consider that without being able to see and fully appreciate the features of the landscape and the composition of views, it is not possible to carry out a meaningful landscape character assessment. The Scottish Ministers concur with this conclusion".*

6.5.37 As a result, this LVIA does not consider the effects of lighting on landscape character in line with current best-practice; an update since the EIA Report October 2023.

Night Time Effects on Visual Receptors

6.5.38 For visual receptors, the assessment will take account of the different importance attached to views in the night-time environment. Generally, the value attached to night-time views is considered to be low unless there is a particular feature that can be best appreciated in the hours of darkness. This may include views of stars and the night sky that are only possible in particularly dark areas or views of well-known landmarks that are lit up at night.

6.5.39 The susceptibility of receptors also differs at night reflecting the different activities people undertake in the hours of darkness. For example, drivers using roads at night tend to be more focused on the road and the area illuminated by their headlights than during the day and may have oncoming headlights, cat's eyes or other reflective signage drawing their attention, resulting in lower susceptibility. This is particularly the case on unlit rural roads that may be narrow and winding. On the other hand, people taking part in activities requiring darkness, such as stargazing, would be of higher susceptibility. **AEI Technical Appendix 6.1** provides further detail on the approach taken to visual receptor sensitivity at night and the factors that influence the visibility of aviation lighting, as set out in NatureScot's *Guidance on Aviation Lighting Impact Assessment*.

Cumulative Assessment

6.5.40 Cumulative assessment relates to the assessment of the effects of more than one development. It can be defined as the additional changes caused by a revised proposed development in conjunction with other similar developments, and in this case relates to the effects of the revised proposed development with other operational, consented or proposed wind farm developments.

6.5.41 A search area of 35 km from the site (a similar scale to the study area) has been agreed with key stakeholders for the EIA Report October 2023. In terms of selecting which wind farm developments within the study area should be included, NatureScot Guidance *Assessing the Cumulative Impact of Onshore Wind Energy Developments* (2021)[20] advises that: *"An assessment of cumulative impacts*

[20] NatureScot. (March 2021). Assessing the Cumulative Landscape and Visual Impact of Onshore Wind Energy Developments. Available at: https://www.nature.scot/doc/guidance-assessing-cumulative-landscape-and-visual-impact-onshore-wind-energy-developments

associated with a specific development proposal should encompass the effects of the proposal in combination with:

- *existing development, either built or under construction;*
- *approved development, awaiting implementation; and*
- *proposals awaiting determination within the planning process with design information in the public domain. Proposals and design information may be deemed to be in the public domain once an application has been lodged, and the decision-making authority has formally registered the application."* [para. 26] – note that this category also includes recently refused applications which may yet be appealed.

6.5.42 For this assessment, the following detailed criteria are used for the cumulative assessment:

- Full detail (including wind turbine locations and heights[21]) is included for wind farms of 50 m to tip (or greater) within the full 35 km study area. The 35 km radius is applied flexibly such that wind farms only just beyond this distance and/or those that are judged to be particularly relevant to the assessment based on the assessed effects of the revised proposed development are also included in full detail.
- A cut-off for finalising the sites of 1 January 2025 was initially used, with a final review undertaken at the end of February 2025, to allow sufficient time for visualisations to be prepared to inform this LVIA.
- The visualisations model all wind farm developments within 35 km of the proposed wind turbines.

6.5.43 These criteria were proposed in the formal EIA Scoping Report (July 2023) and further discussed, where relevant, with key stakeholders (refer to **AEI Table 6.1**) for the purposes of the EIA Report October 2023.

6.5.44 Developments which are in scoping are noted for context but are not included within the assessment unless they have become active applications by the cut off date for inclusion in the cumulative assessment. This is because reliable information with respect to the wind turbine layout design is not available for these developments and any assessment could not therefor have any degree of certainty.

6.5.45 Since the submission of the EIA Report October 2023, the status of four developments have matured from scoping to applications. As such, this LVIA will incorporate these four updated developments.

6.5.46 The cumulative assessment examines the same landscape and visual receptors as the assessment for the revised proposed development. The assessment is informed by cumulative ZTVs, showing the extent of visual effects of the developments in different colours to illustrate where visibility of more than one development is likely to arise. Cumulative wireframes have been prepared which show each of the developments in different colours so that they are each readily identifiable.

6.5.47 In addition, the effects on users of routes through the area, from which wind farms may be sequentially visible as one passes through the landscape are also considered. This assessment is based on the desk study of ZTVs and aerial photography, and site visits to travel along the routes being assessed.

[21] Sourced from planning application details via the Energy Consent Unit or local authority websites

6.5.48 It is important to note the following:

- Operational and consented wind farms are treated as being part of the landscape and visual baseline i.e. it is assumed that consented developments will be built except for occasional exceptions where there is good reason to assume that they will not be constructed. Reflecting this, the main LVIA assesses effects on the basis that these developments are (and will be for consented developments) in place as part of the baseline.
- Developments in planning are assessed via a series of scenarios involving one or several of the other developments being consented along with (or before) the revised proposed development. Two assessment ratings are provided for each scenario – one which indicates the combined effects if all of the developments in that scenario were consented together (combined effects); and one which indicates the additional effects that consenting the revised proposed development would have if the other developments were already consented (incremental effects).

6.5.49 For each assessed receptor, combined effects may be the same as for the revised proposed development, or greater (where the influence of multiple developments would increase effects, or where developments in planning other than the revised proposed development would have the predominant effects).

6.5.50 For each assessed receptor, incremental effects may be the same as for the revised proposed development; or reduced, where the influence of other developments in planning would be such that were they consented and considered to be part of the baseline and the incremental change arising from the addition of the revised proposed development would be less.

Residential Visual Amenity Assessment

6.5.51 Wind farms are generally regarded as being a form of development for which it is appropriate to undertake a residential visual amenity assessment, as the scale of development is such that the wind turbines may lead to effects being perceived as overbearing or overwhelming as set out within the Landscape Institute's Residential Visual Amenity Assessment (RVAA) Guidance (LI TGN 02/19) (2019).

6.5.52 For the revised proposed development, a 2.5 km study area for the RVAA has been updated and retained for the purposes of this LVIA. The full methodology for the study, including the selection of the study area, in line with LI TGN 02/19, is set out within **AEI Technical Appendix 6.3** alongside an updated RVAA.

6.5.53 Cross references are made between the LVIA and the RVAA as follows:

- where viewpoints are located close to properties, this is noted in the RVAA;
- the availability of views from properties towards the revised proposed development will be noted where relevant within the LVIA (for example in respect of effects on settlements); and
- an overview of visual effects on the properties covered by the RVAA will be provided within the summary of the LVIA.

Distances

6.5.54 Where distances are given in the assessment, these are approximate distances between the nearest wind turbine and the nearest part of the receptor in question, unless stated otherwise.

6.5.55 Distance have been checked and update for this chapter, where required, following on from revisions to the revised proposed development.

6.6 Baseline

6.6.1 An overview of the baseline study is provided in this section, presenting a review of the key local guidance documents and all of the landscape and visual receptors identified within the extent of the study area.

6.6.2 The baseline conditions largely remain consistent with what was reported in the EIA Report October 2023. However, due to changes in the LVIA study areas, which have shifted geographically to match the revised proposed development, this chapter re-examines the landscape and visual resources originally identified (for the EIA Report October 2023) for this assessment, following the scope outlined in Section 6.4.

6.6.3 This section updates the original assessment of all the identified receptors from the LVIA submitted as part of EIA Report October 2023, setting out which receptors still merit further detailed consideration in Section 6.7; and which receptors are not taken forward for further assessment, as effects *"have been judged unlikely to occur or so insignificant that it is not essential to consider them further"* (GLVIA3, para. 3.19).

6.6.4 Full baseline descriptions are provided alongside the assessment of effects for those receptors taken forward to Section 6.7, for ease of reference.

6.6.5 Both this updated baseline study section and Section 6.7 describe landscape character and visual receptors before considering designated landscapes. It is common for designations to encompass both character and visual considerations within their special qualities or purposes of designation. It therefore makes a more natural reading sequence to draw together those aspects of character and views which relate to the designation if they have been described earlier in the chapter.

ZTV Studies

6.6.6 The LVIA's ZTV studies have been generated based on the revised layout of the revised proposed development and the candidate wind turbine sizes. The extent of visibility of the revised layout remains similar, in its extent and spread, to the original ZTV studies of the EIA Report October 2023. Only a few areas would experience a minimal reduction in the spread of visibility. The only notable area would be the revised proposed development's south-east, near Westruther, where the extent of hub visibility has reduced. The extent of visibility of the blade tip remains very similar in its extent.

6.6.7 The ZTVs have been used as a tool to inform the professional judgements made in this LVIA during the iterative design process and stages. Mitigation measures, relevant to this chapter, are documented in Section 6.8, with further details of the design evolution found in **AEI Chapter 3 – Revised Proposed Development Description**.

6.6.8 The ZTV studies are shown on **AEI Figures 6.5** and **6.6** and indicate areas of potential visibility. In accordance with NatureScot guidance *Visual Representation of Wind Farms* (2017) the analysis has been prepared using a topographic model alone (**AEI Figure 6.5**) and including woodlands and settlements (with heights derived from NEXTMAP25 surface mapping data) as visual barriers to provide a more realistic indication of potential visibility (**AEI Figure 6.6**).

6.6.9 The ZTV studies have been used to determine which landscape and visual receptors are likely to be affected and merit detailed consideration in the assessment of effect, and those which are unlikely to have visibility.

6.6.10 Further ZTV studies have been reprepared to support the assessment of character (**AEI Figure 6.7**), night time lighting (**AEI Figure 6.12**) and cumulative effects (**AEI Figures 6.9** and **6.10**) effects.

6.6.11 It should be borne in mind that the ZTVs represent a theoretical model of the potential visibility of the revised proposed development. In reality, landscape features such as trees, hedgerows, embankments, landform and / or buildings found on the ground, but not accounted for within the surface mapping dataset, are likely to combine to screen the revised proposed development to a greater degree. It should be noted that there is active forestry within the area, resulting in the felling and replanting of some areas of woodland modelled in the ZTV study (**AEI Figure 6.6**) which may result in localised variations to the visibility pattern. As a result, the extent of actual visibility experienced on the ground may differ to that suggested by the ZTV study. At the time of assessment, there are no known areas of substantial active forestry.

ZTV and Zone of Visual Influence

6.6.12 The ZTV studies on **AEI Figures 6.5** and **6.6** indicate that the revised proposed development's theoretical visibility would be generally uninterrupted within 5 km of the proposed wind turbines, except at the base of steep sided valleys and cleughs, and on the sides of hills furthest from the site.

6.6.13 Between 5 – 15 km theoretical visibility to the east, south and west, becomes more intermittent, due to the landform and areas of forest/woodland. To the site's north, the landform of the Lammermuir Hills create a break in theoretical visibility beyond approximately 5 km, where the landform falls on the north side of these hills (see **AEI Figure 6.4**). When theoretical visibility extends in this direction, it is largely limited to intermittent visibility of blade tips between 5 – 15 km.

6.6.14 Further from the site, between 15 – 25 km, theoretical visibility becomes more limited, particularly to the east and south. In the west, theoretical visibility is shown on the east facing slopes of the Moorfoot Hills. To the north there is an increase in theoretical visibility, particularly along the A1 road corridor and to the south of Gullane, Dirleton and North Berwick. Theoretical visibility to the north varies between hub and tip visibility and blade tip only visibility.

6.6.15 Beyond 25 km theoretical visibility in the east, south-east, south and west becomes increasingly fragmented with theoretical visibility only shown on areas of higher or more open ground. Theoretical visibility is largely absent in the south-west and is predominantly shown on hill tops and ridge lines; this is due in part to the large areas of forestry within this area and the presence of tall hills closer to the site which provide a degree of screening. To the north and north-west theoretical visibility is shown across the Firth of Forth, with patchy visibility shown along the landform on the north side of the Firth. To the north-east, visibility across the mouth of the Firth/the North Sea is reduced close to shore due to the screening provided by the Lammermuir Hills closer to the site.

6.6.16 The anticipated main areas of visibility, hereafter referred to as the Zone of Visual Influence (ZVI), is described below. A ZVI is used to describe the ZTV with a greater degree of accuracy and is based on site observations and detailed study of the ZTVs.

6.6.17 Site observations confirm that the ZVI will extend:

- to the edge of Gullane, Dirleton and North Berwick in the north;
- approximately 5 km to the north-east along the southern half of the Lammermuir Hills;
- approximately 17 km to the east to Black Hill Wind Farm and Camp Moor;
- approximately 21 km to the south-east towards Greenlaw and Swethope Hill;
- approximately 25 km to the south;
- approximately 25 km to the south-west and west to encompass the Moorfoot Hills; and
- along the eastern side of the Pentland Hills north of Carlops, to Arthur's Seat and to Tranent in the north-west.

6.6.18 The ZVI is drawn on **AEI Figure 6.5** for ease of reference. Based on fieldwork observations, whilst there may be some areas with visibility of the proposed wind turbines, it is judged that landscape or visual receptors outside the ZVI described above will experience Negligible change and are not assessed in further detail in this report. The ZVI's extent remains as it was drawn for the EIA Report October 2023.

Current Baseline

Landscape Character

6.6.19 Paragraphs 5.13-5.15 of GLVIA3 indicate that landscape character studies at the national or regional level are best used to *"set the scene"* and understand the landscape context. It indicates that Local Authority Assessments provide more detail and that these should be used to form the basis of the assessment of effects on landscape character, with (appropriately justified) adaptation, refinement and interpretation where required.

6.6.20 In Scotland, NatureScot commissioned a series of regional Landscape Character Assessments (LCAs) in the 1990s which mapped the landscape character of all of Scotland and typically covered individual local authority areas.

6.6.21 Following a review, these assessments were superseded by NatureScot's 2019 *Landscape Character Assessment*[22], which provides a unified approach to Landscape Character Types (LCTs) across local authority areas and takes into account the latest available data.

6.6.22 NatureScot's 2019 *Landscape Character Assessment* is used as the basis of consideration of effects on landscape character for this assessment.

6.6.23 The latest landscape capacity studies for onshore wind, produced by some local authorities within the study area, were produced prior to the 2019 update to the NatureScot LCA and reference the LCAs from the 1990s to form judgements on the sensitivity of individual LCTs. It is noted that the 1990s LCTs remain broadly similar to those within NatureScot's 2019 assessment. Where LCTs differ between the 2019 assessment and those listed within the landscape capacity studies, these changes are described and reasonable inferences made in transposing the information to this chapter.

[22] NatureScot (2019). Landscape Character Assessment. Available at: https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/landscape-character-assessment-scotland

6.6.24 In England, landscape character in Northumberland is covered either within the *Northumberland Landscape Character Assessment* (2010)[23] or the *Update of Landscape Character Assessment for Northumberland National Park* (2019)[24].

6.6.25 The relevant LCTs and LCAs are shown on **AEI Figure 6.3**.

National Landscape Character

6.6.26 There is no high level national landscape character assessment for Scotland, instead landscape character is assessed at a local level within NatureScot's 2019 *Landscape Character Assessment*.

6.6.27 In England, national landscape character is described within Natural England's *National Character Area (NCA) Profiles* (2014)[25]. Within the study area these include:

- NCA1: North Northumberland Coastal Plain (37.7 km, east)
- NCA3: Cheviot Fringe (29.0 km, south-east)
- NCA4: Cheviots (36.9 km, south-east)

6.6.28 The NCA profiles provide the wider context to the landscape character assessment. Together they describe the transition in character from the smooth rounded hills of the Cheviots (NCA4), which rise steeply above the lowland belt of the Cheviot Fringe NCA (NCA3) to the gently undulating, windswept plain along Northumberland's coast (NCA1).

6.6.29 The NCAs provide context to assessment. However, they lie outwith the 15 km landscape character study area and effects on NCAs are not assessed in further detail.

Local Landscape Character

6.6.30 Only those LCTs within 15 km of the nearest wind turbine are included in this assessment, as LCTs beyond 15 km will not experience more than Negligible effects on character. This is due to a combination of the existing pattern of wind farm development across the study area (see **AEI Figure 6.8**) and how they influence the landscape's character; the theoretical visibility pattern shown on the ZTV (see **AEI Figure 6.7**), which reduces in extent and spread with distance; and the reduction of effects arising from the revised proposed development with distance.

6.6.31 For the purposes of this LVIA, and following the scope outlined in Section 6.4, LCTs identified in the EIA Report October 2023 have been reconsidered, identifying those LCTs in the original assessment that would result in potential effects greater than Negligible magnitude and/or Minimal significance.

Northumberland County Council (2010). Northumberland Landscape Character Assessment. Available at: https://www.northumberland.gov.uk/NorthumberlandCountyCouncil/media/Planning-and-Building/planning%20policy/Studies%20and%20Evidence%20Reports/Landscape%20Green%20Spaces%20Studies/1.%20Landscape%20Character/Landscape-Character-Part-A.pdf and https://www.northumberland.gov.uk/NorthumberlandCountyCouncil/media/Planning-and-Building/planning%20policy/Studies%20and%20Evidence%20Reports/Landscape%20Green%20Spaces%20Studies/1.%20Landscape%20Character/Landscape-Character-Part-B.pdf

[24] [24] Northumberland National Park Authority (2019). Update of Landscape Character Assessment for Northumberland National Park. Available at: https://www.northumberlandnationalpark.org.uk/wp-content/uploads/2020/07/NNPA-022-Landscape-Character-Assessment.pdf

[25] Natural England (2014). National Character Area (NCA) Profiles. Available at: https://nationalcharacterareas.co.uk/

6.6.32 In support of this Chapter, **AEI Figure 6.7** has been prepared, which overlays the ZTV study (initially shown on **AEI Figure 6.5**) with the landscape character areas/types (initially shown on **AEI Figure 6.3**) to help aid the narrative below.

6.6.33 The NatureScot *Landscape Character Assessment* (2019) provides the sole reference for landscape character within this 15 km area.

NatureScot Landscape Character Assessment (2019)

6.6.34 The site is predominantly located within the western extent of LCT90 – Dissected Plateau Moorland, which extends eastward along the boundary between East Lothian and Scottish Borders Council. A short section of the site access route is located within LCT115 – Upland Valley with Mixed Farmland which broadly follows the A68 road corridor between Oxton and Lauder.

6.6.35 Effects on the following LCTs are assessed within **Section 6.7**, based on the revised proposed development:

- LCT90 – Dissected Plateau Moorland (includes site)
- LCT115 – Upland Valley with Mixed Farmland (includes site)
- LCT266 – Plateau Moorland – Lothians (2.2 km, north)
- LCT91 – Plateau Grassland – Borders (2.3 km, west)
- LCT99 – Rolling Farmland – Borders (3.8 km, south)
- LCT117 – Pastoral Upland Fringe Valley (7.0 km, south)
- LCT103 – Undulating Upland Fringe (7.6 km, south)
- LCT115 – Upland Valley with Mixed Farmland (8.3 km, east)
- LCT105 – Upland Fringe Moorland with Hills (9.8 km, east)
- LCT108 – Lowland Margin (13.2 km south-east)

6.6.36 Baseline descriptions provided alongside the assessment of effects for ease of reference

6.6.37 The following LCTs were excluded from the detailed assessment of the EIA Report October 2023 on the basis that effects are likely to be Negligible and/or Minimal significance (which is not significant) . Based on an evaluation of the revised proposed development, it has been judged potential effects would remain Negligible (for this LVIA and are not assessed in further detail in this chapter

- LCT269 – Upland Fringes – Lothians (4.5 km, north) –This linear LCT runs east to west in the transitional landscape to the north of the Lammermuir Hills. It is noted that visibility of existing turbines is not dominant in most of this LCT due to the rolling landform, shelterbelts and plantations that reduce turbine impacts. **AEI Figure 6.7** shows limited visibility of the revised proposed development within the LCT except for in more distant views to the west, where the existing Dun Law, Pogbie and Keith Hill Wind Farms (see **AEI Figure 6.8**) lie between the site and this LCT. Due to the visibility pattern and the locations of existing wind farms, the revised proposed development is unlikely to alter the character of this area.
- LCT270 – Lowland River Valleys – Lothians (8.6 km, north-west) & LCT270 – Lowland River Valleys – Lothians (11.3 km, north) – These two areas of LCT270 are primarily characterised by meandering water courses with views generally enclosed by topography and dense woodland. This enclosure explains the limited visibility shown within these areas of LCT270 on **AEI Figure 6.7**. Visibility of the revised proposed development will be limited to a very small number of blade tips from small areas of these LCTs, often seen behind or in the context of existing wind

farms. This semi-distant, limited visibility is unlikely to alter the character of these LCTs which will remain predominantly enclosed, rural and tranquil.

6.6.38 Similarly, the EIA Report October 2023 assessed that the following LCTs will experience effects that would be Negligible and/or Minimal significance. Based on an evaluation of the revised proposed development, it has been judged effects would remain Negligible for this LVIA, and are not assessed in further detail:

- LCT267 – Plateau Grassland – Lothians (5.2 km, north-west)
- LCT270 – Lowland River Valleys – Lothians (7.4 km, north)
- LCT275 – Lowland Farmed Plains – Lothians (8.3 km, north)
- LCT114 – Pastoral Upland Valley (9.4 km, south-west)
- LCT90 – Dissected Plateau Moorland (13.1 km, south-west)
- LCT109 – Lowland Margin with Hills (13.4 km, south)
- LCT102 – Upland Fringe with Prominent Hills (14.0 km, east)

Visual Receptors

6.6.39 Visual receptors are *"the different groups of people who may experience views of the development"* (GLVIA, 3rd edition, para 6.3). The ZTV studies, baseline desk study and site visits have been used to identify those visual receptor groups who may be affected.

6.6.40 The different types of groups assessed within this report encompass local residents; people using key routes such as roads; cycle ways, people within accessible or recreational landscapes; people using Public Rights of Way and Core Paths; or people visiting key viewpoints. In dealing with areas of settlement, Public Rights of Way and local roads, receptors are grouped into areas where effects might be expected to be broadly similar, or areas which share particular factors in common. The different Assessment Criteria factors, as described in **Section 6.5**, are presented in the summary tables of the representative viewpoints presented at the outset of this chapter's assessment in Section 6.7. These tables summarise the scale of effect, magnitude and significance from the vicinity of each viewpoint location.

6.6.41 30 representative viewpoints were originally selected to assess the effects on visual receptors, which agreed with consultees for the EIA Report October 2023 and are retained for this chapter. These viewpoints included specific viewpoints, which were identified as being key promoted views in the study area. Six additional views were requested by consultees following the original submission and are included in support of this chapter and its assessment. They are presented as wireframes only (i.e. without an existing baseline photography) to demonstrate the limited visibility. They are entitled Viewpoints 31 to 36 (see **AEI Figures 6.44** to **6.49**). Further details about the wirelines and photomontage visualisations used to aid the LVIA is described in Section 6.7. No illustrative viewpoints to *"demonstrate a particular effect or specific issues, which might, for example, be the restricted visibility at certain locations"* (GLVIA, 3rd edition, para 6.20) have been utilised.

Visual Environment of the Site

6.6.42 As shown on **AEI Figure 6.1**, the revised proposed development is located across a series of level topped hills of moorland. At present, the site is predominantly used for sport hunting with additional sheep and cattle grazing. Whalplaw Burn passes through the centre of the site in a steep sided,

convex valley, before flowing into Cleekhimin Burn and onwards towards Leader Water. Soonhope Burn also passes through the west of site where it feeds into Cleekhimin Burn.

6.6.43 **AEI Figure 6.4** shows the topography of the study area and the location of the site. The topography of the site ranges from around 200 m AOD along the access route adjacent to Cleekhimin Burn at its southern end, to 490 m AOD at its northern end. In general, beyond the site, the hill tops are higher to the eastern side of the site, where they range from 414 m AOD to 490 m; in the west, hill tops range from 360 m AOD to 399 m AOD.

6.6.44 The landscape directly to the north, east and west of the site is that of the wider Lammermuir Hills and remains as a generally upland plateau landscape, with further level topped hills and steep sided valleys. Immediately to the south of the site the A68 and A697 pass along the broad flat valley floor which follows the route of Leader Water.

6.6.45 The village of Oxton lies on the lower valley slopes 3.6 km west of the nearest wind turbine and is accessed via a number of minor roads off the A68. Lauder, the nearest town, is located 6.4 km south of the nearest wind turbine on the A68. There are a number of smaller settlements and farmsteads close to the site, which are generally located to the south and west at the base of valleys or on the lower slopes (see **AEI Figure 6.1** and **AEI Technical Appendix 6.3**).

6.6.46 As shown on **AEI Figure 6.8**, there are multiple operational and consented wind farms within 35 km of the site, particularly along the Moorfoot and Lammermuir Hills. The nearest operational wind farm is Fallago Rig, which lies adjacent to the north-eastern boundary of the site. Further operational and consented wind farms within the study area include: Pogbie I & II, Keith Hill, Dun Law I & II, Toddleburn, Longpark, Carcant, Bowbeat, Crystal Rig I, II & III, Aikengall I, II & IIa, Ferneylea, Hoprigshiels, Quixwood, Black Hill, Brockholes, Penmanshiel, Howpark and Drone Hill.

Visual Receptor Groups

6.6.47 Visual effects are assessed for groups of visual receptors within close proximity of each other and that are judged to experience similar visual effects arising from the revised proposed development. These are referred to as visual receptor groups and include motorists on local roads, users of rights of way and open spaces, and local residents or visitors to settlements.

6.6.48 For the purposes of this LVIA, and following the scope outlined in **Section 6.4**, visual receptor groups have been identified within the extent of the ZVI and are taken forward for detailed assessment in **Section 6.7**. It is judged that for those visual receptors located outside of the ZVI there will be little to no visibility of the revised proposed development, and that effects will be Negligible at most. Visual receptors located outside of the ZVI are not taken forward for detailed assessment.

6.6.49 The visual receptor groups identified in this LVIA replicate those originally identified in the assessment of the EIA Report October 2023. In reconsidering the original visual receptor groups, those identified in the original assessment that resulted in potential effects no greater than Negligible magnitude and/or Minimal significance, are not taken forward for detailed assessment in **Section 6.7**. These are listed after **AEI Table 6.7** for completeness

6.6.50 The extents of the Visual Receptor Groups taken forward for detailed assessment is described in **Table 6.7**.

AEI Table 6.7 Visual Receptor Groups taken forward for assessment.

Visual Receptor Group Name	Location / Description
(1) Lammermuir Hills around the site (includes site) See Viewpoints 1,4,6,9 and 19 (**AEI Figures 6.14, 6.17, 6.19, 6.22** and **6.32**).	Recreational users, residents and users of minor roads within the Lammermuir Hills north of the A68 and A697, east of Keith Hill, Pogbie I & II and Dun Law I & II Wind Farms, south of Blinkbonny Wood and west of Longformacus, Harecleugh Forest and Spottiswoode
(2) Landscape and settlements along the A68 and A697 corridors from Soutra Hill to Ravenswood Roundabout and Greenlaw (2.0 km, south-west) See Viewpoints 2,3,5,7,23 and 25 (**AEI Figures 6.15**, **6.16**, **6.18**, **6.20**, **6.36** and **6.38**).	Residents and recreational users along the A68 and A697 road corridors from Soutra Hill to Ravenswood Roundabout and Greenlaw and the landscape up to approximately 1 km on immediately on either side. This group includes the settlements of Oxton, Lauder, Greenlaw, Earlston and other minor residential clusters. Users of the recreational landscapes and routes, such as Thirlestane Castle, and Core Paths are included where they pass through this receptor group.
(3) Recreational landscapes, minor roads and settlements west of the site (4.2 km, west). See Viewpoints 8,20,22 and 24 (**AEI Figures 6.21**, **6.33**, **6.35** and **6.37**).	Recreational users, residents and users of minor roads in an area bound in the east and west by the A68 and A7, and in the north and south by Fala Moor and Melrose and Galashiels respectively. This group includes users of Lauder Common and local Core Paths
(4) Minor roads, residents and recreational landscapes east of the Lammermuir Hills (5.3 km, east). See Viewpoint 26 (**AEI Figure 6.39**)	Users of the B6456 and minor roads, residents and recreational users of the landscape between the A697 and Longformacus and east of Harecleugh Forest and Spottiswoode.
(5) Recreational landscapes, minor roads and settlements south of the site (8.1 km, south). See Viewpoint 10 – **AEI Figure 6.23**	Recreational users, residents and users of minor roads in an area bound by the A697 between High Cross and Greenlaw in the north and the A68 between St Leonards Hill and Ravenswood Roundabout in the west.
(6) Semi-rural recreational landscapes, minor roads and minor settlements north of the Lammermuir Hills (7.5 km, north). See Viewpoints 12 and 28 (**AEI Figures 6.25** and **6.41**).	Recreational users, residents and users of minor roads in the area north of the Lammermuir Hills and Fala Moor, east of Gorebridge and Dalkeith, and south of east Linton, Haddington and Ormiston. This area also includes Ormiston.
(7) Semi-rural recreational landscapes, minor roads and minor settlements north of the Moorfoot Hills (14.6 km, west).	Recreational users, residents and users of roads in the area north of the Moorfoot Hills, west of Gorebridge, and south of Bonnyrigg and Penicuik.
(8) Landscape and settlements along the A1 road corridor from Tranent to West Barns (16.1 km, north). See Viewpoints 11 and 27 (**AEI Figures 6.24** and **6.40**).	Residents and recreational users along the A1 and A199 road corridors from Tranent to West Barns and the landscape up to approximately 3 km on immediately on either side in the west and 1.5 km either side in the east. This group includes the settlements of Tranent, Haddington, East Linton and other minor residential clusters. Users of the recreational landscapes and routes.

(9) Landscape and settlements along, and to the east of, the A701 road corridor from the A720 to Carlops (26.6 km, north-west).	Residents and recreational users along the A701 road corridor from the A720 to Carlops and the landscape up to approximately 2-4 km east of the A701. This group includes the settlements of Loanhead, Penicuik and other minor residential clusters. Users of the recreational landscapes and routes are included, however the Pentland Hills are not included within this group.
(10) Moorfoot Hills and the landscape to the south (11.1 km, west). See Viewpoint 13 (**AEI Figure 6.26**).	Recreational users, residents and users of the minor roads to the west of the A7 and south of the Moorfoot Hill (inclusive).
(11) Distant roads, residents and recreational landscapes south of Galashiels and Melrose (20.4 km, south). See Viewpoint 14 (**AEI Figure 6.27**).	Users of landscape south of Galashiels and Melrose, including residents, users of minor roads and users of the recreational landscape - including long distance walking routes and the popular local viewpoint on Eildon Hill

6.6.51 Visual Receptor Groups previously identified in the EIA Report October 2023 **not** taken forward for detailed assessment in this chapter:

- Recreational landscapes, minor roads and settlements between East Linton and North Berwick (18.8 km, north) – Recreational users, residents and users of roads in the area north of East Linton and South of Gullane, Dirleton and North Berwick (see VPs 15 and 30 (**AEI Figures 6.28** and **6.43**));
- Residents, users of local roads and landscapes in Edinburgh (24.1 km, north-west) – Residents, users of local roads and landscape within Edinburgh, north of the A720. This group includes users of open landscapes and key viewpoints, such as Holyrood Park/Arthur's Seat (see VP17 – **AEI Figure 6.30**), Blackford Hill and the Braid Hills; and
- Pentland Hills from the A720 to Carlops (30.5 km, north-west) – Recreational users, residents and users of minor roads within the Pentland Hills west of the A701 between the A720 and Carlops (see VP18 – **AEI Figure 6.31**).

Roads and Rail

6.6.52 The key road routes listed below are located within the ZVI of the revised proposed development. For the purposes of this LVIA, it has been determined, as it was for the EIA Report October 2023, that potential visual effects would be experienced from the following routes:

- A697 (3.0 km, south) – which runs south-east from Oxton/the A68, passed the site entrance, towards Coldstream;
- A68 (3.3 km, west) – which runs south-east from the edge of Edinburgh through Lauder towards Jedburgh and the Scottish Border;
- A6089 (8.4 km, south) – which runs in a south-west alignment from Whiteburn to Kelso; and
- A6105 (13.7 km, south) – which runs on an east-west axis from Earlston to Berwick-upon-Tweed.

6.6.53 The EIA Report October 2023 concluded that the road routes listed below would experience effects of Negligible and/or Minimal significance (not significant). Following an evaluation of the revised

proposed development, it has been determined that potential effects will remain Negligible for these routes, and are not reassessed in this chapter:

- A6093 (15.8 km, north) – which connects the A68 south of Fordel to Haddington;
- A6137 (16.7 km, north) – which passes north from Haddington to Aberlady on the coast;
- A1 (17.1 km, north) – which runs east from central Edinburgh towards Dunbar, before continuing south down the coast;
- A199 (17.1 km, north) – which follows a broadly the same route as the A1, connecting Edinburgh to Dunbar in the east;
- A6106 (19.5 km, north-west) – which passes from Fordel to Portobello;
- A198 (19.7 km, north) – which provides a loop along the coast from Tranent to Tyninghame; and
- A702 (30.3 km, north-west) – which routes from Edinburgh past the Pentland Hills to St John's Town of Dalry in the south-west.

6.6.54 The following road routes were excluded from the detailed assessment in the EIA Report October 2023 for various reasons detailed below. After evaluating the revised proposed development, it has been determined that the effects on these road routes remain Negligible and will therefore not be assessed in this chapter. The list below reiterates the reasons for their continued exclusion from the original LVIA in the EIA Report October 2023.

- A7 (11.1 km, west) – which runs broadly north to south from Edinburgh to Carlisle, via Galashiels. This route runs along the base of a river valley for the majority of its route within the ZVI; the ZTV (**AEI Figure 6.6**) shows no theoretical visibility for the majority of the route. Where short sections of theoretical visibility are present, such as on the edge of Edinburgh, any visibility will be screened by local vegetation not captured by the ZTV;
- A72 (18.7 km, south) – which is a fragmented route that runs broadly east to west from Hamilton to Galashiels. No theoretical visibility is shown along this route where it passes within the ZVI;
- A6124 (19.5 km, north-west) – which runs from Musselburgh to Fordel on a broadly north-south axis. Visibility of the revised proposed development will be limited to glimpsed views above and behind vegetation at the junction of the A6124 and the A68. The majority of this route will not experience views of the revised proposed development;
- A6091 (20.2 km, south) – this short section of road connects Galashiels to Newton St Boswells, via Melrose. No theoretical visibility is shown along this route;
- A6094 (22.8 km, north-west) – which runs from Leadburn to Wallyford. Visibility along this route will be limited to a short section (less than 700 m) of this 24.1 km route between Rosewell and Bonnyrigg, where blades will be visible above the distant hills. Roadside vegetation often interrupts visibility along this section, reducing the potential visual effects;
- A707 (23.4 km, south) – which winds north from Selkirk to near Clovenfords. No theoretical visibility is shown along this route where it passes within the ZVI;
- A768 (23.6 km, north-west) – passes from Eskbank to Bilston along a parallel route to the Edinburgh City Bypass. The ZTV (**AEI Figure 6.5**) shows that visibility is unlikely to occur along the majority of this route. Where theoretical visibility is shown on the ZTV, this is unlikely to occur due to screening provided by roadside vegetation and buildings;
- A720 (24.1 km, north-west) – which forms the Edinburgh City Bypass and runs around the edge of Edinburgh from Gogar to Whitecraig. Due to the vegetated embankments on either side of this route, visibility will be substantially reduced from that shown on the ZTV (**AEI Figure 6.6**).

Actual visibility will be limited to two approximately 150m stretches of road east of Straiton and for approximately 850m east of Lothianburn. In all instances, the revised proposed development will be seen in the distance above and behind vegetation.;

- A699 (24.4 km, south) – which runs east to west from Selkirk to Kelso. Within the wider study area this route will experience very limited areas of theoretical visibility as shown on the ZTV (**AEI Figure 6.6**). Visibility within the ZVI will be largely reduced from that shown on the ZTV, due to local highpoints and vegetation not captured by the ZTV. Actual visibility will be limited to infrequent, glimpsed views above and behind existing vegetation;
- A772 (24.8 km, north-west) – this short route runs from Nether Liberton to Eskbank on the edge of Edinburgh. Roadside vegetation will predominantly screen all areas of theoretical visibility shown on the ZTV study (**AEI Figure 6.6**);
- A6095 (26.6 km, north-west) - which runs from Cameron Toll, Edinburgh to Musselburgh along an east-west axis. Visibility is unlikely to occur along the majority of this route. Recent development along this route, particularly between the A1 and Musselburgh, is not captured by the ZTV and will screen areas of theoretical visibility;
- A701 (28.3 km, north-west) - is a fragmented route that runs from Dumfries in the south to Edinburgh in the north. Within the ZVI theoretical visibility along this route is limited to short stretches of road to the north of Penicuik. Actual visibility will be reduced to a short section of road between the B7003 roundabout and Bilston and limited glimpsed views across large open car parks in New Pentland/Loanhead. For the rest of the route, local vegetation will screen the majority of theoretical views;
- A703 (28.7 km, north-west) – is a fragmented route, a short section of which passes through the ZVI from Hillend, south of Edinburgh to the north of Penicuik. Vegetation not captured on the ZTV (**AEI Figure 6.6**) will significantly reduce the amount of theoretical visibility shown on the ZTV to brief, distant views of the revised proposed development, particularly between Damhead Holdings and Pentland Grove;and
- A766 (30.4 km, north-west) – is a short route on the outskirts of Edinburgh that runs from Penicuik to Nine Mile Burn. Actual visibility will be reduced from that shown on the ZTV (**AEI Figure 6.6**) to an approximately 200 m stretch to the east of Eight Mile Burn where the wind turbines will be seen as a minor element of the distant horizon. For the remainder of the route local vegetation and undulations in landform, not picked up on the ZTV, will screen the revised proposed development from view.

6.6.55 There are two main rail routes within the study area:

- East Coast Main Line (ECML) railway line and local branch lines (18.9 km, north) – which serve the outskirts of Edinburgh and provides a link to North Berwick off the ECML; and
- Borders Railway (11.5 km, west) – which follows a similar route to the A7 and connects Edinburgh to the Tweedbank.

6.6.56 It was agreed at scoping stage, of the original proposed development, that all rail routes within the study area would be scoped out of the assessment of effects due to a lack of theoretical visibility along the majority of the routes (see **AEI Figure 6.6**). This LVIA maintains this agreed approach.

6.6.57 Should visibility occur from these rail routes, the revised proposed development will be seen behind and in the context of existing operational wind farms in brief, intermittent views.

Long Distance Routes

6.6.58 The long distance walking route, the Southern Upland Way (3.4 km, south-east) is located within the ZVI of the revised proposed development. For the purposes of this LVIA, it has been determined that potential visual effects would continue to be experienced from this route.

6.6.59 The following routes (walking and scenic driving) were excluded from the assessment in the EIA Report October 2023 for various reasons detailed below. After evaluating the revised proposed development, it has been determined that the effects on these routes remain Negligible and will therefore not be assessed in this chapter. The list below reiterates the reasons for their continued exclusion from the original LVIA in the EIA Report October 2023.

- Borders Abbeys Way (19.3 km, south) – this circular walking route links the historic border towns and villages within the Scottish Borders area. The route passes through the south of the ZVI via Tweedbank, Melrose and Newton St Boswells. Theoretical visibility within the ZVI (see **AEI Figure 6.6**) is limited to parts of the route between Abbotsford and Glenwhilt/Lindean Moor. Actual visibility is likely to occur from a single location near Shillinglaw Plantation and between Glenwhilt/Lindean Moor and Caulshiels Hill. In both instances the revised proposed development will appear as a minor element on distant hills;
- St Cuthbert's Way (20.3 km, south) – this linear route links Melrose to Holy Island off the Northumberland Coast. Within the ZVI this route passes south from Melrose over the saddle of the Eildon Hills before turning north-east to Newton St Boswells. The ZTV (**AEI Figure 6.6**) is largely accurate, and visibility will occur across the Eildon Hills and along the minor road between Whitelee and Newton St Boswells. Due to the distance and the limited extent of visibility along this route it is not taken forward in this assessment;
- John Muir Way (19.4 km, north) – this linear route crosses central Scotland from Helensburgh in the west to Dunbar in the east. Theoretical visibility within the ZVI (**AEI Figure 6.6**) is largely accurate, with the exception of the area of tip visibility near Heckies Hole/Hedderwick Sands which is unlikely to occur. Visibility will largely consist of views of blades and some nacelles, with occasional limited tower visibility in more distant views. The revised proposed development will often be seen in the context of neighbouring cumulative developments. Due to the distance and existing cumulative context this receptor is not taken forward in this assessment; and
- Borders Historic Route (Scots Dyke to Edinburgh) (11.1 km, west) – This Scenic Driving Route, promoted by Scotland's tourism site, Visit Scotland, as part of a series of Scenic Driving Routes, runs through the ZVI. This route follows the A7 which, as previously mentioned in the preceding section, experiences no theoretical visibility for the majority of the route. Therefore, this route is not considered further as part of this assessment.

National, Regional and Local Cycle Routes

6.6.60 The three National Cycle Routes (NCRs) listed below are located within the ZVI of the revised proposed development:

- NCR 196 (13.2 km, north).
- NCR 76 (15.8 km, north).
- NCR 1 (16.3 km, west).

6.6.61 It was agreed at scoping stage, of the original proposed development, that all cycle routes within the study area would be scoped out of the assessment of potential effects due to a lack of theoretical visibility along the majority of the routes (see **AEI Figure 6.6**).

6.6.62 This chapter maintains this agreed approach as these routes will, in general, experience very little to no theoretical visibility, especially those to the south and west of the revised proposed development. The ZTV study (**AEI Figure 6.6**) shows the greatest visibility will be along routes to the north of the revised proposed development, around the settlement of Haddington on NCR76 and NCR196. Route NCR76 extends along a former railway line in a sunken, tree lined cutting to the north of Haddington and visibility is unlikely to occur. Should users of NCR76 and NCR196 experience visibility within this area, the revised proposed development will be seen behind, and in the context of, the operational wind farms of Pogbie I & II, Dun Law I & II, Keith Hill and Fallago Rig.

6.6.63 For these reasons, the NCRs are not considered within the assessment of effects.

Specific Viewpoints

6.6.64 Three types of specific viewpoints are identified in the assessment's study area, those that are:

- a promoted viewpoint within the landscape,
- viewpoints in areas of particularly noteworthy visual and/or recreational amenity; or
- viewpoints with particular cultural landscape associations.

6.6.65 The EIA Report October 2023 identified the following specific viewpoints from Ordnance Survey (OS) mapping) within the revised proposed development's ZVI:

- Eildon Mid Hill (22.3 km south) - VP14 (**AEI Figure 6.27**)
- North Berwick Law (25.9 km north) - VP15 (**AEI Figure 6.26**)
- Arthur's Seat (31.0 km north-west) - VP17 (**AEI Figure 6.30**)
- Allermuir Hill (32.5 km west) - VP18 (**AEI Figure 6.41**)

6.6.66 For the purposes of this assessment, it has been determined that these specific viewpoints remain helpful in demonstrating the visibility of the revised proposed development and do not require assessment as individual specific viewpoints. It is appropriate to continue using them to inform the assessment's baseline study and its detailed assessment of the visual effects on visual receptor groups in Section 6.7.

6.6.67 The following specific viewpoints were excluded from the assessment in the EIA Report October 2023, for various reasons. After evaluating the revised proposed development, it has been determined that the effects on these routes remain Negligible and will therefore not be assessed in this chapter. The list below reiterates the reasons for their continued exclusion from the original LVIA in the EIA Report October 2023.

- Blackford Hill (31.7 km, north-west) – views from this viewpoint will be similar in character to the nearby Arthur's Seat viewpoint where a viewpoint is included (VP17 – **AEI Figure 6.30**) to be representative of both locations; and
- Seven Hills Viewpoint, Buckstone Snab (31.8 km, north-west) – this specific viewpoint is a 180 degree viewpoint facing north, away from the revised proposed development.

6.6.68 In addition to the specific viewpoints identified on OS mapping, the surrounding councils also identify key viewpoints within their renewable energy guidance (where these have been produced).

The following paragraphs set out those key viewpoints identified by the surrounding councils and recorded in the EIA Report October 2023.

6.6.69 The Scottish Borders Council *Supplementary Guidance: Renewable Energy* (2018)[26] identifies Iconic Viewpoints at the following locations within the ZVI of the revised proposed development:

- Southern Upland Way: Chester Hill, Lauder (7.9 km, south) – Included as Viewpoint 24 (**AEI Figure 6.37**);
- Southern Upland Way: Twin Law, Longformacus (6.2 km, east) – Included as Viewpoint 6 (**AEI Figure 6.19**);
- St Cuthbert's Way: Eildon Hills (22.3 km, south) – included as Viewpoint 14 (**AEI Figure 6.27**);
- A6105: Greenlaw Moor (17.5 km, south-east) – this location lies on the edge of the ZVI, Viewpoint 26 (**AEI Figure 6.39**) has been as an alternate location at a similar distance and direction;
- Hills: Black Hill Earlston (18.0 km, south) – located to the south of the ZVI, VP14 (**AEI Figure 6.27**) on the Eildon Hills provides a representative view from a similar distance and direction;
- Hills: Dirrington Little Law, Westruther (12.7 km, east) – this hill lies between Viewpoints 6 and 26 (**AEI Figures 6.19** and **6.39**), which are located in a similar direction, and provide representative views;

6.6.70 Midlothian Council's *Landscape Capacity Study for Wind Turbine Development in Midlothian* (2007)[27] and lists the following key views within the ZVI which have the potential for visibility of the revised proposed development:

- Caerketton Hill, Pentlands (31.7 km, north-west) – this hilltop lies adjacent to Allermuir Hill, an OS Specific Viewpoint included as Viewpoint 18 (**AEI Figure 6.31**). VP18 will provide representative views for both locations;
- Scald Law, Pentlands (34.7 km, east) – this viewpoint is located in the Pentland Hills. Viewpoint 18 (**AEI Figure 6.31**) provides a representative viewpoint from the Pentland Hills;
- Arthur's Seat, Edinburgh (31.0 km, north-west) – included as Viewpoint 17 (**AEI Figure 6.30**);
- B7007: Broad Law corner & B7007 National Cycle Route (18.5 km, west) – included as Viewpoint 13 (**AEI Figure 6.26**); and
- B6386: Soutra Aisle (8.7 km, west) – included as Viewpoint 8 (**AEI Figure 6.21**).

6.6.71 For the purposes of this assessment, it has been determined that potential visual effects would continue to be experienced from these locations and are assessed as part of the visual receptor groups assessment presented in Section 6.7.

6.6.72 Key views documented in The East Lothian Council's *Landscape Capacity Study for Wind Turbine Development in East Lothian* (2005)[28] identifies Key Views at the following locations within the revised proposed development's ZVI:

- A1: Haddington (17.3 km, north) – included Viewpoint 11 (**AEI Figure 6.24**);

[26] Scottish Borders Council (2018). Supplementary Guidance: Renewable Energy. Available at: https://www.scotborders.gov.uk/downloads/file/2760/ironside_farrar_-_wind_energy_landscape_capacity_study_part_3.pdf

[27] Midlothian Council (2007). Landscape Capacity Study for Wind Turbine Development in Midlothian. Available at: https://www.midlothian.gov.uk/downloads/download/432/midlothian_landscape_wind_energy_capacity_study

[28] East Lothian Council (2005). Landscape Capacity Study for Wind Turbine Development in East Lothian. Available at: https://www.eastlothian.gov.uk/downloads/file/24470/landscape_capacity_study_for_wind_turbines_in_east_lothian

- A198: Whitekirk (23.4 km, north) – representative viewpoints included nearby with Viewpoints 11, 15 and 30 (**AEI Figures 6.24**, **6.28** and **6.43**);
- B6368: NE Soutra Aisle (8.7 km, west) – included as Viewpoint 8 (**AEI Figure 6.21**);
- B6355: Lammermuirs (7.4 km, north) – included as Viewpoints 21 and 9 (**AEI Figures 6.34** and **6.22**);
- A6093: Pencaitland to Haddington at Samuelston (15.9 km, north) – representative viewpoint included nearby with Viewpoints 11 (**AEI Figure 6.24**);
- Minor Road to Longformacus (8.2 km, east) – included as Viewpoint 9 (**AEI Figure 6.22**);
- North Berwick Law (25.9 km, north) - included as Viewpoint 15 (**AEI Figure 6.28**);
- Traprain Law (17.3 km, north) - representative viewpoint included nearby at Viewpoint 11 (**AEI Figure 6.24**);
- Garleton Hills (19.1 km, north) - representative viewpoint included nearby at Viewpoint 11 (**AEI Figure 6.24**);
- Arthur's Seat, Edinburgh (31.0 km, north-west) – included as Viewpoint 17 (**AEI Figure 6.30**);
- Meikle Says Law (3.5 km, north) – this viewpoint is located directly behind Fallago Rig, which sits between the site and this summit. Representative views from nearby locations are included at Viewpoints 4 and 21 (**AEI Figures 6.17** and **6.34**);
- Lammer Law (5.2 km, north) – included as Viewpoint 4 (**AEI Figure 6.17**);
- Southern Upland Way, near Longformacus (14.9 km, east) – located adjacent to Black Hill Wind Farm (operational). Alternate locations have been selected along the Southern Upland Way at Viewpoints 6, 7, 19 and 24 (**AEI Figures 6.19**, **6.20**, **6.32** and **6.37**); and
- Southern Upland Way, Twin Law (6.2 km, east) – included as VP6 (**AEI Figure 6.19**).

6.6.73 For the purposes of this LVIA, it has been determined that potential visual effects would continue to be experienced from these locations and are assessed as part of the visual receptor groups assessment presented in Section 6.7.

6.6.74 The remaining key views identified in East Lothian Council are excluded on the basis that they either lie outside the ZVI or extent of theoretical visibility; no visibility is likely to occur due to localised screening; or the focal point of the view is looking away from the site. A full list of these viewpoints is extracted in **AEI Technical Appendix 6.2** for reference.

6.6.75 Key views documented in Midlothian Council's *Landscape Capacity Study for Wind Turbine Development in Midlothian* (2007) were excluded from the assessment in the EIA Report October 2023 for various reasons.

6.6.76 As set out in the EIA Report October 2023 in detail, the Midlothian Council key views were excluded because they either lie outside the ZVI or extent of theoretical visibility; no visibility is likely to occur due to localised screening; or the focal point of the view is looking away from the site.

6.6.77 After evaluating the revised proposed development, it has been determined that they would continue to lie beyond the areas of the ZVI; there would be no visibility due to localised screening; or the focal point of the view is looking away from the site. A full list of the Midlothian Council key views is presented in **AEI Technical Appendix 6.2** for reference.

Landscape Designations and Value

Designated Landscapes

6.6.78 Relevant landscape designations are shown on **AEI Figure 6.2**.

National Scenic Areas and Regional Parks

6.6.79 It was agreed at the scoping stage, as part of original proposed development, that the Upper Tweeddale National Scenic Area (NSA) was to be scoped out of assessment due to the lack of theoretical visibility within this part of the study area and the minimal areas of theoretical visibility in areas of the NSA beyond the study area. This NSA is located at the edge of the original LVIA study area, approximately 32.7 km south-west of the closest proposed wind turbine, and it was judged that adverse effects were unlikely to occur.

6.6.80 The designated landscapes listed below lie within the ZVI of the revised proposed development. For the purposes of this LVIA, it has been determined that potential visual effects would continue to be experienced from these designated landscapes and are, therefore, considered in further detail in the Section 6.7.

- Eildon and Leaderfoot NSA (17.2 km, south-west); and
- Pentland Hills Regional Park (30.5 km, north-west).

Local Landscape Areas

6.6.81 The LVIA submitted as part of the EIA Report October 2023 assessed that significant effects are unlikely to occur on LLA beyond 15 km of the original proposed development. This is because outside of this distance, potential effects from existing operational wind farms and other features within the wider landscape will reduce the scale of effects arising from the revised proposed development. It is assessed in this LVIA and Chapter that LLAs within the ZVI and 15 km of the revised proposed development would be likely to experience views of the revised proposed development and are included within the assessment of potential effects.

6.6.82 After evaluating the revised proposed development, it has been determined that this approach remains valid and is retained for this chapter. Where the EIA Report October 2023 concluded that an LLA was assessed to experience effects of Negligible magnitude and of Minimal significance (not significant), these effects have not been reassessed in this chapter.

6.6.83 The list below therefore identifies those LLAs within 15 km of the revised proposed development taken forward for further assessment in this chapter and those that are not.

6.6.84 LLAs taken forward for further assessment in Section 6.7:

- Scottish Borders LLA6 Lammermuir Hills (includes site);
- East Lothian LLA1 Lammermuir Moorland (2.3 km, north); and
- East Lothian LLA22 Samuelston (14.4 km, north).

6.6.85 LLAs not taken forward for further assessment in Section 6.7:

- Midlothian LLA2 Fala Moor (9.5 km, north-west); and
- East Lothian LLA12 Bolton (12.4 km, north).

6.6.86 The following LLA were excluded from the assessment in the EIA Report October 2023 for various reasons. After evaluating the revised proposed development, it has been determined that the effects on these LLA remain Negligible and not significant and will therefore not be assessed in this chapter. The list below reiterates the reasons for their continued exclusion from the original LVIA in the EIA Report October 2023.

- East Lothian LLA3 Lammer Law, Hopes to Yester (3.1 km, north) – the ZTV shows that visibility will be limited to a very small area of this ZTV on Lammer Law (Viewpoint 4 – **AEI Figure 6.17**) with the majority of the LLA unlikely to experience views of the revised proposed development;
- East Lothian LLA2 Whiteadder (7.7 km, north-east) – the majority of this LLA lies outwith the ZVI where effects will be Negligible. Visibility from this LLA within the ZVI is limited;
- East Lothian LLA9 Humbie Headwater (7.0 km, north-west) – the ZTV indicates that visibility will be limited to blade tips only within a small area of this LLA;
- Midlothian LLA3 Fala Rolling Farmland & Policies (7.0 km, north-west) – the ZTV indicates that visibility will be limited to blade tips only within a small area of this LLA;
- East Lothian LLA5 Danskine to Whitecastle (7.1 km, north-east) – the ZTV indicates that visibility within this LLA will be limited to small areas of blade tips only. Fallago Rig is located between the revised proposed development and this LLA;
- East Lothian LLA20 Linplum (10.8 km, north) – the ZTV indicates that visibility will be limited to blade tips only on the very edges of this LLA;
- East Lothian LLA8 Whittingehame to Deuchrie (11.9 km, north-east) – the ZTV indicates that visibility within this LLA will be limited to small areas of blade tips only. Fallago Rig is located between the revised proposed development and this LLA;
- East Lothian LLA25 Morham (13.8 km, north) – the ZTV indicates that visibility is unlikely to occur within this LLA;
- East Lothian LLa15 Traprain and Tyne Valley (14.5 km, north) – most of this LLA is located beyond 15 km of the revised proposed development where effects are likely to be Negligible. Within 15 km of the revised proposed development visibility will be limited to blade tips only;
- Midlothian LLA6 Tyne Valley (14.5 km, north-west) – most of this LLA is located beyond 15 km of the revised proposed development where effects are likely to be Negligible;
- Midlothian LLA5 Gladhouse Reservoir & Moorfoot Scarp (14.7 km, west) – most of this LLA is located beyond 15 km of the revised proposed development where effects are likely to be Negligible;and
- East Lothian LLA21 Clerkington and Tyne Walk (14.6 km, north) most of this LLA is located beyond 15 km of the revised proposed development where effects are likely to be Negligible.

Gardens and Designed Landscapes

6.6.87 The GDLs listed below are located within the ZVI of the revised proposed development and are taken forward for further assessment in Section 6.7. Where the EIA Report October 2023 concluded that an LLA was assessed to experience effects of Negligible magnitude and of Minimal significance (not significant), these effects have not been reassessed in this chapter.

6.6.88 The lists below therefore identifies those GDLs taken forward for further assessment in this chapter and those are not.

6.6.89 GDLs taken forward for further assessment in Section 6.7:

- Thirlestane Castle GDL (4.6 km, south);
- Mellerstain GDL (16.0 km, south);
- Oxenfoord Castle GDL (16.9 km, north-west);
- The Drum GDL (26.0 km, north-west); and
- Palace of Holyroodhouse GDL (29.9 km, north-west).

6.6.90 GDLs not taken forward for further assessment in Section 6.7:

- Lennoxlove (Lethington) GDL (14.1 km, north).

6.6.91 The following GDLs were excluded from the assessment in the EIA Report October 2023 for various reasons. After evaluating the revised proposed development, it has been determined that the effects on these GDLs remain Negligible and not significant and will therefore not be assessed in this chapter. The list below reiterates the reasons for their continued exclusion from the original LVIA in the EIA Report October 2023.

- Yester House GDL (7.4 km, north) - the ZTV shows that visibility will be limited to blade tips across the northern and western edges of the area, away from the main areas of formal parkland;
- Carolside and Leadervale GDL (13.9 km, south) - this GDL is set within areas of woodland, albeit it is noted that there are long open views up and down the valley. Visibility is likely to be limited to infrequent glimpsed views of blade tips, which will be largely screened by the woodland planting in and around the GDL;
- Winton House GDL (15.7 km, north-west) - located to the east of Ormiston, this GDL is located on relatively flat agricultural land, and it is noted that views to the Lammermuir Hills are available from the Castle on clear days. It is also noted that the boundary woodland prevents views into the area. Detailed assessment suggests that visibility of the revised proposed development is unlikely to occur from this GDL, should the revised proposed development be seen, it will be in minor glimpsed views of a very small number of blade tips;
- Arniston GDL (19.8 km, west) - this GDL is located to the west of Gorebridge. Visibility of the revised proposed development will be largely limited to very infrequent glimpsed views of distant blade tips;
- Tyninghame GDL (20.6 km, north) - this GDL is located close to the estuary of the River Tyne and is noted to have long views south to the Lammermuir Hills. Visibility of the revised proposed development will be most prevalent from open areas in the north and south of the GDL where the revised proposed development will be seen as a very minor element on the distant Lammermuir Hills, seen largely behind existing operational wind farms;
- Abbotsford GDL (20.1 km, south) - this GDL is located to the south of Galashiels. Visibility of the revised proposed development is unlikely to occur around the main house. Any glimpsed views of wind turbines from higher areas, particularly in the south of this GDL, will be distant;
- Balgone House GDL (23.3 km, north) - the ZTV study (**AEI Figure 6.6**) shows theoretical visibility of the revised proposed development from open fields within the GDL. In reality, woodland along the boundary of the GDL is likely to screen the majority of views. Should the revised proposed development be visible it will be seen as a very minor element on the distant Lammermuir Hills, set in the context of existing operational wind farms;
- Craigmillar Castle GDL (28.6 km, north-west) - this GDL is a ruined castle and the Lammermuir Hills are noted as forming part of the setting. Visibility of the revised proposed development

from within the GDL will be largely screened by vegetation, however glimpsed distant views may be possible. In these views the revised proposed development will be seen as a very minor element on the distant Lammermuir Hills, set in the context of existing operational wind farms;

- Duddingston House GDL (28.8 km, north-west) - this GDL is located on the south-east side of Holyrood House, and it is noted that good-views are present to the north-west, away from the site. The GDL includes the former house, a school and golf course, the latter of which provides a high level of tree cover which will screen the majority of views towards the revised proposed development;
- Prestonfield House (Priestfield) GDL (29.7 km, north-west) - this GDL is located to the south of Holyrood Park with prominent views north towards Arthur's Seat. A golf course occupies the majority of the grounds within this GDL, and the associated tree cover will screen the majority of views towards the revised proposed development;and
- Penicuik GDL (30.0 km, west) - this GDL is located to the south of Penicuik and visibility of the revised proposed development will be limited to small areas of the GDL where the proposed turbines will be visible on the distant hills in the context of existing operational wind farms.

Local Landscape Value

6.6.92 Within the study area there are a number of features that contribute to the landscape and townscape value.

6.6.93 Areas with national or international designations are deemed to be of National/International value. Within the ZVI, this includes the Eildon and Leaderfoot NSA.

6.6.94 Whilst outside the ZVI, Edinburgh's Old and New Towns are designated as a World Heritage Site and are of National/International value. The wider city centre, located within the ZVI, is judged to be of Local/District value due to the high concentration of Conservation Areas and the City's status as the capital of Scotland. The outskirts of Edinburgh away from the historic centre are judged to be of Community value.

6.6.95 The area within the Pentland Hills Regional Park is judged to be of Local/District value. Areas identified as LLAs are also judged to be of Local/District value.

6.6.96 Beyond the areas stated above, the parts of the study area that lie within the ZVI are judged to be of Community value.

Future Baseline

6.6.97 In the absence of the revised proposed development, it is likely that the land will continue to be used for farming and shooting, and the character of the site is therefore unlikely to undergo significant change.

6.6.98 There are some small areas of forestry within the local area which are likely to give rise to some changes in the surrounding landscape through the felling and replanting of trees.

6.7 Updated Assessment of Potential Effects

Introduction

6.7.1 This section sets out the effects that the revised proposed development will have on both landscape and visual receptors. The effects are considered to be reversible as after a period of 50 years the revised proposed development will be removed, unless a further application to extend the life of the revised proposed development is applied for and granted, or an alternative application to repower with new wind turbines and associated infrastructure is applied for and granted.

Design Amendments

6.7.2 Details of the design amendments made to the revised proposed development are set out in **AEI Chapter 3: Revised Proposed Development Description.**.

Construction and Decommission Effects

6.7.3 Key potential impacts during the construction of the wind turbines and associated infrastructure will be short-term, with the construction programme anticipated to be 16 months in duration. Activities will include the movement of vehicles, construction of foundations, hardstands, access tracks, site entrances, the substation compound, the battery energy storage system (BESS) and the temporary construction compound; the opening of borrow pits; and the use of large cranes to erect the wind turbines.

6.7.4 The footprint of the wind turbines is relatively small, and the ground works associated with the foundations, hardstands, compounds and access tracks will be largely screened beyond 2.5 km from the site. The main effects that will arise will be from cranes and the erection of wind turbines. These effects will be different in nature to those experienced once the revised proposed development is complete, but similar in their magnitude and significance.

6.7.5 Construction effects are assumed to be broadly the same as operational effects whilst cranes or standing wind turbines are on-site. Before and after the wind turbines are on-site effects from all other construction activities will be restricted to localised, very short term, temporary views of construction activity, which will not give rise to significant effects. Construction activities will not give rise to significant landscape character or visual effects over and above those of the operation of the revised proposed development. The primary effects arising will be from the wind turbines and this assessment therefore focusses on the operational effects.

6.7.6 Decommissioning effects will be largely similar to those during construction, albeit in reverse. These effects are considered synonymous to the construction effects and are not discussed separately.

Assessment of Revised Proposed Development

6.7.7 The conclusion of Chapter 6 of the EIA Report October 2023 remains valid for this LVIA, in relation to construction and decommission effects, and therefore, does not require reassessment in light of the revised proposed development.

Operational Effects on Landscape Character

6.7.8 Only those LCTs identified in the EIA Report October 2023 that would result in potential effects greater than Negligible magnitude and of Minimal significance have been reassessed for the purposes of this chapter, as set out in Section 6.6.

6.7.9 The revised proposed development remains located across a series of level-topped hills of moorland, dissected by distinct steep-sided valleys. The site continues to be typical of its primary host character type, LCT90 – Dissected Plateau Moorland, with much of the area managed for shooting. The site features a pattern of dispersed farm-building groups and the influence of multiple wind energy developments, in particular Fallago Rig, which is directly to the north-east of the site within this LCT.

6.7.10 Large scale effects will be limited to areas of the site where there is little to no intervisibility to existing and surrounding operational wind farms, especially in valleys where views of the surrounding landscape are restricted, or no wind farms are located. The revised proposed development will create a new addition to the host character type, albeit there are few matching areas due to the presence of multiple operational wind farms across the landscape and near the site, all of which currently influence the landscape to a degree.

6.7.11 Medium scale effects will be limited to the host landscape character type, within approximately 5 km, in all directions except the north-east, where Fallago Rig Wind Farm will reduce the scale of effect. These effects will quickly reduce due to the presence of other operational wind farms, which will reduce the sense of the revised proposed development forming an entirely new feature within the landscape.

6.7.12 Medium-Small scale effects will occur to the north within the area of LCT266 which lies within 5 km of the revised proposed development, to the south-east within LCT99 and to the south-west within LCT115. In these areas the revised proposed development will either feature as a new wind farm that is seen in the context and partially screened behind existing wind development (LCT266); or as a partially screened/semi-distant new feature within areas of landscape that have less influence from existing wind development.

6.7.13 Small scale effects will occur in LCTs between approximately 5 - 18 km east of the revised proposed development and in areas approximately 6 km south-west near Viewpoint 20 (**AEI Figure 6.33**). From these areas there will be open visibility of the revised proposed development viewed in the context of existing wind farms. From these areas the scale of the proposed wind turbines will exert a degree of change on the character areas. However the overall character will remain that of an area with minor influences from wind development.

6.7.14 Small scale effects will also occur within the northern end of LCT117, approximately 9 km south of the revised proposed development, where there will be minor glimpsed views of the revised proposed development along the valley. Here the revised proposed development will form a minor, but new feature within the character area, exerting a small degree of change.

6.7.15 Beyond these areas the scale of effects will diminish to Negligible, predominantly due to the presence of existing wind farms which already exert an influence on the character areas and will create a sense of separation between the character area and the revised proposed development.

6.7.16 Descriptions for each of the assessed LCTs are briefly summarised below, along with an assessment of effects which is informed by site-based observations.

LCT90 – Dissected Plateau Moorland (includes site)

6.7.17 LCT90 encompasses the main body of the site, a small section of the access track and the separate transfer station are located in LCT115 to the south-west, as illustrated on **AEI Figure 6.3**.

6.7.18 The site is located within the western extent of LCT90 which extends to the east, following the Scottish Borders-East Lothian boundary in an area of the Lammermuir Hills. Fallago Rig, Crystal Rig I, II and IV are located within this LCT and there are neighbouring wind farms to the east on west of this LCT which influence the character of the area. Viewpoints 1, 6 and 9 (**AEI Figure 6.14**, **6.19** and **6.22**) lie within this LCT.

6.7.19 The key characteristics are defined within NatureScot's 2019 *Landscape Character Assessment* as:

- *"Plateau landform consisting of a series of level-topped hills and ridges.*
- *Strong topographic identity and overall grandeur of scale.*
- *Individual hill masses separated by steep sided valley features of differing scales.*
- *Semi-natural peatland, heather moorland and grassland communities dominant, with a high degree of perceived naturalness of vegetation cover.*
- *Very low settlement density with isolated, dispersed pattern.*
- *Scattered prehistoric settlement and burial mounds above water courses.*
- *Sense of wildness created by wide horizons and long distance, unobstructed views."*

6.7.20 The 2019 NatureScot assessment reports that: "*There are wind energy developments with multiple turbines both within and surrounding these areas, with Fallago Rig wind farm forming a point feature on the central Lammermuir Plateau...*" further stating that *"...views, however, from within the hills are punctuated by the presence of windfarms, with clusters of development at Crystal Rig in the east, Fallago Rig in the centre and Dun Law to the west, forming notable features in many opens views across the hills. By contrast within the valleys, views are restricted by topography or by woodland features, and the scale is more intimate."*

6.7.21 Scottish Borders Council's *Wind Energy Consultancy: Update of Wind Energy Landscape Capacity and Cumulative Impact Study'*(2016)[29] identifies LCT90 as having a Medium landscape sensitivity. This study notes the area as having Low landscape capacity for turbine over 120 m tall, stating that: *"Extensive large scale wind energy developments are located within and adjacent to the LCA: the northern part of the LCA on the boundary with East Lothian is reaching capacity and becoming a Landscape with Wind Turbines with areas of Wind Turbine Landscape around Crystal Rig/Aikengall and Fallago Rig..."* further noting that *"...there is capacity for limited additional development of larger turbines provided this is associated with existing windfarms."*

6.7.22 In terms of this LVIA, this is considered to equate to Medium susceptibility to the type of development proposed. LCT90 is predominantly covered by the Lammermuir Hills LLA and is

[29] Scottish Borders Council (2016). Wind Energy Consultancy: Update of Wind Energy Landscape Capacity and Cumulative Impact Study. Available at: https://scottishborders.moderngov.co.uk/documents/s14256/Item%20No.%2018%20-%20Part%201%20of%20IF%20REPORT%20Pages%201-42.pdf

assessed to be of Local value. LCT90 is judged to be of Medium sensitivity, following this chapter's methodology.

6.7.23 As set out above, effects on this LCT will be Large scale within certain areas of the site where there is little to no intervisibility to existing and surrounding operational wind farms; Medium scale within approximately 5 km of the revised proposed development, in all directions except the north-east, where Fallago Rig Wind Farm will reduce the scale of effects; Small by Viewpoint 9 (**AEI Figure 6.22**); and Negligible by Crystal Rig I, II and IV.

6.7.24 At worst, Large scale effects will occur across a small geographic extent of LCT90 within the site; and Medium scale effects will occur across the majority of LCT90 (wider LCT). Effects on this Medium sensitivity LCT will be of Medium magnitude, Moderate significance (not significant) and Adverse within the site; and High-Medium magnitude, Moderate significance (not significant) and Adverse within the wider LCT.

LCT115 – Upland Valley with Mixed Farmland (includes site)

6.7.25 LCT115 encompasses the broad valley floor between Oxton and Lauder. A short section of the site access road and the separate transfer section lie within this LCT, with the majority of the site and revised proposed development in the LCT to the east, as shown on **AEI Figure 6.3**. Viewpoints 2, 4, 7 and 24 (**AEI Figures 6.15**, **6.17**, **6.20** and **6.37**) lie within this LCT.

6.7.26 The key characteristics are defined in NatureScot's 2019 *Landscape Character Assessment* as:

- *"Broad flat valley floor with distinct floodplain and meandering river channel.*
- *Evenly sloping valley sides.*
- *Rich red soils derived from Old Red Sandstone parent materials.*
- *Land cover dominated by arable and improved pasture land, with medium to large sized fields.*
- *Valley bottom and lower valley sides well-treed, with hedgerows, hedgerow trees, small woodlands and coniferous plantations all locally prominent.*
- *Significant designed landscapes in each valley.*
- *Unity of vernacular architecture utilising local red sandstone and whinstone."*

6.7.27 The 2019 NatureScot assessment notes that "*Wind farm development, located on the adjoining upland character types, is strongly evident at the upper reaches of both the Whiteadder and Leader valleys, forming visually prominent point features from many areas within the valleys*."

6.7.28 Scottish Borders Council's *Wind Energy Consultancy: Update of Wind Energy Landscape Capacity and Cumulative Impact Study* (2016) classifies the landscape sensitivity for this LCT as Medium/High, noting that the siting of new wind turbines should take into account the settings of Oxton and Lauder.

6.7.29 In terms of this LVIA, this is considered to equate to High-Medium susceptibility to the type of development proposed. A part of LCT115 lies within the Lammermuir Hills LLA, however, not enough to increase the value beyond Community level. LCT115 is judged to be of Medium sensitivity.

6.7.30 Medium-Small scale effects will occur across the majority of this Medium sensitivity LCT. Ditcher Law, Dun Law I & II and Toddleburn are all located close to the boundary of LCT115, and the revised proposed development will form another neighbouring wind farm. Effects will be of Medium magnitude, Moderate significance (not significant) and Adverse.

LCT266 – Plateau Moorland – Lothians (2.2 km, north)

6.7.31 LCT266 is a linear LCT that encompasses the northern extent of the Lammermuir Plateau within East Lothian. Aikengall I, II & IIa and Crystal Rig II & III lie within the LCT's eastern extent, as shown on **AEI Figure 6.3**. Viewpoints 4 and 21 (**AEI Figures 6.17** and **6.34**) lie within this LCT.

6.7.32 The key characteristics are defined in NatureScot's 2019 *Landscape Character Assessment* as:

- *"Modest hills and moors forming broad plateaux with rounded.*
- *Smooth convex hill slopes dissected by a complex tracery of valley landforms which vary in scale and appearance, from minor burn narrow incised gullies to occasional wider flat-bottomed valleys of larger rivers.*
- *Medium to large scale landscape.*
- *Open upland character with sparse tree cover.*
- *Expanses of heather moorland, with rough grasses on upper slopes, with poor rough grassland and occasional improved pasture on lower slopes.*
- *Generally unenclosed, with some post and wire fences along roads and access tracks, and occasional stone sheep stells and walls around farmsteads.*
- *Sparsely inhabited, with scattered farmsteads in valleys.*
- *Reservoirs creating local focal points.*
- *Historic human influences evident in the many enclosures, cairns, hill forts and stone circles.*
- *Steep north-facing scarps with spectacular panoramic views overlooking the coastal plain of Lothian to the north with views across the Firth of Forth.*
- *Forms the skyline when viewed from the lower land to the north."*

6.7.33 The 2019 NatureScot assessment notes the presence of the wind farms within LCT266, and those in neighbouring LCTs, reporting: "*Many of the wind farms are seen from within the Plateau Moorland – Lothians Landscape Character Type but also from the Lowlands where they are often seen in small areas, spaced at intervals on the extensive skyline formed by the hills, with the majority of the skyline retained as an unbroken element. They are less visible around the Moorfoot Hills in Midlothian*."

6.7.34 The 2019 NatureScot assessment also notes the panoramic views to the north and that wind farms detract from the sense of wild naturalness that can be found within this character type.

6.7.35 The *Landscape Capacity Study for Wind Turbine Development in East Lothian* was published in 2005, using slightly different landscape character areas to those documented in the recent 2019 NatureScot assessment, albeit they are similar enough to reasonably inform judgements on landscape sensitivity.

6.7.36 Both Central Lammermuir Plateau and East Lammermuir Plateau LCAs, described in the 2005 study, occupy the same extents as LCT266.

6.7.37 According to the 2005 study, the Central Lammermuir Plateau, located at the western end of LCT266, is classified as having High sensitivity, whereas the East Lammermuir Plateau is rated as Medium-High sensitivity. Although the 2005 study offers valuable insights into landscape sensitivity, it is important to note that it does not account for changes in landscape character that have occurred since its publication. This includes the emergence of additional operational wind farms, such as Fallago Rig, Crystal Rig II-IV, and Aikengall I, II, and IIa recently. Furthermore, due to its age, the 2005

study only considers wind turbines with a maximum height of 120 m, which does not reflect the larger turbine sizes that are now commercially available.

6.7.38 Given the changes that have occurred since the 2005 study, it is considered that the susceptibility of LCT266 to the type of development proposed is High-Medium. LCT266 is predominantly covered by a number of LLAs and is assessed to be of Local value. LCT266 is judged to be of High-Medium sensitivity.

6.7.39 Medium-Small scale effects will occur within 5 km directly north of the revised proposed development, where it will increase the influence of wind farms on LCT266. Effects within the north-east of LCT266 will be Negligible as the operational Fallago Rig Wind Farm will be located between the revised proposed development and this area of LCT266, and effects from the revised proposed development will continue to be very minor.

6.7.40 Overall, Medium-Small scale effects will occur across a small geographic area of this Medium sensitivity LCT, giving rise to effects that will be of Low-Negligible magnitude, Slight significance (not significant) and Adverse.

LCT91 – Plateau Grassland – Borders (2.3 km, west)

6.7.41 LCT91 is loosely 'T-shaped' and runs south from the northern border of the Scottish Borders to Whitelee, as shown on **AEI Figure 6.3**. The area forms an upland plateau landscape of smooth gently rolling hills covered by coarse acid grassland. Viewpoints 5, 8, 20 and 22 (**AEI Figures 6.18**, **6.21**, **6.33** and **6.35**) lie within this LCT.

6.7.42 The key characteristics are defined in NatureScot's 2019 *Landscape Character Assessmen*t as:

- *"Large scale, rolling plateau topography with gentle slopes and smooth relief.*
- *Vegetation cover dominated by coarse grassland with localised patches of heather moorland, rush pasture and scattered small coniferous plantations and shelterbelts.*
- *Low density settlement with widely dispersed farm buildings.*
- *Wind farm development in the northern and central parts of the Landscape Character Type.*
- *Remote, isolated quality.*
- *Open, panoramic views."*

6.7.43 The 2019 NatureScot assessment reports that "*...Multiple wind farm developments occur within the character type, with Dun Law, Pogbie, and Toddleburn in north and Long Park lying in the central part.*"

6.7.44 Scottish Borders Council's *Wind Energy Consultancy: Update of Wind Energy Landscape Capacity and Cumulative Impact Study* (2016) lists LCT91 as having Medium landscape sensitivity.

6.7.45 In terms of this LVIA, the susceptibility of LCT91 to the development type proposed is considered to equate to a Medium susceptibility rating. A part of LCT91 lies within the Lammermuir Hills LLA, however, it is considered not enough to increase the value beyond Community level. LCT91 is judged to be of Medium-low sensitivity.

6.7.46 Effects on LCT91 will be limited due to the widespread presence of existing wind farms within LCT91 and the wider landscape. Small scale effects will occur in areas directly to the south-west of the revised proposed development, near Viewpoint 20 (**AEI Figure 6.33**), where the revised proposed development will form a new feature in views from this LCT but will feel separated from the LCT by

the intervening valley. Within the wider LCT, effects will be Negligible due to the presence of existing wind farms within the LCT.

6.7.47 Overall, Small scale effects will occur across a local geographic extent of this Medium-low sensitivity LCT, giving rise to effects that will be of Low magnitude, Slight significance (not significant) and Adverse.

LCT99 – Rolling Farmland – Borders (3.8 km, south)

6.7.48 LCT99 is located to the south of the site and encompasses an area of undulating upland fringe landscape of large-scale fields, with mixed arable and pastoral land use, as shown on **AEI Figure 6.3**. Viewpoints 19 and 25 (**AEI Figures 6.32** and **6.38**) are located within this character type.

6.7.49 The key characteristics are defined in NatureScot's 2019 *Landscape Character Assessment* as:

- *"Undulating relief, becoming more pronounced at higher elevations.*
- *Distinctive areas of flat or constant gentle gradients, giving wide horizons and skyscapes.*
- *Large-scale strong geometric field pattern, enclosed by hedgerows, with scattered coniferous woods.*
- *Mix of arable, ley pasture and permanent grazing land.*
- *Moderately densely settled, with frequent farmsteads and small villages.*
- *Well kempt, prosperous appearance."*

6.7.50 Scottish Borders Council's *Wind Energy Consultancy: Update of Wind Energy Landscape Capacity and Cumulative Impact Study* (2016) lists the landscape sensitivity as Medium-High and notes the presence of small (<100m) individual or paired turbines within this character type.

6.7.51 In terms of this LVIA, this is considered to equate to High-Medium susceptibility to the type of development proposed. A very small area of LCT99 lies within the Lammermuir Hills LLA, however, not enough to increase the value beyond Community level. LCT99 is judged to be of Medium sensitivity.

6.7.52 Medium-Small scale effects will occur across the majority of this Medium sensitivity LCT. Effects will be of Medium-low magnitude, Moderate significance (not significant) and Adverse.

LCT117 – Pastoral Upland Fringe Valley (7.0 km, south)

6.7.53 LCT117 follows the valley of the Leader Water from Lauder to Drygrange Mains, as shown on **AEI Figure 6.3**. Viewpoint 23 (**AEI Figure 6.36**) is located at the northern end of the valley.

6.7.54 The key characteristics are defined in NatureScot's 2019 *Landscape Character Assessment* as:

- *"Medium scale pastoral valley with flat floor enclosed by upland fringe pastures, often with rough grassland and moorland covered hills above.*
- *Smooth large scale landform modified in places by bluffs and moraine on valley floor, scree slopes or rock outcrops on valley sides.*
- *Narrow, often wooded tributary side valleys.*
- *Broadleaf woodlands and scrub on bluff slopes and scattered trees along river banks, occasional coniferous plantations and shelter belts on valley sides.*
- *Valley floor pastures enclosed by drystone dykes with occasional hedgerows, interspersed with occasional patches of scrub, coarse grass and rushes.*
- *Scattered villages, farmsteads and mansion houses with policy woodlands."*

6.7.55 The 2019 NatureScot assessment notes that "*The Lower Leader Water valley has the distinctive twin peaks of Black Hill and White Hill locally prominent in the lower stretches. It has an intimate, enclosed character created by landform, with widespread broadleaf and coniferous woodlands. The A68 trunk road is prominent along the valley floor, and there are views of Leaderfoot viaduct and the adjoining road bridge from minor roads*."

6.7.56 Scottish Borders Council's *Wind Energy Consultancy: Update of Wind Energy Landscape Capacity and Cumulative Impact Study* (2016) lists LCT117 as having Medium-High landscape sensitivity.

6.7.57 In terms of this LVIA, this is considered to equate to High-Medium susceptibility to the type of development proposed. LCT117 lies outside the designations identified in **Section 6.6** and is assessed to be of Community value. LCT117 is judged to be of Medium sensitivity.

6.7.58 Where the revised proposed development is visible, it will be seen as a minor glimpsed element at the end of the valley. This minimal and intermittent visibility will be a minor alteration to the intimate, enclosed character of the LCT. Small scale effects will occur across a local geographic extent of LCT117, giving rise to effects that will be of Low magnitude, Slight significance (not significant) and Adverse.

LCT103 – Undulating Upland Fringe (7.6 km, south)

6.7.59 LCT103 is located to the south of the site and encompasses the transitional zone between the valley landscapes and the upland plateaux, as shown on **AEI Figure 6.3**. Viewpoint 24 (**AEI Figure 6.37**) is located just beyond this character type but provides representative views from the northern end of the LCT.

6.7.60 The key characteristics are defined in NatureScot's 2019 *Landscape Character Assessment* as:

- *"Large scale, moderately to steeply sloping and undulating landform incised in places by steep gullies and narrow valleys.*
- *Unity of land cover characterised by improved pastures, with prominent field pattern delineated by a well maintained network of drystone dykes, and scattered small to medium sized coniferous plantations.*
- *Medium density settlement with small villages and farmsteads sited typically in sheltered valleys and on lower slopes.*
- *A simple, uniform landscape of smooth flowing curves, open in character with distant views over adjoining valley types and the Lammermuir and Moorfoot hills.*
- *Boundaries clearly defined by major river valleys."*

6.7.61 Scottish Borders Council's *Wind Energy Consultancy: Update of Wind Energy Landscape Capacity and Cumulative Impact Study* (2016) lists LCT103 as having Medium-High landscape sensitivity, noting the presence of Longpark Wind Farm in LCT103 to the west and the presence of multiple small (<50 m) wind turbines within the area.

6.7.62 In terms of this LVIA, this is considered to equate to High-medium susceptibility to the type of development proposed. LCT103 lies outside the designations identified in **Section 6.6** and is assessed to be of Community value. LCT103 is judged to be of Medium sensitivity.

6.7.63 The revised proposed development will give rise to Small scale effects in the northern end of LCT103. These effects will reduce to Negligible by the middle of LCT103 due to the distance from the revised proposed development and the proximity to Longpark Wind Farm.

6.7.64 Small scale effects will occur across a local geographic extent of LCT103, giving rise to effects that will be of Low magnitude, Slight significance (not significant) and Adverse.

LCT115 – Upland Valley with Mixed Farmland (8.3 km, east)

6.7.65 LCT115 is located to the east of the site and forms a broad upland vale characterised by its geology and soils, as shown on **AEI Figure 6.3**.

6.7.66 The key characteristics are defined in NatureScot's 2019 *Landscape Character Assessment* as:

- *"Broad flat valley floor with distinct floodplain and meandering river channel.*
- *Evenly sloping valley sides.*
- *Rich red soils derived from Old Red Sandstone parent materials.*
- *Land cover dominated by arable and improved pasture land, with medium to large sized fields.*
- *Valley bottom and lower valley sides well-treed, with hedgerows, hedgerow trees, small woodlands and coniferous plantations all locally prominent.*
- *Significant designed landscapes in each valley.*
- *Unity of vernacular architecture utilising local red sandstone and whinstone."*

6.7.67 The 2019 NatureScot assessment notes that "*Wind farm development, located on the adjoining upland character types, is strongly evident at the upper reaches of both the Whiteadder and Leader valleys, forming visually prominent point features from many areas within the valleys*."

6.7.68 Scottish Borders Council's *Wind Energy Consultancy: Update of Wind Energy Landscape Capacity and Cumulative Impact Study* (2016) lists this LCT as having Medium-High landscape sensitivity, noting the visibility of the neighbouring Crystal Rig and Black Hill Wind Farms from LCT115.

6.7.69 In terms of this LVIA, this is considered to equate to High-medium susceptibility to the type of development proposed. LCT115 is predominantly covered by the Lammermuir Hills LLA and is assessed to be of Local value. LCT115 is judged to be of High-medium sensitivity.

6.7.70 Visibility of the revised proposed development within LCT115 will be limited and, in most cases, it will be seen behind and in the context of the existing operational Fallago Wind Farm. The revised proposed development will form a minor alteration to the character of the area, slightly increasing the visual presence of wind development within LCT115, but not substantially altering the character.

6.7.71 Small scale effects will occur across a local geographic extent of LCT115, giving rise to effects that will be of Low magnitude, Slight significance (not significant) and Adverse.

LCT105 – Upland Fringe Moorland with Hills (9.8 km, east)

6.7.72 LCT105 covers an unusual landscape of exposed flat to gently sloping upland fringe moorland, punctuated by prominent dome shaped hills, as shown on **AEI Figure 6.3**. Viewpoint 26 (**AEI Figure 6.39**) is located on the western edge of this LCT.

6.7.73 The key characteristics are defined in NatureScot's 2019 *Landscape Character Assessment* as:

- *"Landform consists of a uniform, flat to gently sloping platform interrupted by two prominent dome-shaped hills, and a distinctive meandering glacial moraine.*

- *Open land cover with few trees dominated by rough grassland with rushes and bog vegetation on lower ground and heather moorland on upper slopes.*
- *Very widely dispersed isolated farm buildings and few field boundaries.*
- *A dramatic, large scale landscape with open views.*
- *Unique within the region, with well-defined visual identity."*

6.7.74 The 2019 NatureScot assessment notes that "*Views from low-lying areas are open and panoramic but typically confined within the unit itself. This, together with the sparseness of settlement and field boundaries, enhances the sense of isolation and wildness of the landscape. Views from the Dirrington Laws are distant and expansive towards the Merse lowlands and the Southern Uplands in the south, and the Lammermuir Hills in the north*."

6.7.75 Scottish Borders Council's *Wind Energy Consultancy: Update of Wind Energy Landscape Capacity and Cumulative Impact Study* (2016) lists LCT105 as having Medium landscape sensitivity, noting the presence of Black Hill Wind Farm to the north-east.

6.7.76 In terms of this LVIA, this is considered to equate to Medium susceptibility to the type of development proposed. Part of LCT105 lies within the Lammermuir Hills LLA, however, not enough to increase the value beyond Community level. LCT105 is judged to be of Medium-low sensitivity.

6.7.77 The revised proposed development will form a minor element on the semi-distant Lammermuir Hills, where it will be seen in the context of the existing Fallago Rig Wind Farm. The revised proposed development will not alter the openness of the views, but it will create a minor reduction in the sense of isolation and wildness.

6.7.78 Small scale effects will occur across majority of LCT105, giving rise to effects that will be of Medium-Low magnitude, Moderate-Slight significance (not significant) and Adverse.

LCT108 – Lowland Margin (13.2 km south-east)

6.7.79 LCT108 is located to the south-east of the site and forms an open agricultural landscape characterised by an even, very gently sloping landform with a distinctive regular grid of drystone dykes, as shown on **AEI Figure 6.3**. Viewpoint 10 (**AEI Figure 6.23**) is located within the centre of the LCT.

6.7.80 The key characteristics are defined in NatureScot's 2019 *Landscape Character Assessment* as:

- *"Even, very gently sloping landform with extensive flat low-lying areas.*
- *Large arable and pasture fields divided by drystone dykes.*
- *Widely dispersed woodlands.*
- *Medium density settlement of scattered stone built farmsteads and villages.*
- *A large scale, regular, uniform landscape with distant and panoramic views to uplands, punctuated by volcanic hills in the middle distance outwith the unit."*

6.7.81 Scottish Borders Council's *Wind Energy Consultancy: Update of Wind Energy Landscape Capacity and Cumulative Impact Study* (2016) lists LCT108 as having Medium-High landscape sensitivity, noting the openness of LCT108, the limited vertical scale and the limited number of small turbines (<50m) within the area.

6.7.82 In terms of this LVIA, this is considered to equate to High-Medium susceptibility to the type of development proposed. LCT108 lies outside the designations identified in **Section 6.6** and is assessed to be of Community value. LCT108 is judged to be of Medium sensitivity.

6.7.83 The revised proposed development will be perceived as a minor element on the distant hills, due to the visual separation the scale of the turbines it will be in keeping with the heights of local vegetation and will not add to the vertical scale of the landscape.

6.7.84 Small scale effects will occur across an Intermediate geographic area of LCT108, giving rise to effects that will be of Low magnitude, Slight significance (not significant) and Adverse.

Operational Effects on Visual Receptors

Visual Aids

6.7.85 Wirelines and photomontage visualisations have been used to aid the assessment and have been updated to reflect the revised proposed development, in support of the chapter. These updated visualisations were generated from a 3-dimensional model of the revised layout of the proposed wind turbine, the site and its surrounding topography. Key landmarks and compass bearings were used to match the modelled views to the photographs.

6.7.86 The proposed borrow pits are not modelled due to their temporary nature. Other elements of low-level infrastructure, such as the substation compound, BESS compound and access tracks are not modelled due to the general lack of visibility of these features when compared to the proposed wind turbines.

6.7.87 The photographs, wirelines and photomontages are shown on **AEI Figures 6.14 – 6.49** in support of this assessment. A detailed description of the methods by which the wirelines and photomontages are prepared is included in **AEI Technical Appendix 6.1**. The visualisations are numbered according to the viewpoint that they show (e.g. VP_01 for Viewpoint 1), with a suffix indicating the type of visualisation (BP – baseline panorama and wireline (including cumulative developments), WL – wireline, PM – photomontage, NP – night photomontage. The range of visualisations prepared for each viewpoint has been agreed with key stakeholders and is recorded in **AEI Table 6.8** using these suffixes.

6.7.88 The viewpoint description, description of effects and scale of effect for each viewpoint (refer to **AEI Figures 6.5** and **6.6** for locations) is set out within **AEI Technical Appendix 6.4.** The scale of effect, magnitude and significance from the viewpoint's vicinity is summarised in **AEI Table 6.8** below:

AEI Table 6.8 Summary of Representative Viewpoints (daytime)

Viewpoint Reference & Location	Distance, Direction	Scale of Effect	Sensitivity	Magnitude	Significance	Positive / Neutral / Adverse
VP1: Lylestone Hill, Core Path 16	1.4 km, south	Large	High – medium (recreational users of the Core Path 16 and	High-Medium	Major (significant)	Adverse

			surrounding countryside)			
VP2: Station Road, Oxton	4.0 km, west	Small	Medium-low (road users)	Low	Slight (not significant)	Adverse
VP3: A68 North of Lauder	5.4 km, south	Small	Medium-low (road users)	Low	Slight (not significant)	Adverse
VP4: Lammer Law	5.2 km, north	Medium	High-medium (recreational users of open access land)	Medium	Major – Moderate (significant)	Adverse
VP5: A68 South of Dun Law Wind Farm	5.9 km, west	Small	Medium-low (road users)	Low	Slight (not significant)	Adverse
VP6: Southern Upland Way, Twin Law Cairns	6.2 km, east	Medium	High-medium (recreational users of open access land/ promoted route)	Medium	Major – Moderate (significant)	Adverse
VP7: Thirlestane Castle GDL, Southern Upland Way	7.2 km, south	Small	High-medium (recreational users of open access land/ promoted route)	Low	Moderate (not significant)	Adverse
VP8: B368 North-East Soutra Aisle	8.7 km, west	Small	Medium-low (road users)	Medium – Low	Moderate (not significant)	Neutral
VP9: Minor Road to Longformacus	9.3 km, east	Small	Medium-low (residents and road users)	Low	Slight (not significant)	Adverse
VP10: A6105 East of Gordon	15.7 km, south-west	Medium-Small	Medium-low (road users)	Medium – Low	Moderate (not significant)	Adverse
VP11: A1 North-East of Haddington	17.2 km, north	Small-Negligible	Medium-low (road users)	Low – Negligible	Slight (not significant)	Adverse
VP12: Minor Road South of Gorebridge	18.3 km, west	Small-Negligible	Medium-low (road users)	Low	Slight (not significant)	Neutral
VP13: B7007 & NCN1 near Broad Law	18.7 km, west	Small-Negligible	Medium-low (residents, cyclists, road users)	Low – Negligible	Slight (not significant)	Neutral
VP14: Eildon Hills	22.3 km, south	Small-Negligible	High-medium (recreational users of	Low – Negligible	Slight – Minimal (not significant)	Neutral

			surrounding countryside)			
VP15: North Berwick Law	25.9 km, north	Small-Negligible	High-medium (recreational users of surrounding countryside)	Low – Negligible -	Slight (not significant)	Neutral
VP16: A6112/B6470 Junction East of Swinton	29.6 km, east	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral
VP17: Arthur's Seat	31.0 km, north-west	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral
VP18: Allermuir Hills, Pentland Hills Regional Park	32.5 km, west	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral
VP19: Southern Upland Way, Edgarhope Wood	5.6 km, south	Medium	High-medium (recreational users of open access land/ promoted route)	Medium	Moderate (significant)	Adverse
VP20: Corepaths west of Oxton	6.0 km, south-west	Medium	High-medium (recreational users of surrounding countryside)	Medium	Moderate (not significant)	Adverse
VP21: Redstone Rig	7.0 km, north	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral
VP22: Lauder Common	10.0 km, south-west	Medium	High-medium (recreational users of surrounding countryside)	Medium	Moderate (not significant)	Adverse
VP23: A68 near The Roan	9.6 km, south	Small-Negligible	Medium-low (road users)	Low	Slight (not significant)	Adverse
VP24: Southern Upland Way, Chester Hill	7.9 km, south	Medium	High-medium (recreational users of	Medium	Moderate (not significant)	Adverse

			surrounding countryside)			
VP25: B6456 near A697 Junction	8.8 km, south	Medium	Medium-low (road users)	Medium	Moderate (not significant)	Adverse
VP26: B6456 near Camp Moor	16.5 km, east	Small	Medium-low (road users)	Low	Slight (not significant)	Adverse
VP27: Fa'Side Hill Viewpoint	21.6 km, north-west	Small-Negligible	High-medium (recreational users of surrounding countryside)	Low – Negligible	Slight (not significant)	Adverse
VP28: B6369 north of Gifford	11.4 km, north	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Adverse
VP29: Elie Harbour	41.9 km, north	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral
VP30: A198 at Dirleton	25.8 km, north	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral
VP31: Greywalls Designed Landscape, framed vista	26.3 km, north	Negligible	High-medium (residents, recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral
VP32: Exit from Gullane to the west	25.7km, north	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral
VP33: Gullane golf course	26.2 km, north	Negligible	High-medium (users of the recreational landscape)	Negligible	Minimal (not significant)	Neutral
VP34: Road from Gullane to Aberlady looking south	24.8 km, north	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral
VP35: A6137 descent into Haddington	18.5 km, north	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral
VP36: Samuelston Loanhead	15.9 km, north	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral

6.7.89 Each of the viewpoints is a 'sample' of the potential effects, representing a wide range of receptors – including not only those actually at the viewpoint, but also those nearby, at a similar distance and/or direction.

6.7.90 From these viewpoints it can be seen that:

- The extent of Large scale effects, where the revised proposed development will form a total or major alteration to key elements, features, qualities and characteristics of the view such that the baseline will be fundamentally changed, will generally be limited to locations within or close proximity to the site (generally <2.5-4km) where there are open views looking directly at the site and there is little intervening vegetation or topography to reduce the scale of effects.
- The extent of Medium or Medium-Small scale effects is generally limited to areas in close proximity to the site where users have an elevated or semi-open view that is largely unobscured by existing wind farms but has a sense of separation created by the landform or local vegetation. This is approximately 5km to the north, to the edge of the Lammermuirs; 0.6km to the north-east to the edge of Fallago Rig Wind Farm; approximately 10km to the east, south-east, south and south-west; and approximately 5-8km to the west and north-west to the edge of the Toddleburn, Dun Law I & II, Pogbie I & II and Keith Hill Wind Farms.
- Beyond these locations the scale of effects will reduce to Small or Small-Negligible due to the wider presence of other wind farms within the view and/or a greater sense of screening and separation by the landform and vegetation. Small scale effects will persist in some longer views where there is a lack of screening between the viewer and the revised proposed development.
- Where the revised proposed development will either be screened from visual receptors by changes in landform or vegetation within the landscape, or the revised proposed development will form a very limited change in views, the scale of effect will be Negligible.

Visual Receptor Groups

6.7.91 This part of the visual assessment focuses on effects on groups of visual receptors, within close proximity of each other and that are judged to experience similar visual effects arising from the revised proposed development. These are referred to as visual receptor groups and include motorists on local roads, users of rights of way and open spaces, and local residents or visitors to settlements.

6.7.92 The assessment incorporates effects on views from public spaces and streets within settlements (or around the houses in areas with isolated dwellings), and the routes and accessible landscape in the surrounding countryside. Residents and visitors within these communities are assessed to be of High-Medium sensitivity. The visual receptor groups used for this assessment are set out in **AEI Table 6.8** above.

6.7.93 The assessment of effects on settlements focuses on the visual amenity of public spaces, though views from groups of dwellings will also be noted in the descriptions where appropriate. Effects on private residential amenity are a separate matter and only require assessment when a development is likely to have effects over the Residential Visual Amenity Threshold referred to in LI TGN 02/2019. These effects are included within the Residential Visual Amenity Assessment in **AEI Technical Appendix 6.3**.

6.7.94 This section should be read in conjunction with the viewpoint descriptions in **AEI Technical Appendix 6.4** which provide a detailed description of views across the study area.

Lammermuir Hills around the site (includes site)

6.7.95 This visual receptor group encompasses the Lammermuir Hills within and around the site north of the A68 and A697, east of Keith Hill, Pogbie I & II and Dun Law I & II Wind Farms, south of Blinkbonny Wood and west of Longformacus, Harecleugh Forest. Receptors within this group are predominantly those using the hills for recreation and this includes users of the Southern Upland Way, Core Paths and other Public Rights of Way (PRoW) (see **AEI Figure 6.1**). A small number of individual settlements and farmsteads lie within this receptor group; these are serviced by minor roads. Viewpoints 1, 4, 6, 9 and 19 (**AEI Figures 6.14**, **6.17**, **6.19**, **6.22** and **6.32**) lie within the extent of receptor group and represent typical views from it.

6.7.96 As set out in **AEI Table 6.8** and within the viewpoint descriptions in **AEI Technical Appendix 6.4**, effects will be of Large scale within, or in close proximity to the site, including along Core Path 16 (see VP1) that passes directly through the site.

6.7.97 These effects will reduce to Medium scale beyond the immediate vicinity of the site (see VPs 4, 6 and 19) and Medium-Small scale in the north west along the minor road between Gifford and Longformacus (see VP9); along this road the effects are reduced by the visual influence of Fallago Rig Wind Farm, which lies between the viewer and the revised proposed development.

6.7.98 High to Medium effects will occur across the majority of this High-Medium sensitivity receptor group and will be of High-Medium magnitude, Major significance (significant) and Adverse.

Landscape and settlements along the A68 and A697 corridors from Soutra Hill to Ravenswood Roundabout and Greenlaw (2.0 km, south-west)

6.7.99 This receptor group follows the road corridors of the A68 and A697 from Soutra Hill to Ravenswood Roundabout (A68) and the minor settlement of Greenlaw (A697). This group includes the settlements of Oxton, Lauder, Greenlaw, Earlston and other minor residential clusters. Users of the recreational landscapes and routes, such as Thirlestane Castle and Core Paths, are included where they pass through this receptor group. Viewpoints 2, 3, 5, 7, 23 and 25 (**AEI Figures 6.15**, **6.16**, **6.20**, **6.36** and **6.38**) lie within the extent of receptor group and represent typical views from it.

6.7.100 Towards Soutra Hill, this group is located at a higher elevation and users will experience Small scale effects due to the sense of separation and the setting within existing wind farms (see VP5). Closer to the site, this receptor group is set within the wide valley floor, and effects will increase to Medium-Small scale where the revised proposed development will be more openly visible above the valley sides but will remain partially screened (see VPs 2 and 3). To the south of Lauder along the A68, and east of Lauder along the A697, the scale of effects quickly reduces (see VP23) to Small-Negligible and Negligible where the local landform and vegetation along the road corridors serve to screen the majority of views.

6.7.101 There are occasional open views within the wider landscape where the revised proposed development will be seen above local landform and vegetation, such as at Viewpoint 25 (**AEI Figure 6.38**), where Medium scale effects have been identified.

6.7.102 On balance, Medium scale effects will occur across an intermediate geographic area of this High-Medium sensitivity receptor group. These effects will be of Medium magnitude, Moderate significance (not significant) and Adverse.

Recreational landscapes, minor roads and settlements west of the site (4.2 km, west)

6.7.103 This receptor group includes the area between the A68 and A7, north of Galashiels and Melrose, and south of Fala Moor. The group includes Fala Moor, Lauder Common and local Core Paths. Viewpoints 8, 20, 22 and 24 (**AEI Figures 6.22**, **6.33**, **6.35** and **6.37**) lie within the extent of receptor group and represent typical views from it.

6.7.104 The scale of effects will be Medium in areas to the south-west of the site, where users are on elevated ground looking across the valley towards the revised proposed development (see VPs 20, 22 and 24). To the north and south of these areas, the scale of effects will reduce to Small where intervening landform, vegetation and views of other wind farms will reduce the visual effects.

6.7.105 On balance, Medium-Small scale effects will occur across an intermediate geographic area of the High-Medium sensitivity receptor group. These effects will be of Medium-Low magnitude, Moderate (not significant) and Adverse.

Minor roads, residents and recreational landscapes east of the Lammermuir Hills (5.3 km, east)

6.7.106 This receptor group includes users of the B6456 and minor roads, residents and recreational users of the landscape between the A697 and Longformacus and east of Harecleugh Forest and Spottiswoode. Viewpoint 26 (**AEI Figure 6.39**) represents the view when travelling towards the site along the B6456, where just over half of the proposed wind turbines (in the revised proposed development) will be partially visible above the distant hill tops. Visibility will vary across the receptor group, being partially screened by local vegetation or landform, but in general areas of theoretical visibility provide open, partial views towards the revised proposed development from across the receptor group.

6.7.107 The scale of effects will range from Medium in locations closer to the site, or from open elevated locations, to Small towards the east of the receptor group. On balance, Medium-Small scale effects will occur across an intermediate geographic area of the High-Medium sensitivity receptor group. These effects will be of Medium-Low magnitude, Moderate (not significant) and Adverse.

Recreational landscapes, minor roads and settlements south of the site (8.1 km, south)

6.7.108 This receptor group encompasses the area of land bound by the A697 between High Cross and Greenlaw in the north and the A68 between St Leonards Hill (south west of Lauder) and Ravenswood Roundabout (east of Melrose) in the west. This area includes minor link roads, small settlements and isolated dwellings. Viewpoint 10 (**AEI Figure 6.23**) is located between Gordon and East Gordon on the A6105 within this receptor group and is representative of views from this area.

6.7.109 There will be Medium-Small scale effects in the northern half of this receptor group, reducing to Small scale at the edge of the ZVI where the increasing distance and increasing landform creates a sense of separation, reducing the revised proposed development to a background feature within the view and thus reducing the scale of effects.

6.7.110 At worst, Medium-Small scale effects will occur across an intermediate geographic area of this High-Medium sensitivity receptor group. These effects will be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

Semi-rural recreational landscapes, minor roads and minor settlements north of the Lammermuir Hills (7.5 km, north)

6.7.111 This receptor group encompasses the area to the north of the Lammermuir Hills and Fala Moor and south of Dalkeith, Tranent and East Linton. Receptors within this group are primarily those accessing the small-medium sized settlements, road users or those accessing recreational resources such as Traprain Law hill and Vogrie Country Park. Viewpoints 12 and 28 (**AEI Figures 6.25** and **6.41**) lie within the extent of receptor group and represent typical views from it.

6.7.112 Hills within Lammermuir range, adjacent to the north of the site, provide a high degree of screening within this receptor group; for the majority of areas, views are limited to a small number of blade tips, with the nacelles and towers predominantly screened (see VP28) – giving rise to Negligible scale effects. More wind turbines within the revised proposed development will be visible in views from distant areas within this receptor group, such as around Gorebridge (see VP12) and Mayfield. Reflecting the intervening vegetation and landform, and the distance from the revised proposed development, the scale of effect will slightly increase to Small-Negligible.

6.7.113 From areas of visibility within this receptor group, the revised proposed development will predominantly be seen in the context of existing wind farms along the Lammermuir Hills.

6.7.114 Small-Negligible scale effects will occur across a local geographic extent of this receptor group. On balance, effects on this High-Medium sensitivity receptor group will be of Low-Negligible magnitude, Slight significance (not significant) and Adverse.

Semi-rural recreational landscapes, minor roads and minor settlements north of the Moorfoot Hills (14.6 km, west)

6.7.115 This receptor group encompasses recreational users, residents and users of roads in the area north of the Moorfoot Hills, west of Gorebridge, and south of Bonnyrigg and Penicuik. This receptor group forms a transitional landscape between the settled urban fringe of Edinburgh and the more rural countryside to the south around the Moorfoot Hills, including the larger settlement of Rosewell, alongside small settlements, clusters of properties and isolated dwellings.

6.7.116 As with the previous receptor group, views of the revised proposed development will often be in conjunction with closer operational wind farms located along the Lammermuir Hills.

6.7.117 Small-Negligible scale effects will occur across an intermediate geographic area of this High-Medium sensitivity receptor group, giving rise to effects of Low-Negligible magnitude, Slight significance (not significant) and Adverse.

Landscape and settlements along the A1 road corridor from Tranent to West Barns (16.1 km, north)

6.7.118 This receptor group includes land and settlements adjacent to the parallel routes of the A1 and A199 from Tranent to West Barns. This receptor group includes the settlements of Tranent, Haddington, East Linton and other minor residential clusters, users of the recreational landscapes and routes. It is represented by Viewpoints 11 and 27 (**AEI Figures 6.24** and **6.40**).

6.7.119 Small-Negligible scale effects will be experienced across an intermediate geographic area of the receptor group where the revised proposed development will be seen at a distance and in the context of existing wind farms across the Lammermuir Hills. Effects within this High-Medium sensitivity receptor group will be of Low-Negligible magnitude, Slight significance (not significant) and Adverse.

Landscape and settlements along, and to the east of, the A701 road corridor from the A720 to Carlops (26.6 km, north-west)

6.7.120 This receptor group encompasses residents and recreational users along the A701 road corridor from the A720 to Carlops and the landscape up to approximately 2 – 4 km east of the A701. This receptor group includes the settlements of Loanhead, Penicuik and other minor residential clusters. Users of the recreational landscapes, including Roslin Glen Country Park, and recreational routes are included, however the Pentland Hills are not within this group.

6.7.121 Views of the revised proposed development will be possible from open areas within this receptor group; however, they are unlikely to occur within the dense built-up areas of Penicuik and Loanhead.

6.7.122 Due to the developed nature of this receptor groups, views will be limited to infrequent, glimpsed views where the revised proposed development will be visible as a minor, or very minor element on the distant ridgelines where it will be seen in the context of existing operational wind farms. These views will range from Small-Negligible to Negligible scale.

6.7.123 Overall, effects on this High-Medium sensitivity receptor group will occur across an intermediate geographic area of the area, leading to effects of Low-Negligible magnitude, Slight significance (not significant) and Adverse.

Moorfoot Hills and the landscape to the south (11.1 km, west)

6.7.124 The receptor group encompasses the Moorfoot Hills and the largely recreational landscape to the south, bound in the east and south by the A7. Receptors include users of the landscape, residents in and around the minor/isolated settlements and users of the minor roads. Viewpoint 13 (**AEI Figure 6.26**) is located within this receptor group and is representative of typical views.

6.7.125 Views from this receptor group occur across the east-facing hill sides and tops in the east, with areas of visibility reducing to predominantly hill tops in the west due to the steep sided V-shaped valleys between the hills.

6.7.126 The scale of effect will vary across the receptor group, being Small-Negligible in the north (see VP13) and south where users will see the revised proposed development behind the operational wind farms of Carcant, Toddleburn and Longpark. In these locations the revised proposed development will form a minor to very-minor addition to the view, with turbines in the foreground creating a more prominent focus.

6.7.127 From areas within the middle of this receptor group, the scale of effect will increase to Small, as the revised proposed development will be seen as a minor addition to a view that includes wind farm across the fore-, mid- and back-ground of the view.

6.7.128 Overall, Small to Negligible effects will occur across an intermediate geographic area of this High-Medium sensitivity receptor group, and will be of Low-Negligible magnitude, Slight significance (not significant) and Adverse.

Distant roads, residents and recreational landscapes south of Galashiels and Melrose (20.4 km, south)

6.7.129 This receptor group encompasses the area of the ZVI to the south of Galashiels and Melrose including residents, users of minor roads and users of the recreational landscape - including the popular local viewpoint on Eildon Hill (see VP14 – **AEI Figure 6.27**).

6.7.130 Effects within this receptor group will be of Small-Negligible scale from elevated locations, such as on the Eildon Hills (see VP14), where the revised proposed development will form a minor to very-minor alteration to the view and will be visible on the distant hills and in the context of multiple operational wind farms. These effects will reduce to Negligible scale from lower-lying land.

6.7.131 On balance, Small-Negligible effects will occur across a local geographic extent of this High-Medium sensitivity receptor and will be of Low-Negligible magnitude, Slight-Minimal significance (not significant) and Neutral due to presence of wind farms across the wider landscape.

Roads and Rail

6.7.132 No rail routes were identified that require detailed assessment.

A697 (3.0 km, south) – which runs south-east from Oxton/the A68, past the site entrance, towards Coldstream.

6.7.133 The A697 runs south-east from Oxton/the A68 past the site entrance towards Coldstream. Visibility is likely to be slightly reduced from that shown on the ZTV study (**AEI Figure 6.5**) due to localised vegetation and topography that will provide a degree of screening. Views to existing wind farms are not a prominent feature of views from this route, as the landform and vegetation along the road often provides screening. There are views of some of the existing turbines at Fallago Rig Wind Farm from stretches of the route.

6.7.134 Near the D124/A697 junction, views of the revised proposed development will be more open to the north of the site access track and increasingly screened by the landform to the south of the access point. Here, the scale of effect will range from Large-Medium near Boghall/Cleekhimmin Bridge; Small between Cleekhimmin Burn and Newbiggins Walls, where the landform will reduce views to a small number of blades/blade tips; and Medium between Newbiggins Walls and Drummonds-hall where a larger number of blades and the occasional tower will be visible above the hills.

6.7.135 Visibility will resume between Whiteburn and Greenlaw where the scale of effect will gradually reduce from Medium (see VP25 for reference, **AEI Figure 6.38**) to Small-Negligible as the viewer moves further from the site. Fallago Rig can be seen from some of this stretch of the route, including at VP25. Views will change from semi-distant, open views of towers and blades in the east, to more distant views, primarily limited to blades, in the west.

6.7.136 Beyond Greenlaw the distance and screening provided by landform and vegetation will reduce the scale of effects to Negligible.

6.7.137 Within the ZVI, drivers using this route will be of Low sensitivity and, at worst, will experience Medium scale effects across an intermediate section of the route; and Small scale effects for slightly wider geographic proportion of the route. These effects will be of Medium magnitude, Slight significance (not significant) and Adverse around Boghall/Cleekhimmin Bridge, and from Newbiggins Walls to Hexpathdean Bridge to the east of Houndslow. Low magnitude, Slight significance (not

significant) and Adverse effects will occur between Cleekhimmin Burn and Newbiggins Walls, and between Hexpathdean Bridge and Greenlaw.

A68 (3.3 km, west) – which runs south-east from the edge of Edinburgh through Lauder towards Jedburgh and the Scottish Border.

6.7.138 The A68 runs south-east from the edge of Edinburgh through Lauder towards Jedburgh and the Scottish Border. Visibility is likely to occur:

- Between Soutra Hill and VP5 (**AEI Figure 6.18**), where some blade tips will be visible behind the combined existing wind farms of Keith Hill, Pogbie I & II and Dun Law I and II adjacent to the A68, where there is an existing feeling of driving through a wind farm landscape. The scale of effect here will be Negligible.
- At VP5 and along a short stretch of road between VP5 and Oxton where a small number of blades will be visible above the hillside, beyond existing wind turbines, and the scale of effect will be Small.
- Between Oxton and Lauder (see VP3 – **AEI Figure 6.16**) where users of the A68 will be in relatively close proximity to the revised proposed development, which will be clearly visible across and behind the local hills. Here the scale of effect will increase to Medium-small.
- Between Lauder and Galadean where the scale of effects will gradually decrease to Small-Negligible as the revised proposed development becomes increasingly screened by landform and vegetation. Views will reduce to a small number of blades visible above local features (see VP23 – **AEI Figure 6.36**).
- In very rare, glimpsed views between Galadean and the edge of the ZVI where views will be limited to the blades of a small number of turbines, seen at increasing distance. In these views the scale of effect will be Negligible.

6.7.139 Drivers using this route will be of Low sensitivity and, at worst, will experience Medium scale effects for a local geographic proportion of the route; and Small scale effects for a small geographic section of the route. These effects will be of Medium magnitude, Slight significance (not significant) and Adverse between Oxton and Lauder, and of Negligible magnitude, Minimal significance (not significant) and Adverse along the wider route.

A6089 (8.4 km, south) – which runs in a south-west alignment from Whiteburn to Kelso.

6.7.140 Within the ZVI, the northern end of the A6089 runs in a south-west alignment from Whiteburn to Sneep Covert on its route towards Kelso. Compared to the ZTV study (**AEI Figure 6.6**) there will be no actual visibility to the south of Gordon due to roadside vegetation which screens views effectively, albeit in winter, there may be occasional glimpsed views where deciduous trees are located. The ZTV is a largely accurate representation of likely visibility to the north of Gordon, although there will be a slightly reduction in visibility on the edge of Gordon and Whiteburn due to local roadside vegetation.

6.7.141 Drivers using this route will be of Low sensitivity. Within the ZVI, Medium scale effects will be experienced for a local geographic proportion this route. effects will be of Medium magnitude, Slight significance (not significant) and Adverse.

A6105 (13.7 km, south) – which runs on an east-west axis from Earlston to Berwick-upon-Tweed.

6.7.142 Within the extent of the ZVI, the A6105 runs on an east-west axis from Earlston via Gordon and Greenlaw. As shown on the ZTV study (**AEI Figure 6.6**), visibility is unlikely to occur between Earlston and Gordon. Between Gordon and Greenlaw views are represented by Viewpoint 10 (**AEI Figure 6.23**).

6.7.143 To the east of Gordon, there will be a slight reduction in visibility around East Gordon where roadside vegetation and buildings will screen views. The scale of effects will vary along the route dependant on the openness of views and the amount of the revised proposed development visible; around VP10 effects will be Medium-Small scale; west of East Gordon these will reduce to Small scale due to the intermittent roadside vegetation which gives rise to filtered views; directly east of East Gordon the scale of effects will be Medium, the highest for this route, where open views will result in a large proportion of the revised proposed development being visible; east of these locations effects will be Small scale.

6.7.144 Drivers using this route will be of Low sensitivity. On balance, Medium-Small scale effects will occur across a local geographic proportion of this road within the ZVI. Effects will be of Medium-Low magnitude, Slight significance (not significant) and Adverse.

Long Distance Routes

Southern Upland Way (3.4 km, south-east)

6.7.145 The Southern Upland Way is a 344km long distance footpath, and is the longest of Scotland's Great Trails, running from coast to coast to connect Portpatrick in the west and Cockburnspath in the east.

6.7.146 Within the ZVI, the route passes north from Galashiels to Lauder, before turning north-east towards Longformacus. Viewpoints 6, 7, 19 and 24 (**AEI Figures 6.19**, **6.20 6.32** and **6.37**) provide representative views from along the trail. Existing wind farms begin to become a feature of views from the Southern Upland Way in the vicinity of Lauder, on higher ground between the area south west of Lauder to the area east of Twin Law Cairns near VP6.

6.7.147 The scale of effect will be highest directly to the south-east of the site where the route passes within 5 km of the revised proposed development; along this section of route the scale of effects will be Large-Medium, where the full extent of the revised proposed development will be visible as a new wind farm on the local hills.

6.7.148 Beyond 5 km the scale of effects will reduce. In the east, this will be to Medium scale at Twin Law Cairns (VP6), reducing to Negligible to the east of Watch Water Reservoir due to the substantial reduction in visibility resulting from the landform and local vegetation, coupled with the increasing cumulative visibility with Fallago Rig Wind Farm, which will be located between the viewer and the revised proposed development.

6.7.149 To the south, the scale of effects will vary between Medium and Medium-small scale as shown by Viewpoints 7, 19 and 24. Beyond Viewpoint 24, visibility will be more intermittent, and the scale of effect will gradually reduce to Small by Melrose and Negligible south of Galashiels. As the distance from the revised proposed development increases, the proposed wind turbines will be seen as a

smaller feature on the horizon, increasingly screened by intervening landform and vegetation and seen in the wider context of operational wind farms.

6.7.150 Users of the Southern Upland Way are assessed to be High-Medium sensitivity. Effects on this route within 5 km of the revised proposed development will be of Large-Medium scale, affecting a small geographic area section of the route. These effects will be of Medium-Low magnitude, Moderate significance (not significant) and Adverse. Beyond 5 km, effects will be more intermittent and Medium to Medium-Small scale effects will occur across an intermediate geographic section of the route within the ZVI. On balance, effects along these sections of the route will also be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

Operational Effects on Designated Landscapes

National Scenic Areas

Eildon and Leaderfoot NSA (17.2 km, south-west).

6.7.151 NSAs are defined by the Planning etc. (Scotland) Act 2006 Scottish as areas *"...of outstanding scenic value in a national context*". NPF4 states (Policy 4) that development that affects a NSA will only be permitted where:

- *"The objectives of the designation and the overall integrity of the NSA won't be compromised; or*
- *any significant adverse effects on its special qualities are outweighed by social, environmental or economic benefits of national importance."*

6.7.152 The revised proposed development lies outwith Eildon and Leaderfoot NSA. NatureScot's 2010 report *The special qualities of the National Scenic Areas*[30] describe the special qualities of this NSA as:

- *"Great landscape diversity within a compact area*
- *The distinctive triad of the Eildon Hills*
- *Spectacular views from the hill summits*
- *A strongly united landscape pattern of lively rhythm and colour*
- *A richly wooded scene of great variety*
- *The Tweed, an iconic river of international renown*
- *A rich array of historic buildings, structures and estates*
- *The hub of Border settlement*
- *A harmonious and varied prospect from unequalled viewpoints*
- *Inspiration for the arts, literature and painting*
- *Border country ballads and battles*
- *The historic crossings of Leaderfoot*
- *Scott's View*
- *The Wallace Statue"*

6.7.153 Viewpoint 14 (**AEI Figure 6.27**) is located atop Eildon Mid Hill within this NSA and represents the views from hill summits and viewpoints. Scott's View, the main listed viewpoint within the special

[30] NatureScot (2010). The Special Qualities of the National Scenic Areas. Available at: https://www.nature.scot/doc/naturescot-commissioned-report-374-special-qualities-national-scenic-areas

qualities, is a 180 degree viewpoint that looks west towards Melrose and the Eildon Hills, no visibility is expected to occur within the main aspect of this view.

6.7.154 Theoretical visibility, as shown on the ZTV study (**AEI Figure 6.6**), indicates limited visibility within the NSA. Where visibility is shown, it is primarily limited to open hill tops, particularly along the Eildon Hills, at Bermersyde Hill and Black Hill.

6.7.155 Effects on the setting of the Eildon Hills will be limited due to the visual separation between the hills and revised proposed development. From the hill summits the change in view is represented by Viewpoint 14. Effects from this viewpoint are listed within **Technical Appendix 6.4** as Small-Negligible.

6.7.156 Due to the infrequent, limited visibility from within the NSA, there will be little impact on setting of its internal landscape, including the rivers, historic buildings and estates.

6.7.157 The NSA is assessed to be of National value and Medium susceptibility to the type of development proposed, which is judged to result in a High-medium sensitivity. Small-Negligible scale effects on the special qualities of the NSA, in this case relating to the views from hill summits, will occur across a small geographic area. Effects will be of Negligible magnitude, Minimal significance (not significant) and Adverse.

Regional Parks

Pentland Hills Regional Park (30.5 km, north-west).

6.7.158 This regional park covers multiple council areas, within Midlothian Council's *Local Development Plan* (2017) Policy RD3 states that *"...the Council will seek to support the stated aims of the Regional Park which are:*

- *to retain the essential character of the hills as a place for the peaceful enjoyment of the countryside;*
- *caring for the hills, so that the landscape and the habitat are protected and enhanced;*
- *within this caring framework, to encourage responsible public enjoyment of the hills; and*
- *co-ordination of these aims so that they can co-exist with farming and other land uses within the Park."*

6.7.159 Similarly, the Edinburgh City Council *Local Development Plan* (2016) states that *"...development which supports the aims of the Pentlands Hills Regional Park will be permitted provided it has no unacceptable impact on the character and landscape quality of the Park."*

6.7.160 The ZTV study (**AEI Figure 6.6**) indicates that visibility will occur across the hills tops and east facing slopes within the Pentlands. These views are represented by Viewpoint 18 (**AEI Figure 6.31**) located on Allermuir Hill where the revised proposed development is seen on the distant Lammermuir Hills in the context of existing operational wind farms.

6.7.161 The regional park is assessed to be of Local value and Medium susceptibility to the type of development proposed, which is judged to result in a Medium sensitivity. Negligible scale effects will occur across an intermediate geographic area of the regional park. Effects will be of Negligible magnitude, Minimal significance (not significant) and Neutral.

Local Landscape Areas

Scottish Borders LLA6 Lammermuir Hills (includes site)

6.7.162 The location of LLA6 is shown on **AEI Figure 6.2**. Within the Scottish Borders LLAs are described within the *Local Landscape Designations Supplementary Planning Guidance* (2012)[31]. LLA6 is noted to include the open moorland of the main Lammermuir Plateau, from Lauderdale in the west to Abbey St Bathans in the east. It includes the Lammermuir plateau, the upper Whiteadder, Dirrington Laws and the fringes of upper Lauderdale. The designation statement lists the remote, wild qualities of the LLA, despite its managed nature, and highlights the openness which lend scenic value. Wind farms are listed as being prominent within the LLA and a force for change; at present Dun Law I & II, Fallago Rig, Crystal Rig I, II & IV and Aikengall IIa Wind Farms are located within this LLA. Viewpoints 1, 5, 6, 9 and 19 (**AEI Figures 6.14**, **6.18**, **6.19**, **6.22** and **6.32**) are located within this LLA.

6.7.163 The revised proposed development will be located at the western end of this LLA adjacent to Fallago Rig Wind Farm where it will increase the influence of wind development within the area. The western extent of the LLA is located close to Lauder, Oxton and two A roads. Within this area of the LLA the sense of openness and remoteness is lower than elsewhere within the LLA. This LLA is assessed to be of Local/District value and High susceptibility to the type of development proposed, giving rise to a High-Medium landscape sensitivity.

6.7.164 Medium scale effects will occur across an intermediate geographic area of this High-Medium sensitivity receptor. Effects will be of Medium magnitude, Major-Moderate significance (significant) and Adverse.

East Lothian LLA1 Lammermuir Moorland (2.3 km, north)

6.7.165 The location of LLA1 is shown on **AEI Figure 6.2**. Within East Lothian, LLAs are described within the *Special Landscape Areas Supplementary Planning Guidance* (2018)[32]. Viewpoint 21 (**AEI Figure 6.34**) is located within this LLA. The statement of importance for LLA1 describes the LLA as open, upland moorland in the heart of the Lammermuir Hills. It notes the key characteristic of the area as *"its sense of expansiveness and space, dominated by the large, open area of moorland and big skies".* The SPG notes the presence of Fallago Rig and Crystal Rig Wind Farms on the edge of this LLA, however it notes that despite the presence of infrastructure *"the area retains an 'away from it all' elemental feel, deriving from its remote location, topography and generally sparse built development".*

6.7.166 This LLA is assessed to be of Local/District value and High susceptibility to the type of development proposed, giving rise to a High-Medium landscape sensitivity.

6.7.167 The revised proposed development is located outwith this LLA, and the operational Fallago Rig Wind Farm will be located between the LLA and the revised proposed development. Consequently, the revised proposed development will not further affect the open, wild character and the perception of scale within the LLA.

[31] Scottish Borders Council (2012). Local Landscape Designations Supplementary Planning Guidance. Available at: https://www.scotborders.gov.uk/directory-record/20043/local-landscape-designations

[32] East Lothian Council (2018). Special Landscape Areas Supplementary Planning Guidance. Available at: https://www.eastlothian.gov.uk/downloads/download/13103/supplementary_planning_guidance_spg

6.7.168 Small scale effects will occur across an intermediate geographic area of this High-Medium sensitivity receptor. Effects will be of Low magnitude, Slight significance (not significant) and Adverse.

East Lothian LLA22 Samuelston (14.4 km, north)

6.7.169 LLA22, shown on **AEI Figure 6.2**, is a small LLA that encompasses "*a particularly picturesque historic agricultural settlement set on the banks of the meandering River Tyne in the bucolic, rolling countryside of the Mid Tyne Plain, with an abundance of both flora and fauna, of traditional and natural character, with high local scenic value and good recreation access*". The special qualities and features reflect this description and note the scenic views towards the Lammermuir Hills. The guidelines for development note that developments must not harm the setting of the area or the key views.

6.7.170 This LLA is assessed to be of Local/District value and High susceptibility to development, giving rise to a High-Medium landscape sensitivity.

6.7.171 The revised proposed development is located outwith this LLA and will be partially visible from open areas within this LLA. Most of the revised proposed development will be screened by landform within the Lammermuir Hills and visibility will be limited to a small number of blades (<6 wind turbines) visible on the hills and seen in the context of other operational wind farms.

6.7.172 Small-Negligible scale effects will occur across an intermediate geographic area of this High-Medium sensitivity receptor. Effects will be of Low-Negligible magnitude, Slight significance (not significant) and Adverse.

Gardens and Designed Landscapes

Thirlestane Castle GDL (4.6 km, south).

6.7.173 This GDL is located to the south of the revised proposed development with views from the grounds represented by Viewpoint 7 (**AEI Figure 6.20**) and views from inside the castle represented by Heritage Viewpoint H6 (**Figure 7.10** from the EIA Report October 2023). Of landscape and visual relevance, Historic Environment Scotland (HES) note that the principal drive affords good views; from here the revised proposed development will be partially visible above and behind local hills (see VP7). Views of the revised proposed development from inside the castle and areas immediately adjacent to the building are unlikely to occur due to the dense belt of woodland directly to the east (see Heritage Viewpoint H6).

6.7.174 GDLs are assessed to be of High-Medium sensitivity. Medium-Small scale effects will occur across an intermediate geographic area of this GDL, giving rise to effects that will be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

Mellerstain GDL (16.0 km, south).

6.7.175 This GDL contains long axial vistas which are terminated to the north by a local hill. Views of the revised proposed development will be limited to areas of agricultural land within the north of the GDL, outwith the formal parkland, where the revised proposed development will be clearly visible in mid-distance views amidst other operational wind farms on the Lammermuir Hills.

6.7.176 Medium-Small scape effects will occur across a local geographic extent of this High-Medium sensitivity receptor. Effects will be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

Oxenfoord Castle GDL (16.9 km, north-west).

6.7.177 This GDL is located on the west bank of the River Tyne, it is noted that views out are limited mainly to the neighbouring estate of Prestonhall and the parkland. The revised proposed development will be visible as a minor element on the distant ridgeline from across the higher ground within this GDL. The parkland trees will partially screen and filter views from across the area.

6.7.178 Small-Negligible scale effects will occur across the majority of this High-Medium sensitivity receptor. Effects will be of Low magnitude, Slight significance (not significant) and Adverse.

The Drum GDL (26.0 km, north-west).

6.7.179 This GDL is located on the edge of Edinburgh, the house is listed as facing to the south-east along a wide avenue. The revised proposed development will be visible from areas of the GDL where it will be seen as a minor element on the distant Lammermuir Hills, set in the context of existing operational wind farms. Small-Negligible scale effects will occur across an intermediate geographic area of this High-Medium sensitivity receptor. Effects will be of Low-Negligible magnitude, Minimal significance (not significant) and Neutral.

Palace of Holyroodhouse GDL (29.9 km, north-west).

6.7.180 This GDL encompasses Holyrood Park, including Arthur's Seat where Viewpoint 17 (**AEI Figure 6.30**) is located. Small-Negligible scale effects will occur across an Intermediate geographic area of this High-Medium sensitivity receptor. Effects will be of Low-Negligible magnitude, Minimal significance (not significant) and Neutral.

Operational Night Time Effects and Lighting

6.7.181 Onshore wind turbines of over 150 m in height require mandatory visible spectrum aviation lighting. A proposed lighting scheme has been discussed with the Civil Aviation Authority (CAA) and the agreed scheme will comprise:

- 1 no. medium intensity steady red (2000 candela) light mounted on the nacelles of wind turbines T5, T8, T11, T13 and T16 – automatically dimmed to 10% of peak intensity (200 candela) when visibility is in excess of 5 km;
- a second 2000 candela light on the nacelles of the above wind turbines to act as alternates in the event of a failure of the main light – these will not be lit at the same time as the primary light;
- no requirement for intermediate 32 candela steady red lights mounted around the tower.

6.7.182 The lights must be on *"by night"*, which is defined in UK air legislation as 30 minutes after sunset until 30 minutes before sunrise. The switching of the lights on and off will be controlled by a timer, and not by photocells or similar that respond to light levels, thereby not giving rise to effects in the daytime. During periods of greater ambient light (e.g. twilight, dusk, dawn), there will be a reduced effect as the contrast of the aviation lighting against the background will be less. The hours of darkness vary considerably in the Scottish Borders throughout the year meaning that in summer, experience of the lighting whilst people are typically more active and likely to be outside is considerably reduced. In winter, however, the lighting will be in use for greater periods of time and potentially active during peak activity times, i.e. morning and evening rush hours.

6.7.183 Due to the location of the lighting on the wind turbines relative to the rotating blades, this can result in a flashing or flickering effect caused by the screening effect of blades as they travel past the lights. These effects are dependent upon the rotation speed of the blades, direction of wind and the location of the receptor. Where a number of lit wind turbines are present in the view, such flashing is likely to be un-coordinated.

6.7.184 As stated under **Night Time Assessment** section earlier in this chapter, this LVIA does not consider the effects of lighting on landscape character in light with current best-practice; an update since the EIA Report October 2023.

Night Time Lighting Environment of the Study Area

6.7.185 The existing intensity of artificial lighting across the study area is illustrated on **AEI Figure 6.11** using the latest satellite data (2023) from VIIRS. The figure illustrates that there are low levels of artificial light within 5 km of the site, with the exception of the settlement of Oxton to the south-west of the site. Between 5 – 10 km from the site the level of artificial light is present around the settlements of Lauder to the south of the site and Gifford to the north, as well as isolated areas such as the quarry at Soutra Hill. Between 10 – 15 km there are higher levels of artificial light to the north where lighting from settlements along the A1 corridor begins to enter the study area and west from settlements along the A7 corridor.

6.7.186 Lighting from beyond the study area is also experienced from many areas within it for example, elevated locations may see the lights and skyglow from larger settlements such as Edinburgh and the settlements along and to the north of the A1 corridor.

6.7.187 None of the existing wind farms within the study area are currently lit. However, Crystal Rig IV Wind Farm (consented) will include wind turbine lighting on seven of the wind turbines once construction is complete.

ZTV Studies

6.7.188 A ZTV study has been prepared to inform this assessment based on the nine wind turbines listed above being lit and at the highest nacelle height within the development parameters. This is shown on **AEI Figure 6.12** and illustrates the number of wind turbines visible at hub height (to indicate the number of nacelle lights visible).

6.7.189 The ZTV study includes the screening effect of woodland and settlements to provide a more realistic illustration of potential visibility of proposed lighting compared to that of a bare earth model. It is however acknowledged that lights may, in limited instances, be visible through areas of woodland where they are not particularly dense or when leaves are not present on trees. Where this may be the case for a particular receptor this is noted in the text. However, it will have little bearing on the overall pattern of visibility within the study area.

6.7.190 As can be seen from the ZTV study, the wind turbine lights will be most visible from the following areas:

- The higher ground of the Lammermuir Hills in the vicinity of the site, particularly to the south east and north west;
- Higher ground and east facing slopes of the land between the A68 and A7 corridors to the south west of the site; and

- Higher ground in the belt between the A68 and Greenlaw to the south-east and south.

6.7.191 A second ZTV study is shown on **AEI Figure 6.13**, which indicates the light intensity of the proposed wind turbine lighting that would be visible, based on the vertical angle of the landform from the nacelle mounted aviation light. This demonstrates that within 5 km of the revised proposed development most areas with anticipated visibility of the proposed wind turbine lighting would be at such a vertical angle from the lighting to reduce the visible light intensity to below 80 candelas when the lights are at 2000 candela. The exception to this is the higher ground between approximately 7.5 km and 15 km from the site, where night-time visitors are less likely to be visiting.

Operational Night Time Effects on Visual Receptors

Visual Aids

6.7.192 Viewpoints 2 at Oxton (**AEI Figure 6.15**), 3 at Lauder (**AEI Figure 6.16**), 5 on the A68 (**AEI Figure 6.18**), 7 near Thirlestane Castle (**AEI Figure 6.20**), 9 near Longformacus (**AEI Figure 6.22**), 11 from the A1 near Haddington (**AEI Figure 6.24**) and 30 from the A198 near Dirleton (**AEI Figure 6.43**) include night photomontages to help illustrate the effects at night. These viewpoints have been selected as locations where visual receptors are most likely to be significantly affected by lighting or have been requested by key stakeholders (see **AEI Table 6.1**) to demonstrate likely visual effects at night, including some locations beyond the 15 km study area.

6.7.193 Within the 15 km study Viewpoints 1, 4, 6, 8, 19, 20, 22 and 24 were discounted as the majority of receptors are unlikely to visit these locations outside of daylight hours, Viewpoints 9, 21 and 25 were discounted due to the presence of vehicles along the road which will form the dominant element at night, and Viewpoint 23 was discounted due to a lack of visibility (see **AEI Figure 6.12**).

6.7.194 For each of the selected viewpoints, the photographs were taken within the hour after sunset when the landform can still be distinguished, rather than in full darkness, in accordance with the guidance provided by NatureScot in *Visual Representation of Wind Farms*. Photomontages are calibrated with reference to photography of the built wind turbine at Methil, Fife which has a 2000 candela nacelle light. Further detail in respect of the production of night time photomontages is included in **AEI Technical Appendix 6.1**.

6.7.195 The viewpoint description, description of effects and scale of effects for each viewpoint (see **AEI Figure 6.12** for viewpoint locations) is set out in **AEI Technical Appendix 6.4**. The scale of effect, magnitude and significance from the viewpoint's vicinity (within the 15 km study area for the night time assessment) is summarised in **AEI Table 6.11**.

AEI Table 6.11: Summary of Representative Viewpoints (night time)

Viewpoint Reference & Location	Distance, Direction	Scale of Effect	Sensitivity	Magnitude	Significance	Positive / Neutral / Adverse
VP1: Lylestone Hill, Core Path 16	1.4 km, south	Large	High – medium (recreational users of the Core Path 16 and	High-Medium	Major (significant)	Adverse

Viewpoint Reference & Location	Distance, Direction	Scale of Effect	Sensitivity	Magnitude	Significance	Positive / Neutral / Adverse
			surrounding countryside)			
VP2: Station Road, Oxton	4.0 km, west	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral
VP3: A68 North of Lauder	5.4 km, south	Small	Medium-low (road users)	Low	Slight (not significant)	Adverse
VP4: Lammer Law	5.2 km, north	Medium	High-medium (recreational users of open access land)	Medium	Major – Moderate (significant)	Adverse
VP5: A68 South of Dun Law Wind Farm	5.9 km, west	Medium – Small	Medium-low (road users)	Medium – Low	Moderate – Slight (not significant)	Adverse
VP6: Southern Upland Way, Twin Law Cairns	6.2 km, east	Medium	High-medium (recreational users of open access land/ promoted route)	Medium	Major – Moderate (significant)	Adverse
VP7: Thirlestane Castle GDL, Southern Upland Way	7.2 km, south	Small	High-medium (recreational users of open access land/ promoted route)	Low	Moderate (not significant)	Adverse
VP8: B368 North-East Soutra Aisle	8.7 km, west	Small	Medium-low (road users)	Medium – Low	Moderate (not significant)	Adverse
VP9: Minor Road to Longformacus	9.3 km, east	Small	Medium-low (residents and road users)	Low	Slight (not significant)	Adverse
VP10: A6105 East of Gordon	15.7 km, south-west	Small	Medium-low (road users)	Low	Moderate (not significant)	Adverse
VP11: A1 North-East of Haddington	17.2 km, north	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral
VP12: Minor Road South of Gorebridge	18.3 km, west	Small	Medium-low (road users)	Low	Slight (not significant)	Neutral
VP13: B7007 & NCN1 near Broad Law	18.7 km, west	Small	Medium-low (residents, cyclists, road users)	Low	Slight (not significant)	Neutral

Viewpoint Reference & Location	Distance, Direction	Scale of Effect	Sensitivity	Magnitude	Significance	Positive / Neutral / Adverse
VP14: Eildon Hills	22.3 km, south	Negligible	High-medium (recreational users of surrounding countryside)	Low – Negligible	Minimal (not significant)	Neutral
VP15: North Berwick Law	25.9 km, north	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral
VP16: A6112/B6470 Junction East of Swinton	29.6 km, east	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral
VP17: Arthur's Seat	31.0 km, north-west	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral
VP18: Allermuir Hills, Pentland Hills Regional Park	32.5 km, west	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral
VP19: Southern Upland Way, Edgarhope Wood	5.6 km, south	Medium	High-medium (recreational users of open access land/ promoted route)	Medium	Moderate (significant)	Adverse
VP20: Corepaths west of Oxton	6.0 km, south-west	Medium	High-medium (recreational users of surrounding countryside)	Medium	Moderate (not significant)	Adverse
VP21: Redstone Rig	7.0 km, north	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral
VP22: Lauder Common	10.0 km, south-west	Small	High-medium (recreational users of	Low	Moderate – Slight (not significant)	Adverse

Viewpoint Reference & Location	Distance, Direction	Scale of Effect	Sensitivity	Magnitude	Significance	Positive / Neutral / Adverse
			surrounding countryside)			
VP23: A68 near The Roan	9.6 km, south	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Adverse
VP24: Southern Upland Way, Chester Hill	7.9 km, south	Medium-Small	High-medium (recreational users of surrounding countryside)	Medium – Low	Moderate (not significant)	Adverse
VP25: B6456 near A697 Junction	8.8 km, south	Small	Medium-low (road users)	Low	Slight (not significant)	Adverse
VP26: B6456 near Camp Moor	16.5 km, east	Small-negligible	Medium-low (road users)	Low – Negligible	Slight (not significant)	Adverse
VP27: Fa'Side Hill Viewpoint	21.6 km, north-west	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Adverse
VP28: B6369 north of Gifford	11.4 km, north	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Adverse
VP29: Elie Harbour	41.9 km, north	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral
VP30: A198 vat Dirleton	25.8 km, north	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral
VP31: Greywalls Designed Landscape, framed vista	26.3 km, north	Negligible	High-medium (residents, recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral
VP32: Exit from Gullane to the west	25.7 km, north	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral
VP33: Gullane golf course	26.2 km, north	Negligible	High-medium (users of the recreational landscape)	Negligible	Minimal (not significant)	Neutral
VP34: Road from Gullane to	24.8 km, north	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral

Viewpoint Reference & Location	Distance, Direction	Scale of Effect	Sensitivity	Magnitude	Significance	Positive / Neutral / Adverse
Aberlady looking south						
VP35: A6137 descent into Haddington	18.5 km, north	Negligible	Medium-low (road users)	Negligible	Minimal (not significant)	Neutral
VP36: Samuelston Loanhead	15.9 km, north	Negligible	High-medium (recreational users of surrounding countryside)	Negligible	Minimal (not significant)	Neutral

6.7.196 Each of the viewpoints is a sample of the potential effects, representing a wide range of receptors – including not only those actually at the viewpoint, but also those nearby, at a similar distance and/or direction.

6.7.197 From these viewpoints it can be seen that:

- The extent of Large and Large-Medium scale visual effects, where the proposed aviation lights will form a major new element in the view will predominantly be limited to area immediately around the site up to approximately 2.5 - 4km from the revised proposed development, where there are open views looking directly at the site and there is little intervening vegetation or topography to reduce the scale of effects.
- Beyond this area effects will generally be Medium to Medium-Small due to a combination of the distance, screening effects of landform and other light sources within the night time environment; this will reduce to Small to Small-Negligible by beyond approximately 8.5 km.
- Effects of greater than Negligible scale are unlikely to occur beyond approximately 11 km.

Visual Receptor Groups

6.7.198 As indicated within **AEI Technical Appendix 6.1**, residents and visitors within settlements with lighting are assessed to be of Medium sensitivity; users of local roads at night are assumed to be driving and of Medium-Low sensitivity and main road users are considered to be of Low sensitivity. Effects on private residential visual amenity are considered in **AEI Technical Appendix 6.3**. The following visual receptor groups are located within the 15 km study area for the assessment of night time effects.

Lammermuir Hills around the site (includes site)

6.7.199 Viewpoints 1, 4, 6, 9 and 19 (**AEI Figures 6.14**, **6.17**, **6.19**, **6.22** and **6.32**) lie within this area. A night photomontage is provided for Viewpoint 9 (**AEI Figure 6.22**). Most of the other viewpoints are located in areas where receptors are unlikely to visit outside of daylight hours.

6.7.200 As set out above and within **AEI Technical Appendix 6.4**, effects will be Large for views closest to the site, reducing to Medium and then Small with distance. Receptors within this group will mainly be travelling on minor roads, where the focus will be on driving, or local residents in unlit locations as they enter or exit their properties. Headlights from other vehicles on the roads will also affect the

visibility of lit turbines. Effects will arise across the majority of this Medium sensitivity receptor group. These effects will be of High-medium magnitude, Moderate significance (not significant) and Adverse.

Landscape and settlements along the A68 and A697 corridors from Soutra Hill to Ravenswood Roundabout and Greenlaw (2.0 km, south-west)

6.7.201 This receptor group follows the road corridors of the A68 and A697 from Soutra Hill to Ravenswood Roundabout (A68) and the minor settlement of Greenlaw (A697). Viewpoints 2, 3, 5, 7, 23 and 25 (**AEI Figures 6.15**, **6.16**, **6.20**, **6.36** and **6.38**) lie within this receptor group. Night time photomontages are provided for Viewpoints 2 (**AEI Figure 6.15**), 3 (**AEI Figure 6.16**), 5 (**AEI Figure 6.18**) and 7 (**AEI Figure 6.20**). The settlements of Oxton and Lauder are sources of existing lighting within this receptor group, as shown on **AEI Figure 6.11**. Although the main roads are not lit, traffic along the roads also creates night time lighting.

6.7.202 Within much of this receptor group, visibility will be of a maximum of five wind turbine lights, with the landform to the east frequently screening the remainder of the lights from view. Effects from much of this receptor group will be of Medium-small scale, as a result and as described in **AEI Technical Appendix 6.4**.

6.7.203 Effects will occur for an intermediate geographic area of this Medium sensitivity receptor group, giving rise to effects that will be of Medium-low magnitude, Moderate significance (not significant) and Adverse.

Recreational landscapes, minor roads and settlements west of the site (4.2 km, west)

6.7.204 Viewpoints 8, 20, 22 and 24 (**AEI Figures 6.22**, **6.33**, **6.35** and **6.37**) lie within this receptor group. This receptor group is predominantly a rural recreational landscape, and as such, these viewpoints are located in areas where receptors are unlikely to visit outside of daylight hours. The main receptors within this group will be users of minor roads, whose primary focus will be on the road and be influenced, to a degree, by the headlights of other vehicles on the road, which will affect the visibility of lit turbines. However, there are also recreational spaces after dark.

6.7.205 The scale of effects will be Medium in areas closest to the site, west of Oxton, where users are on elevated ground looking across the valley towards the revised proposed development. These views will be over the lit settlements of Oxton and Lauder, and vehicles along the A68. The scale of effects will reduce to Medium-small and small with distance from the site.

6.7.206 On balance, Medium scale effects will occur across a local geographic extent of the Medium sensitivity receptor group. These effects will be of Medium magnitude, Moderate (not significant) and Adverse.

Minor roads, residents and recreational landscapes east of the Lammermuir Hills (5.3 km, east)

6.7.207 Viewpoint 26 (**AEI Figure 6.39**) represents the view when travelling towards the site along the B6456, just outside the study area for the night time assessment. As shown by **AEI Figure 6.11**, there are limited existing sources of light within this receptor group, with the exception of some lighting in the small settlements and traffic travelling along the roads. Much of the receptor area is unlikely to be heavily used at night as it is a remote rural landscape.

6.7.208 Within much of this receptor group, visibility will be of a maximum of five wind turbine lights, with the landform to the west and north west frequently screening the remainder of the lights from view. Effects from much of this receptor group will be of Medium-small to Small scale, as a result.

6.7.209 Effects will occur across a local geographic extent of this Medium sensitivity receptor group, giving rise to effects that will be of Medium-low magnitude, Moderate significance (not significant) and Adverse.

Recreational landscapes, minor roads and settlements south of the site (8.1 km, south)

6.7.210 Viewpoint 10 (**AEI Figure 6.23**) is located between Gordon and East Gordon on the A6105 within this receptor group, just beyond the 15km study area for the night time assessment. Settlements on the periphery of this receptor group provide localised sources of light within the night time environment, along with traffic on the main roads. Much of the receptor area is unlikely to be heavily used at night as it is a remote rural landscape.

6.7.211 Within much of this receptor group, visibility of the wind turbine lighting would be intermittent. All of the wind turbine lights would be visible, at a distance, from areas of higher ground, with numbers of wind turbines potentially visible reducing rapidly away from these elevated locations. Effects from much of this receptor group will be of Small scale, as a result of the distance from the revised proposed development.

6.7.212 Effects will occur across a local geographic extent of this Medium sensitivity receptor group, giving rise to effects that will be of Low magnitude, Slight significance (not significant) and Adverse.

Semi-rural recreational landscapes, minor roads and minor settlements north of the Lammermuir Hills (7.5 km, north)

6.7.213 This receptor group encompasses the area to the north of the Lammermuir Hills and Fala Moor and south of Dalkeith, Tranent and East Linton. Viewpoint 28 (**AEI Figure 6.41**) lies within this group. **AEI Figure 6.12** indicates there would be almost no visibility of the proposed wind turbine lighting from within this receptor group. Consequently, night time effects on receptors would be no greater than Negligible (not significant).

Semi-rural recreational landscapes, minor roads and minor settlements north of the Moorfoot Hills (14.6 km, west)

6.7.214 This receptor group encompasses recreational users, residents and users of roads in the area north of the Moorfoot Hills, west of Gorebridge, and south of Bonnyrigg and Penicuik. **AEI Figure 6.12** indicates there would be little to no visibility of the proposed wind turbine lighting from within this receptor group. Consequently, night time effects on receptors would be no greater than Negligible (not significant).

Road and Rail

6.7.215 Night time effects on main road will be Negligible (not significant) due to the limited visibility of the revised proposed development and the proximity of other lighting within the night time environment, combined with the focus on driving for users of road routes.

Long Distance Routes

Southern Upland Way (3.4 km, south-east)

6.7.216 Although the Southern Upland Way passes through areas where wind turbine lighting is likely to be visible, mainly to the south--east of the site, use of the route at night is likely to be very limited as a result of its unlit route through rural areas. Where the route passes through more urban areas, these have been assessed within the visual receptor groups above.

National, Regional and Local Cycle Routes

6.7.217 No cycle routes lie within the 15 km night study area that are likely to have visibility of the revised proposed development.

Designated Landscapes

6.7.218 There are no Dark Sky Parks or Discovery sites (locally popular star gazing sites nominated by local groups) within the study area. The Northumberland Dark Sky Park is located approximately 37 km to the south-east of the site at its closest point and beyond the area likely to experience anything more than Negligible effects.

National Scenic Areas

Eildon and Leaderfoot NSA (17.2 km, south-west)

6.7.219 At 17.2 km from the closest wind turbine, this NSA lies beyond the area likely to experience anything more than Negligible effects (not significant~~)..~~).

Regional Parks

Pentland Hills Regional Park (30.5km, north-west)

6.7.220 At 30.5 km from the closest wind turbine, this Regional Park lies beyond the area likely to experience anything more than Negligible effects (not significant).

Local Landscape Areas

6.7.221 Midlothian LLA2 Fala Moor (9.5 km, north-west), East Lothian LLA12 Bolton (12.4 km, north) and East Lothian LLA22 Samuelston (14.4 km, north) were assessed in relation to the operational daytime effects of the revised proposed development. However, given their distance from the revised proposed development, the judgements reached in relation to daytime effects and the limited visibility shown on the night time ZTV at **AEI Figure 6.12**, effects would be no greater than Negligible (not significant) for these LLAs.

Scottish Borders LLA6 Lammermuir Hills (includes site)

6.7.222 Viewpoints 1, 5, 6, 9 and 19 (**AEI Figures 6.14**, **6.18**, **6.19**, **6.22** and **6.32**) are located within this LLA. Night time photomontages are provided for Viewpoints 5 (**AEI Figure 6.18**) and 9 (**AEI Figure 6.22**). Most of the other viewpoints are located in areas where receptors are unlikely to visit outside of daylight hours.

6.7.223 Effects on this High-medium sensitivity designation will be as described across the LCTs that it covers, which are primarily LCT90 and parts of 91, 105 and 115. This will result in Large scale effects

in the area immediately around the site. Effects would reduce to Medium-small to Small scale between 6 – 10 km to the west and Small scale 10 – 15 km to the east.

6.7.224 Large scale effects will occur across a local geographic extent of this LLA. Effects will be of High magnitude, Major-Moderate significance (significant) and Adverse.

East Lothian LLA1 Lammermuir Moorland (2.3 km, north)

6.7.225 Viewpoint 21 (**AEI Figure 6.34**) is located within this LLA. Effects on this High-Medium sensitivity designation will be as described across the LCT that it covers, which is LCT 266.

6.7.226 Effects will be of Medium-Small scale along the south-western edge of this LLA, reducing to Negligible scale across much of the remainder of the LLA. These Medium-Small effects will occur across a local geographic extent of the LCT and will be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

Gardens and Designed Landscapes

6.7.227 Of the GDLs assessed in relation to the operational daytime effects of the revised proposed development, only Thirlestane Castle GDL is shown to have any visibility on the night time ZTV at **AEI Figure 6.12**.

Thirlestane Castle GDL (4.6 km, south).

6.7.228 Views from the grounds of Thirlestane Castle are represented by Viewpoint 7 (**AEI Figure 6.20**), which is also provided as a night time photomontage, and views from inside the Castle are represented by Heritage Viewpoint H6 (**Figure 7.10** in the EIA Report October 2023). At night, much of the south-west boundary of the GDL is influenced by existing lighting within Lauder.

6.7.229 The night time ZTV (**AEI Figure 6.12**) indicates that from the majority of the GDL with potential visibility, a maximum of five wind turbine lights would be visible, with large areas where a maximum of three wind turbine lights would be visible. Views of the revised proposed development from inside the Castle and areas immediately adjacent to the building are unlikely to occur due to the dense belt of woodland directly to the east.

6.7.230 GDLs are assessed to be of High-Medium sensitivity during both the day and at night. Medium-small scale effects from the proposed lighting will occur across an Intermediate geographic area of this GDL, giving rise to effects that will be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

6.8 Mitigation

6.8.1 Mitigation measures relevant to this chapter are embedded within the design of the revised proposed development. Landscape and visual impacts have been considered at each stage of the design process to create a layout that minimises effects.

6.8.2 Further detail of the design evolution can be found within **AEI Chapter 2: Design Evolution & Alternatives** of this AEI.

6.8.3 Of particular relevance to this chapter is the lighting mitigation, which has been designed, as it was for the EIA Report October 2023, to minimise night-time effects, as follows:

- reduced lighting intensities during good meteorological visibility i.e. from 2000cd to 200cd when visibility is greater than 5 km;
- reduced lighting intensities for receptors below the horizontal;
- a periphery only lighting scheme that reduces the number of lit wind turbines from six to five; and
- the removal of intermediate lighting from the wind turbine towers, such that the lit wind turbines will only have one light on the nacelle of the wind turbine.

6.9 Updated Assessment of Residual Effects

6.9.1 Embedded (primary) mitigation has been considered in the assessment of effects above. As there are no secondary or tertiary mitigation measures relevant to this assessment, residual effects will be the same as those identified above

6.10 Updated Assessment of Cumulative Effects

Introduction

6.10.1 Cumulative effects are assessed on the same groups of landscape and visual receptors as the assessment for the revised proposed development. Landscape and visual receptors that are considered to receive effects of Low-Negligible or Negligible magnitude (both localised and overall) from the revised proposed development are not included in this assessment, as an effect of such low magnitude manifestly adds nothing or very little regardless of the effects of other developments. If significant cumulative effects arise on those receptors, they would be as a result of other developments and as such are not relevant for consideration as part of this application.

6.10.2 As indicated in the methodology section, the study area and scope for potential cumulative effects of the revised proposed development includes proposed wind turbine developments located within 35 km. The scope for potential cumulative effects of the revised proposed development could arise from the wind farms identified in **AEI Table 6.12**.

AEI Table 6.12: Cumulative Sites

Wind Farm	Number of wind turbines	Maximum tip height	Status
Within 5 km			
Fallago Rig	48	7 @ 110 m 41 @ 125 m	Operational
Ditcher Law	9	200 m	Application
Dunside	15	220 m	Application
5 – 15 km			
Dun Law I	26	68 m	Operational
Dun Law II	35	75 m	Operational
Keith Hill	5	76 m	Operational
Pogbie	6	76 m	Operational

Wind Farm	Number of wind turbines	Maximum tip height	Status
Pogbie II	6	74 m	Operational
Toddleburn	12	125 m	Operational
Crystal Rig I/Ia	25	100 m	Operational
Crystal Rig II/IIa	60	36 @ 110 m 24 @ 125 m	Operational
Crystal Rig III	6	4 @ 100 m 2 @ 110 m	Operational
Longpark	19	100 m	Operational
Crystal Rig IV	11	4 @ 200 m 4 @ 149.9 m 3 @ 174.5 m	Consented
Greystone Knowe	14	180 m	Application
Wull Muir	8	149.9 m	Application
Newlands Hill	17	2 @ 180 m 15 @200 m	Application
15 – 25km			
Aikengall I	16	125 m	Operational
Aikengall II	19	145 m	Operational
Aikengall IIa	19	145 m	Operational
Black Hill	22	78 m	Operational
Carcant	3	107 m	Operational
Hoprigshiels	3	115 m	Operational
Ferneylea	2	71 m	Operational
Quixwood	13	10 @ 115 m 3 @ 100 m	Operational
Bowbeat	24	80 m	Operational
Brockholes	3	79 m	Operational
Scawd Law	8	180 m	Application
Blackburn	4	149.9 m	Application
Lees Hill	6	200 m	Application
Torfichen	18	180 m	Application
Monashee	4	200 m	Scoping
25 – 35km			
Penmanshiel	14	100 m	Operational

Wind Farm	Number of wind turbines	Maximum tip height	Status
Howpark	8	100 m	Operational
Drone Hill	22	76 m	Operational
Cloich Variation	12	149.9 m	Application
Leithenwater	13	12 @ 200 m 1 @ 180 m	Application

6.10.3 The locations and numbers of wind turbines within these revised proposed developments are illustrated on **AEI Figure 6.8** and the baseline panorama visualisations for each viewpoint.

Assessment Scenarios and Approach

6.10.4 As set out within the methodology, operational and consented wind farms are included as part of the baseline for the assessment and are considered within the main assessment of effects above. Potential cumulative effects with other applications in planning are considered below.

6.10.5 Applications in planning that are relevant to consider within this assessment are:

- Ditcher Law – a proposal for 9no. 200 m tall wind turbines located approximately 3.6 km to the north-west of the closest wind turbine of the revised proposed development;
- Dunside – a proposal for 15no. 220 m tall wind turbines located approximately 2.6 km to the east of the closest wind turbine of the revised proposed development;
- Greystone Knowe – a proposal for 14no. 180 m tall wind turbines located approximately 15.1 km to the south-west of the closest wind turbine of the revised proposed development;
- Wull Muir – a proposal for 8no. 149.9 m tall wind turbines located approximately 16 km to the west of the closest wind turbine of the revised proposed development;
- Scawd Law – a proposal for 8no. 180 m wind turbines located approximately 21.8 km to the south-west of the closest wind turbine of the revised proposed development;
- Blackburn – a proposal for 4 no. 149.9 m wind turbines located approximately 21.3 km to the north-east of the closest wind turbine of the revised proposed development; and
- Cloich Variation – a proposal for 12no. 149.9 m wind turbines located approximately 34.5 km to the southwest of the closest wind turbine of the revised proposed development.

6.10.6 Since the submission of the EIA Report October 2023, the four developments have progressed from scoping to applications. As such, this LVIA incorporates these new applications in planning into the AEI's updated assessment on cumulative effects. The four updated developments are as follows:

- Lees Hill – a proposal for 6no. 200 m tall wind turbines located approximately 15.6 km to the south-east of the closest proposed wind turbine of the revised proposed development;
- Leithenwater – a proposal for 12no. 200 m tall and 1no. 180 m tall wind turbines located approximately 27.5 km to the south-west of the closest wind turbine of the revised proposed development;
- Newlands Hill – a proposal for 15no. 200 m tall and 2no. 180 m tall wind turbines located approximately 6 km to the north-east of the closest wind turbine of the revised proposed development; and

- Torfichen – a proposal for 18no. 180 m tall wind turbines located approximately 18.7 km to the west of the closest wind turbine of the revised proposed development.

6.10.7 Whilst developments that remain in Scoping, at the time of this LVIA, have been shown on **AEI Figure 6.8**, they have not been considered as part of the cumulative assessment due to the level of uncertainty associated with the proposals and the lack of reliable information available with respect to the wind turbine layout design and candidate wind turbine sizes.

6.10.8 **AEI Figure 6.9** illustrates the theoretical visibility of operational and consented developments, with the theoretical visibility of the revised proposed development shown in blue, theoretical visibility of Fallago Rig Wind Farm shown in purple, theoretical visibility of the operational developments to the west (Dun Law I & II, Pogbie I & II, Keith Hill and Toddleburn) shown in yellow and locations with theoretical visibility of the remaining more distant operational or consented developments shown in grey. The diagram in the key for **AEI Figure 6.9** illustrates the colour combinations where visibility of the operational and consented developments overlaps. This demonstrates the scenario considered in Section 6.7, with the existing and consented wind farms forming part of the assessment baseline.

6.10.9 It demonstrates that to the north-west of the site, the revised proposed development will predominantly be seen with Fallago Rig and sometimes in combination with the group of wind turbines at Crystal Rig and Aikengall. To the north-west and west of the site, there will be localised areas where the revised proposed development will be seen in combination with the operational wind farms to the west. From the lowland plain to the north of the site, there will be areas where the revised proposed development will be seen on top of the Lammermuir Hills as part of the existing spread of wind turbines on the skyline. In much of the east, south and west of the study area, the existing groups of turbines located in the more distant eastern and western extents of the study area will continue to be the more prominent wind turbine developments.

6.10.10 **AEI Figure 6.10** illustrates the theoretical visibility of developments in planning. These have in part been grouped into clusters that are likely to result in similar landscape and visual effects; due to similarities in their distance and/or orientation from the site. The groupings are:

- Dunside and Lees Hill to the east and Newlands Hill to the north-east;
- Ditcher Law to the west; and
- Proposed wind farms beyond 8 km to the west: Wull Muir, Greystone Knowe, Scawd Law and Torfichen.

6.10.11 The three remaining developments – Blackburn, Cloich Variation and Leithenwater – in planning have been excluded from detailed assessment as they are located in areas where existing wind turbine developments already exert a visual influence, such as Blackburn providing a minor extension to Quixwood; and Cloich Variation and Leithenwater being located beyond the existing Bowbeat Wind Farm to the site's south-west.

6.10.12 **AEI Figure 6.10** illustrates that as with the pattern of theoretical visibility for the revised proposed development and the existing/consented developments, there will be a split in visibility in the areas to the east and west of the site. To the east, visibility will be predominantly of the revised proposed development and Dunside, largely from those areas where Fallago Rig is currently already visible. To the west, visibility will be predominantly of the revised proposed development and Ditcher Law,

largely from those areas where the group of operational developments to the west (Dun Law I & II, Pogbie I & II, Keith Hill and Toddleburn) are currently visible.

6.10.13 To the north, smaller areas of the lowland plain will have visibility of the revised proposed development with the other proposed developments in planning than will have visibility of the revised proposed development with the existing wind farms. Throughout the majority of the study area, visibility will remain similar to the existing pattern of wind farm visibility.

Cumulative Effects on Landscape Character

6.10.14 The following landscape character types, which are shown on **AEI Figure 6.3**, are judged to receive Low magnitude or greater effects (locally or overall) as a result of the revised proposed development, and are therefore assessed for cumulative effects:

- LCT90 – Dissected Plateau Moorland;
- LCT115 – Upland Valley with Mixed Farmland;
- LCT91 – Plateau Grassland – Borders;
- LCT99 – Rolling Farmland – Borders;
- LCT103 – Undulating Upland Fringe;
- LCT115 – Upland Valley with Mixed Farmland;
- LCT105 – Upland Fringe Moorland with Hills; and
- LCT108 – Lowland Margin.

LCT90 – Dissected Plateau Moorland (includes site)

6.10.15 Viewpoints 1, 6 and 9 (**AEI Figure 6.14**, **6.19** and **6.22**) lie within this LCT. The LCT is judged to be of Medium sensitivity.

6.10.16 Effects will arise from the visibility of the revised proposed development and Dunside, which are both located within the eastern part of this LCT, as shown in **AEI Figure 6.10**. Additionally, the visibility of the proposed developments at Newlands Hill and Lees Hill, which are both situated outside this LCT to the north and southeast respectively, will also result in some effect in combination with the revised proposed development and Dunside. However, the Newlands Hill and Lees Hill will generally not be visible in the same direction as the revised proposed development. In the west of the LCT, there will be some areas with visibility of Ditcher Law beyond the western boundary of the LCT. Within these areas, there are generally existing operational wind farms present, with Fallago Rig present within the LCT to the east of the site.

6.10.17 Cumulative effects of Large to Large-medium-scale within the LCT will extend to cover an intermediate geographic area of this LCT, if all of the cumulative developments were constructed. These effects will be of High Magnitude, Major-moderate significance (significant) and Adverse.

LCT115 – Upland Valley with Mixed Farmland (includes site)

6.10.18 Viewpoints 2, 4, 7 and 24 (**AEI Figures 6.15**, **6.17**, **6.20** and **6.37**) lie within this LCT. It is judged to be of Medium sensitivity.

6.10.19 None of the developments currently in planning would be located within this LCT. As indicated by **AEI Figure 6.10**, a central strip of this LCT will experience potential visibility of the revised proposed development in combination with Ditcher Law, with the east facing slopes additionally having visibility of Dunside and the west facing slopes additionally having visibility of the wind farms in

planning to the west. All of these areas have existing views of the operational wind farms at either Fallago Rig or the group to the west (Dun Law I & II, Pogbie I & II, Keith Hill and Toddleburn). Ditcher Law will be located closer to this LCT than any of the operational wind farms.

6.10.20 Cumulative effects of Medium to Medium-small scale will extend into the north of LCT115 if all of the cumulative developments were constructed, predominantly as a result of the proximity of Ditcher Law. These effects will occur across an intermediate geographic area of the LCT and be of Medium to Medium-low Magnitude, Moderate significance (not significant) and Adverse.

LCT91 – Plateau Grassland – Borders (2.3 km, west)

6.10.21 Viewpoints 5, 8, 20 and 22 (**AEI Figures 6.18**, **6.21**, **6.33** and **6.35**) lie within this LCT. This LCT is judged to be of Medium-low sensitivity.

6.10.22 The proposed Ditcher Law Wind Farm is located within this LCT. As indicated by **AEI Figure 6.10**, the east of this LCT will experience potential visibility of the revised proposed development in combination with Ditcher Law. In the west of the LCT, the group of wind turbine developments in planning to the south-west of the site (Wull Muir, Greystone Knowe and Scawd Law) will be visible, but not in combination with the revised proposed development. There will be isolated patches within this LCT where the revised proposed development will be visible with all of the developments in planning. The majority of this LCT currently has visibility of operational wind farms.

6.10.23 Cumulative effects of Large scale within the LCT will occur in the north-west of LCT91 if all of the cumulative developments were constructed, predominantly as a result of the location of Ditcher Law within the LCT. These effects will occur across a local geographic extent of the LCT and be of High Magnitude, Moderate significance (not significant) and Adverse.

LCT99 – Rolling Farmland – Borders (3.8 km, south)

6.10.24 Viewpoints 19 and 25 (**AEI Figures 6.32** and **6.38**) are located within this character type. It is judged to be of Medium sensitivity.

6.10.25 None of the developments currently in planning would be located within this LCT. With the exception of the western edge of this LCT, as indicated by **AEI Figure 6.10**, much of the potential visibility of wind farms in planning within this LCT will relate to the influence of Dunside, in combination with the revised proposed development, or the group of proposed wind farms to the southwest of the site. Along the western edge of the LCT, on west facing slopes, Dunside will not be visible, but Ditcher Law and the revised proposed development are likely to be visible. Much of this LCT has existing views of the operational wind farms at Fallago Rig and the more distant operational developments out to the east. Dunside will be located closer to this LCT than any of the operational wind farms.

6.10.26 Cumulative effects of Medium scale within the LCT will extend into the north of LCT99 if all of the cumulative developments were constructed, predominantly as a result of the proximity of Dunside. These effects will occur across a local geographic extent of the LCT and be of Medium to Medium-Low Magnitude, Moderate significance (not significant) and Adverse.

LCT103 – Undulating Upland Fringe (7.6km, south)

6.10.27 Viewpoint 24 (**AEI Figure 6.37**) is located just outwith this character type but provides representative views from the northern end of the LCT. It is judged to be of Medium sensitivity.

6.10.28 None of the developments currently in planning would be located within this LCT. Similarly to LCT115, as indicated by **AEI Figure 6.10**, the west facing slopes of this LCT will experience potential visibility of the revised proposed development in combination with Ditcher Law and some visibility of the wind farms in planning to the west. The western half of the LCT will have decreasing visibility of any of the proposed wind farms in planning. All of the areas in the east of the LCT have existing views of the operational wind farms at either Fallago Rig or the group to the west (Dun Law I & II, Pogbie I & II, Keith Hill and Toddleburn), with areas in the west of the LCT additionally having visibility of Longpark Wind Farm, which is the closest existing or proposed wind farm to LCT103.

6.10.29 Cumulative effects of Small scale will continue in the northern end of this LCT, if all of the cumulative developments were constructed, given the distance of the wind farms in planning from the boundary of the LCT. Small scale effects will occur across a local geographic extent of this LCT, giving rise to effects that will remain of Low magnitude, Slight significance (not significant) and Adverse.

LCT115 – Upland Valley with Mixed Farmland (8.3km, east)

6.10.30 The LCT is judged to be of High-medium sensitivity.

6.10.31 None of the developments currently in planning would be located within this LCT. As indicated by **AEI Figure 6.10**, the eastern and western edges of this LCT will have visibility of Dunside and the highest areas of the LCT will have visibility in combination with the revised proposed development. All of these areas have existing views of the operational wind farms at Fallago Rig or the group to the east at Crystal Rig and Aikengall, which will remain the closest wind farm developments.

6.10.32 Small scale cumulative effects will continue across a localised extent of this LCT, giving rise to effects that will be of Low magnitude, Slight significance (not significant) and Adverse.

LCT105 – Upland Fringe Moorland with Hills (9.8km, east)

6.10.33 Viewpoint 26 (**AEI Figure 6.39**) lies within this LCT. It is judged to be of Medium-low sensitivity.

6.10.34 Since the EIA Report October 2023, Lees Hill has been submitted into planning. As indicated by **AEI Figure 6.10**, much of this LCT will experience potential visibility of the revised proposed development in combination with Lees Hill and Dunside, with some areas of higher ground additionally having visibility of the wind farms in planning to the west (notably Scawd Law and Greystone Knowe). Isolated areas in the south-east of the LCT will also potentially have visibility of Dunside. All of these areas have existing views of the operational wind farms at either Fallago Rig, Black Hill or the group to the east at Crystal Rig and Aikengall. Black Hill remains the closest operational wind farm to this LCT presently, with Dunside and Lees Hill located closer to this LCT than the revised proposed development.

6.10.35 Cumulative effects of Medium-small scale will extend into the north-west of LCT105 if all of the cumulative developments were constructed, predominantly as a result of the proximity of Dunside and Lees Hill. These effects will occur across an intermediate geographic area of the LCT and be of Medium to Medium-low Magnitude, Slight significance (not significant) and Adverse.

LCT108 – Lowland Margin (13.2km south-east)

6.10.36 Viewpoint 10 (**AEI Figure 6.23**) is located within the centre of the LCT, which is judged to be of Medium sensitivity.

6.10.37 None of the developments currently in planning would be located within this LCT. As indicated by **AEI Figure 6.10**, visibility of wind farms in planning will be relatively widespread across this LCT, with Dunside having the greatest visual influence on the LCT. The revised proposed development in planning will be perceived as minor elements on the distant hills, due to the visual separation. The majority of the LCT already has existing views of the operational wind farms at either Fallago Rig Black Hill or the group to the east at Crystal Rig and Aikengall.

6.10.38 Cumulative effects of Medium-small to Small scale will occur across an Intermediate geographic area of this LCT if all of the cumulative developments were constructed. These effects will be of Medium to Medium-low to Low Magnitude, Slight significance (not significant) and Adverse.

Cumulative Effects on Visual Receptors

6.10.39 The assessment considers two types of cumulative visual effect, namely effects arising from combined and sequential views. This is in accordance with the NatureScot Guidance *Assessing the Cumulative Impact of Onshore Wind Energy Developments* (March 2021). These comprise:

- Combined views which "*occur where the observer is able to see two or more developments from one viewpoint. Combined visibility may either be in combination (where several wind farms are within the observer's arc of vision at the same time) or in succession (where the observer has to turn to see the various wind farms)*"; and
- Sequential views which "*occur when the observer has to move to another viewpoint to see different developments.*"

6.10.40 This section assesses the anticipated cumulative visual effects arising from the revised proposed development in combination with the existing and approved developments. The main linear routes that share combined intervisibility in the study area are then summarised to anticipate the likely sequential views.

Visual Aids

6.10.41 The baseline panoramas and wirelines, shown on **AEI Figures 6.14 – 6.49**, include cumulative developments.

6.10.42 A detailed description of the methods by which the wirelines and photomontages are prepared is included in **AEI Technical Appendix 6.1**. The visualisations are numbered according to the viewpoint that they show (e.g. VP_01 for Viewpoint 1), with a suffix indicating the type of visualisation (BP – baseline panorama and wireline (including cumulative developments), WL – wireline, PM – photomontage, NP – night photomontage.

6.10.43 The viewpoint description, description of effects and scale of effect for each viewpoint, including cumulatively (refer to **AEI Figures 6.6** and **6.7** for locations) is set out within **AEI Technical Appendix 6.4**.

Visual Receptor Groups

6.10.44 The following visual receptor groups are judged to receive Low magnitude or greater effects (locally or overall) as a result of the revised proposed development, and are therefore assessed for cumulative effects:

- Lammermuir Hills around the site;

- Landscape and settlements along the A68 and A697 corridors from Soutra Hill to Ravenswood Roundabout and Greenlaw;
- Recreational landscapes, minor roads and settlements west of the site;
- Minor roads, residents and recreational landscapes east of the Lammermuir Hills; and
- Recreational landscapes, minor roads and settlements south of the site.

Lammermuir Hills around the site (includes site)

6.10.45 Viewpoints 1, 4, 6, 9 and 19 (**AEI Figures 6.14**, **6.17**, **6.19**, **6.22** and **6.32**) lie within this area.

6.10.46 As set out in the viewpoint descriptions in **AEI Technical Appendix 6.4**, effects across much of this receptor group will be experienced as a result of the in combination effects of Dunside and Ditcher Law with the revised proposed development, with the other developments in planning to the south-west visible as more distant features from areas of higher ground. Whilst there will be increased visibility of wind farms within this receptor group if all of the developments in planning were to come forward, the pattern of visibility across the receptor group will remain broadly comparable to that for the revised proposed development alone, with each of the cumulative developments providing localised areas of Large scale visual effects. Overall, cumulative effects will arise across the majority of this High-Medium sensitivity receptor group and will remain of High-Medium magnitude, Major significance (significant) and Adverse.

Landscape and settlements along the A68 and A697 corridors from Soutra Hill to Ravenswood Roundabout and Greenlaw (2.0 km, south-west)

6.10.47 Viewpoints 2, 3, 5, 7, 23 and 25 (**AEI Figures 6.15**, **6.16**, **6.20**, **6.36** and **6.38**) lie within this receptor group.

6.10.48 As set out in the viewpoint descriptions in **AEI Technical Appendix 6.4**, effects across much of this receptor group will be experienced as a result of the in combination effects of Ditcher Law with the revised proposed development. Dunside becomes visible from some locations to the south, such as Viewpoint 25 (**AEI Figure 6.38**), and for some areas within the receptor group there will be no cumulative visual effects experienced. Ditcher Law will be located closer to the receptor group than any of the other developments in planning, but visibility will generally include views of the operational wind farms at Dun Law I & II, Pogbie I & II, Keith Hill and Toddleburn. Effects will range from Negligible within the more enclosed areas around Oxton and Lauder to Large in the area around the Dun Law Wind Farms where it is already possible to feel like the viewer is located within a wind farm landscape. Large scale cumulative effects will arise across a local geographic extent of this High-Medium sensitivity receptor group and will be of High magnitude, Major-Moderate significance (significant) and Adverse.

Recreational landscapes, minor roads and settlements west of the site (4.2 km, west)

6.10.49 Viewpoints 8, 20, 22 and 24 (**AEI Figures 6.22**, **6.33**, **6.35** and **6.37**) lie within the receptor group. In combination cumulative effects will arise within this receptor group with the proposed Ditcher Law, Dunside and Lees Hills . As set out within **AEI Technical Appendix 6.4**, the majority of in combination effects will arise from the proposed Ditcher Law, given its closer proximity. The scale of cumulative effects will increase Large-medium in areas to the south-west of the site, where users are on elevated ground looking across the valley towards the revised proposed development (see VPs 20, 22 and 24). These cumulative effects will arise across a local geographic extent of this High-Medium sensitivity

receptor group and will be of High-Medium magnitude, Major-Moderate significance (significant) and Adverse.

Minor roads, residents and recreational landscapes east of the Lammermuir Hills (5.3 km, east)

6.10.50 Viewpoint 26 (**AEI Figure 6.39**) represents the view when travelling towards the site along the B6456.

6.10.51 As set out in the viewpoint descriptions in **AEI Technical Appendix 6.4**, cumulative effects across much of this receptor group will occur in combination with the proposed Dunside. The proposed development will be located to either side of a conical hill and will be perceived to be a similar height to the landform. On balance, visual effects will increase to Medium scale across an Intermediate geographic area of the High-Medium sensitivity receptor group. These effects will increase to Medium magnitude but remain Moderate (not significant) and Adverse.

Recreational landscapes, minor roads and settlements south of the site (8.1 km, south)

6.10.52 Viewpoint 10 (**AEI Figure 6.23**) is located between Gordon and East Gordon on the A6105 within this receptor group.

6.10.53 As set out within **AEI Technical Appendix 6.4**, the proposed Dunside and Ditcher Law are likely to be visible from parts of this receptor group. However, landform and vegetation across this area will reduce visibility of the wind farms in planning and it is unlikely that the full extent of these developments will be visible. At worst, Medium-Small scale effects will continue to occur across an Intermediate geographic area of this High-Medium sensitivity receptor group. These effects will be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

Road and Rail

A697 (3.0 km, south)

6.10.54 Ditcher Law will be visible from stretches of this road when travelling north-west. Where it is visible, views will be directed along the road towards these proposed wind turbines. The majority of the other wind farms in planning will not be visible from this route, and views of the revised proposed development will remain as described in relation to the revised proposed development alone. The addition of the proposed Ditcher Law will increase the scale of effects at the northern end of the route. However, overall Medium scale effects will continue to be experienced along an Intermediate geographic section of the route. These effects will be of Medium magnitude, Slight significance (not significant) and Adverse.

A68 (3.3 km, west)

6.10.55 As described in relation to the assessment of the visual effects of the revised proposed development alone, visibility along this route will vary greatly. In the north of the route, where the existing wind farms of Keith Hill, Pogbie I & II and Dun Law I and II adjacent to the A68 are visible, Ditcher Law will become a prominent new wind farm within views, in front of the revised proposed development, as shown by Viewpoint 5 (**AEI Figure 6.18**). Ditcher Law will also be visible when travelling north around Oxton and Lauder, but become an increasingly minor element in views further south.

6.10.56 Drivers using this route will be of Low sensitivity and, at worst, will continue to experience Medium scale effects across a local geographic proportion of the route and Small scale effects across a small geographic section of the route. These effects will be of Medium magnitude, Slight significance (not

significant) and Adverse between Oxton and Lauder and around the existing wind farms at Keith Hill, Pogbie I & II and Dun Law I and II.

A6089 (8.4 km, south)

6.10.57 Cumulative visual effects for users of this route are likely to occur with Dunside only for the majority of the stretch north of Gordon. The revised proposed development will be seen in combination with Dunside, which will be at a similar distance from the A6089, extending the spread of wind turbines in the view. Drivers using this route will be of Low sensitivity. Medium scale effects will continue to occur across a local geographic proportion of this route, mainly at the northern end. Effects will be of Medium magnitude, Slight significance (not significant) and Adverse.

A6105 (13.7 km, south)

6.10.58 As set out within **AEI Technical Appendix 6.4**, Dunside and Ditcher Law are likely to be visible from stretches of this road. However, landform and vegetation across this area will reduce visibility of the wind farms in planning and it is unlikely that the full extent of these developments will be visible. At worst, Medium-Small scale effects will continue to occur across an Intermediate geographic area of this Low sensitivity receptor. These effects will continue to be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

Long Distance Routes

Southern Upland Way (3.4 km, south-east)

6.10.59 Viewpoints 6, 7, 19 and 24 (**AEI Figures 6.19**, **6.20 6.32** and **6.37**) provide representative views from along the trail. Existing wind farms will continue to be a feature of views from the Southern Upland Way in the vicinity of Lauder, on higher ground between the area south-west of Lauder to the area east of Twin Law Cairns near VP6. The proposed Dunside will also be prominent along this stretch of the route, with the other wind farms in planning likely to be visible at a greater distance from high points along the route.

6.10.60 Users of the Southern Upland Way are assessed to be High-medium sensitivity. Large-medium scale effects on users of this route will extend to within 5 km of both the revised proposed development and Dunside, which will be across a local geographic proportion of the route. These localised effects will be of High-Medium magnitude, Major-Moderate significance (significant) and Adverse.

National, Regional and Local Cycle Routes

6.10.61 No cycle routes were assessed to experience greater that Low-Negligible magnitude visual effects as a result of the revised proposed development. Any significant cumulative effects along these routes from wind farms in planning will be as a result of wind farms other than the revised proposed development and as such are not relevant for consideration as part of this application.

Cumulative Effects on Designated Landscapes

6.10.62 Only the LLA at Scottish Borders LLA6 Lammermuir Hills and East Lothian LLA1 Lammermuir Moorland are judged to receive Low magnitude or greater effects (locally or overall) as a result of the revised proposed development, and are, therefore, assessed for cumulative effects. In addition, the GDLs at Thirlestane Castle, Mellerstain and Oxenfoord Castle would also experience effects of Low magnitude or greater.

Local Landscape Areas

Scottish Borders LLA6 Lammermuir Hills (includes site)

6.10.63 Viewpoints 1, 5, 6, 9 and 19 (**AEI Figures 6.14**, **6.18**, **6.19**, **6.22** and **6.32**) are located within this LLA. This designated area is assessed to be of High-medium sensitivity. Presently, Dun Law I & II, Fallago Rig, Crystal Rig I, II & IV and Aikengall IIa wind farms are located within this LLA. Both the proposed developments at Dunside and Ditcher Law will also be located within this LLA. There will be in combination Medium scale effects on this LLA, which will continue to occur across an Intermediate geographic area. Effects will continue to be of Medium magnitude, Major-Moderate significance (significant) and Adverse.

East Lothian LLA1 Lammermuir Moorland (2.3 km, north)

6.10.64 This LLA is assessed to be of High-medium landscape sensitivity. All of the proposed wind farms are located outwith this LLA. Dunside will be located closer to the southern boundary of the LLA than the revised proposed development. Consequently, Dunside will have a localised greater effect on the LLA than the revised proposed development. Medium-small scale effects will occur across an Intermediate geographic area of this High-Medium sensitivity receptor. Effects will be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

Gardens and Designed Landscapes

Thirlestane Castle GDL (4.6 km, south).

6.10.65 This GDL is represented by Viewpoint 7 (**AEI Figure 6.20**) and views from inside the Castle represented by Heritage Viewpoint H6 (Figure 7.10). GDLs are assessed to be of High-Medium sensitivity. The cumulative development of Ditcher Law, currently at the application stage, will be located behind the trees within the view and visibility is unlikely to occur beyond very limited views of blade tips. No cumulative effects will arise with any of the proposals at planning stage.

Mellerstain GDL (16.0 km, south).

6.10.66 Views of the revised proposed development in combination with any of the other developments in planning will be limited to areas of agricultural land within the north of the GDL, outwith the formal parkland, where the revised proposed development and developments in planning (particularly Dunside and Ditcher Law) will be clearly visible in mid-distance views amidst other operational wind farms on the Lammermuir Hills.

6.10.67 Medium-Small scale effects will continue to occur across a local geographic proportion of this High-Medium sensitivity receptor. Cumulative effects will continue to be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

Oxenfoord Castle GDL (16.9 km, north-west).

6.10.68 The revised proposed development in combination with the proposed schemes in planning will be visible as a minor element on the distant ridgeline from across the higher ground within this GDL. The parkland trees will partially screen and filter views from across the area.

6.10.69 Small-Negligible scale effects will continue to occur across the majority of this High-Medium sensitivity receptor. Cumulative effects will continue to be of Low magnitude, Slight significance (not significant) and Adverse.

Cumulative Night Time Effects on Visual Receptors

6.10.70 As set out at in the assessment of night-time effects above, medium intensity steady red (2000 candela) lights will be mounted on the nacelles of wind turbines T5, T8, T11, T13 and T16. At present, within the study area, only Crystal Rig IV Wind Farm (consented) will include wind turbine lighting on seven of the turbines, once its construction is complete.

6.10.71 All of the cumulative developments that are in planning except Wull Muir are over 150 m high and will therefore require aviation lighting. The study area for the assessment of effects at night-time remains 15 km.

Visual Receptor Groups

6.10.72 The following visual receptor groups are assessed experience increased visual effects as a result of the revised proposed development in combination with cumulative developments:

- Lammermuir Hills around the site;
- Landscape and settlements along the A68 and A697 corridors from Soutra Hill to Ravenswood Roundabout and Greenlaw;
- Recreational landscapes, minor roads and settlements west of the site; and
- Minor roads, residents and recreational landscapes east of the Lammermuir Hills.

Lammermuir Hills around the site (includes site)

6.10.73 As for the visual effect during the day time, effects across much of this receptor group will be experienced as a result of the in combination effects of Dunside and Ditcher Law with the revised proposed development. There will be increased visibility of wind turbine lighting within this receptor group if all of the developments in planning were to come forward, but the pattern of turbine lighting visibility across the receptor group will remain broadly comparable to that for the revised proposed development alone. Overall cumulative effects at night time will arise across the majority of this High-Medium sensitivity receptor group and will remain of High-Medium magnitude, Major significance (significant) and Adverse.

Landscape and settlements along the A68 and A697 corridors from Soutra Hill to Ravenswood Roundabout and Greenlaw (2.0 km, south-west)

6.10.74 As set out in the assessment of day time visual effects, Dunside becomes visible from some locations to the south. Ditcher Law will be located closer to the receptor group than any of the other developments in planning. Effects will range from Negligible within the more enclosed areas around Oxton and Lauder to Large in the area around the existing unlit Dun Law Wind Farms. Large scale cumulative effects at night will arise across a local geographic proportion of this High-Medium sensitivity receptor group and will be of High magnitude, Major-Moderate significance (significant) and Adverse.

Recreational landscapes, minor roads and settlements west of the site (4.2 km, west)

6.10.75 In combination cumulative effects will arise within this receptor group with Ditcher Law and Dunside Wind Farms. As set out within **AEI Technical Appendix 6.4**, the majority of in combination effects will arise from Ditcher Law, given its closer proximity. The scale of cumulative effects will increase to Large-medium in areas to the south-west of the site, where users are on elevated ground looking across the valley towards the revised proposed development, although users at night will be limited.

These cumulative night-time effects will arise across a local geographic extent of this High-Medium sensitivity receptor group and will be of High-Medium magnitude, Major-Moderate significance (significant) and Adverse.

Minor roads, residents and recreational landscapes east of the Lammermuir Hills (5.3 km, east)

6.10.76 Cumulative night time effects across much of this receptor group will occur in combination with Dunside. The proposed wind farms will be located to either side of a conical hill and will be perceived to be a similar height to the landform. On balance, night time visual effects will increase to Medium scale across an Intermediate geographic area of the High-Medium sensitivity receptor group. These effects will increase to Medium magnitude, but remain Moderate (not significant) and Adverse.

Road and Rail

A697 (3.0 km, south)

6.10.77 Wind turbine lighting on Ditcher Law will be visible from stretches of this road when travelling north-west. Where the lights are visible, views will be directed along the road towards these proposed wind turbines. Wind turbine lighting on the majority of the other wind farms in planning will not be visible from this route, and views of the revised proposed development will remain as described in relation to the revised proposed development alone. The addition of the Ditcher Law wind turbines will increase the scale of effects at the northern end of the route. However, overall Medium scale effects will continue to be experienced along an Intermediate geographic section of the route . These effects will be of Medium magnitude, Slight significance (not significant) and Adverse.

A68 (3.3 km, west)

6.10.78 As described in relation to the assessment of the visual effects of the revised proposed development alone, Ditcher Law Wind Farm will become a prominent new wind farm within views, in front of the revised proposed development. Ditcher Law Wind Farm will also be visible when travelling north around Oxton and Lauder, but become an increasingly minor element in views further south. Cumulative effects at night will be of Medium magnitude, Slight significance (not significant) and Adverse between Oxton and Lauder and around the existing wind farms at Keith Hill, Pogbie I & II and Dun Law I and II.

A6089 (8.4 km, south)

6.10.79 Cumulative visual effects for users of this route are likely to occur with Dunside Wind Farm only for the majority of the stretch north of Gordon. The lights on the revised proposed development will be seen in combination with Dunside, which will be at a similar distance from the A6089, marginally extending the spread of turbines lights in the view. Medium scale effects will continue to occur across a local geographic proportion of this route, mainly at the northern end. Effects will be of Medium magnitude, Slight significance (not significant) and Adverse.

A6105 (13.7 km, south)

6.10.80 Dunside and Ditcher Law Wind Farms are likely to be visible from stretches of this road. However, landform and vegetation across this area will reduce visibility of lighting on the wind farms in planning and it is unlikely that the full extent of these developments will be visible. At worst, Medium-Small scale effects will continue to occur across an Intermediate geographic area of this

Low sensitivity receptor. These effects will continue to be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

Long Distance Routes

Southern Upland Way (3.4 km, south-east)

6.10.81 Users of the Southern Upland Way at night are likely to be limited. Lighting on the proposed Dunside Wind Farm will be prominent along the stretch of the route with visibility of the revised proposed development, with lighting on the other wind farms in planning likely to be visible at a greater distance from high points along the route.

6.10.82 Large-medium scale effects on users of this route will extend across a local geographic proportion of the route. These localised effects will be of High-Medium magnitude, Major-moderate significance (significant) and Adverse.

Cumulative Night-time Effects on Designated Landscapes

6.10.83 Of the designated landscapes assessed in the assessment of cumulative effects, only the two LLAs are assessed to have potential cumulative effects that would be greater than the effects of the revised proposed development alone. Night time effects on these two LLAs would be as follows.

Scottish Borders LLA6 Lammermuir Hills (includes site)

6.10.84 Both the proposed wind farms at Dunside and Ditcher Law will also be located within this LLA. There will be in combination Medium scale effects on this LLA, which will continue to occur across an Intermediate geographic area. Effects will continue to be of Medium magnitude, Major-Moderate significance (significant) and Adverse.

East Lothian LLA1 Lammermuir Moorland (2.3 km, north)

6.10.85 This LLA is assessed to be of High-Medium landscape sensitivity. All of the proposed wind farms are located outwith this LLA. Dunside will be located closer to the southern boundary of the LLA than the revised proposed development. Consequently, Dunside will have a localised greater effect on the LLA than the revised proposed development. Medium-Small scale effects will occur across an Intermediate geographic area of this High-Medium sensitivity receptor. Effects will be of Medium-Low magnitude, Moderate significance (not significant) and Adverse.

6.11 Summary of Effects

Scope of Additional Environmental Information

6.11.1 For the AEI and this LVIA, this chapter considered the likely significant effects that could arise from the revised proposed development upon those landscape and visual resources (including designated landscapes).

6.11.2 To provide a proportionate update for the AEI, it was considered reasonable to reassess only those landscape and/or visual resources identified in the EIA Report October 2023 that were assessed as potentially experiencing effects greater than a Negligible magnitude and/or Minimal significance rating. The likelihood of effects increasing as a consequence of changes to the original proposed development was unlikely, and therefore, the original assessment in the EIA Report October 2023 continues to apply.

Methodology

6.11.3 Since the EIA Report October 2023 was submitted, LDA Design has updated its methodology to reflect recent case law and advice from the applicant's legal representatives, although the assessment method for this LVIA, for the purposes of the AEI, still draws upon the established GLVIA3; An Approach to Landscape Character Assessment (Natural England, 2014), Landscape Institute Technical Information Note 05/2017 regarding townscape character; LI Technical Guidance Note 02/2019 Residential Visual amenity assessment (RVAA); Landscape Institute's Technical Guidance Note 02/21: Assessing landscape value outside national designations; LI Technical Guidance Note 06/19 Visual Representation of development proposals and other recognised guidelines.

Baseline

Landscape Character

6.11.4 For the purposes of this AEI, and following the scope outlined in Section 6.4, the 19 landscape character types (LCT) identified in the EIA Report October 2023 have been reconsidered, reassessing those LCTs in the original assessment that would result in potential effects greater than Negligible magnitude and/or Minimal significance.

6.11.5 Of these 19 LCTs, 10 were identified for assessment, with the remainder excluded because the combination of the existing pattern of wind farm development across the study area and how they influence the landscape's character; the theoretical visibility pattern shown on the ZTV, which reduces in extent and spread with distance; and the reduction of effects arising from the revised proposed development with distance.

Visual Receptors

6.11.6 Visual receptors are *"the different groups of people who may experience views of the development"* (GLVIA, 3rd edition, para 6.3). The ZTV studies, baseline desk study and site visits have been used to identify those visual receptor groups who may be affected.

6.11.7 The different types of groups assessed within this chapter encompass local residents; people using key routes such as roads; cycle ways, people within accessible or recreational landscapes; people using Public Rights of Way and Core Paths; or people visiting key viewpoints. In dealing with areas of settlement, Public Rights of Way and local roads, receptors are grouped into areas where effects might be expected to be broadly similar, or areas which share particular factors in common.

6.11.8 30 representative viewpoints were originally selected to assess the effects on visual receptors, which agreed with consultees for the EIA Report October 2023 and are retained for this LVIA. These viewpoints included specific viewpoints, which were identified as being key promoted views in the study area. Six additional views were requested by consultees following the EIA Report October 2023 and are included in support of this chapter and its assessment.

Operational Effects on Landscape Character

6.11.9 The findings of the assessment indicate that landscape sensitivity within the study area is variable, ranging from Medium-Low to High-Medium. This is in part due to the presence of landscape

designations including the Eildon and Leaderfoot National Scenic Area, the Pentland Hills Regional Park, and Local Landscape Areas.

6.11.10 The revised proposed development is likely to become the dominant characteristic of the landscape within the site, particularly in the valleys where the sense of being located within a wind farm will be created. Due to the proximity of the existing Fallago Rig Wind Farm to the east, which already influences landscape character between the wind farm and the revised proposed development, effects from the revised proposed development will be reduced in this direction.

6.11.11 Beyond these areas described above and up to approximately 5 km from the revised proposed development, it will become one of the key characteristics, giving the sense of being near a wind farm. As a result, whilst there will be there will be localised Large scale effects on the host Landscape Character Type, LCT90 – Dissected Plateau Moorland, no significant effects are identified on landscape character.

6.11.12 Overall, effects on landscape character within the study area will range between High-Medium to Negligible magnitude and Moderate to Minimal significance, none of which are identified as being significant.

Operational Effects on Visual Receptors

6.11.13 Effects on views will be generally of Large scale within close proximity to the site, up to approximately 4 km, and Medium scale up to around 8 – 10 km from the revised proposed development and will decrease to Small and Negligible scale beyond these distances from the site.

Effects on Visual Receptor Groups

6.11.14 The revised proposed development will be prominently visible from parts of the visual receptor group covering the site: Lammermuir Hills around the site. This will give rise to significant visual effects. Other visual receptor groups within the study area will tend to have fewer and more distant views resulting in effects of no greater than Moderate significance.

Effects on Roads and Rail

6.11.15 Views of the revised proposed development from key road and rail routes through the study area will generally be intermittent. Effects will be of Medium magnitude and Slight significance for uses of the A697 Boghall/Cleekhimmin Bridge, and from Newbiggins Walls to Hexpathdean Bridge to the east of Houndslow, the A68 and the A6089. There would also be effects of Medium-Low magnitude and Slight significance for users of the A6015; Low magnitude and Slight significance for users of the A697 between Cleekhimmin Burn and Newbiggins Walls, and between Hexpathdean Bridge and Greenlaw; Low-Negligible magnitude and Minimal significance for users of the A6093; and Negligible effects and Minimal significance for users of other main road routes through the study area.

Effects on Long Distance Routes

6.11.16 Views of the revised proposed development from the Southern Uplands Way will be of Medium-Low magnitude and Moderate significance.

Operational Effects on Designated Landscapes

6.11.17 There will be no effects on the Eildon and Leaderfoot National Scenic Area or the Pentland Hills Regional Park that will be incompatible with the designations in landscape and visual terms. Effects on these designations will be Negligible and not significant.

6.11.18 There will be localised significant effects on the Lammermuir Hills Local Landscape Area (LLA) within which the site is located, due to direct effect of the revised proposed development on the LLA and its visibility from much of the designated area. However, the revised proposed development would not compromise the overall integrity of this LLA. There would also be effects of Low-Negligible magnitude and Slight significance on LLA2 Samuelston and Negligible effects on other LLAs within the study area.

6.11.19 There will be effects of Medium-Low magnitude and Moderate significance on the Thirlestane Castle and the Mellerstain Gardens and Designed Landscapes. For other Gardens and Designed Landscapes within the study area, effects would range from Low to Negligible magnitude and would be of no greater than Slight significance.

Operational Night Time Effects and Lighting

6.11.20 The night-time effects of the revised proposed development are assessed within a study area of 15 km.

6.11.21 None of the existing wind farms within the study area are currently lit. However, Crystal Rig IV Wind Farm (consented) will include wind turbine lighting on seven of the wind turbines once construction is complete.

Operational Night Time Effects on Visual Receptors

6.11.22 Of the visual receptors within the 15 km study area for night-time effects, many already experience some level of lighting at night due to the presence of roads, settlement and individual residential properties. As a result, significant visual effects at night are not assessed for any of the visual receptors.

Designated Landscapes

6.11.23 There will be localised significant effects on the Scottish Borders LLA6 Lammermuir Hills Local Landscape Area due to introduction of new light sources.

Effects on Residential Properties

6.11.24 The baseline assessment of the revised proposed development, as set out in **AEI Technical Appendix 6.3** identified a total of two residential properties within the 2.5 km study area for the residential visual amenity assessment (RVAA), one of which is located within areas showing theoretical visibility and are assessed within the RVAA.

6.11.25 Operational effects will vary notably between residential properties due to the number and range of properties within the study area. The property with the highest magnitude of change is P1. Property P3 was excluded from the assessment as it was shown not to experience any theoretical visibility of the revised proposed development. Field work showed that this property is closely surrounded by mature vegetation and located at the base of large hills; both factors that screen the revised

proposed development in views from it. The detailed assessment of P1 reached the same conclusion, and it was deemed that effects on these properties would not meet the Residential Visual Amenity threshold.

6.11.26 Cumulative effects on properties within the study area were not considered for the AEI. Due to revisions made to the proposed development, previously identified properties mentioned in the EIA Report October 2023, which were expected to experience some cumulative effects are now located outside the RVAA study area and/or will not have any visibility of the revised proposed development.

6.11.27 The RVAA concludes, as did the RVAA submitted as of the EIA Report October 2023, that the Residential Visual Amenity threshold will not be reached for any properties within the study area. Effects on all properties will not be sufficiently oppressive or overbearing that any property will be rendered an unattractive place in which to live.

Cumulative Effects

6.11.28 The cumulative developments, when combined with the revised proposed development, would have a greater impact on the receptors listed below both during the day and at night. This is mainly due to their closer proximity to several of the cumulative developments.

- LCT90 – Dissected Plateau Moorland;
- LCT115 – Upland Valley with Mixed Farmland;
- LCT91 – Plateau Grassland – Borders;
- LCT99 – Rolling Farmland – Borders;
- LCT103 – Undulating Upland Fringe;
- LCT105 – Upland Fringe Moorland with Hills;
- LCT108 – Lowland Margin;
- Lammermuir Hills around the site;
- Landscape and settlements along the A68 and A697 corridors from Soutra Hill to Ravenswood Roundabout and Greenlaw;
- Recreational landscapes, minor roads and settlements west of the site;
- Minor roads, residents and recreational landscapes east of the Lammermuir Hills;
- A697;
- A68;
- A6089;
- A6015;
- Southern Uplands Way;
- Scottish Borders LLA6 Lammermuir Hills;
- East Lothian LLA1 Lammermuir Moorland.
- Mellerstain GDL; and
- Oxenfoord Castle GDL

Summary of Effects

6.11.29 Effects on the receptors assessed above are summarised in **AEI Table 6.14**. For receptors where the significance of effects varies, the distribution of effects is summarised. Only effects of greater than Negligible magnitude and/or Minimal significance are included in the summary table.

AEI Table 6.13: Summary of Effects

Receptor	Comments	Distance Direction	Sensitivity	Magnitude	Significance	Beneficial / Neutral / Adverse
Landscape Character						
LCT90 – Dissected Plateau Moorland	Day (within site)	Includes site	Medium	Medium	Moderate (not significant)	Adverse
	Day (wider LCT)			High-medium	Moderate (not significant)	Adverse
	Night			High-medium	Major-moderate (significant)	Adverse
	Cumulative			High	Major-Moderate (significant)	Adverse
LCT115 – Upland Valley with Mixed Farmland	Day	Includes site	Medium	Medium	Moderate (not significant)	Adverse
	Night			Medium-low	Moderate (not significant)	Adverse
	Cumulative			Medium to Medium-Low	Moderate (not significant)	Adverse
LCT266 – Plateau Moorland – Lothians	Day	2.2 km, north	Medium	Low-Negligible	Slight (not significant)	Adverse
	Night			Low-Negligible	Slight (not significant)	Adverse
LCT91 – Plateau Grassland – Borders	Day	2.3 km, west	Medium-low	Low	Slight (not significant)	Adverse
	Night			Medium-Low to Low	Moderate to Slight significance (not significant)	Adverse
	Cumulative			High	Moderate (not significant)	Adverse
LCT99 – Rolling Farmland – Borders	Day	3.8 km, south	Medium	Medium-low	Moderate (not significant)	Adverse
	Night			Low	Slight (not significant)	Adverse
	Cumulative			Medium to Medium-Low	Moderate (not significant)	Adverse

Receptor	Comments	Distance Direction	Sensitivity	Magnitude	Significance	Beneficial / Neutral / Adverse
LCT117 – Pastoral Upland Fringe Valley	Day	7.0 km, south	Medium	Low	Slight (not significant)	Adverse
LCT103 – Undulating Upland Fringe	Day	7.6 km, south	Medium	Low	Slight (not significant)	Adverse
	Night			Medium-Low to Low	Moderate to Slight significance (not significant)	Adverse
	Cumulative			Low	Slight (not significant)	Adverse
LCT115 – Upland Valley with Mixed Farmland	Day	8.3 km, east	High-medium	Low	Slight (not significant)	Adverse
	Cumulative			Low	Slight (not significant)	Adverse
LCT105 – Upland Fringe Moorland with Hills	Day	9.8 km, east	Medium-low	Medium-low	Moderate-slight (not significant)	Adverse
	Night			Low	Slight (not significant)	Adverse
	Cumulative			Medium to Medium-Low	Slight (not significant)	Adverse
LCT108 – Lowland Margin	Day	13.2 km south-east	Medium	Low	Slight (not significant)	Adverse
	Cumulative			Medium to Medium-Low	Slight (not significant)	Adverse
Visual Receptors						
Lammermuir Hills around the site	Day	Includes site	High-Medium	High-Medium	Major (significant)	Adverse
	Night		Medium	High-medium	Moderate (not significant)	Adverse
	Cumulative		High-Medium	High-Medium	Major (significant)	Adverse
Landscape and settlements along the A68 and A697 corridors	Day	2.0 km, south-west	High-Medium	Medium	Moderate (not significant)	Adverse
	Night		Medium	Medium-low	Moderate (not significant)	Adverse
	Cumulative		High-Medium	High-Medium	Major-Moderate (significant)	Adverse

Receptor	Comments	Distance Direction	Sensitivity	Magnitude	Significance	Beneficial / Neutral / Adverse
from Soutra Hill to Ravenswood Roundabout and Greenlaw						
Recreational landscapes, minor roads and settlements west of the site	Day	4.2 km, west	High-Medium	Medium-Low	Moderate (not significant)	Adverse
	Night		Medium	Medium	Moderate (not significant)	Adverse
	Cumulative		High-Medium	High-Medium	Major-Moderate (significant)	Adverse
Minor roads, residents and recreational landscapes east of the Lammermuir Hills	Day	5.3 km, east	High-Medium	Medium-Low	Moderate (not significant)	Adverse
	Night		Medium	Medium-low	Moderate (not significant)	Adverse
	Cumulative		High-Medium	Medium	Moderate (not significant)	Adverse
Recreational landscapes, minor roads and settlements south of the site	Day	8.1 km, south	High-Medium	Medium-Low	Moderate (not significant)	Adverse
	Night		Medium	Low	Slight (not significant)	Adverse
	Cumulative		High-Medium	Medium-Low	Moderate (not significant)	Adverse
Semi-rural recreational landscapes, minor roads and minor settlements north of the Lammermuir Hills	Day	7.5 km, north	High-Medium	Low-Negligible	Slight (not significant)	Adverse
Semi-rural recreational landscapes, minor roads and minor settlements north of the Moorfoot Hills	Day	14.6 km, west	High-Medium	Low-Negligible	Slight (not significant)	Adverse

Receptor	Comments	Distance Direction	Sensitivity	Magnitude	Significance	Beneficial / Neutral / Adverse
Landscape and settlements along the A1 road corridor from Tranent to West Barns	Day	16.1 km, north	High-Medium	Low-Negligible	Slight (not significant)	Adverse
Landscape and settlements along, and to the east of, the A701 road corridor from the A720 to Carlops	Day	26.6 km, north-west	High-Medium	Low-Negligible	Slight (not significant)	Adverse
Moorfoot Hills and the landscape to the south	Day	11.1 km, west	High-Medium	Low-Negligible	Slight (not significant)	Adverse
Distant roads, residents and recreational landscapes south of Galashiels and Melrose	Day	20.4 km, south	High-Medium	Low-Negligible	Slight (not significant)	Neutral
Roads and Rail						
A697	Day - around Boghall/Cleekhimmin Bridge, and from Newbiggins Walls to Hexpathdean Bridge to the east of Houndslow	3.0 km, south	Low	Medium	Slight (not significant)	Adverse

Receptor	Comments	Distance Direction	Sensitivity	Magnitude	Significance	Beneficial / Neutral / Adverse
	Day - between Cleekhimmin Burn and Newbiggins Walls, and between Hexpathdean Bridge and Greenlaw			Low	Slight (not significant)	Adverse
	Cumulative			Medium	Slight (not significant)	Adverse
A68	Day - between Oxton and Lauder	3.3 km, west	Low	Medium	Slight (not significant)	Adverse
	Cumulative – between Oxton and Lauder			Medium	Slight (not significant	Adverse
A6089	Day	8.4 km, south	Low	Medium	Slight (not significant)	Adverse
	Cumulative			Medium	Slight (not significant)	Adverse
A6105	Day	13.7 km, south	Low	Medium-low	Slight (not significant)	Adverse
	Cumulative			Medium-low	Slight (not significant)	Adverse
A6093	Day	15.8 km, north	Low	Low-negligible	Minimal (not significant)	Neutral
Long Distance Routes						
Southern Upland Way	Day	3.4 km, south-east	High-Medium	Medium-low	Moderate (not significant)	Adverse
	Cumulative			High-Medium	Major-Moderate (significant)	Adverse
Designated Landscape						
Scottish Borders LLA6 Lammermuir Hills	Day	Includes site	High-Medium	Medium	Major-moderate (significant)	Adverse
	Night			High	Major-moderate (significant)	Adverse

Receptor	Comments	Distance Direction	Sensitivity	Magnitude	Significance	Beneficial / Neutral / Adverse
	Cumulative			Medium	Major-Moderate (significant)	Adverse
East Lothian LLA1 Lammermuir Moorland	Day	2.3 km, north	High-medium	Low	Slight (not significant)	Adverse
	Night			Medium-low	Moderate (not significant)	Adverse
	Cumulative			Medium-Low	Moderate (not significant)	Adverse
East Lothian LLA22 Samuelston	Day	14.4 km, north	High-Medium	Low-Negligible	Slight (not significant)	Neutral
Thirlestane Castle GDL	Day	4.6 km, south	High-Medium	Medium-Low	Moderate (not significant)	Adverse
	Night			Medium-low	Moderate (not significant)	Adverse
Mellerstain GDL	Day	16.0 km, south	High-Medium	Medium-Low	Moderate (not significant)	Adverse
	Cumulative			Medium-Low	Moderate (not significant	Adverse
Oxenfoord Castle GDL	Day	16.9 km, north-west	High-Medium	Low	Slight (not significant)	Adverse
	Cumulative			Low	Slight (not significant)	Adverse
The Drum GDL	Day	26.0 km, north-west	High-Medium	Low-Negligible	Minimal (not significant)	Neutral
Palace of Holyrood house GDL	Day	29.9 km, north-west	High-Medium	Low-Negligible	Minimal (not significant)	Neutral