

9. Landscape and Visual Impact Assessment

9.1 Introduction

- 9.1.1 This chapter assesses the landscape and visual effects of Enoch Hill 2 Wind Farm (the Proposed Development). It should be read with reference to the project description in **Chapter 3 Description of the Proposed Development** of the EIA Report.
- 9.1.2 Landscape and Visual Impact Assessment ('LVIA') is one of the key components of the EIA Report for wind farms due to the introduction of tall elements into the environment. The Proposed Development has been considered against the requirements of the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 and any relevant planning policies, relating to the landscape resource and visual amenity.
- 9.1.3 The LVIA and Cumulative Landscape and Visual Impact Assessment ('CLVIA') reported in this chapter has been produced by chartered landscape architects at WSP. The objective of this assessment has been to determine landscape and visual effects of the Proposed Development on the existing landscape resource and visual amenity. The following landscape and visual receptors have been assessed:
 - Landscape character, key characteristics, and elements;
 - Designated landscapes and Wild Land Areas; and
 - Views and visual amenity experienced by residents, tourists, visitors, and road / rail users.
- The Development Site is located approximately 6km south-west of the settlement of New Cumnock and approximately 9km to the east of Dalmellington in East Ayrshire. It is set within an area of *Southern Uplands with Forestry* landscape character type ('LCT') defined by the 2018 East Ayrshire Landscape Wind Capacity Study. The Development Site is centred at coordinates E258250 and N606680. The Proposed Development comprises up to two wind turbines up to a maximum height of 149.9m to blade tip.
- Infrastructure associated with the Proposed Development includes one site entrance (via the existing track off Afton Road to the east of the site and then an existing access track through Pencloe Forest), internal access tracks and hardstanding areas, crane pads, one temporary construction compound and a battery storage compound, and grid connection infrastructure (including one on-site control building and underground cables linking the turbines to the control building).
- 9.1.6 The assessment process has encompassed the construction, operation and decommissioning of the Proposed Development, which has a proposed operational period of 35 years.

Variations

9.1.7 The final candidate turbine for the Proposed Development will be chosen post consent and will be subject to a competitive tendering process.



- 9.1.8 The exact hub height and rotor dimensions may vary slightly (+/- 2m between the hub heights) within the overall maximum blade tip height of 149.9m, which would be agreed with the local planning authority.
- Variations up to approximately +/- 5m the turbine blade length within the overall blade tip height of 149.9m are unlikely to alter the results of the LVIA and its conclusion. Greater variability of turbine dimensions, within the overall maximum blade tip height of 149.9m, could however affect the overall proportion of the turbines and their appearance and each case would need to be considered on a case-by-case basis.
- 9.1.10 The location of the proposed turbines has been assessed on the basis of the final wind turbine layout, which would be subject to micro-siting of up to +/-50m. Micro-siting of up to +/-50m is unlikely to alter the results of the LVIA and its conclusion.

9.2 Policy and Legislation

- The LVIA has taken account of national and local planning policy in relation to wind farm development within the 35km study area. In particular, reference has been made to the Scottish Government National Planning Framework 4 ('NPF4') (February 2023), East Ayrshire Council Local Development Plan (East Ayrshire LDP) (April, 2017), the East Ayrshire LDP Supplementary Guidance: Planning for Wind Energy (December, 2017), and the East Ayrshire LDP Non-Statutory Planning Guidance: East Ayrshire Landscape Wind Capacity Study ('EALWCS') (June, 2018). Reference has also been made to the Dumfries and Galloway Wind Farm Landscape Capacity Study Supplementary Guidance ('DGWLCS') (February 2020).
- 9.2.2 It is also noted that the East Ayrshire Proposed LDP 2 (East Ayrshire LDP 2) was submitted to the Scottish Government's Planning and Appeals Division ('DPEA') for Examination in February 2023. It is likely to be adopted towards the end of 2023.
- 9.2.3 Further information on Planning Policy is provided in **Chapter 5 Planning Policy Context** of the EIA Report. An appraisal of the Proposed Development in policy terms is contained with the Planning Statement which accompanies the planning application.

Wind Farm Capacity Studies

- The EALWCS and DGWLCS provide a broad assessment of the sensitivity of landscape to wind farm development within East Ayrshire, and Dumfries and Galloway respectively. In making this assessment, both wind farm capacity studies take account of different landscape character types ('LCTs') and a range of landscape constraints and opportunities for wind farm development that are relevant to particular LCTs.
- The Proposed Development would be located within the *Southern Uplands with Forestry* LCT (20c), as identified in the EALWCS, which extends over a large area of East Ayrshire to the south and west and further south into Dumfries and Galloway where it is classified as *Southern Uplands with Forest* LCT (19a) in the DGWLCS.
- 9.2.6 The EALWCS and DGWLCS are 'broad' studies (strategic documents), and a number of caveats should be noted in respect of their guidance as follows:
 - The EALWCS is not an up-to-date document in respect of the Proposed Development. The nearby consented Enoch Hill, Pencloe, Brockloch Rig Phase III and North Kyle wind farms are not included in the baseline;
 - The EALWCS and DGWLCS do not replace the need for individual landscape and visual impact assessments and/or Environmental Impact Assessments for individual



- wind energy developments, which provide detailed and specific assessment of the likely landscape, visual and cumulative effects; and
- The EALWCS and DGWLCS are broad assessments, and the judgements on sensitivity represent an average across whole LCTs, within which considerable variation can occur.
- 9.2.7 The Summary at the front of the EALWCS advises that "There is some scope to site additional wind farm development with turbines above 70m height within upland areas of East Ayrshire although this will be limited by potential cumulative and other landscape and visual constraints including effects on adjacent smaller scale settled valleys and lowland landscapes."
- 9.2.8 NatureScot have revised their advice on landscape sensitivity studies for different wind farm developments, moving away from 'capacity studies' that attempt to define how much generic development can be located within a particular landscape and favouring sensitivity studies (Landscape Sensitivity Assessment Guidance, April 2022).

EALWCS: Southern Uplands with Forestry (20c)

- The EALWCS judges the capacity of the Southern Uplands with Forestry LCT for additional new development as "close to being reached ... with sensitivity concluded to be High for the Very Large and Large typologies (turbines >70m)." The guidance on page 119 advises that there is no scope for additional new development.
- 9.2.10 Annex D of the EALWCS uses viewpoints to assess the potential effects of repowering specific existing wind farms (not including the nearby consented Enoch Hill and Pencloe wind farms) and as such it is not relevant to the Proposed Development. The closest viewpoints considered include Loch Doon and the A713, Dalmellington in respect of potential effects of repowering Dersalloch or South Kyle with very large turbines. The EALWCS concludes that Loch Doon, the Doon Valley and the Girvan valley would be more sensitive to increases in height. Comparative Zone of Theoretical Visibility ('ZTV') analysis was also used in the EALWCS which concluded that "the extent of increased visibility ... is not dramatic in most cases". It is worth noting that the Proposed Development would not be visible from the shores and western edge of Loch Doon.
- 9.2.11 To conclude, the constraints for this form of development within the *Southern Uplands* with Forestry LCT outlined within the EALWCS are considered in the design evolution of the Proposed Development which also takes account of the relevant guidance and opportunities contained within the EALWCS.

DGWLCS Southern Uplands with Forest LCT (19a)

The East Ayrshire Southern Uplands with Forestry LCT (20c) extends over the local authority boundary into the DGWLCS area and although this is essentially the same landscape typology it is retitled Southern Uplands with Forest LCT (19a). The sensitivity of this landscape to turbines of 80-150m blade tip is judged by the DGWLCS to be 'Medium' and 'High-Medium' for the Very Large typology (turbines 150m+).

9.3 Consultation

9.3.1 Consultation relevant to the landscape, visual and cumulative assessment, was undertaken with East Ayrshire Council ('EAC'), Scottish Natural Heritage ('SNH')³¹,

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³¹ Scottish Natural Heritage was renamed NatureScot in August, 2020.



Dumfries and Galloway Council ('DGC') and South Ayrshire Council ('SAC'). A summary of the consultation responses is provided in **Table 9.1.**

Table 9.1 Summary of Issues Raised during Consultation

Consultee Comments	Response to Consultee Comments
Summary of Consultation from SNH – 18 March	2020
SNH state that they are not able to comment on the landscape and visual impacts of the proposal and that the Proposed Development does not "raise landscape issues of national interest in terms of: 1. significant adverse effects on the integrity and objectives of designation of a National Scenic Area 2. significant adverse effects on Special Landscape Qualities of a National Park 3. significant adverse effects on the qualities of a Wild Land Area 4. landscape issues in the wider countryside"	Noted
SNH recommend that a number of guidance documents are taken into account including the EALWCS and DGWLCS.	Addressed
Summary of Consultation from EAC – 02 April 2	020
EAC agree that a 35km study area is suitable for the assessment.	Noted
EAC consider that the detailed study area should be extended to 15-20km.	The detailed study area has been maintained at 10km on the basis that the potential threshold for significant effects has been assessed as approximately 6.8km from the Proposed Development. A 10km detailed study area was also deemed appropriate by EAC for the adjacent and larger, now consented, Enoch Hill Wind Farm.
EAC expect that visualisations should be provided in relation to the assessment of the Galloway Forest Dark Sky Park and for Gardens and Designed Landscapes (GDL).	EAC agreed on page 7 of their EIA Scoping Opinion that viewpoints from within the Galloway Forest Dark Sky Park (G, L, M, N & O) and Craigengillan GDL (D, E & F) can be scoped out.
EAC agree that an assessment of the Merrick Wild Land Area can probably be scoped out.	Noted
EAC have requested that visualisations are included from the hill summits of Cairnsmore of Carsphairn, Blackcraig Hill and Brockloch Rig.	Visualisations have been provided from the summits of Cairnsmore of Carsphairn (Viewpoint 5) and Blackcraig Hill (Viewpoint 3). A wireline has been provided for Brockloch Rig in Appendix 9C .
EAC advise that the assessment should be based on the most up to date information and guidance.	Noted



Consultee Comments	Response to Consultee Comments			
EAC advise that the assessment should give consideration to other tall structures such as pylons and nearby opencast coal sites.	Addressed			
Cumulative Wind Farms: EAC advise that the proposed Greenburn Wind Farm which is due to be submitted imminently is to be included in the cumulative assessment.	Included in cumulative assessment.			
Pencloe and Lethans wind farms – EAC advise that the consented and variation applications of both schemes should be included in the cumulative assessment.	At the time of writing, both variations were consented by the Scottish Ministers and therefore replace the previously consented schemes.			
Enoch Hill – EAC advise that in addition to the consented Enoch Hill scheme the variation scheme may also need to be considered.	At the time of writing, Enoch Hill variation was consented and therefore replaces the previously consented scheme.			
Polquhairn Wind Farm – EAC advise that a variation of the wind farm is likely to be submitted in summer 2020 and is to be included in the cumulative assessment if the application for the Proposed Development is to be submitted after.	The variation application for Polquhairn was submitted in 2021 and has been included in the cumulative assessment.			
Glenmuckloch Wind Farm – EAC note that the tip height of this wind farm should be 149.9m.	Addressed			
Linburn Farm – EAC advise that scheme should be removed from the cumulative baseline as its consent has expired.	Addressed			
EAC advise that a Residential Visual Amenity Assessment for properties within 2km shall be provided	A Residential Visual Amenity Assessment has not been carried out on the basis that there are no residential properties within 2km. The nearest residential property is over 4km from the Proposed Development.			
Visualisations: EAC note that those viewpoints which include a photomontage should also include a wireline.	All viewpoint visualisations are produced in accordance with SNH guidance – <i>Visual Representation of Wind Farms</i> , Version 2.2 (2017).			
Viewpoints: EAC note that the following 'scoped out viewpoints' within East Ayrshire to be included back in the assessment: Blackcraig Hill – at the hill summit Cairnsmore of Carsphairn – at the hill summit A76 North of Auchinleck A76 Mauchline Brockloch Rig	Included (photograph, wireline and photomontage) Included as a summit assessment location (wireline in Appendix 9C)			



Consultee Comments	Response to Consultee Comments				
EAC agree that an assessment of night-time impacts can be scoped out.	Noted				
Summary of Consultation from DGC – 19 March	2020				
DGC confirmed that they will not be providing a formal response to the scoping request because the Proposed Development is located outwith the Council's administrative area.	Noted				
Summary of Consultation from SAC – 8 Septem	ber 2020				
SAC confirmed that the viewpoint from Shalloch on Minnoch can be scoped out of the assessment	Noted				
Summary of Consultation from DGC – 5 Octobe	r 2020				
DGC confirmed that the viewpoints from Meikle Millyea; Kirriereoch Hill; Merrick; and East Mount Lowther can be scoped out of the assessment.	Noted				

9.4 Methodology and Approach

- The assessment methodology is set out in **Appendix 9A**, which includes a glossary of terms and abbreviations used in this chapter. The methodology for the LVIA and CLVIA has been undertaken in accordance with best practice guidance including, but not limited to, the following:
 - Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, Landscape Institute and IEMA (May 2013) (GLVIA 3);
 - Siting and Designing Windfarms in the Landscape, Version 3a, SNH (August 2017);
 - Guidance: Assessing the Cumulative Landscape and Visual Impact of Onshore Wind Energy Developments, NatureScot (March 2021);
 - Visual Representation of Wind Farms, Version 2.2, SNH (February 2017); and
 - Guidance: General pre-application and scoping advice for onshore wind farms, NatureScot (August 2022).

Base of the Assessment

9.4.2 For the purpose of the LVIA, a wind turbine having an 81.9m hub height, 136m rotor diameter and resulting in an overall blade tip height of 149.9m has been considered.

Determining the Significance of Effects

In accordance with the relevant EIA Regulations, it is important to determine whether the predicted effects resulting from the Proposed Development, are likely to be significant. Significant landscape, visual and cumulative effects are highlighted in **bold** in the text and in most cases, relate to all those effects that result in a 'Substantial' or a 'Substantial' Moderate' effect as indicated in Table 9.2. In some circumstances, Moderate levels of effect also have the potential, subject to the assessor's opinion, to be considered as



- significant and these exceptions are also highlighted in **bold** and explained as part of the assessment where they occur. All significant effects identified should be considered adverse unless otherwise stated.
- 9.4.4 A distinction has also been made between there being a variable 'range' of effects on a receptor, which has been expressed as 'Moderate to Negligible' for example.
- White or un-shaded boxes in **Table 9.2** indicate a <u>non-significant effect</u>. In those instances where there would be no effect, the magnitude has been recorded as 'Zero' and the level of effect as 'None'. Please refer to the Assessment Methodology detailed in **Appendix 9A**.

 Table 9.2
 Evaluation of Landscape and Visual Effects

		Landscape and Visual Sensitivity							
		High Medium		Low	Negligible				
9	High	Substantial	Substantial / Moderate	Moderate	Slight				
of Change	Medium	Substantial / Moderate	Moderate	Slight	Slight / Negligible				
tude (Low	Moderate	Slight	Slight / Negligible	Negligible				
Magnitude	Negligible	Slight	Slight / Negligible	Negligible	Negligible				
_	Zero	None / No View	,						

Viewpoint Selection

- The starting point for viewpoint selection has been based on viewpoints identified for the nearby consented Enoch Hill Wind Farm, which has then been refined through consultation and ZTV analysis. As far as possible, viewpoints have been selected to represent the Proposed Development at its most visible, as experienced by a range of receptor groups, from a spread of different directions, and over varying distances.
- In total, 13 viewpoints were identified. All of the viewpoint locations have been agreed through consultation with EAC. These viewpoints are set out in **Table 9.3**.

Table 9.3 Assessment Viewpoints

Viewpoint	Distance (m) (nearest turbine)	Key Receptors
1. Core Path 667 Water of Deugh	4,737	Walkers
2. B741 Bankglen	5,773	Road users, nearby residents
3. Blackcraig Hill	6,286	Hill walkers
4. New Cumnock Cemetery	6,816	Road users, cemetery users, walkers along Core Path



Viewpoint	Distance (m) (nearest turbine)	Key Receptors
5. Cairnsmore of Carsphairn	7,908	Hill walkers
6. Highpoint North of Site (Near Auchinross)	8,194	Road users
7. Pathhead New Cumnock	8,635	Residents
8. Lochside Hotel	8,545	Visitors
9. Little Garclaugh, Upper Nith Valley	10,754	Road users, nearby residents
10. Corsencon Hill	12,026	Hill walkers
11. Drumbrochan Road, Cumnock	13,892	Residents
12. A76 North of Auchinleck	18,088	Road users
13. A76 Mauchline	22,114	Road users, nearby residents

- 9.4.7 Viewpoints 1-9, and 12-13 have been illustrated with a photograph, wireline and a photomontage in accordance with SNH guidance Visual Representation of Wind Farms, Version 2.2 (2017) and in agreement with EAC. Viewpoints 10 and 11 have been illustrated with a photograph and wireline only.
- 9.4.8 An additional photomontage has been provided for viewpoints 1-9, and 12-13 illustrating a 53.5° panorama and includes the nearby consented wind farms photo-montaged in addition to the Proposed Development.

Cumulative Wind Energy Development

- 9.4.9 As part of the assessment and in accordance with NatureScot guidance (2021), a cumulative baseline of all operational and consented wind energy development and other planning applications for wind energy development, within the 35km Study Area, is included in the assessment as follows:
 - Wind farm development and single turbines above 50m to blade tip height; and
 - Micro-generation turbines between 25m and 50m to blade tip height within 10km of the Proposed Development.
- 9.4.10 In accordance with NatureScot guidance, projects at pre-planning or 'scoping' stage have not been included in the assessment. Two wind farms however are currently in scoping within 10km—South Kyle II and Quantans Hill—are included in **Figure 9.8** and on the viewpoint wirelines for reference at the request of EAC (but not included in the CLVIA in line with NS guidance).
- In total, 82 other existing, consented, and application wind energy developments are included in the assessment as listed in **Table 9.4** and illustrated in **Figure 9.8**. The identification number in the table relates to that used in the figures.



Table 9.4 Wind Energy Development Included in the CLVIA

Ref.	Name	Distance from Proposed Development (m)	Number of turbines	Height to blade tip (m)	Current Status (as of February 2023)
E01	South Kyle (Under Construction)	878	50	149.5	Existing
E02	Brockloch Rig Extension	1,372	30	120	Existing
E03	Afton	3,223	25	100/120	Existing
E04	Brockloch Rig	3,842	36	52	Existing
E05	Windy Rig	6,499	12	125	Existing
E06	High Park Farm	6,765	1	75	Existing
E07	Hare Hill	7,063	20	63.5	Existing
E08	Hare Hill Extension	7,595	35	70/75/81/86/91	Existing
E09	Mansfield Mains *	9,635	1	44.85	Existing
E10	Sanquhar	10,366	9 130		Existing
E11	Sandy Knowe	10,760	24	125	Existing
E12	Whiteside Hill	12,546	10	121.2	Existing
E13	Dersalloch	14,884	23	125	Existing
E14	Wether Hill	16,040	14	91	Existing
E15	Sunnyside	19,262	2	62	Existing
E16	Twentyshilling Hill	19,779	9	125	Existing
E17	Kennoxhead (Under Construction)	23,978	19	180	Existing
E18	Blackcraig	25,135	23	110	Existing
E19	Bankend Rig	27,578	11	76	Existing
E20	Hadyard Hill	29,056	52	110	Existing
E21	Galawhistle	29,335	22	110.2/121.2	Existing
E22	Cumberhead (Under Construction)	30,183	14	149.9 / 180	Existing
E23	Dungavel	30,706	13	100/120	Existing
E24	Hagshaw Hill Extension	31,039	20	80	Existing
E25	Andershaw	31,536	11	140	Existing



Ref.	Name	Distance from Proposed Development (m)	Number of turbines	Height to blade tip (m)	Current Status (as of February 2023)
E26	Kype Muir Extension	31,722	15	156 / 176 / 200 / 220	Existing
E27	Middle Muir	31,855	15	136/149.9	Existing
E28	Nutberry	32,176	6	125	Existing
E29	Dalquhandy (Under Construction)	33,457	15	131 / 149.9	Existing
E30	Chapelton Farm	33,578	3	67	Existing
E31	Kype Muir	33,956	26	132	Existing
E32	Douglas West	34,120	13	149.9	Existing
E33	Calder Water	34,347	13	144.5	Existing
E34	Whitelee Extension 2	34,509	39	140	Existing
E35	Auchrobert	34,705	12	132	Existing
C01	Pencloe	778	19	149.9	Consented
C02	Enoch Hill	1,108	16	149.9	Consented
C03	Brockloch Rig Phase	2,557	20	125/177.5	Consented
C04	Benbrack	5,709	18	132/135/149.9	Consented
C05	North Kyle	6,528	54	149.9	Consented
C06	Over Hill	8,142	10	149.9	Consented
C07	Sanquhar Six	8,654	6	130	Consented
C08	Lorg	11,219	9	130/149.5	Consented
C09	Rigmuir	12,352	3	149.9	Consented
C10	Lethans	13,052	22	176 / 200 / 220	Consented
C11	Polquhairn	13,287	9	100	Consented
C12	Glenmuckloch	14,235	8	149.9	Consented
C13	Cornharrow	14,929	7	180	Consented
C14	Knockshinnoch	16,428	2	126.5	Consented
C15	Troston Loch	18,844	14	149.9	Consented
C16	Glenshimmeroch	18,915	10	149.9	Consented
C17	Penbreck	20,323	9	125/145	Consented



Ref.	Name	Distance from Proposed Development (m)	Number of turbines	Height to blade tip (m)	Current Status (as of February 2023)
C18	Margree	20,389	9	200	Consented
C19	Kennoxhead Extension	22,944	8	180	Consented
C20	Knockman Hill	23,621	5	81	Consented
C21	Fell	25,856	9	180/200	Consented
C22	Bankend Rig II	27,566	3	126.5	Consented
C23	Hare Craig	28,403	8	149.9/200/230	Consented
C24	Cumberhead West	30,324	21	200	Consented
C25	Hagshaw Hill Repowering	30,796	14	200	Consented
C26	Kirk Hill	31,393	8	115.5	Consented
C27	Douglas West 32,487 13 Extension		200	Consented	
A01	Brockloch Rig Repower	3,061	8	200	Application
A02	Sanquhar II	6,564	44	200 / 149	Application
A03	Lorg Variation	7,270	15	200	Application
A04	Greenburn	7,647	16	149.9	Application
A05	Over Hill Variation	8,142	10	180	Application
A06	Euchanhead	8,340	21	230	Application
A07	Sandy Knowe Extension	10,436	6	125 / 149.9	Application
A08	Shepherd's Rig	10,889	19	149.9/125	Application
A09	Polquhairn Variation	13,287	9	100 / 110 / 119 / 125 / 145	Application
A10	Knockkippen	13,651	12	149.9 / 180	Application
A11	Sclenteuch	15,526	9	180 / 200	Application
A12	Carrick	20,655	13	200	Application
A13	Knockcronal	20,919	9	180 / 200	Application
A14	Craiginmoddie	25,826	14	200	Application
A15	Mill Rig	28,209	6	250 / 209	Application



Ref.	Name	Distance from Proposed Development (m)	Number of turbines	Height to blade tip (m)	Current Status (as of February 2023)
A16	Garcrogo	29,238	9	180	Application
A17	Clauchrie	29,782	18	200	Application
A18	Hallsburn Farm	31,232	3	149.9	Application
A19	High Dykes Farm	33,038	2	149.9	Application
A20	Low Drumclog	34,372	3	180	Application
S01	South Kyle II	3,987	17	220	Scoping (within 10km)
S02	Quantans Hill	9,972	21	250	Scoping (within 10km) ³²

ZTV and Cumulative ZTV Analysis

- The ZTV analysis is used to assist the design and further define the scope of the assessment process. The ZTVs have been calculated using ReSoft © WindFarm computer software to produce an area of potential visibility of any part of the proposed turbines, calculated to turbine blade-tip and hub-height, or selected infrastructure. The ZTV does not however take account of built development and vegetation, which can significantly reduce the area and extent of actual visibility in the field and as such provides the limits of the visual assessment Study Area. As a result, there may be roads, tracks and footpaths in the wider setting which, although shown as falling within the ZTV, have restricted viewing opportunities since they are heavily screened or filtered by banks, walls and vegetation. The ZTVs therefore provide a starting point in the assessment process and accordingly tend towards giving a 'worst-case' or over-estimated scenario of the potential visibility of the turbines.
- 9.4.13 The ZTV maps indicate the areas from where it may be theoretically possible to view all, or some of, the proposed turbines. Turbine parameters used to calculate the ZTVs are a maximum proposed turbine height of up to 149.9m to blade tip, based on the hub heights of 81.9m and a rotor diameter of up to 136m. A number of Figures and ZTV maps have been provided as follows:
 - Figure 9.1: Landscape and Visual Study Area (35km);
 - Figure 9.2 illustrates the ZTV calculated to blade tip, at 1:275,000 scale across the 35km Landscape and Visual Study Area and provides an overview of the theoretical extent of visibility with viewpoints;
 - Figure 9.3 illustrates the ZTV calculated to hub height at 1:275,000 scale across the 35km Landscape and Visual Study Area and provides an overview of the theoretical extent of visibility with viewpoints;
 - **Figure 9.4** illustrates the Detailed ZTV to blade tip (allowing for forestry) at 1:75,000 scale with cumulative wind farms (10km);

³² Please note South Kyle II and Quantans HI lave been included on the viewpoint wirelines for reference at the request of EAC, however they have not included in the CLVIA in line with NS guidance.



- **Figure 9.5** illustrates the Detailed ZTV to hub height (allowing for forestry) at 1:75,000 scale with cumulative wind farms (10km);
- Figure 9.6 (A0 fold-out) illustrates the ZTV calculated to blade tip at 1:100,000 scale across the Landscape and Visual Study Area. This figure also illustrates the viewpoint locations: and
- **Figure 9.7** (A0 fold-out) illustrates the central 20km area of the ZTV calculated to blade tip at 1:50,000 scale across the Landscape and Visual Study Area. This figure also illustrates the viewpoint locations.
- 9.4.14 Cumulative ZTV maps are also illustrated in **Figures 9.8 to 9.13**, indicating the extent of theoretical cumulative visibility in relation to the Proposed Development, other existing and consented wind farms, and other wind farm applications.

ZTV Analysis: Proposed Development

- 9.4.15 The ZTV pattern for the Proposed Development reflects the underlying landform within the 35km Study Area and the percentages of theoretical visibility cover are summarised as follows:
 - Total ZTV (to blade tip) coverage accounts for 21.05% of the Study Area; and
 - Total ZTV (to hub height) coverage accounts for 16.00% of the Study Area.
- 9.4.16 These percentages will be smaller in reality as they do not take account of the screening effects of vegetation such as forestry, buildings and other localised screening elements such as man-made landform.
- 9.4.17 Within 10km, the ZTV coverage illustrates extensive visibility to the north of the A76 / B741 between Dalmellington and New Cumnock. This represents an area of elevated land including Benbeoch and Carsgailoch Hill. Although theoretical visibility is largely restricted along the route of the B741, the ZTV illustrates theoretical visibility at Bankglen and New Cumnock near the junction with the A76. Much of this theoretical visibility is within the *Upland Basin* LCT (15) and includes some large areas of active open-cast mining, although there is also coverage along stretches of the A76 and across parts of the settlement of New Cumnock.
- There is limited ZTV coverage of the Proposed Development within the Glen Afton Valley although to the east of Afton Water there is theoretical visibility for the elevated west facing slopes to the east of the Afton Sensitive Landscape Character Area (SLCA). This area includes Quintin Knowe, Blackcraig Hill and the existing Hare Hill Wind Farm. Theoretical visibility is also present to the south of the Proposed Development across elevated areas within the Carsphairn Forest to the south.
- 9.4.19 Within 10-20km, the ZTV illustrates very limited theoretical visibility to the southeast and east of the Proposed Development. There is fragmented coverage to the southwest associated with theoretical visibility from areas to the west of Loch Doon and the Doon Valley including along elevated summits of the Glenkens. Theoretical visibility is more widespread to the north towards the settlements of Cumnock and Auchinleck and parts of the A76 corridor.
- 9.4.20 Within 20-35km, there is little or no theoretical visibility in the south and east. There is limited and fragmented theoretical visibility to the west along elevated ground within the Carrick Forest and along the edge of the coast around Ayr, Prestwick and Maybole. More areas of theoretical visibility are present at Mauchline and around Tarbolton, to the north of Kilmarnock, and along the A76 and A77, although in reality, visibility from these areas would tend to be restricted by higher levels of intervening vegetation and built form.



Viewpoint and Cumulative Viewpoint Analysis

- 9.4.21 The viewpoint analysis is used to assist the design and further define the scope of the assessment process. In particular, the outer distance from the Proposed Development, where significant effects may be likely, has been identified. This has been used to focus the baseline information and detailed reporting of this assessment.
- 9.4.22 The viewpoint analysis has been conducted from 13 viewpoint locations as illustrated in **Figures 9.22a-e 9.34a-e** and is reported in **Appendix 9B**.
- 9.4.23 Cumulative wind farm development that would be visible within the 35km study area has been illustrated in the wirelines. In addition, the CLVIA has included a check for any micro-generation turbines (25-50m to blade tip height) that may be located within 10km of the Proposed Development and are potentially visible in the foreground of the illustrated assessment viewpoints, either appearing in the viewpoint photograph or illustrated on the wireline.

Geographical Extent of Potentially Significant Visual Effects

The outer distance from the Proposed Development, where significant effects may be likely has been identified by the viewpoint analysis of the Proposed Development. Further cumulative viewpoint analysis has identified a potential threshold for significant cumulative visual effects that would result from the Proposed Development, in addition to, or in combination with, other existing and consented wind energy developments and applications.

Potential Threshold for Significant Effects: Proposed Development

The viewpoint analysis indicates that the significant visual effects would primarily affect some views from the *Upland Basin* LCT's south-western edge of New Cumnock within approximately 6.8km from the nearest turbine locations as indicated by Viewpoints 2 and 4 (**Figures 9.23a-e** and **9.25a-e**). Significant visual effects would also affect some views from the *Southern Uplands with Forest* LCT, where there are gaps in forestry to the southwest, within approximately 4.7km from the nearest turbine locations as indicated by Viewpoint 1 (**Figure 9.22a-e**).

Potential Threshold for Significant Cumulative Effects

- 9.4.26 The cumulative effects of the Proposed Development *in addition* to and *in combination* (detailed within **Appendix 9A**) with other existing and consented wind farm development (Scenario 1) is summarised as follows:
 - Additional Effects: All of the assessment viewpoints are cumulative with other existing
 and or consented wind farm development, and, with the exception of Viewpoint 2, the
 additional effect of the Proposed Development would not be significant from any of the
 other assessment viewpoints with the proposed turbines appearing as a minor
 component of the wider array of wind farm development visible from these locations.
 - Combined Effects: The Proposed Development would contribute to significant cumulative effects in combination with other wind farm development when viewed from Viewpoints 1, 2 and 4.
 - Significant cumulative effects resulting from the combined effects of other wind farm development would affect the views from Viewpoints 1-11.
- 9.4.27 This initial indication has been tested further as part of the assessment process with the assessment focused on the central portion of the Study Area out to approximately 10km



radius from the proposed turbines. Importantly, these levels of effect are indicative of a visual effect on a particular viewpoint location, and they should not be assumed to translate into visual effects on the overall visual experience, as each of the viewpoints have been specifically located where the sensitivity of the receptor and the views of the Proposed Development would be greatest. In this sense they are not typical or representative. The baseline inventory and assessment process has also considered those remaining receptors within the wider 35km Study Area that are of national importance.

Interpretation of Viewpoint Analysis Summary Tables

- The information set out in **Table 9.5** provides a summary of the viewpoint analysis of the effects of the Proposed Development on a 'solus' or primary basis. This part of the assessment helps to define the contribution the Proposed Development would make to any subsequent cumulative assessments (in addition to, or in combination with, other wind farms). It is also relevant to the latter half of the cumulative operational period for the Proposed Development, when the consented periods of operation for other wind farms would expire and they would be decommissioned, assuming no extensions to the operating periods or re-powering schemes are granted.
- Table 9.5 also provides a summary of the cumulative viewpoint analysis of the effects of the Proposed Development. The cumulative analysis sets out the effects of the Proposed Development 'in addition' to and 'in combination' with other existing and consented wind energy developments and applications, assessing two scenarios in accordance with the methodology in **Appendix 9A** as follows:
 - Scenario 1: Existing + Consented + the Proposed Development:
 - The additional and combined cumulative effects of the baseline, including the existing and consented wind energy developments with the Proposed Development are reported.
 - Scenario 2: Existing + Consented + Applications + the Proposed Development:
 - ► The additional and combined cumulative effects of the baseline, including existing and consented wind energy developments and applications, with the Proposed Development are reported.
- 9.4.30 The summary tables list the names of the viewpoints and include the following information:
 - Viewpoint Analysis:
 - ▶ <u>Distance</u>: Distance of the viewpoint location from the nearest turbine within the Proposed Development, **Table 9.5** sets out the distance from the nearest proposed turbine;
 - Sensitivity: The sensitivity of the viewer at the viewpoint location is recorded (ranging from High, Medium, Low, and Negligible) in accordance with the methodology in Appendix 9A;
 - Magnitude: The magnitude of change, taking account of the Proposed Development only is recorded (ranging from High, Medium, Low, Negligible, and zero) in accordance with the methodology;
 - ▶ <u>Level of Effect</u>: The level of visual effect for the Proposed Development only is recorded and takes account of the sensitivity and magnitude in accordance with the methodology.
 - Cumulative Viewpoint Analysis:



- Magnitude (Existing and Consented wind farms): The magnitude of change, taking account of other existing and consented / under construction wind farms that may be visible is recorded (ranging from High, Medium, Low, Negligible, and zero) in accordance with the methodology;
- Additional Level of Effect: The additional visual effect of adding the Proposed Development to the existing and consented baseline in Cumulative Scenario 1 is provided;
- Cumulative Scenario 1: The level of visual effect, taking account of the other existing, consented / under construction wind farms and the Proposed Development, is recorded (taking account of the sensitivity and magnitude in accordance with the methodology). Those levels of effect shown in bold relate to significant effects in accordance with the relevant EIA Regulations and the developments contributing most to the cumulative effects are recorded in brackets;
- Magnitude (Other Wind Farm Applications): The magnitude of change, taking account of other wind farm applications that may be visible on the wireline is recorded (ranging from High, Medium, Low, Negligible, and zero) in accordance with the methodology;
- Additional Level of Effect: The additional visual effect of adding the Proposed Development to the existing and consented baseline in Cumulative Scenario 2 is provided;
- <u>Cumulative Scenario 2:</u> The level of visual effect, taking account of the other existing, consented / under construction, application wind farms and the Proposed Development, is recorded (taking account of the sensitivity and magnitude in accordance with the methodology). Those levels of effect shown in bold relate to significant effects in accordance with the relevant EIA Regulations and the developments contributing most to the cumulative effects are recorded in brackets.



 Table 9.5
 Summary of Viewpoint Analysis

Viewpoint No. and Title	to oine	o Viewpoint Analysis: Proposed p မြောင်း Oevelopment (up to 149.9m blade tip)			Cumulative Viewpoint Analysis: Proposed Development (PD) and other wind farms					
	Distance to nearest turbine (m)	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Additional Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect
1. Core Path 667, Water of Deugh	4,737	High	Medium reducing to Zero	Substantial / Moderate reducing to No View	High	Moderate reducing to No View	Substantial (PD, Brockloch Rig Extension / Phase III, South Kyle, Pencloe, Benbrack)	Medium	Moderate reducing to No View	Substantial (PD, Brockloch Rig Extension / Phase III, South Kyle, Pencloe, Benbrack, Brockloch Rig Repower)
2. B741 Bankglen	5,766	High to Medium	Medium	Substantial / Moderate to Moderate	High-Medium	Moderate	Substantial / Substantial / Moderate (PD, Pencloe, Enoch Hill, North Kyle)	High	Moderate	Substantial to Substantial / Moderate (PD, Pencloe, Enoch Hill, Greenburn, Sanquhar II and North Kyle)



Viewpoint No. and Title	Viewpoint No. and Title Unit Development (up to 149.9m blade tip)				Cumulative Viewpoint Analysis: Proposed Development (PD) and other wind farms					
	Distance to nearest turbine (m)	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Additional Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect
3. Blackcraig Hill	6,284	High	Low	Moderate	High to Medium	Slight	Substantial (Afton, Brockloch Rig Ext., Hare Hill + Ext., Sanquhar, Whiteside Hill, Pencloe, Sanquhar Six, Enoch Hill, South Kyle and Windy Rig)	High	Slight	Substantial (Afton, Brockloch Rig Ext., Hare Hill + Ext., Sanquhar, Whiteside Hill, Pencloe, Sanquhar Six, Enoch Hill, South Kyle, Windy Rig, Sanquhar II, Euchanhea d, Lorg Variation, Brockloch Rig Repower)
4. New Cumnock Cemetery	6,806	High	Low	Moderate	Medium	Moderate	Substantial / Moderate (PD, Pencloe, North Kyle and Enoch Hill)	Low	Moderate	Substantial / Moderate (PD, Pencloe, Enoch Hill and North Kyle)



Viewpoint No. and Title	to	Viewpoint Analysis: Proposed Development (up to 149.9m blade tip)			Cumulative Viewpoint Analysis: Proposed Development (PD) and other wind farms						
	Distance to nearest turbine (m)	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Additional Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect	
5. Cairnsmore of Carsphairn	7,908	High	Low	Moderate	High-Medium	Slight	Substantial (Windy Std Ext, Windy Rig, South Kyle, Brockloch Rig Phase III and Benbrack)	High	Slight	Substantial to Substantial / Moderate (Brockloch Rig Ext, Windy Rig, South Kyle, Benbrack, Brockloch Rig Phase III, Euchanhea d, Shepherds Rig and Sanquhar II)	
6. Highpoint north of site (near Auchinross)	8,204	Medium	Low	Moderate to Slight	High-Medium	Moderate to Slight	Substantial / Moderate to Moderate (Pencloe, and Enoch Hill, Over Hill, North Kyle)	High	Moderate to Slight	Substantial / Moderate (Pencloe, Enoch Hill, Over Hill Variation, North Kyle, Greenburn, Windy Std Repower)	



Viewpoint No. and Title	to		Analysis: Pro nt (up to 149	pposed 0.9m blade tip)	Cumulative Viewpoint Analysis: Proposed Development (PD) and other wind farms						
	Distance to nearest turbine (m)	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Additional Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect	
7. Pathhead, New Cumnock	8,625	High	Low	Moderate	Medium	Moderate to Slight	Substantial / Moderate (Pencloe, High Park Farm, Enoch Hill, North Kyle)	Medium	Moderate to Slight	Substantial / Moderate (Pencloe, High Park Farm, Enoch Hill, Greenburn, North Kyle)	
8. Lochside Hotel	8,545	High	Low	Moderate	Medium	Moderate to Slight	Substantial / Moderate (Pencloe and Enoch Hill)	Medium	Moderate to Slight	Substantial / Moderate (Enoch Hill, Pencloe, Greenburn)	
9. Little Garclaugh, Upper Nith Valley	10,754	High to Medium	Low	Moderate to Slight	Medium	Slight	Substantial / Moderate (Sandy Knowe, Hare Hill)	Medium-Low	Slight	Substantial / Moderate (Sandy Knowe, Hare Hill, Sandy Knowe Ext)	
10. Corsencon Hill	12,026	High	Low- Negligible	Moderate to Slight	High	Slight	Substantial (Lethans, Glenmuckloc h and Sandy Knowe)	Medium	Slight	Substantial (Lethans, Glenmucklo ch, Sandy Knowe / Ext, Euchanhea d, Sanquhar II)	



Viewpoint No. and Title	to bine	Viewpoint Analysis: Proposed Development (up to 149.9m blade tip)			Cumulative Viewpoint Analysis: Proposed Development (PD) and other wind farms						
	Distance nearest turk (m)	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Additional Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect	
11. Drumbrochan Road, Cumnock	13,892	High	Negligible	Slight	Low	Slight	Moderate	Medium	Slight	Substantial / Moderate (Greenburn)	
12. A76 North of Auchinleck	18,088	Medium	Negligible	Slight / Negligible	Low	Negligible	Slight	Low	Negligible	Moderate	
13. A76 Mauchline	22,114	High (residents) Medium (road users)	Negligible	Slight (residents) Slight / Negligible (road users)	Low	Negligible	Moderate to Slight	Low	Negligible	Moderate to Slight	

Note: Significant effects are indicated in bold text.



9.5 Baseline

- Information on the existing landscape resource or baseline conditions included in this assessment has been collected from local plans, OS maps and relevant literature as well as information gathered from field surveys. This baseline information is set out as an inventory of the existing landscape resource and focuses on those landscape and visual receptors with most potential to be significantly affected.
- 9.5.2 The baseline inventory is set out as follows:
 - Baseline Landscape Receptors:
 - Landscape Character of the Development Site;
 - Landscape Character of the Surrounding Area; and
 - ► Landscape Designations.
 - Baseline Visual Receptors:
 - Visual Receptors: Settlements and Residential Properties;
 - Visual Receptors: Transport Routes;
 - Visual Receptors: Recreational Routes; and
 - Visual Receptors: Recreational and Tourist Destinations.

Baseline Landscape Receptors

- 9.5.3 The landscape receptors in this assessment include the landscape character units and landscape planning designations identified at a national, regional and local planning level.
- The blade tip ZTV and viewpoint analysis indicates that significant visual effects and cumulative visual effects, attributable to the Proposed Development, would be limited to within 6.8km, with the recommendation that the assessment should focus on the central area, 10km distance from the Proposed Development. As noted through scoping, landscape character and local landscape planning designations have been assessed within 10km of the Proposed Development. Only those receptors of national or international importance that are overlapped by the blade tip ZTV are included within the wider 35km Study Area.
- The landscape character within 10km is classified for wind farm development within the EALWCS and DGWLCS. Both landscape reports divide the landscape into broad Landscape Character Types ('LCT') and / or more localised and area specific Landscape Character Areas (LCA) or units. Drawing from these assessments, **Figure 9.14** illustrates the landscape character of the central 10km of the Study Area at a detailed scale. Within the wider 10-35km there are no areas of landscape character designated at a national or international level that would otherwise be included in the assessment. Landscape Planning Designations within the 35km Study Area are illustrated in **Figure 9.16**.

Landscape Character of the Development Site: Southern Uplands with Forestry LCT

- 9.5.6 The Proposed Development is located within the East Ayrshire *Southern Uplands with Forestry* LCT subsequently referred to as the 'host' landscape.
- 9.5.7 The Development Site is located within an extensive area of the Southern Uplands and bounded to the west, south and east by extensive coniferous forestry and Carsphairn



Forest. The Southern Uplands with Forestry LCT generally and Carsphairn Forest in particular are noted in both the EALWCS and the DGWLCS to be amongst those landscape character types generally most able to accommodate wind energy development.

The Southern Uplands with Forestry LCT is already characterised by wind farm development. In particular, the existing South Kyle, Brockloch Rig and Extension, Afton, Windy Rig, Sanquhar, Sandy Knowe, and Hare Hill and Extension wind farms. This area would be further characterised by wind farm development with the construction of the consented Pencloe, Enoch Hill, Brockloch Rig Phase III, Benbrack, Sanquhar Six, Lorg and North Kyle wind farms.

Landscape Character of the Surrounding Area

- 9.5.9 Beyond the host landscape, the Proposed Development would not have a direct effect on any other LCTs. Rather, the landscape effects would be indirect and relate to views and visual or perceptual characteristics which are noted to be a key feature of the surrounding landscape character.
- The 14 LCTs of the central 10km Study Area are illustrated in **Figure 9.14** as described in the EAWLCS and DGWLCS. Of these, eight LCTs are overlapped by the blade tip ZTV for within 10km of the Proposed Development. Each of these along with their particular landscape units or LCTs are listed in **Table 9.6**. Only the following LCTs and Landscape Character Units (where relevant)³³ are included in the assessment:
 - 15 Upland Basin LCT;
 - 20a Southern Uplands LCT: Benty Cowan Hill and Blackcraig Hill unit; and
 - 20c Southern Uplands with Forestry (host LCT): Strandlud Hill / Enoch Hill unit.
- The remaining five LCTs overlapped by the ZTV (10 River Valley, 17a Foothills with Forest and Opencast Mining LCT, 19a Southern Uplands with Forest LCT: Carsphairn unit, 19 Southern Uplands LCT, and 14 Upland Glen LCT) are already heavily influenced by wind farm development or have minimal overlap with the ZTV. They have therefore been excluded from this assessment on the basis that the potential effects on these LCTs are not likely to be significant.

Table 9.6 Landscape Character within 10km overlapped by the ZTV

Landscape Character Type (LCT)	Landscape Character Unit	Included in Assessment
East Ayrshire		
10 Upper River Valley	River Nith	Х
14 Upland Glen	-	Х
15 Upland Basin	-	\checkmark
17a Foothills with Forest and Opencast Mining	Northeast of Dalmellington (Martyrs Moss)	Х

³³ The LCTs and LCUs (units) are defined as per the DGWLCS whereas only the LCTs are defined as per the EAWLCS whilst the LCUs are defined by the authors of this chapter given they are not specifically defined in the document.



Landscape Character Type (LCT)	Landscape Character Unit	Included in Assessment
20a Southern Uplands	Benty Cowan Hill	√
20c Southern Uplands with Forestry (host LCT)	Strandlud Hill / Enoch Hill	$\sqrt{}$
Dumfries and Galloway		
19a Southern Uplands with Forest	Carsphairn	х
19 Southern Uplands	Carsphairn	х

The other six LCTs within 10km (in Dumfries and Galloway: 9 Upper Dales LCT, 4 Narrow Wooded River Valleys LCT, 21 Rugged Granite Uplands LCT; and in East Ayrshire: 7c East Ayrshire Lowlands LCT, 21 Rugged Uplands, Lochs and Forest LCT, 18a East Ayrshire Plateau Moorlands LCT and 20a East Ayrshire Southern Uplands LCT: Blackcraig Hill unit) are excluded from the assessment due to no, or very limited, visibility of the Proposed Development.

Landscape Designations

- 9.5.13 Landscape Designations within the 35km Study Area are illustrated in **Figure 9.16**.
- 9.5.14 The Proposed Development is situated within the southwestern extent of the locally designated Afton Sensitive Landscape Character Area ('SLCA').

National Landscape Designations

- 9.5.15 There are no National Parks or National Scenic Areas within the 35km Study Area.
- 9.5.16 Gardens and Designed Landscapes ('GDLs') are considered under visual receptors as visitor attractions.
- The Galloway Forest Dark Sky Park has been excluded from the assessment, as noted in **Table 9.2** and agreed with EAC, on the basis that there would be no visible aviation warning lighting on the turbines.

Local Landscape Designations

- There are three local landscape designations within 10km of the Proposed Development; only the Afton SLCA is overlapped by the blade tip ZTV and is included in the assessment.
- 2TV analysis and site visits indicate very limited to no visibility of the Proposed Development from the Doon Valley SLCA and Galloway Hills Regional Scenic Area which are already heavily influenced by existing and consented wind energy developments between these designations and the Proposed Development. They are therefore excluded from the assessment on the basis that effects of the Proposed Development on the Special Landscape Qualities of these designations would not be significant.



Wild Land Areas

9.5.20 Merrick Wild Land Area ('WLA') is located approximately 19.5km southwest of the Proposed Development. The assessment of effects on the WLA has been scoped out of the LVIA as agreed through consultation with EAC and noted in **Table 9.2**.

Baseline Visual Receptors

- The visual assessment includes those receptors that are overlapped by the blade tip ZTV illustrated in **Figures 9.2, 9.4, 9.6,** and **9.7**.
- The visual assessment draws upon the ZTV, site visits and viewpoint analysis and assesses the potential visual effects on views and visual amenity likely to be experienced by receptors (people) within the landscape as follows:
 - Views from residential properties and settlements;
 - Views experienced whilst travelling through the landscape (road / rail users, walkers, horse riders and cyclists for example); and
 - Views from tourist and recreational destinations.
- 9.5.23 The ZTV and viewpoint analysis indicates that significant visual and cumulative effects extend out up to 6.8km from the nearest turbine locations. Taking a precautionary approach, and drawing from consultation advice and best practice guidance, the visual assessment has been focused on receptors (settlements, transport routes and local / regional recreational routes) within 10km.
- 9.5.24 Receptors of national importance including Scotland's Great Trails, National Cycle Routes and well-known tourist / recreational destinations that are overlapped by the blade tip ZTV are included in the assessment within the wider 10-35km Study Area.

Visual Receptors: Settlements and Residential Properties

- The assessment of visual effects likely to be experienced from settlements includes consideration of residential areas, the public realm, and public open spaces within the settlement boundaries that would be frequented by people. Settlements within 10km are illustrated on **Figure 9.19** and those which are overlapped by the ZTV include:
 - Bankglen;
 - Connel Park and Leggate; and
 - New Cumnock and Pathhead.
- Other settlements within 10km of the Proposed Development include Burnside,
 Dalmellington and Bellsbank, all of which are located outwith the blade tip ZTV and would have no visibility of the Proposed Development.
- 9.5.27 From the settlements of Cumnock, Auchinleck and Mauchline which are located beyond 10km, there would be very limited visibility of the Proposed Development as illustrated in Viewpoints 11, 12 and 13 (**Figures 9.32 to 9.34**).

Residential Visual Amenity Assessment

There are no residential properties within 2km of the Proposed Development. The nearest residential property is over 4km from the nearest proposed turbine. Accordingly, it



has been agreed during consultation that a Residential Visual Amenity Assessment (RVAA) can be scoped out of the assessment.

Visual Receptors: Transport Routes

- The visual assessment has considered the potential visual effects likely to be experienced by people travelling through the landscape within 10km of the Proposed Development. Long distance recreational routes and transport routes are shown in **Figure 9.17**. Other recreational routes and core paths are shown in **Figure 9.18**.
- 9.5.30 Transport routes within 10km which are overlapped by the ZTV include:
 - A76 between New Cumnock and Cumnock:
 - B741 between New Cumnock and Dalmellington; and
 - Glasgow to Carlisle railway line near New Cumnock.
- 9.5.31 The A713 Galloway Tourist Route between Carsphairn and Dalmellington is outwith the blade tip ZTV and has been excluded from the assessment.
- The Afton Road between New Cumnock and Burns Cairn has been included in the assessment of recreational routes as it is overlapped by Core Path C10: Coalfield Cycle Route, a Heritage Path and a Scottish Hill Track.
- 9.5.33 Two minor roads in the vicinity of the Proposed Development, namely the part of the C36 Road between Cumnock and New Cumnock and the minor road between B741 at Littlemark and Garallan Bridge on Skares Road (B7046) are no longer accessible due to the open cast mining operations now occupying the road area. Restoration plans for the open cast mining operations were available. However, the detail of how the roads will be reinstated and the timeframe for reinstatement are unknown. They have therefore been excluded from the assessment.

Visual Receptors: Recreational Routes

- The visual assessment has considered the potential visual effects likely to be experienced by people (walkers / cyclists / horse riders / and others) on recreational routes within the Study Area as illustrated in **Figures 9.17** and **9.18**.
- Local recreational routes have been assessed within 10km of the Proposed Development and include the Core Path Network (rights of way and core paths, which has been sourced from the adopted Core Path Plans for each of the local authorities within 10km) and recorded Scottish Hill Tracks and Heritage Paths, promoted by the Scottish Rights of Way and Access Society (ScotWays).
- 9.5.36 National and long-distance recreational routes within the wider 35km Study Area have also been considered for assessment and include Scotland's Great Trails and the Sustrans National Cycle Route network.

Local Recreational Routes within 10km

- 9.5.37 The local recreational routes within 10km of the Proposed Development that are overlapped by the blade tip ZTV are listed as follows and included in the assessment:
 - Core Paths and Rights of Way:
 - ► EAC Core Path No. C10: Coalfield Cycle Route;



- ► EAC Core Path No. C11: Knockshinnoch Lagoons (part of Knockshinnoch Lagoons);
- ► EAC Core Path No. C12: New Cumnock Circular;
- ▶ DGC Core Path No. 183 / 667: Circular route within Carsphairn Forest;
- ▶ DGC Core Path No. 594: Between Knockengorroch and Lamford.
- ▶ Rights of Way d and e (numbered 'a-g' on **Figure 9.18**). Routes a, b, c and f are scoped out as described below; and
- ▶ Additional Rights of Way around Lochside Hotel and north of New Cumnock.
- Heritage Paths and Scottish Hill Tracks:
 - Heritage Path and Scottish Hill Track 84: Afton Road (also part Core Path C10: Coalfield Cycle Route).
- 9.5.38 A number of routes on **Figure 9.18** have been excluded from the assessment as follows:
 - EAC Core Path No. C13: Castle Path follows the wooded River Afton with very limited to no visibility of the Proposed Development;
 - EAC Core Path No. C14: Glen Afton coincides with the New Cumnock Community Paths (Afton Water Route) and has no visibility of the Proposed Development due to a combination of vegetation, landform and / or built form;
 - All recreational routes (Core Paths, Rights of Way, Scottish Hill Tracks and Heritage Paths) around Dalmellington and Bellsbank located outwith the ZTV with any views of the Proposed Development beyond the consented South Kyle Wind Farm; and
 - Rights of Way are otherwise compromised by opencast mining or routed partly through forestry (Routes a, b and c) or existing wind farm development (Route f and g) and as a consequence would not be significantly affected by the Proposed Development.

National Recreational Routes within 35km

- 9.5.39 National recreational routes are illustrated on **Figure 9.17**.
- 9.5.40 The following national recreational route within 10km of the Proposed Development that is overlapped by the blade tip ZTV is included in the assessment:
 - Burns Heritage Trail.
- The remaining recreational routes between 10-35km including the River Ayr Way, Southern Upland Way, Ayrshire Coastal Path, Sustrans Cycle Routes and other regional routes are located largely outside the ZTV with any views of the Proposed Development being from over 20km and, where visible, in the same view as existing and consented wind farms. They are therefore excluded from further assessment.

Visual Receptors: Recreational and Tourist Destinations

Recreational and tourist destinations included in this assessment include those features that appear as prominent landmarks or landscape features and locations associated with passive recreation such as walking and where there is a clear relationship between the feature / destination and the landscape. GDLs listed on the Historic Environment Scotland Gardens & Designed Landscapes Inventory and the DGC Historic Environment Viewer maps, as well as Scottish National Trust land and Historic Environment Scotland



visitor sites, are included where these are open to the public. The assessment excludes other recreational / tourist destinations where the focus of activity is indoors, for example museums, libraries, and gift shops. The assessment also excludes locations for sports, such as quad biking and team sports, fishing and hunting / stalking activities, where the primary focus would be activity rather than the landscape.

Recreational and Tourist Destinations

- 9.5.43 Recreational and tourist destinations within 10km of the Proposed Development that are overlapped by the blade tip ZTV are listed as follows:
 - Knockshinnoch Lagoons Local Nature Reserve.
- 9.5.44 Beyond 10km, there would be very limited to no visibility of the Proposed Development from Craigengillan GDL, Burns Memorial, the Galloway Forest Dark Sky Park and Loch Doon, with any views of the Proposed Development being in the same view as existing and consented wind farms. They have therefore been excluded from this assessment. The EAC non-inventory gardens at Camlarg (No.147) and Glaisnock (No.83) are not open to the public and have therefore been excluded from the assessment.
- 9.5.45 The following hill summits within 10km overlapped by blade tip ZTV are included in the assessment as follows:
 - Cairnsmore of Carsphairn, 797m AOD (Corbett);
 - Blackcraig Hill, 700m AOD (Graham); and
 - Brockloch Rig 698m AOD (Graham).

Predicted Future Baseline

- 9.5.46 The temporal scope of the landscape, visual and cumulative effects cover the construction, operation; and decommissioning periods (in line with the general approach to the EIA outlined in **Chapter 4 Approach to Preparing the EIA Report** of the EIA Report).
- 9.5.47 For the purpose of the LVIA, the following approximate time periods associated with the Proposed Development, and whether they are long-term or short-term, are considered:
 - Construction: up to 18 months (short-term);
 - Operation: up to 35 years (long-term and reversible); and
 - Decommissioning: up to 6 months (short-term).
- 9.5.48 During this period, the predicted future baseline of landscape and visual receptors is unlikely to change beyond that described in the current baseline. Future land management, and consequently landscape character is, however, dependent on continued favourable development management and economic conditions, which is not a matter for this assessment. However, changes to this baseline could alter the landscape character as follows:
 - An increase, decrease or maintenance of current levels of wind farm development.
 Table 9.7 sets out the operational periods for existing and consented wind farm development that can be reasonably predicted during the operational period of the Proposed Development;



- An increase, decrease or maintenance of current levels of forestry. Some of the wind farm developments require localised tree felling or alteration of the existing forestry design plans; and
- Restoration of areas of open cast mining.
- 9.5.49 The effects of climate change are similarly difficult to predict at a local level in respect of future changes to landscape character. It is however likely that mitigation for climate change in the form of renewable energy will continue to have an influence on this area.
- Taking account of reasonably foreseeable changes to the future baseline of other wind energy development set out in **Table 9.7**, the default scenario (absent a further planning application to extend or repower), would be a gradual decline in the existence of wind energy development, as a result of the existing time limited consents.

Table 9.7 Cumulative Operational Timescales of Existing and Consented Wind Energy Development within 10km

Name and reference	Commissioning / Construction Completed	0-5 Yrs	6-10 Yrs	11-15 Yrs	16-20 Yrs	21-25 Yrs	26-35 Yrs		
Proposed Development		Proposed operational period: 35 years							
Existing Wind Energy	y Developments witl	hin 10kı	m						
E01. South Kyle (under construction)	2023	Opera	ting for 25	years					
E02. Brockloch Rig Extension	2017	Operating for 25 years							
E03. Afton	2018	Opera	ting for 25	years					
E04. Brockloch Rig	1996	Operating for 30 years. Repower scheme currently at S36 Application.							
E05. Windy Rig	2022	Opera	ting for 25	years					
E06. High Park Farm	2014		ting for 26 riginal 20 y		ended				
E07. Hare Hill	1999	Operating for 25 years. Current application to align with Hare Hill Extension to 2041.							
E08. Hare Hill Extension	2016	Operating for 25 years							
Consented Wind Energy Developments within 10km									
C01. Pencloe	2018	Consented to operate for 27 years							
C02. Enoch Hill	2019	Conse	ented to op	perate for 2	25 years				



Name and reference	Commissioning / Construction Completed	0-5 Yrs	6-10 Yrs	11-15 Yrs	16-20 Yrs	21-25 Yrs	26-35 Yrs		
C03. Brockloch Rig 2021 Phase III		Consented to operate for 36 years							
C04. Benbrack	2019	Conse	nted to op	30 years					
C05. North Kyle	2021	Conse	nted to op	25 years					
C06 Over Hill	2019	Conse	nted to op						
C07. Sanquhar Six	2017			erate for 2 on to exter					

- Por the first five years of the operational period of the Proposed Development, the existing baseline of other existing and consented wind energy development (assuming these have been built) within 10km, would remain unchanged. Excluding the possibility for further time extensions to the operating periods of other existing and consented wind energy development, or future applications and consents for repowering, there would be a gradual and sustained reduction in cumulative wind energy development, combined with an increase in decommissioning activity, within 10km of the Proposed Development during the latter half of the proposed operational period as follows:
 - Proposed Operational Period: Years 6-10:
 - ▶ The operation of Brockloch Rig and Hare Hill might terminate pending approval for repowering / operational life extension. Should the applications be denied, decommissioning would occur over an estimated 1–2-year period. However, if both schemes are granted an extension, there would be no change during the operational period of the Proposed Development.
 - Proposed Operation Period: Year 20:
 - ► The operation of High Park Farm, Brockloch Rig Extension, Afton and Hare Hill Extension (plus Over Hill and Sanquhar Six) would terminate. This would be followed by decommissioning over an estimated 1–2-year period.
 - Proposed Operation Period: Years 21-25:
 - ► The operation of South Kyle and Windy Rig (plus Pencloe, Enoch Hill and North Kyle) would terminate. This would be followed by decommissioning over an estimated 1–2-year period.
 - Proposed Operational Period: Years 26-35:
 - ▶ All other existing and consented schemes within 10km would cease to operate and be decommissioned unless granted an extension. The Proposed Development, Brockloch Rig Phase III and Benbrack would cease operation at the end of year 35 and undergo decommissioning.
- As the Proposed Development nears the end of its operational life, a decision will be taken as to whether or not a life extension, repowering or decommissioning will be required. However, for impact assessment purposes, the EIA Report assumes that the project will be decommissioned at the end of its operational life



9.6 Mitigation Inherent in the Proposed Development

- 9.6.1 The design evolution for the Proposed Development is provided in **Chapter 2 Site Selection and Design Evolution** and a project description including the associated infrastructure is detailed in **Chapter 3 Description of the Proposed Development** within the EIA Report.
- 9.6.2 Site infrastructure includes:
 - Two wind turbines:
 - Access tracks and associated hardstanding and crane pads;
 - One temporary construction compound;
 - One battery storage compound (up to 11MW installed capacity), which would be within the construction compound footprint;
 - One control building/substation compound; and
 - Forestry felling and restocking as proposed within Appendix 3A.
- The proposed turbines and the control building would be linked by underground electrical cables, routed along the verges of the internal access tracks.
- As noted previously, the approximate time accounted for in the assessment include 35 years of operation with additional periods of up to 18 months for construction and 6 months for decommissioning.
- Landscape related aspects of the design and mitigation are described in this section. The layout of the Proposed Development and its various infrastructure components are shown in **Figure 3.1**.

Landscape Design Statement

- 9.6.6 The inherent nature of wind turbines as tall, modern structures means that the form of the wind farm as a whole is important. The appearance of the wind farm as an object or composition in the landscape has been a key factor in generating the layout. In this respect the design evolution has taken account of the following guidance:
 - SNH *Guidance on Siting and Designing Windfarms*, Version 3a, 2017, which aims to achieve a simple, rational and cohesive design that, to a reasonable degree, avoids overlapping turbines and gaps within the visual composition; and
 - Landscape constraints, opportunities and guidance for wind farm development within the Southern Uplands with Forestry LCT in the EALWCS and the DGWLCS, and relevant policies in the EAC LDP and Supplementary Guidance.
- The Proposed Development has been designed to balance technical and project requirements with a need to safeguard the environment and satisfactorily accommodate the Proposed Development within its landscape setting. The design evolution has aimed to reduce landscape, visual and cumulative effects and to respect the landscape characteristics identified in the EALWCS and the DGWLCS.
- The Development Site is heavily influenced by the presence of coniferous forestry and the northern extent of the Development Site is largely contiguous with the edge of Pencloe Forest.



- 9.6.9 The design evolution for the Proposed Development described in **Chapter 2 Site Selection and Design Evolution** of the EIA Report. The key landscape design objectives are outlined below:
 - The design of the layout should utilise existing forestry rides and areas of open ground present on the Development Site to locate turbines, access tracks and associated infrastructure to minimise tree loss and disruption to the forest structure. Maintenance of the existing forest structure would also allow lower-level elements of the Proposed Development including access tracks (with associated vehicular movements) and the substation to be integrated with minimal visibility from the wider landscape.
 - The Proposed Development should achieve a simple and cohesive design from most viewpoints, avoiding turbine stacking, gaps and outlying turbines.
 - Turbines should be set back from the 'front' north facing hill slopes overlooking settlements, roads and residential receptors within the Upland Basin. The hill tops and visually less sensitive interior hills would be preferable in order to maintain a sense of separation between the lower lying areas and the more elevated Southern Uplands / Southern Uplands with Forestry LCTs which are most capable of accommodating wind farm development.
 - The scale of the Proposed Development should be proportionate to the expansive scale of the underlying *Southern Uplands with Forestry LCT* and in terms of the perceived scale of development when viewed from residential properties, settlements, roads and footpaths within the New Cumnock *Upland Basin* LCT (15) to the north.
 - Achieve a design that would be broadly compatible or co-existent with other existing
 and consented wind farm development within the LVIA Study Area. In this respect the
 design should adopt a layout that is broadly similar to neighbouring wind farm
 developments in terms of perceived turbine height, scale, proportion, three bladed
 turbine design, and colour. The Proposed Development should appear as a minor
 element of the wider array of other existing and consented wind farm development.
 - Maintain the simple landscape character of the Development Site by siting groundbased infrastructure in the least visible locations when viewed from receptor locations to the north and northeast including New Cumnock, the B741 and the A76.
 - Limit landscape and visual effects on the visual receptors including local residents, roads, recreational routes and visitor / tourist destinations including Glen Afton.

Landscape Design Considerations

- Both the EALWCS and the DGWLCS provide sensitivity analysis of the *Southern Uplands* with Forestry LCT, which may be considered relevant to the Development Site. The two studies have differing definitions of turbines at 149.9m, with EALWCS defining them as 'very large' turbines (over 130m high) and DGWLCS defining them as 'large' turbines ('very large' are considered to be 150m+). Collectively they record a 'high' (East Ayrshire) and 'medium' (Dumfries and Galloway) inherent landscape sensitivity to turbine development at this height, concluding that the perceived landscape capacity for very large-scale turbines ranges from 'no scope' within East Ayrshire, with further capacity identified in Dumfries and Galloway. However, neither study refers to the Development Site directly, and both refer to other named locations within these LCTs in order to explain and justify their conclusions.
- 9.6.11 Within East Ayrshire, a total of six LCTs were considered for capacity for 'very large' turbines following identification in the previous 2013 EALWCS of 'scope for larger turbines' within these LCT areas. Capacity and sensitivity to turbines over 130m was assessed on a 'repowering' basis (EALWCS, Annex D) using selected viewpoints,



- wirelines and ZTVs. Of the six LCT's considered, none are assessed as below High-Medium sensitivity for turbines over 130m, with half (three LCTs) considered to have a High sensitivity.
- 9.6.12 Both documents do, however, refer to the large or expansive scale and simplicity of the landscape character as an opportunity for major wind farm development, noting that the general lack of settlement and presence of nearby forestry are factors that indicate some capacity for large scale wind turbines.
- Particular references to Glen Afton and Loch Doon / Doon Water and Dalmellington as potential constraints are not relevant to the Proposed Development, due to the restricted visibility of the Proposed Development from within these areas. Concerns about visual effects on the views towards the landmark hill summit of Blackcraig Hill and cumulative development close to Hare Hill Wind Farm are also not relevant in this case as indicated by the viewpoint analysis and visualisations which demonstrate that views of the Proposed Development would not interfere with views towards Blackcraig Hill or Craigbraneoch Rig on the eastern edge of Glen Afton.
- A general reference to the potential visibility of wind farm development from the *Upland Basin* as a constraint is however a relevant consideration for this Proposed Development and the Proposed Development would not be positioned on the 'front' north facing hill slopes. This constraint also had the benefit of minimising potential visual effects on the views from the closest receptors, including residential properties and more general views from New Cumnock and the *Upland Basin* area to the north and northeast.
- It is of primary importance that the Proposed Development can be accommodated alongside / overlapping with other existing and consented development, with particular consideration given to the South Kyle turbines (149.9m to blade tip), and the consented turbines of Brockloch Rig Phase III (177.5m to blade tip), Enoch Hill, Pencloe, Benbrack, North Kyle, and Over Hill (all 149.9m to blade tip) wind farms. The turbines of the Proposed Development therefore appear as a minor element of the wider array of other cumulative development.

Inherent Mitigation

Construction Mitigation

- The development of the wind farm would draw upon the guidance set out in SNH guidance 'Good Practice during Wind farm Construction' (2019). The key measures that would be implemented as part of the post-consent Construction Method Statement ('CMS') and the supporting Construction Environmental Management Plan ('CEMP'), in order to avoid or reduce potential construction effects, include:
 - The selective and sensitive location of temporary storage areas for materials, plant, and security fencing;
 - Using designated routes around the Site for construction vehicles and operation of construction plant such as cranes. Avoiding the creation of any wheel ruts and subsequent clear up of these;
 - Implementation and monitoring of site management procedures, such as regular litter sweeps of the immediate environs to ensure the removal of all litter arising from the construction activities; and
 - Removal, reinstatement, and clear up of the Construction Compound and any related construction arisings.



Forestry Design and Management

- The existing Forest Design Plan has been amended to accommodate the proposed development and a new integrated Wind Farm and Forest Design Plan has been developed as described in more detail in **Appendix 3A** and illustrated in **Figures 3A.1** to **3A.4** Using a bespoke approach for each turbine based on wind direction, topography and tree condition, the permanent area required to be kept free from forestry around the proposed turbines and other infrastructure would be 12.7ha of forestry. The remaining areas of the forest areas would be re-stocked, felled and maintained as coniferous forestry to accordance with the proposed Forest Design Plan and other approved forest plans. Forestry felling, required for the Proposed Development would be most visible from the elevated locations at viewpoints 3 and 5 however this would be limited due to the intervening distance. Forestry felling would not be widely visible from other surrounding areas and would be largely limited.
- 9.6.18 There are a number of limitations and assumptions in relation to forestry management, as follows, that are relevant to this assessment:
 - Where Forest Plans exist, felling phases are described and the replanting design and species choices are included. Designed open space and non-intervention or Long-Term Retention may be developed.
 - By assessing the changes to the forest structure and any permanent woodland loss resulting from the Proposed Development, a reasonable worst case is assumed whereby the integrity of the woodland as a whole is preserved.
 - The typical planting and felling cycles for the normal commercial conifer, Sitka spruce are assumed to be in the range of 40 to 60 years. Given an average growth rate of 50cms per year, Sitka spruce may well attain a height of 25m in 50 years at which stage the stem dimensions typically meet the specifications for sawmilling and other wood processing and ready for felling as part of commercial operations. Once the tree crop is felled, the area is not usually left fallow for more than two years. After this period, replanting would then take place. The site is typically cultivated which promotes early establishment and conifer transplants taken directly from the tree nursery are planted to re-establish the forestry crop. It is estimated that conifer transplants take between 5 and 7 years to grow to a height of 2m.
 - It should be noted that the final tree height is dependent upon the local site conditions, particularly exposure to wind and soil strength. In exposed locations and areas of weak soil, a tree may not achieve a height of 20m before succumbing to windthrow.

New Site Access and Internal Access Tracks

- 9.6.19 A total of approximately 8km of new and upgraded wind farm access tracks would be constructed, which includes approximately 6km of upgraded tracks and 2km of new tracks. Please refer to **Chapter 3 Description of the Proposed Development** for further details.
- 9.6.20 Due to intervening landform and surrounding vegetation / forestry, the access tracks would not be visible from any of the viewpoints. This confirms minimal landscape and visual effects on the surrounding receptors.
- 9.6.21 On completion of site construction, the site entrance and access tracks would be cleared of any construction signage and left in a tidy and co-ordinated condition with verges restored and field boundary fencing neatly tied into new gates / access details.



Site Access Landscape Plan

The post-consent detailed design of the site entrance (**Figure 9.18**) would be combined with a Landscape Plan setting out vegetation management which may require the establishment of new roadside vegetation to screen the access track from the Glen Afton Road.

Temporary Construction Compound

- 9.6.23 During the construction period, a temporary construction compound including laydown area (a maximum of 1,600m²) would be required as shown on **Figure 3.1**. The location has been selected partly because it has low landscape sensitivity and would not be visible from surrounding receptors due to intervening forestry and landform.
- The areas would be prepared by stripping soil, laying down a geotextile material and then a working surface of stone. The stripped soil would be stored adjacent to the compound for subsequent use in reinstatement works at the end of the construction period. The site compound and laydown area would be fully re-instated with stored turfs or excavated soil and / or re-seeded to match the local contours and the existing vegetation and accord with the integrated Wind Farm Forest Design Plan.

Wind Turbines and Transformers

- 9.6.25 The turbines would be three bladed variable speed, pitch regulated wind turbines with the rotor and nacelle mounted on a cylindrical tower as described in **Chapter 3 Description of the Proposed Development** of the EIA Report.
- The viewpoint analysis indicates that the turbines would frequently be viewed against the sky. For these reasons it is proposed that the standard turbine colour of pale grey would be most appropriate. The turbines would be uniform in colour (no company logos or advertising, with a semi-matt finish to reduce their contrast with the background sky and landscape and minimise their reflectivity. This measure would ensure a reasonable degree of parity between the proposed turbines and other existing, nearby turbines.
- The proposed turbines would all rotate in the same direction and at a slow and predictable speed of approximately 6 to 18 revolutions per minute according to wind speed.
- Once the wind turbines are erected, the area of hardstanding required for cranes would be re-turfed and / or covered in previously excavated topsoil material and left to revegetate or re-seeded according to the CMP / CEMP. A small area, approximately 10m by 10m, within the hardstanding would be retained for turning of operational vehicles.
- Depending on the turbine specifications chosen, the transformers would be housed internally.

Control Building

The main control building (20m x 10m) would have very low visibility from the surrounding areas due to the surrounding landform and forestry. The control building is illustrated in **Figure 3.7** and would be a single storey structure with car parking. Its colour would be selected to have a low contrast with the surrounding uplands and would be enclosed by a 2.4m high perimeter fence with a low visibility style and colour.



Electrical Cables and Grid Connection

9.6.31 All on-site electrical cables linking the turbines, substation and route to grid connection would be underground and buried within a trench alongside the internal access tracks.

Battery Storage Compound

A Battery Storage Compound would be constructed within the temporary construction compound area, its details and dimensions are within **Section 3.2**, **Chapter 3 – Description of the Proposed Development** of the EIA Report. To maintain the amenity and simplicity of the Southern Uplands with Forestry LCT, the colour of the associated battery modules, panels and transformer would be co-ordinated with that of the substation to have a low contrast with the surrounding landscape. These would also be enclosed by a 2.4m high perimeter fence with a low visibility style and colour. It would have minimal to no visibility from the surrounding areas due to the screening effects of the surrounding landform and forestry.

Operational Mitigation

- The operation of the Proposed Development would cover a period of 35 years and include site management to ensure the adequate maintenance of site facilities and landscape features, such as access tracks, field boundaries, gates, and signage.
- 9.6.34 The assessed levels of effects are likely to be at their greatest during the period of operation. However, the appearance of the Site would also recover a 'calmer' visual character with negligible levels of maintenance activity visible on the Site.

Decommissioning

- 9.6.35 For the propose of the assessment it has been assumed that the Proposed Development would be decommissioned at the end of its operational period. All visible, above ground structures (turbines, battery containers and control building) would be removed upon decommissioning, thereby rendering the vast majority of the landscape and visual effects as reversible. The site entrance and internal access tracks would remain as permanent features and would gradually re-vegetate in accordance with the level of use and or maintenance by the landowner.
- The assessed levels of effect during decommissioning would tend to decrease from operational levels to non-significant levels or Zero as the Proposed Development is dismantled. As with the construction period, although temporary, these works are likely to involve movement of machinery and visibility of contrasting construction activity, background noise and associated lighting.

9.7 Residual Landscape Effects

9.7.1 Landscape Effects are defined by the Landscape Institute in GLVIA 3, paragraphs 5.1 and 5.2 as follows.

"An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern ... is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. ... The area of landscape that should be covered in assessing landscape effects should include the site itself and the full extent of the wider landscape around it which the proposed Development may influence in a significant manner."



- These effects are assessed by considering the landscape sensitivity (value and susceptibility) against the magnitude of change. The assessment takes account of the cumulative landscape effects, 'in addition' to, and 'in combination' with, other existing and consented wind energy development and current wind farm applications, as set out in **Table 9.4**; and the periods of remaining operation of existing and consented wind energy development as set out in **Table 9.7**. The type of effect may also be described as temporary or permanent, direct or indirect, cumulative and positive, neutral, or negative, as defined within **Appendix 9A**.
- 9.7.3 The residual landscape effects assessed here are those effects remaining after all of the above mitigation measures have been taken into account.

Direct Effects on Landscape Character: Southern Uplands with Forestry LCT

Overview of the Landscape Character of the Development Site

- 9.7.4 Landscape character and cumulative wind farm development within 10km of the Development Site is illustrated in **Figure 9.14.**
- The Development Site is located within an extensive area of the Southern Uplands with Forestry (East Ayrshire) LCT, bounded to the north by an area of Southern Uplands LCT (East Ayrshire) and to the south by Southern Uplands and Forest LCT (Dumfries and Galloway). The Southern Uplands with Forestry LCT generally and Carsphairn Forest in particular are noted in both the EALWCS and the DGWLCS to be amongst those landscape character types generally most able to accommodate wind energy development.
- The topography is of rounded hills including Strandlud Hill (531m AOD), Milray Hill (526m AOD), Chang Hill (463m AOD), Benty Cowan Hill (477m), Ewe Hill (437m AOD) and Enoch Hill (569m AOD), typical of the *Southern Uplands* LCT and split by steep, incised gullies at Bitch Burn, Connel Burn and Small Burn within the northern and western parts of the LCT, with more gentle, although elevated, landform in the southern part of the Development Site (**Figure 9.15**). The landcover is predominantly coniferous forest plantation, which forms the northern Development Site boundary, structured with occasional rides and open areas of rough grassland.
- 9.7.7 The northern part of this area, along the B741 corridor, is sparsely settled with scattered properties and small groups, whilst there are no residential properties or settlements in the vicinity of the southern part of the Development Site. There are no particular features of interest, core paths or other recreational routes within the Development Site.
- The proposed turbines are located within the northern edge of the wider Carsphairn Forest which forms an extensive area of *Southern Uplands with Forest LCTs* in both East Ayrshire and Dumfries and Galloway. The partial 'containment' of the Development Site by landform and forestry within the Development Site and to the south and east has contributed to the limited ZTV coverage of these areas to the west, south and east as illustrated in the ZTVs, most noticeably in **Figure 9.4**. The most concentrated areas of ZTV are related to the Development Site area and land to the north and northeast, including the *Southern Uplands* LCT: *Benty Cowan Hill* unit, the *Southern Uplands with Forestry* LCT: *Strandlud Hill / Enoch Hill* unit and the *Upland Basin* LCT: *New Cumnock* unit.



Identification of the Landscape Character of the Development Site

- 9.7.9 The area of the Development Site is mainly within the Southern Uplands with Forestry LCT: Strandlud Hill / Enoch Hill = unit and partly within the Southern Uplands LCT: Benty Cowan Hill unit as classified by the EALWCS. However, the Proposed Development itself including the turbines and associated infrastructure is located within the Southern Uplands with Forestry LCT: Strandlud Hill / Enoch Hill unit. The proposed turbines are located on the partially forested summit of Strandlud Hill and predominantly located to the south of the Development Site area avoiding north facing hill slopes, which face on to the low lying and settled landscape of the Upland Basin LCT (15).
- 9.7.10 The boundary between different landscape character areas is rarely exact. Further site survey and analysis undertaken by the same landscape architects during the consented Enoch Hill Wind Farm, and its subsequent Section 36C Variation application, assessments led to the drawing of an alternative boundary between the two LCTs as illustrated in **Figure 9.14**. This assessment confirms that the whole of the Development Site has more in common with the *Southern Uplands with Forestry LCT* with the Development Site boundary being defined by the northern extent of the Pencloe Forest. This northern part of the Development Site was originally defined as lying within the *Southern Uplands* character type although the densely forested nature of the landscape and other characteristic attributes relating to landform, wind farm development and perceptions of remoteness clearly relate more closely to the *Southern Uplands with Forestry LCT*.
- 9.7.11 The Public Local Inquiry (PLI) Report for the consented Enoch Hill Wind Farm³⁴ recognised the fluidity between the *Southern Uplands with Forestry* LCT: *Enoch Hill unit* and the *Southern Uplands* LCT: *Benty Cowan Hill* unit noting that "this point is recognised by the EALWCS 2013 study which states that "landscape character types often have 'fluid' boundaries where a gradual transition can occur between adjacent landscape character types with similar characteristics … in this case, there is justification to assess the proposal in the context of the constraints/opportunities for both the southern uplands LCT and the southern uplands with forestry LCT." Both LCTs have therefore been included in this assessment.

Direct Landscape Effects: Southern Uplands with Forestry: Strandlud Hill / Enoch Hill and Carsphairn LCTs

- 9.7.12 The sensitivity ratings ascribed to the *Southern Uplands with Forestry* LCT in the EALWCS and the neighbouring *Southern Uplands with Forest* LCT: *Carsphairn* unit within the DGWLCS are summarised as follows:
 - EALWCS: Southern Uplands with Forestry LCT: Strandlud Hill / Enoch Hill unit High landscape sensitivity for additional new development of very large and large turbine typology (>70m);
 - DGWLCS: Southern Uplands with Forest LCT: Carsphairn unit Medium landscape sensitivity for new large turbine development (80 – 150m) and High to Medium sensitivity for new very large turbine development (>150m).
- 9.7.13 The EALWCS describes the sensitivity and capacity of the *Southern Uplands with* Forestry LCT to large and very large turbine development as follows:

"While the large scale and generally simple landform and land cover of these sparsely settled uplands reduce sensitivity to larger wind turbines, much of the less sensitive more gently rolling hills lying at the core of this landscape will be occupied by the consented

Report to the Scottish Ministers relating to case reference WIN-190-5 dated 14 March 2019.



South Kyle wind farm. Remaining areas of undeveloped ground are more sensitive as they either comprise more complex landform or lie closer to the Doon Valley and Dalmellington. Cumulative effects with other operational and consented wind farms could also be associated with additional development sited in the eastern parts of this landscape."

- It should be noted that all the key constraints identified above, which serve to increase the sensitivity of this landscape, relate to Loch Doon, the Upper Doon Valley and the settlement of Dalmellington, which would not be significantly affected by the Proposed Development and are visually remote from the Development Site. It should also be noted that the Proposed Development has been designed to integrate with the turbines of the existing South Kyle, and consented Enoch Hill and Pencloe wind farms.
- 9.7.15 Further to this, the guidance for the development section of the EALWCS considers the repowering of South Kyle from the consented turbine height of 149.9m to 200m and states at paragraph 15.3.2:
 - "Increases in turbine height to 200m were concluded as being likely to significantly exacerbate effects on the setting and views from the Loch Doon area. Turbines of this height would also be likely to incur cumulative effects with the nearby consented Benbrack wind farm (assuming this retains consented turbines of 130m height)."
- 9.7.16 Much of this advice is of limited relevance and is focused on Loch Doon from which there would be no visibility of the Proposed Development. Similarly, the concern about cumulative effects with Benbrack is also of limited relevance to the cumulative effects of the Proposed Development as it would be located on the other side of the South Kyle Wind Farm. The turbine height for the Proposed Development would match the height of South Kyle Wind Farm and would result in more uniformity of height in this LCT.
- 9.7.17 The Proposed Development would, however, be visible from the *Upland Basin LCT* (15) and cumulative effects are noted as a constraint in that respect. A further potential constraint is identified in the EALWCS as the "*Potential 'encirclement' and perceived domination of the settled Upland Basin (15) where the operational Hare Hill I and II wind farm, Afton and South Kyle wind farms and any development sited in the Foothills with Forestry and Opencast Mining (17a) and East Ayrshire Plateau Moorland (18a) would be seen in close proximity on containing skylines." This constraint is limited by the overlap of the Proposed Development with the South Kyle, Enoch Hill and Pencloe developments when viewed from the <i>Upland Basin* LCT (15).

Landscape Susceptibility and Value

- 2.1.2 Landscape susceptibility according to GLVIA 3 means "the ability of the landscape to accommodate the development without undue consequences for maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies". Common indicators of landscape susceptibility to wind farm development (NatureScot, 2022) are considered in **Table 9.8**, drawing from the broad scale advice from the EALWCS.
- 9.7.18 At a detailed site level, a range of landscape criteria or indicators of sensitivity / susceptibility to wind energy development have been considered as set out in **Table 9.8**. They indicate that the Development Site area has a Medium to Low sensitivity in respect of its physical and perceptual criteria and Medium sensitivity in respect of the visual criteria and landscape value. An overall sensitivity of Medium is concluded, due mainly to the following factors:
 - The key characteristics of this LCT (large scale, gently undulating landform, the influence of coniferous forestry, it's uninhabited nature and being visually remote from



- surrounding valleys, glens and basins) indicate a Medium to Low overall sensitivity and susceptibility to the Proposed Development.
- Although the Proposed Development is located within the Afton Sensitive Landscape Character Area ('SLCA') local landscape designation, it would not affect any of the key qualities or integrity identified by EAC when designating this area. The designation, however, does indicate a Medium landscape value.
- The condition and management of the landscape is considered to be reasonably good although the landscape quality of this area is considered to be Medium overall.
- The main landscape element (coniferous forestry) which covers the Development Site area within this LCT is considered to be of Low landscape sensitivity. The secondary vegetation type, rough grassland, is also considered to be of Low landscape sensitivity.
- In terms of settlement, the LCT is largely uninhabited with low levels of settlement occurring around the northern fringes and along the B741 to the north and there are also no particular tourist or recreational receptors, indicating Low sensitivity.
- In terms of the surrounding landscape context the Development Site is noted to be closely related as a 'backdrop' to the lowland settled landscape of the *Upland Basin* and associated receptors. In this respect, a High - Medium sensitivity is noted.

Table 9.8 Landscape Susceptibility of the Southern Uplands with Forestry: Strandlud Hill / Enoch Hill LCTs

Landscape Attributes	Characteristics that are less susceptible to wind energy development		Characteristics that are more susceptible to wind energy development		
	Low	Medium - Low	Medium	High - Medium	High
Physical Chara	cteristics:				
Scale	Larger scale landscapes and landform which may be more able to accommodate large scale wind turbines		Smaller scale well defined landforms which may become dominated or overwhelmed by wind turbines		
Landform and Topography	Simple upland plateau, gently rolling or flat landscapes as the turbines may be less easily scaled against the landform		Complex landforms with well-defined changes in level including ridges, steep sloping hillsides and narrow valleys.		
Land Cover	Large scale simple and homogenous land cover including moorland, grasslands, and large forestry plantations, where the simplicity of the land cover may complement turbines		Complex and diverse lar including a diversity of al grassland, trees / hedge open water of a small so may dominate.	rable fields, s / woodland,	
Pattern		I or rectilinear field element the modern nes.		Irregular small-scale pate medieval field patterns w	



Landscape Attributes	Characteristics that are less susceptible to wind energy development			Characteristics that are more susceptible to wind energy development		
	Low	Medium - Low	Medium	High - Medium	High	
				may overwhelm the sca pattern.	le and landscape	
Settlement pattern		tlement with relative and scale indicator		Populated areas and lov larger numbers of visual small-scale indicators.		
Other Development	mineral extractio	strial, infrastructure n land uses detrac cape sensitivity an evertical masts, py	ting from d value.	Rural / traditional forms including parks and gard monuments enhancing landscape sensitivity an	dens and the overall	
Change and Movement	significant mecha	s and other areas anised movement turbine blades ma	where	No roads or only quiet c where turbine blade mo eye catching		
Perceptual Cha	racteristics:					
Wildness and Naturalness	Area not valued characteristic or	for wildness as a k special quality.	ey	Area valued for wildness characteristic or special		
Remoteness	activities. Conversalued for wildne	loser to people and rsely, a remote are ess or tranquillity w mber of visual rece	ea not ould	Area that feels remote for human activities. Conversal landscapes that are sett would have a higher number receptors.	rsely, led / built up	
Rational / Windswept	turbines, though	ed landscapes whomore visible, may on windswept loca	be	Enclosed or sheltered labe of a smaller scale an for turbine locations.		
Visual Characte	eristics:					
Openness and Enclosure	Enclosed landscopportunities for	ape with limited long range views.		Open landscapes with clong range views.	pportunities for	



Landscape Attributes	Characteristics that are less susceptible to wind energy development			Characteristics that are more susceptible to wind energy development		
	Low	Medium - Low	Medium	l	High - Medium	High
Skyline	Broad simple skylines lacking in distinctive or 'landmark' topography.		Skylines which are an important and noticeable component in the landscape with 'landmark' topography.			
Landmarks	Landscapes with no sensitive landmark features where turbines might detract from settings		Landscapes with landmarks and features such as church spires and prominent listed buildings where turbines might compete as landscape foci and detract from settings			
Surrounding Context	Self-contained landscape with limited relationship with adjacent areas.		to the	capes that are clo adjacent / surroun of similar characte rop.	iding areas in	
					Upland Basin	
Overall Susceptibility			Medium	ı		

Overall Sensitivity

9.7.19 Drawing from this assessment, the sensitivity of the Development Site (Southern Uplands with Forestry LCT: Strandlud Hill / Enoch Hill unit) is assessed as Medium and between the 'high' sensitivity identified in the EALWCS and the 'medium' sensitivity identified in the DGWLCS for this landscape typology in this area.

Magnitude and Level of Effect: during Construction

- 9.7.20 The construction phase would result in localised direct landscape effects on the Development Site and its component landscape elements. These elements include coniferous forestry and rough grassland which are of low sensitivity. The construction works would affect localised areas where vegetation would require removal to facilitate access and introduction of the turbines, access tracks and associated infrastructure. The design approach is to minimise loss of existing trees through locating turbines and site infrastructure within open areas in the forest structure, however, small areas of existing forestry may be removed where the turbines are 'keyholed' into the forest as a result of micro-siting requirements. This would result in a magnitude of change ranging from Zero to Medium towards the completion of the Proposed Development. As a consequence, the likely landscape effects on the fabric and constituent elements of the landscape would range from **None** to **Moderate** (**Not Significant**).
- 9.7.21 In terms of wider effects on landscape character, the magnitude of change and nature of effect would range progressively from Zero to High during the construction phase. The



presence of dense mature tree cover within the Development Site would limit the potential for lower-level construction phase effects to be experienced more widely. Effects would be introduced as a consequence of the introduction of turbines requiring the use of tower cranes, Overall, the landscape effects on the Southern Uplands with Forestry LCT: Strandlud Hill / Enoch Hill unit would range from None, increasing to Substantial / Moderate (Significant) upon completion, due to the height and scale of the proposed turbines. The geographical extent of the significant effects would be limited to the immediate areas of the proposed turbines, within the Development Site itself (and part of the Southern Uplands with Forestry LCT: Strandlud Hill / Enoch Hill unit) due to the containment of coniferous forestry and landform. Landscape effects (None, increasing to Substantial / Moderate (Significant)) would also extend north, up to approximately 2km (affecting the East Ayrshire Southern Uplands LCT: Benty Cowan Hill unit) due to the presence of the turbines appearing beyond the summits of Chang Hill, Benty Cowan Hill and Ewe Hill. Although this area is considered to be more sensitive (High to Medium) some of the effects would be mitigated with much of the lower parts of the turbines screened by intervening landform and forestry as indicated in Viewpoint 2. The nature of these effects would be temporary to long-term (reversible) direct and negative due primarily to the height and scale of the turbines.

Magnitude and Level of Effect: during Operation

- 9.7.22 Removal of tower cranes, lower-level construction machinery and associated activity at the completion of the construction phase would allow the completed wind farm would gain a more simplified and 'settled' appearance. The long-term presence of the turbines would result in continued significant landscape effects through the operational period.
- The landscape effects on the Southern Uplands with Forestry: Strandlud Hill / Enoch Hill 9.7.23 LCT would be **Substantial / Moderate** (**Significant**) (High magnitude of change) due to the height and scale of the proposed turbines. The geographical extent of the significant effects would be limited to the immediate areas of the proposed turbines, within the Development Site itself (and part of the Southern Uplands with Forestry LCT: Strandlud Hill / Enoch Hill unit) due to the containment of coniferous forestry and landform. Significant landscape effects (Substantial / Moderate) would also extend north, up to approximately 2km (affecting the eastern part of the East Ayrshire Southern Uplands LCT: Benty Cowan Hill unit) due to the upper parts of the turbines appearing beyond the summits of Chang Hill, Benty Cowan Hill and Ewe Hill. Landscape effects on the East Ayrshire Southern Uplands LCT: Benty Cowan Hill unit as a result of the Development Site access, access track and proposed compounds would be extremely limited as a result of the screening of coniferous forestry. A very restricted part of the Southern Uplands with Forest: Carsphairn LCT in Dumfries and Galloway immediately to the south of the Development Site would experience Significant effects up to a maximum distance of 2km from the proposed southernmost turbine when forestry is included. The nature of all of these effects would be long-term (reversible) direct and negative.
- 9.7.24 These effects would not be significant in terms of the wider *East Ayrshire Southern Uplands* (with or without forestry) including the area of *Southern Uplands with Forest: Carsphairn LCT*, in Dumfries and Galloway.
- The primary and the additional effect of the Proposed Development would be **Substantial** / **Moderate (Significant**), extending up to approximately 2km where visible, to **None**. The nature of these effects would be long-term (reversible), direct, cumulative and negative.



Southern Uplands with Forestry LCT: Cumulative Landscape Effects on Existing + Consented Sites + Proposed Development

9.7.26 Within 10km of the Proposed Development, there are numerous existing and consented wind farms within the *East Ayrshire Southern Uplands with Forestry LCT*, and several others located close by that have a notable characterising influence on this LCT as follows:

Existing Wind Farms:

- ▶ South Kyle Wind Farm: 50 turbines, 30 of which are located within the *Southern Uplands with Forestry* LCT, the remainder of which are within the same character type (*Southern Uplands with Forest* LCT) in Dumfries and Galloway;
- ▶ Brockloch Rig Wind Farm: 36 turbines, 26 of which are located within the *Southern Uplands with Forest* LCT in Dumfries and Galloway;
- ▶ Brockloch Rig Extension Wind Farm: 30 turbines, 22 of which are located within the *Southern Uplands with Forest* LCT in Dumfries and Galloway;
- ▶ Afton Wind Farm: 25 turbines spanning both the *Southern Uplands* LCT and the *Upland Glen* LCT;
- ▶ Windy Rig Wind Farm: 12 turbines located in the Southern Uplands LCT;
- ▶ Hare Hill Wind Farm: 20 turbines, 17 of which are located within the *Southern Uplands* LCT, the remainder of which are within *Southern Uplands with Forest* LCT in Dumfries and Galloway;
- ▶ Hare Hill Extension Wind Farm: 35 turbines located in the Southern Uplands LCT;
- ▶ High Park Farm: One turbine located in the Southern Uplands LCT; and
- Mansfield Mains: One turbine located in the Upland Basin LCT.

Consented Wind Farms:

- ▶ Pencloe: 19 turbines located in the Southern Uplands with Forestry LCT;
- ► Enoch Hill: 16 turbines, located within the *Southern Uplands with Forest* LCT and *Southern Uplands* LCT;
- ▶ Brockloch Rig Phase III: 20 turbines located within the *Southern Uplands with Forest* LCT;
- Benbrack: 18 turbines located within the Southern Uplands with Forest LCT:
- North Kyle: 54 turbines located within the Foothills with Forest and Opencast Mining LCT;
- Over Hill: 10 turbines located within the Foothills with Forest and Opencast Mining LCT; and
- Sanquhar Six: 6 turbines located within the Southern Uplands with Forest LCT in Dumfries and Galloway.
- 9.7.27 The addition of other existing and consented wind farms to this area, in particular South Kyle, Enoch Hill and Pencloe, leads to a larger area of wind farm development or the creation of a 'wind farm landscape' in this area where according to SNH (2017).

"[The wind farms] appear as a dominant characteristic of the area, seeming to define the character type as a 'wind farm landscape character area'."



- The additional cumulative effect of adding the Proposed Development to the baseline 9.7.28 would be tempered by the presence of the existing and consented wind farms where wind farm development is already a defining or key characteristic of the landscape and where the effects of the Proposed Development would broadly overlap with the effects of the existing and consented wind farms in this area. The Proposed Development would appear as a closely related group or 'extension' to the South Kyle, Enoch Hill and Pencloe wind farms, effectively filling the gap between the respective consented wind farms and consistent with this pattern of development. The turbines proposed would also be of a similar height. As a result of the relatively restricted influence of the Proposed Development in relation to the stronger influence of the larger existing and consented schemes, the magnitude of change to the landscape character caused by the additional effect of the Proposed Development would be reduced to Low, resulting in a Slight to None level of effect (Not Significant). The nature of these effects would be cumulative, long-term (reversible), direct and negative to neutral, given the characterising influence of existing and consented wind farm development on this area.
- 9.7.29 The combined cumulative effect of the existing and consented schemes and the Proposed Development would be **Substantial / Moderate** (**Significant**) as a result of all of the large-scale wind farm development in this area, to None. Apart from Brockloch Rig and Hare Hill (subject to their life extension), Brockloch Rig Phase III and Benbrack, all other existing and consented schemes noted above would be decommissioned ~five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be cumulative, long-term (reversible), direct and negative.

Southern Uplands with Forestry LCT: Cumulative Landscape Effects on Existing + Consented + Applications + Proposed Development

- There are no application wind farms within the host *EAC Southern Uplands with Forestry* LCT. Other nearby applications may have an influence on this LCT, including Brockloch Rig Repower, Sanquhar II, Lorg Variation, Greenburn, Euchanhead, and Over Hill Variation. These applications could have a further characterising influence on the *Southern Uplands with Forestry* LCT within up to 2km of each development.
- The additional magnitude of change introduced by the Proposed Development in relation to this cumulative wind farm context would be **Low to Negligible** (due to the presence of existing, consented and application wind farms), resulting in a **Slight to Slight / Negligible** effect, to **None** (**Not Significant**). The nature of these effects would be cumulative, long-term (reversible), direct and negative to neutral, given the characterising influence of existing and consented wind farm development on this area.
- The combined cumulative effect of the existing, consented and application schemes and the Proposed Development would be **Substantial / Moderate** (**Significant**) as a result of all of the large-scale wind farm development in this area, which would extend across a large area of this LCT, to None. Apart from Brockloch Rig and Hare Hill (subject to their life extension), Brockloch Rig Phase III and Benbrack, all other existing and consented schemes noted above would be decommissioned ~five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be cumulative, long-term (reversible), direct and negative.

Magnitude and Level of Effect: During Decommissioning

9.7.33 During the decommissioning period, the Development Site would return to a construction site for a temporary period and as with the construction period, the level of effect would be variable over the Development Site and according to the phase of activity. In overall terms the magnitude would reduce from operational levels to Negligible magnitude with



the removal of the turbines and associated above ground infrastructure (excepting on-site access tracks). The residual landscape effect would be Slight / Negligible (Not Significant). The nature of these effects would be permanent, direct, and positive when compared to the pre-existing landscape of the local area.

Direct and Indirect Landscape Effects: Southern Uplands LCT: Benty Cowan Hill unit

- The Development Site area is partially located within the within the Southern Uplands LCT: Benty Cowan Hill unit as defined by the boundaries of the EALWCS and as such provides an alternative assessment in relation to direct and indirect landscape effects. However, it is worth noting that no elements of the Proposed Development (turbines, access tracks or any other infrastructure) would be located within the Southern Uplands LCT: Benty Cowan Hill unit.
- 9.7.35 The Southern Uplands LCT: Benty Cowan Hill unit forms part of an extensive area of the East Ayrshire Southern Uplands LCT identified within the EALWCS. The key characteristics of this LCT are described as follows:
 - "Within East Ayrshire, the Southern Uplands form steep-sided, rugged open hills strongly containing the Upland Glen (14) of Glen Afton and providing a dramatic backdrop to the low-lying Upland Basin (15);
 - Higher and particularly well-defined hills on the eastern edge of Glen Afton form landmark features and include the distinctly rugged Blackcraig Hill and Craigbraneoch Rig;
 - The hills to the west of Glen Afton are generally lower but still prominent because of their complex landform:
 - Land cover is simple, dominated by grass moorland; and
 - This landscape is not settled although it is highly visible from settlement and roads within the Upland Basin (15) to the north."
- 9.7.36 The EALWCS identifies the level of existing wind farm development as limiting the scope for further development with key constraints identified as the need to reduce intrusion on the adjacent settled *Upland Basin* and the *Upland Glen* LCTs of Glen Afton. Further potential concerns are expressed, relating to the intervisibility of different sized turbines and the potential for wind farm development to encircle the *Upland Basin* due to cumulative wind farm development extending over the skylines of the *Southern Uplands* LCT (20a), Foothills with Forest and Opencast Mining LCT (17a), and the *Plateau Moorlands* LCT (18a).
- 9.7.37 The EALWCS identifies the East Ayrshire *Southern Uplands* as being of High-Medium landscape sensitivity with no scope for 'very large' scale turbine development.

Landscape Susceptibility and Value

9.7.38 At a detailed site level, a range of landscape criteria or indicators of sensitivity / susceptibility to wind energy development have been considered as set out in **Table 9.9**. They indicate that the Development Site area has a Medium to Low sensitivity in respect of its physical and perceptual criteria and Medium sensitivity in respect of the visual criteria and landscape value. An overall sensitivity of Medium is concluded, due mainly to the following factors:



- The key characteristics of this LCT (large scale, gently undulating landform) indicate a Medium to Low overall sensitivity and susceptibility to the Proposed Development.
- The presence of the Afton SLCA local landscape designation indicates High-Medium landscape value.
- The condition and management of the landscape is considered to be reasonably good, although the landscape quality of this area in terms of its representativeness is considered to be Medium overall with the southern and northern edges partly transitional into adjacent areas of landscape character (Southern Uplands with Forestry and Upland Basin LCTs (15)) which are less representative of the LCT and further reduce its physical extent.
- The main landscape element (coniferous forestry) which covers the Development Site area within this LCT is considered to be of Low landscape sensitivity.
- In terms of settlement, the LCT is largely uninhabited with low levels of settlement occurring around the northern fringes and along the B741 to the north and there are also no particular tourist or recreational receptors, indicating Low sensitivity.
- In terms of the surrounding landscape context, the Development Site is noted to be closely related as a 'backdrop' to the lowland settled landscape of the *Upland Basin LCT* (15) and associated receptors. In this respect a High - Medium sensitivity is noted.

Table 9.9 Landscape Susceptibility of the Southern Uplands LCT: Benty Cowan Hill unit

Landscape Attributes	Characteristics that are less susceptible to wind energy development			Characteristics that are more susceptible to wind energy development		
	Low	Medium - Low	Medium	High - Medium	High	
Physical Charac	cteristics:					
Scale	Larger scale landscapes and landform which may be more able to accommodate large scale wind turbines		Smaller scale well defined landforms which may become dominated or overwhelmed by wind turbines			
Landform and Topography		ateau, gently rolling e turbines may be inst the landform		Complex landforms with changes in level includin sloping hillsides and nar	g ridges, steep	
Land Cover	Large scale simple and homogenous land cover including moorland, grasslands, and large forestry plantations, where the simplicity of the land cover may complement turbines		Complex and diverse lar including a diversity of a grassland, trees / hedge open water of a small so may dominate.	rable fields, s / woodland,		



Landscape Attributes	Characteristics that are less susceptible to wind energy development			Characteristics that are more susceptible to wind energy development		
	Low	Medium - Low	Medium	High - Medium	High	
Pattern		or rectilinear field lement the moderr nes.		Irregular small-scale pat medieval field patterns w may overwhelm the scal pattern.	here turbines	
Settlement pattern		tlement with relativand scale indicator		Populated areas and low larger numbers of visual small-scale indicators.		
Other Development	mineral extraction the overall landso	strial, infrastructure n land uses detrac cape sensitivity an vertical masts, py	ting from d value.	Rural / traditional forms of including parks and gard monuments enhancing the landscape sensitivity and	lens and he overall	
Change and Movement	significant mecha	s and other areas anised movement turbine blades ma	where	No roads or only quiet co where turbine blade moveye catching		
Perceptual Char	racteristics:					
Wildness and Naturalness	Area not valued f	or wildness as a k special quality.	ey	Area valued for wildness characteristic or special	•	
Remoteness	activities. Conver valued for wildne	oser to people and sely, a remote are ss or tranquillity w nber of visual rece	a not ould	Area that feels remote fr human activities. Conve- landscapes that are sett would have a higher nun receptors.	rsely, led / built up	
Rational / Windswept	turbines, though	ed landscapes whomore visible, may on windswept loca	be	Enclosed or sheltered la be of a smaller scale and for turbine locations.		



Landscape Attributes	Characteristics that are less susceptible to wind energy development		Characteristics that are more susceptible to wind energy development			
	Low	Medium - Low	Medium		High - Medium	High
Openness and Enclosure	Enclosed landsc opportunities for	ape with limited long range views.			landscapes with o ange views.	pportunities for
Skyline	Broad simple sky or 'landmark' top	ylines lacking in dis ography.	stinctive	notice	es which are an in able component ir andmark' topograp	the landscape
Landmarks		no sensitive landr urbines might detra		such a listed compe	scapes with landma as church spires and buildings where tu ete as landscape f settings	nd prominent rbines might
Surrounding Context	Self-contained landscape with limited relationship with adjacent areas.		ed	to the	scapes that are clo adjacent / surroun of similar characte lrop.	iding areas in
					Upland Basin	
Overall Susceptibility			Medium			

9.7.39 Drawing from this assessment, the sensitivity of *Southern Uplands* LCT: *Benty Cowan Hill* unit is assessed as *Medium*. In comparison, in the EALWCS, greater weight appears to have been given to the landscape context, landform and landmark topography noted in relation to Glen Afton, Blackcraig Hill (700m AOD in comparison to the 569m AOD at Enoch Hill) and the presence of other existing wind farm development, considered as a limiting factor rather than an opportunity. These factors are not particularly pertinent to the Development Site or this particular area of the *Southern Uplands* LCT: *Benty Cowan Hill* unit which is physically remote from Glen Afton and Blackcraig Hill. It should be noted that even if the sensitivity of this landscape was assessed as being High, in line with the EALWCS, any revised assessment would not alter the overall conclusions regarding the identification of a significant effect on this landscape.

Direct Landscape Effects

9.7.40 Although the Development Site is partially located within the *Southern Uplands: Benty Cowan Hill LCT*, no turbines, infrastructure or other types of built infrastructure or construction activity would be situated within the LCT and therefore it is concluded that there would be no direct landscape effects on the *Southern Uplands* LCT: *Benty Cowan Hill* unit.



Indirect Landscape Effects

9.7.41 The magnitude of change would be High and the primary landscape effects on the Southern Uplands: Benty Cowan Hill LCT would range from Substantial / Moderate and Significant to None (Not Significant). The geographical extent of the significant effects would extend to areas within approximately 2km. The nature of these effects would be long-term (reversible), indirect, and negative.

Southern Uplands LCT: Cumulative Landscape Effects on Existing + Consented Sites + Proposed Development

- There are no existing wind farms within the *Southern Uplands* LCT: *Benty Cowan Hill* unit, although the consented Enoch Hill Wind Farm would be partially located within the LCT. In addition, the Hare Hill Group, High Park Farm and Afton wind farms are located within the wider *East Ayrshire Southern Uplands LCT* to the east. The existing South Kyle and consented Pencloe, Sanquhar Six, North Kyle and Over Hill wind farms are also likely to have a characterising influence on this LCT considering their proximity and visibility from this landscape. The existing Brockloch Rig Wind Farm and Extension, Sanquhar, Sandy Knowe and Windy Rig wind farms are also visible within *Dumfries and Galloway Southern Uplands LCT* (approximately 2.5km distance).
- In relation to the wider context, the combined visibility of the Brockloch Rig Group and Hare Hill Group (including Afton) indicates an increase in the characterising influence of wind farms and their association with the upland areas generally. In that respect the Proposed Development would not appear incongruous or create a 'new' landscape characteristic. The combined cumulative effect of the existing and consented schemes and the Proposed Development would range from **Substantial / Moderate (Significant)** principally resulting from the introduction of the consented Enoch Hill Wind Farm affecting a localised area of the southern part of this LCT, to **None (Not Significant)**.
- The additional effect of adding the Proposed Development to the cumulative baseline scenario would range from Moderate to None (Not Significant). Although the size of individual turbines within the Proposed Development is comparable with other adjacent wind farm development, the overall scale of development is notably smaller than other schemes and as a consequence the characterising presence on this LCT would be limited in relation to the influence of other development. Apart from Brockloch Rig and Hare Hill (subject to their life extension), Brockloch Rig Phase III and Benbrack, all other existing and consented schemes noted above would be decommissioned ~five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be cumulative, long-term (reversible), direct and negative to neutral, given the characterising influence of existing and consented wind farm development on this area.

Southern Uplands: Cumulative Landscape Effects on Existing + Consented + Applications + Proposed Development

- 9.7.45 There are no application wind farms within the *Southern Uplands* LCT: *Benty Cowan Hill* unit; however, other wind farm applications are located within the wider *East Ayrshire Southern Uplands* LCT to the east including parts of Sanquhar II and Lorg Variation.
- 9.7.46 The nearby applications Greenburn, Over Hill Variation, Euchanhead, Brockloch Rig Repower, Sanquhar II and Lorg Variation wind farms are visible from most of this landscape. The cumulative effects of Sanquhar II, Euchanhead, Lorg Variation, on the *Southern Uplands* LCT: *Benty Cowan Hill* unit would not be significant due to the intervening distance and forestry (Low Magnitude).



The additional effect of adding the Proposed Development to the baseline would remain Moderate to None (Not Significant). The combined cumulative effect of the existing, consented and application schemes and the Proposed Development would range from Substantial / Moderate (Significant), extending out from the Development Site to approximately 2km, to None (Not Significant). Apart from Brockloch Rig and Hare Hill (subject to its life extension), all other existing and consented schemes noted above would be decommissioned ~five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be cumulative, long-term (reversible), direct and negative to neutral given the characterising influence of existing and consented wind farm development on this area.

Other Indirect Effects on the Surrounding Landscape Character

- 9.7.48 Effects on the *Upland Basin* LCT: *New Cumnock* unit are assessed in **Table 9.10**.
- In summary, there would be no significant indirect effects on the surrounding landscape character as a result of the Proposed Development. This is due mainly to the size and scale of the host LCT which acts as a buffer around the Proposed Development, separating it from adjacent areas of more sensitive landscape character. Whist there would be significant visual effects on the views from the *Upland Basin* LCT: *New Cumnock* unit to the north, views of the Proposed Development would not be so widespread or sufficiently influential as to significantly change or affect the existing landscape character which includes existing wind farm development.

Table 9.10 Other Indirect Effects on Surrounding Landscape Character within 10km

Landscape
Character Type

Assessment

Upland Basin LCT: New Cumnock unit The *Upland Basin* LCT: *New Cumnock* unit forms a low-lying, small-scale landscape, at the head of the upper Nith Valley, which is encircled by surrounding hills with the *Southern Uplands* LCT to the south, the *Foothills with Forest and Opencast Mining* LCT to the west, and the *East Ayrshire Plateau Moorlands* LCT to the north. The *Upland Basin* LCT is a contemporary rural landscape with a strong mining heritage, the character of which is also influenced by wind farm development. **Figure 9.14** indicates a large area of the *Upland Basin* LCT which contains substantial areas of open-cast mining which has changed the topography and landscape character of this area.

The landscape sensitivity of the *Upland Basin* LCT to wind farm development located within it is considered to be *High* (turbines >70m) by the EALWCS. However, the western areas have been strongly influenced by open-cast mining, reducing the landscape sensitivity to wind farm development due to its unsettled nature and the extent of large-scale earthworks changing the topography and character of this part of the LCT. Other areas of this landscape include areas of restored mining and have higher levels of intervening vegetation screening as at Knockshinnoch Lagoons or include built up areas and woodland in the form of roadside trees, shelter belts, riverside woodland and copses that provide some screening of wider views from the lower lying areas of the *Upland Basin* LCT. Wider and more open views are available from more elevated areas of the *Upland Basin* LCT particularly along the edges, being viewed at longer distances, with wide panoramas across the Upland Basin towards the enclosing hills.

A small part of this LCT is locally designated as Afton SLCA, indicating High-Medium value. The susceptibility to change due to the introduction of the Proposed Development is considered to be Medium as the effects would be indirect and due to



Landscape Character Type

Assessment

the nature of the larger scale views with greater intervening distances, the screening levels from more lowland areas, and the effects of existing and past open cast mining. The sensitivity is therefore assessed as *Medium*.

Assessment: Proposed Development

The Proposed Development would be located approximately 4km distance to the south of the LCT with the most distant part of the *Upland Basin* LCT extending to 10-10.5km distance in the north. The ZTV coverage within this area is widespread although visibility of the Proposed Development would be limited by intervening topography and, from elsewhere within the LCT, theoretical visibility would often be reduced by intervening vegetation which would provide screening. Viewpoints 2, 4, 6, 7 and 8 (**Figures 9.23**, **Figure 9.25** and **Figure 9.27-29**) are located within this LCT. Much of this area and the associated views to the south are already partly characterised by views of the existing Hare Hill, Afton, High Park Farm and Brockloch Rig wind farms, and the Proposed Development would not appear incongruous in that respect, or otherwise significantly affect the overall rural character of this area. Views south towards the elevated landform comprising the *Southern Uplands* LCT are characteristic of this area where open views are available in that direction. Views in other directions approaching from the south and southwest would not be affected.

The magnitude of change would range from Low to Negligible, to Zero and the addition of the Proposed Development would lead to a **Moderate / Slight to None** (**Not Significant**) effect. The Proposed Development would add to the existing presence of wind farm development rather than introduce a 'new' characteristic feature to the southern horizon in terms of landscape character although there would be significant visual effects on views from some locations. The nature of these effects would be long-term (reversible) indirect and negative.

Cumulative Assessment: Proposed Development + Existing + Consented Sites The consented North Kyle (High magnitude) would be partly located within the Upland Basin LCT: New Cumnock unit and would have a significant effect on the western area of the LCA within 2km of the turbines. Other wind farm development including the existing Hare Hill and Extension (Low magnitude), Afton, Brockloch Rig / Extension and Windy Rig (Negligible magnitude), High Park Farm and South Kyle (Medium magnitude), Brockloch Rig Phase III, Enoch Hill, Pencloe, Benbrack and Sanguhar Six (Medium magnitude) would be, or currently are, visible from this area and have a characterising influence on the southern horizons, the effect of which is Slight (Not Significant). To the west, the consented Over Hill Wind Farm (Low magnitude) would also have a characterising influence on the western parts of the LCT. The Proposed Development would be situated on the skyline in the gap between the Brockloch Rig / Pencloe and South Kyle / Enoch Hill wind farm groups and would generally be perceived as a relatively small extension within the overall pattern of development. The additional effect of the Proposed Development would remain Moderate / Slight to None (Not Significant). The combined effect would be Substantial / Moderate and (Significant) (due to High Park, Enoch Hill, Pencloe, South Kyle and North Kyle) to None. The nature of these effects would be long-term (reversible), cumulative, indirect and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented + Applications</u>

There are no application wind farms within the *Upland Basin* LCT: *New Cumnock* unit; however, Greenburn (High magnitude) is located on the edge of this LCT. Other wind farm applications including Brockloch Rig Repower, Sanquhar II, Over Hill Variation, Lorg Variation, and Euchanhead would be visible from the *Upland Basin* LCT and further reinforce the appearance of wind farm development on the surrounding horizons (ranging from Medium to Low magnitude). The Proposed



Landscape Character Type	Assessment
	Development would be perceived as a relatively minor addition to the overall pattern of wind development as perceived from this LCT. The additional effect of the Proposed Development would remain Moderate / Slight to None (Not Significant). The combined effect with other existing, consented and application wind farms would be Substantial / Moderate (Significant) (due to High Park, Enoch Hill, Pencloe, South Kyle, North Kyle and Greenburn) to None . The nature of these effects would be long-term (reversible), cumulative, indirect and negative.

Landscape Designations

- 9.7.50 The only landscape designation within 10km that has been included in this assessment is the locally designated Afton Sensitive Landscape Character Area ('SLCA').
- 9.7.51 With regard to the special qualities and value of the SLCA, SNH (2017) note that landscapes may be locally valued for many reasons and advise that:
 - "A wind farm will not necessarily be incompatible with valued qualities of a landscape; this will depend on the nature of the development and the nature of the landscape qualities."
- 9.7.52 In the same document SNH advise further:
 - "The key test applied in relation to NSAs, but often employed for other valued landscapes too, is whether impacts would affect the integrity of a valued landscape."
- 9.7.53 Within their Spatial Planning for On-Shore Wind Turbines Guidance, page 20, SNH also advise that 'landscape accommodation' may be an appropriate approach for wind farms sites in Spatial Planning Group 2 and 3 areas:
 - "Within local landscape designations and Wild land Areas, the degree of landscape protection will be less than for National Scenic Areas. In these areas, an appropriate objective may be to accommodate wind farms, rather than seek landscape protection."

[And:]

"The aim of landscape accommodation is to retain the overall character of the landscape yet accepting that development may be allowed which will have an impact on the landscape at the local scale. Development fits within the landscape and does not change its character to a significant extent."

- 9.7.54 The Landscape Institute (GLVIA 3, paragraphs 5.46-47) further advises as follows:
 - "An internationally, nationally or locally valued landscape does not automatically or by definition have high susceptibility to all types of change."
 - "It is possible for an internationally, nationally or locally important landscape to have relatively low susceptibility to change resulting from the particular type of development in question, by virtue of both the characteristics of the landscape and the nature of the proposal."
 - "The particular type of change or development proposed may not compromise the specific basis for the value attached to the landscape."

Afton SLCA

9.7.55 The Development Site, including all of the proposed turbines, access track, control building, battery storage and associated infrastructure, would be located within the Afton



- SLCA, a local designation. The SLCA area covers the entire Afton Valley as well as the Muirkirk Uplands area to the north of the A76. Viewpoints 3, 9 and 10 are all located within the SLCA. Viewpoints 4 and 7 are located on the edge of the SLCA.
- 9.7.56 SLCA are designated within the Ayrshire Joint Structure Plan (2007) to "provide protection for high quality landscapes".
- 9.7.57 EAC undertook a review of SLCAs in East Ayrshire formalised in the *Background Paper:* Sensitive Landscape Areas (March 2015). Page 3 of this document reflects the SNH guidance noted above, and notes that local landscape designations are not intended to prevent wind energy development.
 - "Instead, it requires development proposals to fully consider the qualities that make the landscape valuable and to seek sites and design solutions that respect these qualities and minimise adverse impacts."
- 9.7.58 Originally the designation was based on a sensitivity assessment of landscape character, undertaken as part of the Ayrshire Joint Structure Plan in 1999 and 'whole' landscape character areas were included. That assessment jointly assessed the Southern Uplands and Southern Uplands with Forestry LCTs as of inherently Medium / High and Low / Medium sensitivity respectively, in terms of their landscape resource; scenic quality; unspoilt character; sense of place; and conservation interest.
- Table 1 of the EAC Background Paper describes the "Characteristics and Sensitivities of the Landscape Character Areas included within the Sensitive Landscape Area" describing the key characteristics and why the area is sensitive. The document notes the increased presence of wind farm development and re-confirms the local landscape designation.
- 9.7.60 The document defines the key qualities of the *Southern Uplands LCT* and the *Southern Uplands with Forestry LCT* (in East Ayrshire) which warranted their inclusion within the SLCA as follows:
 - the "well defined, steep-sided hills on the eastern edge of Glen Afton, Blackcraig and Craigbraneoch" are "important landmark features" which provide "spectacular views", and which include the area of Southern Uplands to the east of Glen Afton as an important area for recreation and hillwalking.
 - "the steep sided, rugged open hills of the Southern Uplands form a dramatic backdrop to the adjacent low-lying upland basin and form an important part of East Ayrshire's southern skyline".
 - The eastern edge of the Southern Uplands with Forestry LCT however is included to provide "an important buffer between Glen Afton and the non-forested section of the Southern Uplands, and helps provide a logical boundary to the Sensitive Landscape Area"

Afton SLCA: Landscape Sensitivity

As a local landscape designation, not of the highest or national level, the value of the Afton SLCA is assessed as High to Medium. The susceptibility of this landscape to change is considered to range from High to Medium in reference to the range of LCTs that are located within the SLCA boundary and previously assessed. Taking account of these factors, the overall sensitivity of the Afton SLCA is assessed as *High*.

Primary Assessment of the Proposed Development

9.7.62 ZTV coverage within the SLCA remains almost constant within 2km of the Proposed Development with fragments where there is no theoretical visibility beyond Maneight Hill,



Strandlud Hill, Ewe Hill, Hillend Hill and Stony Knowes Hill. Thereafter, theoretical visibility becomes increasingly more fragmentary and is present along the west-facing slopes of the *Southern Uplands LCT* to the east of the Development Site such as those of The Knipe (575m) and Blackcraig Hill (700m), and on the southern slopes of Muirkirk Uplands to the north of the A76. Elsewhere in the SLCA there is fragmented theoretical visibility on west facing slopes and hill summits at higher elevations.

An assessment of the special qualities, drawn from EAC's Background Paper (Table 5), the consented Enoch Hill Wind Farm LVIA, and further site survey observations, has been used to provide an assessment of the SLCA and the effects of the Proposed Development on its special qualities and integrity in accordance with GLVIA3 (page 84). This assessment is set out in **Table 9.11** and paragraphs 9.6.63-67 below.

Table 9.11 Effects on the special qualities of the Afton SLCA

Special Qualities

Assessment

Southern Uplands / Southern Uplands with Forestry: Enoch Hill 2 the Proposed Development Site

<u>Landscape Quality / Condition /and</u> Representativeness:

The Development Site is a relatively well maintained and representative area of *Southern Uplands with Forestry* **LCT**. The Development Site is less representative in in relation to the characteristics of the EALCS designated *Southern Uplands LCT*. It lacks any dramatic or rugged topography and is not a 'landmark hill' or feature.

The value and quality of this attribute is weak and although representative of its character type, the quality and condition of the landscape is not indicative of SLA designation.

The Proposed Development would have **no effect** on these physical aspects and would appear as a 'clean' and well-designed scheme with no ground level clutter.

Scenic Quality:

The landscape of the Development Site forms an unremarkable part of a range of rounded hills with incised valleys which are often covered with coniferous forestry with incised valleys. It is not frequented by hill walkers.

The value and quality of this attribute is weak and not indicative of SLA designation. The Proposed Development would have a *Moderate* effect on the overall backdrop of hills, avoiding the main foci at Afton Glen and the landmark hills such as Blackcraig.

Rarity:

The Southern Uplands / Southern Uplands with Forestry LCT are part of a wider landscape character type that extends into Dumfries and Galloway and across much of Southern Scotland.

The Development Site is unremarkable as part of this wider resource.

The landscape is not 'rare', and the Proposed Development would have *no effect* on this attribute, which is not representative of special quality.

Conservation Interests:

There are no particular conservation interests within the Development Site.

The Proposed Development would have **no effect** on this attribute, which is not representative of special quality.

Recreation Value:

There are no or limited recreational interests within the Development Site.

The Proposed Development would have **no effect** on this attribute, which is not representative of special quality.



Special Qualities

Assessment

Perceptual Aspects:

The dense coniferous plantation which covers the majority of the Development Site promotes a sense of seclusion although other perceptual aspects such as a sense of wildness or naturalness are diminished as a consequence of the commercial nature of the plantation.

The Proposed Development would have **no effect** on this attribute, which is not representative of special quality.

Historic, Artistic or Cultural Associations:

The Development Site is not noted or 'celebrated' for these associations.

The Proposed Development would have **no effect** on this attribute, which is not representative of special quality.

- Much of the sensitivity of the Afton SLCA is determined by potential effects on the Glen Afton valley. ZTV analysis and site survey has shown that there would be limited intervisibility between the Proposed Development and the Glen Afton valley landscape reducing the potential for the presence of turbines to be a characterising influence. Visibility of the proposed turbines would be available from the summits of some landmark hills including Blackcraig Hill although opportunities to view the Proposed Development against these landmark features are limited and the qualities of these, which are described as "well defined, steep-sided hills", would not be affected. Similarly, whilst limited sequential views of the Proposed Development may be available to the west of the summits of Blackcraig Hill, Hare Hill and Laglass Hill, there would be no visibility to the east of these summits within the wider area of this part of the Southern Uplands LCT. It is not considered that the extent of available views would affect the overall experience of walking in the landscape.
- 9.7.65 Significant effects would be limited to a very restricted area of the landscape character within the Afton SLCA where the turbines would be perceived in isolation or as the dominant component in views where other wind farm development is perceptible. The Development Site and adjacent landscape is not noted in the document as part of the special qualities of the SLCA. The landscape has weakened perceptions of naturalness and wildness as a result of coniferous forestry and wind farm development. Whilst certain views available from the "adjacent low-lying upland basin" towards the "backdrop of the Southern Uplands" would be significantly affected (for example, Viewpoint 4: New Cumnock Cemetery (Figure 9.25a-e) field surveys have confirmed that the Proposed Development, where visible, would be experienced in a wide visual context or panorama and coinciding with western 'buffer' areas that are less 'dramatic' than the Afton Glen.
- 9.7.66 Although there would be a significant effect on part of the landscape character within the Afton SLCA, it is not considered that the special qualities of the SLCA, its integrity or the reasons for its designation would be significantly affected, and there would be little or no visibility from within the Glen Afton valley, which forms the focus of the SLCA in this area. The Development Site is not particularly representative of the special qualities and attributes expected for SLCA designation and in many ways this part of the SLCA is unremarkable in landscape designation terms. The magnitude of change is assessed as Low, and the level of effect would be **Moderate to None (Not Significant)**. The nature of these effects would be indirect, long-term (reversible), and negative.



Cumulative Assessment: Proposed Development + Existing + Consented Sites

There are a number of wind farms within the Afton SLCA and some on the boundary to 9.7.67 the south, east and northeast. These include Hare Hill, Hare Hill Extension, Afton, Pencloe, High Park Farm and Mansfield Mains within the SLCA and Brockloch Rig, Brockloch Rig. Sanguhar and Nutberry to the south, east and northeast as well as the consented Windy Rig to the south, South Kyle and Enoch Hill to the west and Sandy Knowe, Lethans, Glenmuckloch, Penbreck and Kennoxhead to the east. The magnitude of change due to the existing and consented wind farms within and close to the Afton SLCA would range from Medium (generally where more wind development would be perceived from more elevated parts of the SLCA) to Negligible (from lower elevations where the characterising presence of other wind farms is less influential). The additional effects of the Proposed Development would be reduced to Slight to None (Not Significant) principally as a result of the introduction of the consented Pencloe Wind Farm which would introduce an influential presence in the intervening landscape as perceived in views from large areas of the SLCA. The combined cumulative effect would be **Substantial / Moderate** (**Significant**) (due to Afton, Hare Hill and Extension, Enoch Hill and Pencloe) to **None**. The nature of these effects would be long-term (reversible), cumulative, and negative.

Cumulative Assessment: Proposed Development + Existing + Consented + Applications

The only application wind farm within the SLCA is Sanquhar II and Lorg Variation (Medium magnitude). Euchanhead would also have an influence on the SLCA. Greenburn, Sandy Knowe Extension and Brockloch Rig Repower are also located close to the SLCA (all Low magnitude). The additional effects of the Proposed Development would remain Slight to None (Not Significant). The combined cumulative effect would be Substantial / Moderate (Significant) (due to Afton, Hare Hill and Extension, Enoch Hill, Pencloe, Sanquhar II, Euchanhead and Lorg Variation) to None. The nature of these effects would be long-term (reversible), cumulative, and negative.

9.8 Residual Visual Effects

- Visual effects are assessed by considering the sensitivity of the receptor (people in the landscape) and the magnitude of change that would affect the view or overall visual amenity. They are defined by the Landscape Institute in GLVIA 3, paragraphs 6.2 as follows:
 - "An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity. The concern here is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements."
- 9.8.2 The type of effect may also be described as temporary or permanent, direct or indirect, cumulative and positive, neutral, or negative. The assessment methodology is set out in **Appendix 9A**.
- The residual visual effects assessed here are those effects remaining after all of the embedded design mitigation and enhancement measures have been taken into account.
- 9.8.4 The visual assessment has been set out as follows:
 - Overview of Visual Effects during Construction, Operation and Decommissioning;
 - Visual Effects on Views from Settlements and Residential Properties;



- Visual Effects on Views from Transport Routes;
- Visual Effects on Views from Recreational Routes; and
- Visual Effects on Views from Recreational and Tourist Destinations.
- Visualisations of the Proposed Development are provided from 13 viewpoint locations and illustrated in **Figures 9.22a-e** to **9.34a-e**. Each of the viewpoints are assessed in a separate appendix (**Appendix 9B**).
- The ZTV and viewpoint analysis indicate that the significant visual effects would extend out in a north and northeast direction, primarily affecting views from the Upland Basin, including the southwestern edge of New Cumnock within approximately 6.8km from the nearest turbine locations as indicated by Viewpoints 2 and 4 (Figures 9.23a-e and 9.25a-e). Significant visual effects would also extend out to the south-west affecting views from the Southern Uplands with Forest where there are gaps in forestry within approximately 4.7km from the nearest turbine locations as indicated by Viewpoint 1 (Figure 9.22a-e). Taking a precautionary approach, and drawing from best practice guidance, the visual assessment has therefore been focused on receptors within 10km.

Overview of Visual Effects during Construction, Operation and Decommissioning

- The majority of the significant visual effects would be experienced as a result of the proposed turbines during the operational period, and this forms the main focus of the assessment. However, the visual effects associated with the construction and decommissioning phases of the Proposed Development and the infrastructure components also have the potential to be significant. The location and layout of the Proposed Development is shown in **Figure 1.1**, **Figure 3.1A** and **Figure 3.1B**.
- In general terms, visual effects associated with the construction phase would increase from Zero at the start of construction, and progressively increase, until they are at the same levels as that predicated for the operational effects once the turbines are constructed. The Development Site area is largely covered with mature coniferous forestry plantation which would screen visibility of much of the lower-level activity associated with the construction phase. The construction effects, although temporary, are likely to involve greater movement of machinery and visibility of contrasting construction activity, background noise and associated lighting. The nature of these effects would be temporary, direct, and negative. Some construction activities may be remote from the Site (access works) and / or temporary (temporary construction compounds) and subject to restoration on completion of the construction period.
- The only additional significant visual effects during construction would be experienced from a very small number of residential properties and users along Glen Afton Road at Burnfoot and Lochbrowan around the Site entrance. None of these receptors would experience significant visual effects during operation.
- Post construction and during operation, the appearance of the Proposed Development would recover a 'calmer' visual character with negligible levels of maintenance activity visible on-site from the nearest visual receptors, particularly in combination with the screening effects of forestry. It is during this period however, that the majority of significant visual effects would be experienced as a result of the proposed turbines. This is discussed in detail in relation to each of the visual receptor groups within the remainder of this chapter.
- During decommissioning, the wind farm would return to a construction site for a temporary period and the level of visual effect would gradually reduce with the removal of the



turbines, the substation building, energy compound and eventually any temporary construction compounds, required during the decommissioning. Therefore, the visual effects likely to be experienced during the decommissioning period would be largely reversed and would not be significant on completion of the decommissioning. As with the construction period, although temporary, these works are likely to involve greater movement of machinery and visibility of contrasting construction activity, background noise and associated lighting. The internal tracks and Site access would remain as a permanent feature for use by the landowner but would 'grass over' subject to the level of use. In overall terms the level of visual effect would reduce to non-significant levels (Slight) and the nature of these effects would be permanent, direct, and neutral when compared to the pre-existing baseline landscape of the local area.

Visual Effects on Views from Settlements

- 9.8.12 Settlements, defined in the EAC and DGC Local Development Plans, within 10km of the Proposed Development are identified on **Figure 9.19**. The visual effects likely to be experienced from settlements include consideration of residential areas, the public realm and public open spaces within the settlement boundaries that would be frequented by people.
- 9.8.13 The sensitivity of each of these receptors (people) at settlements has been assessed as *High*.

Visual Effects on Views from Settlements within 10km

- The visual effects on settlements within 10km, including Bankglen, Connel Park, Leggate and New Cumnock (including Pathhead) are described in **Table 9.12.**
- 9.8.15 In summary there would be a significant cumulative visual effect on the views from parts of New Cumnock as a result of the Proposed Development and other cumulative development. There would be no significant visual effects on any other settlements.

Table 9.12 Visual Effects on Settlements within 10km

Settlement	Assessment
Bankglen	Bankglen is a small settlement located to the southwest of New Cumnock on the B741 at approximately 6.2km distance to the northeast of the Proposed Development.
	Assessment: Proposed Development The blade tip ZTV indicates that residents would potentially be able to view both turbines, although in practice, visibility from the settlement would be restricted to the areas where views towards the Proposed Development are not obstructed by buildings, localised landform and vegetation, such as Glen Park. Wirelines indicate that the Proposed Development would be theoretically visible with both hubs visible affecting a relatively narrow, 4°, horizontal Field of View (FoV) on the background skyline, adding to other wind farm development. Field surveys confirmed that roadside, garden vegetation, individual trees and groups of mature trees to the southwest of the settlement would screen the majority of views. Viewpoint 2 (Figure 9.23a-e) and the B741 sequential viewpoint 6 (Figure 9.21d) are located just outside the settlement boundary and illustrate the maximum visibility of the Proposed Development as one exits the settlement. They are not representative of views from within the settlement. The magnitude of visual change experienced by residents from within the settlement would range from Low to Zero. The effect of the Proposed Development on views from Bankglen would range from Moderate to



Assessment

No View (**Not Significant**) and the nature of these effects would be long-term (reversible), indirect, and negative. The effect would not be significant due to the overall limited extent of affected settlement as a result of screening by buildings, landform and vegetation.

Cumulative Assessment: Proposed Development + Existing + Consented Sites There will be simultaneous views with the existing Brockloch Rig and Extension and South Kyle wind farms to the south and southwest (all Negligible to Zero magnitude) at between 6-9km distance. The consented North Kyle would be visible to the west at approximately 5km distance (Medium to Zero magnitude), and Pencloe and Enoch Hill wind farms (both Low to Zero magnitude) would be visible to the south and southwest at approximately 4.8 - 5.3km distance. Existing wind farms visible in other directions include Afton, Windy Rig, High Park Farm and Hare Hill / Extension (all Low to Zero magnitude). Consented wind farms that would be visible to the west and northeast include Over Hill, Lethans and Glenmuckloch (all Low to Negligible, to Zero magnitude). The magnitude of change of existing and consented wind farms would be Medium to Zero. The additional effect of the Proposed Development would be Moderate to No View and (Not Significant). The combined cumulative effect would be Substantial / Moderate (Significant) (due to North Kyle) to No View (Not Significant). The nature of these effects would be long-term (reversible), cumulative, and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

The application Sanquhar II Wind Farm (Low to Zero magnitude) would be theoretically visible to the southeast at approximately 8km distance along with Brockloch Rig. Greenburn (Medium to Zero magnitude) and Over Hill Variation (Low to Zero magnitude) would be visible at between 3-5km distance. The magnitude of change of application wind farms would be Medium to Zero. The additional effect of the Proposed Development would be Moderate to No View (Not Significant). The combined cumulative effect would be Substantial / Moderate (Significant) (due to North Kyle and Greenburn) to No View (Not Significant). The nature of these effects would be long-term (reversible), cumulative, and negative.

Connel Park

Connel Park is a small settlement located to the southwest of New Cumnock on the B741 at approximately 6.4km distance to the northeast of the Proposed Development.

Assessment: Proposed Development

The blade tip ZTV and wireline analysis indicates that residents would potentially view both turbines, although in practice visibility from the settlement would be restricted to the areas where views towards the Proposed Development are not obstructed by buildings, local landform and vegetation. B741 Sequential Viewpoint 7 (**Figure 9.21d**), indicates that the visibility of the Proposed Development would be limited. Where visible, the Proposed Development would affect a relatively narrow, horizontal FoV on the background skyline, adding to other wind farm development. The magnitude of visual change experienced by residents would range from Low to Zero. The effect of the Proposed Development on views from Connel Park would range from **Moderate to No View** (**Not Significant**) and the nature of these effects would be long-term (reversible), indirect, and negative. The effect would not be significant due to the overall limited extent of affected settlement as a result of screening by buildings, landform and vegetation.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites</u>
The existing South Kyle Wind Farm (Low to Negligible, to Zero magnitude) would be visible to the right of the Proposed Development at approximately 7km distance.



Assessment

The consented Pencloe, Enoch Hill and the existing Afton wind farms would be visible to the south at over 5km distance (all Low to Zero magnitude). The consented North Kyle would be visible to the west at approximately 6km distance (Negligible to Zero magnitude). The existing High Park Farm (Low magnitude) and Hare Hill (Negligible to Zero magnitude) would also be visible to the southeast at approximately 2.2km and 4km distance respectively, although the contribution would not be significant due largely to the screening of intervening landform. The consented Over Hill Wind Farm would be visible to the west at approximately 7.5km distance (Low to Negligible, to Zero magnitude). The magnitude of change of existing and consented wind farms would be Low to Zero. The additional effect of the Proposed Development would be Moderate to No View (Not Significant). The combined cumulative effect would also be Moderate to No View (Not Significant). The nature of these effects would be long-term (reversible), cumulative, and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Sanquhar II (Low to Zero magnitude) would be visible to the southeast at approximately 7km distance along with Brockloch Rig Repower. Greenburn would be visible at 3km distance (Medium to Zero magnitude). The magnitude of change of application wind farms would be Medium to Zero. The additional effect of the Proposed Development would be Moderate to No View (Not Significant). The combined cumulative effect would be Substantial / Moderate (Significant) (due to Greenburn) to No View (Not Significant). The nature of these effects would be long-term (reversible), cumulative, and negative.

Leggate

Leggate is a small settlement located immediately to the northeast of Connel Park on the B741 at approximately 6.5km distance to the northeast of the Proposed Development.

Assessment: Proposed Development

The blade tip ZTV and wireline analysis indicates that residents would potentially view both turbines although in practice visibility from the settlement would be restricted to the areas where views towards the Proposed Development are not obstructed by buildings, local landform and vegetation. Field survey confirms that a localised area of rising landform and mature vegetation in the intervening landscape to the south / southwest progressively screens views towards the east of the settlement. The magnitude of visual change experienced by residents would range from Low-Negligible to Zero. The effect of the Proposed Development on views from Leggate would range from Moderate / Slight to No View (Not Significant) and the nature of these effects would be long-term (reversible), indirect, and negative.

Cumulative Assessment: Proposed Development + Existing + Consented Sites
The existing South Kyle Wind Farm (Low to Negligible, to Zero magnitude) would be visible beyond the Proposed Development at approximately 7km distance. The consented Pencloe, Enoch Hill and existing Afton wind farms would be visible to the south at over 5.6km distance (all Low to Zero magnitude). The consented North Kyle would be visible to the west at approximately 6km distance (Negligible to Zero magnitude). The existing High Park Farm (Low magnitude) and Hare Hill (Negligible to Zero magnitude) would also be visible to the southeast at approximately 2.2km and 4km distance respectively, although the contribution would not be significant due largely to the screening of intervening landform. The consented Over Hill Wind Farm would be visible to the west at approximately 7.5km distance (Low to Negligible to Zero magnitude). The magnitude of change of existing and consented wind farms would be Low to Zero. The additional effect of the Proposed Development would be Moderate / Slight to No View (Not Significant). The



Assessment

combined cumulative effect would be **Moderate to No View** (**Not Significant**). The nature of these effects would be long-term (reversible), cumulative, and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Sanquhar II (Low to Zero magnitude) would be visible to the southeast at approximately 7km distance along with Brockloch Rig Repower. The application Greenburn (Medium to Zero magnitude) and Over Hill Variation (Low to Zero magnitude) wind farms would be visible at 3km-6km distance. The magnitude of change of application wind farms would be Medium to Zero. The additional effect of the Proposed Development would be Moderate / Slight to No View (Not Significant). The combined cumulative effect would be Substantial / Moderate (Significant) (due to Greenburn) to No View (Not Significant). The nature of these effects would be long-term (reversible), cumulative, and negative.

New Cumnock

New Cumnock is a small town located on the A76 trunk road at the junction with the B741 to the south of Cumnock at approximately 6.6km distance to the northeast of the Proposed Development. New Cumnock is situated at the confluence of the River Nith and Afton Water. The main body of the settlement is situated to the south of the River Nith, whilst Pathhead a secondary smaller area, is located to the north of the river.

Assessment: Proposed Development

Viewpoint 4: New Cumnock Cemetery (Figure 9.25a-e) is located close to the settlement boundary of New Cumnock at approximately 6.8km distance from the nearest turbine. The visual effects are assessed (Appendix 9B) as Moderate and Significant. Viewpoint 7: Pathhead, New Cumnock Cemetery (Figure 9.28a-e) is located within Pathhead at approximately 8.6km distance from the nearest turbine. The visual effects are assessed (Appendix 9B) as Moderate (Not Significant). The blade tip ZTV and wireline analysis indicates that residents would potentially view both turbines including both hubs across the settlement affecting a relatively narrow, horizontal FoV on the background skyline and perceived in relation to other existing wind farm development. Field survey confirms that visibility from the settlement would principally be restricted to the areas on the south-western edges of the settlement and restricted areas of Pathhead where the elevated situation allows views across the wider New Cumnock townscape towards the Southern Upland skyline as illustrated in Viewpoint 7. The overall magnitude of change experienced by residents would range from Low to Zero. The effect of the Proposed Development on views from New Cumnock would range from Moderate (Significant) to No View (Not Significant). The significant effects are mainly due to the appearance of the two turbines against the sky at over 6.6km distance, appearing in a part of the landscape where there are no other existing turbines These significant effects would be experienced by a limited number of visual receptors in the restricted areas of the settlement where open views towards the Southern Uplands, including Connel View / the Cemetery / elevated views from Pathhead, and the Proposed Development is available. The nature of these effects would be long-term (reversible), indirect, and negative.

Cumulative Assessment: Proposed Development + Existing + Consented Sites
The consented North Kyle (Medium to Zero magnitude) would be visible at
approximately 4km distance to the west. The existing South Kyle Wind Farm (Low
to Zero magnitude) would be visible to the right of the Proposed Development at
approximately 7.5km distance. There would also be simultaneous views with the
consented Pencloe Wind Farm (Medium-Low to Zero magnitude) and Enoch Hill
Wind Farm (Medium to Zero magnitude) at approximately 5-7km distance, the
existing Afton (Low-Negligible to Zero magnitude of change) and Brockloch Rig and
Extension (both Negligible magnitude). Mansfield Mains (Negligible to Zero



Assessment

magnitude) would be visible at approximately 3km distance to the northeast. The consented Over Hill (Low to Zero magnitude) would be visible at approximately 9km distance to the west and the consented Lethans and Glenmuckloch (both Negligible to Zero magnitude) wind farms would be visible over 8km distance to the northeast. The magnitude of change of existing and consented wind farms would be Medium to Zero. The additional effect of the Proposed Development would be Moderate to No View (Not Significant). The Proposed Development would appear as a limited component of the wider array of turbines visible from the settlement. The wider array of turbines appear as a similar size and distance to the proposed turbines. Although the two turbines would occupy a 'gap' on the skyline rather than overlapping with other wind farm development, the apparent gap would be partly occupied by turbines from South Kyle and the proposed turbines appear more as part of a wider array of turbines. The combined cumulative effect would be Substantial / Moderate (Significant) (due to Enoch Hill, Pencloe, North Kyle and the Proposed Development) to No View (Not Significant). Enoch Hill, Pencloe and North Kyle would be decommissioned ~five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible), cumulative, and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

The application Greenburn (Medium to Zero magnitude) and Over Hill Variation (Low to Zero magnitude) wind farms would be visible at 4km-6km distance to the west. Sanquhar II (Negligible to Zero magnitude) would be theoretically visible as blade tips to the southeast with limited visibility of Brockloch Rig Repower (Low to Zero magnitude). The magnitude of change of application wind farms would be Medium to Zero. The additional effect of the Proposed Development would be Moderate to No View (Not Significant). The combined cumulative effect would be Substantial / Moderate (Significant) (due to Pencloe, Enoch Hill, North Kyle, Greenburn and the Proposed Development) to No View (Not Significant). Enoch Hill, Pencloe and North Kyle would be decommissioned ~five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible), cumulative, and negative.

Visual Effects on Views from Transport Routes

- This section of the assessment considers the visual effects on views from the transport routes within 10km. Those routes which are overlapped by the ZTV and included in the assessment are listed as follows:
 - A76 between Cumnock and east of New Cumnock;
 - B741 between Auchenroy and New Cumnock; and
 - Glasgow to Carlisle railway line near New Cumnock.
- 9.8.17 The views from these routes would be experienced transiently by road users (mainly drivers and where appropriate cyclists and walkers) who would experience the Proposed Development as part of the changing sequence of views experienced from the road. Each of these routes were driven or travelled in both directions in order to assess the potential effects and each assessment has been assisted on site with the use of sequential wirelines transects, ZTV maps and True View Visuals 3D augmented reality software. The assessment has also taken account of other wind farms visible from these routes.



- In summary, there would be significant visual effects on the views from parts of one road, the B741 within approximately 5-6km distance of the Proposed Development, between east of Burnside and west of Bankglen.
- None of the other transport routes would be significantly affected by views of the Proposed Development. The Proposed Development would be visible from the A76 and railway line when approaching New Cumnock from the north and east within the 10km study area. These views would be experienced intermittently and transiently, from a moving position, experienced as part of a much wider context, with the views restricted to southbound users and for these reasons the visual effects are not assessed as significant.

Table 9.13 Visual Effects on Views from Transport Routes

Transport Route

Assessment

A76 between Cumnock and east of New Cumnock (overlaps with the Burns Heritage Trail) The A76 is orientated in a northwest-southeast direction between Kilmarnock to Dumfries in the wider study area, and forms part of the Burns Heritage Trail. The route passes to the northeast of the Proposed Development at approximately 7.6km distance at its closest point at New Cumnock. Viewpoints 12 and 13 are located along this route with Viewpoints 7 and 8 located close to the route.

Although the route forms part of the Burns Heritage Trail, there are no heritage features of interest along this part of the route. The route also passes through the Afton SLCA to the east of New Cumnock indicating a High to Medium value. Most of the road users would experience the landscape transiently whilst driving or cycling and experiencing a sequence of views, often in one direction focused on the direction of travel and often experienced at speed (Medium susceptibility). As a result, the overall sensitivity of this route is assessed as *Medium*.

Assessment: Proposed Development

This section of the route within 10km is approximately 9km in length and whilst there would be widespread theoretical visibility of the Proposed Development between New Cumnock and Black Loch as illustrated by the ZTV, in reality, intervening vegetation, roadside cuttings and built form would reduce this as described below. Any potential views of the Proposed Development would be experienced obliquely when travelling southeast and south from Cumnock towards New Cumnock over 7.6km from the Proposed Development. Where visible, the Proposed Development would affect a relatively narrow, horizontal FoV on the background skyline, adding to other wind farm development. The magnitude of change would range from Low to Zero resulting in visual effects which would range from Slight to No View (Not Significant). The nature of these effects would be long-term (reversible), indirect, and negative.

Cumulative Assessment: Proposed Development + Existing + Consented Sites A number of existing wind farms would be visible in the same view as the Proposed Development including High Park Farm (Medium to Zero magnitude), Afton (Low to Negligible, to Zero magnitude), South Kyle (Low to Zero magnitude), and Brockloch Rig / Extension and Windy Rig (all Negligible to Zero magnitude). The consented Enoch Hill would be visible in conjunction with the Proposed Development along most of the route such that the Proposed Development would be perceived as a minor extension to these wind farms (Medium to Low, to Zero magnitude). The consented Pencloe (Medium to Zero magnitude) would also often be seen in the same views as the Proposed Development. Other wind farms visible include the existing Hare Hill Wind Farm and Extension (Low to Negligible, to Zero magnitude) and the consented North Kyle (Low magnitude), Brockloch Rig Phase III, Glenmuckloch, Lethans, Over Hill and Mansfield Mains (all Negligible to Zero magnitude). The additional effect of the Proposed Development would remain Slight to No View (Not Significant). The combined effect would be Moderate (Significant) (due to High Park Farm, Enoch Hill and Pencloe) to No View (Not



Transport Route

Assessment

Significant). The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Sanquhar II, Brockloch Rig Repower and Lorg Variation (Low to Zero magnitude) would be visible in the same views as the Proposed Development. Greenburn (Medium to Zero magnitude) and Over Hill Variation (Low to Zero magnitude) would occasionally be visible in views to the southwest. Euchanhead would also be simultaneously visible as blade tips (Negligible to Zero). Brockloch Rig Repower (Low to Zero magnitude) would be visible to the south. The additional effect of the Proposed Development would remain **Slight to No View (Not Significant)**. The combined effect would be **Moderate (Significant)** (due to High Park Farm, Pencloe, Enoch Hill and Greenburn) to **No View (Not Significant)**. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

B741 between Auchenroy and New Cumnock

The B741 connects New Cumnock to Girvan. The section of the route within 10km of the Proposed Development has been sequentially assessed between Auchenroy and New Cumnock as illustrated in **Figures 9.21a-e**. The route passes to the north of the Proposed Development at approximately 4.3km distance at its closest point near Dalleagles. Viewpoint 2 (**Figure 9.23a-e**) is located on this route to the west of Bankglen.

The route passes through the Doon Valley SLCA and the edge of the Afton SLCA indicating a higher value. Most of the road users would experience the landscape transiently whilst driving or cycling and experiencing a sequence of views, often in one direction focused on the direction of travel and often experienced at speed (Medium susceptibility). The overall sensitivity of receptors using this route is assessed as *High to Medium*.

Assessment: Proposed Development

Visibility of the Proposed Development along this route would tend to be limited to the upper parts of the turbines because of the elevated landform at the edge of Southern Uplands providing a foreshortening presence in the intervening landscape. View of turbines would generally be experienced intermittently and obliquely from a moving position along the road and subject to further intermittent screening from vegetation and built form at between approximately 4.8-13km distance. Each of the sequential viewpoints illustrated in **Figures 9.21a-d** are described as part of the assessment as follows:

Sequential Viewpoint 1: Auchenroy to Dalmellington (Figures 9.21a)

Travelling east from Auchenroy towards Dalmellington, the route would be within ZTV coverage for a distance of approximately 1km. The blade tips of both turbines would be theoretically visible at approximately 12.6km distance, beyond other wind farms, although roadside vegetation is present and would screen most of these views. The magnitude of change would be Zero.

There would be no visibility of the Proposed Development between this point and Dalmellington to the east.

<u>Sequential Viewpoints 2 to 3: Dalmellington to Nith Bridge</u> (Figures 9.21b, c) Beyond Dalmellington, travelling east, there is no theoretical visibility of the Proposed Development until a section of the route approximately 5.5km-6.5km to the east of Dalmellington. There would be very limited visibility of the blade tip of turbine 1) of the Proposed Development from this section of the route due to the screening effects of landform and roadside vegetation and / or forestry. The magnitude of change would range from Negligible to Zero.



Transport Route

Assessment

Sequential Viewpoints 4: Nith Bridge to Burnside (Figure 9.21c)

There would be very limited visibility of the blade tip of turbine 1) of the Proposed Development from this section of the route due to the screening effects of landform and roadside vegetation and / or forestry. The magnitude of change would range from Negligible to Zero.

<u>Sequential Viewpoints 5 to 8: Burnside to New Cumnock (Figure 9.21d, e)</u>
Between Burnside to New Cumnock visibility of both turbines would be intermittently available on the Southern Uplands skyline to westbound road users. The extent of visibility would vary depending on the influence of intervening landform and roadside vegetation / built development. Magnitude of change would range from Medium to Zero.

In summary, the overall magnitude of change would range from Medium to Zero and the effect would range from **Substantial / Moderate (Significant)** (between east of Burnside and west of Bankglen) to **No View (Not Significant)**. The nature of these effects would be long-term (reversible), indirect, and negative.

Cumulative Assessment: Proposed Development + Existing + Consented Sites A number of existing and consented wind farms are visible from parts of this route. The existing Brockloch Rig and Extension and Afton wind farms are occasionally visible to the southwest of New Cumnock (Low to Negligible, to Zero magnitude). The existing South Kyle Wind Farm (Medium-Low to Zero magnitude) would be frequently visible in the same views as the Proposed Development. The consented Enoch Hill Wind Farm (High-Medium to Zero magnitude) and the consented Pencloe Wind Farm (Medium to Zero magnitude) would often be visible in the same views as the Proposed Development. The consented North Kyle and Over Hill wind farms would be visible to the northwest (High-Medium to Zero magnitude). Other visible wind farms include the existing High Park Farm, Hare Hill and Extension, Dersalloch, Mansfield Mains and Bankend Rig (all Low to Zero magnitude). The consented Polquhairn and Penbreck, Lethans (all Negligible to Zero magnitude) would also be theoretically visible from parts of this route within 10km. The additional effect of the Proposed Development would be reduced to **Moderate** (Significant) (due to the presence of other wind farms and the Proposed Development would appear as a limited component of the wide array of turbines visible) to No View (Not Significant). The combined effect would be Substantial to Substantial / Moderate (Significant) (due to the Proposed Development, Enoch Hill, South Kyle, Pencloe, North Kyle and Over Hill) to No View (Not Significant). South Kyle, North Kyle, Enoch Hill, Pencloe and Over Hill would be decommissioned approximately five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Greenburn would be visible to the northwest at close proximity to the route (High to Zero magnitude). Sanquhar II would occasionally be visible in the same views as the Proposed Development (Medium to Zero magnitude). Brockloch Rig Repower and Lorg Variation would be occasionally visible from the eastern end of the route (both Low to Zero magnitude). Over Hill Variation would be visible to the northwest (High-Medium to Zero magnitude). Polquhairn Variation (Negligible to Zero magnitude) would also be theoretically visible from parts of this route within 10km. The additional effect of the Proposed Development would be reduced to **Moderate** (**Significant**) (due to the presence of other wind farms and the Proposed Development would appear as a limited component of the wide array of turbines visible) to **No View** (**Not Significant**). The combined effect would be **Substantial** (**Significant**) (due to the Proposed Development, South Kyle, Pencloe, Enoch Hill,



Transport Route

Assessment

Over Hill, North Kyle, Greenburn, Over Hill Variation and Sanquhar II) to **No View** (**Not Significant**). South Kyle, North Kyle, Enoch Hill, Pencloe and Over Hill would be decommissioned approximately five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

Glasgow to Carlisle Railway Line

The Glasgow to Carlisle railway line is located to the northeast of the Proposed Development at approximately 8.3km distance at its closest point. The route is aligned with River Nith Valley and is also partially situated within the Afton SLCA to the east of New Cumnock indicating a High to Medium value. Rail users would experience a sequence of views at speed generally resulting in short-lived transient views of the landscape at oblique angles to the direction of travel (Medium susceptibility). As a result, the overall sensitivity of this route within 10km is assessed as *Medium*.

Assessment: Proposed Development

ZTV coverage indicates that both turbines would be theoretically visible from the section of the route to the north of New Cumnock within 10km. Clear, open views of the turbines would be available from much of this part of the route. In practice, the turbines would only be viewed by passengers viewing from sections of the railway line that would be broadly perpendicular to the Proposed Development and not subject to intervening screening of landform, cuttings, vegetation and built form. Where visible, the Proposed Development would affect a relatively narrow, horizontal FoV on the background skyline, adding to other wind farm development. The magnitude of change would range from Low to Zero and the effect would be Moderate / Slight to No View (Not Significant). The nature of these effects would be long-term (reversible), indirect, and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites</u> A number of existing wind farms would be visible in the same view as the Proposed Development including High Park Farm (Medium to Low, to Zero magnitude), Afton (Low to Negligible, to Zero magnitude), Windy Rig (Negligible to Zero magnitude), South Kyle (Medium to Low, to Zero magnitude) and Brockloch Rig and Extension (both Negligible magnitude). Sandy Knowe would be visible to the south, east of New Cumnock (Medium to Zero magnitude). The consented Enoch Hill wind farm would be visible in conjunction with the Proposed Development along parts of the route such that the Proposed Development would be perceived as a minor extension to the South Kyle and Enoch Hill (Medium to Low, to Zero magnitude). The consented Pencloe (Medium to Low, to Zero magnitude) would also often be seen in the same views as the Proposed Development. Other wind farms visible include the existing Hare Hill Wind Farm and Extension (Low to Negligible, to Zero magnitude) and the consented North Kyle (Low to Zero magnitude), Brockloch Rig Phase III, Glenmuckloch, Lethans, Over Hill and Mansfield Mains (all Low-Negligible / Negligible to Zero magnitude). The additional effect of the Proposed Development would remain Moderate / Slight to No View (Not Significant). The combined effect would be Moderate (Significant) (due to Sandy Knowe) to No View (Not Significant). The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Sanquhar II (Medium to Low, to Zero magnitude) would be visible in the same views as the Proposed Development. Greenburn would occasionally be visible in views to the southwest (Low to Zero magnitude). Sandy Knowe Extension would be visible to the south of the route (Medium to Zero magnitude). The additional effect of the Proposed Development would remain **Moderate / Slight to No View (Not Significant)**. The combined effect would be **Moderate (Significant)** (due to Sandy



Transport Route	Assessment
	Knowe / Extension) to No View (Not Significant). The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

Visual Effects on Views from Recreational Routes

- 9.8.20 The visual assessment has considered the potential visual effects likely to be experienced by people (walkers / cyclists / horse riders / joggers / others) on recreational routes within the Study Area.
- 9.8.21 Each of these routes were walked and / or visited and walked in sections according to the ZTV coverage and the assessment has been assisted on site with the use of sequential wirelines.
- All of the routes have been assessed as of *High* sensitivity on account of their High to Medium value as recreational routes, often routed through locally designated landscapes and the High susceptibility of the people using these routes, mostly walkers and cyclists, whose attention would be focused on the landscape around them.
- 9.8.23 The routes are illustrated in **Figures 9.18-19**, assessed in **Table 9.14** and listed as follows:
 - Core Paths and Rights of Way:
 - EAC Core Path No. C10: Coalfield Cycle Route;
 - EAC Core Path No. C11: Knockshinnoch Lagoons (part of Knockshinnoch Lagoons);
 - EAC Core Path No. C12: New Cumnock Circular;
 - DGC Core Path No. 183 / 667: Circular route within Carsphairn Forest;
 - DGC Core Path No. 594: Between Knockengorroch and Lamford;
 - Rights of Way d and e (numbered 'a-g' on Figure 9.19); and
 - Additional publics of Way around Lochside Hotel and north of New Cumnock.
 - Heritage Paths and Scottish Hill Tracks:
 - Heritage Path and Scottish Hill Track 84: Afton Road (also part Core Path C10: Coalfield Cycle Route).
- 9.8.24 The Burns Heritage Trail is assessed in **Table 9.13** above.
- 9.8.25 In summary, significant visual effects would affect views from parts of the following recreational routes:
 - EAC Core Path No. C10: Coalfield Cycle Route (partly overlapped by Scottish Hill Track 84: Afton Road, part of the New Cumnock Path Network);
 - EAC Core Path No. C12: New Cumnock Circular;
 - DGC Core Path No. 183 / 667: Circular route within Carsphairn Forest; and
 - Right of Way 'e' between Afton Road and EAC Core Path No. 12.



Table 9.14 Visual Effects on Views Recreational Routes

Receptor

Description of Effects

EAC Core Path
No. C10: Coalfield
Cycle Route
(partly overlaps
with Heritage Path
and Scottish Hill
Track 84: Afton
Road, part of the
New Cumnock
Path Network)

The EAC Core Path No. 10 is located at approximately 4km distance at its closest point to the Proposed Development. It is a long 22km route within 10km, following a C road north of Glaisnock Moss to Connel Park, after which it passes through the south-western edge of New Cumnock and follows Afton Road until Afton Reservoir. Heritage Path and Scottish Hill Track 84: Afton Road overlaps with this route along Afton Road. A section of the New Cumnock Path Network also overlaps with this route along Afton Road near the cemetery.

Assessment: Proposed Development

The majority of the route south of New Cumnock along Afton Road is outwith the ZTV. However, a short stretch near New Cumnock Cemetery overlaps with the ZTV where the Proposed Development would be visible as illustrated by Viewpoint 4 (Figure 9.25a-e) (Low magnitude). A short section of the route near the existing Afton Wind Farm also overlaps with the ZTV, however, it is within forestry and would not have views of the Proposed Development. Between the western edge of New Cumnock and Connel Park, visibility would be limited due to intervening screening by landform, vegetation and / or built form (Low to Zero magnitude). To the north of Connel Park, visibility would become more limited due to intervening rising landform of Hungry Hill, and intermittent vegetation along the route. However, where visible, the turbines would be seen on the Southern Uplands skyline and would be perceived in relation to views of opencast workings (Low magnitude). The Proposed Development would affect a narrow, horizontal FoV on the background skyline. The magnitude of change would range from Low to Zero and the effect would be Moderate (Significant) to No View (Not Significant). Significant effects would be experienced for short sections of the route where the direction of travel is orientated towards the Proposed Development and the visual attention of walkers would be focussed on the Southern Uplands skyline. The nature of these effects would be long-term (reversible) indirect and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites</u> The existing Brockloch Rig and Extension wind farms would be visible to the south and west from parts of the route (both Low-Negligible to Zero magnitude). Afton would also be visible to the south, most prominent along southern parts of Afton Road and as it passes through the wind farm (High to Zero magnitude). The consented South Kyle (Medium-Low), Enoch Hill and Pencloe wind farms (both Medium to Zero magnitude) would be simultaneously visible to the south and southwest. The consented Over Hill and North Kyle wind farms (Medium to Zero magnitude) would be visible to the west. The existing High Park Farm (Low to Zero magnitude) and the existing Hare Hill and Extension wind farms (both Low-Negligible to Zero magnitude) would be visible to the southeast and east. Other wind farms visible including Mansfield Mains, Lethans and Glenmuckloch would be of Negligible magnitude due to intervening landform, built form and / or vegetation. The additional effect of the Proposed Development would be Moderate to No View (Not Significant). The Proposed Development would appear as a limited component of the wider array of turbines visible from these routes. The wider array of turbines appears as a similar size and distance to the proposed turbines. Although the two turbines would occupy a 'gap' on the skyline rather than overlapping with other wind farm development, the apparent gap would be partly occupied by turbines from South Kyle and the proposed turbines appear more as part of a wider array of turbines. The combined effect would be Substantial / Moderate (Significant) (due to the Proposed Development, Afton, South Kyle, Enoch Hill, Pencloe, North Kyle and Over Hill) to No View (Not Significant). South Kyle, North Kyle, Pencloe, Enoch Hill and Over Hill would be decommissioned approximately five years prior to the end of the operation of the Proposed



Receptor

Description of Effects

Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Greenburn would be visible to the west from northern sections of the route (High-Medium to Zero magnitude) along with Over Hill Variation. Sanquhar II and Euchanhead would be visible from most sections of this route, most prominent along the southern parts of Afton Road (High to Zero magnitude) along with Lorg Variation. Brockloch Rig Repower would be visible beyond Afton (Low to Zero magnitude). The additional effect of the Proposed Development would be **Moderate to No View (Not Significant)**. The combined effect would be Substantial (**Significant**) (due to the Proposed Development, Afton, South Kyle, Enoch Hill, Pencloe, Over Hill, North Kyle, Greenburn, Over Hill Variation, Euchanhead, Lorg Variation and Sanquhar II) to **No View (Not Significant**). South Kyle, North Kyle, Pencloe, Enoch Hill and Over Hill would be decommissioned approximately five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

EAC Core Path No. C11: Knockshinnoch Lagoons This route is assessed as part of Knockshinnoch Lagoons visitor attraction in **Table 9.15**.

EAC Core Path No. C12: New Cumnock Circular

The EAC Core Path No. 12 is located at approximately 4.7km distance at its closest point to the Proposed Development. The route starts at the junction of the B741 with Boig Road west of New Cumnock and follows a loop round the southern edges of Bankglen, then through Cascaya, Lanemark, Hungry Hill before re-joining the B741 back at Bankglen.

Assessment: Proposed Development

ZTV coverage indicates that views of the Proposed Development would be available from the majority of this route. Visibility would be more restricted for the section of the route where built form and vegetation would screen views of the turbines. Viewpoint 2 (**Figure 9.23a-e**) and the B741 sequential viewpoint 6 (**Figure 9.21d**) is located close to this route where it crosses the B741 which illustrates that both turbines including hubs would be visible, affecting a relatively narrow, horizontal FoV on the background skyline. The magnitude of change would range from Medium to Zero and the effect would be **Substantial / Moderate (Significant**) to **No View (Not Significant**). Significant effects would be experienced for short sections of the route where the direction of travel is orientated towards the Proposed Development and the visual attention of walkers would be focussed on the Southern Uplands skyline. The nature of these effects would be long-term (reversible) indirect and negative.

Cumulative Assessment: Proposed Development + Existing + Consented Sites
The existing Brockloch Rig and Extension wind farms would be visible in the same
view to the south (both Low-Negligible to Zero magnitude) at approximately
between 7-8.2km distance. Afton would also be visible to the south at approximately
6km distance (Low to Zero magnitude). The consented South Kyle, Enoch Hill and
Pencloe wind farms (all Medium to Zero magnitude) would be visible in the same
view to the south and southwest at approximately between 4-5.4km distance. The
consented Over Hill and North Kyle (Medium to Zero magnitude) would be visible to
the west at approximately 4km distance. The existing High Park Farm (Low to Zero
magnitude) and the existing Hare Hill and Extension wind farms (both LowNegligible to Zero magnitude) would be visible to the southeast at approximately



Receptor

Description of Effects

between 2.8-5km distance. Other wind farms visible including Mansfield Mains, Lethans and Glenmuckloch would be of Negligible magnitude due to intervening landform, built form and / or vegetation. The additional effect of the Proposed Development would be reduced to **Moderate** (**Significant**) (due to the presence of other wind farms and the Proposed Development would appear as a limited component of the wide array of turbines visible) to **No View** (**Not Significant**). The combined effect would be **Substantial / Moderate** (**Significant**) (due to the Proposed Development, South Kyle, Enoch Hill, Pencloe, North Kyle and Over Hill) to **No View** (**Not Significant**). South Kyle, Pencloe, Enoch Hill, North Kyle and Over Hill would be decommissioned approximately five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Greenburn would be visible to the west at approximately 3.5km distance to the route (High-Medium to Zero magnitude). Over Hill Variation (Medium to Zero magnitude) would be visible to the west at approximately 4km distance. Sanquhar II (Medium to Zero magnitude), Brockloch Rig Repower and Lorg Variation (Low to Zero magnitude) would be visible to the southeast. The additional effect of the Proposed Development would be reduced to Moderate (Significant) (due to the presence of other wind farms and the Proposed Development would appear as a limited component of the wide array of turbines visible) to No View (Not Significant). The combined effect would be Substantial to Substantial / Moderate (Significant) (due to the Proposed Development, South Kyle, Enoch Hill, Pencloe, Over Hill, Over Hill Variation, North Kyle, Greenburn and Sanquhar II) to No View (Not Significant). South Kyle, Pencloe, Enoch Hill, North Kyle and Over Hill would be decommissioned approximately five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

DGC Core Path No. 183 / 667: Circular route within Carsphairn Forest Core Path 183 / 667 is formed mostly from forest roads and is a circular route in the Carsphairn Forest of approximately 7.8km in length. A view from this route is illustrated by Viewpoint 1 (**Figure 9.22a-e**).

Assessment: Proposed Development

Viewpoint 1 (Figure 9.22a-e) illustrates a clear view towards the Proposed Development from along the route (4,737m). Large parts of the route are almost entirely within coniferous woodland and views would be largely screened by forestry or outwith the ZTV with limited visibility of the Proposed Development. Where visible through gaps in forestry, views would be similar to those in Viewpoint 1. South Kyle, Pencloe, Enoch Hill, North Kyle and Over Hill would be decommissioned approximately five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. Felling operations are on-going, and it is likely that the levels of tree screening would alter during the operational period with forest trees in the foreground growing up to restrict this view, whilst other views from the path, currently screened could be opened up by felling. The magnitude of change would range from Medium to Zero, and the effect would be Substantial / Moderate (Significant) to No View (Not Significant). These significant effects would reduce to No View due to further tree growth through the operational period of the Proposed Development. The nature of these effects would be long-term (reversible), indirect and negative to neutral.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites</u>
Views are heavily enclosed by coniferous forestry and theoretical views would be available of the existing Brockloch Rig (Low to Zero magnitude) and Extension



Receptor

Description of Effects

(Medium to Zero magnitude). Afton (Low to Zero magnitude) would be visible to the northeast, behind Brockloch Rig. Brockloch Rig Phase III (High to Zero magnitude) would be theoretically visible, beyond South Kyle to the east and southeast. South Kyle and Benbrack (High to Zero magnitude) would be visible from most locations along the route where there are open views due to the close proximity of turbines which would encircle the route to the east, west and north (South Kyle). Pencloe (Medium to Zero magnitude) and Enoch Hill (Low to Zero magnitude) would also be visible from parts of the route. The additional effect of the Proposed Development would be Moderate (Not Significant) (reduced due to the presence of other wind farms) to No View (Not Significant). The combined cumulative effect would be Substantial (Significant) (due to the Proposed Development, Brockloch Rig Extension, South Kyle, Brockloch Rig Phase III, Benbrack and Pencloe) to No View (Not Significant). Apart from Benbrack and Brockloch Rig Phase III, all other existing and consented schemes noted above would be decommissioned ~five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible). indirect, cumulative and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Brockloch Rig (Medium to Zero magnitude) and Sanquhar II (Low-Negligible to Zero magnitude) would be to the east. The additional effect of the Proposed Development would be **Moderate** (**Not Significant**) (reduced due to the presence of other wind farms) to **No View** (**Not Significant**). The combined cumulative effect would be **Substantial** (**Significant**) (due to the Proposed Development, Brockloch Rig, South Kyle, Brockloch Rig Phase III, Benbrack, Pencloe and Brockloch Rig Repower) to **No View** (**Not Significant**). Apart from Benbrack and Brockloch Rig Phase III, all other existing and consented schemes noted above would be decommissioned ~five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

DGC Core Path No. 594: Between Knockengorroch and Lamford

Core Path 594 is formed mostly from forest tracks to the south of the Carsphairn Forest and is approximately 4km in length, located 8km southwest of the Proposed Development. A small section of the route to the northeast of Lamford Hill is unforested.

Assessment: Proposed Development

The ZTV and wireline analysis indicates visibility of the Proposed Development from the un-forested section of the route to the northeast of Lamford Hill where the upper parts of both turbines would be visible affecting a relatively narrow horizontal FoV in the context of other wind farm development. The remainder of the route would have no visibility of the Proposed Development. The magnitude of change would range from Low to Zero, and the effect would be **Moderate to No View (Not Significant)**. The nature of these effects would be long-term (reversible), indirect and negative. The level of effect would be **Moderate (Not Significant)** due to a number of factors including the limited extent of visibility, presence of other wind farms, wider views from northeast of Lamford Hill and the distance from the route.

Cumulative Assessment: Proposed Development + Existing + Consented Sites Theoretical views would be available of the existing Brockloch Rig and Extension (Low to Zero magnitude) and Afton (Negligible to Zero magnitude). South Kyle and Benbrack (High to High-Medium to Zero magnitude) would be visible from most locations along the route where there are open views due to the close proximity of turbines. Pencloe and Enoch Hill (Low to Zero magnitude) would also be visible from parts of the route. Brockloch Rig Phase III (High to Zero magnitude) and Windy Rig (Low to Zero magnitude) would be theoretically visible to the east and



Description of Effects

southeast. The additional effect of the Proposed Development would be **Slight (Not Significant)** (reduced due to the presence of other wind farms) to **No View (Not Significant)**. The combined cumulative effect would be **Substantial (Significant)** (due to South Kyle, Benbrack, Brockloch Rig Phase III) to **No View (Not Significant)**. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Brockloch Rig Repower (Medium-Low to Zero magnitude) would be visible to the northeast with negligible visibility of Euchanhead, Sanquhar II and Lorg Variation. Shepherds Rig would be visible further to the east (Low to Zero magnitude). The additional effect of the Proposed Development would be Slight (Not Significant) (reduced due to the presence of other wind farms) to No View (Not Significant). The combined cumulative effect would be Substantial (Significant) (due to South Kyle, Benbrack and Brockloch Rig Phase III) to No View (Not Significant). The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

Right of Way 'd'

Right of Way 'd' is situated to the northwest of the Development Site and is located 2.3km distance from the Proposed Development. The route is not signposted from its starting point on the B741 near Dalleagles School House and is routed south along a farm track and the valley of the Dalleagles Burn, continuing south through unenclosed land along the Trough Burn and terminating between the adjacent Chang Hill and Benty Cowan Hill.

Assessment: Proposed Development

Only a small section of the route is overlapped by the ZTV. Wireline analysis indicates only blade tips of turbines being intermittently visible for southbound walkers for a short section of the route half-way up from the B741. The magnitude of change would be Low-Negligible to Zero and the effect would be Moderate/ Slight to No View (Not Significant). The nature of these effects would be long-term (reversible), indirect and negative.

Cumulative Assessment: Proposed Development + Existing + Consented Sites
The existing High Park Farm and Hare Hill and Extension wind farms (both Low-Negligible to Zero magnitude) would be visible to the east at approximately 7km distance. The consented Enoch Hill Wind Farm would be visible in proximity (High to Zero magnitude) with parts of the consented South Kyle Wind Farm (Medium to Zero magnitude) visible behind Enoch Hill. The consented North Kyle and Over Hill (High-Medium to Zero magnitude) would be visible to the northwest at approximately 4km distance. Other wind farms visible including Mansfield Mains, Lethans and Glenmuckloch would be of Low to Negligible magnitude due to intervening landform, built form and / or vegetation. The additional effect of the Proposed Development would remain Moderate / Slight to No View (Not Significant). The combined effect would be Substantial (Significant) (due to Enoch Hill, South Kyle, North Kyle and Over Hill). The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Greenburn would be visible to the northwest at approximately 2.5km distance to the route along with Over Hill Variation (High-Medium to Zero magnitude). Upper parts of Brockloch Rig Repower would be visible to the south (Low to Zero magnitude). The additional effect of the Proposed Development would remain **Moderate / Slight to No View (Not Significant)**. The combined effect would be **Substantial**



Description of Effects

(**Significant**) (due to Enoch Hill, South Kyle, North Kyle, Over Hill, Over Hill Variation and Greenburn). The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

Right of Way 'e'

Right of Way 'e' connects Afton Road with Core Path No. C12 but is not signposted and does not appear to be well used. It is located approximately 4.7km northeast of the Proposed Development.

Assessment: Proposed Development

The Proposed Development would be visible for about half of the route between Cascava and the track leading to Laight Farm. In these views the upper aspects of both turbines and hubs would be visible in oblique views, affecting a narrow, horizontal FoV on the Southern Uplands skyline. The turbines would be perceived in relation to other existing wind development. There would be very limited to no visibility from the south-eastern part of the route due to intervening landform. The magnitude of change would range from Medium / Medium-Low to Zero and the effect would be **Substantial / Moderate (Significant) to No View (Not Significant)**. The nature of these effects would be long-term (reversible) indirect and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites</u> The existing Afton Wind Farm would also be visible to the southeast at approximately 4.5km distance (Low to Zero magnitude). The consented Enoch Hill (Medium to Zero magnitude), South Kyle (Low to Zero magnitude) and Pencloe (Medium to Zero magnitude) wind farms would be visible in the same view to the south and southwest at over 3.5km distance. The consented Over Hill (Low to Zero magnitude) would be visible to the west at approximately 6km distance. North Kyle would be visible to the west at approximately 5km distance to the route (High-Medium to Zero magnitude). The existing High Park Farm and Hare Hill and Extension wind farms (all Low to Zero magnitude) would be visible to the east at approximately between 2-3km distance. Other wind farms visible including Mansfield Mains, Lethans and Glenmuckloch would be of Negligible magnitude due to intervening landform, built form and / or vegetation. The additional effect of the Proposed Development would be reduced to Moderate (Significant) to No View (Not Significant). The combined effect would be Substantial / Moderate (Significant) (due to the Proposed Development, Enoch Hill, North Kyle and Pencloe) to No View (Not Significant). Pencloe, Enoch Hill and North Kyle would be decommissioned approximately five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Greenburn would be visible to the west at approximately 5km distance to the route (High-Medium to Medium to Zero magnitude). Sanquhar II and Euchanhead would be visible to the southeast (Medium to Zero magnitude). Brockloch Rig Repower would be visible to the south (Low to Zero magnitude). Over Hill Variation (Low to Zero magnitude) would be visible to the west at approximately 6km distance. The additional effect of the Proposed Development would be reduced to **Moderate** (Significant) to No View (Not Significant). The combined effect would be Substantial / Moderate (Significant) (due to the Proposed Development, Enoch Hill, Pencloe, North Kyle, Greenburn, Euchanhead and Sanquhar II) to No View (Not Significant). Pencloe, Enoch Hill and North Kyle would be decommissioned approximately five years prior to the end of the operation of the Proposed Development, reducing this cumulative effect. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.



Description of Effects

Additional Rights of Way around New Cumnock and Lochside Hotel These routes include three routes to the southeast and northeast of New Cumnock, and one route near Lochside Hotel in the north. These routes are located at over 8km distance from the Proposed Development.

Assessment: Proposed Development

Whilst the ZTV indicates theoretical visibility of the Proposed Development from most parts of these routes, visibility would be vary depending on the location of the user. Where open views are available both turbines would be seen on the horizon, affecting a narrow, horizontal FoV on the Southern Upland skyline and perceived in relation to the presence of other wind farm development. Elsewhere visibility would be limited due to intervening screening by landform, vegetation and / or built form. The magnitude of change would range from Low to Zero and the effect would be Moderate to No View (Not Significant). The nature of these effects would be long-term (reversible) indirect and negative. The effect would be Moderate (Not Significant) because of the intervening distance between the Proposed Development and the users and the large horizontal scale and depth of the landscape in the view and presence of other wind farms in the view.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites</u> A number of existing and consented wind farms would be visible from these routes including Hare Hill and Extension, High Park, Brockloch Rig and Extension and Afton (all Low to Zero magnitude), Mansfield Mains (Negligible magnitude), Enoch Hill and Pencloe (Medium to Zero magnitude), South Kyle (Medium-Low to Zero magnitude), North Kyle and Over Hill (Low to Zero magnitude), Lethans and Glenmuckloch (Low-Negligible to Zero magnitude), and Windy Rig and Sandy Knowe (Negligible magnitude). The additional effect of the Proposed Development would be reduced to Moderate to Slight to No View (Not Significant). The Proposed Development would appear as a limited component of the wider array of turbines visible from these routes. The wider array of turbines appears as a similar size and distance to the proposed turbines. Although the two turbines would occupy a 'gap' on the skyline rather than overlapping with other wind farm development, the apparent gap would be partly occupied by turbines from South Kyle and Brockloch Rig Extension with the proposed turbines appearing more as part of a wider array of turbines, viewed at over 8km distance. The combined effect would be Substantial / Moderate (Significant) (due to Enoch Hill and Pencloe) to No View (Not Significant). The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

A number of wind farm applications are visible from these routes, the most notable being Greenburn, Sanquhar II (both Medium to Zero magnitude), and Over Hill Variation, Brockloch Rig Repower and Euchanhead (Low to Zero magnitude). The additional effect of the Proposed Development would be reduced to **Moderate to Slight to No View (Not Significant)**. As noted above, this is due to the presence of other wind farms and the intervening distance. The combined effect would be **Substantial / Moderate (Significant)** (due to Enoch Hill, Pencloe, Greenburn and Sanquhar II) to **No View (Not Significant)**. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

Heritage Path and Scottish Hill Track 84: Afton Road These routes are assessed as part of Core Path No. 10: Coalfield Cycle Route above.



Visual Effects on Views from Recreational and Tourist Destinations

- 9.8.26 The visual assessment has considered the potential visual effects likely to be experienced by people at recreational / visitor or tourist destinations, or attractions within 10km of the Proposed Development, as follows:
 - Knockshinnoch Lagoons local nature reserve.
- 9.8.27 The following hill summits within 10km are included in the assessment:
 - Cairnsmore of Carsphairn 797m Above Ordnance Datum (AOD) (Corbett);
 - Blackcraig Hill 700m AOD (Graham); and
 - Brockloch Rig 698m AOD (Graham).
- 9.8.28 In summary, there would be no significant visual effects on any recreational and tourist destinations.

Table 9.15 Visual Effects on Views from Recreational and Tourist Destinations within 10km

Receptor

Description of Effects

Knockshinnoch Lagoons Local Nature Reserve

Knockshinnoch Lagoons is a former coal mining / lagoon area which has been subject to natural colonisation. The lagoons and birch woodland provide wetland habitat for breeding and wintering birds and woodland wildlife habitats. The area is open to the public throughout the year and can be accessed from both the B741 close to Connel Park and from Castlehill Road off the A76 and via the New Cumnock Community Paths network and EAC Core Path No. C11. It is located approximately 6.5km distance northeast of the Proposed Development. The sensitivity of the destination is assessed as High due to the High susceptibility visitors, whose attention is likely to be focused on the landscape and the High value of the reserve.

Assessment: Proposed Development

ZTV analysis indicates theoretical visibility of the Proposed Development throughout the Nature Reserve. However, some of the potential views (especially in the north and north-eastern parts of the reserve) would be screened, particularly in the summer months, by intervening woodland. Built form at New Cumnock and Connell Park would also provide some further screening. Where visible, the Proposed Development would affect narrow, horizontal FoV on the background skyline, adding to other wind farm development. The magnitude of change would range from Low to Zero and the effect would be Moderate (Not Significant) to No View (Not Significant). The nature of these effects would be long-term (reversible), indirect and negative. The effect would be Moderate (Not Significant) because of the intervening distance between the Proposed Development and the reserve, partial screening, and the large horizontal scale and depth of the landscape in the view and presence of other wind farms in the view.

Cumulative Assessment: Proposed Development + Existing + Consented Sites
The existing Afton Wind Farm (Low to Negligible magnitude) and the existing
Brockloch Rig and Extension wind farms (both Negligible magnitude) would be
visible to the south at approximately between 7-10km distance. There would be
successive views of the consented Mansfield Mains Wind Turbine (Negligible
magnitude) at a distance of approximately 3km. The consented Enoch Hill and
Pencloe wind farms (Medium magnitude) and South Kyle Wind Farm (Low
magnitude) would be visible in simultaneous views to the south / southwest. The
consented North Kyle and Over Hill wind farms would be visible further to the west



Description of Effects

(Low magnitude). Other wind farms visible would be of Negligible magnitude due to intervening landform, vegetation and / or built form. The additional effect of the Proposed Development would remain **Moderate to No View (Not Significant)**. The combined effect would be **Substantial / Moderate (Significant)** (due to Enoch Hill and Pencloe) to **No View (Not Significant)**. The nature of these effects would be long-term (reversible), indirect, cumulative and negative to neutral.

<u>Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications</u>

Greenburn (Medium magnitude) would be visible to the west at approximately 4-6km distance to the reserve with Over Hill Variation beyond (Low magnitude). Sanquhar II would occasionally be visible to the southeast (Medium magnitude) with some visibility of Euchanhead, Lorg Variation and Brockloch Rig Repower (all Low magnitude). The additional effect of the Proposed Development would remain Moderate to No View (Not Significant). The combined effect would be Substantial / Moderate (Significant) (due to Enoch Hill, Pencloe, Greenburn and Sanquhar II) to No View (Not Significant). The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

Hill Walking Summits within 10km

Cairnsmore of Carsphairn (Corbett)

Assessed in **Appendix 9B** and illustrated in Viewpoint 5 (**Figure 9.26a-e**). In summary, the effect would be **Moderate (Not Significant)**. The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

Blackcraig Hill (Graham)

Assessed in **Appendix 9B** and illustrated in Viewpoint 3 (**Figures 9.24a-e**). In summary, the level of effect due to the Proposed Development would be **Moderate** (**Not Significant**). The nature of these effects would be long-term (reversible), indirect, cumulative and negative.

Brockloch Rig (Graham)

Brockloch Rig is a remote hill to the northeast of Cairnsmore of Carsphairn. The summit and much of its slopes to the northwest are occupied by the existing Brockloch Rig Wind Farm. A view from this summit is illustrated by a wireline in **Appendix 9C**. The hill is not located within an area designated for its scenic value and the value is therefore considered to be Medium. The view would be experienced by walkers whose attention or interest is likely to be focused on the landscape. Therefore, susceptibility to change is considered to be High and the overall sensitivity is considered to be *High*.

Assessment: Proposed Development

The Proposed Development is located at approximately 6km distance from the hill summit and would be viewed beyond the existing Brockloch Rig and Brockloch Rig Extension wind farms in wide panoramic views. Both of the proposed turbines, including hubs, would be visible. The magnitude of change would be Low, and the effect would be **Moderate (Not Significant)** because of the existing influence of wind turbines in the intervening landscape. The nature of these effects would be long-term (reversible), indirect, and negative.

Cumulative Assessment: Proposed Development + Existing + Consented Sites
A number of existing and consented wind farms are visible, the main ones being
Brockloch Rig and Extension visible at >1km (both High magnitude), Afton (High to
Medium magnitude), South Kyle, Brockloch Rig Phase III, Enoch Hill and Pencloe
(all Medium magnitude) and Benbrack (Low magnitude). Other visible wind farms
would be of Low to Negligible magnitude. The additional effect of the Proposed
Development would be Slight (Not Significant) (reduced due to the presence of
other wind farms). The combined effect would be Substantial (Significant) (due to
Brockloch Rig, Brockloch Rig Extension, Afton, Enoch Hill, Pencloe, Brockloch Rig



Receptor	Description of Effects
	Phase III and South Kyle). The nature of these effects would be long-term (reversible), indirect, cumulative, and negative.
	Cumulative Assessment: Proposed Development + Existing + Consented Sites + Applications A number of application wind farms are visible, the main ones being Brockloch Rig Repower (High magnitude), Sanquhar II and Euchanhead (all Medium magnitude) and Lorg Variation (High magnitude). Other visible wind farms would be of Low to Negligible magnitude. The additional effect of the Proposed Development would be Slight (Not Significant) (reduced due to the presence of other wind farms). The combined effect would be Substantial (Significant) (due to Brockloch Rig, Brockloch Rig Extension, Afton, Pencloe, Enoch Hill, South Kyle, Brockloch Rig Phase III, Brockloch Rig Repower Sanquhar II, Euchanhead and Lorg Variation).

9.9 Summary of Landscape, Visual and Cumulative Effects

- 9.9.1 A summary of the landscape and visual effects are provided in **Tables 9.16** and **9.17**.
- 9.9.2 The information set out in the tables lists the main receptors included in this assessment and provides a summary of the landscape and visual effects of the Proposed Development as well as the cumulative effects as follows:
 - Level of Effect: Proposed Development:
 - Sensitivity: The sensitivity of the receptor is recorded (ranging from high, medium, low, to negligible) in accordance with the methodology in Appendix 9A;
 - Magnitude (Proposed Development only): The magnitude of change for the Proposed Development is recorded;
 - ▶ <u>Level of Effect (Proposed Development only)</u>: The level of effect resulting from the Proposed Development is recorded (taking account of the sensitivity and magnitude in accordance with the methodology). Those levels of effect shown in bold relate to significant effects in accordance with the relevant EIA Regulations.
 - Cumulative Level of Effect (including the Proposed Development):
 - Magnitude (Existing and Consented Wind Farms): The magnitude of change, taking account of other existing and consented wind farms is recorded (ranging from high, medium, low, negligible, and zero) in accordance with the methodology;
 - Additional Level of Effect: Adding the Proposed Development to the baseline of existing and consented wind farms;
 - Scenario 1 / Cumulative Level of Effect 1: The level of effect, taking account of the other existing, consented / under construction wind farms and the Proposed Development, is recorded (taking account of the sensitivity and magnitude in accordance with the methodology). Those levels of effect shown in bold relate to significant effects in accordance with the relevant EIA Regulations and the wind farm contributing most to the cumulative effects is recorded in brackets;
 - ▶ <u>Magnitude</u> (Other Application Wind Farms): The magnitude of change, taking account of other wind applications is recorded (ranging from high, medium, low, negligible, and zero) in accordance with the methodology;
 - Additional Level of Effect: Adding the Proposed Development to the baseline of existing and consented wind farms and other wind farm applications;



Scenario 2 / Cumulative Level of Effect 2: The level of effect, taking account of the other existing, consented / under construction, application wind farms and the Proposed Development, is recorded (taking account of the sensitivity and magnitude in accordance with the methodology). Those levels of effect shown in bold relate to significant effects in accordance with the relevant EIA Regulations and the wind farm contributing most to the cumulative effects is recorded in brackets.



 Table 9.16
 Summary of Landscape and Cumulative Landscape Effects

Receptor	Primary As Proposed D	sessment: Development	only	Cumulative	Assessment	: Proposed De	velopment (Pl	D) and other	wind farms
	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Additional Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect
Landscape Effects on the ho	st Southern (Uplands and	Forestry LCT: St	randlud Hill	/ Enoch Hill u	ınit			
Southern Uplands with Forestry LCT: Strandlud Hill / Enoch Hill unit during Construction	Medium	High to Zero	None, increasing to Substantial / Moderate (up to 2km)	operational	levels of Subs	increase from N stantial / Moder is landscape ch	ate (due to the		
Southern Uplands with Forestry LCT: Strandlud Hill / Enoch Hill unit during Operation	Medium	High to Zero	Substantial / Moderate (up to 2km) to None	High to Zero	Slight to None	Substantial / Moderate (PD, Brockloch Rig + Ext, Afton, Hare Hill +Ext, High Park, South Kyle, Windy Rig, Pencloe, Enoch Hill, Benbrack, Brockloch Rig Phase III) to None	High to Zero	Slight to Slight / Negligible, to None	Substantial / Moderate (PD, Brockloch Rig + Ext, Afton, Hare Hill +Ext, High Park, South Kyle, Windy Rig, Pencloe, Enoch Hill, Benbrack, Brockloch Rig Phase III, Brockloch Rig Repower, Lorg Variation) to None



Receptor	Primary As Proposed I	sessment: Development	only	Cumulative	Assessment	: Proposed De	velopment (Pl	D) and other	wind farms
	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect
Southern Uplands and Forestry LCT: Strandlud Hill / Enoch Hill unit during Decommissioning	Medium	Negligible	Slight / Negligible	All other wind farm operation would have ceased under the existing consents and residual cumulative effects post decommissioning would be Slight / Negligible.					
Indirect Landscape Effects									
Southern Uplands LCT: Benty Cowan Hill unit	High to Medium	High to Zero	Substantial / Moderate (2km, mainly to the northeast) to None	High- Medium to Zero	Moderate to None	Substantial / Moderate (PD, Enoch Hill, South Kyle, Pencloe, North Kyle, Over Hill) to None	High- Medium to Zero	Moderate to None	Substantial / Moderate (PD, Enoch Hill, South Kyle, Pencloe, North Kyle, Over Hill / Variation, Greenburn) to None
Upland Basin LCT: New Cumnock unit	Medium	Low to Negligible, to Zero	Moderate / Slight, to None	High to Zero	Moderate / Slight to None	Substantial / Moderate (High Park, Enoch Hill, Pencloe, South Kyle, North Kyle) to None	High to Zero	Moderate / Slight to None	Substantial / Moderate (High Park, Enoch Hill, Pencloe, South Kyle, North Kyle and Greenburn) to None



Receptor	Primary As Proposed I	sessment: Development	only	Cumulative	Cumulative Assessment: Proposed Development (PD) and other wind farms					
Affair CL CA	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Additional Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect	
Afton SLCA	High	Low to Zero	Moderate to None	Medium to Zero	Slight to None	Substantial / Moderate (Afton, Hare Hill + Ext, Pencloe, Enoch Hill) to None	Zero	Slight to None	Substantial / Moderate (Afton, Hare Hill + Ext, Pencloe, Enoch Hill, Sanquhar II, Euchanhead, Lorg Variation) to None	



 Table 9.17
 Summary of Visual and Cumulative Visual Effects

Visual Effects on Views from Settlements Bankglen	Receptor	Primary As		t amb.	Cumulative	Assessmen	t: Proposed De	evelopment (P	D) and other	wind farms
Bankglen High Low to Zero No View Poly learning to No View High Low to Zero No View Poly learning to No View Poly learn		•	-	Level of	(Existing and	Level of	Combined Level of	_	Level of	
Zero No View Zero No View Roderate (North Kyle) to No View Roderate (North Kyle) to No View Roderate (North Kyle) to No View Roderate (Greenburn) No View Roderate / No View Roderate to No View Ro	Visual Effects on Views fror	n Settlements								
Zero No View Moderate (Greenburn) No View Leggate High Low-Negligible to Zero View View View View View View Moderate to No View View View View View Moderate to No View PD, Enoch Hill, Pencloe, North Kyle) No View Moderate to No View PD, Enoch Hill, Pencloe, North Kyle)	Bankglen	High					Moderate (North Kyle)			(North Kyle, Greenburn) to
Negligible to Zero New Cumnock High Medium- Low to Zero No View Moderate to No View	Connel Park	High								(Greenburn) to
Low to Zero No View Zero No View Moderate to No View (PD, Enoch Hill, Pencloe, North Kyle) Zero No View Moderate to No View (PD, Enoch Hill, Pencloe, Greenburn,	Leggate	High	Negligible	Slight to No		Slight to No			Slight to No	(Greenburn) to
	New Cumnock	High	Low to				Moderate to No View (PD, Enoch Hill, Pencloe,			Pencloe, Greenburn,



Receptor	Primary As Proposed D	sessment: Development	only	Cumulative	Assessmen	t: Proposed De	evelopment (P	D) and other v	wind farms
	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Additional Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect
A76 between Cumnock and east of New Cumnock (overlaps with the Burns Heritage Trail)	Medium	Low to Zero	Slight to No View	Medium to Zero	Slight to No View	Moderate to No View (High Park Farm, Enoch Hill, Pencloe)	High-Medium to Zero	Slight to No View	Moderate to No View (High Park Farm, Enoch Hill, Pencloe, Greenburn)
B741 Auchenroy to New Cumnock	High to Medium	Medium to Zero	Substantial / Moderate (between east of Burnside and west of Bankglen) to No View	High- Medium to Zero	Moderate to No View	Substantial to Substantial / Moderate to No View (PD, Enoch Hill, South Kyle, Pencloe, Over Hill, North Kyle)	High to Zero	Moderate to No View	Substantial to No View (PD, Enoch Hill, South Kyle, Pencloe, Over Hill, North Kyle, Greenburn, Sanquhar II, Over Hill Variation)
Glasgow to Carlisle Railway Line	Medium	Low to Zero	Moderate / Slight to No View	Medium to Zero	Moderate / Slight to No View	Moderate to No View (Sandy Knowe)	Medium to Zero	Moderate / Slight to No View	Moderate to No View (Sandy Knowe / Ext)
Visual Effects on Views from	Recreational	Routes							



Receptor	Primary As Proposed I	sessment: Development	only	Cumulative	Assessmen	t: Proposed De	evelopment (P	D) and other	wind farms
	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Additional Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect
EAC Core Path No. C10: Coalfield Cycle Route (partly overlaps with and Scottish Hill Track 84: Afton Road, part of the New Cumnock Path Network)	High	Low to Zero	Moderate to No View	High to Zero	Moderate to No View	Substantial / Moderate to No View (PD, Afton, South Kyle, Enoch Hill, Pencloe, Over Hill, North Kyle)	High to Zero	Moderate to No View	Substantial to No View (PD, Afton, South Kyle, Enoch Hill, Pencloe, Over Hill, North Kyle, Greenburn, Over Hill Variation, Euchanhead, Lorg Variation, Sanquhar II)
EAC Core Path No. C12: New Cumnock Circular	High	Medium to Zero	Substantial / Moderate to No View	Medium to Zero	Moderate to No View	Substantial / Moderate to No View (PD, Enoch Hill, South Kyle, Pencloe, Over Hill, North Kyle)	High-Medium to Zero	Moderate to No View	Substantial to Substantial / Moderate to No View (PD, Enoch Hill, South Kyle, Pencloe, Over Hill, North Kyle, Greenburn, Over Hill Variation, Sanquhar II)
EAC Core Path No. C11: Knockshinnoch Lagoons	Refer to Kno	ckshinnoch L	agoons further b	elow					



Receptor	Primary As Proposed I	sessment: Development	t only	Cumulative	Assessmen	t: Proposed De	evelopment (P	D) and other	wind farms
	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Additional Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect
DGC Core Path No. 183 / 667: Circular route within Carsphairn Forest	High	Medium to Zero	Substantial / Moderate to No View	High to Zero	Moderate to No View	Substantial to No View (PD, Brockloch Rig Ext, South Kyle, Pencloe, Benbrack, Brockloch Rig Phase III)	High to Zero	Moderate to No View	Substantial to No View (PD, Windy Standard Ext, South Kyle, Pencloe, Benbrack, Brockloch Rig Phase III, Windy Standard Repower)
DGC Core Path No. 594: Between Knockengorroch and Lamford	High	Low to Zero	Moderate to No View	High to Zero	Slight to No View	Substantial to No View (South Kyle, Benbrack, Brockloch Rig Phase III)	Medium-Low to Zero	Slight to No View	Substantial to No View (South Kyle, Benbrack, Brockloch Rig Phase III)
Right of Way 'd'	High	Low- Negligible to Zero	Moderate / Slight to No View	High to Zero	Moderate / Slight to No View	Substantial to No View (Enoch Hill, South Kyle, North Kyle, Over Hill)	High-Medium to Zero	Moderate / Slight to No View	Substantial to No View (Enoch Hill, South Kyle, North Kyle, Over Hill, Over Hill Variation, Greenburn)

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Receptor	Primary As Proposed D	sessment: Development	only	Cumulative	Assessmen	t: Proposed De	evelopment (P	D) and other	wind farms
	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Additional Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect
Right of Way 'e'	High	Medium / Medium- Low to Zero	Substantial / Moderate to No View	Medium to Zero	Moderate to No View	Substantial / Moderate to No View (PD, Enoch Hill, Pencloe, North Kyle)	High-Medium to Zero	Moderate to No View	Substantial / Moderate to No View (PD, Enoch Hill, Pencloe, North Kyle, Greenburn, Euchanhead, Sanquhar II)
Additional Rights of Way Lochside Hotel and north of New Cumnock	High	Low to Zero	Moderate to No View	Medium to Zero	Moderate to Slight to No View		Medium to Zero	Moderate to Slight to No View	Substantial / Moderate to No View (Enoch Hill, Pencloe, Greenburn, Sanquhar II)
Visual Effects on Views from	Recreational	and Tourist	Destinations						
Knockshinnoch Lagoons Local Nature Reserve	High	Low to Zero	Moderate to No View	Medium to Zero	Moderate to No View	Substantial / Moderate to No View (Enoch Hill and Pencloe)	Medium to Zero	Moderate to No View	Substantial / Moderate to No View (Enoch Hill, Pencloe, Greenburn, Sanquhar II)



Receptor	Primary As Proposed I	sessment: Development	only	Cumulative	e Assessmer	nt: Proposed De	evelopment (P	D) and other	wind farms
	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect
Cairnsmore of Carsphairn (Corbett)	High	Low	Moderate	High- Medium	Slight	Substantial (Windy Std Ext, Windy Rig, South Kyle, Brockloch Rig Phase III and Benbrack)	High	Slight	Substantial to Substantial / Moderate (Windy Std Ext, Windy Rig, South Kyle, Benbrack, Brockloch Rig Phase III, Euchanhead, Shepherds Rig and Sanquhar II)
Blackcraig Hill (Graham)	High	Low	Moderate	High to Medium	Slight	Substantial (Afton, Brockloch Rig Ext., Hare Hill + Ext., Sanquhar, Whiteside Hill, Pencloe, Sanquhar Six, Enoch Hill, South Kyle and Windy Rig)		Slight	Substantial (Afton, Brockloch Rig Ext., Hare Hi + Ext., Sanquhar Whiteside Hill, Pencloe, Sanquhar Six, Enoch Hill, South Kyle, Windy Rig, Sanquhar II, Euchanhead, Lorg Variation, Windy Std Repower)



Receptor	-	Primary Assessment: Proposed Development only			Cumulative Assessment: Proposed Development (PD) and other wind farms						
Se	Sensitivity	Magnitude	Level of Effect:	Magnitude (Existing and Consented)	Level of Effect	Scenario 1: Combined Level of Effect	Magnitude (Applications)	Additional Level of Effect	Scenario 2: Combined Level of Effect		
Brockloch Rig (Graham)	High	Low	Moderate	High	Slight	Substantial (Brockloch Rig + Extension, Afton. Enoch Hill, South Kyle, Pencloe, Brockloch Rig Phase III)	High	Slight	Substantial (Brockloch Rig + Extension, Afton, Enoch Hill, South Kyle, Pencloe, Brockloch Rig Phase III, Sanquhar II, Euchanhead, Lorg Variation, Brockloch Rig Repower)		



9.10 Summary and Conclusions

- 9.10.1 The LVIA has been undertaken in accordance with GLVIA 3 by chartered landscape architects at WSP. The assessment process has encompassed the construction, operation, and decommissioning phases of the Proposed Development.
- 9.10.2 The Proposed Development is centred at coordinates E 258250 and N 606680 and comprises up to two wind turbines up to a maximum height of 149.9m to blade tip, located approximately 6km south-west of the settlement of New Cumnock and approximately 9km to the east of Dalmellington in East Ayrshire. It is set within an area of *Southern Uplands with Forestry* LCT defined by the 2018 East Ayrshire Landscape Wind Capacity Study.
- 9.10.3 The ZTV (calculated to blade tip) for the Proposed Development is very limited, accounting for 21.05% of the total Study Area, reducing to 16% when considering hub height visibility, accounting for less of a quarter of the study area.

Consultation

2.1.3 Consultation relevant to the landscape, visual and cumulative assessment was undertaken with SNH, EAC, SAC and DGC as set out in Section 9.3.

Landscape Design Statement

- 9.10.4 The design of the Proposed Development has evolved to minimise direct landscape effects on the Development Site area through utilising existing open areas, where possible, to locate turbines, access tracks and the substation.
- 9.10.5 The Proposed Development has been designed to appear similar to the apparent scale and appearance of other neighbouring existing and consented development (South Kyle, Pencloe and Enoch Hill) in terms of the apparent turbine scale / size / proportion and colour. In views from the north and northeast, where these developments would be perceived as part of a wider lateral array of wind farm development, the Proposed Development would be perceived as a minor element of the overall composition of wind energy development.
- The turbines have been set back from the 'front' north facing hill slopes overlooking settlements, roads and residential receptors within the Upland Basin to maintain a sense of separation between the lower lying areas and the more elevated *Southern Uplands / Southern Uplands with Forestry LCTs* which are most capable of accommodating wind farm development.

East Ayrshire Landscape Wind Capacity Study

- 9.10.7 The LVIA has taken account of national and local planning policy in relation to wind farm development within the 35km study area. In particular, reference has been made to the East Ayrshire Council Local Development Plan, Supplementary Guidance: Planning for Windy Energy December 2017 and the East Ayrshire Council Local Development Plan, Non-Statutory Planning Guidance: East Ayrshire Landscape Wind Capacity Study (EALWCS) (June 2018).
- 9.10.8 The EALWCS concludes (on the summary page) that there "is some scope to site additional wind farm development with turbines above 70m height within upland areas of East Ayrshire although this will be limited by potential cumulative and other landscape and visual constraints including effects on adjacent smaller scale settled valleys and lowland landscapes." In particular, page 12 of the EALWCS advises that this "is because the



generally less sensitive parts of these uplands are already occupied by wind farms with remaining undeveloped areas either lying on the periphery of these uplands close to more sensitive settled landscapes or contain more diverse landscape features. Cumulative effects are also more likely to occur affecting surrounding more sensitive landscapes and views."

9.10.9 As far as possible the Proposed Development has taken account of this guidance and the relevant broad scale constraints and opportunities contained within the EAWLCS and in particular, the landscape, visual and cumulative effects on the *Upland Basin* area.

Cumulative Landscape Effects

- 9.10.10 The Proposed Development is sited within the *Southern Uplands with Forestry* LCT: Strandlud Hill / Enoch Hill unit as classified by the EALWCS. Both turbines would be located within an area of coniferous forestry and detailed site analysis indicates that the Development Site area is strongly compatible with the *Southern Uplands and Forestry* LCT: Strandlud Hill / Enoch Hill unit.
- As is normally the case with all wind farm development, there would be a localised significant effect on the host LCTs, and the addition of the Proposed Development would lead to a **Substantial / Moderate** (**Significant**) effect on a part of the *East Ayrshire Southern Uplands and Forestry* LCT: Strandlud Hill / Enoch Hill unit and part of the *East Ayrshire Southern Uplands* LCT: Benty Cowan Hill unit, extending out to approximately 2km from the proposed turbine locations. The nature of these effects would be long-term (reversible), direct, and negative during the operational period.
- 9.10.12 Cumulatively the combined effect of other existing and consented wind farms, other wind farm applications and the Proposed Development would lead to a **Substantial / Moderate** (**Significant**) effect on part of the *host LCT* within 2km of the proposed turbines. The Proposed Development would appear as a closely related group or 'extension' to the South Kyle, Enoch Hill and Pencloe wind farms, consistent with the existing and consented pattern of wind farm development and the turbines proposed for both developments would be of comparable height (149.5m to blade tip for South Kyle, up to 149.9m to blade tip for Enoch Hill and Pencloe, and up to 149.9m to blade tip for the Proposed Development).
- 9.10.13 There would be no significant landscape effects on any other LCTs within 10km of the Proposed Development.
- 9.10.14 The Development Site is designated at a local level as part of the Afton SLCA. The peripheral location of the Proposed Development in relation to the SLCA underlines that this area is of limited value to the Special Qualities of the SLCA. Although there would be a localised significant effect on a peripheral part of the landscape character within the East Ayrshire SLCA, it is not considered that the Special Qualities of the SLCA, its integrity, or the reasons for its designation would be significantly affected. In particular, there would be little or no visibility from within the Afton Glen area itself, which forms the main focus of this part of the SLCA.

Cumulative Visual Assessment

2TV and viewpoint analysis of 13 illustrated viewpoints, selected through consultation was undertaken on site, to support the assessment (**Appendix 9B**). The viewpoint analysis indicates that the significant visual effects would primarily affect some views from the Upland Basin south-western edge of New Cumnock within approximately 6.8km from the nearest turbine locations as indicated by Viewpoints 2 and 4 (**Figures 9.23a-e** and **9.25a-e**). Significant visual effects would also affect some views from the Southern Uplands with



Forest, where there are gaps in forestry to the southwest, within approximately 4.7km from the nearest turbine locations as indicated by Viewpoint 1 (**Figure 9.22a-e**), although this would reduce to No View as young forestry matures over the operational period of the Proposed Development.

9.10.16 All of the assessment viewpoints are cumulative with other existing and or consented wind farm development, and with the exception of Viewpoint 2 the additional effect of the Proposed Development would not be significant from any of the other assessment viewpoints with the proposed turbines appearing as a minor component of the wider array of wind farm development visible from these locations.

Visual Effects on Settlements

9.10.17 Significant visual effects would be experienced from parts of the southern edge of New Cumnock as represented by Viewpoint 4 near the cemetery. There would be no significant visual effects on the views from any other settlements within the study area including the majority of New Cumnock.

Visual Effects on Transport Routes

- 9.10.18 Significant visual effects, would be experienced from part of the B741 between east of Burnside and west of Bankglen where there are clear views of the Proposed Development, appearing in the background hills towards the southwest, from approximately 5-6km distance from the proposed turbines. The views from this road would primarily be experienced by westbound drivers and their passengers, who would experience the views as a sequence of views, whilst travelling at various speeds through the landscape, the experience often 'broken' or intermittent due to the intervening screening of roadside trees / cuttings and other foreground interest. Views of the Proposed Development from the B741 would generally be perceived in relation to nearby wind farms set within a large-scale landscape.
- 9.10.19 None of the other transport routes would be significantly affected by views of the Proposed Development. The Proposed Development would be visible from the A76 and railway line when approaching New Cumnock from the north and east within the 10km study area. These views would be experienced intermittently and transiently, from a moving position, experienced as part of a much wider context, with the views restricted to southbound users and for these reasons the visual effects are not assessed as significant.

Visual Effects on Recreational Routes

- 9.10.20 Significant visual effects would affect views from parts of the following four recreational routes:
 - EAC Core Path No. C10: Coalfield Cycle Route (partly overlapped by Scottish Hill Track 84: Afton Road, part of the New Cumnock Path Network);
 - EAC Core Path No. C12: New Cumnock Circular;
 - DGC Core Path No. 183 / 667: Circular route within Carsphairn Forest; and
 - Right of Way 'e' between Afton Road and EAC Core Path No. 12.
- 9.10.21 The Proposed Development would not adversely affect the foreground interest experienced whilst walking or the changing nature of views from these local routes.
- 9.10.22 There would be no significant effects on any of Scotland's Great Trails, Regional Trails or the Sustrans National Cycle Network.



Visual Effects on Recreational and Tourist Destinations

9.10.23 There would be no significant visual effects on any recreational and tourist destinations.

Conclusions

- 9.10.24 The Proposed Development would be located within part of the *Southern Uplands with Forestry* LCT, which contains a number of major existing and consented wind farms. Large wind turbines are an established characteristic of this area, and the landscape also demonstrates many of the attributes indicative of an ability to accommodate major wind farm development.
- 9.10.25 The Proposed Development has taken account of the EALWCS and the relevant broad scale constraints and opportunities contained within this non-statutory guidance in order to mitigate potential effects on views from the New Cumnock *Upland Basin* area.
- 9.10.26 The turbine height of up to 149.9m to blade tip is comparable to that of other nearby consented wind farm development. In many views the Proposed Development would appear as closely related or appear as an 'extension' to these adjacent existing and consented wind farms including Enoch Hill, South Kyle and Pencloe.
- 9.10.27 There would be no significant effects on nationally designated landscapes or Wild Land Areas, 'A' roads or any of Scotland's Great Trails.
- 9.10.28 Visibility of the Proposed Development would be largely restricted to areas of the low-lying *Upland Basin* to the north. This area is undesignated and has a strong mining heritage. Where visible, the Proposed Development would be seen in the context of a contemporary, rural landscape where wind turbines are already visible along the southern skyline.
- The proposed turbines are located remote from residential properties to the north, within a less sensitive part of the Development Site, thus increasing the level of mitigation afforded to landscape and visual receptors in the *Upland Basin* LCT to the north along the B741 and around the New Cumnock area.
- 9.10.30 Significant landscape, visual and cumulative effects would affect part of the *East Ayrshire Southern Uplands with Forestry* and *Southern Uplands LCTs*, and particular views from the southern edge of new Cumnock, part of the B741 and parts of four recreational receptors (local footpath network).