Chapter 6

Landscape and Visual

SCOTTISHPOWER RENEWABLES

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Chapter 6
Landscape and Visual

6.1 Introduction

6.1.1 Background

1. This landscape and visual impact assessment (LVIA), which has been undertaken by Optimised Environments Limited (OPEN), evaluates the effects of the proposed Development on the landscape and visual resource.

2. The assessment considers effects on the landscape resource - both direct effects and effects on how the landscape is perceived - and the effect on visual amenity (views) within the study area (**Figure 6.1**). Cumulative effects arising from the addition of the proposed Development to other windfarms are also considered.

3. Technical appendices to this LVIA should be read in conjunction with the Chapter as follows:

- Technical Appendix 6.1 (TA: 6.1) – LVIA Methodology;
- Technical Appendix 6.2 (TA: 6.2) – Visual Assessment of Turbine Lighting;
- Technical Appendix 6.3 (TA: 6.3) – Wild Land Assessment; and
- Technical Appendix 6.4 (TA: 6.4) – Residential Visual Amenity Assessment (RVAA).

4. This Chapter is also supported by Figures and visualisations provided in Volumes 3a to 3b as follows:

- Volume 3a: LVIA Plan Graphics (**Figure 6.1** – **Figure 6.26**); and
- Volume 3b: Visual Representations, Viewpoints 1 – 24 (**Figure 6.27** – **Figure 6.50**).

6.1.2 The proposed Development

5. The Site area and Site layout is shown on **Figure 4.1.** The Site area of the proposed Development is located within both South Ayrshire and Dumfries and Galloway. The LVIA is based on an indicative turbine with a 125 m hub height, 150 m rotor diameter and maximum height to blade tip of up to 200 m, as shown on **Figure 4.9** and described in **Chapter 4: Development Description.** Other elements of infrastructure of the proposed Development assessed in this Chapter are also described in **Chapter 4.** The landscape and visual aspects of the site selection and design are described in full in **Chapter 3: Site Selection & Design.**

6.1.3 Study Area

6. The definition of a study area for the LVIA is an important and established part of LVIA, which is recommended in LVIA guidance (Landscape Institute, 2013 and SNH, 2017).

7. The LVIA study area is shown in in **Figure 6.1** (and on other relevant LVIA plan figures in the **Volume 3a**). A 60km search area is defined for consideration of potential receptors and cumulative windfarms, within which a 45km radius study area (the LVIA study area) is defined as appropriate for the LVIA.

8. This LVIA study area is defined according to legislation, guidance, consultation feedback, the ZTV for the proposed Development and the emerging findings of the LVIA to ensure that is an appropriate study area based on the threshold of significance. The LVIA study area is defined to extend far enough to include all areas within which significant effects could occur, using professional judgement with the study area defining an outer limit within which significant effects could occur.

9. Relevant legislation was considered. The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 require a description of the *'likely significant effects of the proposed development'*. The 45km radius LVIA study area was therefore defined to extend far enough to include all areas within which significant effects could occur, using professional judgement. The rationale behind this 45km radius study area is on the basis of it being an outer limit where significant effects could occur.

10. Relevant guidance has also been consulted. IEMA Guidance (IEMA, 2015 and 2017) recommends a proportionate ES focused on the significant effects and a proportionate ES topic chapter. An overly large LVIA study area may be considered disproportionate if it makes understanding of the key impacts of the proposed Development more difficult. This is supported by LVIA Guidance produced by the Landscape Institute (GLVIA3) (Landscape Institute, 2013) (para 3.16). This guidance recommends that '*The level of detail provided should be that which is reasonably required to assess the likely significant effects'.* Para 5.2 and p70 also states that *'The study area 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'*.

11. Other windfarm specific guidance, such as SNH's Visual Representation of Windfarms Guidance (SNH, 2017) recommends that ZTV distances are used for defining study area based on wind turbine height. This guidance recommends a 45km radius for wind turbines greater than 150m to blade tip (para 48, p12), however it does not go beyond turbines above 150m in height. The height of current onshore wind turbine models, including those for the proposed Development, has now exceeded the heights covered in this guidance. The SNH guidance recognises that greater distances may need to be considered for larger wind turbines, however this was not considered to be necessary for the proposed Development to cover all likely significant effects in this case.

12. The extent of the ZTV for the proposed Development was reviewed. The Blade Tip ZTV showing the 45km radius study area is shown in **Figure 6.13**. It illustrates theoretical visibility (within reasonable limits), not significant effects. The 45km radius is measured as a buffer from the outer most turbines of the proposed Development (not from the centre). A 'horizontal angle' ZTV (**Figure 6.16**) was also referred to, which shows that in views from over 45km, the horizontal spread of the proposed Development will always occupy less than 10° of the field of view, and often less than 5° of the field of view. This is a small portion of the available horizontal field of view (which can be up to 360° from a panoramic viewpoint). The study area is informed by the geographic extent of theoretical visibility shown in these ZTVs, together with other factors that influence the actual visibility, such as weather, visual acuity and distance.

13. The prevailing weather and visibility conditions have a material influence on the actual visual impacts of the proposed Development, and therefore the likely significant effects, particularly at long viewing distances. The frequency of visibility at distances over 45km would be very limited. The perceived visual effect of the proposed Development will also be influenced by the acuity of the eye to see wind turbines with the required clarity, detail and contrast at such long distance. Published studies (such as BOEM, 2013 and SNH, 2002) and professional experience indicate that wind turbines are close to the extreme limit of visibility (or 'visual acuity') at long distances of over 45 km. At such distance, the wind turbines are only likely to discernible after looking closely for an extended period in excellent visibility conditions, which affords no prospects of visual effects being significant.

14. Consultations with relevant stakeholders were undertaken as part of the scoping process. South Ayrshire Council (SAC) were in agreement with a study area of 45km from the proposed Development being set for the LVIA. SNH considered that for turbines of this height (200m blade tip) the study area should be greater than 45km, however no further advice on a suitable study area was provided and SNH *'welcomed the thorough approach to the LVIA'* and which SNH considered *'appears to be in accordance with GLVIA3'.*

15. The 45km radius LVIA study area was cross-checked against the emerging findings of the LVIA. It was considered to be an appropriate study area based on the threshold of significance for viewpoints assessed as closer distances. Viewpoints at a range of distances from approximately 3 km to 40 km were assessed in the LVIA, as shown in the **Figure 6.10** and visualisations in **Figures 6.27-6.49**. The threshold of potentially significant visual effects was found to be approximately 17 km from the proposed Development, with significant visual effects identified at Viewpoint 14 (Corserine) and not significant effects identified at all other viewpoints beyond this distance, with these findings providing further justification for the 45km radius LVIA study area..

6.2 Legislation, Policy and Guidelines

6.2.1 Legislation

16. This assessment is carried out in accordance with:

- The Electricity Act 1981 (as amended 1989).

17. The Electricity Act 1981 (as amended 1989) requires that development proposals "*do what reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.*" In accordance with this, the landscape and visual assessment, has influenced the design of the proposed Development, and has therefore sought to mitigate effects on the "*natural beauty of the countryside".*

6.2.2 Policy

6.2.2.1 European Landscape Convention (ELC)

18. The ELC is devoted exclusively to the protection, management and planning of all landscapes in Europe. Landscape is described as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (ELC, 2000). The definition applies to all urban and peri-urban landscapes, towns, villages, rural areas, the coast and inland areas. In addition, it applies to ordinary or even degraded landscape as well as those areas that are of outstanding value or protected.

- The ELC became binding in the UK from 1 March 2007. As a signatory, the UK government has therefore undertaken to adopt general policies and measures to protect, manage and plan landscapes as follows:
- to recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity;
- to establish and implement landscape policies aimed at landscape protection, management and planning through the adoption of the specific measures. These include awareness-raising, training and education, identification and assessment of landscapes, definition of landscape quality objectives and the implementation of landscape policies;
- to establish procedures for the participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of the landscape policies mentioned in the bullet above; and
- to integrate landscape into regional and town planning policies and in cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape.

19. The ELC provides a framework for SNH's work for Scotland's landscapes based on the following five guiding principles:

- Our landscape - people, from all cultures and communities, lie at the heart of efforts for landscape, as we all share an interest in, and responsibility for, its well-being;
- All landscapes - the landscape is important everywhere, not just in special places and whether beautiful or degraded;
- Changing landscapes - landscapes will continue to evolve in response to our needs, but this change needs to be managed;
- Understanding landscapes - better awareness and understanding of our landscapes and the benefits they provide is required; and
- Tomorrow's landscapes - an inclusive, integrated and forward-looking approach to managing the landscapes we have inherited, and in shaping new ones, is required.

20. Given the UK's adoption of the ELC and its aims, the ELC gives an appropriate basis for the importance placed on the Scottish landscape.

6.2.2.2 National Planning Framework 3 (NPF3)

21. Scotland's third National Planning Framework (NPF3) was published by the Scottish Government in June 2014. NPF3 is a long-term strategy for Scotland and is the spatial expression of the Government's Economic Strategy and plans for development and investment in infrastructure.

6.2.2.3 National Planning Framework 4 (NPF4)

22. The Scottish Government have started work to prepare its fourth NPF (NPF4) which will look to Scotland in 2050. It will guide spatial development, set out national policies, designate national developments and reflect regional spatial priorities. It will include provision for a spatial planning response to the 'Global climate emergency'. A draft is expected for consultation around September 2020 with the aim to lay the final version in Parliament in 2021.

6.2.2.4 Scottish Planning Policy (SPP)

23. The key national policy document in relation to land use planning is Scottish Planning Policy (SPP) (Scottish Government, 2014). As part of Scotland's commitment to sustainable economic growth it is recognised in Paragraph 2 that the planning system should "…take a positive approach to enabling high-quality development and making efficient use of land to deliver long-term benefits for the public while protecting and enhancing natural and cultural resources".

24. In Table 1: Spatial Framework, SPP sets out the basis for a spatial framework in relation to windfarm development in which a hierarchy of protection is defined. Group 1 areas are based on National Parks and National Scenic Areas and are defined as 'Areas where windfarms will not be acceptable'. Group 2 areas are based on the following criteria: a range of national designations, other nationally important environmental interests (such as wild land or carbon rich soils, deep peat and priority peatland habitat), and community separation (2km from cities, towns and villages identified on the Local Development Plan). Group 2 areas are defined as 'Areas of Significant Protection'. Group 3 areas that are not subject to the designations underpinning Group 1 and 2 areas, are defined as 'areas with potential for windfarm development', where '*windfarms are likely to be acceptable, subject to detailed consideration against identified policy criteria'*.

25. It is considered that the proposed Development lies within a Group 3 area of the SPP Spatial Framework.

6.2.2.5 SNH Spatial Planning for Onshore Wind Turbines

26. SNH's Spatial Planning for Onshore Wind Turbines (SNH, 2015) sets out the main natural heritage considerations that should be taken into account when planning for onshore wind turbines. It accords with Scottish Planning Policy 2014 (SPP) and provides further information and data that should underpin both spatial frameworks and wider information on planning for wind turbines in the proposed Development Plan.

27. Annex 1 set out landscape objectives, as follows:

- ***Landscape Protection*** *- The aim of landscape protection is to maintain the existing landscape and visual resource, retaining or reinforcing its present character and protecting its quality and integrity. This approach is likely to only be acceptable in those areas defined within group 1 and potentially group 2 of table 1 in SPP.*
- ***Landscape Accommodation*** *- 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. 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 windfarms, rather than seek landscape protection.*
- ***Landscape Change*** *- This objective recognises that the area is one whose landscape character may be allowed to change, which could result in a perception of a windfarm landscape. Landscape change does not imply that 'anything goes', nor that change should occur across the whole area: good landscape design principles still need to be followed to ensure that the development is appropriate for the scale and character of the landscape.*

28. The proposed Development falls within an area where substantial 'landscape change' has already taken place as a result of windfarm development and follows suitable design and mitigation principles in order to ensure an appropriate relationship with the existing landscape character. As the proposed Development does not fall within a Group 1 or 2 area of SPP, a strategy of 'landscape protection' for the Site is unlikely to be appropriate.

6.2.2.5.1 National Scenic Areas

29. Paragraph 212 of SPP sets out the following policy in respect of National Scenic Areas (NSAs):

30. "*Development that affects a National Park, National Scenic Area, Site of Special Scientific Interest or a National Nature Reserve should only be permitted where:*

- *the objectives of designation and the overall integrity of the area will not be compromised; or*
- *any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance'."*

6.2.2.5.2 Gardens and Designed Landscapes

31. In Paragraph 148 of SPP protection is given to Gardens and Designed Landscapes: "*Planning authorities should protect and, where appropriate, seek to enhance gardens and designed landscapes included in the Inventory of Gardens and Designed Landscapes and designed landscapes of regional and local importance."*

6.2.2.5.3 Wild Land

32. Wild Land is recognised in the SPP and planning policy as a nationally important resource (not a designation), which should be afforded protection for its wildness qualities, but it is not statutorily protected in the way that National Parks and NSAs are for their scenic qualities.

33. Paragraph 200 of SPP states the importance of Wild Land: "*Wild land character is displayed in some of Scotland's remoter upland, mountain and coastal areas, which are very sensitive to any form of intrusive human activity and have little or no capacity to accept new development. Plans should identify and safeguard the character of areas of wild land as identified on the 2014 SNH map of wild land areas*."

34. Paragraph 215 further explores the ability of Wild Land to accommodate development: "*In areas of wild land (see paragraph 200), development may be appropriate in some circumstances. Further consideration will be required to demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation*."

35. The status of Wild Land Areas (WLA) is also clearly set out in Para 8 of SNH's 'Assessing Impacts on Wild Land technical guidance' (SNH, 2017) - *'WLAs have not been identified on scenic grounds and are not a statutory designation.'* There is also an acceptance that WLAs are not 'wilderness' and that human influences do form part of their baseline character.

36. Wild Land effects are considered in the LVIA in respect of the Merrick WLA (**Figure 6.2**) in **TA:6.3 Wild Land Assessment**.

6.2.2.6 South Ayrshire Local Development Plan Policy

37. The South Ayrshire Local Development Plan was adopted in September 2014 (the SALDP). In June 2019, South Ayrshire Council approved the Proposed Replacement South Ayrshire Local Development Plan (PLDP2) for publication and public consultation. When adopted, PLDP2 will supersede the adopted South Ayrshire Local Development Plan (2014). Until then, the SALDP 2014 remains the adopted LDP. The SALDP Wind Energy Policy states that proposals will be supported if:

38. "*a) they are capable of being accommodated in the landscape in a manner which respects its main features and character (as identified in the South Ayrshire Landscape Wind Capacity Study or in any subsequent updates to that study), and which keeps their effect on the landscape and the wider area to a minimum (through a careful choice of Site, layout and overall design);*

b) they do not have a significant detrimental visual impact, taking into account views experienced from surrounding residential properties and settlements, public roads and paths, significant public viewpoints, and important recreational assets and tourist attractions;

c) they do not have any other significant detrimental effect on the amenity of nearby residents, including from noise and shadow flicker;

d) they do not have a significant detrimental effect on natural heritage features, including protected habitats and species, and taking into account the criteria in LDP policy: natural heritage;

e) they do not have a significant detrimental effect on the historic environment, taking into account the criteria in LDP policy: historic environment and LDP policy: archaeology;

f) they do not adversely affect aviation, defence interests and broadcasting installations; and

g) their cumulative impact in combination with other existing and approved wind energy developments, and those for which applications for approval have already been submitted, is acceptable."

39. Key landscape and visual related policies are listed below, the assessment against these policies is considered in detail in the Planning Statement.

6.2.2.6.1 LDP Policy: Landscape Quality

40. The 'Landscape Quality' Policy states the following:

41. "*We will maintain and improve the quality of South Ayrshire's landscape and its distinctive local characteristics. Proposals for development must conserve features that contribute to local distinctiveness, including:*

a. community settings, including the approaches to settlements, and buildings within the landscape;

b. patterns of woodland, fields, hedgerow and tree features;

c. special qualities of rivers, estuaries and coasts;

d. historic landscapes; and

e. skylines and hill features, including prominent views."

6.2.2.6.2 LDP Policy: Protecting the Landscape

42. The 'Protecting the Landscape' Policy states the following:

43. "*We will consider proposals within or next to (South Ayrshire) Scenic Areas (as defined on the LDP environment map) against the following conditions.*

a. The significance of impacts and cumulative impacts on the environment, particularly landscape and visual effects as informed by the Ayrshire Landscape Character Assessment (SNH 1998)".

b. How far they would benefit the economy.

44. *Whether they can be justified in a rural location."*

6.2.2.6.3 LDP Policy: Dark Skies

45. The 'Dark Skies' Policy states the following:

46. "*We will support the Galloway Forest Dark Sky Park and will presume against development proposals within the boundaries of the park that would produce levels of lighting that would adversely affect its 'dark sky' status. The boundaries of the Dark Sky Park [and of the buffer zone] are shown on the map on page 40. Development will have to be in line with the supplementary guidance on lighting within the Galloway Forest Dark Sky Park, which we will produce jointly with the adjoining planning authorities and Forestry Commission Scotland. This will also provide guidance for proposed developments within the buffer zone which may have a lighting impact on the Dark Sky Park. [The supplementary guidance will define the geographical extent of the buffer zone.]"*

6.2.2.7 LDP Policy: Galloway and Southern Ayrshire Biosphere

47. The Galloway and Southern Ayrshire is confirmed in the LDP as a location for a UNESCO biosphere reserve because of its unique combination of special landscapes and wildlife areas, rich cultural heritage and communities that care about their environment and culture and want to develop it sustainably.

48. The Galloway and Southern Ayrshire Biosphere LDP policy states the following:

49. *"We will support development that promotes the aims of the biosphere and shows an innovative approach to sustainable living and the economy, and supports improving, understanding and enjoying the area as a world-class environment".*

50. A core area lies at the heart of the Biosphere and includes the areas of mountain, moorland, freshwater lochs and rivers primarily within the Merrick Uplands/Galloway Hills. A buffer zone covering the Galloway Forest Park is a working landscape managed to protect the natural heritage of the core areas. The proposed Development is located within this buffer zone of the Galloway and Southern Ayrshire Biosphere. The Biosphere is a non-statutory designation that in itself has no formal status within the planning system, however the effect of the proposed Development on the 'Sense of Place' and landscape value of the core and buffer of the Biosphere is assessed in relation to the Merrick Wild Land area (WLA) in **TA:6.3**.

6.2.2.7.1 South Ayrshire Local Landscape Areas (LLAs)

51. In accordance with 2017 draft SNH guidance on the harmonisation and selection of local landscape area designations across Scotland, South Ayrshire Council commissioned a consultant to review the extensive, existing sensitive landscape character area and scenic area designations in South Ayrshire. This included consideration of the need for new Local Landscape Areas (LLAs), with a view to defining candidate LLAs that:

- (1) conform with Scottish Planning Policy and
- (2) recognise LLAs may not just be of scenic value, but may have other attributes like nature conservation, cultural heritage or recreational value, and finally
- (3) are sufficiently robust to protect and enhance South Ayrshire Council's local landscapes.

52. The copy of the final report informed the preparation of the approved replacement South Ayrshire Local Development Plan (PLDP2), currently the subject of public consultation.

53. As PLDP2 has only recently been published for public consultation, the LLAs within it remain candidate sites, indicative of the Council's intention for protecting important landscapes in South Ayrshire, but carry less weight as a material consideration in planning application decision making than the South Ayrshire Scenic Areas (herein referred to as the 'South Ayrshire SA') and related policies defined in the adopted South Ayrshire Local development Plan (LDP1). The candidate LLAs have been mapped in **Figure 6.6** for reference, and their reasons for designation are referred to in the LVIA in **Section** Error! Reference source not found. and **Section 0**, however the LVIA primarily reports on the impacts of the proposed Development on the South Ayrshire SA from the adopted SALDP (2014), which carries more weight as a material considered in planning application decision making.

6.2.2.8 Dumfries and Galloway Local Development Plan Policy

6.2.2.8.1 Dumfries & Galloway Local Development Plan 2 2019 (LDP2)

54. The Dumfries and Galloway LDP2 was adopted on October 3rd 2019 and replaces the previous 2014 LDP. The LDP2 'provides the planning framework and guides the future use and development of land in towns, villages and the rural area.'

55. The LDP2 vision for rural areas states that a 'viable rural economy and community' will be characterised by –

- *'more rural businesses*
- *more houses in small groups*
- *more recreational activity*
- *more woodlands*
- *high quality distinctive landscapes*
- *high quality accessible viewpoints, paths and green networks*
- *a range of renewable energy developments*
- *a protected and enhanced natural and historic environment*
- *access to sustainable transport*
- *ready access to higher education and opportunities for knowledge transfer'*

56. Key landscape and visual related policies are listed below.

6.2.2.8.1.1 Policy ED11: Dark Skies

57. '*a) Galloway Forest Dark Sky Park - The Council supports the designation of the Galloway Forest Dark Sky Park, and will assess proposals for development on their merits, securing levels of lighting that are appropriate to the nature of the development, contribute to sustainable development, and do not adversely affect the objectives of the Dark Sky Park designation*.

58. *b) Dark Skies - Supplementary guidance provides guidance on the adoption of good lighting principles and practice for Dumfries and Galloway, including those relating particularly to the Galloway Forest Dark Sky Park*.'

59. A visual assessment of the visible lighting of the proposed Development is assessed in **Technical Appendix 6.2**. Of the 10 Dark Sky Viewpoints identified by D&GC for the Dark Sky Park, Bruce's Stone in Glen Trool, has distant views of the operational Kilgallioch Windfarm and also has potential views of the proposed Development including the proposed turbine lighting, a detailed visual assessment of the effects of lighting at this viewpoint is therefore included in **TA 6.2**.

6.2.2.8.1.2 Policy HE6 - Gardens and Designed Landscapes

60. *'a) The Council will support development that protects or enhances the significant elements, specific qualities, character, integrity and setting, including key views to and from, gardens and designed landscapes included in the Inventory of Gardens and Designed Landscapes or the Non-Inventory List. In considering development proposals the Council will need to be satisfied that:*

- *the development protects or enhances the significant elements of the garden or landscape in situ; and*
- *due consideration has been given to the significance and value of the asset in relation to the long term benefit and specific need for the development in the location proposed.*

b) Developers will be required to submit the results of an assessment of the impact of their proposals on the sites and their settings including details of any potential mitigation measures.

c) Proposals that would have a detrimental effect on the specific quality, character or integrity of a garden or designed landscape will not be approved unless it is demonstrated that the benefits of the proposal are of sufficient public interest to override that detriment.'

6.2.2.8.1.3 Policy NE1: National Scenic Areas

61. *'Development within or that would have an effect on a National Scenic Area (NSA) should only be permitted where:*

- *it will not adversely affect the integrity of the area or the qualities for which it has been designated; or*
- *any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance.'*

6.2.2.8.1.4 Policy NE2: Regional Scenic Areas

62. *'The siting and design of development within a Regional Scenic Area (RSA) should respect the special qualities of the area. Development within, or which affects RSAs, may be supported where the local Council is satisfied that:*

- *the factors taken into account in designating the area would not be significantly adversely affected; or*
- *there is a specific need for the development at that location.'*

6.2.2.8.1.5 Policy NE3: Areas of Wild Land

63. *'Development which would affect the Merrick Wild Land Area in Galloway and the Talla Hart Fell Wild Land Area north of Moffat would not be supported unless the Council is satisfied that it is demonstrated that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation.'*

6.2.3 Guidance

6.2.3.1 South Ayrshire LDP Supplementary Guidance: Wind Energy (2015)

64. The Supplementary Guidance: Wind Energy (2015) document outlines the Spatial Framework for wind energy development within South Ayrshire. This Spatial Framework identifies areas which have potential for windfarm development and those which do not, or those which require significant protection. In addition to this the Supplementary Guidance refers to the South Ayrshire Landscape Wind Capacity Study (2013) (now superseded

by the 2019 SALWCS), which provides advice on landscape sensitivities, thresholds and cumulative issues amongst other things. It assesses the landscape sensitivity, the capacity of landscape units to accommodate change and provides advice on how the scale, siting and design of development should be informed by local landscape character.

65. The first part of the SG establishes the spatial framework, whilst the second part provides further detail on how policy criteria will be applied in the assessment of proposals.

66. The spatial framework associated with this SG, mapped within the site in Figure 9, indicates that the site includes both *'areas of potential for wind farm development' and 'areas of significant protection'.*

67. Within the areas which are identified as having potential for wind energy developments, the SG notes that *'a wide range of turbine typologies of various heights may be acceptable*', and that *'opportunities to accommodate turbines above 70m will focus on the less sensitive upland landscapes where the more extensive scale of these landscapes can better accommodate and provide an appropriate setting for larger turbines'*.

68. Within the areas of significant protection, the SG identifies that '*there may be some limited opportunities for development, where it can be demonstrated that the significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation'*. The specific reasoning behind the 'significant protection' of some parts of the site appears to relate to areas of deep peat, rather than any specific landscape and visual constraint.

69. Supplementary Guidance on landscape character is set out in the SG as follows:

70. A. Landscape Character - '*We will support proposals if: they are capable of being accommodated in the landscape in a manner which respects its main features and character (as identified in the SALWCS), and which keeps their effect on the landscape and the wider area to a minimum (through a careful choice of site, layout and overall design)'*.

71. Proposals will be assessed against the objectives set out in the Landscape Strategy in Table 2 of the SG (p11). Objectives of the Landscape Strategy that are relevant to the potential development include:

- *'Rugged scenery and sense of wildness associated with Loch Doon and the Carrick Hills - 'Wind farm development will be directed away from this landscape, developers will also be required to demonstrate that development sited in surrounding landscapes avoid significant impact on its setting and experiential qualities'.*
- *Landmark Hills and their setting - 'Protect landmark hills (Figure 7) and their setting. They form highly visible backdrops and diverse skylines to the Girvan and Stinchar valleys and the South Ayrshire coast. Wind turbine development on or near these hills would detract from their distinct form and character and would also be visually prominent from sensitive valleys'.*
- *Less sensitive upland landscapes - 'Within South Ayrshire the upland landscapes are a more extensive scale and can better accommodate larger scale turbines. The strategy will seek to consolidate the generally successful association of larger turbines with this particular landscape character type. Mitigation of their visual impact will be sought by setting development well back into the upland interior and considering limitations in the height of turbines'.*
- *Sensitive Cumulative Zones - 'Minimise Cumulative impacts. Cumulative landscape and visual issues have been identified in the following areas this will limit the capacity for further development: including A714 and Duisk River; and the Stinchar Valley'.*

72. B. Visual Impact - '*We will support proposals if: they do not have a significant detrimental visual impact, taking into account views experienced from surrounding residential properties and settlements, public roads and paths, significant public viewpoints, and important recreational assets and tourist attractions'.*

73. G. Cumulative Impact – *'We will support proposals if: Their cumulative impact in combination with other existing and approved wind energy developments, and those for which applications for approval have already been submitted, is acceptable'.*

74. The SG states that the threshold of acceptability will be monitored and where it is judged the limit of acceptable cumulative impact has been reached this will limit the capacity for further development. Existing and potential impacts which may limit the scope for development include:

- 'Simultaneous and sequential cumulative visual effects experienced from the A714, an important tourist route into South Ayrshire, where large wind farms such as Arecleoch and Mark Hill are already prominent in more open and elevated sections of this route south-east of Barrhill
- Cumulative landscape and visual effects on the Stinchar Valley where Mark Hill wind farm is prominent and in the Poundland area and where Hadyard Hill forms a dominant feature.
- Cumulative effects on the character and setting of the Merrick if windfarms were to extend northwards'.

75. The SG considers that *'establishing boundaries and maintaining visual separation from other wind farms would allow for a clear distinction to be perceived between the wind-farmed landscape and the landscape beyond'.* The SG therefore proposes *'to provide significant protection to the sensitive foothills and valley areas in the immediate vicinity of these windfarm landscapes in order that the integrity of local landscapes and their character can be retained'.* These areas have been incorporated within Table 2 (Landscape Strategy) of the SG.

6.2.3.2 South Ayrshire Landscape Wind Capacity Study (2018)

76. The 2013 Wind Capacity Study was updated by SAC in August 2018. In brief, the updated South Ayrshire Landscape Wind Capacity Study of August 2018 (SALWCS) places the Site largely within Character Type 18C: Plateau Moorlands with Forestry and Windfarms. The main findings of the document note that this landscape character type *"presents the only landscape in South Ayrshire where some scope for very large turbines > 130m were identified as being able to be accommodated….as either additional new developments or 'repowered' schemes for existing well -sited windfarms".*

77. The 2018 SALWCS further notes that *"turbines would need to be set well back from the sensitive outer edges of this landscape to minimise effects on adjacent smaller scale settled valleys and landscapes with a strong sense of wildness. The presence of the Dark Skies Park is a major constraint to turbines > 150m which may require lighting".* Section 21 in the SALWCS 2018 identifies that the Plateau Moorlands with Forestry and Windfarm landscape character type has an "expansive scale", "simple landform and pattern", is "very sparsely settled" with "windfarm development and forestry being key characteristics". Its overall sensitivity to the Very Large typology (turbines > 130m) is assessed in the SALWCS as "High-medium". The document sets out a series of constraints and opportunities and concludes in respect of Guidance for development that "there is some limited scope for the Very Large typology to be accommodated within this landscape".

78. The Rugged Uplands with Lochs and Forest LCT (21) covers the northern part of the site, which forms a western spur of the Carrick Forest Hills to the north of the Rugged Granite Uplands LCT extending south into Galloway and culminates in the distinctive high uplands of Merrick.

79. The SALWCS identifies the area of this LCT within the site as a '*band of smoother, more rounded but steep-sided hills lying to the west (of the LCT)'*. It is described as 'enhancing' the rugged uplands to the south that form '*dramatic craggy mountainous scenery, which is a feature of the granite hills lying at the core of this landscape'*. The hills within and outside of the northern part of the site are formed by lower more rounded, less craggy and dramatic hills in comparison to the landform of the Rugged Granite Uplands LCT that define the Merrick.

80. The SALWCS assesses the LCT as having a High sensitivity to large scale wind turbines (turbines >70m) and finds there to be *'no scope for larger development typologies to be sited in this landscape'*. The SALWCS describes the complex landform and land cover as being '*more reminiscent of a typically 'Highland' landscape'* and *being 'highly scenic and a popular destination for recreation'* with *'a strong sense of seclusion and naturalness, particularly within the rugged hills lying at its core'*. These attributes apply to the Rugged Uplands approximately from Shalloch south to Merrick, rather than the smoother, more rounded hills to the immediate north/north-east of the site.

81. These hills to the north/north-east of the Site are defined as Southern Uplands (Ayrshire) LCT (81) **(Figure 6.5b**) in SNH's digital map-based national LCA (published in 2019). These hills to the north/north-east of the Site have aspects of character that relate to the Southern Uplands, such as their large scale, more rounded but steep-sided hills, than the 'Rugged Uplands'. In a wider context in Scotland, the Southern Uplands LCT has been a landscape

which has successfully accommodated wind energy development and has demonstrated capacity for large scale turbines. It is considered that the hills within the northern parts of the Site have a lower sensitivity than assessed for the wider Rugged Uplands with Lochs and Forest LCT (21) LCT in the SALWCS (as assessed further in **Section 6.9.3**).

6.2.3.3 Other LVIA Guidance

82. The LVIA follows OPEN's methodology devised specifically for the assessment of windfarm developments (see **TA 6.1**) and generally accords with 'Guidelines for Landscape and Visual Impact Assessment: Third Edition' (Landscape Institute and IEMA, 2013) ('GLVIA3'), the key source of guidance for LVIA.

83. Other sources of guidance used and referenced in the LVIA include the following:

- Visual Representation of Windfarms Version 2.2 (Scottish Natural Heritage, February 2017);
- Advice Note 01/11 Photography and Photomontage in Landscape and Visual Impact Assessment (Landscape Institute, 2011);
- Visual representation of development proposals Technical Guidance Note 02/17 (Landscape Institute 31 March 2017);
- Assessing the Cumulative Impact of Onshore Wind Energy proposed Developments (SNH, 2012);
- Landscape Character Assessment Guidance for England and Scotland (SNH and TCA, 2002);
- Scottish Natural Heritage consultation on draft guidance: Assessing impacts on Wild Land Areas - technical guidance (2017);
- Residential Visual Amenity Assessment (RVAA)-Technical Guidance Note 2/19. (Landscape Institute 2019);
- Scottish Natural Heritage - Assessing the Impacts on Wild Land Areas (Technical Guidance, Consultation Draft (2017);
- Wild Land Area Descriptions, Merrick Wild Land Area (01) (SNH, 2017); and
- Siting and Designing of Windfarms in the Landscape: Version 3a (SNH, August 2017).

6.3 Consultation

84. A request for a Scoping Opinion was submitted to the Scottish Government Energy Consents Unit (ECU) in March 2018. The ECU compiled the final consultation responses from key consultees including SNH, SAC and Dumfries and Galloway Council (D&GC). A summary of the Scoping Opinion is provided in **Chapter 5: Scoping and Consultation**. Key information provided by consultees relevant to this LVIA assessment is provided in **Table 6.3.1**, which also describes how issues raised during these consultations have been addressed in the LVIA.

85. All parties agreed in general to the proposed LVIA study area, viewpoints and methodology, and all raised the importance of considering the relationship with the operational Arecleoch, Kilgallioch and Mark Hill Windfarms. Consideration of the effects of the proposed Development on the Merrick WLA and the visual effects of thr turbine aviation lighting were also identified as key issues. Full details of the consultation undertaken throughout the project are presented in the Gatecheck Report provided in **Chapter 5: Scoping and Consultation.**

Table 6.3.1 Consultation

Consultee Name & Date	Consultee Comments	Consultant Comments/Action
Energy Consents Unit (20/5/2019)	Note that South Ayrshire Council and SNH have recommended that some viewpoints are omitted and some are added and state that final viewpoints are to be agreed with the ECU and relevant consultees.	Some viewpoints were omitted and added after scoping to address South Ayrshire Council and SNH comments. Final viewpoint list included in Gatecheck Report and contained in **Table 6.5.1**.
	Note that the blade tip height of the turbines exceeds 150m. As such, viewpoints will be	Effects of aviation lighting on night-time views are assessed in **TA:6.2**.
	required to consider the effects of aviation lighting and how chosen lighting mitigates the effects.	
	Advise that South Ayrshire Council specific comment on lighting and SNH comments on night time assessment should be considered.	Effects of aviation lighting on night-time views are assessed in **TA:6.2**.
	Note that further engagement is required between parties in regards to finalisation of viewpoints and cumulative assessments and request that the ECU is kept informed of relevant discussions.	Some viewpoints were omitted and added after scoping to address South Ayrshire Council and SNH comments. Final viewpoint list included in Gatecheck Report and contained in **Table 6.5.1**. Cumulative windfarms finalised for LVIA as of 13th September 2019.
South Ayrshire Council (2/5/2019)	Notes that the windfarm is proposed within Landscape Character Type (LCT) 18c (Plateau Moorland with Forestry with Windfarms) and LCT 21 (Rugged Uplands with Lochs and Forest). States that no support is offered for turbines greater than 50m high in this location (the proposed turbines are very large typology turbines (130m+)).	Effects on landscape character assessed in **Section 6.9**.
	With reference to South Ayrshire Landscape Wind Capacity Study 2018 (SALWCS), note that LCT 18c is described as having High-Medium sensitivity to Very Large Typology turbines. LCT 18c is close to reaching capacity with operational and consented windfarms already occupying the less sensitive “interior” of the plateau uplands. Further development is likely to impact upon the more sensitive peripheries of the uplands. States that there is no scope for turbines > 50m within LCT 21.	Effects on landscape character assessed in **Section 6.9**.
	The SALWCS notes that turbines of 200m could result in significant cumulative effects if seen in close proximity with operational and consented turbines. States the operational Mark Hill windfarm would form a significant consideration.	Cumulative effects with operational windfarms are assessed in **Section 6.9** and **Section 6.10.** Cumulative effects with consented windfarms are assessed in **Section 6.11.**
	Consideration should be given to the impacts on the Galloway Dark Sky Park.	Effects of aviation lighting on night-time views from the Galloway Forest Dark Sky are assessed in **TA:6.2**.
	Viewpoints listed in paragraph 5.5.5 of the Scoping Report which lie within the Dark Skies Park should form the basis for the assessment of the effects of night time lighting on the Dark Skies Park. Confirm night time effects of the proposal should be additionally considered in nearby locations where current lighting levels are low.	Effects of aviation lighting on night-time views from the Galloway Forest Dark Sky are assessed in **TA:6.2**. Viewpoints within and on the edge of the Dark Sky Park

Consultee Name & Date	Consultee Comments	Consultant Comments/Action
		form the basis for the assessment of effects.
	Note that the site is located within 5km of the Merrick Wild Land Area (part of the site is located within the Craigenreoch and Eldrick Hill Wildlife site, RSPB Important Bird Area and South Ayrshire SA).	The closest turbine of the proposed Development is located 5.8km from the Merrick WLA. Effects of the proposed Development on the Merrick WLA are assessed in **TA:6.3**.
	The proposed Development will be required to set out how it meets the criteria specified within SAC LDP Wind Energy Policy.	An assessment of the proposed Development against the criteria specified within SAC LDP Wind Energy Policy is set out in the planning statement.
	Any identified mitigation measures in relation to the direct and indirect effects on the landscape should be detailed within the LVIA.	Mitigation measures are described in **Section 6.7**.
	The proposed LVIA methodology and the study area of 45km is appropriate.	Agreement on the 45km study area noted. Rationale for this study area is described in **Section 6.1.3**.
	In relation to effects on 'landmark' hills identified in the SALWCS states that Turbines 7, 10 and 13 may be problematic due to their potential impacts on Fell Hill and Craigenreoch.	Fell Hill and Craigenreoch are not specifically identified as 'landmark hills' within the SALWCS, although it does refer to the smoother hills to the west of the Carrick Forest Hills, particularly those that form the deeply incised pass of the Nick of the Balloch (Rowantree Hill and Glengap Hill). The proposed Development is located away from the more dramatic, rugged, rocky summits of the Carrick upland area and the hills that define the Nick of the Balloch, which lie to the east of the proposed Development. The proposed turbines have been located on the southern downslopes of Fell Hill and Craigenreoch, avoiding their more elevated areas, to reduce their visibility and set turbines back from the Stinchar Valley.
	Forest felling should comply with best landscape design practice as set out in UK standards and should be considered in the LVIA.	Forest felling plans are described in **Chapter 14** and shown in the forest design plan (**Figure 14.4.6**.

Consultee Name & Date	Consultee Comments	Consultant Comments/Action
	A detailed and clearly reproduced ZTV map based on a 1:50km OS map base showing visibility within 15km of the windfarm should be included within the LVIA.	Blade tip ZTV on a 1:50km OS map base showing visibility within 15km is included in Figure 6.13b and is also shown with specific landscape and visual receptors overlaid in **Figure 6.17b**, **Figure 6.18b** and **Figure 6.21c**.
	Request more representative views from closer viewpoints, including: – Auchensoul Hill which lies immediately north-west of Barr; – Pinbreck Hill GR 345937; – B7027 in the High Altercannoch area south-east of Barrhill; – Barrhill Railway Station or on the minor road between Barrhill and the station where the operational Marks Hill windfarm is already visible above the Duisk Valley; – Views from more open sections of the Barr footpaths within Changue Forest www.ayrshirepaths.org.uk/walkbarr.htm	Some viewpoints were omitted and added after scoping to address South Ayrshire Council and SNH comments, in particular to include viewpoints from the locations requested and to omit long distance views with limited visibility. Final viewpoint list included in Gatecheck Report and contained in **Table 6.5.1**. Specific comments on requested viewpoints as follows: • Auchensoul Hill - included as Viewpoint 7, **Figure 6.33**) • Pinbreck Hill - not included, as few, if any, receptors visit this hill. Close viewpoint within the site included from Cairn Hill included in Cultural Heritage assessment (**Figure 11.9**. • B7027 High Altercannoch area – included as Viewpoint 3 (**Figure 6.29**). • Minor road near Barrhill Station – included as Viewpoint 2 (**Figure 6.28**). • Views from Barr trails in Changue Forest – included as Viewpoint 20 (**Figure 6.46**) and Viewpoint 21 (Viewpoint **6.47**).
	Recommend that the LVIA assesses the impacts of the windfarm on local settlements and more dispersed and defined groups of residential development within the Stinchar and Duisk Valleys.	Effects on local settlements and more dispersed and defined groups of residential development assessed in **Section 6.10**. Effects on Residential Visual Amenity assessed in **TA: 6.4**.
	Require further information on the nature of turbine lighting proposed and clarification on whether	Effects of aviation lighting on night-time views are assessed in **TA:6.2**.

Consultee Name & Date	Consultee Comments	Consultant Comments/Action
	reduced intensity lighting or radar activated proximity lighting will be used.	
	The South Ayrshire SA local landscape designation identified in Table 5.1 of the Scoping Report has been replaced by Local Landscape Areas (LLA) following a comprehensive review of local landscape designations in 2018. Potential effects on the reasons for designation and special qualities of The Stinchar Valley and The High Carrick Hills LLAs should be considered in the LVIA. The background information on these LLAs can be obtained from the Council.	Further consultation with South Ayrshire Council undertaken to confirm the status of Local Landscape Areas (LLAs). As the Proposed replacement South Ayrshire Local Development Plan (PLDP2) has only recently been published for public consultation, the LLAs within it remain candidate sites, indicative of the Council's intention for protecting important landscapes in South Ayrshire, but carry less weight as a material consideration in planning application decision making than the South Ayrshire SA and related policies defined in the adopted South Ayrshire Local development Plan (LDP1). The candidate LLAs have been mapped in **Figure 6.6** of this LVIA for reference, however the LVIA reports on the impacts of the proposed Development on the South Ayrshire SA contained within the adopted South Ayrshire LDP.
	Note SNH have recently completed their updated national Landscape Character Assessment. Given the likely broad level of the SNH characterisation, agree that the more detailed character assessment set out in the South Ayrshire Landscape Wind Capacity Study (2018) should additionally inform the assessment of effects on landscape character.	Effects on landscape character assessed in **Section 6.9** are based primarily on the landscape character assessment set out in the South Ayrshire Landscape Wind Capacity Study (2018). Reference is also made to the SNH national Landscape Character Assessment (2019).
SNH (11/4/2019)	State that the scale and layout of proposed turbines as well as their relationship to key characteristics would likely be inconsistent with the other schemes in the vicinity, resulting in a complex and confusing pattern of development.	Cumulative effects with operational windfarms are assessed in **Section 6.9** and **Section 6.10.** Cumulative effects with consented windfarms are assessed in **Section 6.11.**

Consultee Name & Date	Consultee Comments	Consultant Comments/Action
	Advise that for turbines of this height, the study area should be >45km.	Agreement on a 45km study area has been reached with South Ayrshire Council. Rationale for this study area is described in **Section 6.1.3**.
	We advise further that sites at scoping should be included in visual representations where they are in close proximity to the site.	There are also a number of scoping stage proposals in the study area (**Figure 6.24**). Scoping sites closest to the proposed Development include Arnsheen and Bargrennan, located over 10km to the south. Scoping stage sites are mapped on **Figure 6.24** for reference but are not considered further in the assessment, due to layout and design uncertainties at the pre-application stage. They are not considered to be sufficiently close to the proposed Development to merit further assessment in the LVIA.
	Recommend that the proposed co-located technologies and the context of the view should be clearly shown in visualisations for viewpoints >5km.	On-site energy storage facility is shown in the photomontage from the Merrick in Viewpoint 8 (**Figure 6.34**).
	Suggest that a viewpoint location should be investigated at the south of the Isle of Arran from where turbines may be visible in the foreground of the Merrick WLA.	Illustrative viewpoint with wireline included at the south of the Isle of Arran (Viewpoint 23, **Figure 6.49**).
	Recommend clear numbering of turbines on at least one visualisation for each viewpoint.	Numbering of turbines is shown in the 53.5° wireline from all viewpoints (e.g. **Figure 6.27f** for Viewpoint 1).
	Recommend that effects on night skies should be appropriately considered given the proximity of the proposed Development to the Galloway Dark Sky and advise that the LVIA-related lightning assessment should include: – Clear information on the positions and intensity of lighting proposed on the turbines themselves and a plan showing which turbines (numbered turbines) would be lit. – Production of a ZTV map which shows the areas from which the nacelle and tower lights may be seen. – Annotation of the positions of turbine lighting (including intermediate tower lights) on all wirelines from every viewpoint.	Effects of aviation lighting on night-time views from the Galloway Forest Dark Sky are assessed in **TA:6.2**.

Consultee Name & Date	Consultee Comments	Consultant Comments/Action
	– A table which lists how many lit turbines will be visible from each viewpoint.	
SNH (12/11/2019)	Following a site visit into the Merrick WLA, SNH requested an additional viewpoint from the summit of Benyellary. From this hill - and from the path descending from it - walkers tend to look westwards out from the WLA. The turbines and night-time aviation lights (if required) would be clearly visible and may have more of an impact upon views from this location than from the Merrick summit. SNH suggest that this viewpoint is used for the night-time lighting assessment as an alternative location to the Merrick.	Benyellary viewpoint added as an 'illustrative' daytime viewpoint to support the assessment of the Merrick WLA, and as an additional 'representative' night-time viewpoint, as an alternative location to the Merrick summit (**Figure 6.50**, Viewpoint 24).
SNH (21/03/2019)	During non-project specific consultations with SNH, SNH have confirmed that the landscape character areas mapped in the regional landscape capacity studies should be used for windfarm LVIAs as these have analysed the landscape for this specific development type.	Effects on landscape character assessed in **Section 6.9** are based primarily on the landscape character assessment set out in the South Ayrshire Landscape Wind Capacity Study (2018). Reference is also made to the SNH national Landscape Character Assessment (2019).
Cree Valley Community Council (8/4/2019)	Object to Newton Stewart being described as a "settlement".	Newton Stewart is included as a visual receptor and when mentioned specifically is referred to as a "market town", however all towns/villages within the study area are referred to collectively as "settlements".
	State that the Challoch viewpoint should be the midpoint of the Barnkirk Road; Challoch is the very lowest point in the area.	Views from Barnkirk Road are not considered representative of views from with Newton Stewart itself, which has limited or no visibility as shown in the ZTV.
	The summit of the Merrick which is within the Cree Valley Community is the most significant viewpoint and must be given a considerable weighting in the evaluation.	Effects on the view from the Merrick are assessed in Viewpoint 8 in **Section 6.10.5.7** and shown in the photomontage in **Figure 6.34a-g**.
	The views of the Galloway Mountain Rescue Team should also be considered. Their members have both an affinity with and a vast knowledge of the Galloway Hills.	Mountaineering Scotland were consulted and their scoping response is summarised in this table below.
Scottish Rights of Way and Access Society (Scotways) (3/5/2019)	Provided a map of routes relevant to the proposed development. Highlight that rights of way SKC3 and SKC5 are within the proposed developable area and as a result are likely to be affected. Rights of Way SKC4 and DW36/ SKC36 lie within the wider site boundary.	Effects of the proposed Development on the local footpath network are assessed in **Section 6.10** and from representative viewpoints on Barr Trails such as Viewpoint 20 and 21.
	Note that the areas forestry is used recreationally by mountain bikers.	The visual effects of the proposed Development on cyclists are assessed in **Section 6.10.**
	Notes that right of way DW36/SKC36 are likely to experience visual impacts and anticipate that the management of the site track layout and the impact upon the public access network will be included within the EIA Report.	The site track layout has been designed to minimise effects on the local right of way DW36/SKC36.
	Note that effects upon recreational visual receptors will be considered within the LVIA. Anticipates that more viewpoints will be included within assessment to assess impacts upon users of the directly affected rights of way and other areas of the public access network.	Effects of the proposed Development on the recreational visual receptors are assessed in **Section 6.10.**
Mountaineering Scotland (17/4/2019)	Cite concerns over the visual impact from The Merrick Range and the Curleywee- Lamachan group south of Glentrool.	Effects on the view from the Merrick are assessed in Viewpoint 8 in **Section 6.10.5.7** and shown in the photomontage in **Figure 6.34a-g**. Effects of the proposed Development on the Merrick WLA are assessed in **TA:6.3**.
	State that the organisation previously objected to a proposal at Balunton (9 turbines of 125m) due to adverse visual impact on the surrounding landscapes and WLA and due to cumulative visual impact associated with the Balunton windfarm being located close to other windfarm developments.	Mountaineering Scotland's objection to the Balunton proposal is noted.
	State that the Cairnsmore of Carsphairn is too far away to be used as a viewpoint and request closer viewpoints representing nearby popular hills instead e.g. the Lamachan/Curlywee group to the south east of Glentrool.	Viewpoint from Cairnsmore of Carsphairn omitted from the viewpoint list shown in **Table 6.5.1**. Viewpoints from within the Merrick WLA included are – the Merrick (Viewpoint 8), Mulwarchar (Viewpoint 11) and Shalloch on Minnoch (Viewpoint 13).
	Note that the northern end of the Merrick range at Shalloch on Minnoch is not covered, however it is recognised that this may duplicate the assessment for the Merrick.	Viewpoint at Shalloch on Minnoch is included in the LVIA (Viewpoint 13, **Figure 6.39**) and this area is included

Consultee Name & Date	Consultee Comments	Consultant Comments/Action
		in the assessment of the effects of the proposed Development on the Merrick WLA are assessed in **TA:6.3**.
	State that it is not clear how the effect on walkers on the Galloway hills will be assessed and note that consideration of recreational effects will only be assessed within 2km of the site.	The effects on walkers in the Galloway Hills has been assessed from four viewpoints – Merrick (Viewpoint 8); Mulwarchar (Viewpoint 11); Shalloch on Minnoch (Viewpoint 13); and Corserine (Viewpoint 14) in **Section 6.10**.
	Assumes that hill routes and summits will be treated as notable points of focus for visitor attractions.	Effects on hill walkers on routes and summits assessed from specific viewpoints within the Galloway Hills as noted above.
Galloway and Southern Ayrshire Biosphere	They Biosphere Partnership Board are concerned that this is the first major windfarm proposal to be put forward inside the buffer of the Biosphere which they feel conflicts with its recognition as a "world-class environment" and goes contrary to the Windfarm position statement produced by the Biosphere in December 2016 and available on our website http://www.gsabiosphere.org.uk/caring-for-the-biosphere/reports-and-plans/. They are concerned that this could be the start of an incremental push into the buffer and up to the boundaries of the core of the Biosphere. They are particularly concerned about the impact on the 'Sense of Place' and landscape value of the core and buffer of the Biosphere particularly in relation to the Merrick Wild Land area which embraces one of our Biosphere core areas. At the same time, as stated in the current position statement, the Biosphere Board actively supports the move to appropriately designed renewable energy production within the transition area which helps embraces the sustainability credentials of UNESCO Biospheres but believes it should be guided by an approach to spatial planning that identifies differing land use and landscape priorities.	The Biosphere is a non-statutory designation that in itself has no formal status within the planning system, however the effect of the proposed Development on the 'Sense of Place' and landscape value of the core and buffer of the Biosphere is assessed in relation to the Merrick Wild Land area (WLA) in **TA:6.3**.

6.4 Assessment Methodology and Significance Criteria

6.4.1 Desk Study

86. The assessment is initiated through a desk study of the Site and 45 km radius study area. This study identifies aspects of the landscape and visual resource that are considered in the LVIA, including landscape-related planning designations (i.e. National Scenic Areas, Gardens and Designed Landscapes, Regional Scenic Areas), landscape character typology, Wild Land Areas, operational and potential cumulative windfarms, and views from routes (including roads, railway lines, National Cycle Routes and long distance walking routes), and settlements.

87. The desk study also utilises Geographic Information System (GIS) and Resoft Windfarm software to explore the potential visibility of the proposed Development. The resultant ZTV diagrams and wirelines provide an indication of which landscape and visual receptors are likely to be key in the assessment.

6.4.2 Field Survey

88. To inform the baseline, layout design and assessment process, a field survey was undertaken between May-November 2019. The field survey included a walkover of the Site, visits to viewpoints and designated landscapes, as well as extensive travel around the study area to consider potential effects (including cumulative) on landscape character and on the experience of views seen from routes through the landscape. Viewpoint photography has been undertaken during periods of good visibility between May-November 2019.

89. These visits have allowed the landscape character and the visual amenity of the study area to be experienced in a range of different conditions and seasonal variation. Field surveys were carried out throughout the 45 km radius study area, although surveys were concentrated within the areas shown on the ZTV to gain theoretical visibility of the proposed Development and the focused study area of 20 km. The field survey allows the assessors to judge the likely scale, distance, extent and prominence of the proposed Development directly.

90. The landscape of the Site was assessed for any particular features that contribute to the landscape character of the Site or are important to the wider landscape setting. In particular, the form and pattern of the land was assessed from the Site and surrounding area to better understand its character and to take these qualities into account in the siting and design of the proposed Development. The landscape character types for the study area were reviewed and the key characteristics of the landscape were identified. The field surveys provided an experience of the character types of the study area and verification of how these areas might be affected by the proposed Development.

91. The visual amenity of the study area was surveyed including both static and sequential views, from receptors representative of the range of views and viewer types likely to experience the proposed Development. Views from a variety of distances, aspects, elevations and extents were included. Receptor types include individual properties and settlements; main transport routes; main visitor locations; areas of cultural significance; the range of landscape character types within the study area; and the cumulative effects of the proposed Development in combination with other existing or proposed windfarms in the study area.

92. The field survey is also important in informing the sequential assessment, through the experience of each of the routes under consideration, to provide an understanding of the essential characteristics, and how these are likely to be affected by the proposed Development.

6.4.3 Assessment Methods

93. The detailed methodology for the assessment is described in detail in **TA 6.1: Landscape and Visual Assessment Methodology**. The broad principles used in the assessment of the significance of effects are also described here.

94. The objective of the assessment of the proposed Development is to predict the likely significant effects on the landscape and visual resource. In accordance with the EIA Regulations the landscape and visual effects are

assessed to be either significant or not significant. The LVIA does not define intermediate levels of significance as the EIA Regulations do not provide for these.

95. The significance of effects is assessed through a combination of two considerations; the sensitivity of the landscape receptor or view and the magnitude of change that would result from the addition of the proposed Development.

6.4.3.1 Sensitivity of Receptor

96. Sensitivity is an expression of the ability of a landscape receptor or view to accommodate the proposed Development. Sensitivity is determined through a combination of the value of the receptor and its susceptibility to the proposed Development. The factors that determine these criteria are described in **Technical Appendix 6.1.** Levels of sensitivity - high, medium-high, medium, medium-low and low - are applied in order that the judgement used in the process of assessment is transparent.

6.4.3.2 Magnitude of Change

97. Magnitude of change is an expression of the extent of the effect on landscape receptors and views that would result from the introduction of the proposed Development. The magnitude of change is assessed in terms of a number of variables, including the size and scale of the impact and the extent of the affected area. The factors that determine these criteria are described in **Technical Appendix 6.1**. Levels of magnitude of change - high, medium-high, medium, medium-low, low and negligible - are applied in order that the judgement used in the process of assessment is transparent.

6.4.3.3 Categories of Effects

98. The LVIA is intended to determine the effects that the proposed Development would have on the landscape and visual resource. For the purposes of assessment, the potential effects on the landscape and visual resource are grouped into four categories:

- **Physical effects** are restricted to the area within the application boundary and are the direct effects on the existing fabric of the Site, such as alteration to ground cover. This category of effects is made up of landscape elements, which are the components of the landscape such as rough grassland and moorland that may be directly and physically affected by the proposed Development.
- **Effects on landscape character**: landscape character is the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and the way that this pattern is perceived. Effects on landscape character arise either through the introduction of new elements that physically alter this pattern of elements, or through visibility of the proposed Development, which may alter the way in which the pattern of elements is perceived. This category of effects is made up of landscape character receptors, which fall into two groups; landscape character types and landscape-related designated areas and Wild Land Areas.
- **Effects on views**: the assessment of effects on views is an assessment of how the introduction of the proposed Development would affect views throughout the study area. The assessment of effects on views is carried out in two parts:
  - an assessment of the effects that the proposed Development would have on a series of viewpoints around the study area; and
  - an assessment of the effects that the proposed Development would have on views from principal visual receptors, which are relevant settlements and routes found throughout the study area.
- **Cumulative effects** arise where the study areas for two or more windfarms (or in some cases other relevant development) overlap so that both of the windfarms/developments are experienced at a proximity where they may have a greater incremental effect, or where windfarms/other developments may combine to have a sequential effect.

6.4.3.4 Approach to Cumulative Effects

99. The LVIA reports both the project alone and cumulative effects arising from the proposed Development against the existing baseline. Due to the location of the proposed Development, relatively close to Mark Hill Windfarm (and other operational windfarms in the surrounding landscape) there will be potential for cumulative impacts to arise with the existing baseline of operational and under-construction windfarms. The LVIA in **Sections 6.9 - 6.10** assesses both the project alone impact of the proposed Development, as well as its impact cumulatively with the existing baseline of operational and under-construction windfarms.

100. These effects are assessed on a receptor by receptor basis, with the presence of certain operational and under-construction windfarms having the potential to influence the assessment of effects on particular landscape and visual receptors, to a greater or lesser degree, depending on the interaction between the proposed Development, these other windfarms and the particular receptor.

101. The likely significant cumulative effects of the proposed Development are also assessed in relation to two further relevant potential future baseline scenarios, 'the consented scenario' and 'the application stage scenario' as described in **TA:6.1** and **Section 6.11**.

102. In accordance with guidance (SNH, 2012), the LVIA for each receptor considered assesses the effect arising from the addition of the proposed Development to the cumulative situation, and not the overall effect of multiple windfarms. However, in considering the detailed cumulative effects described within the LVIA, a broad statement relating to the combined cumulative effect of multiple windfarms in the area has also been provided in the LVIA summary.

6.4.3.5 Potential Effects

103. Potential effects are those which could result from the construction and operation of the proposed Development. **Table 6.4.1** describes the typical landscape and visual effects that can arise from the construction and operation of a windfarm; it should be noted that their inclusion in this table does not imply that they will occur, or be significant, in the case of the proposed Development.

Table 6.4.1 Potential Effects

Activity	Specific element	Potential effects	Potential sensitive receptors
Construction	Construction plant, borrow pit excavation, temporary construction facilities, temporary meteorological masts, construction cranes, construction of onsite substation/control building, track construction.	Temporary physical effects on landscape fabric; Permanent physical effects on landscape fabric (i.e. permanent removal of vegetation / forestry / ground cover); Temporary effects on landscape character; Temporary effects on views; Temporary cumulative effects.	Physical landscape features Landscape character receptors Visual receptors
Operation - day time	Turbines, access tracks, restored borrow pits, control building, energy storage units, permanent meteorological masts.	Long term effects on landscape character including cumulative effects; Long term effects on views including cumulative effects.	Landscape character receptors Visual receptors
Operation – night time	Turbine aviation lighting on nacelle and tower.	Long term effects on views	Visual receptors

104. The effects of the construction and operation of the proposed Development on the landscape and visual resource would arise principally from the construction and operation of the turbines, control building, energy storage units and access tracks. The temporary construction facilities, such as cranes, construction vehicles, borrow pits, construction compounds and delivery vehicles required during the construction would also have effects on the landscape and visual resource during the construction period.

105. There is no proposal to limit the lifetime of the proposed Development. Therefore, the assessment considers the effects of the operational phase of the proposed Development, without time limitations. Should decommissioning of any of the proposed Development be required e.g. failure of a wind turbine beyond economic repair, it is considered that any effects would be less than those resulting from construction of the proposed Development, and

as such this potential for decommissioning has been scoped out of further assessment. Should consent be granted, it is anticipated that there would be a condition which would address the requirement to remove turbines if they become non-operational for a defined period.

6.4.3.6 Turbine Lighting

106. The wind turbines would be fitted with visible aviation lighting in accordance with the Air Navigation Order and Civil Aviation Authority (CAA) requirements. As such, there is potential for the proposed Development to be visible at night.

107. It is proposed to explore the possibility of using 'smart' aviation lighting (aviation obstruction lighting detection system) whereby the lights would only be switched on when low altitude aircraft approach them. The CAA is in the process of consulting on a new policy statement on En-Route Aviation Detection Systems for Wind Turbine Obstruction Lighting Operation. SPR has had an opportunity to review the CAA's proposal as part of an industry working group considering this guidance. It is expected that this guidance will be finalised and released during 2019.

108. Specific requirements for aviation and navigational lighting would be agreed with the relevant stakeholders post-consent and prior to construction. A description of the proposed turbine lighting is found within **Chapter 4: Development Description** and **Chapter 14: Other Issues.** Based on this, the following assumptions have been made with regards to lighting of the proposed Development for the LVIA:

- The CAA requires that all obstacles at or above 150 m above ground level are fitted with medium intensity visible lighting and in the case of wind turbines these should be located on the nacelle;
- The CAA requires that a secondary light is fitted for use only when the primary light fails and would not be lit concurrently;
- There is an additional requirement for low intensity lights to be provided at an intermediate level of half the nacelle height. These would need to be fitted around the towers to allow for 360-degree horizontal visibility; and

109. See also **Technical Appendix 6.2: Visual Assessment of Turbine Lighting**, which describes the lighting parameters and approach to assessing night time effects in more detail in relation to the proposed Development.

6.4.3.7 Nature of Effects

110. The effects of the proposed windfarm may be assessed as 'beneficial' or 'adverse' under the term 'Nature of effect'. The landscape and visual effects of windfarms are difficult to categorise in either of these brackets as, unlike other disciplines, there are no definitive criteria by which the effects of windfarms can be measured as being categorically 'beneficial' or 'adverse'. Generally, in the development of 'new' windfarms, a precautionary approach is adopted by OPEN, which assumes that significant landscape and visual effects will be weighed on the adverse side of the planning balance. Beneficial effects may, however, arise where the proposed windfarm contributes to the enhancement of desirable characteristics such as the restoration of a degraded landscape and neutral effects may occur where the proposed windfarm fits with the existing landscape character. Unless it is stated otherwise, the significant effects identified in this assessment are considered to be adverse. Judgements on the nature of effect are based on professional experience and reasoned opinion informed by best practice guidance.

6.4.3.8 Duration of Effects

111. The effects of the proposed Development are of variable duration, and are assessed as short-term or long-term, and permanent or reversible. As there is no proposal to limit the lifetime of the proposed Development, the assessment considers the effects of the operational phase of the proposed Development, without time limitations. The turbines, access tracks, control building and substation compounds would be apparent during this time, and these effects are considered to be long-term.

112. Other infrastructure and operations such as the construction processes and plant (including tall cranes for turbine erection) and construction and storage compounds would be apparent only during the initial construction period of the proposed Development and are considered to be short-term effects. Borrow pit excavation would also be short-term as borrow pits would be restored at the end of the construction process, although a permanently altered ground profile may remain evident. The effects of the tall cranes and heavy machinery used during the construction period is also temporary and reversible.

113. In order to avoid repetition, the duration and reversibility of effects are not reiterated throughout the assessment.

6.4.3.9 Residual Effects

114. The LVIA focuses on the effects of the proposed Development in its operational phase which is also considered as the residual effects.

6.4.4 Assessment of Significance

115. The significance of effects is assessed through a combination of the sensitivity of the landscape receptor or view and the magnitude of change that would result from the addition of the proposed Development. While this methodology is not reliant on the use of a matrix to determine the conclusion of a significant or not significant effect, a matrix is included in **Table 6.4.2** to illustrate how combinations of sensitivity and magnitude of change ratings can give rise to significant effects. The matrix also gives an understanding of the threshold at which significant effects may arise.

Table 6.4.2 Illustrative significance matrix

Sensitivity \ Magnitude	High	Medium-High	Medium	Medium-Low	Low	Negligible
High	significant	significant	significant	significant / not significant	not significant	not significant
Medium-High	significant	significant	significant / not significant	significant / not significant	not significant	not significant
Medium	significant	significant / not significant	significant / not significant	not significant	not significant	not significant
Medium-Low	significant / not significant	significant / not significant	not significant	not significant	not significant	not significant
Low	not significant	not significant	not significant	not significant	not significant	not significant

116. Effects within the dark grey boxes of **Table 6.4.2** are considered to be significant in terms of the EIA Regulations. Effects within the light grey boxes may be significant or not significant depending on the specific relevant factors that arise at a particular landscape or visual receptor. In accordance with GLVIA3, experienced professional judgement is applied to the assessment of all effects and reasoned justification is presented in respect of the findings of each case.

117. A significant effect occurs where the proposed Development would provide a defining influence on a landscape element, landscape character receptor or view. A not significant effect would occur where the effect of the proposed Development is not material, and the baseline characteristics of the landscape element, landscape character receptor, view or visual receptor continue to provide the definitive influence. In this instance the proposed Development may have an influence, but this influence would not be definitive. Significant cumulative landscape and visual effects would arise where the addition of the proposed Development to other windfarms and/or other major developments would lead to windfarms becoming a prevailing landscape and visual characteristic.

6.4.5 Assumptions, Limitations and Confidence

6.4.5.1 Zone of Theoretical Visibility (ZTV) Analysis

118. There are limitations in the theoretical production of ZTVs, and these should be borne in mind in their consideration and use:

- The ZTVs illustrate the 'bare ground' situation, and do not take into account the screening effects of vegetation, buildings, or other local features that may prevent or reduce visibility;
- The ZTVs do not indicate the reduction in visibility that occurs with increased distance from the proposed Development. The nature of what would be visible from 3 km away would differ markedly from what would be visible from 20 km away, although both are indicated on the ZTVs as having the same level of visibility; and
- There is a wide range of variation within the visibility shown on the ZTV. For example, an area shown on the blade tip ZTV as potentially having visibility of all of the turbines may gain views of the smallest extremity of blade tips, or of full turbines. This can make a considerable difference in the effects of the proposed Development on that area.

119. These limitations mean that while the ZTVs are used as a starting point in the assessment, providing an indication of where the proposed Development theoretically would be visible, the information drawn from the ZTVs should not be completely relied upon to accurately represent visibility or impact of the proposed Development.

6.4.5.2 Visualisations

120. Photographs and other graphic material such as wirelines and photomontages used in the assessment are for illustrative purposes only and, whilst useful tools in the assessment, are not considered to be completely representative of what would be apparent to the human eye. SNH provides the following information on the limitations of visualisations that are produced according to the SNH guidance 'Visual Representation of Windfarms' (February 2017):

- "*Visualisations of windfarms have a number of limitations which you should be aware of when using them to form a judgement on a windfarm proposal. These include:*
- *a visualisation can never show exactly what the windfarm will look like in reality due to factors such as: different lighting, weather and seasonal conditions which vary through time and the resolution of the image;*
- *the images provided give a reasonable impression of the scale of the turbines and the distance to the turbines, but can never be 100% accurate;*
- *a static image cannot convey turbine movement, or flicker or reflection from the sun on the turbine blades as they move;*
- *the viewpoints illustrated are representative of views in the area, but cannot represent visibility at all locations;*
- *to form the best impression of the impacts of the windfarm proposal these images are best viewed at the viewpoint location shown;*
- *the images must be printed at the right size to be viewed properly (260mm by 820mm); and*
- *you should hold the images flat at a comfortable arm's length. If viewing these images on a wall or board at an exhibition, you should stand at arm's length from the image presented to gain the best impression.*"

6.5 Baseline Conditions

6.5.1 Introduction

121. The landscape and visual baseline identifies aspects of the landscape and visual resource that may be significantly affected by the proposed Development and provides a description of the existing landscape and visual conditions in the area that may be affected. Establishing the baseline will, when reviewed alongside the description of the proposed Development, form the basis for the identification and description of the landscape and visual effects of the proposed Development.

122. The baseline description of the landscape that may be affected is primarily determined by the physical footprint of the proposed Development components and their ZTV (**Figures 6.13a-b**). The baseline also describes current pressures that may cause change in the landscape in the future, in particular drawing on information for wind energy developments that are not yet present in the landscape but are at other stages in the planning process. Operational and under construction wind energy developments are regarded as part of the baseline landscape character of the area. Any changes resulting from the proposed Development are assessed within this context in the assessment of landscape and visual effects.

123. A preliminary assessment has identified those landscape and visual receptors that may have the potential to experience significant effects, which require to be assessed in full. This section provides a baseline overview and a detailed baseline description is provided separately within the assessment section for each receptor that may be significantly affected.

6.5.2 Landscape Baseline - Overview

6.5.2.1 Site Context

124. The Site is located predominantly within South Ayrshire and lies to the north-east of the operational Mark Hill Windfarm within an area of expansively scaled plateau, which extends south into Dumfries and Galloway. It has a simple, large scale landform of broad, rounded hills and shallow basins that form a low, even and generally indistinct backdrop to smaller scale settled valleys.

125. Landcover is dominated by coniferous forestry which forms part of the Glentrool Forest. The forestry cover is relatively varied, with different species, densities and age structure evident as well as small areas of open moorland. The landscape is sparsely settled with a series of tracks providing access to the three residential properties situated to the south of the Site boundary, as well as for management purposes and recreation.

126. The turbines straddle an area of gently undulating hills and craigs - Pindonnan craigs (335m AOD), Loch Scalloch (360m AOD), Knockinlochie (322m AOD) with the highest being Mid Hill at 411m AOD. The turbines would be set back from the open summits of the higher edge hills to the north-east namely Fell Hill (465m AOD), Cairn Hill (479m AOD), Pinbreck Hill (549m AOD) and Craigenreoch (565m AOD).

127. There is one loch contained within the Site boundary (Loch Scalloch) with two in the immediate vicinity to the south east (Loch Moan, Kirriereoch Loch) and three to the south west (Half Merk Loch, Skaig Loch and Shiggerland Loch). A series of watercourses drain the ridgeline, mostly running toward the south east. The surrounding area is rural in nature with the land largely being used for agriculture and commercial forestry management. The operational Mark Hill Windfarm is close to the south west boundary of the Site and running close to the northern edge of the Site is an overhead electricity transmission line (OHL) supported by steel lattice towers.

6.5.2.2 Landscape Character

128. The landscape assessment considers the effect of the proposed Development on the Landscape Character Types / units (LCTs) within the Site and the surrounding area. The LCTs found in the study area are shown on **Figure 6.5** (**Figure 6.17a** and **Figure 6.17b** show LCTs with the ZTV of the proposed Development).

129. The study area is covered by the following SNH landscape character reviews: Dumfries and Galloway Landscape Assessment, SNH Review No 94, 1998 and Ayrshire Landscape Assessment, SNH Review No 111, 1998. These landscape character reviews described and categorised the landscape of the study area into distinct character types as defined in SNH's landscape character dataset. In early 2019, SNH published an update to the characterisation of Scotland's landscape as a digital resource. The information builds on the characterisation studies published in the 1990's. SNH describe the recent publication as now superseding the 1990s landscape character descriptions and mapping adding that "*Where there are topic-specific landscape capacity or sensitivity studies, they would take precedence for informing that development type, e.g. windfarms.*"

130. Recent 'topic specific' characterisation studies have been produced for each local authority in the study area as part of windfarm Landscape Capacity Studies. The Site and majority of the study area is covered by the South Ayrshire Landscape Wind Capacity Study, 2018 (SALWCS); Dumfries & Galloway Landscape Wind Capacity Study, 2017 (DGWLCS); and East Ayrshire Landscape Wind Capacity Study, 2013 (EALWCS).

131. These capacity studies therefore form the most up to date characterisation studies in the area which update and refine the landscape characterisation and refine the boundaries of the SNH Landscape Assessments. The landscape character boundaries used in the capacity studies therefore form the basis of the character assessment in this LVIA and key characteristics have been summarised from these texts. For additional reference the 2019 SNH description of key characteristics has also been included.

132. The proposed Development would be located largely within the north-eastern part of the Plateau Moorlands with Forestry and Windfarms (18C) as identified in the SALWCS. Two of the proposed wind turbines would be located within the Rugged Uplands with Loch & Forest (21) close to the boundary with the Plateau Moorlands with Forestry and Windfarms.

6.5.2.3 Landscape Designations

133. A landscape designation is an area of landscape identified as being of importance at international, national or local level, either defined by statute or identified in development plans or other documents. The landscapes are designated in relation to their special qualities or features which warrant special consideration through the planning system. National and local designations occur in parts of the study area and are designated at a national level by SNH and at a local level by the local planning authority.

134. There are three ways in which such designations are relevant to the LVIA:

- The presence of a designation can give an indication of a recognised value that may increase the sensitivity of a landscape character receptor, viewpoint or visual receptor, and may therefore affect the significance of the effect on that receptor;
- The presence of a relevant designation can lead to the selection of a representative viewpoint within the designated area, as the viewpoint will provide a representative outlook from that area; and
- Designated areas may be included as landscape character receptors so that the effects of the proposed Development on these features of the landscape that have been accorded particular value can be specifically assessed.

135. In relation to the proposed Development, key landscape designations within the study area include the South Ayrshire SA and the Galloway Hills RSA both of which lie within a 5km radius. The northern part of the Site includes an area that is designated as part of the South Ayrshire SA.

136. Landscape designations found in the study area are shown on **Figure 6.6** and **Figure 6.18a-b** (which shows designations with the ZTV of the proposed Development overlaid).

- National Scenic Areas (NSA) - Fleet Valley found to the south east of the study area at a distance of approximately 30km;
- South Ayrshire SA – the South Ayrshire SAs are not named in the LDP, the closest parts of the South Ayrshire SA cover the hills immediately to the north of the Site and the Stinchar and Duisk Valleys.
- Dumfries and Galloway Regional Scenic Areas (RSAs) – Galloway Hills, Rhins Coast, Mochrum Lochs and Machars Coast;
- East Ayrshire Sensitive Landscape Area (EA-SLA) - the EA-SLAs are not named, the closest part of the EA-SLA lies in the north east quadrant beyond the Merrick foothills;
- Gardens and Designed Landscapes (GDLs) – there are 15 GDLs within the 45 km study area with Kilkerran and Bargany within 15 km to the north.

137. Whilst not recognised as landscape designations the Galloway Forest Park and Dark Sky Park are highly valued recreational destinations as recognised within the SALDP and D&GC LDP (**Figure 6.9b**).

6.5.2.4 Merrick Wild Land Area (WLA)

138. The Merrick WLA is the most southerly WLA in Scotland and is relatively small in extent (82 km^2). The location of the Merrick WLA is shown relative to the Site in **Figure 6.2** and is located 5.8 km to the east of the nearest proposed turbine at its closest point. There are three Local Authority administrative boundaries within the Merrick WLA: South Ayrshire, East Ayrshire and Dumfries and Galloway (**Figure 6.5a**). The landscape character of the Merrick WLA relates partly to these local authority areas, and to variations in elevation and land use, but they are consistent in defining its principal character as Rugged Upland. The Merrick WLA citation provides the following summary description of its character:

139. *'It includes the central part of Forestry Commission Scotland's (FCS) Galloway Forest Park, and consists of a range of steep hills, including Merrick (a Corbett) which at 843 metres is the highest mainland hill in the south of Scotland. Together with several other hills over 600 metres in height, it forms a ridge with spurs between the tops of Shalloch on Minnoch (another Corbett) and Benyellary, collectively known as 'The Awful Hand'. To the east of this, the rocky Dungeon Hills form a slightly lower ridge to the south of the more rounded hill of Mullwharchar. The hills are predominantly open, rolling moorland, but contain some exposed and craggy peaks. These ridges enclose a central swathe of lower-lying, undulating ground containing several natural lochs, forming a corridor that rises over 400 m from Loch Trool to Loch Enoch and providing some rugged and sometimes boggy walking. The entire WLA lies within FCS ownership and is surrounded on all sides by extensive forest plantations, predominantly of Sitka spruce'.*

140. The Merrick WLA lies within the Galloway Forest Dark Sky Park and also forms part of the Galloway Hills RSA, designated by D&GC.

141. Wild Land effects are considered in the LVIA in respect of the Merrick WLA. The methodology and assessment of the effects of the proposed Development on the wildness qualities of the Merrick WLA are presented in full in **TA: 6.3 Wild Land Assessment**.

6.5.3 Visual Baseline Overview

6.5.3.1 Blade Tip ZTV

142. ZTV mapping is used to identify those receptors and geographical areas which will gain theoretical visibility of the proposed Development. Although ZTV mapping has limitations in that it illustrates theoretical and not actual visibility (since it only takes account of the terrain of the landform and does not take into account the screening effect of elements such as forestry, buildings and localised landform), it does provide a useful assessment tool to identify locations from where the proposed Development may be visible and the receptors that may require further assessment in the LVIA.

143. The blade tip ZTV is shown in **Figure 6.13a** (A1 size) and **Figure 6.13b** (A3 size). In general terms, the ZTV indicates that areas of higher visibility of the proposed Development (16-18 turbines) occur within 20 km and are more prevalent to the south of the proposed Development than to the north, where in overall terms, visibility of the proposed Development is more limited in geographical extent and in terms of the number of visible turbines.

144. Higher levels of visibility of the proposed Development (16-18 turbines) from wider geographic areas, occur primarily along the Southern Upland Fault in the rising landscape immediately around the site extending to the east to the Merrick Hills and across the forested plateau moorlands of South Ayrshire and Galloway to the south and south-west of the proposed Development. In general, these are relatively remote, heavily forested areas with limited access and relatively few visual receptors, with access on unclassified roads and forest access tracks. Settlement in these elevated plateau landscapes is limited to scattered rural dwellings and farmsteads. Higher levels of visibility (16-18 turbines) also extend to the western side of the Merrick uplands (WLA), to the east of the Site, where the higher landforms of these rugged uplands provide elevated views over the proposed Development and the surrounding landscape.

145. There will also be views of the proposed Development from the foothills of South Ayrshire to the north, on either side of the Stinchar Valley, however this tends to be of a reduced number of turbines due to the screening provided by the intervening upland ridgeline of the turbines that are set back further to the south of the Site. The areas to the north and north-east of the proposed Development, beyond the Carrick Hills, afford very limited visibility of the proposed Development, generally of 1-3, 4-6 or 7-9 turbines, limited to localised areas of rolling higher ground affording visibility at long distances. The ZTV shows that there are patches of theoretical visibility from isolated landmark hill locations within South Ayrshire, to the north-west of the proposed Development, but that the majority of the lower lying valleys and settled landscapes within Ayrshire will have limited or no visibility of the proposed Development.

146. The lower lying valleys and glens that penetrate into the plateau moorland, will also generally experience limited visibility. The ZTV only shows theoretical visibility along the Duisk Valley to the south-west of the proposed Development on the north-east facing slopes of the Duisk Valley near Barrhill, where there will be mid-range views back across the valley to the Site and the distinctive upland backdrop formed by the Galloway Hills/Merrick uplands to the south of the Site. The majority of the Duisk Valley will have no visibility of the proposed Development. Similarly, views from the Stinchar Valley are restricted by the intervening rising landform on the southern side of the valley, which limits views of the proposed Development, as it is generally set back into the uplands behind the skyline. Visibility is restricted to isolated locations along the Stinchar Valley with views of several more prominent turbines on the northern edge of the Site, and to the south facing slopes on the northern side of the Stinchar Valley,

where there are views back across the valley and the village of Barr, to the proposed Development on the upland skyline.

147. Geographic areas beyond the Merrick and the Rhins of Kells to the east, as well as the areas to the south-east of the study area beyond Cairnsmore of Fleet, will have no visibility of the proposed Development. There will be no visibility of the proposed Development from Glentrool village, Glentrool itself or Bruce's Stone. Likewise, beyond the plateau moorland to the south-west, towards the Mull of Galloway and the Rhins, the landscape becomes lower lying and there is limited visibility of the proposed Development, with higher levels of visibility restricted to the higher ground of the Rhins peninsula at long distances of 35-40 km, and similarly from the more elevated ground of the Machars at distances over 30 km.

148. The ZTV shows high visibility from the seascape of the eastern parts of the North Channel / southern parts of the Firth of Clyde, with views of 16-18 turbines theoretically visible to users of these seas, albeit at long distances of over 20 km, and as part of the distant inland skyline backdrop. To the extreme north-west of the study area, the ZTV shows theoretical visibility of the proposed Development from the southern edges of the Isle of Arran between Kingscross Point, Kildonan and Bennan Head, at distances of 40-45 km.

6.5.3.2 Blade Tip ZTV with Potential Forestry Screening

149. The blade tip ZTV with potential forestry screening is shown on **Figures 6.14a-b**. The blade tip ZTV with potential forestry screening provides some illustration of the likely screening influence of forestry on the visibility of the proposed Development. **Figures 6.14a-b** shows the large geographic areas of forestry that are present in the LVIA study area, using OS OpenMap local data, with forestry modelled at 5 m height and included within the ZTV calculation. Forestry in the landscape provides extensive screening from areas within and immediately adjacent to these forests, such that the areas of remaining visibility of the proposed Development are very limited, particularly to areas of higher ground within 15 km (**Figure 6.14b**), from the Merrick uplands to the east; the east facing slopes of the Duisk Valley; south facing slopes of the Stinchar Valley; foothills of South Ayrshire to the north and open plateau moorland areas to the south-east.

6.5.3.3 Hub Height ZTV

150. The hub height ZTV for the proposed windfarm is shown in **Figure 6.15.** The hub height ZTV is run at the turbine hub (or nacelle) height, of 125 m, and shows potential visibility of any part of a wind turbine up to the height of its hub or nacelle (but not all of the wind turbine tower would necessarily be seen). Comparison between ZTVs to blade tip and hub allows identification of those areas from which the turbine towers might not be visible, but the blades (or part of these) would. The areas of visibility shown on the blade tip ZTV (**Figures 6.13a-b**) but not on the hub height ZTV (**Figure 6.15**) are the areas from which parts of the blades may be visible, and not the towers. The overall pattern of theoretical visibility shown in the hub height ZTV is broadly similar to the blade tip ZTV, but with notably reduced theoretical visibility to the north from the foothills and valleys of South Ayrshire; from the wider landscape of Ayrshire to the north and from the seascape of the Firth of Clyde/North Channel to the north-west; indicating that the upper towers and rotor sweep of the proposed turbines will be visible from these northern parts of the study area, but not necessarily the full wind turbine towers.

6.5.3.4 Horizontal Angle ZTV

151. The Horizontal Angle ZTV is shown on **Figure 6.16**. The Horizontal Angle ZTV measures how much of the horizontal field of view is theoretically occupied by the proposed Development. It measures the maximum lateral spread from the furthest left to the furthest right theoretically visible turbine of the proposed Development. The information is presented as a horizontal angle in degrees. The horizontal angle ZTV provides further information on the likely magnitude of effect of the proposed Development because the results reflect the effect that distance has on the apparent size of the proposed Development: a large object up-close has more visual impact than the same sized object further away (all other things being equal). The horizontal angle ZTV is displayed using coloured bands showing incremental degrees of horizontal angle, in order to highlight areas of higher effect.

152. The horizontal angle ZTV shows that the widest, theoretical, horizontal field of view is occupied in close proximity to the proposed Development, particularly within the proposed Development site itself, where the turbines could occupy more than 180 degrees (50 %) of the field of view, and in the areas typically within close proximity (around 3 km), where the proposed Development could occupy 90-180 degrees (25 to 50 %) of the field of view, providing actual visibility exists. The proposed Development will have a wider horizontal extent in views from the north and south, where the proposed windfarm will appear more spread out on the skyline across the width of the site, but will have a reduced horizontal extent in views from the east and west, where the proposed turbines will be appear more clustered within a smaller part of the skyline.

153. Considering the horizontal field of view occupied by the proposed Development in views to the north and south, the ZTV is notable for the magnitude at which the horizontal angle occupied by the proposed Development decreases with distance. From 5 km, the horizontal angle occupied by the proposed Development drops to less than 60 degrees; beyond 10 km to less than 30 degrees; and beyond 20 km to less than 20 degrees of the field of view. Towards the outer edges of the LVIA study area, the proposed Development will occupy less than 10 degrees or less than 5 degrees of the field of view. The visual effect of the proposed Development will therefore diminish with distance; generally resulting in a higher magnitude of change from locations at closer proximity, where the proposed Development occupies a wider horizontal extent (or 'lateral spread'), and a lower magnitude of change from distant locations for much of the study area where the extent of the horizon occupied by the proposed Development is small.

6.5.3.5 Overview of Principal Visual Receptors

154. The proposed Development is situated in an elevated position on a moorland plateau in a remote and heavily forested area, with a number of existing large scale windfarms. The area of moorland plateau is extensive and there are few roads or settlements within this immediate landscape of the Site. Adjacent to the plateau landscape to the north and south-west are lower lying valleys (the Stinchar and Duisk valleys) which have provided sheltered areas for settlement and associated transport routes. To the east the Southern Upland fault has produced impressive hill formations and upland areas which form a relief to the plateau landscape and limit access to all but those committed to driving along remote routes, hill walking or cycling.

155. The key visual receptors around the proposed Development include residential receptors (settlements, groups of houses and single houses), roads, railways, walking routes and cycle routes. The principal visual receptors within the LVIA study area (settlements, transport routes, recreational routes and visitor attractions) are shown in **Figure 6.9** (45km) and **Figure 6.11** (15km). Principal visual receptors are also shown with the ZTV in **Figure 6.21a** and **Figure 6.21b**.

156. The principal visual receptors in relation to the proposed Development are described below and the preliminary assessment in **Section 6.10.2** provides an initial assessment of principal visual receptors.

6.5.3.5.1 Settlement

157. The areas surrounding the proposed Development are not densely populated. On the whole, areas within 10km of the proposed Development are very sparsely populated, with very few settlements receptors in comparison to other areas of Southern and Central Scotland. The lowland, coastal and peninsula areas in the north-west and south-western parts of the study area are more settled. The largest towns are Stranraer, located on the coast of the western peninsula, and those along the Ayrshire coast to the north including Ayr, Prestwick and Troon. Other, smaller towns in the study area include Newton Stewart, Wigtown, Girvan and Maybole. In general, the majority of settlements are located on, or near, to the coast or within the valley landscapes, adjacent to transport routes that follow these corridors. In addition to the main settlements, low coastal areas and small neighbouring valleys contain a pattern of small, scattered villages (such as Barr, Barrhill, Pinwherry and Colmonell) and farmsteads, particularly in the fertile coastal areas of the south. The foothills give way to elevated and remote forested moorlands and rugged uplands with little habitation.

158. The limited road access in the local area also reflects a lack of large scale settlement surrounding the proposed Development. Settlement inland is generally restricted to the lower lying valleys with only scattered dwellings in more elevated locations. This is reflected locally where the nearest villages are located at Barr, in the Stinchar Valley to the north, and at Barrhill within the Duisk valley to the south-west of the proposed Development.

159. The interior of the extensive plateau and upland which forms the proposed Development Site is very sparsely populated, with extensive areas of commercial, coniferous woodland with few individual rural dwellings. There are only 3 remote individual residential dwellings located within 2 km of the proposed Development (**Figure 6.12**) consisting Ferter, White Clauchrie and Shallochwell.

6.5.3.5.2 Roads

160. Road access in the area is generally restricted to a limited number of main roads. These main road routes generally follow the lower lying areas along valleys, with minor routes traversing the moorland plateau landscape. In the wider study area, the main roads follow the coastal areas and the road network intensifies in the more settled areas to the north and south of the study area. Away from the immediate surroundings of the proposed Development, access to the landscape to the east of the proposed Development is also restricted to minor roads and footpaths.

161. The A714 is the closest main road route to the proposed Development, located to the north-west, west and south of the proposed Development on its route between Girvan and Newton Stewart, connecting South Ayrshire and Galloway, primarily along the Duisk Valley in South Ayrshire and the Cree Valley in Galloway. Other main road routes often follow more accessible coastal locations, such as the A75, A77, A719, A747 and A716. Alongside the major routes there are several 'B' roads within the study area. The majority of these are in the more settled areas of South Ayrshire to the north and settled areas of Dumfries and Galloway to the south of the study area. The closest 'B' roads are the B7027, which traverses the moorlands extending from the Duisk Valley to the south of Barrhill to Newton Stewart; and the B734 following the Stinchar Valley to the north between Barr and Pinwherry. There are a number of smaller unclassified roads connecting rural properties and settlements in the study area, notably the C72 road between Barrhill and new Luce.

6.5.3.5.3 Rail Routes

162. Two branches of the Glasgow South Western Line railway run through the study area, connecting Ayr with Stranraer and Kilmarnock with Sanquhar. The railway line passes to the south-west of the proposed Development, on its route between Girvan and Stranraer, with a station stop at Barrhill.

6.5.3.5.4 Ferry Routes

163. The Cairnryan to Larne and Cairnryan to Belfast ferry take routes from Cairnryan, along Loch Ryan and across the North Channel, with passengers on these ferry services located at distances of greater than 25 km from the proposed Development from the closest stretches of the route.

6.5.3.5.5 Recreational Routes

6.5.3.5.5.1 Southern Upland Way (SUW)

164. The SUW is a coast-to-coast footpath crossing the Southern Uplands of Scotland between Portpatrick, on the Rhins Peninsula, and Cockburnspath in the eastern Scottish Borders. The SUW is located to the south of the study area (**Figure 6.9** and **Figure 6.11**). On its route, it crosses a variety of landscapes, ranging from the relatively remote stretches of upland, through windfarm landscapes (such as Kilgallioch Windfarm) and settled valleys. Walking the route in one expedition is a considerable hill-walking experience requiring approximately 2-3 weeks. Walkers are recommended to walk west to east, where the sun and prevailing wind is generally at the walkers back and the majority walk the route in this direction.

165. The Official Guide to the Southern Upland Way (Smith, 2005), divides the SUW into 16 sections of unequal length and difficulty, but all starting and ending at a distinct village or town. The study area includes Sections 1 to 5 of the SUW, as illustrated in **Figure 6.9**. Each of the 16 sections includes several short walks, some of which use routes that are not on the SUW but connect to it to provide local circular routes, as shown within 15 km of the proposed Development in **Figure 6.11** and set out as follows.

- SUW – W6 New Luce to Laggangarn Stones
- SUW – W7 Derry Farm to Laggangarn
- SUW – W8 Bargrennan to Ochiltree
- SUW – W9 River Cree/Water of Minnoch Circular
- SUW – W10 Loch Trool Trail
- SUW – W11 Bruce's Stone to Loch Dee
- SUW – W12 Craigencallie to Loch Dee
- SUW – W13 Craigenbay to Clatteringshaws

166. The closest short walks of the SUW to the proposed Development are W8, W9, W10 and W11, between Glenvernoch Fell/Ochiltree and Loch Trool, approximately 10.8 km – 13.5 km from the site at its closest point. The route follows the ridgeline over Glenvernoch Fell and drops gradually over open moorland to Bargrennan, before it takes a route north east through forestry along Glentrool to Loch Trool.

6.5.3.5.5.2 Other Long-Distance Footpaths

167. The **Ayrshire Coastal Path (ACP)** runs along the Ayrshire coast between Glenapp in the south, to Skelmorlie in North Ayrshire and is located 11.7 km to the west of the proposed Development at its closest point.

168. The **Mull of Galloway Trail** runs from the Mull to Stranraer, located 38.3 km to the south-west of the proposed Development at its closest point, and continues north as the Loch Ryan Coastal Path for to Glenapp in South Ayrshire where it links with the Ayrshire Coastal Path.

169. The **Loch Ryan Coastal Path** is located 23.4 km to the south-west of the proposed Development at its closest point, linking the Mull of Galloway Trail to the Ayrshire Coast path, following the shoreline of Loch Ryan and climbing onto the moors to the north of Cairnryan to Glen App.

170. The **River Ayr Way** is located 43.9 km to the north of the proposed Development and traces the length of the River Ayr from its source, Glenbuck Loch, to the sea at Ayr.

6.5.3.5.5.3 Local Paths Network

171. South Ayrshire has a local paths network, which includes nearby routes out of Barr, which extend south towards the proposed Development and north out of Barr to Auchensoul Hill to Hadyard Hill Windfarm. The village of Barr promotes the Barr Trails, with various walks from the village through the Changue Forest, with paths joined to form circular routes that start and finish at the car park 1 km east of Barr village. These local footpath routes are shown in **Figure 6.11**.

6.5.3.5.5.4 Long Distance Cycle Routes

172. There is one National Cycle Route within the study area (NCR 7), which extends from Ayr in the north, through Maybole into the Carrick Hills, before taking a route into Galloway along the Water of Minnoch, Glentrool and the Cree Valley to Creetown and Newton Stewart. NCR 7 passes along Glentrool, via the 7 Stanes hub, along the Water of Minnoch, north to the Nick of the Balloch, located approximately 2.3 km from the proposed Development at its closest point (**Figure 6.11**). National Cycle Route 73 (NCR 73) extends from Newton Stewart west to Stranraer across the Machars.

173. The Barr to Loch Doon Cycle Route forms a National Cycle Network link between the village of Barr to NCR7 and a longer mountain biking route through Galloway Forest Park, to Loch Doon.

174. The hills of South Carrick are popularly referred to as the 'Ayrshire Alps' and promoted as Scotland's first road cycling park, with the terrain being popular with road cyclists for the abundance of hill climbs nestled among a network of quiet roads, including the B734; Barr to Dailly Road; Crosshill to Nick of the Balloch Road; and the Straiton to Nick of the Balloch Road.

175. There are also several cycle routes through the Galloway Forest Park, most notably those associated with the 7 Stanes mountain biking centres at Glentrool and Kirroughtree. These 7 Stanes mountain biking trail centres located at Glentrool and Kirroughtree form the hub for downhill mountain biking trails, and longer forest road-based mountain bike rides, including the Glentrool Big Country Route.

6.5.3.5.5.5 Hill Walking

176. There are no Munros in the study area but there are four Corbetts – Shalloch on Minnoch, Merrick, Corserine and Cairnsmore of Carsphairn – from which there is indicated visibility at the summits. The Merrick is popular for hill walking, due to expansive views from the summit areas which take in the panorama of the Galloway Hills and the coast to the south and west. The remote, open, expansive character of the landscape is likely to increase its sensitivity to windfarm development in adjacent landscape types. The existing view from the Merrick takes in a 360 degree panorama over the diverse landscapes of southern and central Galloway, including the immediate mountainous core of the Merrick range, extensive forested plateau moorlands, to the Ayrshire coastline including Ailsa Craig. The view is notable for the variety and diversity of landscapes visible within the panorama, comprising a complex mosaic of moorlands, forest, windfarms, pastoral valleys, lochs and the sea.

6.5.3.5.6 Recreational Destinations and Visitor Attractions

177. Tourism and recreation in the area are addressed in **Chapter 13: Socio-economics, Tourism, and Recreation** of this EIA Report. The areas of forestry within and immediately surrounding the proposed Development are not considered a specific tourist attraction, but despite this, the study area is visited and there are a number of discrete facilities for visitors.

178. Newton Stewart has a number of hotels and tends to be one of the main bases for exploring the region. In the wider study area, coastal areas such as Portpatrick and Girvan are popular. Wigtown is Scotland`s National Book Town and is home to over 20 book-related businesses and an annual book festival. The SUW long distance route extends from Portpatrick on the west coast of the Rhins Peninsula to Cockburnspath on the east coast of the Scottish Borders, crossing the study area on its journey. The Official Guide to the Southern Upland Way (Smith, 2005), describes local accommodation suitable for people walking the route. Merrick and Cairnsmore of Fleet provide the focus for hill walkers. Glentrool is a popular area for visitors, with cycling, walking and visitor facilities focusing around the hub visitor centre at Glentrool. The region has become increasing popular for mountain biking and the 7 Stanes facilities at Glentrool and Kirroughtree provide some of the highest quality downhill mountain bike trails available in the UK. Large parts of the study area have been designated as forest parks, for example Galloway Forest Park, with visitor facilities, parking, access tracks and picnic sites. Parts of the study area are appealing to ornithologists who visit to view the upland raptors and migrant birds in the coastal bays, in winter and spring. The Rivers Cree, Stinchar, Duisk and Bladnoch are renowned for their salmon stocks. Golf courses are abundant and include the Open Championship course at Turnberry. A large number of tourists pass along the A75 corridor through the southern part of the Study Area en route to and from Ireland via the ferries at Cairnryan.

6.5.3.5.6.1 Galloway Forest Park

179. The Site lies within the westernmost extents of the Galloway Forest Park (GFP) (**Figure 6.11**). The GFP is not a designation and has no formal status within the planning system, however it is considered as a recreational area within which people could experience views of the proposed Development while exploring the forest trails, three visitor centres and cycling/mountain biking trails. The GFP also includes The Merrick, Mulwharcher and the Rhins of Kells hill ranges with recreational trails found across and leading up to these hills. The GFP's three visitor centres, which are the hubs for activities that extend from these centres, Kirroughtree, Glentrool and Clatteringshaws. Glentrool is the closest visitor centre at 11.1 km from the proposed Development.

180. The visual effects on people engaged in specific activities within the GFP are assessed from the main visitor centres, trails and drives promoted in the guide to the GFP, consisting Kirroughtree, Clatteringshaws and Glentrool visitor centres; the Queen's Way, Raider's Road and Carrick Forest Drive; from representative viewpoints within the GFP (Viewpoints 8, 10, 11, 12, 13, 14, 17, 21), as well as from other recreational routes (SUW, NCR7, Barr to Loch Doon NCR7 link, Local Path Network) and transport routes (A714, Glentrool Forest Road) that pass through the GFP.

6.5.3.5.6.2 Galloway Forest Dark Sky Park

181. The GFP was awarded status as a Dark Sky Park (DSP) in 2009 and was subsequently extended to land to the north and east in 2012 to include an area outside the GFP. The DSP is composed of two zones, namely a Core and Buffer Zone. The proposed Development is located within the western extents of the Galloway Forest Dark Sky Park Buffer Zone, approximately 3.9 km from Core Zone of the DSP (**Figure 6.8**).

182. The Buffer Zone is required around the Core Zone to protect the status of the Core but does not in itself need to reach to the same dark sky class in order for the DSP to keep its status. The conditions for DSP status require stringent lighting guidance for the Core Zone, which Local Councils can also seek to impose on development within the Buffer Zone. There are specific conditions that optical lighting does not provide a distracting glare, with scattered light only visible on the sky near the horizon. The LDP states that South Ayrshire Council *'will support the Galloway Forest Dark Sky Park and will presume against development proposals within the boundaries of the park that would produce levels of lighting that would adversely affect its 'dark sky' status'*.

183. The DSP is a recreational area within which people could theoretically experience views of the proposed Development at night. The DSP attracts people wishing to appreciate the night-time sky with an absence of night time light pollution. Forestry and Land Scotland promotes 10 viewing locations in the Dark Sky Park Buffer Zone, shown in **Figure 6.8**, and there are several main road routes through the DSP which offer stopping points to view the night sky. The sensitivity of the 10 viewing locations to the potential effects of the turbine lights is higher than other areas of the DSP, as visitors will come to these sites with the express intention of viewing the night sky and this experience could be affected by other sources of light. While these locations are identified as being suitable viewing sites, people could feasibly be viewing the night sky from any part of the DSP. Parts of the Core Zone of the DSP around the Merrick uplands, which offer visibility of the proposed Development are remote upland areas and they are not generally somewhere that people are likely to go at night to view the night sky (in general, people would tend to use the viewing locations).

184. The visual effects of turbine lighting on people using the Dark Sky Park are assessed in **TA: 6.2 – Visual Assessment of Turbine Lighting**.

6.5.3.5.6.3 Galloway and Southern Ayrshire Biosphere

185. The Galloway and Southern Ayrshire Biosphere is Scotland's first Biosphere, where the environment is designated by the United Nations to promote and demonstrate a balanced relationship between people and nature. The Biosphere is a non-statutory designation that has no formal status within the planning system but is considered in the assessment due to its potential contribution to sustainable development and tourism in the area. A Core area lies at the heart of the Biosphere and includes the areas of mountain, moorland, freshwater lochs and rivers primarily within the Merrick Uplands/Galloway Hills. A Buffer zone covering the Galloway Forest Park is a working landscape managed to protect the natural heritage of the core areas. The proposed Development is located within this buffer area. The buffer area offers recreational opportunities in dramatic landscapes. Activities compatible with good ecological practices are encouraged and include facilities like the 7 Stanes mountain bike routes and the Dark Sky Park viewing areas. A transition area is defined across the wider surrounding landscapes of South Ayrshire and Galloway, where people live and work to make the best use of local resources.

6.5.3.6 Viewpoints

186. 'Representative' and 'Illustrative' viewpoints for the visual assessment are identified in **Table 6.5.1** and mapped in **Figure 6.10**.

187. Representative viewpoints are selected to represent the experience of different types of visual receptor where larger numbers of viewpoints cannot all be included. The viewpoints have been selected to cover points of specific importance such as recognised viewpoints, designated landscapes, settlements, important routes and attractions, and to inform the definition of the likely extent of significant visual effects arising from the proposed Development. A variety of landscape character areas and points from different directions and distances have also been represented in the selected views. Following the scoping process a review of all the viewpoints was undertaken by OPEN which reflected on the scoping responses and the viewpoints that had been used and agreed for LVIAs for other nearby windfarms, in order to ensure full coverage of the receptors.

188. A combination of baseline panorama, wireline and full photomontage visualisations has been produced, to meet the requirements of SNH Visual Representation of Windfarms (Version 2.2, December 2017). Full written analysis of visual effects has been undertaken in the LVIA for those representative viewpoints that may experience significant visual effects, while others may be scoped out during preliminary assessment if no potential for significant effects is identified.

189. Illustrative viewpoints (also identified in **Table 6.5.1** and mapped in **Figure 6.10**) are chosen specifically to demonstrate a particular effect or specific issue (including restricted visibility). A baseline panorama and wireline visualisation have been produced, but a written assessment of the visual effects from these viewpoints is not included in the LVIA.

190. Viewpoints have been compiled based on consultee and stakeholder feedback, the potential landscape and visual receptors, the ZTV for the proposed Development, and have been agreed with SAC and SNH (as described in **Table 6.3.1**). Viewpoints included in the visual assessment are listed in **Table 6.5.1** and their locations are shown in conjunction with the blade tip ZTV in **Figures 6.13a** (A3 size) and **Figure 6.13b** (A1 size).

191. The viewpoints used in the assessment have been selected to cover points of specific importance such as recognised viewpoints, landscape character, settlement, routes and hilltops, and to inform the definition of the likely

extent of significant visual effects arising from the proposed Development. A variety of landscape types and points from different directions and distances have also been represented in the selected views.

Table 6.5.1 LVIA Viewpoints

Ref	Viewpoint	Receptor	Landscape Character Type (LCT)	Landscape Designation	Grid Ref.	Elevation (AOD m)	Bearing (°)	Distance (nearest turbine)
Representative viewpoints								
1	Chirmorie Cairn	Residents (Chirmorie), road users	Plateau Moorlands with Forestry & Windfarms	None	220563 576607	258	37	12.9km
2	Minor road to the south of Barrhill	Rail Passengers (Barrhill Station), road users	Intimate Pastoral Valley	South Ayrshire SA	222554 581221	142	43	8.0km
3	B7027 Knockycoid	Residents (Knockycoid), road users.	Intimate Pastoral Valley	None	226146 579137	111	20	8.5km
4	SUW, Craig Airie Fell	Walkers (SUW)	Plateau Moorland with Forest	None	223614 573674	316	22	14.4km
5	Knockdolian	Walkers (hill summit)	Intimate Pastoral Valley	South Ayrshire SA	211326 584804	262	78	16.2km
6	SUW, Hill of Ochiltree	Walkers (SUW)	Plateau Moorland with Forest	None	232706 574102	183	350	14.0km
7	Auchensoul Hill	Walkers (hill summit)	Foothills with Forest & Windfarm	South Ayrshire SA	226393 594555	313	150	5.5km
8	The Merrick	Walkers (hill summit)	Rugged Granite Upland	Merrick WLA Galloway Hills RSA Dark Sky Park Core Galloway Forest Park	242750 585555	843	285	10.5km
9	Barr (Glenginnet Rd)	Residents (Barr)	Intimate Pastoral Valley	South Ayrshire SA	227434 594035	110	158	4.7km
10	A714, Creeside	Motorists (A714)	Plateau Moorland with Forest	Galloway Forest Park	230373 580462	147	356	7.3km
11	Mullwharchar	Wild Land Area	Rugged Uplands - Lochs & Forest	Merrick WLA Dark Sky Park Core East Ayrshire SLA Galloway Forest Park	245360 586645	693	278	12.8km
12	NCR7 Near Doughty Hill	Cyclists (NCR20)	Foothills with Forest & Windfarm	South Ayrshire SA	233126 599359	332	195	9.7km
13	Shalloch on Minnoch	Walkers (hill summit)	Rugged Uplands with Loch & Forest	Merrick WLA Dark Sky Park Core South Ayrshire SA Galloway Forest Park	240452 590707	767	260	7.5km
14	Corserine	Walkers (hill summit)	Rugged Granite Upland	Dark Sky Park Buffer Galloway Hills RSA	249752 587068	814	275	17.0km
15	Colmonell	Residents (Colmonell)	Intimate Pastoral Valley	South Ayrshire SA	215084 586171	43	80	12.2km
16	Byne Hill	Walkers (hill summit)	Coastal Foothills	South Ayrshire SA	217862 594566	212	117	11.1km
17	Kirriereoch Picnic Site	Picnic site users	Plateau Moorland with Forest	Dark Sky Park Buffer Galloway Hills RSA Galloway Forest Park	236261 586700	217	294	4.1km
18	B734 Stinchar Valley	Road users (B734) including cyclists ('The Screws' Ayrshire Alps)	Intimate Pastoral Valley	South Ayrshire SA	225044 592155	105	131	4.2km
19	B734 Approach to Barr	Road users (B734),	Intimate Pastoral Valley	South Ayrshire SA	227403 594589	125	157	5.2km
20	New Barr Trail (near White Knowes)	Walkers (New Barr Trail)	Plateau Moorlands with Forestry & Windfarms	South Ayrshire SA	227436 592234	224	150	3.0km
21	Barr Trail (Barr to Loch Doon Cycle Route)	Walkers (Barr Trail), cyclists (Barr to Loch Doon Cycle Route)	Intimate Pastoral Valley	South Ayrshire SA Galloway Forest Park	229583 593732	232	173	3.9km
22	Brown Carrick Hill	Walkers (hill summit)	Brown Carrick Hills	South Ayrshire SA	228356 615954	284	176	26.2km
Illustrative viewpoints								
23	Arran, Kildonan (on southern tip of Arran)	Residents / Visitors (Kildonan)	Arran Coastal Fringe with Agriculture	None	203377 620861	20	140	40.2km

Ref	Viewpoint	Receptor	Landscape Character Type (LCT)	Landscape Designation	Grid Ref.	Elevation (AOD m)	Bearing (°)	Distance (nearest turbine)
24	Benyellary	Walkers (hill summit)	Rugged Granite Uplands	Merrick WLA Galloway Hills RSA Dark Sky Park Core Galloway Forest Park	229837 589020	721	294	10.0km

6.5.4 Wind Energy Development Baseline

6.5.4.1 Existing Wind Energy Developments

192. Operational wind energy developments are a long-established feature of the immediate and wider upland landscape context within the LVIA study area and the area also includes a number of under construction windfarms, as shown in **Figure 6.2** (15 km context) and **Figure 6.4** (60 km).

193. Operational and under-construction windfarms shown within 45 km of the proposed Development (**Figure 6.4)** are assumed to be part of the baseline conditions. All operational and under construction sites are considered as part of the baseline conditions and where relevant, considered in the assessments in **Section 6.9** (Landscape Effects) and **Section 6.10** (Visual Effects), as they form a part of the baseline situation. The presence of certain operational and under-construction windfarms has the potential to influence the assessment of effects on particular landscape and visual receptors, to a greater or lesser degree, depending on the interaction between the proposed Development, these other windfarms and the particular receptor.

194. Due to the location of the proposed Development adjacent to Mark Hill Windfarm (**Figure 6.2**), the proposed Development will generally be viewed in combination with Mark Hill Windfarm and result in cumulative effects on the landscape and visual resource with operational windfarms. This is demonstrated in the cumulative ZTV with Mark Hill Windfarm in **Figure 6.25b** and the cumulative ZTV with all operational windfarms in **Figure 6.25a**, which show how limited the 'project-alone' visibility of the proposed Development is likely to be, as it primarily results in combined visibility with other operational windfarms, particularly Mark Hill, and those located within closer influencing distance, such as Hadyard Hill to the north, and Arecleoch and Kilgallioch to the south-west.

195. The changes arising from the proposed Development and its resulting effects primarily arise as a result of the addition of the proposed Development to views with visibility of existing windfarms, and the resulting degree of contrast or integration with these existing windfarm elements and their landscape setting. As a result, the cumulative landscape and visual effects of the proposed Development as an addition to the baseline of operational windfarms forms the main focus of the LVIA, as described and assessed in **Section 6.9** (Landscape Effects) and **Section 6.10** (Visual Effects). Non-cumulative effects are restricted to areas where the proposed Development is visible in isolation, without the other existing windfarms (as shown by the yellow colour in **Figure 6.25a**), which are very limited in extent and are restricted to isolated viewpoints assessed in **Section 6.10.5**.

196. All of the operational and under construction windfarms within 45 km are shown in the wirelines in **Figure 6.27 – 6.49** where they are visible. In order to rationalise the windfarms that are included in the cumulative ZTV analysis and to focus on potential significant effects, a preliminary assessment is made of each windfarm's potential to combine with the proposed Development to materially influence the character of the principal landscape and visual receptors. This preliminary assessment is shown in **Table 6.5.2**, which presents the separation distance from the proposed Development, number of turbines and turbine height for each operational/under construction windfarm, as well as a rationale for including or excluding them from the cumulative ZTV analysis **(Figures 6.25d-i).** Windfarms included in the ZTV analysis have been grouped into regional windfarm groupings, as shown in **Table 6.5.2** and presented in **Figures 6.25d-l,** based on their geographic proximity/clustering, where multiple windfarms form a combined legible windfarm grouping in the landscape.

Table 6.5.2 Preliminary Assessment - Operational and Under Construction Windfarms (within 45km)

Wind Energy Development	Group	Distance (km)	No. of Turbines	Tip Height (m)	Included in ZTV analysis
Mark Hill	1	1.9	28	110	Yes, due to potential interaction with principal LCTs (South Ayrshire LCT13 & LCT18c, D&G LCT17a & LCT21 and East Ayrshire LCT21); principal landscape designations (South Ayrshire SA and Galloway Hills RSA); Merrick WLA; principal visual receptors (Barr; Barrhill; A714; B734; SUW); and/or representative viewpoints (Viewpoints 1-22).
Hadyard Hill	2	6.1	52	101	
Penwhapple	2	8.1	1	67	
Assel Valley	2	8.2	10	110	
Tralorg	2	9.9	8	100	
Arecleoch	3	11.7	60	118	
Kilgallioch	4	12.1	96	125 - 146.5	
Dersalloch	5	15.7	23	125	
Airies Farm	6	18.8	14	136.5	
Artfield Fell	6	20.4	15	74	
Balmurrie Fell	6	20.8	7	74	
Glenchamber	6	22.9	11	126.5	
Carscreugh	6	26.4	18	70	
Glen App	7	23.3	11	126.5	
Windy Standard II	8	28.4	30	80 - 120	
Windy Standard	8	29.8	36	53.5	
Afton	8	32.3	25	100 - 120	
Hare Hill	8	37.5	20	62.5	
Hare Hill Extension	8	37.9	35	70 - 91	
Sanquhar	8	40.0	12	126.5	
Whiteside Hill	8	40.3	11	120	
Wether Hill	9	36.2	14	91	
Blackcraig	9	37.0	23	110	
Maclachrieston Farm	None	7.0	1	54	No, due to location, scale and distance of single turbine/wind cluster
North Threave	None	15.3	1	53.71	
Dowhill Farm	None	15.4	1	77	
Leffinwyne Farm	None	18.0	1	35	
Torrs Hill	None	19.5	2	100	
Barlockhart Moor	None	30.8	4	115	
Auchingee Farm	None	33.1	1	19.5	
High Park Farm	None	37.0	1	75	
Knocknain Farm	None	38.4	1	53.7	
Crofthead Farm	None	42.5	1	77	
Glenmuckloch Energy Park	None	43.9	2	46.1	
Meikle Float Farm	None	44.7	1	54	
North Rhins	None	38.5	11	100	No due to long distance (over 38 km) / limited visibility from principal receptors

197. There are several main operational windfarm groupings within 45 km of the proposed Development, which are grouped into nine operational windfarm groupings in **Table 6.5.2.** These operational windfarms have had a characterising effect on the upland landscapes of parts of the study area, whereby wind turbines have become the key characteristic that has already changed the character to a windfarm landscape in certain areas, particularly the Foothills with Forest and Windfarm LCT (17c) and the Plateau Moorlands with Forestry and Windfarms (18c) of South Ayrshire (**Figure 6.5a**).

198. The existing Mark Hill Windfarm is the closest windfarm to the proposed Development, located 1.9 km to the immediate south west of the nearest turbine of the proposed Development, consisting of 28 turbines at 110 m blade tip height.

199. The Hadyard Hill windfarm grouping, consisting Hadyard Hill, Assel Valley, Penwhapple turbine and the under construction Tralorg Windfarm is located 6.1 km to the north of the proposed Development, within the Foothills with Forest and Windfarm LCT (17c) of South Ayrshire. This grouping consists of 71 turbines of heights generally between 100-110 m to blade tip. Dersalloch Windfarm is also located 15.7 km to the north-east.

200. Arecleoch Windfarm (60 turbines of 118 m blade tip height) and Kilgallioch Windfarm (96 turbines of up to 146.5 m blade tip height) are separate but closely situated operational windfarms, located approximately 12 km to the south-west of the proposed Development, which effectively combine to form a large-scale windfarm landscape extending across the plateau moorlands of South Ayrshire and northern Galloway. A pattern of small-medium sized, dispersed windfarms extends this windfarm landscape to the south, consisting of Barlmurrie Fell, Artfield Fell, Airies Farm, Glenchamber and Carscreugh), which are effectively perceived to join with the pattern of larger scale windfarms in the north (Kilgallioch, Arecleoch) to create a contiguous ribbon of development and windfarm influenced landscape stretching from Carscreugh in the south to Arecleoch in the north.

201. Operational windfarms within the wider area between 20-45 km from the proposed Development most notably include the Glenchamber and Carscreugh Windfarms to the south and the Glen App Windfarm, 23.3 km to the south-west. The Southern Uplands landscapes of the eastern side of the study area are also characterised by operational windfarms, particularly formed around the Windy Standard/Windy Standard Extension/Afton grouping (28.4 km to the north-east) and the Hare Hill/Hare Hill Extension/Sanquhar and Whiteside Hill groupings (37.5 km to the north-east).

6.6 Potential Effects

202. The EIA and design processes interact with each other, with EIA identification of potential environmental effects, combined with ongoing engagement with stakeholders, has led to design refinements to reduce the significance of adverse environmental effects.

203. **Chapter 3: Site Selection and Design** sets out a narrative of the alternatives considered and how the project design has evolved and addressed environmental effects, including the 'primary' or 'inherent' mitigation that is an intrinsic part of the project design. This provides a clear description of the way in which all of the potential effects have been considered in reaching an optimised 'design freeze' for the proposed Development.

204. In accordance with IEMA Guidance (IEMA, 2015) the landscape and visual effects assessed in this LVIA start from this point of 'design freeze', removing any description of 'potential' effects which have been designed out – as those effects will not, and could not, arise from the development as proposed.

205. Primary mitigation measures that specifically address potential landscape and visual effects arising through the EIA design stages are described in **Section 6.7**. Residual effects after taking into account all inherent mitigation measures designed into the project are set out in **Sections 6.8 - 6.11**.

6.7 Mitigation

206. The layout of the proposed Development is a vital part of the EIA process and is the stage where the biggest contribution can be made to mitigate potential landscape and visual effects, creating a windfarm which is appropriate for the existing landscape character and visual features of an area. The design of the proposed Development has evolved as part of an iterative process which has aimed to provide an optimal design in environmental, as well as technical and economic terms and landscape and visual mitigation measures have been a central consideration in the design process.

207. Mitigation measures that were identified and adopted as part of the evolution of the proposed Development design (embedded into the project design) and that are relevant to landscape and visual effects are described in **Table 6.7.1**.

Table 6.7.1 LVIA Mitigation Measures

Parameter	Mitigation measures embedded into the project design
Turbine lighting	As described in **Section 3.5.5** Turbine Lighting, it is proposed to explore the possibility of using 'smart' or radar activated aviation lighting (aviation obstruction lighting detection system) whereby the lights would only be switched on when low altitude aircraft approach them.
Landscape Character	The proposed Development is predominantly located within the Plateau Moorland with Forest LCT (18). This LCT has large-scale, simple landform and uniform character. Within South Ayrshire, this upland landscape has a more extensive scale and can better accommodate larger scale turbines. The siting and design of the proposed Development seeks to consolidate the generally successful association of larger turbines with this particular LCT. The proposed Development has avoided the siting of turbines within the more elevated part of the Rugged Uplands and Forests LCT (21) (which the SALWCS considers to have no capacity for large scale turbines) and instead turbines are located with the western and southern parts of the Site, generally excluding turbines from the Rugged Uplands with Lochs and Forest LCT (21), with the exception of the lower southern slopes of this LCT where they merge with the Plateau Moorland with Forest LCT (18). In doing so, the situation of the proposed turbines is generally set well back into the upland interior to minimise intrusion on containing skylines formed by the uplands and avoids having prominent turbines seen at full height on the skyline of the hills of the Scenic Area and the more distinctive sweeping slopes of the Rugged Uplands with Lochs and Forest LCT (21).
Ayrshire Scenic Area	The large majority of the proposed turbines are sited outside the Ayrshire Scenic Area (16 of the 18 turbines) in order to accord with LDP policies on 'Landscape Quality' and 'Protecting the Landscape' and reduce the effects of the proposed Development on the Ayrshire Scenic Area and the setting of communities/skylines within the Stinchar Valley. The windfarm layout has avoided the siting of turbines on the more elevated smooth, rounded hills to the north of the site (Pinbreck Hill, Polmaddie Hill and Craigenreoch), which define the closest part of the Ayrshire Scenic Area, with just two turbines located within the Scenic Area, on the lower slopes of Fell Hill/Cairn Hill, near the edge of the Scenic Area.
Stinchar Valley / Barr	The proposed Development has been sited to avoid turbines encroaching down into the sensitive Intimate Pastoral Valley LCT of the Stinchar valley, with the proposed turbines generally set well back in the upland plateau. The proposed Development largely avoids prominent turbines rising on the skyline that encloses the sensitive intimate pastoral valley LCT of the Stinchar valley, with the majority of the Stinchar Valley having no visibility of the proposed Development, with occasional views of a small number of turbines on the northern edge of the Site, visible in views from the northern downslopes of the valley, largely avoiding significant landscape and visual effects on the setting of these communities and skylines.
Merrick Wild Land Area	The proposed turbines are sited as far as possible to the west and south of the site in order to increase the distance of the proposed Development from the Merrick WLA, affording a separation of 5.8 km between the closest turbine of the proposed Development to the closest edge of the WLA boundary and 10.5 km from the Merrick summit. The distance of the proposed Development outside the WLA reduces its effects on the wildness qualities of the WLA. In views from the Merrick WLA, the proposed turbine layout of the proposed Development has been

	optimised so that the configuration of proposed turbines has a balanced and consistently spaced appearance, located in the forested plateau moorland and avoiding the higher and more distinctive parts of the ridgeline between Fell Hill and Glengap Hill. The avoidance of this spur of higher hills that extend to the west of the Merrick uplands, reduces the association of the proposed Development with the uplands and retains its association with other windfarms located in the Plateau Moorlands with Forest LCT (18). The proposed Development has been designed to have minimal effect on the wildness qualities of the 'core' lower-lying interior area of the Merrick WLA, which is the area of the Merrick WLA with strongest wildness qualities. The proposed Development layout has been designed so that it is entirely not visible from Sub-areas (ii) and (iii) of the Merrick WLA. These 'interior' locations of the Merrick WLA are highly susceptible, due to the high strength of wildness qualities, however the proposed Development retains the qualities of minimal influence from human artefacts and contemporary land uses experienced from this interior of the Merrick WLA. The proposed Development has also been designed to mitigate effects on views towards the Merrick WLA, which provides a distinctive upland backdrop to the wider plateau areas to the south-west. In these views of the Merrick WLA from the plateau areas to the south-west, the lateral spread of the proposed Development has been curtailed so that proposed turbines do not extend past the Nick of the Balloch. The proposed Development avoids turbines encroaching across the landscape in front of the Merrick WLA/Galloway Hills RSA.
Residential Visual Amenity	The closest turbines of the proposed Development were set back as far as possible in order to reduce the prominence of the largest scale, closest turbines in views from the closest residential dwellings located at Ferter, White Clauchrie and Shallochwellforestry in close proximity to these dwellings provides notable mitigation of the visual effects due to the enclosure of the existing visual amenity in views towards the proposed Development. Existing forestry coupes that provide screening in views to the north/north-west from Ferter are not due to be felled until 2029 and 2039 in the forest felling plan (**Figure 14.4.6);** until 2024 for forestry coupes to the north of Shallochwell; and after 2048 for forestry near White Clauchrie.
Mark Hill Windfarm	The proposed turbines have been sited to allow for some separation from the operational Mark Hill Windfarm and limit coalescence with Mark Hill, ensuring that the windfarms have satisfactory separation distance and separate identities, forming clearly separate windfarms in views. This offers some mitigation of scale effects of different sized turbines of the proposed Development when compared to the operational Mark Hill Windfarm.
Landmark Hills	The proposed Development has been designed to reduce and avoid significant effects on views of landmark hills (**Figure 6.3**) defined in the SAWLCS. The hills that are located within the site boundary, extending between Fell Hill, Cairn Hill, Pinbreck Hill and Craignreoch are not individually identified as 'landmark hills' in the SALWCS, however the '*smoother hills to the west of the Carrick Forest Hills'*, are referred to as being part of the wider area of Carrick Forest Hills. The proposed Development avoids the more dramatic hills which form the deeply incised pass of the Nick of the Balloch, the eastern Pinbreck Hill (499m) and Rowantree Hill/Glengap Hill (559m), which are located outside the Site. The proposed turbines are sited in set-back locations on the southern downslopes of Fell Hill and Cairn Hill, and the adjacent plateau, thereby avoiding the more visible hill tops that form the backdrop and skyline to the Stinchar valley.

6.8 Physical Landscape Effects

6.8.1 Assessment of Physical Landscape Effects

208. The first category of effects covered in the assessment is physical effects, which are direct effects on the fabric of the Site, such as changes to ground cover. Physical effects are found only on the Site, where existing landscape elements may be removed or altered by the proposed Development. The methodology for the assessment of physical effects is described in full in **Technical Appendix 6.1**. It should be noted that landscape elements are assessed with reference to their contribution to the landscape rather than in ecological terms.

209. The areas of the Site in which the majority of the turbines and infrastructure would be located is almost entirely within areas of commercial forestry of variable age and small patches of rough grassland. Three of the northerly turbines and short sections of the tracks and hard standings are located on open moorland areas on the summit of Mid Hill and the lower south and south-east facing slopes of Fell Hill and Cairn Hill respectively. The majority of the access route would be the same as that utilised for accessing the managed commercial forestry and the alterations required to transport the turbines along it are relatively minimal involving minor adjustments and straightening and some tree removals along the sides of the route where the trees are encroaching close to it.

210. The physical landscape effect of the proposed Development on the coniferous forestry and moorland landscape elements has therefore been assessed in detail below.

6.8.2 Coniferous Forestry

6.8.2.1 Sensitivity

211. The value of this landscape element is medium-low; it is a widespread and commercially grown landscape element that is not rare or specifically recognised for its value. Commercial forestry is a key characteristic of the South Ayrshire Plateau Moorlands with Forestry & Windfarms (18c) Rugged Uplands with Loch and Forest (21) and Dumfries and Galloway Plateau Moorland with Forest (17a) within which the proposed Development is located. The 'with forest' characteristic is also common to nearby LCTs e.g. in South Ayrshire Foothills with Forest & Windfarm (17c) and in Dumfries and Rugged Granite Upland with Forestry (21a). Commercial forestry is a common feature between these areas and the mosaic of forestry and areas of clear fell are constantly changing as areas of forestry are felled and replanted.

212. Whilst the forestry contributes to the overall character of the upland landscape in its contrast to areas of plateau moorland, it is planted with the intention that it will eventually be felled. Once felled, coniferous forestry can relatively easily be replaced and over time will mature to the scale and age of trees to be removed. The forest does however form the setting for mountain biking although this is largely as a result of the tracks providing accessible routes through it rather than due to the forest cover itself. The focus of mountain biking in the area is further to the south east in the Glentrool Forest. Susceptibility of the forestry to the further changes that the proposed Development would bring is therefore considered to be medium-low. The combination of the medium-low susceptibility to change with medium-low value results in a **Medium-low** sensitivity for coniferous forestry.

6.8.2.2 Magnitude of Change

213. **Technical Appendix 14.4** of the EIA Report describes in detail the species composition of the forest area of the Site, a proposed felling plan period for the proposed Development and how the proposed felling compares to the baseline felling plan across the same time period. Areas of coniferous forestry to be felled to accommodate the construction and operation of the proposed Development are shown in the "with windfarm" forest design plan (FDP) in **Figure 14.4.6**. In areas of commercial forestry, felling activity to accommodate infrastructure works will take place in addition to the felling and replanting activity proposed in the "with windfarm" forest design plan. The 'with windfarm' forest design plan is shown in **Figure 14.4.6** (**Technical Appendix 14.4**, Forestry) and the 'with windfarm' restocking plan is shown in **Figure 14.4.7**.

214. Typically, an area of 90 m keyhole radius around each turbine, a buffer around each item of infrastructure and a swathe for access tracks will be required to be cleared in Phase 1 and remain cleared of trees during the operational lifetime of the proposed Development. Forest felling will then occur over six phases up to 2048 as part of the forest design plan. Restocking proposals including more diverse conifer mixtures, native broadleaf woodland, riparian planting and permanent open ground in order to achieve current forestry standards and to optimise habitats. The

"with windfarm" forest design plan includes the felling of commercial forest, much of which would have been felled within the lifetime of the proposed Development as part of the "without windfarm" forestry design plan for the area, regardless of the proposed Development. During the period 2019 – 2023, in which all construction-related felling is accounted for, additional felling will be required compared with that envisaged within the baseline FDPs (**Figure 14.4.4**). During the operational phase of the proposed Development, felling will be reduced (relative to the baseline) as a consequence of the advanced felling during the construction phase.

215. The Proposed Development includes felling and re-planting of large areas of commercial forestry as part of the "with windfarm" FDP. Re-planting will include a notable increase in broadleaved forestry over the period of the FDP, which will increase species diversity and contribute to the landscape character of the forested moorland. The majority of the areas affected would have been felled in the "without windfarm" scenario, as part of the forestry activities in this commercial forest over the next 30 years. The magnitude of change on the coniferous forestry landscape component is assessed as **Medium-low**, as the proposed Development will result in an alteration to the landscape element compared to the baseline FDP, however this will not be a fundamental change.

6.8.2.3 Significance of the Effect

216. The removal and replanting of some larger parcels of coniferous forestry sooner and when compared with those that would have been removed and replanted under normal circumstances will form an apparent change to this landscape element, which will contribute to a change in the landscape character of parts of the Site. However, the essential function of this landscape element as a commercial forest will not be redefined as a result of the proposed Development. The effect of the proposed Development on the coniferous forestry landscape element is assessed as **Not Significant**. This effect of the proposed Development on the coniferous forestry will be permanent and long-term within the physical footprint of the proposed Development, although medium-term and temporary on areas to be re-planted with commercial forestry or native woodland at the end of the construction period. The nature of effect is considered to be positive overall, due to the increase and enhancement of the forestry with broadleaf species. Technical Appendix 14.4 provides guidance in the form of a restocking methodology for commercial conifer areas and the windfarm restocking plan is shown on Figure 14.4.7.

6.8.3 Moorland

6.8.3.1 Sensitivity

217. Rough grassland/moorland is an important component of the Rugged Uplands with Loch and Forest LCT (21), providing an open exposed character that contrasts with areas of coniferous forestry and the agricultural fields in the pastoral valleys around it. The moorland consists of a variety of rough grass cover and heather moorland with differing species mixes depending on the ground conditions and elevation. The landcover follows the contours of the land and is generally muted in colour compared with the more fertile and less 'natural' land cover of the lower pastures and arable land. The susceptibility of this landscape element to change is reduced by the potential for reinstatement mitigation of the rough grassland/moorland, which can be re-established throughout the lifetime of the proposed Development. The habitats that comprise the moorland element of the development area are not considered to be of international, national or regional value, but of local value for moorland habitats. The sensitivity of the rough grassland/moorland landscape element is assessed as **Medium**.

6.8.3.2 Magnitude of Change

218. Three of the 18 proposed Development turbines and their associated hard standings as well as short sections of the turbine access tracks would be located on the moorland of Mid Hill, Fell Hill and Cairn Hill. In addition, it is proposed that the south-eastern slopes of Craigenreaoch are planted with mixed woodland and the lower slopes of Mid Hill, Fell Hill, Cairn Hill, Pinbreck Hill and Polmaddie Hill are planted with mixed broadleaves.

219. The proposed Development will result in an alteration to the rough grassland/moorland arising from the removal of parts of this landscape element during the construction phase, resulting in the consequential permanent loss of rough grassland/moorland within the physical footprint of the new mixed woodland area, wind turbines, crane pads and access tracks where they are located within areas of rough grassland/moorland. Following construction, rough grassland/moorland which has been disturbed by construction activities, will be reinstated over the areas not permanently occupied by infrastructure, such as alongside the access tracks and crane pads. The remaining rough grassland/moorland within the site, but outwith the physical footprint of the infrastructure will be retained over the lifetime of the proposed Development and will not experience change. While these changes result in permanent change to limited areas of this landscape element within the physical footprint of the proposed Development, the area of rough grassland/moorland to be permanently removed as a result of the proposed Development is very limited in relation to the total area of rough grassland/moorland remaining on the Site and elsewhere within the Rugged Uplands with Loch and Forest (21). The magnitude of change on the rough grassland/moorland landscape is assessed as **Low**, arising from the removal of small parts of this landscape element during the construction phase to allow for the excavation of turbine bases and access tracks as well as the planting of mixed woodland.

6.8.3.3 Significance of the Effect

220. Due to the medium sensitivity of the rough grassland/moorland and the low magnitude of change arising, the effect of the proposed Development on the rough grassland/moorland ground cover is assessed as **Not Significant**. The extent of the loss of this landscape element will not constitute a redefinition of the rough grassland/moorland ground cover in the Site or in the context of the wider landscape character, and the overall function of this landscape element will continue during the operational life of the proposed Development. This effect of the proposed Development on the rough grassland/moorland will be permanent and long-term within the physical footprint of the proposed Development, although short-term and temporary on areas restored at the end of the construction period (such as alongside access tracks). The nature of effect of the proposed Development on the rough grassland/moorland landscape element is assessed as adverse, due to the permanent loss of this landscape element although there will also be benefits to the landscape character in general through the planting of a small area of mixed woodland.

6.9 Landscape Character Effects

6.9.1 Introduction

221. Landscape character is the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and the way that this pattern is perceived. Effects on landscape character occur both on the Site, where the pattern of elements that characterises the landscape would be directly altered by the addition of the proposed Development to the landscape; and off-site, around the study area, where visibility of the proposed Development may alter the way in which this pattern of elements is perceived.

222. It should be noted that levels of magnitude of change on landscape character receptors are generally found to be lower than the magnitude of change on viewpoints that lie within these receptors. This means, for example, that if a viewpoint is assessed to undergo a medium-high magnitude of change it does not necessarily follow that the landscape character type within which it lies would also undergo a medium-high magnitude of change, but may undergo a medium magnitude of change instead. This is because the effects on viewpoints are assessed within the context of a specific outlook of the proposed Development and are, usually, specifically selected to gain a direct view over the Site. The landscape character of a receptor is not necessarily determined so specifically by the outlook over the proposed Development, and there are many other considerations, both visual and perceptual, that may combine to give an area its landscape character. This means that the proposed Development may have a lesser degree of influence on landscape character than on a specific view. This is particularly true of areas that lie slightly further away from the proposed Development. In the immediate vicinity of the Site, up to around 2 km away - the magnitude of change on viewpoints and landscape character is likely to be similar, but beyond this, the magnitude of change on landscape character is often found to diminish more rapidly as the influence of the turbines is subsumed in the many other influences on landscape character. Viewpoints are referred to in this assessment as they do give a useful indication of the appearance of the proposed Development from specific locations within the various landscape receptors, but the level of magnitude of change may vary between the viewpoint assessment and the landscape character assessment.

6.9.2 Preliminary Assessment

6.9.2.1 Landscape Character Preliminary Assessment

223. Landscape Character Types / units (LCTs) in the study area are assessed using ZTV analysis (**Figure 6.17a-b**), to identify which of the LCTs are likely to be influenced by the proposed Development. Using this analysis, **Table 6.9.1** identifies the LCTs that have the potential to undergo significant effects and require to be assessed in detail.

Table 6.9.1 Preliminary Assessment - LCTs

Landscape Character Type (LCT)	Distance from nearest turbine (km)	Comment
Status – Potential for significant effects and included in detailed assessment		
South Ayrshire - Plateau Moorlands with Forestry and Windfarms (18c)	Proposed Development largely within LCT	The proposed Development would be located within these LCTs.
South Ayrshire - Rugged Uplands with Loch and Forest (21)	Proposed Development partially within LCT	
South Ayrshire - Intimate Pastoral Valley (13)	1. 7 km	Neighbouring LCTs that are relatively close to the LCTs within which the proposed Development is located. Potential for significant effects due to close relationship with upland setting of host LCTs.
Dumfries and Galloway - Plateau Moorland with Forest (17a)	2.7 km	
Dumfries and Galloway - Rugged Granite Upland (21)	6.1 km	
East Ayrshire - Rugged Uplands - Lochs & Forest (21)	9.8 km	
Status – Considered further in preliminary assessment but found to have no potential for significant effects and not included in detailed assessment		
South Ayrshire LCTs		
Raised Beach Coast with Flat Fields & Headlands (1c)	10.9 km	Very limited ZTV due to intervening upland area. Seascape and containing landform are predominant character influences.
Coastal Valley with Policies (5)	19.2 km	Very limited ZTV due to intervening landform.
South Ayrshire Lowlands (7d)	16.3 km	Limited ZTV across high ground. Numerous other intervening character influences including existing windfarms and urban areas as part of the context of this LCT.
Lower Dale (11)	10.6 km	ZTV limited to northern area of higher ground. Separated from proposed Development by intervening Foothills with Forest and Windfarm LCT which has a more pronounced character influence.
Middle Dale (12)	10.2 km	Very limited ZTV due to intervening Foothills with Forest and Windfarm LCT.
Upland Glens (14)	10.7 km	Very limited ZTV due to intervening upland area. Containing valley landform provides predominant character influence.
Foothills with Forest west of Doon Valley (17b)	14.0 km	Very limited ZTV due to intervening high ground. LCT includes the existing Dersalloch Windfarm. It is these landscapes and characteristics that have a more pronounced contextual influence than the proposed Development.
Foothills with Forest and Windfarm (17c)	5.2 km	The ZTV is shown to cover areas that are characterised by windfarm development and forestry so that further windfarm development in a location outwith the LCT would not alter its key characteristics.
Coastal Foothills (17e)	7.8 km	ZTV is largely on upland areas where main contextual influences are the adjacent valley landscape and coastal/sea views. Upland areas to the east and south have existing windfarm influence at closer proximity to the LCT.
Maybole Foothills (17d)	13.6 km	ZTV limited to areas of higher ground. Separated from proposed Development by intervening Foothills with Forest and Windfarm LCT which has a more pronounced character influence.
South Ayrshire Southern Uplands (20b)	14.2 km	ZTV across north-eastern high ground. Intervening LCT includes the existing Arecleoch Windfarm. It is these landscapes and characteristics that have a more pronounced contextual influence than the proposed Development.
Glenapp Coastal Farmland & the Policies (22)	13.2 km	ZTV limited to high ground. Upland areas to the east, north-east and south have existing windfarm influence at closer proximity to the LCT.
Dumfries and Galloway LCTs		
Narrow Wooded River Valleys (4)	11.5 km	Landscape character is largely defined by containing valley sides and surrounding commercial forestry cover. ZTV is shown to cover areas that are largely characterised by forestry or roadside/boundary tree cover, which restricts views of the surrounding contextual landscapes. The proposed Development is separated from the LCT by a large intervening area of forested plateau.
Upper Dale (Valley) (9)	19.5 km	Very limited ZTV at distances of over 20 km.
Drumlin Pasture in Moss and Moor Lowland (12)	19.1 km	ZTV across large areas. Separated from proposed Development by extensive areas of forested upland parts of which are characterised by windfarm development. Key characteristics are drawn from the closer range contextual landscapes rather than being influenced by the proposed Development.
Upland Fringe (16)	18.8 km	ZTV over limited high points. Intervening high ground has substantial forestry cover and in places closer range intervening windfarms which are predominant character influences.
Plateau Moorland (17)	13.3 km	ZTV limited to high ground. Part of this LCT has been modified by existing windfarm development. Upland areas to the east, north, north-east and west have existing windfarm influence at closer proximity to the LCT.
Foothills with Forest (18a)	18.5 km	Very limited ZTV due to intervening upland area of the Merrick and associated hills.

Southern Uplands (19)	15.5 km	Very limited ZTV due to intervening high ground which also includes the existing Arecleoch Windfarm. It is these landscapes and characteristics that have a more pronounced contextual influence than the proposed Development.
Southern Uplands with Forest (19a)	19.2 km	Very limited ZTV at distances of over 20km.
Rugged Granite Upland with Forest (21a)	7.5 km	The majority of theoretical visibility within this LCT is found within large areas of forest which intervenes in views of the proposed Development. Windfarms are an existing component of the character context to the north-west of this LCT.
East Ayrshire LCTs		
Upland River Valley (10)	18.3 km	Very limited ZTV due to intervening upland area with Dersalloch Windfarm. Containing valley landform provides predominant character influence.
Foothills with Forest west of Doon Valley (17b)	16.3 km	Very limited ZTV due to intervening high ground which includes the existing Dersalloch Windfarm. It is these landscapes and characteristics that have a more pronounced contextual influence than the proposed Development.
Status – Limited level of influence to the defining characteristics, due to limited / restricted or distant visibility (over 20 km) of the proposed Development, such that there is no potential for significant effects		
South Ayrshire – Raised Beach Coast with Rocky Shore (1d) Coastal Edge (2b) Brown Carrick Hills (4b) Lowland River Valley (9) Lowland Hills (16) **Dumfries and Galloway** – Peninsula (1) Peninsula with Gorsey Knolls (1a) Coastal Flats (2) Upland Glens (10) Moss and Forest Lowland (11) Drumlin Pastures (13) Plateau Moorland with Lochs (17b) Foothills (18) Coastal Granite Uplands (20)		**East Ayrshire** – East Ayrshire Lowlands (7c) Lowland River Valley (9) Upland Glen (14) Upland Basin (15) Foothills with Forest & Opencast Mining (17a) East Ayrshire Plateau Moorlands (18a) East Ayrshire Southern Uplands (20a) Southern Uplands and Forestry (20c) **North Ayrshire** – Coastal Lowlands with Industry (2a) Coastal Edge (2b) Arran Coastal Fringe with Agriculture (3a) Arran Rugged Moorland Hills & Valleys with Forestry (19f) Rocky Volcanic Island (22)
Status – No theoretical visibility of the proposed Development. No potential for significant effects and not included in detailed assessment		
Dumfries and Galloway - Shallow Flat Bottomed Valley (3) Flooded Valley (8) Upper Dale (Valley) (9)		

6.9.2.2 Landscape Designations Preliminary Assessment

224. Landscape Designations in the study area are assessed using ZTV analysis (**Figure 6.18a-b**), to identify which are likely to be influenced by the proposed Development. Using this analysis, **Table 6.9.2** identifies the landscape designations that have the potential to undergo significant effects and require to be assessed in detail.

Table 6.9.2 Preliminary Assessment – Landscape Designations

Landscape Designation	Distance from nearest turbine (km)	Comment
Status – Potential for significant effects and included in detailed assessment		
South Ayrshire SA	0 km	Proposed Development located partially within this designated area.
Galloway Hills Regional Scenic Area (RSA)	3.6 km	Proposed Development located in relatively close proximity to the west of this designated area.
Status – Considered further in preliminary assessment but found to have no potential for significant effects and not included in detailed assessment		
Kilkerran Garden and Designed Landscape	Very limited ZTV shown on southerly high ground of designated area where there is extensive policy woodland that will restrict the influence of the proposed Development to the south.	
Craigengillan Garden and Designed Landscape	Very limited ZTV shown on high ground largely in the north-western part of the designated area where there is existing intervening influence by the Dersalloch Windfarm. Other ZTV areas are restricted to small areas where there may be visibility of parts of 1-3 turbines at ranges of greater than 17.3 km. None of these areas coincide with the core parts of the garden and designed landscape or the observatory.	
Glenapp Garden and Designed Landscape	ZTV is shown to occur across much of the southerly part of the designated area. The Inventory describes the key views from the policies as being to the Firth of Clyde and Ailsa Craig, which lie to the west and north respectively, with the Southern Uplands apparent to the south-east. The proposed Development lies to the north-east at a distance of 18.7km. The eastern part of the policies is laid out with extensive woodland and would generally restrict the influence of the proposed Development on this designation.	
Status – Limited level of influence to the defining characteristics, due to limited / restricted or distant (over 20 km) visibility of the proposed Development, such that there is no potential for significant effects		
Gardens and Designed Landscapes - Rozelle (La Rochelle), Auchincruive, Ardwell House, Monreith and Galloway House. East Ayrshire Sensitive Landscape Area Rhins Coast Regional Scenic Area – Dumfries and Galloway Mochrum Lochs Regional Scenic Area – Dumfries and Galloway Machars Coast Regional Scenic Area – Dumfries and Galloway		

Status – No theoretical visibility of the proposed Development. No potential for significant effects and not included in detailed assessment
National Scenic Areas – Fleet Valley Gardens and Designed Landscapes – Bargany, Blairquhan, Culzean Castle, Skeldon House, Lochryan, Castle Kennedy, Dumfries House, Cally and Carnell. Thornhill Uplands Regional Scenic Area – Dumfries and Galloway Solway Coast Regional Scenic Area – Dumfries and Galloway

6.9.2.3 Wild Land Areas Preliminary Assessment

225. In 'Descriptions of Wild Land Areas' (SNH 2017) the key attributes of the Merrick WLA are listed as follows:

- "*A relatively small wild land area but with a strong perception of naturalness, few human artefacts and little contemporary land use;*
- *A wild land area that contrasts with the adjacent Forest Park, especially in terms of human activity;*
- *Human elements are widely visible from the tops and outermost slopes but lower-lying areas have a much stronger sense of remoteness; and*
- *A rugged landscape that provides a surprisingly high degree of physical challenge*"

226. The Merrick WLA is located approximately 5.8 km from the nearest turbine of the proposed Development and theoretical visibility is limited to the west facing slopes and summit of the Merrick in the northern part of the Merrick WLA. The influence of the proposed Development on the Merrick WLA would be limited to a degree due to distance and separation by an area of landscape that is modified by a landcover of commercial forestry plantation and as a result of the strong baseline of existing windfarms that are already a characteristic of views from the Merrick WLA to the west, north and east. Existing windfarms are located at a greater distance from the Merrick WLA than the proposed Development with Mark Hill approximately 12.8 km from the Merrick WLA and Kilgallioch approximately 15.9 km. The proposed Development layout has been designed so that it is not visible from the core' lower-lying interior area of the Merrick WLA to minimise effects on the Merrick WLA. These 'interior' locations of the Merrick WLA are highly susceptible, due to the high strength of wildness qualities, however the proposed Development retains the qualities of minimal influence from human artefacts and contemporary land uses experienced from this interior of the Merrick WLA. Taking all of this into account, it is concluded that the wildness qualities in some parts of the Merrick WLA could be significantly affected by the proposed Development and further technical assessment is required in the LVIA.

227. Wild Land effects are considered in the LVIA in respect of the Merrick WLA in **TA: 6.3 Wild Land Assessment**.

6.9.2.4 Summary of Preliminary Landscape Character Assessment

228. The preliminary assessment has identified the following principal landscape receptors that require to be assessed in full as a result of the potential effects of the proposed Development.

Landscape character

- South Ayrshire:
  - Plateau Moorlands with Forestry and Windfarms (18c).
  - Rugged Uplands with Loch and Forest (21).
  - Intimate Pastoral Valley (13).
- Dumfries and Galloway:
  - Plateau Moorland with Forest (17a).
  - Rugged Granite Upland (21).
- East Ayrshire:
  - Rugged Uplands - Lochs & Forest (assessed alongside South Ayrshire Rugged Uplands with Loch and Forest).

Landscape designations

- South Ayrshire SA.
- Galloway Hills Regional Scenic Area.

Wild Land Areas

- Merrick WLA.

6.9.3 Detailed Assessment of Landscape Character Effects

6.9.3.1 Plateau Moorlands with Forestry and Windfarms (18c)

Table 6.9.3 Detailed assessment of effects on Plateau Moorlands with Forestry and Windfarms

South Ayrshire: Plateau Moorlands with Forestry and Windfarms (18c)
Baseline description
The proposed Development is located within this LCT in South Ayrshire. The LCT is a large area of moorland and forestry with windfarms that is part intersected by the Duisk valley. The key characteristics described within the 2018 SALWCS are summarised as follows – • *'This landscape has an expansive scale due to its simple, gently undulating, plateau landform and absence of settlement;* • *Extensive areas of forestry and windfarm development reduce openness and there are few remaining areas of open moorland within this character type;* • *A simple, gently undulating upland plateau within generally rounded and subtle topography. Larger hills rise to around 300m. The extensive forest cover of this area tends to 'flatten' and mask underlying topography;* • *A simple landscape pattern dominated by dense and fairly uniform coniferous forest. Areas of open moorland, small pockets of farmland and occasional lochs in the Drumlamford and Corwar area provide diversity and contrast within the character type;* • *This character type is very sparsely settled and accommodates only a few narrow, minor, public roads;* • *While windfarm development and forestry are key characteristics of this landscape, the eastern part of this landscape is remote and has some degree of wildness;* • *The relatively subdued landform of this upland plateau, together with the very sparse settlement and restricted access, limits visibility of the interior of this landscape; and* • *This landscape is visible from the A714, B7027 and from the relatively little-used minor public road between New Luce and Barrhill'.* The Site is considered to be of a typical character to the typology in that it is characterised by forest covered undulating upland plateau, large in scale with reduced openness due to surrounding forestry cover. For reference, the SNH 2019 character assessment identifies this area as largely coinciding with the 'Plateau Moorland' LCT. Key characteristics of 'Plateau Moorland' are described as follows – • '*Topography is comparatively level with extensive plateaux rising to soft contoured ridges.* • *Underlain by basalts to the east and greywackes to the south-west.* • *Covered by blanket bog, heather and grass moorland, with extensive mosses and peatland forming an important component of this landscape type.* • *Frequent extensive areas of coniferous forest of uniform age which, in places, have significantly modified the original character of these areas in terms of colour, texture and views.* • *Largely undeveloped with a sparse network of roads.* • *Windfarm development on the north-eastern margins.* • *Open, exposed and rather remote landscape, wild in character, although this is lessened in places by the presence of wind turbines and associated infrastructure.* • *Views are open and medium to longer distance depending on undulations in the local topography'.* SALWCS sensitivity assessment for Very Large typology (>130m) turbines is as follows: Landscape Context: - High-Medium *'Operational windfarm developments situated in this landscape are visible from parts of the Duisk and Stinchar valleys. Additional turbines of this size sited on the remaining undeveloped edges of this character*

type would be likely to significantly intrude on smaller scale Intimate Pastoral Valleys (13) and adjacent Upland Glens (14). Turbines set back into the core of this extensive upland plateau would have less of an effect on adjacent more sensitive small-scale landscapes. Much of this interior landscape is already occupied by windfarm development south of the Duisk valley. While effects on the Stinchar and Duisk valleys could be minimised in the less developed forested area to the north and north-east of the Duisk Valley, effects on the setting of the high rugged Galloway Hills and the Rugged Hills, Lochs and Forest (21) character type is a constraint to development. Very large turbines could have a more intrusive effect on these more remote landscapes with lighting of turbines >150m high additionally likely to adversely affect their character'.

Scale - Medium-Low '*The expansiveness of this landscape and absence of smaller scale features reduces sensitivity across much of this landscape. Turbines of this size would need to be sited well away from rare areas of settled farmland and policies on the south-eastern fringes of these uplands to avoid dominating their scale'*.

Landform - Medium-Low '*Turbines could relate to the generally gently undulating landform of this character type although steeper hill slopes and occasional more diverse loch basins would be more sensitive*'.

Landscape pattern- Medium-Low '*While the simple pattern of commercial forestry generally reduces sensitivity, turbines of this size (and large numbers of turbines) sited within open moorland and farmland would diminish the visual contrast these more open and diverse areas provide with extensive forest cover. They would also be likely to detract from landmark lochs'*.

Built environment - Medium-Low '*The presence of extensive operational and consented windfarms and the sparsely settled character of this landscape generally reduce sensitivity although this typology would affect the setting and scale of settlement if sited nearby'*.

Perceptual qualities – Medium '*Sensitivity would be reduced in respect of perceptual qualities to the south of the Duisk Valley. To the north of the Duisk Valley, the sense of remoteness could be affected by very large turbines, particularly if illuminated'*.

Visual amenity - High-Medium '*While the sparsely settled nature and limited accessibility of this character type reduces visual sensitivity, operational and consented windfarm development occupies much of the less visible interior of the southern parts of this landscape. Containing ridges and hills on the outer edges of this character type form the skyline to views from settled valleys and glens and are highly sensitive to intrusion. Views from the A714 to the Galloway and Carrick Forest Hills and also views from these hills could be significantly affected by turbines of this size especially if >150m and sited on the eastern fringes of this character type'*.

Cumulative effects- High-Medium '*Turbines around 150m and below would fit with the size of the majority of operational and consented wind turbines already sited in this landscape. Turbines substantially higher than 150m and closer to 200m high could have significant cumulative effects if seen in close proximity with operational and consented turbines. The different spacing and design between windfarms may also result in cumulative effects. Cumulative effects could also occur on the sensitive Galloway Hills, diminishing the sense of wildness experienced with turbines closer to 200m likely to have an increased effect. New development sited in the north-west and east of this LCT could also have a dominant effect on settled valleys when seen with existing windfarms sited in this LCT and in LCT 17c'*.

Overall sensitivity to the Very Large typology (turbines >130m) is High-medium, stating that – '*Capacity is close to being reached in the part of this landscape lying to the south and south-east of the Duisk Valley with little scope for any additional larger wind turbines to be accommodated. Operational and consented windfarms already occupy much of the least sensitive 'interior' of these plateau uplands and any additional development would be likely to impinge on the more sensitive outer edges of these uplands'*.

SALWCS also describes the following for this LCT – '*There is some limited scope for the Very Large typology (turbines >130m) to be accommodated within this landscape although capacity is close to being reached in the parts of this landscape character type which lie to the south of the Duisk valley. Development should be sited within the simpler basins and low hills lying in the interior of this upland plateau and set well back to avoid intrusion on adjacent smaller scale settled valleys and glens. The setting of the high rugged Galloway and Carrick Forest Hills is a key constraint to siting turbines in the eastern part of this character type, particularly turbines >150m which would be likely to be more intrusive and require lighting*.'

Of the 20 character types identified in SALWCS, Plateau Moorland with Forestry & Windfarms (18c) LCT has been rated with the lowest sensitivity for both large scale (70-130 m) turbines and Very Large (>130 m) turbines ('Medium' and High-Medium' respectively) and is the only area identified with any capacity for the Very Large turbine category. This LCT was previously identified as the only 'Search Area for the Large Typology (Turbines >70m)' with a 'Medium-Low' sensitivity in the 2013 capacity study by the same author.

It is also notable that much of the sensitivity assessment for this Plateau Moorlands with Forestry and Windfarms LCT actually relates to the potential effects of Very Large typology turbines on adjacent and nearby LCTs rather than the sensitivity of a landscape with these characteristics and its capacity to accommodate large scale windfarm development.

The operational Arecleoch, Mark Hill, Glen App and northern part of Kilgallioch lie within this LCT. In addition, the operational windfarms of Hadyard Hill, Assel Valley, Penwhapple, Airies Farm, Artfield Fell, Balmurrie Fell, Glenchamber and Carscreugh are also visible from within elevated and open areas of this LCT as a backdrop to the closer windfarms located within it. These windfarms have a characterising influence on parts of the LCT where they introduce man-made, tall, moving structures along with tracks and other elements of development such as transformers, masts and substations.

Viewpoints within this LCT include Viewpoint 01 - Chirmorie Cairn, Viewpoint 10 – A714, Creeside and Viewpoint 20 – New Barr Trail (near White Knowes).

Value	Susceptibility	Sensitivity
This LCT is not subject to any national landscape designations. Peripheral areas of the LCT are designated locally as SA Scenic Area, where the LCT borders the Stinchar and Duisk valleys, with a small section of the South Ayrshire SA extending southwards to the DGC border between Eldrick on the A714 and Drumlandford near the B702. The presence of windfarm development and extensive forestry denote an established level of human intervention. The Galloway Forest Park and Dark Sky park buffer area sit across the eastern part of the LCT. The value of this LCT is considered to be **Medium**.	Windfarm development is an existing and acknowledged characteristic experienced within this LCT and also within neighbouring LCTs to the north and south. The LCT is susceptible to further windfarm development but would not be uncharacteristic in the area as a whole. The proposed Development would occur in a similar part of the landscape to Mark Hill rather than rather than extending windfarm development to an entirely different area of this LCT. As can be seen from **Figure 6.3** Mark Hill Windfarm is located on the western end of a spur of land that extends south-west from the Carrick Hills. The proposed Development would be seen on a higher part of this same landform, set back from the Stinchar Valley in a similar manner to the Arecleoch Windfarm, also located within this LCT. The underlying expansive landscape scale, simple pattern of forestry, gently undulating landform and the human influence of the commercial forestry activity moderate susceptibility. SALWCS has also highlighted, that visibility of the interior of the LCT is limited. It is considered this is also true even when considered from the sparse settlement in the area or from the few routes that cross the LCT. On balance, the susceptibility of this LCT to the proposed Development is **Medium-low**.	The combination of the value of the landscape and its susceptibility to the proposed Development leads to an overall sensitivity of **Medium**.

Assessment (including operational and under construction cumulative sites)

Magnitude of change

The Blade Tip ZTV with Landscape Character (**Figure 6.17b**) illustrates there would be extensive areas across this LCT where there would be potential for visibility of up to 18 turbines. However, **Figure 6.14b** and **Figure 6.14c** illustrate the extent of woodland coverage across the LCT and the screening effect this has. ZTVs have been run to illustrate the screening effect of woodland cover at a nominal height of 5 m, however, in many areas this vastly underestimates the height of the woodland and therefore its screening effect. It is also possible that areas that are shown as woodland may have been felled as part of forest management practice.

The woodland cover reduces the degree to which the character would be altered. Within the majority of the forested areas the proposed Development would not be perceived as part of the wider contextual character and therefore would have no influence upon it.

The western part of the LCT is separated from the area where the proposed Development would be located by the intervening Duisk Valley. It is highly characterised by commercial forestry and windfarm development so that the influence of the proposed Development on its character would be limited and of low magnitude within this area.

The viewpoints illustrate the degree to which operational windfarm development and forestry cover influence this landscape. It is notable that the viewpoints have been taken to illustrate locations where turbine visibility is possible rather than locations where it would not be possible and therefore, they over-represent the general visibility of the proposed Development that would occur within the forested parts of this landscape.

The landform and forestry cover to the north of the site would reduce the potential for character influence on this LCT and this is also the case for much of the area to the south of the site and to the east of the Duisk Valley. This is with the

exception of the patches of open rough grassland, open routes through the forest and any felled areas, which may provide opportunities to perceive the proposed Development as part of the landscape characteristics of this LCT.

Where the turbines are visible the lower parts of their structures are often concealed by intervening forestry and landform. From locations within this LCT they would be seen within a large scale, simple landscape so that their height is not readily perceived. They would introduce further, tall, moving structures within a landscape, which has been notably altered by commercial forestry.

The tracks, laydown areas and compounds have been located to minimise the cut and fill requirements and as a result of this the physical effects of these on the landform and landcover. Two of the borrow pits have been located alongside existing borrow pits.

Where the turbines are located within the commercial forestry plantation the felling proposals include the removal of the forestry in the areas immediately around each of the turbines as a minimum. Forest will also be removed to accommodate the other elements of the layout such as the compounds, borrow pits and laydown areas. Elsewhere it is proposed that certain forest coups or parts of coups will be felled and restocked in Phase 1 or Phase 2, which is in advance of the current forest design timescales. This is as shown on **Figure 14.4.6** and affects the areas around turbines 3,4, 6,9,11,12,15,17 and 18, which would be felled and restocked 'early'.

Factors that increase the magnitude of change are:

- Change to the experience of the landscape character of the LCT resulting from the addition of large scale wind turbines and associated infrastructure within it;
- The proposed Development would increase the influence of wind energy development across the LCT;
- The degree to which the proposed Development would contrast in turbine size and scale in comparison to the nearby operational Mark Hill Windfarm; and
- The level of proposed Development construction activity experienced within this LCT.

Factors that decrease the magnitude of change are:

- The large scale and the simplicity of the landform and landcover found within this LCT are qualities that increase the capacity of a landscape to accommodate large scale windfarm development;
- The modified nature of the land cover in the form of extensive, managed coniferous forestry exhibits the existing human influence over this landscape and minimises the perception of wildness qualities;
- The tracks within the existing forestry and the forest management processes reduce the potential for a perception of inaccessibility and remoteness minimising the effect of further tracks on this landscape;
- The re-use of an existing forest track to provide access to the turbine area minimises its potential effect on the wider landscape;
- The perceived change to key characteristics would be restricted due to screening in large areas of the LCT, which are forested; this is particularly the case for western and southern areas;
- When visible, the proposed Development would be experienced within a context of existing wind turbine development, particularly the Mark Hill Windfarm that is within this LCT and has a more immediate relationship with the proposed Development the proposed turbines would therefore introduce elements that are not uncharacteristic, albeit as an intensification of wind turbines in this LCT;
- The proposed Development would be located away from the craggy knolls and small hills, highlighted by DGWLCS as having 'more intricate form' and would be located in an area of gently sloping moorland that has a low-lying plateau character; and
- As a result of the location of the proposed Development within the core of the southern part of the wider plateau, the small hills that edge the plateau limit the ZTV extent within the LCT and in the wider landscape.

Taking these factors into account the magnitude of change for this LCT is considered to be **Medium-high** locally within the application boundary and **Medium** out to approximately 2-3 km of the nearest turbine, except for the area to the south-west which is already markedly influenced by the Mark Hill Windfarm where the magnitude of change on character would be **Low**. Beyond approximately 3 km the magnitude of change would reduce to medium-low and lower in the wider area.

Significance of effect

The existing landscape is described as having a character that is defined as 'Plateau Moorlands with Forestry and Windfarms'. The proposed Development would intensify the windfarm element of these characteristics and extend windfarm development across a further area that is currently characterised by the less developed forestry landcover component of the character.

This would result in a **Significant** effect on landscape character within the turbine area and extending beyond this to the area lying within 2-3 km of the nearest turbine. This area immediately around the turbines has some openings and visual receptors where the turbines would be visible at relatively close proximity. Elsewhere within this LCT the effect on landscape character would be **Not Significant**.

In cumulative terms, the Plateau Moorland with Forest and Windfarm LCT (18c) is a 'with windfarm' landscape, i.e. its baseline landscape character has been changed to such a degree by operational windfarms, that windfarms (and forestry) form the prevailing characteristic of the plateau landscape, defining it as a 'with windfarm' LCT.

Much of the interior landscape to the south and west of the Duisk Valley is already occupied and influenced by the Arecleoch and Kilgallioch windfarms. The plateau to the east of the Duisk Valley is influenced by the operational Mark Hill Windfarm, on a lesser scale, such that are areas of interior plateau landscape to the north-east and east of it that have not been subject to the same level of windfarm influence as the south-western areas of the LCT.

The proposed Development will result in an easterly extension of the 'with windfarm' characteristic of the landscape into this plateau landscape to the north-east and east of Mark Hill Windfarm, with larger scale 200 m tip height turbines over a broader footprint, increasing the influence of windfarm development as a key characteristic and extending larger scale windfarm influence towards the more elevated uplands that form the backdrop to the east.

In terms of cumulative effects with operational and under construction windfarms, it is considered that the addition of the proposed Development will result in a **Low** cumulative magnitude of change and **Not Significant** effect on the fundamental character of this 'with windfarm' landscape as it would not materially change the existing landscape character. Less extensive, but nevertheless **Significant** landscape effects may arise as a result of the addition of the proposed Development where it contrasts with the scale of the operational Mark Hill Windfarm and increases the influence of windfarms in the eastern part of the LCT.

6.9.3.2 Rugged Uplands with Loch and Forest (South Ayrshire 21 and East Ayrshire 21)

Table 6.9.4 Detailed assessment of effects on Rugged Uplands with Loch and Forest

Rugged Uplands with Loch and Forest (South Ayrshire 21 and East Ayrshire 21)

Baseline description

The proposed Development is located partially (2 turbines) within this LCT within South Ayrshire. It is contiguous with an LCT of similar name and characteristics located further east in East Ayrshire as illustrated on **Figure 6.5a**. The descriptions of these LCT areas within the 2018 SALWCS and EALWCS respectively note features that are located within the entire Rugged Uplands with Loch and Forest LCT as if there were no local authority boundary separating the areas. The sensitivity assessment levels for the large typology are the same within each of the capacity studies. Therefore, for the purposes of this assessment these areas are described as if they are one continuous LCT, which lies across the Carrick Forest and extends to the Loch Doon area.

The craggy granite hills which lie at the core of this LCT are described as extending southwards into Dumfries and Galloway, culminating in the dramatic high hills of Merrick and Rhinns of Kells. The key characteristics described within the 2018 SALWCS and EALWCS are summarised as follows –

- *This landscape is generally remote from the settled lowlands with the higher hills forming a setting to the low lying landscapes to the north and the Upland River Valley of the Doon Valley. The provide a rugged mountainous backdrop in distant views from the nearby foothills and plateau moorland landscapes.*
- *Complex form with large vertical scale and pronounced summits of between 300 and 768 m AOD with narrow valleys and loch basins between and with a smaller scale.*
- *Exposed crags and boulders as well as steep-sided north/south orientated granite ridges give parts of this landscape a rugged and dramatic character. Landform of the western Southern Uplands is less craggy and there are some smoother and gentler hill slopes on the edge of the loch basins as well as steep-sided interlocking, rounded hills and the dramatic cleft of the Nick of the Balloch.*
- *Simple vegetation cover of grass moorland with patchy heather between a definitive pattern of exposed rock. Diversity is increased by a number of lochs with the largest being Loch Doon to the north and east. Coniferous forestry extends across lower hill slopes of some valleys and around lochs.*
- *Sparsely settled with small farms and occasional estate houses on the west side of Loch Doon where there is a public road linking to the Carrick Forest Drive. Forest tracks are present on lower hill slopes.*
- *Sparsity of settlement and difficulty of accessing this area can give it a strong perception of seclusion particularly in the higher, rugged hills extending north from the Merrick. Rugged landform and the lochs (where not impounded) have a natural quality where this is not diminished by commercial, coniferous forestry.*
- *Few public roads and views are generally limited from these by landform and forestry although the Straiton to Newton Stewart road offers more open views.*
- *Popular landscape for walkers and cyclists.*

SALWCS does not include an assessment of the sensitivity of this LCT to the Very Large typology (> 130 m) due to the high levels of sensitivity that were previously attributed to this LCT in relation to smaller turbines. The sensitivity assessment for Large typology (>70 m) turbines is as follows:

Landscape Context:	*Medium*
Scale:	*High-Medium*
Landform:	*High*
Landscape pattern:	*High-Medium*
Built environment:	*Medium-Low*
Perceptual qualities:	*High*
Visual amenity:	*High*
Cumulative effects:	*High-Medium*

Many of the factors that lead to the higher levels of sensitivity attributed to these topics in the SALWCS are not directly applicable to the part of the LCT that would be affected by the proposed Development as follows:

- **Landscape context** – the Site is not located within a part of the landscape that 'would detract from the dramatic mountainous backdrop these uplands provide to the upper Doon Valley and the Craigengillan designed landscape'. Instead it is located within an extensive part of the uplands which is less visible and more distant from the smaller scale settled lowlands.
- **Scale** – the Site is not located across an area of 'small knolly hills, narrow valleys, small loch basins and confined summits' which would indicate an increased sensitivity but instead it is located within an area of broader hill slopes, indicating lesser sensitivity.
- **Landform –** turbines would not be located on or in close proximity to an area of 'distinctive craggy, irregular landform' or complex landform within these uplands. Instead, as described below in relation to the SNH defined area of Southern Uplands LCT the site lies within an area that is more akin to 'Steep, smooth slopes rising to rounded summits', and separated from the Rugged Uplands by a further area of Southern Uplands with Forest LCT, according to SNH.
- **Landscape pattern** – The landscape where the turbines would be located is one of broader smoother hill slopes with a simple pattern of moorland rather than having a complex pattern. This is said to be a landscape that would be less sensitive to turbines, access roads and ancillary development. The SALWCS notes that there could be impacts on the setting of landmark hills (as set out in Annex E of SALWCS). From a review of these the closest of the landmark hills to the proposed Development turbines would be the Carrick Forest Hills which are described as being characterised by their rugged, complex, rocky form and strong sense of wildness. They are said to include the long ridge of Shalloch and Minnoch, Cornish Hill and the smoother hills to the west 'with these being particularly dramatic where they form the deeply incised pass of the Nick o' the Balloch seen from the upper Stinchar valley'. The 'smoother hills to the west' may include the hills close to or within the Site boundary, however those which are more remarkable are set back from where the turbines would be located.
- **Perceptual Qualities –** whilst the area of the Site is sparsely populated it is not part of the series of 'higher and more rugged hills extending north from the Merrick' which would otherwise heighten the perceived seclusion. The landform of the Site does not have the same rugged qualities as the eastern part of the LCT and its natural qualities are diminished by the commercial woodland that is prevalent in the western part of the LCT, where the Site is located.
- **Visual Amenity –** The part of the LCT where the Site is located is not one of the areas that is popular with walkers and cyclists such as the case with the Merrick, Rhinns of Kells, Cornish Hill and Shalloch on Minnoch within the wider area from where there are elevated views. There are no public footpaths such as are found in the area to the west of Loch Doon. There are no public roads in the vicinity of the Site. A minor road and National Cycle Network route that run through the area to the east at the Nick of the Balloch is the closest to the Site area.
- **Cumulative effects –** Windfarm development is visible from parts of the landscape where the Site would be located, largely to the north and south-west of the Site in the South Ayrshire Foothills with Forest and Windfarm LCT (17c) and the Dumfries and Galloway Plateau Moorlands with Forestry and Windfarms (18c) respectively but also within the Plateau Moorland with Forest (17a) and the Foothills with Forest west of Doon Valley (17b) where there are windfarm developments located within 20 km of the proposed Development turbines as shown on **Figures 6.25a-h**.

The SNH 2019 character assessment divides the landscape character into types very differently within this same geographical area as shown on **Figure 6.5b**. Whilst the SNH assessment more usually consists of larger geographical areas defined at a regional scale compared with the more local level of the capacity studies, in this area it has seen fit to sub-divide into smaller areas of distinct character. This is particularly important in this area as it is part of this landscape that would be directly affected by the presence of two turbines of the proposed Development. The SNH 2019 character assessment suggests that there are some characteristics that are divergent across the area defined by the SALWCS and EALWCS as Rugged Uplands with Forest.

The western part of the Rugged Uplands with Loch and Forest (as defined within South Ayrshire and shown on **Figure 6.5a**) is broken down into three separate areas as illustrated on **Figure 6.5b**. From north to south these are the Foothills, Southern Uplands and Southern Uplands with Forest LCTs. Some of this subdivision is also reflected in the boundary of the area that South Ayrshire has currently designated as a Scenic Area. The eastern part of the Rugged Uplands with Loch and Forest LCT spanning across the South Ayrshire- East Ayrshire boundary is defined by SNH as the Rugged Uplands LCT as shown on **Figure 6.5b**.

The Foothills LCT extends around the southern, eastern and northern slopes of the Pastoral Valley of the River Stinchar and is described as having the following key characteristics:

- *'Dissected landform of incised valleys cut between rounded ridges, frequently having a slightly conical form with long shoulder slopes, and plateaux occasionally rising to undramatic summits.*
- *Underlain by red sandstones in the west and coal measures in the east.*
- *Variety of landcover types: lower slopes typically have a pastoral character; with increasing altitude the proportion of rougher grazing rises; and summits are dominated by moorland vegetation.*
- *Swathes of dark green coniferous forest cover many of the rounded peaks and descend on to the lower slopes.*
- *The eastern part of this area, comprising the south eastern part of the Ayrshire Coalfield, has a concentration of large open-cast coal mines.*
- *Scatter of villages and farms in the northern parts of the Landscape Character Type, and very little settlement in more upland areas to the south and east.*
- *Remnants of historic settlement patterns still evident in areas that are unsettled and uncultivated.*
- *Enclosed nature of forested areas, with their foreshortened views, can create a remote, isolated feel.*
- *Simple, largely undeveloped landscape, with foothills often providing scenic backdrops to the settled valleys which surround them.'*

The open, high ridgeline of undulating hills that runs between Fell Hill in the south-west and Eldrick Hill in the north-east, including also the hills that surround Aldinna Loch on its north-east side, lie within the area defined by SNH as the Southern Uplands LCT. It is within this LCT that two turbines of the proposed Development would be located. The key characteristics of the LCT are described by SNH as follows:

- *'Steep, smooth slopes rising to rounded summits.*
- *Series of distinctive valleys cut into the uplands created by glacial erosion, with U-shaped cross sections, precipitous side slopes, hanging valleys, waterfalls, crags and screes.*
- *Relatively simple landcover.*
- *Heather-flecked grassland on summits.*
- *Scarce semi-natural woodland is, limited to a few more sheltered glens, gullies and clefts.*
- *Occasional forested areas and shelterbelts on lower side slopes leaving the domed peaks exposed.*
- *Absence of modern settlement in these exposed uplands, it being concentrated in river valleys and the larger glens.*
- *Expansive, remote and largely untamed landscape, most parts of the uplands are accessible on foot only.*
- *Long distance and panoramic views encompass the settled Ayrshire lowlands to the north and west and remote Galloway Hills to the south and east.'*

To the south of this lies an area where the forestry cover is more dominant across the rounded summits of the Southern Uplands and is therefore defined by SNH as Southern Upland with Forest LCT. The key characteristics are set out by SNH as:

- '*Steep, smooth slopes rising to rounded summits.*
- *Series of distinctive valleys cut into the uplands created by glacial erosion, with U-shaped cross sections, precipitous side slopes, hanging valleys, waterfalls, crags and screes.*
- *Relatively simple landcover: coniferous forest is dominant. It generally extends over the summits or is concentrated on the side slopes leaving the domed peaks exposed.*
- *Heather-flecked grassland on unforested summits.*
- *Scarce semi-natural woodland is limited to a few more sheltered glens, gullies and clefts.*
- *Absence of modern settlement in these exposed uplands, it being concentrated in river valleys and the larger glens.*
- *Network of upland tracks, often associated with the forestry.*

- *Enclosure and foreshortened views created by forest cover contribute to create a remote, isolated character.'*

The eastern part of the area defined by the 2018 SALWCS and EALWCS is generally defined by SNH as being Rugged Uplands. The key (relevant) characteristics are set out by SNH as follows:

- *'Large, elevated and complex mountain ranges formed by granite intrusions which have been significantly modified by glacial erosion.*
- *Dramatic, craggy, mountainous scenery.*
- *Land cover dominated by heather moorland, rough grassland and areas of exposed rock outcrops.*
- *Woodland absent with the exception of areas of coniferous forest which have altered the character of some of the lower slopes.*
- *Scarce signs of human influence, limited to tracks and walkers' footpaths with roads running around the fringes.*
- *Grand, large scale, remote landscape with wild character, from the summits there are dramatic and extensive views in all directions.'*

From a review of the above information it is assessed that there is a variation in the character and therefore the susceptibility and sensitivity to the proposed Development of the Rugged Uplands with Loch and Forest LCT as defined by the 2018 SALWCS and EALWCS.

There are no operational windfarms within this LCT. The Dersalloch Windfarm lies in relatively close proximity to the north, the Mark Hill Windfarm to the south-west with the Hadyard Hill Windfarm to the north-west. At greater distances to the south-west lie Arecleoch and Kilgallioch windfarms. All of these windfarms have a contextual influence on the LCT as shown on **Figures 6.25a-h**.

Viewpoints within this LCT include Viewpoint 11 – Mullwharchar and Viewpoint 13 Shalloch on Minnoch.

Value	Susceptibility	Sensitivity
This LCT is not subject to any national landscape designations. Large parts of the LCT are designated locally as SA Scenic Area and EA Sensitive Landscape. This is with the exception of the part of the LCT that lies to the south of the Nick of the Balloch and west of Shalloch on Minnoch where the landcover is predominantly coniferous forestry. The presence of extensive forestry denotes an established level of human intervention. The Galloway Forest Park and Dark Sky park buffer area sit across much of the LCT. The value of this LCT is considered to be **Medium-high** within the area that coincides with the SA Scenic Area/East Ayrshire Sensitive Landscape Area and **Medium** within the forested land around Water of Minnoch.	There is no windfarm development within this LCT. The largely undeveloped nature of the LCT, its relative remoteness and its rugged characteristics make this LCT susceptible to windfarm development within it. The forestry cover which occurs across parts of the LCT moderates the susceptibility due to its screening effect and also due to the modified nature of this landcover and the accessibility this introduces through tracks. The proposed Development would be seen on a higher part of the same landform as the Mark Hill Windfarm, set back from the Stinchar Valley, in a part of the LCT that is highly influenced by forestry and separated from the more sensitive craggy landscapes that lie to the east and that emanate from the higher, rugged granite uplands to the south-east. On balance, the susceptibility of this LCT to the proposed Development is **Medium**.	The combination of the value of the landscape and its susceptibility to the proposed Development leads to an overall sensitivity of **Medium-high**.

Assessment (including operational and under construction cumulative sites)

Magnitude of change

Two of the proposed Development turbines occur within this LCT along with their tracks and hard standings thereby altering the pattern of the landscape within a relatively small part on the south-western edge of this LCT across the south facing hill slopes of Fell Hill and Cairn Hill where they would introduce large scale, moving, manmade structures and modify the landform and landcover through the introduction of the hard standings and tracks.

Elsewhere within the LCT any change in character would occur through the visibility of these turbines along with the other 16 turbines and the other elements of the proposed Development as part of the landscape context. The Blade Tip ZTV with Landscape Character (**Figure 6.17b**) illustrates there would be extensive areas across the higher ground and across the slopes facing towards the turbine locations, largely to the west of Viewpoint 13 – Shalloch on Minnoch, where there would be potential for visibility of up to 18 turbines across some of this area. However, **Figure 6.14b-c** illustrate the extent of woodland coverage across parts of the LCT and the screening effect this has. These ZTVs have been run to illustrate the screening effect of woodland cover at a nominal height of 5m, however, in many areas this vastly underestimates the height of the woodland and therefore its screening effect. It is also possible that areas that are shown as woodland may have been felled as part of forest management practice, thereby underestimating the potential visibility.

This indicates that across the forested parts of the LCT to the north and east of the turbines the screening effect of the forestry would reduce the visibility of the proposed Development and therefore also its effect on the character of these areas. In addition, the human influence of the forestry management practices within these areas also moderates the effects from areas the proposed Development is visible from.

The most pronounced effects on landscape character of this LCT would occur on the smooth, rounded open hill summits and nearby slopes of the hills from Fell Hill in the west to Rowantree Hill in the east and Haggis Hill and Glengap Hill in the north where the proposed Development turbines are located within this LCT or in close proximity to it. There would also be some forestry felling activity brought forward to the north and east of turbine 15. At a greater distance there would be open views towards the proposed Development from the unforested, west facing slopes and summits to the west of a line drawn between Caerloch Dhu in the north, Maiden's Bed and Kirriereoch Hill in the south. The incidence of the extensive forestry as part of the middle and/or foreground of these views is a moderating factor in the level of magnitude of change that would occur from these locations as a result of visibility of the proposed Development. Importantly the Blade Tip ZTV on **Figure 6.17b** illustrates that there be no visibility from the Nick of the Balloch or the memorial and viewpoint at Laglanny.

Elsewhere within the LCT the theoretical visibility of the proposed Development is markedly limited due to intervening landform and this along with the greater distances and the resultant lesser angle of the contextual character that would be affected by visibility of the proposed Development reduces the effects on landscape character within these areas.

Factors that increase the magnitude of change are:

- Change to the experience of the landscape character of the LCT resulting from the addition of large scale wind turbines and associated infrastructure within it;
- The proposed Development would increase the influence of wind energy development across the LCT;
- The degree to which the proposed Development would contrast in turbine size and scale in comparison to the nearby operational Mark Hill Windfarm; and
- The level of proposed Development construction activity experienced within this LCT.

Factors that decrease the magnitude of change are:

- The large scale and the simplicity of the landform and landcover found within this LCT are qualities that increase the capacity of a landscape to accommodate large scale windfarm development;
- The modified nature of the land cover in the form of extensive, managed coniferous forestry exhibits the existing human influence over this landscape and minimises the perception of wildness qualities within parts of the LCT;
- The tracks within the existing forestry and the forest management processes reduce the potential for a perception of inaccessibility and remoteness minimising the effect of further tracks on this landscape;
- The perceived change to key characteristics would be restricted due to screening in large areas of the LCT, which are forested; this is particularly the case for south-western areas around Mount Shellie and The Tores;
- When visible, the proposed Development would be experienced within a context of existing wind turbine development, particularly the Mark Hill Windfarm turbines would therefore introduce elements that are not uncharacteristic, albeit as an intensification of wind turbine influence in this LCT;
- The proposed Development would be located away from the more dramatic, rugged, rocky summits of the Carrick upland area and the hills that define the Nick of the Balloch, which lie to the east of the proposed Development and are described in the 2018 SALWCS as Landmark Hills; and
- As a result of the location of the proposed Development on lower summits within the far western extents of the LCT the larger, craggy summits to the east limit wider visibility across this LCT.

Taking these factors into account the magnitude of change for this LCT is considered to be **High** within the area where the two turbines are located in this LCT and across parts of the area that lies within 2.5 km of the proposed Development turbines. Beyond this the ZTV on **Figure 6.17b** illustrates that the extent of theoretical visibility of the proposed Development reduces due to landform screening. The ZTV with woodland screening on **Figures 6.14b-c** illustrate the extent of woodland and its potential screening effect within the areas lying to the north and east of the proposed Development turbines. The magnitude of change within these areas lying within 4-5 km of the proposed Development turbines would be **Medium-low**.

At a greater distance there would be open views towards the proposed Development from the unforested, west facing slopes and summits to the west of a line drawn between Caerloch Dhu in the north, Maiden's Bed and Kirriereoch Hill in the south. From this area the magnitude of change on landscape character would be **Medium** out to a maximum distance of approximately 9.5 km from the nearest turbine. Elsewhere within this LCT the magnitude of change would be **Low** or there would be no change due to a lack of visibility.

Significance of effect
There would be a **Significant** effect on the landscape character of the Rugged Uplands with Loch and Forest within approximately 2.5 km of the proposed Development due to the potential for open views at close proximity to the turbines, new tracks and forestry felling from this area. At ranges of between 4.5 km and 9.5 km to the east of the turbines there would also be the potential for significant effects. This is due to the combination of the open, undeveloped and rugged character of the baseline landscape, which is also designated for its scenic quality, and the magnitude of change that arises through open views of the proposed Development from land where the hill slopes are orientated towards the proposed Development. This would bring tall, moving, man-made structures closer to this area than is currently the case and would moderate the perception of remoteness and wildness characteristics that are present to some degree in this part of the landscape. In cumulative terms, the proposed Development represents an extension of the 'with windfarm' influence of the adjacent Plateau Moorland with Forest and Windfarm LCT (18c) LCT to the lower slopes of the hills on the western edges of this LCT. The landscape character is influenced by the operational Mark Hill Windfarm, the proposed Development will result in an easterly extension of the 'with windfarm' characteristic of the landscape of the this plateau landscape to the north-east and east of Mark Hill Windfarm, with larger scale 200 m tip height turbines over a broader footprint, increasing the influence of windfarm development as a key characteristic and extending larger scale windfarm influence towards the more elevated uplands of this Rugged Uplands with Loch and Forest LCT that form the backdrop to the east. In terms of cumulative effects with operational and under construction windfarms, it is considered that the addition of the proposed Development will result in a **Low** cumulative magnitude of change and **Not Significant** effect on the fundamental character of this LCT as it would not materially change the existing landscape character, however less extensive, but nevertheless **Significant** landscape effects may arise as a result of the addition of the proposed Development locally (within 2.5 km) where it contrasts with the scale of the operational Mark Hill Windfarm and increases the influence of windfarms in the eastern part of the LCT.

6.9.3.3 Intimate Pastoral Valley (13)

Table 6.9.5 Detailed assessment of effects on Intimate Pastoral Valley

Intimate Pastoral Valley (13)
Baseline description
The Intimate Pastoral Valley character type within the study area includes the Stinchar and Duisk valleys which connect at Pinwherry within South Ayrshire. These valleys have a medium to small scale with steep sloping valley sides and relatively flat valley bottoms. The valley floors include the settlements of Barrhill, Colmonell and Barr along with the property clusters at Pinwherry and Pinmore. The key characteristics within the 2018 SALWCS are summarised as follows – • These valleys are relatively narrow and strongly contained by adjacent upland character types. The Plateau Moorland with Forest and Windfarms (18c) generally forms more simple even skylines seen from these valleys; • A small to medium scale landscape. Scale increases on more open and less settled upper valley sides, particularly at the transition with the very gently sloping Plateau Moorland with Forest and Windfarms (18c); • Broader terraces and gentler, smoother slopes occur on upper valley sides either side of the Duisk Valley and on the south-eastern edge of the Stinchar valley at the transition with the Plateau Moorland with Forest and Windfarms (18c); • The rolling landform and presence of woodlands, hedgerows and trees restricts long views from roads and settlement in some areas although open views are possible where roads are more elevated or the floodplain more open; and • Popularly accessed hills such as Knockdolian and Craigengower Hill also offer elevated views over these valleys. For reference, the SNH 2019 character assessment identifies this area (albeit with subtly different borders) as 'Pastoral Valley' and describes key characteristics as follows – • *'Narrow, intimate medium to small scale valleys with steep slopes and relatively flat bottoms cut into the foothills and moorlands of the Ayrshire uplands;* • *Strongly contained by adjacent uplands with occasional higher and more pronounced summits;* • *Diverse land cover dominated by broadleaf woodland including shelterbelts, riparian woodland and policy woodlands separating the valley into small parcels of pasture;* • *Network of tree-lined winding roads;* • *Number of hill forts, hilltop cairns, castles and strongholds, and mansion houses, resulting in a rich heritage and a strong sense of timelessness;* • *Settlement comprises a dispersed scatter of houses and farms;* • *Well settled, intricately patterned landscape which has a rural, picturesque quality;* • *Views tend to be short to medium distance, focused along the valley in the direction of travel with the surrounding upland landscape forming the enclosing, often dramatic, ridgeline in views. More pronounced 'landmark' hills form key foci. Open views are available from elevated roads and where floodplain is more open; and* • *Popular walks and hill views provide elevated views over this landscape.*' Whilst the majority of key characteristics, described above, are experienced throughout the Duisk and Stinchar valleys they are experienced to a varying degree depending on the specific valley or valley section. For instance, SALWCS highlights that the 'scale increases on more open and less settled upper valley sides, particularly at the transition with the very gently sloping Plateau Moorland with Forest and Windfarms (18c)', which is the case with the valleys located in closest proximity to the proposed Development site. Viewpoints within this LCT include Viewpoints 2 - Minor road to the south of Barrhill; 3 – B7027 Knockycoid; 5 – Knockdolian; 9 – Barr (Glenginnet Road); 15 – Colmonell; 18 – B734 Stinchar Valley; and 19 – B734 Approach to Barr. The viewpoints represent different locations within the LCT and as well as a range of receptor types also provide locations which differ subtly in character across the LCT. Following the LVIA fieldwork and assessment of the LCT (including from seven viewpoints within the LCT) it is considered that the upper reaches of the Duisk valley to the south are more upland in character exhibiting more medium scale landscape features that transition to larger scale elements at the LCT edges. This is in contrast to the small to medium scale characteristics of northern parts of the Duisk valley (north of Barrhill). The LCT is distinct from the larger scale Plateau Moorland with Forest and Windfarms (18c) that surround it, however, southern parts of the Duisk valley are part of a transitional landscape that is more upland in character. Parcels of plateau moorland (i.e. to the south of Barrhill Station) reinforce the continuation (and expansive quality) of the larger scale Plateau Moorland with Forest and Windfarms (18c) characteristic that occur across the southernmost parts of the Duisk valley (see viewpoints 02 and 03). There is a single turbine, Maclachrieston Farm, located close to the A714 and to the north of the River Stinchar. The operational Arecleoch, Mark Hill, Kilgallioch and Hadyard Hill Windfarms are visible from with the LCT with Mark Hill appearing as a regular feature in views east along the Stinchar valley from the Colmonell area. The Hadyard Hill, Penwhapple and Assel Valley group of windfarms is periodically visible to the north from parts of the Intimate Pastoral Valley LCT (mostly the north facing valley slopes) at relatively close proximity to the Stinchar Valley.

Value	**Susceptibility**	**Sensitivity**
This LCT is not subject to any national landscape designations it is however within the South Ayrshire SA. The Stinchar and Duisk valleys are also locally valued landscapes for visitors and residents in the area who can easily appreciate its scenic qualities from the roads that follow the valley sides and valley floors. The value of this LCT is considered to be **Medium-High**.	The intimate, small to medium scale nature of the landscape increases susceptibility to windfarm development. Susceptibility however is partially moderated by the visual presence of existing windfarm development from parts of the valley floor and sides and also by the sense of enclosure provided by the steep and wooded valley sides, that create a separation from the neighbouring plateau landscapes. It is also considered that susceptibility is lower within the southern half of the Duisk valley which is more medium in scale and has some transitional upland characteristics. Other parts of this landscape have a higher susceptibility to further windfarm development due to the potential for cumulative effects to arise. Overall, susceptibility is considered to be **Medium-high**.	The combination of the value of the landscape and its susceptibility to the proposed Development leads to an overall sensitivity of **Medium-high**.

Assessment (including operational and under construction cumulative sites)
Magnitude of change
The proposed Development would occur outwith this LCT so that it may only affect its character through its visibility as part of the wider context in views from this LCT. The closest part of the LCT to the proposed Development is where the LCT extends eastwards from the Duisk Valley along the valley of the Muck Water bringing the boundary to within 1.7 km of the nearest proposed turbine. To the north of the site the Stinchar Valley part of the Intimate Pastoral Valley runs within approximately 3 km of the turbine of the proposed Development. The Blade Tip ZTV with Landscape Character (**Figure 6.17b**) illustrates that along the Duisk Valley to the south-west of the site there would be theoretical visibility of up to 18 turbines from open hill slopes to the south-west of the A714. Such visibility would occur at ranges of over 7 km to the nearest proposed turbine. Visibility of the proposed Development would also occur in locations from where the Mark Hill Windfarm is currently visible at closer proximity above the north-eastern slopes of the Duisk Valley. Viewpoint 2 - Minor road to the south of Barrhill and Viewpoint 3 – B7027 Knockycoid illustrate the type of visibility available from these hill slopes. In the northern extents of the Duisk Valley the Intimate Pastoral Valley extends eastwards along the Muck Water tributary. From there potential theoretical visibility of the proposed Development would occur at relatively close range and would

extend the existing windfarm influence that occurs to the south as a result of visibility of the Mark Hill Windfarm as shown on **Figure 6.25d**.

From the Intimate Pastoral Valley that extends west along the River Stinchar from the A714 the theoretical visibility is shown on **Figure 6.17b** to be patchy. Viewpoint 5 – Knockdolian and Viewpoint 15 – Colmonell illustrate the visibility from within this area. Furthest west the theoretical visibility would be restricted to the south facing valley slopes whilst further east there may be visibility from both sides of the enclosing valley sides, where this is not prevented by woodland landcover.

Along the Stinchar Valley theoretical visibility of the proposed Development from the valley floor and the routes through the valley, from where most people would experience the character, is limited due to the intervening landform. Viewpoint 9 – Barr (Glenginnet Road), Viewpoint 18 – B734 Stinchar Valley and Viewpoint 19 – B734 Approach to Barr illustrate the highest levels of visibility obtainable from the valley floor and routes. Visibility of the Hadyard Hill group of windfarms is more pronounced along the eastern extents of the valley as shown on **Figure 6.25e**.

Theoretical visibility increases elsewhere within the Stinchar Valley in areas of higher elevation. The number of turbines visible increases further up the south facing valley side slopes so that from the upper levels up to 18 turbines may be visible. However, with the increasing elevation and turbine visibility there is also greater distance from the proposed Development but increasing influence through visibility of other operational windfarms as part of the wider context as can be seen through reference to **Figures 6.25d-g**.

On the south side of the valley theoretical visibility is restricted to slopes and summits of higher elevation from where there may be visibility of the proposed Development at relatively close proximity where this is not restricted by intervening forest screening, which is shown to occur, on **Figures 6.14b-c**, across some of the closer summits. From areas where there would be open views toward the proposed Development there is visibility of the Hadyard Hill, Penwhapple, Assel Valley and Tralorg group of windfarms across the valley to the north.

On the hill slopes that rise to the west and north of the A714 there is shown on **Figure 6.17b** to be theoretical visibility of up to 18 turbines at ranges of greater than 7 km from where the proposed Development would be seen set beyond the enclosing valley landform extending the existing windfarm influence already provided by Mark Hill to the south-east and the Hadyard Hill, Penwhapple, Assel Valley and Tralorg group of windfarms to the north-east, across a further part of the views and valley context.

Factors that increase the magnitude of change are:

- Change to the experience of the landscape character of the LCT resulting from the addition of large scale wind turbines through their visibility as part of the wider context of the valley;
- The proposed Development would increase the influence of wind energy development across the LCT through its visibility;
- The degree to which the proposed Development would contrast in turbine size and scale in comparison to the nearby operational Mark Hill Windfarm; and
- The cumulative effects that would occur within this LCT through the simultaneous, successive and sequential visibility of the proposed Development with the visibility and influence of the Mark Hill, Hadyard Hill, Penwhapple, Assel Valley and Tralorg group of windfarms.

Factors that decrease the magnitude of change are:

- The modified nature of the land cover in the form of agricultural and forestry landcover with a network of roads and scattered settlement ensure that although rural there is no sense of remoteness or wildness characteristics;
- Theoretical visibility of the proposed Development is restricted to turbines with intervening landform and forestry often restricting their visibility from this LCT so that the proposed Development is seen to be set back from the enclosing landform of the valley landscape;
- The forestry felling that is being brought forward as part of the proposed Development is unlikely to be visible due to its location on the south facing parts of the site;
- When visible, the proposed Development would be experienced within a context of existing wind turbine development, particularly the Mark Hill Windfarm turbines, and would therefore introduce elements that are not uncharacteristic, albeit as an intensification of wind turbines in this LCT;
- The proposed Development would be located away from the more dramatic, rugged, rocky summits of the Carrick upland area and the hills that define the Nick of the Balloch, which lie to the east of the proposed Development and are described in the 2018 SALWCS as Landmark Hills; and
- As a result of the location of the proposed Development on lower summits within the far western extents of the LCT the larger, craggy summits to the east limit wider visibility across this LCT.

Taking these factors into account the magnitude of change for this LCT is considered to be **Medium** across the upper, south facing Stinchar Valley side slopes within the area lying between a point just west of (but not including) Kilpatrick in the west and Daljedburgh Hill in the east. Lower down the valley slopes (where the majority of the properties and minor access roads that connect these to the B734 are located) the magnitude of change on landscape character would be **Low**. Elsewhere across the valley floor within the Stinchar Valley the magnitude of change would be low or there would be no change. On the upper slopes on the south side of the valley the intervening forestry influence would ensure that the magnitude of change would be **Medium-low**.

In the western section of the Stinchar Valley and along the Duisk Valley the intervening influence of the Mark Hill Windfarm generally ensures that the magnitude of change on character as a result of the proposed Development would be **Medium-low** where the ZTV on **Figure 6.17b** shows visibility from the higher valley side slopes. Notably the valley floors and locations from where there the majority of people would perceive the character of the valley would gain very limited visibility and the magnitude of change on character would be low or there would be no change.

Significance of effect

The effect on the landscape character of the area located across the upper, south facing Stinchar Valley side slopes within the area lying between a point just west of (but not including) Kilpatrick in the west and Daljedburgh Hill in the east is assessed as cumulative (mainly with Mark Hill and Hadyard Hill Windfarms) and **Significant**. These significant effects are restricted to the more elevated upper northern sides of the Stinchar Valley and do not occur from the lower lying intimate valley areas along the River Stinchar/B734 between Barr and Pinmore, which is much more contained and does not have the more open characteristics or views of the northern upper valley sides where they transition into the adjacent foothills. The effect of the proposed Development on the landscape character of the lower lying 'intimate' areas of the Intimate Pastoral Valley LCT are assessed as **Not Significant**.

6.9.3.4 Plateau Moorland with Forest (17a)

Table 6.9.6 Detailed assessment of effects on Plateau Moorland with Forest

Plateau Moorland with Forest (17a)

Baseline description

The access track element of the proposed Development is located partially within this LCT in Dumfries and Galloway. Much of this LCT is highly modified by large and expansive areas of commercial forestry.

The key characteristics of this LCT as described within the DGWLCS are summarised as follows:

- *Expansive scale due to its simple low-lying plateau landform although extensive coniferous forest cover reduces the scale experienced at lower levels. Two larger remaining areas of open moorland; North of Elrig Fell and at the head of the Cree Valley centred on Glenvernock Fell, and a few other smaller ones.*
- *Operational/consented windfarms are a key characteristic of this landscape. Small hills are an occasional feature and lochs and farmland occur in pockets and on the outer fringes of this landscape and these have a reduced scale.*
- *A simple, gently undulating low-lying plateau where occasional open craggy topped small knolls are distinctive features within generally subtle and sweeping topography. Larger hills rise to around 300 m. The extensive forest cover of this area tends to 'flatten' and mask underlying topography. The shapely open Glenvernoch Fell is more prominent despite its relatively low height.*
- *This landscape has a simple pattern being dominated by dense and fairly uniform coniferous forest. Areas of open moorland, small pockets of farmland and occasional lochs, for example the string of lochs focussed on Loch Ranald and Loch Ochiltree are important in providing diversity and contrast within the character type.*
- *This area is sparsely settled with isolated farms, small groups of cottages and occasional estate houses set within adjacent valleys such as the Water of Luce and the Cree valley. A network of tracks is largely hidden by the forest and the B7027 and narrow minor roads cross the area. Archaeological and relict land-use features often have a strong presence within open moorland and fringe farmland.*
- *This area is fairly extensive and relatively low-lying. While it does not make a strong contribution to the wider landscape composition it provides a simple foreground to the distant Galloway Hills and an upland backdrop to the Cross Water of Luce valley (17), the Cree Valley (4) and the Machars (11/12)*
- *Operational and under-constructed windfarms in this and adjacent character types and extensive heavily managed non-native forestry precludes a sense of wildness. Remaining pockets of open moorland and lochs have a natural appearance however and archaeological features in these areas add to the impression of this being a 'timeless' landscape.*
- *Views to this sparsely settled character type are generally distant with close views from the key routes of the A714 and A75 and from settlements restricted by forestry and landform. There are dramatic views of the Galloway Hills from the open moorland and hill tops of this character type and from sections of the Southern Upland Way (SUW). Lochs form a*

visual focus from roads such as the B7027 and from footpaths (SUW). Operational and under-construction windfarms are visible from the SUW and from minor roads within and close-by the character type.

For reference, the SNH 2019 character assessment describes the key characteristics for this LCT as follows –

- '*Elevated flat or gently undulating landscape of large scale.*
- *Dominance of forestry, with a consistent blanket of dark green, superimposed on plateau moorland, currently being restructures as part of felling rotations, and to accommodate windfarm development.*
- *Some large-scale open plateau moorland components within the area, and smaller pockets of open ground.*
- *Rough grass, farmland and heathland in un-forested areas.*
- *Dark horizons formed by forest margins.*
- *Evidence of historic and pre-historic land use in un-forested areas.*
- *Sparsely populated, but with some pockets of settled farmland.*
- *Occasional loch basins, which are a focus for some recreational and tourist facilities.*
- *Windfarm development of forested or recently clear-felled areas north-western, western and south-western areas.*
- *Remote and exposed character.'*

A large proportion (63 of 96 turbines) of the operational Kilgallioch windfarm are located in the north-western regions of this LCT. The operational Airies windfarm is located in the south-west of the LCT. In addition, the operational windfarms of Carscreugh, Glenchamber, Artfield Fell and Balmurrie Fell are also visible from within elevated and open areas of this LCT as shown on Figure 6.25i.

Viewpoints within this LCT include - Viewpoint 04 – SUW, Craig Airie Fell, Viewpoint 06 – Hill of Ochiltree and Viewpoint 17 – Kirriereoch Picnic Site.

Value	Susceptibility	Sensitivity
This LCT is not subject to any national designations. The Galloway Hills RSA covers the eastern edges of this LCT across the southern Glentrool forest that lies within this LCT, however it does not coincide with where the access track of the proposed Development is located. The Dark Skies Park buffer and the Galloway Forest Park cover the eastern area of the LCT where the access track of the proposed Development is located. On balance, the value of this LCT is considered to be **Medium**.	This LCT is a large-scale landscape dominated by simple land cover such as large areas of undulating coarse grassland and forestry plantations. The overall character is typified by these characterising elements and it is considered that this LCT is an appropriate receiving landscape for wind energy development. The presence of historic land-use within this LCT increases its susceptibility. The baseline windfarm influence in this LCT reduces susceptibility to change and the 'sense of naturalness' described by the DGWLCS. Access tracks are not an uncharacteristic feature in the landscape due to the proliferation of forestry roads. On balance, the susceptibility of this LCT to the proposed Development is **Medium-low**.	The combination of the value of the landscape and its susceptibility to the proposed Development leads to an overall sensitivity of **Medium**.

Assessment (including operational and under construction cumulative sites)

Magnitude of change

The access to the proposed turbine would be through this LCT. There would be a requirement for minor modifications/straightening of the existing forestry route in limited locations for the turbine delivery and this is likely to require some localised forestry removals along the route. There would also be a three borrow pits and a small construction compound located near to the A714. The effect on the LCT of these components of the proposed Development would be highly localised due to the containment provided by the commercial forestry which surrounds them.

The proposed Development turbines would occur outwith this LCT so that the main effects on its character would occur through their visibility as part of the wider context in views from this LCT. The closest part of the LCT to the turbines of the proposed Development is where the LCT extends northwards to the boundary with South Ayrshire near Shiggerland Loch and Kentie Hill and comes within approximately 2.7 km of the closest turbine of the proposed Development.

The Blade Tip ZTV with Landscape Character (**Figure 6.17b**) illustrates that there would be theoretical visibility of up to 18 turbines from this closest area to the proposed turbines with such theoretical visibility extending across large parts of the LCT where they are not shielded by intervening landform such as occurs across the eastern parts of Glentrool Forest; to the west of Craig Airie Fell, Eldrig Fell and Fell Hill in the west of the LCT; a large area to the west of the A714 and south of Hill of Ochiltree; and across a small patch of land to the south of Urall Fell.

However, **Figure 6.14b** and **Figure 6.14c** illustrate the extent of woodland coverage across the majority of the LCT and the screening effect this has. These ZTVs have been run to illustrate the screening effect of woodland cover at a nominal height of 5m, however, in many areas this vastly underestimates the height of the woodland and therefore its screening effect. It is also possible that areas that are shown as woodland may have been felled as part of forest management practice, thereby underestimating the potential visibility.

This indicates that across the forested parts of the LCT the screening effect of the forestry would reduce the visibility of the proposed Development and therefore also its effect on the character of these areas. In addition, the human influence of the forestry management practices within these areas also moderates the effects from areas the proposed Development is visible from. **Figure 6.14b-c** illustrate that the most pronounced character change through visibility of the proposed Development would occur in isolated patches of theoretical visibility to the south-west, south and south-east of the proposed Development turbines such as is illustrated by Viewpoint 4 – SUW, Craig Airie Fell, Viewpoint 6 – Hill of Ochiltree and Viewpoint 17 – Kirriereoch Picnic Site respectively. Such visibility would be extremely limited across this LCT to patches of open moorland and incidental openings in the forest cover where there are routes and limited houses/farmsteads.

Factors that increase the magnitude of change are:

- Change to the experience of the landscape character of the LCT resulting from the addition of large scale wind turbines through their visibility as part of the wider context;
- The proposed Development would increase the influence of wind energy development across the LCT through its visibility;
- The degree to which the proposed Development would contrast in turbine size and scale in comparison to the nearby operational Mark Hill Windfarm; and
- The level of proposed Development construction activity experienced within this LCT.

Factors that decrease the magnitude of change are:

- The large scale and the simplicity of the landform and landcover found within this LCT are qualities that increase the capacity of a landscape to accommodate large scale windfarm development;
- The modified nature of the land cover in the form of extensive, managed coniferous forestry exhibits the existing human influence over this landscape and minimises the perception of wildness qualities within parts of the LCT;
- The tracks within the existing forestry and the forest management processes reduce the potential for a perception of inaccessibility and remoteness minimising the effect of further tracks and their use on this landscape;
- The perceived change to key characteristics would be restricted due to screening in large areas of the LCT, which are forested;
- When visible, the proposed Development would be experienced within a context of existing wind turbine development, particularly the Mark Hill Windfarm turbines and the Kilgallioch Windfarm turbines would therefore introduce elements that are not uncharacteristic, albeit as an intensification of wind turbine influenced experience from this LCT; and
- The proposed Development would be located away from the more dramatic, rugged, rocky summits of the Carrick upland area and the hills that define the Nick of the Balloch, which lie to the east of the proposed Development and are described in the 2018 SALWCS as Landmark Hills and within a less remarkable part of the contextual landscape.

Taking these factors into account the magnitude of change for this LCT is considered to be **Medium-low** or lower.

Significance of effect

The effect of the proposed Development on the landscape character of the is assessed **Not Significant**, **Long-term** and **Adverse**. The proposed Development results in a Medium-low magnitude of change, with the effect of this change assessed as Not significant when combined with the medium sensitivity of the LCT. In cumulative terms, the proposed Development represents an extension of the windfarm influence of the adjacent Plateau Moorland with Forest and Windfarm LCT (18c) on the eastern part of this LCT, with larger scale 200 m tip height turbines over a broader footprint, increasing the influence of windfarm development as a characteristic, although the extensive forestry which typifies the character of this eastern area around Glentrool Forest, reduces the degree to which the windfarm characteristic is experienced. In terms of cumulative effects with operational and under construction windfarms, it is considered that the addition of the proposed Development will result in a Low cumulative magnitude of change and Not Significant effect on the fundamental character of this LCT as it would not materially change the existing windfarm influenced landscape character.

6.9.3.5 Rugged Granite Upland (21)

Table 6.9.7 Detailed assessment of effects on Rugged Granite Upland

Rugged Granite Upland (21)

Baseline description

The Rugged Granite Upland character type within the study area covers two geographically separate areas, namely the Merrick and the Rhins of Kells. This assessment is concerned only with the characteristics associated with the Merrick unit. This is a result of its closer proximity to the proposed Development and its relatively higher levels of sensitivity which are of specific importance to this assessment.

The key characteristics described within the 2018 SALWCS are summarised as follows –

- *The Rugged Granite Uplands range from 200 m to over 800 m with Merrick, at 843 m, the highest peak. They have a massive scale although the narrow valleys which cut into the hills and the undulating loch basins within the interior of the Merrick unit are strongly contained by steep slopes.*
- *Exposed granite and boulders give a notably 'Highland' appearance to the Merrick hill group featuring distinctive steeply-rising peaks with craggy sides, knobbly ridges and cliffs of dark hard rock. Some smoother hill slopes and broader ridges occur although generally the scenery is rugged and dramatic.*
- *Vegetation cover is simple, largely comprising grass moorland with patchy heather, the landscape is strongly patterned with exposed rock, crags and small deeply articulated lochs and myriad water courses significantly increasing complexity. Coniferous forestry extends onto the lower southern slopes and valleys of the Merrick area.*
- *These uplands are largely uninhabited but there are some archaeological features.*
- *These uplands provide a distinctive rugged mountainous backdrop to adjoining settled areas such as the Plateau Moorlands and Duisk valley within South Ayrshire to the west.*
- *An absence of built development and difficulty of access to the interior of these uplands give a strong sense of remoteness in places. Naturalness is accentuated by the ruggedness of the terrain but diminished in some areas by coniferous forestry in adjacent character types (21a).*
- *Uplands popular with walkers because of their highly natural and rugged character and the presence of 'Corbett' hills. The higher summits offer views into the less visited interior of the hills and the wider area.*
- *The Merrick group of hills form a distinctive and long panorama seen principally from the west but also from elevated viewpoints such as Cairnsmore of Fleet to the south. They feature in views from the A714, the Plateau Moorlands, the Duisk valley and the SUW.*

For reference, the SNH 2019 character assessment describes the key characteristics for this LCT as follows:

- *'Massive rugged peaks, rising steeply with craggy sides.*
- *Heather covered slopes, contrasting with white granite outcrops.*
- *Exposed 'highland' landscape.*
- *Dark cliffs and peripheral ridges.*
- *Numerous water features such as lochs and small burns.*
- *Forests on lower slopes.*
- *Open and wild character'.*

There are no operational windfarms located within this LCT. The closest windfarms are Torrs Hill, which is under construction approximately 6km to the east and Mark Hill Windfarm approximately 11.1 km to the west. Viewpoint 8 – The Merrick is located within this LCT.

Value	Susceptibility	Sensitivity
The Galloway Hills RSA covers these uplands and the Merrick Wild Land Area covers the majority of the more elevated parts of the Merrick unit. The Galloway Forest Park extends across the character type. The Galloway Forest Park and the core of the Dark Sky park sit across the Merrick Unit of this LCT. The value of this LCT is considered to be **High**.	The undeveloped character and the perception of remoteness and wild land qualities make this LCT susceptible to the proposed Development. This is moderated by a number of factors which include: the scale and simplicity of the receiving landscape; the separation of this upland area from the landscape within which the proposed Development would be located; the 6 km distance to the proposed Development turbines; the modification that has occurred within the contextual landscape which includes extensive commercial forestry and windfarms. The susceptibility of this LCT to the proposed Development is considered to be **Medium**.	The combination of the value of the landscape and its susceptibility to the proposed Development leads to an overall sensitivity of **Medium-high**.

Assessment (including operational and under construction cumulative sites)

Magnitude of change

The proposed Development would be located outwith this LCT so that it may only affect its character through its visibility as part of the wider context in views from this LCT.

The closest part of the LCT to the proposed Development is where the LCT extends westwards to the edge of the commercial forestry plantation on the lower slopes of Benmore and Kirriemore Hill, which are foothills of the Merrick. The closest element of the proposed Development is the proposed access route to the windfarm, which will run along an existing forest road located approximately 4 km to the west of the LCT at its closest point.

The closest turbines to the LCT would be located approximately 6 km to the west-north-west.

The Blade Tip ZTV with Landscape Character (**Figure 6.17b**) illustrates that there would be theoretical visibility of up to 18 turbines from the rising ground within this area close to the proposed turbines with such theoretical visibility extending across the markedly undulating west and north-west facing slopes for approximately 3-4 km of the foothills and slopes up to the ridgeline created by Bennan, Benyellary, Neive of the Spit, Merrick and Kirriereoch Hill.

Further south within the LCT **Figure 6.17b** illustrates that there would be theoretical visibility of up to 18 turbines at ranges of over 13 km in a north-westerly direction. This would occur across the summit and north-west facing slopes of Lamachan Hill and Larg Hill down to close to the forest edge. There is also shown to be theoretical visibility from the upper slopes of Curleywee at a distance of approximately 17 km.

Elsewhere in the LCT there would be limited visibility of the proposed Development so that the majority of the LCT would have no visibility of it. This includes a large area at the head of Glen Trool where numerous lochs are surrounded by rugged landforms which provide strong containment of views.

Factors that increase the magnitude of change are:

- Change to the experience of the landscape character of the LCT resulting from the addition of large scale, wind turbines through their visibility as part of the wider context, introducing further built development to the contextual landscape;
- The proximity of the proposed Development turbines to the LCT when compared with the distances to other forms of built development visible from there;
- The large scale, moving development form of the turbines which contrasts with the undeveloped character of the LCT; and
- The degree to which the proposed Development would contrast in turbine size and scale in comparison to the other operational and under construction windfarms.

Factors that decrease the magnitude of change are:

- The large scale and the simplicity of the landform and landcover found within this LCT and the contextual landscape are qualities that increase the capacity of the landscape to accommodate large scale windfarm development;
- The modified nature of the intervening land cover in the form of extensive, managed coniferous forestry exhibits the existing human influence over this landscape and minimises the perception of wildness qualities within parts of the LCT;
- The tracks within the existing forestry and the forest management processes viewed within the intervening landscapes reduce the potential for a perception of inaccessibility and remoteness minimising the effect of further tracks and their use on this landscape;
- The perceived change to key characteristics would be restricted due to landform screening in large areas of the LCT;
- When visible, the proposed Development would be experienced within a context of existing wind turbine development which occurs to the west, north and east of the LCT and would therefore introduce elements that are not uncharacteristic, albeit as an intensification of wind turbines in this LCT due to the closer proximity of the proposed Development; and
- The proposed Development would be located in a landscape that is markedly separate and different to the Rugged Granite Upland LCT which has very strong characteristics, many of which are not altered in any way by the proposed Development occurring in another LCT, which is separated from it by an intervening landscape of Plateau Moorlands with Forest.

Taking these factors into account the magnitude of change for this LCT is considered to be **Medium** across the west facing slopes of the Merrick foothills of Benmore, Braes of Mullachgeny, Kirriemore Hill and Kirriereoch Hill out to a range of between 6-8 km from the proposed Development turbines. From these locations the windfarm's influence on the character of the LCT is more pronounced than it is from further up the slopes or from the ridgeline/summit of the Merrick where the magnitude of change would be **Medium-low**. This is due to the closer proximity of these locations and the more prominent influence of the proposed Development and therefore its greater influence on the key characteristic of the 'absence of built development'. Further up the slopes a greater distance separates the LCT from the proposed Development. The low points and foothills of the foreground also ensure a setback from the edge of the Rugged Granite Uplands LCT, where these features create an intervening reinforcement of the LCT characteristics. Many of the key characteristics of the Rugged Granite Uplands LCT are not altered in any way by the proposed Development, which from the higher elevations of the upper slopes and summit contains a wide array of characterising influences within 180-360 degree panoramic views.

Elsewhere within the LCT across the summit and north-west facing slopes of Lamachan Hill and Larg Hill down to close to the forest edge and the upper slopes of Curleywee the magnitude of change would reduce to **Low**, largely as a result of the greater distance but also due in part to the influence of Kilgallioch Windfarm as part of the wider context and at a similar range. Elsewhere the magnitude of change on character would be negligible or there would be no change.

Significance of effect

The effect on the landscape character of the area located across the west facing slopes of the Merrick foothills of Benmore, Braes of Mullachgeny, Kirriemore Hill and Kirriereoch Hill out to a range of between 6-8 km from the proposed Development turbines is assessed as **Significant, Long-term** and **Adverse**. The proposed Development results in a medium magnitude of change on this closest area of the LCT, due to the closer proximity of and the more prominent influence of the proposed Development on the key characteristic of the general 'absence of built development' with the effect of this change assessed as significant when combined with the medium-high sensitivity of the LCT. Despite a number of mitigating factors, including the location of the proposed Development at distance outside this LCT, the limited influence it has on the core and uplands of the LCT where views are limited by the rugged uplands, the large scale of the plateau moorland outwith the LCT and its degree of modification as commercial forest with windfarm landscape, the effect is considered significant and adverse due to the increased scale and influence of the proposed turbines in comparison to operational windfarms in the plateau landscape.

In cumulative terms, the proposed Development represents an extension of the 'with windfarm' influence of the Plateau Moorland with Forest and Windfarm LCT (18c) LCT to the areas to the west of this Rugged Uplands LCT (21). The landscape character in this area is already influenced to some degree by the operational Mark Hill Windfarm, and other windfarms in the wider plateau, however the proposed Development will result in an easterly extension of the 'with windfarm' characteristic of the landscape of this plateau landscape to the north-east and east of Mark Hill Windfarm, towards the Rugged Uplands LCT (21) with larger scale 200 m tip height turbines over a broader footprint, increasing the influence of windfarm development as a key characteristic and extending larger scale windfarm influence towards the more elevated uplands of this Rugged Uplands LCT (21) that form the backdrop to the east.

Elsewhere within this LCT, beyond approximately 8 km, and including the upland ridgeline of the Merrick, Benyellary and Kirriereoch Hill, and the core areas of upland landscape to the south-east of the Merrick summit, the effect of the proposed Development on the landscape character of the LCT would be **Not significant**. This is largely due to the fact that the majority of the key characteristics of the Rugged Granite Uplands would not be altered by the proposed Development, the lack of visibility of the proposed Development from the upland core beyond the Merrick ridge, and the fact that the proposed Development would occur within a very different and separate landscape that is large in scale, has been modified through coniferous forestry and windfarm development.

6.9.3.6 South Ayrshire SA

229. The South Ayrshire SA covers extensive areas of the South Ayrshire countryside with around 59 % of South Ayrshire covered by the scenic area, much of which is in the south of the region. Within the study area these extensive areas include the mainly upland area of South Carrick, the coastal strip along the River Stinchar to the south of Girvan and the valley of the River Duisk. The area encompasses a broad variety of landscape character, ranging from smaller scale, settled valleys to larger scale, open uplands and coastal landscapes. The 'special qualities' of the South Ayrshire SA are not defined in the South Ayrshire LDP (SAC, 2014), which makes it difficult to address the degree to which the proposed Development impacts upon the underlying matters which are being protected by this designation. The LVIA takes the approach of identifying and describing effects on the South Ayrshire SA based on the effects assessed on LCTs which compromise the South Ayrshire SA.

230. The preliminary assessment identified that many of the LCTs and therefore some areas within the South Ayrshire SA would not be significantly affected by the proposed Development. These are as follows:

- 1c Raised Beach Coast with Flat Fields & Headlands
- 1d Raised Beach Coast with Rocky Shore
- 4b Brown Carrick Hills
- 5 Coastal Valley with Policies
- 7d South Ayrshire Lowlands
- 9 Lowland River Valley
- 11 Lower Dale
- 12 Middle Dale
- 14 Upland Glens
- 16 Lowland Hills
- 17b Foothills with Forest west of Doon Valey
- 17c Foothills with Forest & Windfarm
- 17d Maybole Foothills
- 17e Coastal Foothills
- 20b South Ayrshire Southern Uplands
- 22 Glenapp Coastal Farmland & the Policies

231. The key LCTs that form the closest parts of the South Ayrshire SA that may experience significant effects as a result of the proposed Development are the Intimate Pastoral Valley LCT (13) covering the Sinchar and Duisk Valleys; and the Rugged Uplands with Loch & Forest LCT (21) covering the High Carrick Hills.

232. The baseline descriptions for each of these LCTs are found in the previous detailed assessments in **Section 6.9.3.3** and **6.9.3.3**. The assessments also include consideration of the value attributed to the South Ayrshire SA and the susceptibility of each of the LCTs to the proposed Development in order to define the sensitivity of these LCTs.

233. The SLA covers an extensive part of the study area and the viewpoints within the SLA include VP1- Shalloch on Minnoch; VP2- Minor road to the south of Barrhill; VP 5- Knockdolian; VP7- Auchensoul Hill; VP9- Barr (Glenginnet Road); VP12-NCR7 Near Doughty Hill; VP15-Colmonell; VP16-Byne Hill; VP18-B734 Stinchar Valley; VP19-B734 Approach to Barr; VP20- New Barr Trail (near White Knowes); VP22- Brown Carrick Hill; and VP21- Barr Trail (Barr to Loch Doon Cycle Route).

234. The operational windfarms of Hadyard Hill, Maclachrieston Farm, Penwhapple, Assel Valley and Dersalloch lie entirely within the South Ayrshire SA and the operational Mark Hill Windfarm is partly within the South Ayrshire SA. The operational Arecleoch and Glen App Windfarms are located close to the southern edges of the South Ayrshire SA. The under construction Tralorg Windfarm is located within the South Ayrshire SA.

235. The magnitude of change that would occur on each of the LCTs that may be significantly affected by the proposed Development has also been assessed in order to define the significance of the effects when considered alongside sensitivity.

236. Within the South Ayrshire SA it has been assessed that **Significant** effects on landscape character would occur in the following locations:

- Rugged Uplands with Loch and Forest (South Ayrshire 21 and East Ayrshire 21) - within approximately 2.5 km of the proposed Development turbines due to the potential for open views at close proximity to the turbines, new tracks and forestry felling from this area. At ranges of between 4.5 km and 9.5 km to the east of the turbines there would also be the potential for significant effects across the open, west facing slopes of the rugged upland area; and
- Intimate Pastoral Valley (13) – within the area located across the upper, south facing Stinchar Valley side slopes between a point just west of (but not including) Kilpatrick in the west and Daljedburgh Hill in the east.

237. Notably these areas are relatively limited due to the influence of intervening landform and extensive commercial forestry, as well as the existing influence of operational windfarms. Elsewhere, within the South Ayrshire SA the effects on the landscape character would be **Not significant**.

238. The 'special qualities' of landscapes within the South Ayrshire SA are further defined for the candidate LLAs in the South Ayrshire Local Landscape Designations Review (SAC, 2018). Although these are indicative of the Council's intention for protecting important landscapes in South Ayrshire and carry less weight as a material consideration in

planning application decision making than the South Ayrshire SA, the 'statements of importance' for each LLA help to inform the underlying matters which may be being protected by the coincident areas of the South Ayrshire SA.

239. The candidate LLAs are been mapped in **Figure 6.6** together with the South Ayrshire SA. Those that are coincident with the closest parts of the South Ayrshire SA, which may experience significant effects as a result of the proposed Development, are the Stinchar Valley LLA and the High Carrick Hills LLA. A description of the reasons for designation and special qualities of the Stinchar Valley LLA and High Carrick Hills LLA is provided in pages 28-35 of the Local Landscape Designations Review (SAC, 2018).

240. The proposed Development will avoid having significant effects on the reasons for the designation of the Stinchar Valley area of the South Ayrshire Scenic Area, including its hidden, secretive quality derived from being narrow, incised and undisturbed by major communications, or its scenic composition enhanced by cultural heritage features; while also not affecting the lush valley floor pastures, complex wooded slopes and well defined hills on the northern edge of the valley.

241. The proposed Development has been designed to reduce and avoid significant effects on the High Carrick Hills area of the South Ayrshire SA. The proposed Development avoids the highest and most rugged hills in South Ayrshire, being sited at the western end and lower slopes of the band of noticeably more rounded open hills, which contrast with the appearance of the granitic ride to the east.

242. While the hills that are located within the site boundary, extending between Fell Hill, Cairn Hill, Pinbreck Hill and Craignreoch are form part of the wider area of Carrick Forest Hills, the proposed Development is located away from the more dramatic, rugged, rocky summits of the Carrick Hills upland area and the hills that define the Nick of the Balloch, which lie to the east of the proposed Development. As such, the proposed Development will avoid significant effects on the highland character, craggy landforms, peaty lochs and qualities of wildness that can be experienced from the wider High Carrick Hills to the east, which form the principal reasons for designation of the this part of the South Ayrshire SA.

6.9.3.7 Galloway Hills Regional Scenic Area

243. The most recent D&G Council study relating to its Regional Scenic Areas (RSA) is the Regional Scenic Areas Technical Paper prepared in 2018 as part of the Local Development Plan 2 process. It examines and defines the RSAs that are to be protected by Policy NE2 of the Local Development Plan (LDP). The area is described as being centred on the Rugged Granite Uplands and Coastal Granite Uplands of central Galloway and extend from the boundary south to where the hills meet the sea.

244. The study describes the landscape of the Galloway Hills RSA as follows:

245. *'This is the largest Regional Scenic Area, a reflection both of the scale of the landscape of the Galloway Hills and the interesting juxtaposition of contrasting upland, valley and coastal landscapes. The relationship between the hills and the adjacent lowlands gives rise to sweeping and dramatic views of the hills, in particular from the western side of Wigtown Bay and certain sections of the perimeter valleys. The overall scale of the designated area results in some parts, particularly those areas included because of their contribution to the wider view, being of less internal scenic interest than others. Examples include certain of the forested foothills of the Merrick and the Rhinns of Kells. However, these areas form the setting to the dramatic summits of the Galloway Uplands, and so warrant designation as an integral part of the scenically valued landscape of the Galloway hills, to protect them from unsuitable development, and encourage sensitive management.*

246. *The uplands vary in character from the massive craggy peaks of the Rugged Granite Uplands with their heather covered slopes and granite outcrops to the smoother, rounder, lower summits of the Foothills, and their extensive forested counterparts. The designated area was extended to include the dramatic sculptural peaks of the Cairnsmore of Carsphairn Southern Uplands Landscape Unit to the east, as well as the forested eastern slopes of the Rhinns of Kells.*

247. *The peripheral Narrow Wooded Valleys and the Coastal Flats of adjacent estuaries were included both for their own inherent characteristics and because of their scenic juxtaposition with the uplands. Scenic Area boundaries follow the immediate outward facing visual envelope of these valleys. More distant hills outwith the central hill mass of the Galloway Uplands, but which may be visible from these valleys, were excluded as being less critical to the scenic value of the area, but the potential impact on the designated area of proposals in these areas should be considered.*

248. *Much of the central area is uninhabited and is accessible only via forestry roads or on foot, other than via the scenic A712 'Queensway', and Rusko and Coarse of Slakes roads.*

249. *However there are several villages plus the small towns of Gatehouse of Fleet and Newton Stewart in the peripheral valleys, and a range of tourist facilities including camping and caravan sites. The area sees continued interest in forestry such that land-use balance is a potential issue, and is subject to interest from windfarm developers'.*

250. The preliminary assessment identified that many of the LCTs which compromise the RSA would not be significantly affected by the proposed Development. These are as follows:

- 1a Peninsula with Gorsey Knolls
- 2 Coastal Flats
- 4 Narrow Wooded River Valleys
- 8 Flooded Valley
- 9 Upper Dale (Valley)
- 12 Drumlin Pasture in Moss and Moor Lowland
- 13 Drumlin Pastures
- 16 Upland Fringe
- 18 Foothills
- 18a Foothills with Forest
- 19 Southern Uplands
- 19a Southern Uplands with Forest
- 20 Coastal Granite Uplands
- 21a Rugged Granite Upland with Forest

251. The key LCTs that form the closest parts of the RSA that may experience significant effects as a result of the proposed Development are the Rugged Granite Uplands LCT (21) and Rugged Granite Uplands with Forest LCT (21a). The baseline descriptions for the Rugged Granite Upland LCT (21) is found in the previous detailed assessment of the LCT in **Section 6.9.3.5**. The assessments also include consideration of the value attributed to the RSA and the susceptibility of each of the LCTs to the proposed Development in order to define the sensitivity of the LCT.

252. The RSA covers the south-eastern quadrant of the study area and the viewpoints within the RSA include: VP8- The Merrick; VP14- Corserine; VP17- Kirriereoch Picnic Site.

253. The Tors Hill windfarm is under construction within this RSA area.

254. The magnitude of change that would occur on each of the LCTs that may be significantly affected by the proposed Development has also been assessed in order to define the significance of the effects when considered alongside sensitivity.

255. Within the RSA it has been assessed that **Significant** effects on landscape character would occur in the following locations:

- Rugged Granite Upland (21) – within the area located across the west facing slopes of the Merrick foothills of Benmore, Braes of Mullachgeny, Kirriemore Hill and Kirriereoch Hill out to a range of between 8-9 km from the proposed Development turbines would be significant.

256. Elsewhere the effect on the character of the Galloway Uplands RSA would be **Not significant**.

6.10 Visual Effects

6.10.1 Introduction

257. Effects on views are the changes to views experienced by people that result from the introduction of the proposed Development. As described in the baseline overview, the assessment of effects on views includes effects on people at representative viewpoints and on principal visual receptors (i.e. groups of people in settlements, motorists on roads or users of recreational routes).

258. Potential visual effects that could arise during construction and operation are identified as follows:

- Temporary visual impacts on views during construction; and
- Long-term visual impacts on views during operation - primarily as a result of wind turbine operation, experienced by visual receptors (groups of people) with visibility of the operation of the proposed Development, on specific views and on their visual amenity.

259. The following preliminary assessment identifies which of these viewpoints and visual receptors may experience significant effects and therefore which require to be assessed in full. A detailed baseline description is provided separately within the assessment section for each viewpoint and visual receptor identified as requiring more detailed assessment.

6.10.2 Preliminary Assessment - Viewpoints

260. A preliminary assessment of the agreed representative viewpoints (**Figure 6.10**) within the study area is presented in the theoretical visibility summary in **Table 6.10.1** and the preliminary assessment in **Table 6.10.2**. This preliminary assessment has been undertaken using the ZTVs (**Figures 6.13** – **6.21**), photomontage and wireline visualisations (**Figures 6.27** – **6.49**) and site survey, to identify which of the viewpoints have the potential to be significantly affected by the construction and operation of the proposed Development, which require further assessment, and those with no potential for significant effects that can be scoped out of further assessment (tese are highlighted grey in **Table 6.10.2).**

Table 6.10.1 Viewpoint Theoretical Visibility Summary

Ref	Viewpoint Name	Distance (nearest turbine) (km)	Turbines Theoretically Visible		Horizontal angle / Lateral Spread (°)
			Blades	Hubs	
Representative Viewpoints					
1	Chirmorie Cairn	12.9	18	18	16°
2	Minor road to the south of Barrhill	8.0	18	18	21°
3	B7027 Knockycoid	8.5	18	18	28°
4	SUW, Craig Airie Fell	14.4	18	18	18°
5	Knockdolian	16.2	18	18	7°
6	SUW, Hill of Ochiltree	14.0	18	18	23°
7	Auchensoul Hill	5.5	15	12	42°
8	The Merrick	10.5	18	18	16°
9	Barr (Glenginnet Rd)	4.7	4	4	19°
10	A714, Creeside	7.3	18	18	40°
11	Mullwharchar	12.8	2	0	0°
12	NCR7 Near Doughty Hill	9.7	12	8	16°
13	Shalloch on Minnoch	7.5	18	18	11°
14	Corserine	17.0	15	15	6°
15	Colmonell	12.2	18	16	9°
16	Byne Hill	11.1	16	14	17°
17	Kirriereoch Picnic Site	4.1	18	18	38°
18	B734 Stinchar Valley	4.2	11	5	43°
19	B734 Approach to Barr	5.2	13	6	38°
20	New Barr Trail (near White Knowes)	3.0	12	9	60°
21	Barr Trail (Barr to Loch Doon Cycle Route)	3.9	11	7	56°
22	Brown Carrick Hill	26.2	16	10	10°
Illustrative Viewpoints					
23	Arran, Kildonan (on southern tip of Arran)	40.2	16	10	8°
24	Benyellary	10.0	18	18	19°

Table 6.10.2 Preliminary Assessment - Viewpoints

Ref	Viewpoint Name	Preliminary Assessment	Visualisation Provided
Representative Viewpoints			
1	Chirmorie Cairn	Potential for significant effects that require further assessment.	Photomontage
2	Minor road to the south of Barrhill	Potential for significant effects that require further assessment.	Photomontage
2 **(Night)**	Minor road to the south of Barrhill	Potential for significant effects that require further assessment. Assessed further in **TA:6.2**.	Night-time photomontage - located near settlement of Barrhill, just outside the DSP buffer zone from nearby area with low level of lighting.
3	B7027 Knockycoid	Potential for significant effects that require further assessment.	Photomontage
4	SUW, Craig Airie Fell	No potential for significant effects - scoped out of further assessment. Viewpoint is located within Kilgallioch Windfarm and has large-scale prominent turbines in immediate foreground of the view, with no potential for proposed Development to have significant effects on the view in this context.	Photomontage
5	Knockdolian	Potential for significant effects that require further assessment.	Photomontage
6	SUW, Hill of Ochiltree	Potential for significant effects that require further assessment.	Photomontage
7	Auchensoul Hill	Potential for significant effects that require further assessment.	Photomontage
8	The Merrick	Potential for significant effects that require further assessment.	Photomontage
9	Barr (Glenginnet Rd)	Potential for significant effects that require further assessment.	Photomontage
10	A714, Creeside	Potential for significant effects that require further assessment.	Photomontage
10 **(Night)**	A714, Creeside	Potential for significant effects that require further assessment. Assessed further in **TA:6.2**.	Night-time photomontage - closest road route to the proposed Development within the DSP buffer zone.

Ref	Viewpoint Name	Preliminary Assessment	Visualisation Provided
11	Mullwharchar	No potential for significant effects - scoped out of further assessment. Extremity of the blade tip of two turbine blades theoretically visible at 12.8 km, which are unlikely to be perceived at all in reality and with local variations in intervening upland terrain.	Wireline only
12	NCR7 Near Doughty Hill	Potential for significant effects that require further assessment.	Photomontage
13	Shalloch on Minnoch	Potential for significant effects that require further assessment.	Photomontage
14	Corserine	Potential for significant effects that require further assessment.	Photomontage
15	Colmonell	Potential for significant effects that require further assessment.	Photomontage
16	Byne Hill	Potential for significant effects that require further assessment.	Photomontage
17	Kirriereoch Picnic Site	Potential for significant effects that require further assessment.	Photomontage
17 **(Night)**	Kirriereoch Picnic Site	Potential for significant effects that require further assessment. Assessed further in **TA:6.2**.	Night-time photomontage - closest road route to the proposed Development within the DSP buffer zone.
18	B734 Stinchar Valley	Potential for significant effects that require further assessment.	Photomontage
19	B734 Approach to Barr	Potential for significant effects that require further assessment.	Photomontage
19 **(Night)**	B734 Approach to Barr	Potential for significant effects that require further assessment. Assessed further in **TA:6.2**.	Night-time photomontage - located near settlement of Barrhill, just outside the DSP buffer zone from nearby area with low level of lighting.
20	New Barr Trail (near White Knowes)	Potential for significant effects that require further assessment.	Photomontage
21	Barr Trail (Barr to Loch Doon Cycle Route)	Potential for significant effects that require further assessment.	Photomontage
22	Brown Carrick Hill	No potential for significant effects - scoped out of further assessment. Proposed development located at long distance, at 26.1km, on the upland skyline behind other operational windfarms (Hadyard Hill/Assel Valley/Tralorg grouping) with limited lateral spread of 10° of the field of view.	Baseline panorama and wireline
Illustrative Viewpoints			
23	Arran, Kildonan (on southern tip of Arran)	Included as an illustrative viewpoint only. No potential for significant effects - scoped out of further assessment. Proposed development located at very long distance, at 40.2 km, on the upland skyline behind other operational windfarms (Hadyard Hill/Assel Valley/Tralorg grouping) with limited lateral spread of 8° of the field of view.	Wireline only
24	Benyellary	Included as an illustrative viewpoint only.	Baseline panorama and wireline
24 **(Night)**	Benyellary	Potential for significant effects that require further assessment. Assessed further in **TA:6.2**.	Night-time photomontage

261. Five representative night time viewpoints are assessed in the LVIA and shown in **Figures 6.28, 6.36, 6.43, 6.45a and 6.50**, to illustrate and allow assessment of lighting effects from landscapes where lighting levels are low that may be experienced by people. These viewpoints are sited in nearby locations in each direction from the proposed Development (north, east, south and west) and either within or on the periphery of the DSP Buffer Zone, or within the core area of the DSP. Two viewpoints are located on the closest road routes to the Site through the DSP, on the A714 (Viewpoint 10: A714 near Creeside) and from the Glentrool Road (Viewpoint 17: Kirriereoch Picnic Site). Two further viewpoints are located near the closest settlements of Barr (Viewpoint 19: A734 Approach to Barr) and Barrhill (Viewpoint 2: Minor Road south of Barrhill), just outside the DSP looking towards the proposed Development from nearby areas with low level of lighting. One viewpoint is located within the core area of the DSP at Benyellary (Viewpoint 24).

6.10.3 Preliminary Assessment - Principal Visual Receptors

6.10.3.1 Settlements

262. A preliminary assessment of the settlements within the study area is presented in **Table 6.10.3**. This preliminary assessment has been undertaken using the ZTVs (**Figures 6.13** – **6.21**), photomontage and wireline visualisations (**Figures 6.27** – **6.49**) and site survey, to identify which of the settlements have the potential to be significantly affected by the construction and operation of the proposed Development, which require further assessment, and those with no potential for significant effects that can be scoped out of further assessment.

Table 6.10.3 Preliminary Assessment - Settlements

Status – Potential for significant effects and included in detailed assessment		
Receptor	Distance to nearest turbine (km)	Preliminary assessment
Barr	4.3	Potential for significant effects that require further assessment due to potential visibility of turbines on the upland skyline setting of the Stinchar Valley to the south in views from within the village of Barr and approach to the village on the B734 (Viewpoint 9 and 19).
Colmonell	12.0	Theoretical visibility of 16-18 turbines from Colmonell, with potential for channelled views along the Stinchar Valley to the proposed Development and potential for simultaneous views with Mark Hill Windfarm (Viewpoint 15).

Status – Considered further in preliminary assessment but found to have no potential for significant effects and not included in detailed assessment.		
Receptor	Distance to nearest turbine (km)	Preliminary assessment
Barrhill	6.6	No theoretical visibility of the proposed Development from the majority of Barrhill shown in the ZTV, particularly with no theoretical visibility from Main Street or areas to the north of Main Street. The proposed Development is entirely screened by the rising landform on the eastern side of the Duisk Valley. The ZTV shows only very low theoretical visibility of 1-3 turbines from small areas on the western edge of the village, near Gowlands Terrace, and from the southern edge of the village near along the B7027. Analysis of wirelines from Barrhill shows that theoretical visibility is of the extremity of 1-3 turbine blade tips, behind the operational Mark Hill Windfarm, which are likely to be screened by intervening forestry on the rising ground on the eastern side of the Duisk Valley. Although Barrhill is a potentially sensitive receptor, the proposed Development will result in a negligible magnitude of change on views from the village and there is no potential for significant effects - scoped out of further assessment.
Pinmore	7.1	Village is located in low-lying position with the Duisk Valley, on the very edges of the ZTV, with low theoretical visibility of 1-3 and 4-6 turbines only shown from limited areas of the village, which are likely to be screened by intervening forestry on the rising ground on the eastern side of the Duisk Valley. No potential for significant effects - scoped out of further assessment.
Pinwherry	7.2	Village is located in low-lying position with the Duisk Valley, on the very edges of the ZTV, with no theoretical visibility from most of the village and only low theoretical visibility of 1-3 turbines shown from the southern edge of the village. Views are contained by woodland within the valley that lines the edges of the village. No potential for significant effects - scoped out of further assessment.
Poundland	9.3	Theoretical visibility of 7-9 turbines from Poundland shown on the ZTV, with potential for channelled views along the Stinchar Valley to the proposed Development, simultaneous with the operational Mark Hill Windfarm. Analysis of wirelines from Poundland shows that theoretical visibility is of the extremity of turbine blade tips only, with the proposed turbines largely screened by the intervening landform of the valley sides, and adjacent to the operational Mark Hill Windfarm. Although Poundland is a potentially sensitive receptor, the proposed Development will result in a low magnitude of change on views from the village and there is no potential for significant effects - scoped out of further assessment.
Newton Stewart	23.7	ZTV shows north theoretical visibility of the proposed Development from almost the entire area of Newton Stewart, due the low lying position of most of the market town along the River Cree and the screening provided by the uplands to the north of the town. Areas of theoretical visibility shown on the ZTV from the more elevated, but wooded areas on the western edge of the settlement only, with limited visibility due to intervening screening and at long distance over 23.7 km. No potential for significant effects - scoped out of further assessment.
Status – No potential for significant effects and not included in detailed assessment due to limited and/or distant visibility of the proposed Development.		
Alloway, Annbank, Ardwell, Ayr, Ballantrae, Barassie, Bargrennan, Barrachan, Bellsbank, Belmont, Bladnoch, Bogend, Braehead, Carsluith, Challoch, Coylton, Craigie, Creetown, Culroy, Dalmilling, Dipple, Dunure, Elrig, Garlieston, Glenluce, Hansel Village, Heronsford, Hollybush, Kincaidston, Kirkcowan, Kirkinner, Knowe, Loans, Lochans, Maidens, Mauchline, Maybole, Minishant, Mochrum, Monkton, Monreith, Mossblown, Muirhead, New Luce, Sandhead, Sorbie, Spittal, St, Quivox, Stairhaven, Stoneykirk, Symington, Troon, Turnberry, Welton, Whauphill, Wigtown, Woodfield		
Status – Not included in detailed assessment: no theoretical visibility of the proposed Development.		
Anwoth, Auchenmalg, Auchinleck, Auchmillan, Balmaclellan, Belston, Burnton, Cairnryan, Carsphairn, Castle Kennedy, Catrine, Connel Park, Craigens, Creebridge, Cronberry, Crosshill, Dailly, Dalmellington, Dalrymple, Doonfoot, Drongan, Dundeugh, Dundonald, Dunragit, Failford, Fisherton, Garleffin, Gatehouse of Fleet, Girthon, Girvan, Glentrool Village, High Ardwell, Hillhead, Holmhead, Kendoon, Kirkcolm, Kirkmichael, Kirkoswald, Laurieston, Lendalfoot, Leswalt, Littlemill, Logan, Lugar, Mansfield, Milton, Minnigaff, Mossdale, Netherthird, New Cumnock, New Galloway, Old Dailly, Parton, Pathhead, Patna, Polnessan, Port William, Portpatrick, Portslogan, Rankinston, Ruglen, Sandgreen, Sinclairston, Skares, Skyreburn, Sorn, St John's Town of Dalry, Stair, Straiton, Stranraer, Stronord, Tarbolton, Trabboch, Wallacetown, Waterside		

6.10.3.2 Transport Routes

263. A preliminary assessment of the transport routes within the study area is presented in **Table 6.10.4**. This preliminary assessment has been undertaken using the ZTVs (**Figures 6.13** – **6.21**), photomontage and wireline visualisations (**Figures 6.27** – **6.49**) and site survey, to identify which of the transport routes have the potential to be significantly affected by the construction and operation of the proposed Development, which require further assessment, and those with no potential for significant effects that can be scoped out of further assessment.

Table 6.10.4 Preliminary Assessment – Transport Routes

Status – Potential for significant effects and included in detailed assessment		
Receptor	Distance to nearest turbine (km)	Preliminary assessment
A714	6.3	Potential for significant effects that require further assessment due to potential visibility of the proposed Development from the A714 at mid-range across the forested plateau on the upland skyline to the north, in views from A714 northbound mainly between Bargrennan and Barrhill (e.g. Viewpoint 10). Potential for more distant views of the proposed Development travelling north between Newton Stewart and Bargrennan; and travelling south between Laigh Letterpin/Dinvin Motte and Pinmore.
B734	4.1	Potential for significant effects that require further assessment due to the potential glimpses/fleeting views of the proposed Development at short to mid-range to the south of the B734 on its route through the Stinchar Valley between Pinmore and Barr (e.g. Viewpoint 18). Potential for more visibility of the proposed Development on the upland skyline in views travelling south on the B734 on its route through the foothills between Hadyard Hill Windfarm/Penwhapple Reservoir approaching Barr (e.g. Viewpoint 19). Potential for views aligned with the eastward direction of travel from the B734 along the Stinchar Valley between Colmonell and Poundland (e.g. Viewpoint 15).
Status – Considered further in preliminary assessment but found to have no potential for significant effects and not included in detailed assessment.		
Receptor	Distance to nearest turbine (km)	Preliminary assessment
B7027	6.8	Theoretical visibility for much of the B7027 between Altercannoch (south of Barrhill) and Glassoch Bridge, at distances beyond 6.8 km and increasing to the south, however theoretical visibility is often restricted by the extent of forest cover both immediately alongside the road, and over the extensive plateau skyline to the north; with only occasional more open views from northern parts of B7027 across the upper parts of the Duisk to

		the forested plateau moorland beyond with visibility of the proposed Development over the intervening forestry (e.g. Viewpoint 3). Visual effects from this closest section of the B7027 near Viewpoint 3 are assessed as not significant (**Table 6.10.9**) due partly to the screening by intervening forestry. No potential for significant effects - scoped out of further assessment.
Glasgow South Western Line connecting Ayr with Stranraer	7.0	No visibility of the proposed Development between Girvan and Dinvin Motte. Low or no theoretical visibility from the line along the Duisk Valley between Dinvin Motte and Forest Road (north of Barrhill), with views screened further by a combination of woodlands within the valley alongside the line, railway cuttings and coniferous plantations on the upper eastern valley sides. Theoretical visibility of the proposed Development from the line in mid-range views of approximately 7 km across the Duisk Valley mainly from the section between Forest Road (north of Barrhill) and Barrhill Station (as represented by Viewpoint 2), from where the proposed Development will be viewed intermittently by passengers to the east oblique to the direction of travel. Over this closest stretch of the line, the proposed Development is viewed behind Mark Hill Windfarm and there is a high degree of integration with the existing Mark Hill Windfarm, with the proposed turbines being located behind and at longer distance, and resulting in relatively low change to the existing views. To the south of Barrhill Station, the magnitude of change to views experienced by passengers reduces, due to the alignment of the direction of travel towards or away from the proposed Development (which means it can't generally be viewed by passengers from side windows of a train; due to the enclosure of parts of the line by coniferous plantations across the forested plateau and due to the presence of visible operational windfarms at Arecleoch and Kilgallioch through which the line passes). There is very limited theoretical visibility of the proposed Development and increasing distance from the line within the Cross Water of Luce southwards to Stranraer. No potential for significant effects - scoped out of further assessment.
Status – No potential for significant effects and not included in detailed assessment due to limited and/or distant visibility of the proposed Development.		
Roads: A70, A713, A716, A719, A746, A747, A75, A759, A76, A77, A78, A79, A841, B7004, B7005, B7021, B7023, B7024, B7034, B7037, B7042, B7045, B705, B7052, B7079, B7084, B7085, B730, B733, B735, B739, B741, B742, B743, B744, B746, B747, B749. **Rail Routes:** Glasgow South Western Line railway Kilmarnock with Sanquhar **Ferry Routes:** Campbeltown – Ardrossan, Campbeltown - Arran (Brodick), Cairnryan – Larne, Cairnryan (Loch Ryan) – Belfast, Ayr (Compass Pier) - Great Cumbrae (Millport), Arran (Brodick) - Ayr (Compass Pier).		
Status – Not included in detailed assessment: no theoretical visibility of the proposed Development.		
Roads: A702, A712, A717, A718, A751, A762, B7000, B7013, B7022, B7035, B7036, B7038, B7043, B7046, B7075, B7077, B7083, B713, B727, B729, B737, B738, B751, B795, B796, B798		

6.10.3.3 Recreational Routes

264. A preliminary assessment of the recreational routes within the study area is presented in **Table 6.10.5**. This preliminary assessment has been undertaken using the ZTVs (**Figures 6.13** – **6.21**), photomontage and wireline visualisations (**Figures 6.27** – **6.49**) and site survey, to identify which of the recreational routes have the potential to be significantly affected by the construction and operation of the proposed Development, which require further assessment, and those with no potential for significant effects that can be scoped out of further assessment.

Table 6.10.5 Preliminary Assessment – Recreational Routes

Status – Potential for significant effects and included in detailed assessment		
Receptor	Distance to nearest turbine (km)	Preliminary assessment
NCR7	2.3	Potential for significant effects that require further assessment due to visibility of the proposed Development from stretches of NCR7 with theoretical visibility of varying amount of the proposed Development (ranging from fleeting sections of 16-18 turbines to longer sections with 1-3 turbines visible) from the Glentrool Forest Road between Kirriemore/Aroch Hill in the south and Rowantree Bridge in the north, passing Kirriereoch Loch (Viewpoint 17). Potential for significant effects arising from the proposed Development on the upland skyline in views travelling south on NCR7 near Doughty Hill on its route south through the foothills (Viewpoint 12).
Barr to Loch Doon Cycle Path (NCR7 link)	3.7	Potential for significant effects that require further assessment due to visibility of the proposed Development from stretches of the Barr to Loch Doon cycle route linking to NCR7, to the east of Barr through the Changue Forest (Viewpoint 21).
Barr Trails	2.3	Potential for significant effects that require further assessment due to visibility of the proposed Development from stretches of the Barr Trails local path network, including from the trails to the east of Barr through the Changue Forest (Viewpoint 21) and from the new Barr trail near Whiteknowes (Viewpoint 20).
Southern Upland Way Section 3 The Moors (New Luce to Bargrennan) and Short Walks W7, W8)	12.6	Potential for significant effects that require further assessment due to visibility of the proposed Development from stretches of this section of the SUW with visibility of 16-18 turbines of the proposed Development from the elevated stretches over Craig Airie Fell (Viewpoint 4) and Hill of Ochiltree/Glenvernoch Fell (Viewpoint 6). Despite there being theoretical visibility over much of the stretch between these points, this section of the SUW passes through extensive coniferous plantation forestry which screens views from large parts of the route (Figure 6.14c) and limits areas of potential significance to the areas of more open or higher ground identified at Craig Airie Fell and Hill of Ochiltree/Glenvernoch Fell. On the main route of the SUW there will be mainly no theoretical visibility between New Luce and Craig Airie Fell, across conifer plantations, open moorland and through Kilgallioch Windfarm, with just a short stretch of 1-3 turbines theoretically visible near Knockniehourie.
Status – Considered further in preliminary assessment but found to have no potential for significant effects and not included in detailed assessment.		
Receptor	Distance to nearest turbine (km)	Preliminary assessment
Southern Upland Way Section 4 The Galloway Hills (Bargrennan to St Johns Town of Dalry) and Short Walks W9, W11)	10.8	On the main route of the SUW to the south from Bargrennan, there is theoretical visibility of the proposed Development over 12.5 km to the north, however the walk along the SUW is through oak woodland and conifer plantation on the banks of the River Cree, which prevents visibility of the proposed Development. The route of the SUW then turns east along the Water of Minnoch where there is either no theoretical visibility, or patches of 1-3 blade tips in areas where further woodland prevents views. After crossing to the eastern side of the Water of Minnoch, the SUW takes a route along the Water of Trool/Glen Trool, where there is no theoretical visibility of the proposed Development due the physical containment of the glen. A small section of 1-3 turbines visible is in indicated over a short section of high ground near Loch Dee, however

		this on the very edge of the ZTV and represents the extremity of 1-3 turbine blade tips being theoretically visible. There is no visibility from the remainder of Short Walk 9 which takes a route from the Water of Minnoch to Glentrool visitor centre and back to Bargrennan on the Glentrool Road. No potential for significant effects - scoped out of further assessment.
Status – No potential for significant effects and not included in detailed assessment due to limited and/or distant visibility of the proposed Development.		
Southern Upland Way: Section 1 The Rhins (Portpatrick to Castle Kennedy), Section 2 Inch (Castle Kennedy to New Luce) and Short Walks W2, W4, W5, W6. **Long Distance Walks:** Arran Coastal Way, Ayrshire Coastal Path, Mull of Galloway Trail, River Ayr Way. **National Cycle Routes:** NCR73		
Status – Not included in detailed assessment: no theoretical visibility of the proposed Development.		
Southern Upland Way: Section 5 The Ken-Nith Watershed (St Johns Town of Dalry to Sanquhar) and Short Walks W1, W3, W10, W12, W13 and W14. **Long Distance Walks:** Loch Ryan Coastal Path		

6.10.3.4 Galloway Forest Park - Recreational Receptors

265. A preliminary assessment of the recreational receptors within the GFP is presented in **Table 6.10.6**. This preliminary assessment has been undertaken using the ZTVs (**Figures 6.13** – **6.21**), photomontage and wireline visualisations (**Figures 6.27** – **6.49**) and site survey, to identify which of the recreational routes have the potential to be significantly affected by the construction and operation of the proposed Development, which require further assessment, and those with no potential for significant effects that can be scoped out of further assessment.

Table 6.10.6 Preliminary Assessment – Galloway Forest Park

Status – Potential for significant effects and included in detailed assessment		
Receptor	Distance to nearest turbine (km)	Preliminary assessment
Galloway Forest Dark Sky Park	Located within buffer zone, 3.9 km from core zone	Assessed in **TA: 6.2**
NCR7 • Viewpoint 12 NCR7 near Doughty Hill	2.3	See **Table 6.10.5**
Barr to Loch Doon Cycle Path (NCR7 link) • Viewpoint 21 Barr Trail	3.7	
Barr Trails • Viewpoint 21 Barr Trail	2.3	
A714 • Viewpoint 10 A714 Creeside	6.3	See **Table 6.10.4**
Glentrool Forest Road • Viewpoint 12 NCR7 near Doughty Hill • Viewpoint 17 Kirriereoch Picnic Site	2.3	Potential for significant effects that require further assessment due to visibility of the proposed Development from stretches of the Glentrool Forest Road with theoretical visibility of varying amount of the proposed Development (ranging from fleeting sections of 16-18 turbines to longer sections with 1-3 turbines visible) from the Glentrool Forest Road between Kirriemore/Aroch Hill in the south and Rowantree Bridge in the north, passing Kirriereoch Loch (Viewpoint 17). Potential for significant effects arising from the proposed Development on the upland skyline in views travelling south on NCR7 near Doughty Hill on its route south through the foothills (Viewpoint 12).
Hill walkers, Merrick and Rhins of Kells • Viewpoint 8 Merrick • Viewpoint 13 Shalloch on Minnoch • Viewpoint 14 Corserine	 10.5 7.5 17.0	Potential for significant effects that require further assessment due to visibility of the proposed Development experienced by hill walkers from several mountain summits within the GFP, including Merrick, Shalloch on Minnoch and Corserine.
Status – Considered further in preliminary assessment but found to have no potential for significant effects and not included in detailed assessment.		
Receptor	Distance to nearest turbine (km)	Preliminary assessment
Southern Upland Way Section 4 The Galloway Hills (Bargrennan to St Johns Town of Dalry) and Short Walks W9, W10, W11)	10.8	See **Table 6.10.5**
Status – No potential for significant effects and not included in detailed assessment due to limited and/or distant visibility of the proposed Development.		
Viewpoint 11: Mullwarchar		
Status – Not included in detailed assessment: no theoretical visibility of the proposed Development.		
Visitor Centres: Kirroughtree, Clatteringshaws, Glentrool **Transport Routes:** The Queen's Way (A712), Raider's Road Forest Drive, Carrick Forest Drive.		

6.10.4 Summary of Preliminary Assessment on Views

266. The preliminary assessment has identified the viewpoints and principal visual receptors that require to be assessed in full as a result of the potential effects of the proposed Development, these are listed as follows:

- **Viewpoints**: 1-3, 5-10, 12-21 (assessed further in **Section 6.10.5**).
- **Settlements**: Barr, Colmonell (assessed further in **Section 6.10.5.8** and **6.10.5.13**).
- **Transport routes**: A714, B734, Glasgow South Western Line (Ayr to Stranraer) (assessed further in **Section 6.10.6.1**).
- **Recreational routes**: NCR7, Southern Upland Way Section 3 The Moors (New Luce to Bargrennan) (assessed further in **Section 6.10.6.2**), Barr to Loch Doon Cycle Path (NCR7 link) (assessed further in **Section 6.10.5.19** Viewpoint 21) and Barr Trails (assessed further in Viewpoint 20 (**Section 6.10.5.18)** and Viewpoint 21 (**Section 6.10.5.19**).
- **Galloway Forest Park**: Dark Sky Park (assessed further in **TA: 6.2**); NCR7 and Southern Upland Way Section 3 The Moors (New Luce to Bargrennan) (assessed further in **Section 6.10.6.2**); Barr to Loch Doon Cycle Path (NCR7 link) (assessed further in Viewpoint 21 **Section 6.10.5.19**); Barr Trails (assessed further in Viewpoint 20 **Section 6.10.5.18** and Viewpoint 21 **Section 6.10.5.19**; and hill walkers in the Merrick and Rhins of Kells (assessed further in Viewpoint 8 Merrick **Section 6.10.5.7**; Viewpoint 13 Shalloch on Minnoch (**Section 6.10.5.11**) and Viewpoint 14 Corserine **Section 6.10.5.12**).

6.10.5 Technical Assessment – Viewpoints

267. A detailed technical assessment of the visual effects of the construction and operation of the proposed Development from the agreed representative viewpoints is set out in the following technical assessment in **Table 6.10.7** to **Table 6.10.25**. This describes, in full technical detail, the likely significant effects of the proposed Development on each representative viewpoint, assessing those that were identified in the preliminary assessment in **Table 6.10.2** as having potential to be significantly affected.

6.10.5.1 Viewpoint 1: Chirmorie Cairn

Table 6.10.7 Viewpoint 1: Chirmorie Cairn

Baseline conditions

Existing view (Figure 6.27b-e)

This viewpoint is located to the south of Chirmorie on a rounded hill within the forested plateau. It is representative of views experienced by people walking up to Chirmorie Cairn and motorists on the C72 minor road. Situated to either side of Chirmorie Cairn is the C72 minor road from Barrhill to Luce (to the south) and the Stranrear to Ayr railway line (to the north). The view largely consists of the upland forested moorland plateau that surround and typifies this area. The steep elevated landform of the Merrick covers a narrow area which extends north to south along the spine of the Merrick, forming a dramatic, rugged profile, providing the main focal point and backdrop to the moorland plateau landscapes in the view. The landform of the Merrick range of hills is distinctive in the view, forming the backdrop to other landscape types and contributing to the sense of place. The Nick of the Balloch is notable as an incised landform dip in the upland backdrop, marking the end of the smooth slopes and rounded summits of Cairn Hill/Pinbreck Hill/Craigenreoch and the start of the Merrick WLA/rugged upland hills that form the more distinctive and valued part of the skyline. These hills form a distinctive profile and backdrop when arriving into Ayrshire from Galloway on the C72 minor road. The view also includes an elevated view across the wide and expansive Carrick Forest which other than the pattern of forestry has a remote character that skirts the base of the Merrick range of hills like a wide apron of contrasting texture and colour to the moorland hills beyond.

Surrounding windfarm development in the area is a key feature of the surrounding landscape. Kilgallioch and Arecleoch windfarms hold particularly notable positions in the panorama due to their closer proximity; and Mark Hill Windfarm is situated in the view towards the Site across the Duisk Valley. The Mark Hill turbines largely appear below the skyline, partially backdropped by the 'Carrick Hills' behind it and outwith the main view to the Merrick WLA. The wider context of this view also includes numerous other operational windfarms: Glen App to the west; Hadyard Hill, Penwhapple and Assel Valley to the north; and Airies Farm, Balmurie Fell, Artfield Fell, Glenchamber and Carscreugh to the south.

Value	Receptor	Susceptibility	Sensitivity
Medium. The view is not formally recognised on mapping or through designation, however parts of the visible landscape are either locally designated or form the Merrick WLA. The view is likely to be valued informally at a local level by relatively few people.	Motorists (C72 Minor Road)	**Medium-low**. Motorists travelling on the C72 minor road will have transient, short duration views, experienced in the northward direction of travel. For motorists, viewer's attention is only partially on the landscape.	**Medium-low**
	Walkers (Chirmorie Cairn)	**Medium-low**. The attention of people walking up to Chirmorie Cairn is likely to be focused on the view of the surrounding landscape, from a static position at the hill-top.	**Medium-low**
		For both motorists and walkers, viewers' attention is likely to include the open and largely undeveloped panorama to the Merrick hills, as well as nearby existing windfarms, which moderate susceptibility as windfarm development is fundamental in the visual amenity experienced and forms a prevailing element in the view.	

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.27g**.

- The proposed Development will be visible to the north-east of the view at mid-range, approximately 12.9 km to the nearest turbine, with all of the 18 proposed turbines visible, with full towers and rotors on the upland skyline.
- The lateral spread of the proposed Development will occupy approximately 16° degrees of the horizontal field of view, which is a relatively limited portion of the wider panoramic view available to the observer.
- The proposed Development will be viewed on the upper edges of the forested plateau behind Mark Hill Windfarm and partially backdropped by the smooth slopes and rounded summits of Fell Hill/Cairn Hill/Pinbreck Hill/Craigenreoch/Rowantree Hill.
- While the proposed turbines appear on elevated ground to the fore of these sculpted Southern Upland hills, they avoid interrupting the view of the more distinctively rugged hills of the Galloway Hills RSA/Merrick WLA, which extend further south and will not replace these rugged upland hills as the dominant features in this view.
- The lateral spread of the proposed turbines is contained to the north of the Nick of the Balloch, the low point on the upland skyline, which marks the end of the Southern Upland hills that backdrop the proposed Development; and the start of the more rugged hills which form the Merrick WLA that form the most distinctive and valued part of the skyline.
- The proposed Development will be viewed in combination with Hadyard Hill and Mark Hill Windfarm, with the proposed turbines located partially behind Mark Hill Windfarm, at longer distance from the viewpoint. This results in clustering of development near to the existing windfarm influenced landscape, within parts of the view that are already affected by windfarm development, relating consistently to the plateau and windfarm characteristics of the landscape.
- There is some integration with the existing Mark Hill Windfarm in terms of the fundamental similarity of the turbine form, colour and visual movement of the rotors, however there will be some contrast with the larger scale of the proposed turbines (despite their more distant position) amplified by their elevated siting on higher ground above the Mark Hill turbines and an approximate doubling of the lateral spread of turbines in this direction of view.
- The proposed Development will also result in a further successive change with several other operational windfarms, including Kilgallioch and Arecleoch, which form a prevailing influence in the foreground context of the wider panorama.

The magnitude of change to the view is assessed as **Medium**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by motorists on the C72 Minor Road and walkers at Chirmorie Cairn is assessed as an additional cumulative effect, which is **Not Significant, Long-term** and **Adverse**. There are also in-succession cumulative effects with the nearby Arecleoch and Kilgallioch Windfarms in the immediate context. Although the proposed Development results in a medium magnitude of change, the effect is considered not significant due to the medium-low sensitivity of the receptors at this location. The visual effect is considered adverse due to the contrast of the larger scale and elevation of the proposed turbines compared to Mark Hill, together with the lateral spread of the proposed Development to the fore of the sculpted Southern Upland hills backdrop.

6.10.5.2 Viewpoint 2: Minor Road to south of Barrhill

Table 6.10.8 Viewpoint 2: Minor Road to south of Barrhill

Baseline conditions

Existing view (Figure 6.28b-e)

This viewpoint is located on the minor road that runs between Barrhill and Luce. The road crosses the upland plateau between the Duisk valley and the coast and connects isolated properties along the Cross Water of Luce. The viewpoint is located to the south of the Barrhill train station just beyond the steep southern slopes of the Duisk valley. The viewpoint is largely representative of road users although, trains on the Stranraer to Ayr railway line can be seen crossing the moorland immediately to the north of the viewpoint and this location is therefore also representative of passengers using this train. The road itself is very narrow with few stopping / passing places in which to stop and enjoy the view. The landscape in the immediate context of the viewpoint has a remote and expansive feel with the majority of the view enclosed by the undulating terrain of the surrounding moorland and forestry (to the north, south and west). Views across the Duisk valley are more open across a patchwork of undulating hill pasture, grazing and forestry that occupies the eastern slopes of the Duisk, along with the more expansive forest patchwork of Carrick forest to the south. In the foreground, the train station and associated tree planting can be seen immediately to the north and an area of hardstanding to the north of the minor road is enclosed by a boarded fence. The steep elevated landform of the Merrick range of hills form a dramatic, rugged profile, providing the main focal point and backdrop to other landscapes and contributing to the sense of place. Mark Hill Windfarm prominent (at 3.8 km) on the opposite side of the Duisk valley, partially backdropped by the smooth slopes and rounded summits of Cairn Hill/Pinbreck Hill/Craigenreoch. The northern turbines of Kilgallioch Windfarm are also prominent situated on the skyline 5 km to south the view. The existing Arecleoch Windfarm is screened by intervening forestry to the north west.

Value	Receptor	Susceptibility	Sensitivity
Medium. The view is located within the South Ayrshire SA, with parts of the visible landscape being locally designated or forming parts of the Merrick WLA. The view is likely to be valued informally at a local level by relatively few people.	Motorists (C72 Minor Road) / Rail passengers	**Medium-low**. Motorists travelling on the C72 minor road and rail passengers travelling on passing trains will have transient, short duration views, experienced in the north-eastward direction of travel. For both motorists and rail passengers, viewers' attention is only partially on the landscape, and likely to include the open and largely undeveloped view to the Merrick hills, as well as the nearby existing windfarms, which moderate susceptibility as windfarm development is fundamental in the visual amenity experienced from these routes and forms a prevailing element in the views.	**Medium-low**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.28g**.

- The proposed Development will be visible to the north-east of the view at mid-range, approximately 8.0 km to the nearest turbine, with all of the 18 proposed turbines visible, with full towers and rotors on the upland skyline.
- The lateral spread of the proposed Development will occupy approximately 21° degrees of the horizontal field of view, which is a relatively limited portion of the wider panoramic view available to the observer.
- The proposed Development will be viewed on the upper edges of the forested plateau behind Mark Hill Windfarm and backdropped by the smooth slopes and rounded summits of Fell Hill/Cairn Hill/Pinbreck Hill/Craigenreoch/Rowantree Hill.
- While the proposed turbines appear on elevated ground to the fore of these sculpted Southern Upland hills, they avoid interrupting the view of the distinctively rugged hills of the Galloway Hills RSA/Merrick WLA, which extend further south in the wider view (**Figure 6.28d**), and will not replace these rugged upland hills as the dominant features in this view.
- The lateral spread of the proposed turbines is contained to the north of the Nick of the Balloch, the low point on the upland skyline, which marks the end of the Southern Upland hills that backdrop the proposed Development; and the start of the more rugged hills which form the Merrick WLA that form the most distinctive and valued part of the skyline.
- The proposed Development will be viewed in combination with Mark Hill Windfarm, with the proposed turbines located largely behind Mark Hill Windfarm, at longer distance from the viewpoint. This results in clustering of development near to the existing windfarm influenced landscape, within parts of the view that are already affected by windfarm development, relating consistently to the plateau and windfarm characteristics of the landscape.
- There is a high degree of integration with the existing Mark Hill Windfarm in terms of the fundamental similarity of the turbine form, colour and visual movement of the rotors, and limited scale contrast due to the larger proposed turbines being located behind and at longer distance, which gives the impression of a similar turbine scale. Differences in appearance are only created by the more elevated siting of the proposed turbines on higher ground above the Mark Hill turbines, the increased complexity of overlapping turbines and a slight increase in lateral spread of turbines in this direction of view.
- The proposed Development will also result in a further successive change with several other operational windfarms, including Kilgallioch and Arecleoch, which form a prevailing influence in the foreground context of the wider panorama.

The magnitude of change to the view is assessed as **Low**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by motorists on the C72 Minor Road and rail passengers is assessed as an additional cumulative effect, which is **Not Significant, Long-term** and **Adverse**. The proposed Development results in a low magnitude of change, due to the high degree of integration with the existing Mark Hill Windfarm, with the effect of this change assessed as not significant when combined with the medium-low sensitivity of the receptors at this location. The visual effect is considered adverse only due to the elevation of the proposed turbines behind Mark Hill, the increased complexity of the image and slight increase in lateral spread of the development to the fore of the sculpted Southern Upland hills backdrop.

6.10.5.3 Viewpoint 3: B7027 Knockycoid

Table 6.10.9 Viewpoint 3: B7027 Knockycoid

Baseline conditions			
Existing view (Figure 6.29b-d)			
The viewpoint is located on the B7027 near Knockycoid, to the south of Barrhill, and is representative of views experienced by motorists travelling northbound on the B7027 to Barrhill and residents of scattered rural residences on B7027 between Knockycoid and Altercannoch at the upper reaches of the Duisk Valley transition into the adjacent moorlands. The landscape in the foreground of the viewpoint has a mix of transitional influences, with farm buildings and enclosed farmlands on the edges of the valley giving way to upland hill grazing and commercial forestry, with the majority of the view enclosed by the undulating terrain of the surrounding moorland and forestry. Views extend north along the Duisk Valley, and eastwards across the valley to the skyline, dominated by commercial conifer forest and on which the operational Mark Hill Windfarm is visible (at 5 km). The existing Arecleoch Windfarm is screened by intervening forestry to the west.			
Value	**Receptor**	**Susceptibility**	**Sensitivity**
Medium. The view is located within the South Ayrshire SA, with parts of the visible landscape within the Duisk Valley locally designated. The view is likely to be valued informally at a local level by relatively few people.	Motorists (B7027)	**Medium-low**. Motorists travelling on the B7027 will have transient, short duration views, experienced in the northwards direction of travel. For motorists, viewer's attention is only partially on the landscape and includes nearby existing windfarms, which moderate susceptibility as windfarm development is fundamental in the visual amenity experienced from this road and forms a notable element in views.	**Medium-low**
	Residents (Knockycoid to Altercannoch area)	**High**. Residents have static, long duration views from their primary place of residence, with views towards the Site in their outlook, although existing visual amenity is influenced by operational windfarms.at closer range.	**Medium-high**
Assessment (including operational and under construction windfarms)			
Magnitude of change			

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.29e**.

- The proposed Development will be partially visible to the north/north-east of the view at mid-range, approximately 8.5 km to the nearest turbine. Five of the eastern most proposed turbines will not be visible due to coniferous forestry screening, which occupies the skyline and screens the remaining turbine towers, such that only the tops of towers, rotors and blade tips are visible above the forest.
- The lateral spread of the proposed Development will theoretically occupy approximately 28° degrees of the horizontal field of view, however this will be reduced by the forest screening of the eastern five turbines. There will be an approximate doubling of the visible lateral spread of Mark Hill Windfarm.
- The more sculpted Southern Upland hills and Galloway Hills/Merrick WLA are not visible due to the intervening landform and forest screening, so there is no interruption of this upland backdrop evident in other views.
- The proposed Development will be viewed within the forested plateau adjacent to Mark Hill Windfarm and appears as a southerly extension to Mark Hill, on the level skyline beyond the Duisk Valley. This results in clustering of development near to the existing windfarm influenced landscape, within parts of the view that are already affected by windfarm development, relating consistently to the plateau and windfarm characteristics of the landscape.
- The proposed turbines are located at longer distance from the viewpoint than Mark Hill Windfarm, which results in the taller turbines appearing to be of an apparent similar scale to the Mark Hill turbines, consolidated by the forest screening of the taller turbines towers.
- There is a high degree of integration with the existing Mark Hill Windfarm in terms of the fundamental similarity of the turbine form, colour and visual movement of the rotors, and limited scale contrast, providing a consistency of image. Differences in appearance are only created by the slightly more elevated siting of the proposed turbines and their appearance behind forestry, compared to the more open position of Mark Hill Windfarm.
- The proposed Development will not result in further successive change, with other operational windfarms, including Kilgallioch and Arecleoch, screened by landform and forestry in the wider panorama.

The magnitude of change to the view is assessed as **Medium-low**.

Significance of effect
The visual effect of the proposed Development on the view experienced from this location by motorists on the B7027 and residents of the dispersed dwellings along the B7027 between Altercannoch and Knockycoid, is assessed as an additional cumulative effect, which is **Not Significant, Long-term** and **Adverse**. The proposed Development results in a medium-low magnitude of change, due to the amount of intervening coniferous forestry screening and high degree of integration with the existing Mark Hill Windfarm, with the effect of this change assessed as not significant when combined with the medium-low sensitivity of the motorists and medium-high sensitivity of residents at this location. The visual effect is considered adverse only due to the increase in lateral spread of windfarm developed skyline and the slight differences in appearance of the proposed Development compared to Mark Hill.

6.10.5.4 Viewpoint 5: Knockdolian

Table 6.10.10 Viewpoint 5: Knockdolian

Baseline conditions

Existing view (Figure 6.31b-e)

This viewpoint is located on the summit of Knockdolian and is representative of the view experienced by walkers at the trig point. Knockdolian is situated between Ballantrae at the coast and Colmonell both of which are visible from the summit. It is an impressive feature in the lower Stinchar valley which is a distinct landform in the local area. The views are panoramic with scenic interest in multiple view directions. The elevated coastal shelf to the north and west has medium to large fields that stretch out towards the cliff that runs alongside the A77. Ailsa Craig, which is backdropped by Arran, creates a focus for this view to the west and the underlying geomorphological connection between these volcanic plugs is clearly appreciated from this vantage point. The green field enclosures of lower lying land of the Stinchar Valley wraps around Knockdolian in an arc from the south west to the north east, branching to the east along further sections of the Stinchar valley and also along Glen Tig. This foreground landscape is pastoral with scattered settlement and from this elevated location the small woods and field boundary planting in the Stinchar valley appears to criss-cross following the winding path of the Stinchar. This combination of elements and pattern creates an attractive scene. The valleys are framed by the rougher upper valley slopes of gorse and rough grazing before transitioning into the moorland and forestry found on the upper slopes and plateau edge hills. The elevated landform of the Merrick hills forms a dramatic, rugged profile, providing the main focal point to the east and backdrop to the Strinchar Valley, and moorland plateau landscapes in the view. The landform of the Merrick range of hills is distinctive in the view, forming the backdrop to other landscape types and contributing to the sense of place. The view to the south has a large scale upland backdrop with Beneraird, Milljoan Hill, Carlock Hill and Penderry Hill creating the southern horizon.

There are multiple operational windfarms visible in the panorama. To the south east Arecleoch Windfarm rises out of the Arecleoch forest, the Arecleoch forestry creates an intermediate horizon that is backclothed by the more distant Galloway Hills and the Merrick range. These distant hills make a jagged profile to the distant horizon. The Mark Hill Windfarm sits in front of this backdrop of hills appearing to sit above the confluence of the Stinchar and Duisk valleys. To the north east Hadyard Hill Windfarm sits across a broad upland ridge which also accommodates Penwhapple and Assell valley windfarms. The existing Glen App Windfarm sits on the skyline to the south.

Value	Receptor	Susceptibility	Sensitivity
Medium-high. The view is a specific view from a prominent hill-top, accessible via signed paths from the Stinchar Valley, which is popular with hill walkers, within Ayrshire Scenic Area and defined as a 'Landmark Hill' in Ayrshire Landscape Capacity Study. Parts of the visible landscape also form the Merrick WLA.	Walkers	**Medium-high**. The attention of hill walkers at this viewpoint is likely to be focussed on the surrounding landscape. The purpose of walking to the hill summit is partly to experience the view, which affords elevated views of the Site in its wider landscape context, which is seen in transition between the lowlands of the Stinchar Valley and the uplands of the Merrick hills. Existing wind turbine developments visible from this location moderate susceptibility as windfarm development is a familiar characteristic of the view and the Mark Hill, Hadyard Hill and Arecleoch Windfarms are notable elements in the view towards the Site.	**Medium-high**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.31g**.

- The proposed Development will be visible to the east of the view at long distance, approximately 16.2 km to the nearest turbine, with all of the 18 proposed turbines visible, with full towers and rotors on the upland skyline.
- The lateral spread of the proposed Development will occupy approximately 7° degrees of the horizontal field of view, which is a small portion of the wider panoramic view available to the observer.
- The proposed Development will be viewed on the smooth forested slopes of Pindonnan Craigs/Loch Hill/Mid Hill, on elevated ground with the proposed turbines rising up the landform towards the sculpted, rounded summits of Pinbreck Hill/Craigenreoch/Rowantree Hill.
- Due to the particular direction of this view, the proposed turbines will interrupt the view of the more distinctively rugged hills of the Galloway Hills RSA/Merrick WLA, which partially backdrop the proposed Development and extend further south in the backdrop to Mark Hill Windfarm. Due to their height of and elevation, the proposed turbines will compete with these rugged upland hills as the dominant features in this view east.
- The proposed Development will be viewed in combination with Hadyard Hill and Mark Hill Windfarm, with the proposed turbines located partially behind Mark Hill Windfarm, at longer distance from the viewpoint. This results in clustering of development near to the existing windfarm influenced landscape, within parts of the view that are already affected by windfarm development, relating consistently to the plateau and windfarm characteristics of the landscape.
- There is some integration with the existing Mark Hill Windfarm in terms of the fundamental similarity of the turbine form, colour and visual movement of the rotors, however there will be some contrast with the larger scale of the proposed turbines (despite their more distant position) amplified by their elevated siting on higher ground above the Mark Hill turbines and an approximate doubling of the lateral spread of turbines in this direction of view.
- The proposed Development will also result in a further successive change with several other operational windfarms, including Arecleoch, Kilgallioch and Glen App, which form a windfarm influence skyline context in the wider panorama. The existing windfarm influences give rise to turbines in much closer proximity than the proposed Development.
- The proposed Development will have no change on the most valued section of the view to the west over the sea to Ailsa Craig and Arran, which will remain free of windfarm influence.

The magnitude of change to the view is assessed as **Medium-low**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by hill walkers on Knockdolian, is assessed as an additional cumulative effect, which is **Not Significant, Long-term** and **Adverse**. The proposed Development results in a medium magnitude of change, with the effect of this change assessed as significant when combined with the medium-high sensitivity of the receptors at this location. The visual effect is considered significant and adverse due to the perceived climbing of the proposed turbines from Mark Hill Windfarm, up the elevated ground towards the sculpted, rounded summits that merge with the rugged uplands in this view and their interruption of the more distinctively rugged hills of the Galloway Hills RSA/Merrick WLA, which partially backdrop the proposed Development.

6.10.5.5 Viewpoint 6: SUW, Hill of Ochiltree

Table 6.10.11 Viewpoint 6: SUW, Hill of Ochiltree

Baseline conditions

Existing view (Figure 6.32b-e)

This viewpoint is located on the short walk 8 of the SUW that runs between Ochiltree and Bargrennan. It is representative of views experienced by walkers on the SUW, at local high point on Glenvernoch Fell/Hill of Ochiltree on the closest section of SUW, which affords a panoramic view of the Galloway Hills to the east, windfarm influenced landscapes to the north/north-west and lowlands to the south.

The panoramic view largely consists of gently undulating and substantially forested moorland plateau which stretches over substantial areas of the foreground, middle ground and distant parts of the view. The large scale, uniformity of landcover and expansive perceptual qualities of this plateau landscapes are readily apparent from this location. The Merrick range of hills along with wider connecting summits of the Galloway Hills provides a backdrop to the view east, dominates the eastern skyline and the rugged profile of these hills creates a focus for views, particularly for walkers on the SUW travelling eastwards. The coast of Wigtown Bay can be seen to the south along with glimpses of the machars landscape which creates a simple and distant southern horizon between the slopes of the southern Galloway Hills such as Cairnsmore of Fleet and the distinctive Culvennan Fell.

To the west and towards the proposed Development site Artfield Fell, Craig Airie Fell and Benbrake Hill form more distinctive hills on the plateau. The existing windfarms of Airies, Artfield Fell, Balmurie Fell, Glenchamber and Kilgallioch populate the horizon that these hills create. Also seen within this broad plateau of moorland and forestry, the northern part of the Kilgallioch windfarm along with the existing Arecleoch windfarm in the distance to the north west of this location and the Mark Hill windfarm is visible to the north. Together these windfarms add a clearly man made influence to this landscape which has resulted in parts of the plateau to incorporate windfarms as a key characterising element within the South Ayrshire Plateau Moorlands with Forestry & Windfarms LCT (18c) and the Dumfries and Galloway Plateau Moorlands LCT (17).

Value	Receptor	Susceptibility	Sensitivity
Medium. The view is not formally recognised on mapping or through designation, however parts of the visible landscape are either locally designated or form the Merrick WLA. The view is likely to be valued informally at a local level by users of the SUW.	Walkers	**Medium**. The attention of hill walkers at this viewpoint is likely to be focussed on the surrounding landscape. The purpose of walking to the hill summit is partly to experience the view, although it is also part of a longer distance route, which affords views of the Site the context of the Galloway hills/Merrick hills to the east, windfarm influenced landscapes to the north/north-west and lowlands to the south. Existing wind turbine developments visible from this location moderate susceptibility as windfarm development is a familiar characteristic of the view and the Mark Hill, Hadyard Hill and Arecleoch Windfarms are notable elements in the view towards the Site.	**Medium**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.32g**.

- The proposed Development will be visible to the north-east of the view at mid-range, approximately 14 km to the nearest turbine, with all of the 18 proposed turbines visible, with full towers and rotors on the upland skyline.
- The lateral spread of the proposed Development will occupy approximately 23° degrees of the horizontal field of view, which is a relatively limited portion of the wider panoramic view available to the observer.
- The proposed Development will be viewed on the upper edges of the forested plateau to the east of Mark Hill Windfarm, on the rising ground of Pindonnan Craigs and backdropped by the smooth slopes and rounded summits of Fell Hill/Cairn Hill/Pinbreck Hill/Craigenreoch/Rowantree Hill.
- While the proposed turbines appear on elevated ground to the fore of these sculpted Southern Upland hills, they avoid interrupting the view of the distinctively rugged hills of the Galloway Hills RSA/Merrick WLA, which extend further south in the wider view (**Figure 6.32d**) and will not replace these rugged upland hills as the dominant features in this view.
- The lateral spread of the proposed turbines is contained to the west of the Nick of the Balloch, the low point on the upland skyline, which marks the end of the Southern Upland hills that backdrop the proposed Development; and the start of the more rugged hills which form the Merrick WLA that form the most distinctive and valued part of the skyline.
- The proposed Development will be viewed in combination with Assel Valley and Mark Hill Windfarm, with the proposed turbines located to the east of Mark Hill Windfarm, at similar distance, but separated by a clear space or 'gap' on the skyline such that it appears as a distinct windfarm.
- The position of the proposed Development close to Mark Hill results in clustering of development near to the existing windfarm influenced landscape, within parts of the view that are already affected by windfarm development, relating consistently to the plateau and windfarm characteristics of the landscape.
- There is some integration with the existing Mark Hill Windfarm in terms of the fundamental similarity of the turbine form, colour and visual movement of the rotors, however there will be some contrast with the larger scale of the proposed turbines and their wider spacing, amplified by their elevated siting on slightly higher ground than the Mark Hill turbines and the wider lateral spread of turbines in this direction of view.
- The proposed Development will also result in a further successive change with several other operational windfarms, particularly the almost contiguous windfarm influenced landscape to the west, formed by the grouping of Carscreugh, Airies, Glenchamber, Artfield Fell, Balmuirrie Fell, Kilgallioch and Arecleoch (from south to north), which form the prevailing influence of the western panorama. Fundamentally, the proposed Development will not interrupt the most valued section of the view to the east to the Galloway Hills/Merrick WLA (**Figure 6.32d)**, which will remain free of windfarm influence.

The magnitude of change to the view is assessed as **Medium**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by walkers on the SUW at Hill of Ochiltree is assessed as an additional cumulative effect, which is **Not Significant, Long-term** and **Adverse**. The proposed Development results in a medium magnitude of change, with the effect of this change assessed as not significant when combined with the medium sensitivity of the receptors at this location. The visual effect is considered adverse due to the contrast of the larger scale and elevated position of the proposed turbines compared to Mark Hill, together with the lateral spread of the proposed Development to the fore of the sculpted Southern Upland hills backdrop, but fundamentally it will not interrupt the most valued section of the view to the east to the Galloway Hills/Merrick WLA (**Figure 6.32d)**.

6.10.5.6 Viewpoint 7: Auchensoul Hill

Table 6.10.12 Viewpoint 7: Auchensoul Hill

Baseline conditions

Existing view (Figure 6.33b-e)

The viewpoint is located at the summit of Auchensoul Hill, which is accessed via the local path network from Barr, in the Stinchar Valley below and is representative of views experienced by walkers on this path network that extends north in to Hadyard Hill Windfarm, between Barr and Girvan. The view south towards the Site is across the Stinchar Valley to the smooth slopes and rounded summits of Cairn Hill/Pinbreck Hill/Craigenreoch, which form the defining skyline, limiting views to the Merrick beyond and rising gradually from west to east. Mark Hill Windfarm sits on the lower eastern slopes of this skyline. The enclosed farmlands of the valley below give way to marginal pastures, moorland and extensive areas of coniferous commercial forestry plantation over the upper slopes of the hills. To the south-east, the view extends over the plateau moorland and forests into the distance, taking in the extensive windfarm landscape formed mainly by Mark Hill, Arecleoch and Kilgallioch. To the west, the view extends across the Firth of Clyde to Ailsa Craig and Arran. Hadyard Hill Windfarm forms the most prominent operational windfarm in the immediate hills around the viewpoint.

Value	Receptor	Susceptibility	Sensitivity
Medium-high. The view is a specific view from a prominent hill-top, accessible via signed paths from the Stinchar Valley, which is popular with hill walkers, within Ayrshire Scenic Area and defined as a 'Landmark Hill' in Ayrshire Landscape Capacity Study.	Walkers	**Medium**. The attention of hill walkers at this viewpoint is likely to be focussed on the surrounding landscape. The purpose of walking to the hill summit is partly to experience the view, which affords elevated views of the Site in its wider landscape context, which defines the skyline to the south and is directly experienced in the view. Existing wind turbine developments visible from this location moderate susceptibility as windfarm development is a familiar characteristic of the view, with the Hadyard Hill Windfarm having a particularly prominent influence and the Mark Hill, Arecleoch and Kilgallioch Windfarms forming a wider windfarm landscape beyond the Site to the south.	**Medium**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.33g**.

- The proposed Development will be visible to the south-east of the view at short distance, approximately 5.5 km to the nearest turbine, with 15 proposed turbines visible, mainly as full towers and rotors on the upland skyline, but with several turbines only visible as blade tips/rotors, due to the intervening landform screening.
- The lateral spread of the proposed Development will occupy approximately 42° degrees of the horizontal field of view, which is a notable portion of the panoramic view available to the observer.
- The proposed Development will be viewed on the smooth forested slopes of Pindonnan Craigs/Loch Hill/Mid Hill, on elevated ground, with the proposed turbines rising up the landform towards the sculpted, rounded summits of Pinbreck Hill/Craigenreoch/Rowantree Hill.
- The proposed turbines will appear to fit with the scale of the landscape, having an appropriate scale relationship with the prevailing landform, with the large extent of the plateau and height of the landform providing large scale landscape within which to accommodate the proposed Development.
- The more sculpted Southern Upland hills and Galloway Hills/Merrick WLA are not visible due to the intervening landform and forest screening, so there is no interruption of this upland backdrop evident in other views.
- The proposed Development will be viewed in combination with Mark Hill Windfarm, and also the wider windfarm influence landscape beyond it formed by Arecleoch, Kilgallioch, Airies, Artfield Fell, Balmurrie Fell, Glenchamber and Carscreugh, extending with increasing distance across the plateau to the south. This results in clustering of development near to the existing windfarm influenced landscape, within parts of the view that are already affected by windfarm development, relating consistently to the plateau and windfarm characteristics of the landscape.
- The proposed turbines will be located to the east of Mark Hill Windfarm, at closer proximity to the viewpoint, but separated by a clear space or 'gap' on the skyline such that it appears as a distinct windfarm starting on the higher ground of Pindonnan Craigs.
- There is some integration with the existing Mark Hill Windfarm in terms of the fundamental similarity of the turbine form, colour and visual movement of the rotors, however there will be some contrast with the larger scale of the proposed turbines amplified by their closer proximity and elevated siting on higher ground above the Mark Hill turbines, the wider turbine spacing and the increased lateral spread of turbines in this direction of view.
- The proposed Development will also result in a further successive change with the Hadyard Hill/Assel Valley/Penwhapple/Tralorg grouping, introducing further prominent windfarm influence in the uplands visible on either sides of the Stinchar Valley, in succession with the Hadyard Hill grouping. Fundamentally, the proposed Development will not interrupt the most valued section of the view to the west to Ailsa Craig and Arran.

The magnitude of change to the view is assessed as **Medium-high**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by hill walkers on Auchensoul Hill, is assessed as an additional cumulative effect, which is **Significant, Long-term** and **Adverse**. The proposed Development results in a medium-high magnitude of change, with the effect of this change assessed as significant when combined with the medium sensitivity of the receptors at this location. The visual effect is considered significant and adverse due to the scale and elevation of the proposed turbines in comparison to those currently visible simultaneously to the south and the successive change with the Hadyard Hill grouping, creating further prominent windfarm development in the view on either side of the Stinchar Valley.

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6.10.5.7 Viewpoint 8: Merrick

Table 6.10.13 Viewpoint 8: Merrick

Baseline conditions

Existing view (Figure 6.34b-e)

At 843m, the summit of Merrick is the highest hill in the Southern Uplands and is a popular destination for hillwalkers which lies central to the Galloway Forest Park and is a key focal point in the area. The Merrick is reached via well-established paths extended from the car park at Bruce's Stones, Glentrool. The existing view is panoramic, long distance and takes in a 360° panorama over the diverse landscapes of southern and central Galloway, including the immediate mountainous core of the Merrick range and extensive forested plateau moorlands and Ayrshire coastline. The skyline to the west, in the direction of the proposed Development has a broadly plateau appearance with the undulations combining in this distant view to result in few identifiable topographical features in the view. The view to the east is limited by the mountainous core of the Merrick range. Overall, the view is notable for the variety and diversity of landscapes visible within the panorama, comprising a complex mosaic of moorlands, forest, pastoral valleys, lochs and the sea. To the north west Beneraird, Ailsa Craig and Knockdolian form notable features in this otherwise gently undulated and expansive forested moorland plateau.

The summit is remote and exposed and sits at the heart of the Merrick WLA area. The uniformity and simplicity of the land-use pattern of the moorlands to the west, comprising predominantly commercial forestry, moorland and wind turbines is evidently man-modified. Whilst these distant elements are recognisable components in the view, their influence on the sense of remoteness experienced at this location is limited by distance and the clearly apparent separation created by the intervening western slopes and foothills of the Merrick range which share the remoteness quality experienced at the summit.

Windfarm development is a notable feature of the landscape character in the surrounding landscape that is viewed in the panorama from the Merrick. Airies, Artfield Fell, Balmurrie Fell, Glenchamber, Kilgallioch, Knocknain Farm, Glen App, Arecleoch and Mark Hill are visible across the forested plateau moorland landscapes to the west and form a contiguous wind turbine influenced landscape extending across this part of the view. Mark Hill Windfarm is the closest windfarm in this direction, at 16.7 km, with Kilgallioch at 19.8 km and Arecleoch at 25.1 km. Assel Valley and Hadyard Hill are visible in the view towards Arran and Ailsa Craig to the north west. Dersalloch is visible approximately 17.8 km to the north. The Windy Standard/Windy Standard Extension/Afton and Hare Hill/Hare Hill Extension/Sanquhar/Whteside Hill groupings are visible in the Southern Uplands to the east of the view, at long distances of over 22.4 km to Windy Standard and 32.5 km to Hare Hill.

Value	Receptor	Susceptibility	Sensitivity
High. The Merrick viewpoint is a regionally important position for viewing the landscape, being the highest point within the Southern Uplands of Scotland. It is located within the Galloway Hills RSA and is also central to the Merrick WLA and within the Galloway Forest Park/Dark Sky Park Core Area. It is a popular hill walk accessible from Bruce's Stone in Glentrool, with panoramic views over the region.	Walkers	**Medium-high**. Views from the Merrick will be experienced by hill walkers whose attention is likely to be focused on the landscape as an integral part of their experience. The purpose of the challenge in walking to the Merrick summit is partly to experience the view, which affords elevated views over the Site in its wider landscape context. The Site forms part of the plateau of forested moorlands that form the area below the Merrick, in the view west towards Ailsa Craig. Existing wind turbines are a notable, albeit distant feature in the view, influencing visual amenity most notably by their spread cross the landscape than their vertical scale. To some degree this moderates the susceptibility of the view further windfarm development since the proposed Development is located within the same context as existing windfarm and would be a familiar feature in forested plateau moorlands of the view.	**High**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.34g**.

- The proposed Development will be visible to the west/north-west of the view, channelled along the U-shaped valley along the Kirshinnoch Burn, at mid-range, approximately 10.5 km to the nearest turbine. Due to the elevated position of the viewpoint, the majority of the proposed Development will be visible, including the 18 wind turbines, access tracks, substation, battery storage and borrow pits and meteorological mast.
- The lateral spread of the proposed Development will occupy approximately 16° degrees of the horizontal field of view, which is a relatively limited portion of the wider 360° panoramic view available to the observer.
- The proposed Development will be viewed within the northern parts of the forested plateau and partially on the smooth forested slopes of Pindonnan Craigs/Loch Hill/Mid Hill, with the elevated ground of the sculpted, rounded summits of Pinbreck Hill/Craigenreoch/Rowantree Hill providing containment to the north and west.
- The expansive extent of the forested plateau, its wide horizontal scale and large scale of the upland landforms visible, provide a large-scale landscape context within which to accommodate the proposed Development in the view.
- The array of proposed turbines has a well-balanced, simple appearance, with consistent and legible spacing.
- Due to the elevation of the viewpoint, most of the proposed Development will be backdropped by landform or sea.
- The Development is not located in the immediate periphery of the Merrick area, being located in a separate and man-modified commercial forest landscape type, that forms part of the wider landscape, but is not a defining characteristic of the mountainous core of the Merrick area.
- The Development will be viewed to the west of the Merrick, outwith the main visual focus of the view to the south and south-east over the core areas and rugged uplands of the Merrick WLA.
- The land use pattern in the view west towards the proposed Development, comprising commercial forestry, moorland and extensive windfarm landscapes, is evidently man-modified and suggests potential to accommodate further windfarm influence in this part of the existing outlook.
- The proposed Development will be viewed in combination with Mark Hill Windfarm, and also the wider windfarm influence landscape beyond it formed by Arecleoch, Kilgallioch, Airies, Artfield Fell, Balmurrie Fell, Glenchamber and Carscreugh, extending with increasing distance across the plateau to the south-west. This results in clustering of development near to the existing windfarm influenced landscape, within parts of the view that are already affected by windfarm development, relating consistently to the plateau and windfarm characteristics of the landscape.
- The proposed turbines will be located to the north and west of Mark Hill Windfarm, at closer proximity to the viewpoint. Despite a small space or 'gap' between them, the larger apparent size of the proposed turbines and position on higher ground starting from Pindonnan Craigs, is such that the proposed Development appears as a distinct windfarm.
- There is some integration with the existing Mark Hill Windfarm in terms of the fundamental similarity of the turbine form, colour and visual movement of the rotors, however there will be some contrast due to the larger scale of the proposed turbines, in comparison to other visible windfarms, amplified by their closer proximity and siting on higher ground, the wider turbine spacing and the increased lateral spread of turbines in this direction of view.
- The proposed Development will be viewed between Mark Hill Windfarm and Hadyard Hill Windfarm, appearing to further visible connections between these existing windfarm developments, occupying the portion of the view towards Ailsa Craig and Arran.
- The proposed Development will also result in a further successive change with numerous other operational windfarm groupings visible in the foothills and southern upland landscapes to the east of the view. Fundamentally, the proposed Development will not interrupt the most valued sections of the view over the Merrick WLA (Figure 6.34d-e).
- The changes resulting from the proposed Development are restricted to a limited number of days with clear visibility conditions, with cloud free summits. Extensive cloud formation around the mountain summit elevations is common and frequently restricts visibility from this viewpoint.

The magnitude of change to the view is assessed as **Medium**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by hill walkers on Merrick, is assessed as an additional cumulative effect, which is **Significant, Long-term** and **Adverse**. The proposed Development results in a medium magnitude of change, with the effect of this change assessed as significant when combined with the high sensitivity of the receptors at this location. Despite a number of mitigating factors, including keeping out of the view over the core and uplands of the Merrick WLA, the large scale of the plateau and its degree of modification as commercial forest with windfarm landscape, the visual effect is considered significant and adverse due to the increased scale and visual influence of the proposed turbines in comparison to those currently visible and more distant in the view.

6.10.5.8 Viewpoint 9: Barr (Glenginnet Road)

Table 6.10.14 Viewpoint 9: Barr (Glenginnet Road)

Baseline conditions

Existing view (Figure 6.35b)

This viewpoint is located on Glenginnet Road in the village of Barr, which is within the Stinchar Valley. The view is representative of the views experienced by residents of Barr. The view looks south along Glenginnet Road towards the skyline formed by the smooth slopes and rounded summits on the southern side of the Stinchar Valley, towards the proposed Development. The view comprises a foreground characterised by the residences along Glenginnet Road within Barr, where the properties face each other on the road dropping down towards Stinchar Road. Deciduous trees within the village are mature and provide enclosure to many views within the village, however Glenginnet Road is representative of areas where there are elevated views from the northern side of the village, back across the valley and the enclosing uplands to the south. The contrastingly open character of the foothills which rise to the south adds to the scenic interest of the view and forms a sense of enclosure to the village and the Stinchar Valley. Despite this contrast, both landscapes appear modified, the valley landscape by the presence of the village and road as well as the agricultural land uses, and the commercial forestry on the upland skyline. There are no operational windfarms visible in this particular view, although there are occasional views of the blade tips/rotors of several Hadyard Hill turbines to the north from other parts of Barr.

Value	Receptor	Susceptibility	Sensitivity
Medium. The view is located within the South Ayrshire SA, with parts of the visible landscape within the Stinchar Valley locally designated. The view is likely to be valued informally at a local level by relatively few people. Although it is not taken from a formal viewpoint, it is representative of views from this open northerly aspect of the village. The street has been designed to relate to the properties, private spaces and public spaces to the views of the adjacent rural landscape.	Residents (Barr)	**High**. Residents have static, long duration views from their primary place of residence, with views towards the Site in their outlook. Although there is already some visibility of the Hadyard Hill Windfarm, which ensures that the proposed Development would not appear as a completely new feature in views from Barr, this occurs to the north-east and therefore would not be readily apparent from this viewpoint. The proposed Development would occur to the south, giving rise to the possibility that turbines would be visible in a new part of the view.	**High**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.35d**.

- The proposed Development will be partially visible to the south-east of the view at short distance, approximately 4.7 km to the nearest turbine, with a limited amount of the proposed Development visible - only 4 proposed turbines, due to the intervening landform screening. Three of these visible turbines are only visible as turbine blades/rotors on the upland skyline, with just one turbine (T7) viewed with its full tower/height.
- The lateral spread of the proposed Development will occupy approximately 19° degrees of the horizontal field of view, which is a limited portion of the wider view available to the observer.
- The proposed Development is viewed across Barr and along the Albany Burn on the smooth forested slopes of Mid Hill/Loch Hill/Fell Hill, on elevated ground, with the proposed turbines visible on the forested upland skyline over the upper valley sides of the Stinchar Valley.
- The majority of the proposed turbines are not visible, due to them being set-back further into the forested plateau to the south, beyond the intervening elevated landforms and the valley edge.
- Turbine 7 is on the only prominent visible turbine in the view but will appear to be located within a dip on the skyline, with some containment provided by the adjacent hills. The larger scale of the visible turbine/blade tips, compared to other turbines in the wider area, is not readily appreciated, with no direction comparison in the view, and appear to fit with the large scale of the upland landscape on the edge of the valley.
- The proposed Development will not be viewed in combination or in succession with any other windfarms from this viewpoint, although there are occasional views of the blade tips/rotors of several Hadyard Hill turbines to the north form other parts of Barr.

The magnitude of change to the view is assessed as **low**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by residents of Barr, is assessed as a project alone effect, which is **Not Significant, Long-term** and **Adverse**. The proposed Development results in a low magnitude of change, mainly due to the limited amount of the proposed Development visible, with the effect of this change assessed as not significant when combined with the high sensitivity of the residents at this location. The visual effect is considered adverse due to the prominence of Turbine 7 in particular, in the view from Barr and the scale of the visible elements on the skyline compared to smaller-scale elements within the valley itself.

Significance of effect (Settlement of Barr)

Theoretical visibility of the proposed Development from the settlement of Barr is shown in the ZTV (**Figure 6.35a**) and is restricted to 1-3 or 4-6 turbines from most of the village, particularly the low-lying central parts of the village, around the Albany, Stinchar Road, The Clachan, Glebe Road, Change Road and Glenginnet Road. Areas to the north of the village rise gradually with the landform to afford some more open views, such as from The Avenue and the upper parts of Glenginnet Road (Viewpoint 9), and from the very southern edge of the village, which afford some aspect south back across the village to the southern valley sides, where there are views of a limited number of the proposed turbines, due to the intervening landform screening and coniferous forestry on the skyline, similar to that shown and assessed at Viewpoint 9. The low magnitude of change assessed from this viewpoint is representative of the maximum effect on views from the village of Barr. In general, from the lower lying areas, the proposed development will be less visible and views from the ground are largely screened by intervening trees and woodland within the village, lining the burn through the village into the Stinchar River. In general, there will be very limited visibility of the proposed Development when moving around the village such as from the B734/Albany Road passing over the River Stinchar and from the residential streets, with the exception of the view experienced travelling or walking south on the Glenginnet Road, as represented by Viewpoint 9, which tends to have a higher elevation than the rest of the village.

The magnitude of change to views experienced by residents of the more elevated northern areas of the village around Glenginnet Road, as represented by Viewpoint 9, and the very southern edge of the village at The Clachan, is assessed as **low**. The magnitude of change to views experienced by residents from the remaining areas of the village, is assessed as **negligible**.

There is no visibility of any other operational windfarms from Barr (**Figures 6.25d-w**), with the exception of occasional glimpsed views of the blade tips/rotors of several of the closer Hadyard Hill turbines (**Figure 6.25e**) to the north from parts of Barr.

The visual effect of the proposed Development on the views experienced from residents of Barr as a whole, is therefore assessed as mainly a project alone effect, and an occasional successive cumulative effect (with Hadyard Hill) which is **Not Significant, Long-term** and **Adverse**.

6.10.5.9 Viewpoint 10: A714 Creeside

Table 6.10.15 Viewpoint 10: A714 Creeside

Baseline conditions

Existing view (Figure 6.36b-c)

This viewpoint is located on the A714 to the south of Creeside, near Wheeb Bridge/Arnimean, where there is a fleeting view north towards the smooth slopes and rounded summits of Cairn Hill/Pinbreck Hill/Craigenreoch. The specific location is at just to the south of a layby near the Kilgallioch Windfarm access road of the A714 near Wheeb Bridge. The viewpoint is representative of views experienced by motorists travelling northbound on A714 at this location, where the proposed Development oblique to the northbound direction of travel. From this location, there is no view west across the Duisk Valley, which is is restricted by intervening woodland and landform in the foreground view, such that there are no views of the Arecleoch and Kilgallioch Windfarms. There is however, a glimpsed view of several Mark Hill turbines aligned with the northward direction of travel along the road, but most of Mark Hill Windfarm is screened by the intervening drumlin like landform in the foreground. Landcover consists of moorland which is rough in texture with occasional greener patches of grazing land, scrub vegetation along the roadside and extensive coniferous plantation forestry, which covers the plateau to the north-east before the rising ground of the uplands that form the upland backdrop.

Value	Receptor	Susceptibility	Sensitivity
Medium-low. The view is not formally recognised on mapping or through designation, however parts of the visible landscape are locally designated as part of the South Ayrshire SA. The viewpoint is also located from within a short section of the A714 which passes through the Galloway Forest Park. The view is likely to be valued informally at a local level by motorists travelling on the A714.	Motorists	**Medium-low**. This viewpoint is located on a section of the A714 which has fleeting views towards the smooth slopes and rounded upland summits of Cairn Hill/Pinbreck Hill/Craigenreoch when travelling northbound. Motorists travelling on the A714 will have transient, short duration views, experienced in the northwards direction of travel and for motorists, viewer's attention is only partially on the landscape and primarily on the road ahead. The views includes Mark Hill, however the influence of existing windfarms on visual amenity at this particular location is limited.	**Medium-low**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.26e**.

- The proposed Development will be visible to the north of the view at mid-range, approximately 7.3 km to the nearest turbine, with 16 of the proposed turbines visible, with full towers and rotors on the upland skyline, and two turbines to the east screened by intervening forestry.
- The lateral spread of the proposed Development will occupy approximately 40° degrees of the horizontal field of view, which is a notable portion of the wider view available to the observer.
- The proposed Development will be viewed on the upper edges of the forested plateau, on the rising ground of Pindonnan Craigs/Loch Hill/Mid Hill and backdropped by the smooth slopes and rounded summits of Fell Hill/Cairn Hill/Pinbreck Hill/Craigenreoch/Rowantree Hill.
- The more rugged upland Galloway Hills/Merrick WLA are not visible due to the intervening landform and forest screening, so there is no interruption of this upland backdrop.
- There is only a glimpsed view of several Mark Hill turbines aligned north along the road, with most of Mark Hill Windfarm screened by the intervening drumlin like landform in the foreground. As such, the proposed Development appears as a distinct windfarm in its own right, increasing the visible windfarm influence to the north of the A714. As there is limited visibility of Mark Hill, there is only a slight perception that that the proposed Development creates a larger windfarm in combination with Mark Hill in the plateau behind the foreground landform.
- The proposed turbines will compete with the sculpted, rounded summits of the upland skyline as the main visual focus to the north, albeit in this fleeting view from the A714 where open views between extensive forestry are experienced.
- The proposed Development will not be viewed in in succession with any other windfarms from this viewpoint.

The magnitude of change to the view is assessed as **medium-high**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by motorists travelling north on the A714 is assessed as an additional cumulative effect, which is **Significant, Long-term** and **Adverse**. The proposed Development results in a medium-high magnitude of change, with the effect of this change assessed as significant when combined with the medium-low sensitivity of the receptors at this location. The visual effect is considered adverse due to the contrast of the larger scale and elevated position of the proposed turbines, their competition for focus with the sculpted upland backdrop and the relatively wide lateral spread of the proposed Development viewed from this position.

6.10.5.10 Viewpoint 12: NCR7 near Doughty Hill

Table 6.10.16 Viewpoint 12: NCR7 near Doughty Hill

Baseline conditions

Existing view (Figure 6.38b)

This viewpoint is located on the minor road between Glen Trool and Crosshill, in the section north of South Balloch, near Doughty Hill. This minor road forms part of NCR7 and is representative of the view experienced by both motorists and road cyclists. The viewpoint is located in the Foothills with Forest and Windfarms LCT, with foothills and forest readily evident from the viewpoint, but not windfarms. The foothills are modest in scale and characterised by their gently rounded landform and mix of rough grassland and forestry landcover. The view south towards the Site is channelled towards the Site across the Stinchar Valley to the smooth slopes and rounded summits of Cairn Hill/Pinbreck Hill/Craigenreoch, which form the defining skyline, and rising gradually from west to east, into the rugged uplands further east. While evidence of farming and forestry denotes the modified nature of this landscape, and the minor road and occasional farmstead denotes the settled nature, there is some sense of remoteness also evident, largely relating to the low levels of human intervention in this landscape. Set within an upland valley, the land rises to the west and east, as well as to the north, to contain the view. To the west of the minor road, the forestry is recessed up the hill slope, such that there is some open moorland in the foreground to the afforested skyline. The view channelled south through the valley landform is more expansive, extending across the Stinchar Valley to the elevated outline of the Rugged Uplands LCT. There are no operational windfarms visible in this direction of view due to the physical containment by the rising landforms around this minor road.

Value	Receptor	Susceptibility	Sensitivity
Medium. This is an informal viewpoint which people would experience incidentally from the road. It is not a specific viewpoint people would visit to enjoy scenic views and there are no lay-bys or car parks along this road to encourage road-users to stop. It is, however, part of NCR7 and is located on the edge of the Galloway Forest Park, which this raises the value the view.	Motorists / Cyclists (NCR7)	**Medium**. This viewpoint is located on a minor road which has aligned views to the south towards the smooth slopes and rounded upland summits of Cairn Hill/Pinbreck Hill/Craigenreoch when travelling southbound. Motorists and road cyclists travelling on this minor road will have transient, short duration views, experienced in the southwards direction of travel and for motorists, viewer's attention is only partially on the landscape and primarily on the road ahead. For both motorists and cyclists, windfarm development is not a feature of the baseline view, such that the view currently appears undeveloped and the addition of the proposed Development would introduce this type of development into the view.	**Medium**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.38d**.

- The proposed Development will be visible to the south/south-west of the view at mid-range, approximately 9.7 km to the nearest turbine, with 12 proposed turbines visible, mainly as upper towers/rotors or blade tips on the upland skyline, due to the intervening landform screening, and with two turbines visible with full towers.
- The lateral spread of the proposed Development will occupy approximately 16° degrees of the horizontal field of view, which is a limited portion of the open view available to the observer.
- The proposed Development will be viewed partially behind intervening forested slopes, on Pindonnan Craigs/Loch Hill/Mid Hill, on elevated ground, with the more elevated turbines to the east of the layout behind the towards the sculpted, rounded summits of Pinbreck Hill/Craigenreoch/Rowantree Hill.
- The proposed turbines will appear to fit with the scale of the landscape, having an appropriate scale relationship with the prevailing landform, with the large expanse of uplands and height of the landform providing large scale landscape within which to accommodate the proposed Development.
- The more rugged upland Galloway Hills/Merrick WLA are not visible due to the intervening landform screening, so there is no interruption of this valued upland backdrop.
- The proposed Development will not be viewed in combination or in succession with any other windfarms from this viewpoint.
- The larger scale of the visible turbines, compared to other turbines in the wider area, is not readily appreciated, with no direction comparison in the view and appear to fit with the large scale of the upland landscape, which has relatively few scale indicators.

The magnitude of change to the view is assessed as **Medium**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by motorists on the minor road and cyclists on NCR7, travelling southbound, is assessed as a project alone effect, which is **Not Significant, Long-term** and **Adverse**. The proposed Development results in a medium magnitude of change, with the effect of this change assessed as not significant when combined with the medium sensitivity of the receptors at this location. The visual effect is considered adverse due to the introduction of this new form of development in a windfarm free view, the prominence of certain turbines and the partial interruption of the sculpted rounded hills that form the distinctive upland skyline.

6.10.5.11 Viewpoint 13: Shalloch on Minnoch

Table 6.10.17 Viewpoint 13: Shalloch on Minnoch

Baseline conditions

Existing view (Figure 6.39b-e)

This viewpoint is located near the summit of Shalloch on Minnoch in the south Carrick Hills. It is representative of the views of hill walkers on this hill and in the WLA. The route to the summit, starting at Bells Memorial on the Bargrennan to Crosshill minor road, follows forest tracks to the abandoned cottages, following Shalloch Burn through forestry and over marshy and uneven terrain onto the open hillside to the summit. While this hill does not appear to attract large numbers of hill walkers, it is part of a circular route from the Merrick and so walkers typically approach from the south and descend down off Shalloch on Minnoch back to the minor road.

The viewpoint is located within the Rugged Granite Uplands LCT, which has dramatic craggy mountainous scenery, which is a feature of the granite hills lying at the core of this landscape. The Merrick ridge dominates the view to the south and south-east into the Merrick WLA, where there is little visible development and scenic interest in the contrasts between rugged uplands and lochs tends to draw viewer's attention. The view looks out across the Plateau Moorlands with Forest and Windfarms to the west, towards the Site, but also takes in a 360° panorama to the north over the lower lying Foothills with Forest and east across Loch Doon to the Southern Uplands. The plateau moorlands in which the Site is located, are comparatively lower, more uniform and more extensively afforested than the more elevated and rugged uplands where the viewpoint is located. The plateau moorlands lack the same scenic interest evident in the uplands and this reduces their attraction within the wider view. The hills to the immediate north of the Site, consisting Cairn Hill/Pinbreck Hill/Craigenreoch, form a band of smoother, more rounded but steep-sided hills extending to the west of Shalloch on Minnoch and the Rugged Granite Uplands LCT. These hills define the northern extent of the plateau and enhance the rugged uplands but are formed by lower more rounded, less craggy and dramatic hills in comparison to the landform of the Rugged Granite Uplands lanforms in the view that define the Merrick. These hills are relatively low and smoothly rounded and are interlocked to form a level ridgeline marked only by the incisions through the hill slopes of where they join. Their cover comprises a mosaic of forestry and moorland, a characteristic feature of the foothills in this area.

Set behind this ridgeline of hills to the north of the Site, is the operational Hadyard Hill Windfarm which at a range of 13 km is of the closest operational windfarms, appearing relatively small in scale, but is seen at its fullest horizontal extents, following the alignment of the foothills ridge and positioned in the view towards Ailsa Craig and Arran. Dersalloch is the closest windfarm, located 12.5 km to the north-east in the view across the Merrick WLA and Loch Doon. Windfarm development is a notable feature of the landscape character in the surrounding landscape that is viewed in the panorama. Airies, Artfield Fell, Balmurrie Fell, Glenchamber, Kilgallioch, Knocknain Farm, Glen App, Arecleoch and Mark Hill are visible across the forested plateau moorland landscapes to the south-west and form a contiguous wind turbine influenced landscape extending across this part of the view. Mark Hill Windfarm is the closest windfarm in this direction, at 15.3 km, with Arecleoch beyond it at 24.7 km and Kilgallioch further south-west at 21.4 km. The Windy Standard/Windy Standard Extension/Afton and Hare Hill/Hare Hill Extension/Sanquhar/Whteside Hill groupings are visible in the Southern Uplands to the east of the view, at long distances of over 21.2 km to the Windy Standard group and 30.8 km to the Hare Hill group.

Value	Receptor	Susceptibility	Sensitivity
Medium-high. Although it does not attract the same volume of walkers as Merrick or Cairnsmore of Carsphairn, it is visited by hill walkers, including those who undertake the ridgeline walk from Merrick to Shalloch on Minnoch. The summit marks a natural viewpoint from which hill walkers would appreciate the panoramic view. It is located within the South Ayrshire SA and is also within the Merrick WLA and within the Galloway Forest Park/Dark Sky Park Core Area.	Walkers	**Medium-high**. Views from Shalloch on Minnoch will be experienced by hill walkers whose attention is likely to be focused on the landscape as an integral part of their experience. The purpose of the challenge in walking to the Shalloch on Minnoch summit is partly to experience the view, which affords elevated views over the Site in its wider landscape context. The Site forms part of the plateau of forested moorlands that form the area below Shalloch, in the view west. Existing wind turbines are a notable, albeit distant feature in the view, influencing visual amenity most notably by their spread cross the landscape than their vertical scale. To some degree this moderates the susceptibility of the view further windfarm development since the proposed Development is located within the same context as existing windfarm and would be a familiar feature in forested plateau moorlands of the view.	**Medium-high**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.39g**.

- The proposed Development will be visible to the west/north-west of the view, at mid-range, approximately 7.5 km to the nearest turbine. Due to the elevated position of the viewpoint, the majority of the proposed Development will be visible, including the 18 wind turbines, access tracks, substation, battery storage and borrow pits and meteorological mast.
- The lateral spread of the proposed Development will occupy approximately 11° degrees of the horizontal field of view, which is a relatively limited portion of the wider 360° panoramic view available to the observer, but an approximate doubling of the lateral spread of turbines in combination with Mark Hill Windfarm.
- The proposed Development will be viewed within the northern parts of the forested plateau and partially on the smooth forested slopes of Pindonnan Craigs/Loch Hill/Mid Hill, with the elevated ground of the sculpted, rounded summits of Pinbreck Hill/Craigenreoch/Rowantree Hill providing containment to the north and west.
- The expansive extent of the forested plateau, its wide horizontal scale and large scale of the upland landforms visible, provide a large-scale landscape context within which to accommodate the proposed Development in the view.
- The array of proposed turbines has a well-balanced, simple appearance, with consistent and legible spacing.
- Due to the elevation of the viewpoint, most of the proposed Development will be backdropped by landform or sea.
- As there is limited foreground context in the view, the proposed Development is perceived as being in the more direct periphery of Shalloch on Minnoch, than it does in the view from Merrick, despite being located in a clearly separate and man-modified commercial forest landscape type, that forms part of the wider landscape, but is not a defining characteristic of the mountainous core of the Merrick area.
- The Development will be viewed to the west of Shalloch on Minnoch, outwith the main visual focus of the view to the east and south over the core areas and rugged uplands of the Merrick WLA.
- The land use pattern in the view west towards the proposed Development, comprising commercial forestry, moorland and extensive windfarm landscapes, is evidently man-modified and suggests potential to accommodate further windfarm influence in this part of the existing outlook.
- The proposed Development will be viewed in combination with Mark Hill Windfarm, and also the wider windfarm influence landscape beyond it formed by Arecleoch, Kilgallioch, Airies, Artfield Fell, Balmurrie Fell, Glenchamber and Carscreugh, extending with increasing distance across the plateau to the south-west. This results in clustering of development near to the existing windfarm influenced landscape, within parts of the view that are already affected by windfarm development, relating consistently to the plateau and windfarm characteristics of the landscape.
- There is some integration with the existing Mark Hill Windfarm in terms of the fundamental similarity of the turbine form, colour and visual movement of the rotors, however there will be some contrast due to the wider turbine spacing and larger scale of the proposed turbines, in comparison to other visible windfarms, amplified by their closer proximity, partially to the fore of Mark Hill and siting on higher ground.
- The proposed Development will also result in a further successive change with numerous other operational windfarm groupings visible in the foothills and southern upland landscapes to the east of the view. Fundamentally, the proposed Development will not interrupt the most valued sections of the view over the Merrick WLA (**Figure 6.39d-e**).
- The changes resulting from the proposed Development are restricted to a limited number of days with clear visibility conditions, with cloud free summits. Extensive cloud formation around the mountain summit elevations is common and frequently restricts visibility from this viewpoint.

The magnitude of change to the view is assessed as **Medium-high**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by hill walkers on Shalloch on Minnoch, is assessed as an additional cumulative effect, which is **Significant, Long-term** and **Adverse**. The proposed Development results in a medium-high magnitude of change, with the effect of this change assessed as significant when combined with the medium-high sensitivity of the receptors at this location. Despite a number of mitigating factors, including keeping out of the view over the core and uplands of the Merrick WLA, the large scale of the plateau and its degree of modification as commercial forest with windfarm landscape, the visual effect is considered significant and adverse due to the increased scale and visual influence of the proposed turbines in comparison to those currently visible and more distant in the view.

6.10.5.12 Viewpoint 14: Corserine

Table 6.10.18 Viewpoint 14: Corserine

Baseline conditions

Existing view (Figure 6.40b-e)

This viewpoint is located at the summit of Corserine, at 814m (Corbett), which is the highest point within the Rhinns of Kells range, located to the west of the Merrick WLA and is representative of views experienced by walkers ascending the summit. Corserine is fairly remote, offering a rugged hill walk, with the main routes from Forrest Lodge to the east and other longer and more demanding routes along the Rhinns of Kells range. The existing view is panoramic, long distance and takes in a 360° panorama over much of Galloway and its diverse landscapes, including the immediate mountainous core of the Rhinns of Kells and Merrick range of hills to the west, extensive forested plateau moorlands and lowlands. The view west toward the Site is dominated by the dramatic granite uplands of the Merrick hills, with the strong north-south ridge formed by the profiles of Merrick, Kirriereoch Hill, Tarfessock and Shalloch on Minnoch. The Merrick ridge dominates the view to the west into the Merrick WLA, which has dramatic craggy mountainous scenery, which is a feature of the granite hills lying at the core of this landscape, and where there is little visible development, with scenic interest from the dramatic profile, large scale, ruggedness and contrasts between the rugged uplands and lochs which draw the viewer's attention. Distant windfarms punctuate the view through the Merrick WLA, visible in the distant forested plateau areas through gaps between the mountains, including Mark Hill (23.8km), Arecleoch (32.3km) and Kilgallioch (26.6km). The view north extends along the Rhinns and to the north-east to the rounded profiles of the Southern Upland hills. The distinctive shape of the Cairnsmore of Carsphairn profile is also notable in views to the north along with the Windy Standard windfarm which can be seen behind it. The eastern panorama has an overall upland appearance with the patchy forestry and moorland landcover dominating much of the landscape pattern in the view. The existing windfarms in the view punctuate the skyline in this part of the panorama, these include Windy Standard and Extension, Afton, Sanquhar, Hare Hill and Extension, Whiteside Hill, Wether Hill and Blackcraig (where the turbines are situated more prominently to the east on top of the most elevated part of the upland strip in the eastern part of the panorama).

Value	Receptor	Susceptibility	Sensitivity
Medium-high. The viewpoint is located within the Galloway Hills RSA and the Galloway Forest Park. Parts of the visible landscape also form the Merrick WLA. The viewpoint is visited by hill walkers, including those who undertake the ridgeline walk along the Rhinns of Kells, where the summit marks a natural viewpoint from which hill walkers would appreciate the panoramic view.	Walkers	**High**. Views from Corserine will be experienced by hill walkers whose attention is likely to be focused on the landscape as an integral part of their experience. The purpose of the challenge in walking to the Corserine summit is partly to experience the view, which affords elevated views over the Site in its wider landscape context and offers an experience of the remoteness and wildness attributes associated with the Merrick WLA. The Site is visible through the Merrick WLA in the view west, as part of the plateau of forested moorlands, visible in gaps between the mountains of the WLA. Existing wind turbines are a notable, albeit distant feature in the view, influencing visual amenity most notably by their spread across the wider landscape than their vertical scale. To some degree this moderates the susceptibility of the view further windfarm development, since the proposed Development is located within broadly the same context as existing windfarms and would be a familiar feature, however there is a high susceptibility associated with the perception of the Merrick WLA seen in its entirety in this view.	**High**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.40g**.

- The proposed Development will be visible to the west of the view, at long distance, approximately 17km to the nearest turbine, with 15 proposed turbines visible, mainly as full towers and rotors visible on the upland skyline.
- The lateral spread of the proposed Development will occupy approximately 6° degrees of the horizontal field of view, which is a small portion of the wider 360° panoramic view available to the observer.
- The array of proposed turbines has a well-balanced, simple appearance, with consistent and legible spacing. Due to the elevation of the viewpoint, most of the proposed Development will be backdropped by landform or sea.
- The proposed Development will be viewed through and behind the dramatic, rugged mountains of the Merrick WLA, which are the main focus of the view, visible in the distant forested plateau through the gap between Kirriereoch Hill and Tarfessock, over the Carmaddie Brae ridge.
- The proposed turbines are sited in the northern parts of the forested plateau and partially on the smooth forested slopes of Pindonnan Craigs/Loch Hill/Mid Hill, with the elevated ground of the sculpted, rounded summits of Pinbreck Hill/Craigenreoch/Rowantree Hill providing containment to the north and west.
- Since there is a limited amount of the forested plateau visible through this gap, and due to the scale of the proposed turbines, there is a foreshortening effect where the proposed Development may be perceived as being closer to the Merrick WLA than is actually the case.
- The dramatic craggy mountainous scenery of the Merrick range of hill dominates the view west, where there is little visible development, although distant operational windfarms do already punctuate the view through the WLA, including Mark Hill (23.8 km), Arecleoch (32.3 km) and the larger spread of Kilgallioch (26.6 km) and outlying schemes. In this context, the change resulting from the proposed Development on the view of the Merrick WLA is not entirely new, however the operational windfarms appear small in scale and distant, and it is the increased scale and visual influence of the proposed Development in the view of the WLA that is notable, even at 17 km.
- There is some integration with the existing windfarms visible in the view, in terms of the fundamental similarity of the turbine form, colour and visual movement of the rotors, however there will be some contrast due to the wider turbine spacing and larger scale of the proposed turbines.
- The proposed Development will also result in a further successive change with numerous other operational windfarm groupings visible in the foothills and southern upland landscapes to the north and east of the view.
- The changes resulting from the proposed Development are restricted to a limited number of days with clear visibility conditions, with cloud free summits. Extensive cloud formation around the mountain summit elevations is common and frequently restricts visibility from this viewpoint.

The magnitude of change to the view is assessed as **Medium-low**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by hill walkers on Corserine, is assessed as an additional cumulative effect, which is **Significant, Long-term** and **Adverse**. The proposed Development results in a medium-low magnitude of change, with the effect of this change assessed as significant when combined with the high sensitivity of the receptors at this location. Despite a number of mitigating factors, including the large scale of the forested plateau and its degree of modification as commercial forest with windfarm landscape, the visual effect is considered significant and adverse due to the increased scale and visual influence of the proposed turbines on the view of the Merrick WLA in comparison to those currently visible and more distant in the view.

6.10.5.13 Viewpoint 15: Colmonell

Table 6.10.19 Viewpoint 15: Colmonell

Baseline conditions

Existing view (Figure 6.41b)

The viewpoint is located on the B734 on the eastern edge of Colmonell, within the Stinchar Valley and the Ayrshire Scenic Area. It is representative of view experienced by motorists on the B734 and residents of Colmonell. The viewpoint is located on the edge of the village, exiting on the B734 on the eastern side of Colmonell, where there are channelled views along the Stinchar Valley eastwards towards the edges of the uplands around Knockodhar/Pindonnan Craigs at the end of the valley. The view is short to medium distance, focused along the valley in the eastward direction of travel with the surrounding upland landscape forming the enclosing ridgeline in the view. The existing view is along the relatively narrow Stinchar Valley, which is contained by adjacent uplands, forming simple even skylines seen from the valleys. The landscape in the view is generally small to medium scale, increasing on the more open and less settled upper valley sides. There is a varied land cover dominated by broadleaf woodland including shelterbelts and woodland separating the valley into small parcels of pasture, with winding road and scattered houses and farms. The rolling landform and presence of woodlands, hedgerows and trees restricts long views, which are also curtained by the landform.

Value	Receptor	Susceptibility	Sensitivity
Medium. The view is located within the South Ayrshire SA, with parts of the visible landscape within the Stinchar Valley locally designated. The view is likely to be valued informally at a local level by relatively few people. Although it is not taken from a formal viewpoint, it is representative of views aligned along the valley in the easterly aspect of the village.	Motorists (B734)	**Medium-low**. This viewpoint is located on a section of the B734 which has fleeting views focused along the valley in the eastward direction of travel towards the smooth slopes and rounded upland summits of Cairn Hill/Pinbreck Hill/Craigenreoch. Motorists travelling on the B734 will have transient, short duration views, experienced in the eastwards direction of travel and for motorists, viewer's attention is only partially on the landscape and primarily on the road ahead. The views from the B734 include glimpses of Mark Hill in the same direction, however the influence of existing windfarms on visual amenity at this particular location is limited.	**Medium-low**
	Residents (Colmonell)	**Medium-high**. Residents have static, long duration views from their primary place of residence. Colmonell has been designed for dwellings to face on to the main street in a north-south direction, with gable ends facing eastwards along the valley and few properties that take this aspect east towards the Site, such that the settlement will have only an indirect relationship with the Site, compared to the uplands that contain the valley to the north and south.	**Medium-high**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.41d**.

- The proposed Development will be visible to the east/north-east of the view at mid-range, approximately 12.2 km to the nearest turbine, with 18 proposed turbines theoretically visible, mainly as full towers and rotors visible on the upland skyline, but with some degree of screening by intervening woodland within the valley.
- The lateral spread of the proposed Development will occupy approximately 9° degrees of the horizontal field of view, which is a limited portion of the view available to the observer, although this does occur within a fairly narrow and framed view along the Stinchar Valley.
- The proposed Development will be viewed on Pindonnan Craigs/Loch Hill/Mid Hill, compactly grouped on the relatively simple, even skyline formed by the upland edge, and aligned to the east of the Stinchar Valley. Due to its position in the framed view it will form a new focal point in the view east along the valley.
- The proposed turbines will appear to fit within a dip in the skyline, with the rising ground of the valley sides providing lateral containment, and the landform providing large scale landscape within which to accommodate the proposed Development.
- The more rugged upland Galloway Hills/Merrick WLA are not visible due to the intervening landform screening, so there is no interruption of this valued upland backdrop.
- The proposed Development will not be viewed in combination or in succession with any other windfarms from this viewpoint.

The magnitude of change to the view is assessed as **Medium-low**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by residents of Colmonell and motorists travelling east on the B734, is assessed as a project alone effect, which is **Not Significant, Long-term** and **Adverse**. The proposed Development results in a medium-low magnitude of change, with the effect of this change assessed as not significant when combined with the medium-high sensitivity of the residents and medium-low sensitivity of motorists at this location. The visual effect is considered adverse due to the proposed Development forming a new focal point in the framed view along the valley and the scale of the visible turbines on the skyline compared to smaller-scale elements within the valley itself.

Significance of effect (Settlement of Colmonell)

Theoretical visibility of the proposed Development from the village of Colmonell is shown in the ZTV (**Figure 6.41a**) and is of 16-18 turbines from most of the village, along Main Street and the road off it, however this drops off to the south towards the River Stinchar moving south out of the village on the Craigneil Road. Although there is high theoretically visibility from the village, Colmonell is also located over 12 km from the proposed Development and also views the proposed Development at its narrowest lateral spread, which reduces the scale of changes arising. The design and layout of Colmonell has been designed for dwellings to generally face on to Main Street in a north-south direction, with gable ends facing eastwards along the Stinchar Valley and few properties that take this aspect east towards the proposed Development, such that the settlement will have only an indirect relationship with the proposed Development, compared to the uplands that contain the valley to the north and south. The layout of the village is such that other buildings along Main Street tend to limit views east out of the village towards the proposed Development, with the exception of the eastern edges of the village which afford views similar to those represented in Viewpoint 16. The medium-low magnitude of change assessed from this viewpoint is representative of the maximum effect on views from the village of Colmonell. In general, from areas of the village to the west of this viewpoint, there is more restricted visibility of the proposed development. Travelling through the village is mainly from the B734 along Main Street, where there are views aligned with the eastward direction of travel along the Stinchar Valley, to the proposed Development on the mid-range upland skyline (as represented by Viewpoint 16). The magnitude of change to views experienced by residents of Colmonell is assessed as **medium-low**.

There is no visibility of any other operational windfarms from Colmonell (**Figures 6.25d-w**).

The visual effect of the proposed Development on the views experienced from residents of Colmonell as a whole, is therefore assessed as a project alone effect, which is **Not Significant, Long-term** and **Adverse**.

6.10.5.14 Viewpoint 16: Byne Hill

Table 6.10.20 Viewpoint 16: Byne Hill

Baseline conditions

Existing view (Figure 6.42b-e)

The viewpoint is located at the summit of Byne Hill, located to the south of Girvan and is representative of views experienced by walkers at summit. Byne Hill forms part of the Coastal Foothills LCT and although only 214 m AOD in height, affords panoramic views across both land and sea. The main attraction of the view is across the North Channel and Firth of Clyde to Ailsa Craig and the Isle of Arran and then also along the west coast of the mainland. The views inland are comparatively unremarkable featuring mostly Foothills LCTs and Plateau Moorland LCTs. With the content of the view mainly comprising either hills or sea, the character of the wider view is predominantly rural and undeveloped, with the exception of numerous windfarms located around the skylines of the plateau moorlands and their foothills. Many of the roads and settlements are tucked into the valleys which are not readily visible from this elevated perspective, with the exception of the urban areas of Girvan, which can be seen on the coast to the north. The view south towards the Site is to the south-east over the Duisk Valley to the smooth slopes and rounded summits of Cairn Hill/Pinbreck Hill/Craigenreoch beyond, which form part of the defining skyline in the distance, rising gradually from west to east from the valley. The more elevated mountains of the Merrick range and southern uplands extend to the south-east. Windfarm developments are readily evident in the upland landscapes, with Assel Valley (2.7 km) and Hadyard Hill (5.5 km) most visible to the north-east, Mark Hill visible to the south-east (10.7 km); and Arecleoch (13.1 km) and Kilgallioch (18.9 km) visible to the south. Towards the proposed site, the pastoral Stinchar Valley merges gradually with the wider uplands, with the agricultural land uses giving way to moorland and extensive coniferous forestry plantations that define the uplands and plateau moorlands, with a dark and textured land cover and denoting the extent of human modification in this landscape.

Value	Receptor	Susceptibility	Sensitivity
Medium. Specific view from marked OS Viewpoint on Byrne Hill summit, valued by people walking up from the Girvan area. Principal view is to the west over the sea and along the coast, but within Ayrshire Scenic Area and defined as a 'Landmark Hill' in Ayrshire Landscape Capacity Study.	Walkers	**Medium**. Views from Byne Hill will be experienced by hill walkers, whose attention is likely to be focused on the landscape as an integral part of their experience. The purpose of walking to the summit is partly to experience the view, which affords elevated views towards the Site in its wider landscape context. The susceptibility is reduced by the fact that the main attraction for walkers is the views seawards to Ailsa Craig and Arran, in the opposite direction to the Site. Furthermore, the existing presence of windfarm developments in the landward views moderates the susceptibility of the view to further windfarm development, since the proposed Development is located within the same context as existing windfarms and would be a familiar feature in forested plateau moorlands of the view.	**Medium**

Assessment (including operational and under construction windfarms)

Magnitude of change

- The proposed Development will be visible to the south-east of the view at mid-range, approximately 11.1 km to the nearest turbine, with 16 proposed turbines visible, mainly as full towers and rotors on the upland skyline, but with several turbines only visible as blade tips/rotors, due to the intervening landform screening and two turbines not visible.
- The lateral spread of the proposed Development will occupy approximately 17° degrees of the horizontal field of view, which is a relatively limited portion of the panoramic view available to the observer.
- The proposed Development will be viewed on the low, relatively even skyline to the south, formed by the smooth forested slopes of Pindonnan Craigs/Loch Hill/Mid Hill, with the proposed turbines rising gradually up the landform towards the sculpted, rounded summits of Pinbreck Hill/Craigenreoch/Rowantree Hill.
- The proposed turbines will appear to fit with the scale of the landscape, having an appropriate scale relationship with the prevailing landform, with the large extent of the plateau and height of the landform providing large scale landscape within which to accommodate the proposed Development.
- The proposed Development will be viewed in combination with the Assel Valley/Hadyard Hill Windfarm group and Mark Hill Windfarm, and also the wider windfarm influence landscape beyond it to the formed by Arecleoch, Kilgallioch and Airies, extending with increasing distance across the plateau to the south. This results in clustering of development near to the existing windfarm influenced landscape, within parts of the view that are already affected by windfarm development, relating consistently to the plateau and windfarm characteristics of the landscape.
- The proposed turbines will be located to the east of Mark Hill Windfarm, at a similar distance from the viewpoint, but separated by a clear space or 'gap' on the skyline such that it appears as a distinct windfarm starting on the higher ground of Pindonnan Craigs.
- There is some integration with the existing Mark Hill Windfarm in terms of the fundamental similarity of the turbine form, colour and visual movement of the rotors, however there will be some contrast with the larger scale of the proposed turbines amplified by their more elevated position and the wider turbine spacing.
- Fundamentally, the proposed Development will not interrupt the most valued section of the view to the west to Ailsa Craig and Arran.

The magnitude of change to the view is assessed as **Medium**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by hill walkers on Byne Hill, is assessed as an additional cumulative effect, which is **Not Significant, Long-term** and **Adverse**. The proposed Development results in a medium magnitude of change, with the effect of this change assessed as not significant when combined with the medium sensitivity of the receptors at this location. The visual effect is considered not significant and adverse due to the interruption of the upland skyline with further windfarm influence and the scale of the proposed turbines in comparison to those currently visible simultaneously to the south at Mark Hill, however their scale appears smaller than the more prominent and closer Hadyard Hill grouping in this view. Fundamentally, the proposed Development will not interrupt the most valued section of the view to the west to Ailsa Craig and Arran

6.10.5.15 Viewpoint 17: Kirriereoch Picnic Site

Table 6.10.21 Viewpoint 17: Kirriereoch Picnic Site

Baseline conditions

Existing view (Figure 6.43b-c)

The viewpoint is located at Kirriereoch Picnic site, which is just off the Glentrool Forest Road, near the Water of Minnoch. The viewpoint is sited on high ground, on the eastern side of the bridge over the Water of Minnoch and near Kirrieroch Loch. The viewpoint is representative of views experienced by people visiting the picnic site, most likely cyclists stopping for a break from the cycle along NCR7, which takes a route along the Glentrool Forest Road. Commercial coniferous forestry plantation is the prevailing element in the view west, towards the Site, covering large parts of the foreground view and interspersed with rough moorland and areas of wetland near the Water of Minnoch. The landform is mainly gently undulating across the foreground plateau/skyline, with Suie Hill and Balunton Hill forming distinct hills in the plateau to the south-west. The landform rises more steeply to the north to the smooth slopes and rounded summits of Cairn Hill/Pinbreck Hill/Craigenreoch, which rise to the west of the Nick of the Balloch. To the east of the Nick of the Balloch and the view, the landform rises more steeply up to Eldrick Hill, through Shalloch on Minnoch into the Merrick range of hills, which form a dramatic focal point to the east, in the view across Kirriereoch Loch. Although there is there is theoretical visibility of windfarms such as Mark Hill, Arecleoch and Kilgallioch to the west/south-west, they are screened by the intervening coniferous forestry plantations, such that there is no windfarm influence in the existing view.

Value	Receptor	Susceptibility	Sensitivity
Medium. View from a recreational area with some limited facilities provided for enjoyment of the setting. The viewpoint is located on the edge of the Galloway Hills RSA and within Galloway Forest Park, near to the route of NCR7.	Visitors to picnic site / Cyclists (NCR7)	**Medium-high**. This viewpoint is located at a picnic site, which affords views of the forested plateau moorland and smooth slopes and rounded upland summits of Cairn Hill/Pinbreck Hill/Craigenreoch near the Site. Users of the site are most likely cyclists stopping for a break from the cycle along NCR7, or people driving the Glentrool Forest Road, which offers some experience of remoteness. The susceptibility is reduced by the fact that the main attraction for people at this location is the views eastwards to the Merrick and Kirriereoch Loch, in the opposite direction to the Site, which is incidental in the view. For both motorists and cyclists, windfarm development is not a feature of the baseline view, such that the view currently appears undeveloped and the addition of the proposed Development would introduce this type of development into the view.	**Medium-high**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.43e**.

- The proposed Development will be visible to the west/north-west of the view at short distance, approximately 4.1 km to the nearest turbine, with 18 proposed turbines theoretically visible, but with substantial screening by intervening coniferous forestry. Five of the western most turbines will be entirely screened by forestry; five turbines are partially screened to just the rotors or blade tips visible; and the remaining eight, located towards the eastern side of the Site, will be visible with full or upper towers.
- The lateral spread of the proposed Development will theoretically occupy approximately 38° degrees of the horizontal field of view, however this is reduced by the forestry screening of the eastern turbines.
- The proposed Development will be viewed behind the forested foreground landforms on the skyline, with the turbines to the east of the layout partially backdropped by the rounded summits of Pinbreck Hill/Craigenreoch/Rowantree Hill.
- The proposed turbines will appear to fit with the scale of the landscape, having an appropriate scale relationship with the prevailing landform, with the large expanse of the forested plateau and height of the landform providing large scale landscape within which to accommodate the proposed Development.
- The more rugged upland Galloway Hills/Merrick WLA are located in the opposite direction of view, so there is no interruption of this valued upland setting to the east.
- The proposed Development will not be viewed in combination or in succession with any other windfarms in this view.
- The larger scale of the visible turbines, compared to other turbines in the wider area, is not readily appreciated, with no direction comparison in the view and appear to fit with the large scale of the upland landscape, which has relatively few scale indicators.

The magnitude of change to the view is assessed as **Medium-high**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by visitors to picnic site and cyclists (NCR7), is assessed as a project alone effect, which is **Significant, Long-term** and **Adverse**. The proposed Development results in a medium-high magnitude of change, with the effect of this change assessed as significant when combined with the medium-high sensitivity of the receptors at this location. The visual effect is considered adverse due to the introduction of this new form of development in a windfarm free view, the prominence of the closest turbines in the eastern part of the Site and the partial interruption of the sculpted rounded hills that form the distinctive upland skyline.

6.10.5.16 Viewpoint 18: B734 Stinchar Valley

Table 6.10.22 Viewpoint 18: B734 Stinchar Valley

Baseline conditions

Existing view (Figure 6.44b)

This viewpoint is located on the B734 between the A714 and Barr, near Cairnwhin/Traboyack. The view looks south-east towards the Site and is representative of the views of eastbound motorists, heading towards Barr on the B734, as well as the residents of the intermittent farmsteads and residential properties along the B734 in this area. The section of the B734 between Pinwherry and Barr follows the course of the River Stinchar, being situated along the lower valley slopes on the southern side. The road is gently undulating and the variation in elevation, combined with the extent of tree cover, results in views alternately becoming open and enclosed, but generally the rising ground on the southern side of the valley limits views from the B734 to the Site. There are a number of short elevated sections where open views across the Intimate Pastoral Valley LCT to the adjacent Plateau Moorland with Forest and Windfarms LCT occur. The viewpoint from is representative of these occasional views to the south. With the rising landform containing views to the south, the open aspect to the north is typically the draw for the viewer's attention, with the landform of the valley channelling the focus along the ridgeline towards the foothills at the eastern end. The valley itself, is organised into small fields of improved pasture enclosed by hedgerows and trees, with denser riparian woodland marking the course of the Stinchar through the narrow floor of the valley. The field pattern encroaches onto the middle slopes of the hills on the side of the valley, giving way to coniferous forestry plantation and moorland on the upper slopes. The landscape in the view has been modified by agricultural practices and commercial forestry plantation but is distinctly rural in character. There is occasional visibility of a small number of tips or blades of Hadyard Hill Windfarm visible behind the ridgeline across the valley to the north, but otherwise, the influence from operational windfarms is limited in the view due to the enclosure of the valley. Otherwise, development is small in scale and rural in character with farmsteads and residential properties dispersed across the valley.

Value	Receptor	Susceptibility	Sensitivity
Medium. The viewpoint is not a formal viewpoint people would visit with the purpose of enjoying the view and is representative of incidental and transitory views experienced along this section of the B734, and static and more focused views potentially experienced from the nearby residential properties. While the view is unremarkable in scenic terms, it does present an attractive rural landscape of the Stinchar Valley and is located within the South Ayrshire SA.	Motorists (B734)	**Medium**. Motorists travelling on the B734 will have transient, short duration views, experienced in the eastwards direction of travel with the viewer's attention only partially on the landscape and primarily on the road ahead. Visibility occurs intermittently along the B734 and as the proposed Development would lie at an oblique angle to the south, it would only be readily visible to east-bound, and not west-bound road-users, and there is an indirect visual relationship to the rising landform to the south of the valley. There is currently limited influence of other windfarm developments from this section of the B734 and this increases the susceptibility of motorists to the proposed Development.	**Medium**
	Residents (nearby areas of Stinchar Valley)	**High**. Residents have static, long duration views from their primary place of residence, with views towards the Site in their outlook. Residential properties represented by this viewpoint typically front onto the B734 such that their orientation is mostly north-west or south-east. This could mean that principal views could be orientated towards the proposed Development, however intervening landforms and coniferous forestry forming the southern valley side reduce the susceptibility to change. Although there is already some visibility of the Hadyard Hill Windfarm, which ensures that the proposed Development would not appear as a completely new feature in views, the proposed Development would occur to the south, giving rise to the possibility that turbines would be visible in a new part of the view.	**High**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.44d**.

- The proposed Development will be partially visible to the south-east of the view at short distance, approximately 4.2 km to the nearest turbine, with a limited amount of the proposed Development visible. Although there is theoretical visibility of 13 turbines, five of the these are blade tips only, due to the intervening landform screening. Coniferous forestry on the upper valley sides, and scattered deciduous trees in the valley, provide further screening, such that only three blade tips are visible above the forest and two turbines (T4 and T7) are more prominent with their upper or full towers and rotors visible.
- The lateral spread of the proposed Development will theoretically occupy approximately 43° degrees of the horizontal field of view, however this is much reduced by the forestry screening of the turbines.
- The proposed Development is viewed across the upper edges of the Stinchar Valley and the forested slopes around Drumneillie Hill, Whiteknowes and Doularg Hill, with the proposed turbines visible on the forested upland skyline over the upper valley sides of the Stinchar Valley.
- The majority of the proposed turbines are not visible, due to them being set-back further into the forested plateau to the south, beyond the intervening elevated landforms and the valley edge.
- Turbines 4 and 7 are the only prominent visible turbines in the view, but will appear to be located within a dip on the skyline, with some containment provided by the adjacent hills. The larger scale of the visible turbine/blade tips, compared to other turbines in the wider area, is not readily appreciated, with no direction comparison in the view, and appear to fit with the scale of the landscape and forestry on the upland edge of the valley.
- The proposed Development will not be viewed in combination or in succession with any other windfarms from this viewpoint, although there are occasional views of the blade tips/rotors of several Hadyard Hill turbines to the north form parts of the B734.

The magnitude of change to the view is assessed as **Medium-low**.

Significance of effect

The visual effect of the proposed Development on the view experienced from this location by motorists on the B734 and residents of dispersed dwellings in nearby areas of the Stinchar Valley, is assessed as a project alone effect, which is **Not Significant, Long-term** and **Adverse**. The proposed Development results in a medium-low magnitude of change, mainly due to the limited amount of the proposed Development visible, with the effect of this change assessed as not significant when combined with the medium sensitivity of motorists and high sensitivity of the residents at this location. The visual effect is considered adverse due to the prominence of Turbines 4 and 7 in particular, and the scale of these turbines on the skyline compared to smaller-scale elements within the valley itself.

6.10.5.17 Viewpoint 19: B734 Approach to Barr

Table 6.10.23 Viewpoint 19: B734 Approach to Barr

Baseline conditions

Existing view (Figure 6.45b-d)

This viewpoint is located on the B734 on the approach to Barr. It is representative of the views of motorists travelling southbound on the B734, as well as workers associated with the Hadyard Hill Windfarm, the Penwhapple Reservoir and the surrounding farmland and forestry. The direction of the view towards the Site is south across the Stinchar Valley and the village of Barr to the uplands that form the skyline beyond. The viewpoint is located on elevated ground on the north side of the Stinchar Valley, which affords views south back across the valley where clear views of the surrounding landscape can be gained. The viewpoint is not representative of the more contained, lower-lying areas within the valley, but of higher ground where the valley transitions into the adjacent foothills. The smooth slopes and rounded summits of Cairn Hill/Pinbreck Hill/Craigenreoch form part of the defining skyline to the Stinchar Valley, rising gradually from west to east, and with the more elevated landforms around Shalloch rising higher to the west. The landscape in the view is generally small to medium scale, increasing on the more open and less settled upper valley sides. There is a varied land cover dominated by broadleaf woodland in the foreground, with parcels of pasture and scattered houses and farmsteads, giving way to moorland and coniferous plantations on higher ground. There is limited windfarm influence in the existing view, due to the containment of the valley, with just several blade tips of Hadyard Hill visible to the north/north-east, however motorists and cyclists travelling northbound will have travelled through Hadyard Hill Windfarm at close proximity en-route to Barr.

Value	Receptor	Susceptibility	Sensitivity
Medium. The viewpoint is not a formal viewpoint people would visit with the purpose of enjoying the view and is representative of incidental and transitory views experienced along this section of the B734. While the view is unremarkable in scenic terms, it does present an attractive rural landscape of the Stinchar Valley and is located within the South Ayrshire SA. Parts of the visible landscape are also located within the Galloway Hills RSA/Galloway Forest Park.	Motorists / Cyclists (B734)	**Medium**. This viewpoint is located on a section of the B734 which has fleeting views focused over the Stinchar Valley in the southerly direction of travel towards the smooth slopes and rounded upland summits of Cairn Hill/Pinbreck Hill/Craigenreoch. Motorists travelling on the B734 will have transient, short duration views, experienced in the southwards direction of travel and for both motorists and cyclists, viewer's attention is only partially on the landscape and primarily on the road ahead. Although there is no windfarm influence in the view, the location of Hadyard Hill Windfarm on both sides of the B734 means that it is the defining feature for motorists/cyclists in the preceding section of the road passing over the hills.	**Medium**. Motorists/ Cyclists (B734)

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.45f**.

- The proposed Development will be visible to the south/south-east of the view at short distance, approximately 4.2 km to the nearest turbine, with a limited amount of the proposed Development visible. Although there is theoretical visibility of 13 turbines, seven of the these are seen as blade tips only, due to the intervening landform screening. Coniferous forestry on the upper valley sides provide further screening of these blades, such that only six turbines are more prominent with their upper or full towers and rotors visible.
- The lateral spread of the proposed Development will occupy approximately 38° degrees of the horizontal field of view, however this is much reduced by the forestry screening of the turbines and is a limited portion of the wider view available to the observer.
- The proposed Development will be viewed on the smooth forested slopes of Pindonnan Craigs/Loch Hill/Mid Hill, on elevated ground, with the proposed turbines rising up the landform towards the sculpted, rounded summits of Pinbreck Hill/Craigenreoch/Rowantree Hill.
- The proposed turbines will appear to fit with the scale of the landscape, having an appropriate scale relationship with the large scale of the upland landform, while also resulting in some scale contrasts with the smaller scale features within the Stinchar Valley in the setting of Barr.
- The more rugged Galloway Hills/Merrick WLA are not visible due to the intervening landform and forest screening, so there is no interruption of this upland backdrop.
- The proposed Development will not be viewed in combination with any other windfarms in the view south/south-east from this viewpoint, although there are occasional views of the extremity of the blade tips of several Hadyard Hill turbines in the successive view to the north.

The magnitude of change to the view is assessed as **Medium-high.**

Significance of effect

The visual effect of the proposed Development on the view experienced by motorists and cyclists on the B734 approaching Barr (Ayrshire Alps route) from this location, is assessed largely as a project alone effect, which is **Significant, Long-term** and **Adverse**. The proposed Development results in a medium-high magnitude of change, with the effect of this change assessed as significant when combined with the medium sensitivity of the receptors at this location. The visual effect is considered adverse due to the introduction of this new form of development in a largely windfarm free view, the prominence and scale of the most visible turbines behind the sculpted rounded hills that form the distinctive upland skyline to the Stinchar Valley.

6.10.5.18 Viewpoint 20: New Barr Trail (near Whiteknowes)

Table 6.10.24 Viewpoint 20: New Barr Trail (near Whiteknowes)

Baseline conditions

Existing view (Figure 6.46b-c)

The viewpoint is located on the new Barr Trail footpath, near Whiteknowes. The new trail, starts and ends in the centre of Barr, is approximately 5 km in length forming a loop route between Barr, Whiteknowes and Doularg through forestry on Doularg Hill. The viewpoint is representative of views experienced by people walking on the trail. Commercial coniferous forestry plantation is the prevailing element in the view south/south-east, towards the Site, forming a simple view of plantation woodland, covering large parts of the foreground view and extending upslope, interspersed with occasional areas of moorland. The landform is mainly gently undulating across the foreground plateau/skyline but rises more steeply to the south-east to the smooth slopes and rounded summits of Cairn Hill/Pinbreck Hill/Craigenreoch. These steep landforms curtail the view in this direction, although the view extends over long distances to the south-west to the plateau moorlands of South Ayrshire and Galloway. Although there is there is theoretical visibility of windfarms such as Mark Hill, Arecleoch and Kilgallioch to the south-west, Kilgallioch and Mark Hill are largely screened by intervening landforms and plantations, with Arecleoch forming the main windfarm influence 14.9 km to the south-west in the view.

Value	Receptor	Susceptibility	Sensitivity
Medium. The view is not a specific view from a hill-top, but is accessible via the new trail from the Barr, which is a publicised local walk that is part of the local path network, within the Ayrshire Scenic Area and with parts of the visible landscape being within the Galloway Forest Park.	Walkers	**Medium-high**. The attention of walkers at this viewpoint is likely to be focused on the surrounding landscape. The purpose of walking the trail is partly to experience views of the landscape, and the path affords views of the Site in its immediate landscape context, which defines the skyline to the south-east and is directly experienced in the view. Existing wind turbine developments visible from this location moderate susceptibility as windfarm development is a familiar characteristic of the view, with Arecleoch Windfarm forming a wider windfarm landscape beyond the Site to the south-east.	**Medium-high**
	Residents (White Knowes)	**High.** Residents have static, long duration views from their primary place of residence, with views towards the Site in their outlook. Residential properties represented by this viewpoint are south facing, which could mean that principal views could be orientated towards the proposed Development, however intervening landforms and coniferous forestry moderate the susceptibility to change. Although there is already some visibility of the Arecleoch Windfarm, which ensures that the proposed Development would not appear as a completely new feature in views, the proposed Development would give rise to the possibility that turbines would be visible in a new part of the view and on more elevated closer ground that has a more direct influence on the setting of the residence.	**High**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.46f-g**.

- The proposed Development will be visible to the south-east of the view at short distance, approximately 3.0 km to the nearest turbine, with 12 proposed turbines visible, with seven of these visible as full towers and rotors on the upland skyline, and five turbines only visible as blade tips/rotors, due to the intervening landform and forestry screening.
- The lateral spread of the proposed Development will occupy approximately 60° degrees of the horizontal field of view, which is a notable portion of the view available to the observer.
- The proposed Development will be viewed on the smooth forested slopes of Pindonnan Craigs/Loch Hill/Mid Hill, on elevated ground, with the proposed turbines rising up the landform towards the sculpted, rounded summits of Pinbreck Hill/Craigenreoch/Rowantree Hill.
- The proposed turbines will appear to fit with the scale of the landscape, having an appropriate scale relationship with the prevailing landform, with the large extent of the forested plateau and height of the landform providing large scale landscape within which to accommodate the proposed Development. The elevation of the proposed turbines above the viewpoint increases their apparent scale.
- The proposed turbines will be viewed in a relatively simple and uniform land use of coniferous forestry plantation.
- The more sculpted Southern Upland hills and Galloway Hills/Merrick WLA are not visible due to the intervening landform and forest screening, so there is no interruption of this upland backdrop.
- The proposed Development will be viewed in succession with the distant Arecleoch Windfarm, extending windfarm influence into a new part of the view and at notably large scale, but relating consistently to the plateau and windfarm characteristics of the landscape.

The magnitude of change to the view is assessed as **High**.

Significance of effect

The visual effect of the proposed Development on the view experienced by walkers on the new Barr trail at this location and residents of the nearby dwelling at White Knowes, is assessed as a successive cumulative effect, which is **Significant, Long-term** and **Adverse**. The proposed Development results in a high magnitude of change, with the effect of this change assessed as significant when combined with the medium-high sensitivity of walkers and high sensitivity of residents at this location. The visual effect is considered adverse due to the introduction of this new form of development in a largely windfarm free section of the view, the prominence and scale of the most visible turbines, amplified by their elevated location and position near the distinct rounded hills that form the upland skyline.

6.10.5.19 Viewpoint 21: Barr Trail (Barr to Loch Doon Cycle Route)

Table 6.10.25 Viewpoint 21: Barr Trail (Barr to Loch Doon Cycle Route)

Baseline conditions

Existing view (Figure 6.47b-d)

The viewpoint is located on the Barr to Loch Doon cycle route, which is a National Cycle Network link to NCR7 and part of the Barr Trails. The viewpoint is representative of views experienced by people walking on the trail and cycling on the Barr to Loch Doon cycle route. The village of Barr promotes these trails, with various walks from the village through the Changue Forest, with paths joined to form circular routes that start and finish at the car park east of Barr village. The viewpoint is located at position on the trail approximately 1 km to the east of the car park, at a viewpoint marked on the Barr Trails map, near High Changue. This viewpoint offers an elevated view south across Changue Point in the mid-ground, to the steeply rising, smooth slopes and rounded summits of Cairn Hill/Pinbreck Hill/Craigenreoch, which form the defining skyline, preventing views to the Merrick hills beyond and rising gradually from west to east. Commercial coniferous forestry plantation is the prevailing element in the view south, towards the Site, forming a simple view of plantation woodland, covering large parts of the foreground view and extending upslope, with areas of moorland on the hill summits. The Changue Burn and Water of Gregg run along the valleys below but are largely indistinguishable within the blanket forest cover. The wider view to the west/south-west extends to the end of the Stinchar Valley, woodlands around Barr and to the foothills beyond, on which the Hadyard Hill Windfarm (4 km) and Assel Valley Windfarm (8 km) are visible.

Value	Receptor	Susceptibility	Sensitivity
Medium-high. The view is not a specific view from a hill-top, but is accessible via the trail from the Barr, which is a publicised local walk that is part of the local path network and a wider cycle route link to NCR7. The viewpoint is within the Ayrshire Scenic Area and parts of the visible landscape being within the Galloway Forest Park.	Walkers	**Medium-high**. The attention of walkers at this viewpoint is likely to be focused on the surrounding landscape. The purpose of walking the trail is partly to experience views of the landscape, and the path affords views of the Site in its immediate landscape context, which defines the skyline to the south and is directly experienced in the view. Existing wind turbine developments visible from this location moderate susceptibility as windfarm development is a familiar characteristic of the view, with Hadyard Hill Windfarm visible to the west	**Medium-high**

Assessment (including operational and under construction windfarms)

Magnitude of change

The predicted view of the proposed Development is shown in the photomontage in **Figure 6.47g-h**.

- The proposed Development will be visible to the south of the view at short distance, approximately 3.9 km to the nearest turbine, with 11 proposed turbines theoretically visible, however only one turbine is visible with full towers and rotors on the upland skyline, four with upper towers and rotors, and 3 turbines only visible as blade tips/rotors, with 3 further blade tips screened by forestry.
- The lateral spread of the proposed Development will occupy approximately 56° degrees of the horizontal field of view, which is a notable portion of the view available to the observer.
- The proposed Development will be viewed on the smooth forested slopes of Pindonnan Craigs/Loch Hill/Mid Hill, on elevated ground, with the proposed turbines rising up the landform towards the sculpted, rounded summits of Pinbreck Hill/Craigenreoch/Rowantree Hill.
- The proposed turbines will appear to fit with the scale of the landscape, having an appropriate scale relationship with the prevailing landform, with the large extent of the forested plateau and height of the landform providing large scale landscape within which to accommodate the proposed Development. The elevation of the proposed turbines above the viewpoint increases their apparent scale.
- The proposed turbines will be viewed in a relatively simple and uniform land use of coniferous forestry plantation.
- The more sculpted Southern Upland hills and Galloway Hills/Merrick WLA are not visible due to the intervening landform and forest screening, so there is no interruption of this upland backdrop.
- The proposed Development will be viewed in succession with the Hadyard Hill/Assel Valley/Tralorg Windfarm group, extending windfarm influence into a new part of the view and at notably large scale, but relating consistently to the upland skyline and windfarm characteristics of the landscape.

The magnitude of change to the view is assessed as **High**.

Significance of effect

The visual effect of the proposed Development on the view experienced by walkers and cyclists on the Barr to Loch Doon trail at this location, is assessed as a successive cumulative effect, which is **Significant, Long-term** and **Adverse**. The proposed Development results in a high magnitude of change, with the effect of this change assessed as significant when combined with the medium-high sensitivity of walkers and cyclists at this location. The visual effect is considered adverse due to the introduction of this new form of development in a largely windfarm free section of the view, the prominence and scale of the most visible turbines, amplified by their elevated location and position near the distinct rounded hills that form the upland skyline.

6.10.6 Technical Assessment – Visual Receptors

268. The preliminary assessment in **Table 6.10.3** to **Table 6.10.5** identified the principal visual receptors that require to be assessed in full as a result of the potential effects of the proposed Development, as follows:

- **Settlements**: Barr, Colmonell.
- **Transport routes**: A714, B734, B7027, Glasgow South Western Line connecting Ayr with Stranraer.
- **Recreational routes**: NCR7, Barr to Loch Doon Cycle Path (NCR7 link), Barr Trails and Southern Upland Way Section 3 The Moors (New Luce to Bargrennan) and Short Walks W7 and W8.

269. The visual effect of the proposed Development on residents of Barr and Colmonell is assessed alongside the representative viewpoints within these settlements, in **Section 6.10.5.8** (Viewpoint 9: Barr) and Section **6.10.5.14** (Viewpoint 16: Colmonell).

270. The visual effect of the proposed Development on people travelling on transport routes is assessed in the following **Section 6.10.6.1** and recreational routes in **Section 6.10.6.2**.

6.10.6.1 Transport Routes

6.10.6.1.1 A714

Table 6.10.26 Assessment of Sequential Effects on the A714

Baseline conditions

The A714 takes a 60 km route between Girvan in the north to Wigtown in the south, passing over the foothills to the south of Girvan, where it takes in views of Hadyard Hill Windfarm near Pinmore/Laigh Letterpin, before taking a low-lying route along the Duisk Valley to Barrhill. To the south of Barrhill, the road rises out of the valley, affording open views west of the forested plateau with windfarm landscapes formed around Arecleoch and Kilgallioch Windfarms, taking a route south across the forested plateau affording views of the rugged uplands of Galloway, before it drops into the wooded valley of the River Cree on its route to Newton Stewart. South of Newton Stewart, the A714 crosses the Machars to Wigtown, taking a low lying and undulating route to the west of the Cree Estuary. The theoretical visibility of the proposed Development is illustrated in the Sequential Visibility Analysis ZTV in Figure 6.22a. Viewpoint 10 (**Figure 6.36**) is representative of views from the main section of visibility of the proposed Development from the A714, between Bargrennan and Barrhill.

Distance	Value	Receptor	Susceptibility	Sensitivity
6.6km to the south-west at its closest.	Medium to Medium-low	Motorists	Medium	Medium

Assessment (including operational and under construction windfarms)

Magnitude of change

The theoretical visibility of the proposed Development is illustrated in the Sequential Visibility Analysis ZTV in Figure 6.22a, which indicates varying visibility with elevation of the road and its position within the Duisk and Cree Valleys. The magnitude of change arising from these sections of the A714, is assessed as follows, with reference to the distance along the route travelling south on the A714 from Girvan:

- 0-5 km No visibility or low visibility of 1-3 or 4-6 turbines between Girvan and Dinvin Motte.
- 5-8 km Short section of mix of high visibility of 16-18 near Dinvin Motte, dropping to lower visibility south through Pinmore.
- 8-12 km No visibility of the proposed Development between B734 junction and Pinwherry.
- 12-14 km Glimpsed views of 1-3 up to 16-18 turbines over 2 km sections to the south of Pinwherry.
- 14-22 km No theoretical visibility along Duisk Valley through Barrhill, with views further screened by valley woodlands.
- 22-25 km Theoretical visibility between Knockroon and Eldrig screened by dense mixed broadleaf and coniferous plantations along northern side of road.
- 25-30 km Views north of 16-18 turbines of the proposed Development, intermittently visible across the forested plateau approximately 7 km to the north on upland skyline beyond coniferous plantation, experienced approximately between Eldrig, Arnimean and Cairnderry as represented by Viewpoint 10 (**Figure 6.36**) and occasionally simultaneous with Mark Hill Windfarm.
- 30-41 km No visibility of the proposed Development from the A714 along the narrow wooded valley of the Cree, between Bargrennan and Penninghame which is low lying, and despite theoretical visibility, views are screened and contained by woodland in the valley alongside the road.
- 41-44 km Views north of 16-18 turbines of the proposed Development, over 3 km stretch between Penninghame and Newton Stewart, passing Chaloch, with the proposed Development located over 20 km to the north and partially visible on the distant upland skyline aligned in views along the A714 in the northbound direction of travel.
- 44-47 km No visibility of proposed Development through Newton Stewart
- 47-50 km Theoretical visibility of 16-18 turbines of the proposed Development approaching Newton Stewart, with actual views screened by intervening woodland and trees looking north along the road.
- 50-53 km No visibility of proposed Development across Moss of Cree
- 53-57 km Theoretical visibility of 16-18 turbines, between Moss of Cree and Wigtown, at long distances over 30 km to the north and intermittently screened by layers of intervening woodland alongside the road and in the distance.
- 57-61 km No visibility of the proposed Development to the south of Wigtown.

Taking into account the size, scale and extent of change, the magnitude of change resulting from the proposed Development on views experienced by motorists on the A714 is assessed as **Medium-high** over the two closest sections of the A714 with visibility, consisting of a short section southbound near Dinvin Motte/Laigh Letterpin (to the north of Pinmore) and a northbound stretch approximately between Cairnderry, Arnimean and Eldrig (as represented by Viewpoint 10). The magnitude of change arising from the proposed Development on views from the A714 is assessed as **Low** or **Negligible** from the remaining sections of the route with visibility and **None** over the many sections assessed as having no visibility of the proposed Development.

Significance of effect

The effect of the proposed Development on views experienced by motorists on the A714 is assessed as **Not Significant, Long-term** and **Neutral** on the A714 between Girvan and Dinvin Motte; between Pinmore and Eldrig; and to the south of Cairnderry. Although the proposed Development will be visible intermittently in the upland backdrop experienced in views from the road, it would not redefine the existing visual amenity experienced by people driving either north or south on these sections of the A714. Large stretches of these sections of the A714 have no visibility of the proposed Development at all, due to the screening by intervening landforms, often associated with the contained Duisk and Cree valleys, or there is woodland screening alongside the road or within the forested plateau to the north of the road, which limits views of the proposed Development. The effect of the proposed Development on views experienced by motorists on the A714 is assessed as **Significant, Long-term** and **Adverse** only two closest sections of the A714 with visibility, consisting of a short section southbound near Dinvin Motte/Laigh Letterpin (to the north of Pinmore) and a northbound stretch approximately between Cairnderry, Arnimean and Eldrig (as represented by Viewpoint 10). Views of the proposed Development form these sections will be aligned with the direction of travel, but set-back at distances of over 7 km from the road; but from where the proposed Development is assessed as having a defining effect on the visual amenity experienced by road users travelling on the A714.

Sequential visibility will also occur on motorists driving on the A714 that view multiple windfarms from different viewpoint positions along the road. The contribution of the proposed Development to the occurrence of sequential effects experienced on the A714 is assessed as occasional and **Not Significant**, since views of the proposed Development are largely restricted to the two main stretches of elevated ground identified, near Pinmore and Barrhill to Bargrennan, which already have views of other operational and under-construction windfarms, and are separated by stretches of the A714 with no views of windfarms within Duisk Valley and the Cree Valleys.

6.10.6.1.2 B734

Table 6.10.27 Assessment of Sequential Effects on the B734

Baseline conditions

The B734 takes a 32 km route, in two sections, one to the north of the proposed Development between Girvan and Pinmore/A714, and another to the west, between Pinwherry/A714 and the A77 near Ballantrae. From Girvan, the A714 takes a route east along the Water of Girvan, before climbing south-east across the foothills, through Hadyard Hill Windfarm, before dropping down into the Stinchar Valley at Barr, and taking an enclosed route along the Stinchar Valley to the A714 at Pinmore. To the west of the A714, the B734 takes a route from Pinwherry through Poundland and Colmonell along the Stinchar Valley to the A77 junction north of Ballantrae. The theoretical visibility of the proposed Development is illustrated in the Sequential Visibility Analysis ZTV in **Figure 6.22b**. Viewpoint 19 (**Figure 6.45**) is representative of views from the B734 approaching Barr/Stinchar Valley from the foothills; Viewpoint 18 is representative of glimpsed views from within the closest part of the Stinchar Valley to the north of the proposed Development and Viewpoint 16 is representative of views of the proposed Development from the B734 to the west, between Poundland and Colmonell.

Distance	Value	Receptor	Susceptibility	Sensitivity
4.1 km to the north at its closest.	Medium to Medium-low	Motorists	Medium	Medium

Assessment (including operational and under construction windfarms)

Magnitude of change

The theoretical visibility of the proposed Development is illustrated in the Sequential Visibility Analysis ZTV in Figure 6.22b, which indicates varying visibility with elevation of the road and its position within the Stinchar Valley. The magnitude of change arising from these sections of the A734, is assessed as follows, with reference to the distance along the route travelling south on the B734 from Girvan.

North section of B734:

- 0-8 km No visibility, or low visibility of 1-3 turbine blade tips, of the proposed Development for the majority of this stretch between Girvan and Hadyard Hill Windfarm, due to the screening by the foothills landforms.
- 8-11 km Views of between 4-6 and up to 13-15 turbines of the proposed Development on the upland skyline at distances of 5-6 km to the south, from the B734 between Penwhapple and Barr. Views experienced while passing Hadyard Hill Windfarm at close range and on approach to Barr, as represented by Viewpoint 19 (**Figure 6.45**).
- 11-15 km No visibility of the proposed Development between Barr and Traboyack.
- 15-16 km Short section with fleeting views south of the proposed Development near Cairnwhin/Lambdoughty, for only a short 1km section of the road, with partial visibility over the upland skyline and coniferous plantations at distances of approximately 4 km to the south, as represented by Viewpoint 18 (**Figure 6.44**).
- 16-19 km No visibility of the proposed Development between Merkland and Balligmorrie.
- 19-20 km Short section with theoretical visibility of 1-3 or 4-6 turbines of the proposed Development near Pinmore Mains, where the proposed turbine blade tips are largely screened in views by intervening coniferous plantations on the upper valley sides.

Western section of B734:

- 20-22 km No visibility or low visibility of the proposed Development between A714 Pinwherry and Poundland.
- 22-27 km Views aligned with the eastward direction of travel from the B734 along the Stinchar Valley between Colmonell and Poundland, at distances of 9-14 km to the east, as represented by Viewpoint 15 (**Figure 6.41**).
- 27-28 km Low theoretical visibility between Knockdolian and Colmonell.
- 28-31 km Intermittent theoretical visibility passing Knockdolian, with views aligned with the eastward direction of travel from the B734 along the Stinchar Valley.
- 31-32 km No visibility of the proposed Development passing Corseclays Farm to the A77.

Taking into account the size, scale and extent of change, the magnitude of change resulting from the proposed Development on views experienced by motorists on the B734 is assessed as **Medium-high** travelling south between Penwhapple and Barr, on the approach to Barr (as represented by Viewpoint 19); with glimpsed changes of **Low** magnitude between Barr and Pinmore along the Stinchar Valley (as represented by Viewpoint 18); and **Medium-low** travelling east between Colmonell and Poundland (as represented by Viewpoint 16). The magnitude of change arising from the proposed Development on views from the B734 is assessed as **None** from all remaining sections of the route with no visibility of the proposed Development.

Significance of effect

The effect of the proposed Development on views experienced by motorists on the B734 is assessed as **Not Significant, Long-term** and **Adverse** over the western section of B734 between the Knockdolian and Poundland, where views of the proposed Development will be aligned with the eastward direction of travel along the Stinchar Valley, particularly between Colmonell and Poundland, however at relatively long distances of 9-14 km and with variable visibility of the proposed turbines which will be partially behind the upland skyline (as represented by Viewpoint 16).

The effect of the proposed Development on views experienced by motorists on the B734 is also assessed as **Not Significant, Long-term** and **Neutral** over the closest section of the B734 between Pinmore and Barr along the Stinchar Valley, where the large majority of the route affords no visibility of the proposed Development at all, with just two short sections offering glimpsed views of partial turbines over the upland skyline and intervening coniferous forestry (as represented by Viewpoint 18).

The effect of the proposed Development on views experienced by motorists on the B734 is assessed as **Significant, Long-term** and **Adverse** only travelling south between Penwhapple and Barr, on the approach to Barr (as represented by Viewpoint 19), due to the introduction of this new form of development in a largely windfarm free view across the Stinchar Valley, and the prominence and scale of the most visible turbines behind the sculpted rounded hills that form the distinctive upland skyline to the Stinchar Valley.

Sequential visibility will also occur on motorists driving on the B734 that view multiple windfarms from different viewpoint positions along the road. The contribution of the proposed Development to the occurrence of sequential effects experienced on the B734 is assessed as frequent and **Significant** over the section over the foothills passing Hadyard Hill Windfarm and the approach to Barr, and occasional and **Not Significant** from the remainder of the B734 through the Stinchar Valley.

6.10.6.2 Recreational Routes

6.10.6.2.1 Southern Upland Way Section 3 (The Moors, New Luce to Bargrennan)

Table 6.10.28 Assessment of Sequential Effects on the SUW Section 3 (The Moors, New Luce to Bargrennan)

Baseline conditions

The SUW is located to the south of the study area (Figure 6.9b), crossing a variety of landscapes, ranging from the relatively remote stretches of upland and glens to settled valleys. In its official guide, the SUW is divided into sections starting and ending in a distinct village or settlement, with just Section 3 'The Moors' between New Luce and Bargrennan identified in the preliminary assessment as having potential for significant effects requiring further assessment. This section of the SUW passes over moorland, through commercial coniferous plantations and Kilgallioch Windfarm, on its route between New Luce and Bargrennan, rising up to high ground at Craig Airie Fell (Viewpoint 4) and Hill of Ochiltree (Viewpoint 6) which afford panoramic views. It includes several short walks (W6, W7 and W8) which use routes that are not on the SUW but connect to it to provide local circular routes (**Figure 6.11**).

Distance	Value	Receptor	Susceptibility	Sensitivity
12.6 km to the south-west at its closest	Medium	Walkers	Medium	Medium

Assessment (including operational and under construction windfarms)

Magnitude of change

The theoretical visibility of the proposed Development is illustrated in the Sequential Visibility Analysis ZTV in **Figure 6.22c**. The section between New Luce and Craig Airie Fell, including short walk W6, has been scoped out of the assessment due to it having no potential for significant effects, due to the lack of visibility of the proposed Development, and it passing through Kilgallioch Windfarm at close range (**Figure 6.22c**). Potential for significant effects due to visibility of the proposed Development are confined to stretches of Section 3 of the SUW with theoretical visibility of 16-18 turbines of the proposed Development, shown in **Figure 6.22c** between Craig Airie Fell and Bargrennan, with fleeting sections of lower visibility within areas of contained terrain.

Despite there being theoretical visibility over much of the stretch of the SUW between Craig Airie Fell and Bargrennan, this section of the SUW passes through extensive coniferous plantation forestry which will screen views from large parts of the route (**Figure 6.14c**) and limits visibility of the proposed development, resulting in a **Low** or **Negligible** change.

Visibility of the proposed Development will be restricted to the areas of more open or higher ground over Craig Airie Fell, as represented by Viewpoint 4 (**Figure 6.30**) and Hill of Ochiltree/Glenvernoch Fell, as represented by Viewpoint 6 (**Figure 6.32**).

The magnitude of change of the proposed Development in views from the SUW over approximately a 2 km stretch over Craig Airie Fell is assessed as **medium-low,** where the route of the SUW is located within Kilgallioch Windfarm and has large-scale prominent wind turbines in the immediate foreground that define the prevailing influence in the view, with the proposed Development located over 14 km away on the skyline to the north-east resulting in a low change to the view in this context.

The magnitude of change of the proposed Development in views from the SUW over approximately a 5 km stretch over Hill of Ochiltree/Glenvernoch Fell and approaching Bargrennan is assessed as **medium**, where the SUW affords views of the proposed Development approximately 14 km to the north on the upper edges of the forested plateau to the east of Mark Hill Windfarm, on the rising ground of Pindonnan Craigs and backdropped by the smooth slopes and rounded summits of Fell Hill/Cairn Hill/Pinbreck Hill/Craigenreoch/Rowantree Hill. While the proposed turbines appear on elevated ground to the fore of these sculpted Southern Upland hills, they avoid interrupting the view of the distinctively rugged hills of the Galloway Hills RSA/Merrick WLA, which extend further south in the wider view (**Figure 6.32d**) and will not replace these rugged upland hills as the dominant features in this view.

Significance of effect

The visual effect of the proposed Development on the views experienced by walkers on Section 3 of SUW on the stretches over Craig Airie Fell and Hill of Ochiltree/Glenvernoch Fell is assessed as an additional cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**. The proposed Development results in a medium magnitude of change, with the effect of this change assessed as not significant when combined with the medium sensitivity of the receptors walking on the SUW. The visual effect is considered adverse due to the contrast of the larger scale and elevated position of the proposed turbines compared to Mark Hill, together with the lateral spread of the proposed Development to the fore of the sculpted Southern Upland hills backdrop, but fundamentally the proposed Development would not redefine the existing visual amenity experienced by people walking on this section of the SUW, which passes directly through a windfarm landscape at close range. The proposed Development also avoids interruption of the most valued sections of the views from these parts of the SUW, over open moorlands of Lodens Moss/Eldrig Moss in the view from Craig Airie Fell (**Figure 6.31c)** and to the Galloway Hills/Merrick WLA in the view from Hill of Ochiltree (**Figure 6.32d**).

Large stretches of Section 3 of the SUW have no visibility of the proposed Development at all, due to the screening by intervening landforms, or screening within the coniferous forestry plantations, which prevent or limit longer distance views of the proposed Development, including between New Luce and Craig Airie Fell, and from the heavily forested sections between Derry Farm and Glenruther (south of Hill of Ochiltree), from where the effect of the proposed Development is assessed as **Not Significant**, **Long-term** and **Neutral**.

6.10.6.2.2 NCR7

Table 6.10.29 Assessment of Sequential Effects on NCR7

Baseline conditions				
In its national context NCR7 is a long-distance route from Sunderland to Inverness, over 600 miles long and passes through two National Parks before arriving in the Scottish Highlands at Inverness. NCR7 takes a 130 km route through the study area between Troon in the north and Gatehouse of Fleet in the south, passing along minor roads through the foothills and valleys of South Ayrshire, to the Nick of the Balloch, through Galloway along the Glentrool Forest road to the east of the Site to Glentrool, along the River Cree to Newton Stewart and Gatehouse of Fleet. The theoretical visibility of the proposed Development is illustrated in the Sequential Visibility Analysis ZTV in **Figure 6.22d**. Viewpoint 12 (**Figure 6.38**) and Viewpoint 17 (**Figure 6.43**) located on or near to NCR7 are representative of the views of the proposed Development experienced from the closest sections of the route.				
Distance	**Value**	**Receptor**	**Susceptibility**	**Sensitivity**
2.3 km to the east at its closest.	Medium	Cyclists	Medium	Medium
Assessment (including operational and under construction windfarms)				
Magnitude of change				
The theoretical visibility of the proposed Development is illustrated in the Sequential Visibility Analysis ZTV in **Figure 6.22d**, which indicates varying visibility with elevation of the roads along which NCR7 follows. The magnitude of change arising from NCR7, is assessed as follows, with reference to the distance along the route travelling south on NCR7 from the Troon: • 0-30 km either no theoretical visibility or visibility is limited by urban areas along the Ayrshire coast. • 30-40 km sections of higher theoretical visibility over the coastal foothills north of Maybole, however NCR7 is located at long distances of 20-30 km from the proposed Development. • 40-55 km no theoretical visibility between Maybole and Glenella Fell. • 55-60 km first main views of the proposed development from NCR7 on the upland skyline to the south, at distances of approximately 12 km-7 km, as represented by Viewpoint 12 (near Doughty Hill) (**Figure 6.38**). • 60-70 km limited or no theoretical visibility approaching and passing through Nick of the Balloch and the elevated Carrick Forest hills. • 70-75 km short section of low visibility up to high visibility of 16-18 turbines, for a short section passing Kirriereoch, as represented by Viewpoint 17 (**Figure 6.43**) before dropping down into the Water of Minnoch. • 75-85 km no theoretical visibility between Water of Minnoch and Bargrennan. • 85-95 km through the Cree Valley, with higher theoretical visibility but views from the route screened by woodland along the route. • 95-130 km no/negligible theoretical visibility between Newton Stewart and Gatehouse of Fleet. Taking into account the size, scale and extent of change, the magnitude of change resulting from the proposed Development on views experienced by cyclists on NCR7 is assessed as **Medium** from NCR7 near Doughty Hill and **Medium-high** over the closest section of the NCR7 near Kirriereoch. The magnitude of change arising from the proposed Development on views from the NCR7 is assessed as **Low** or **Negligible** from the remaining sections of the route with visibility and **None** over the many sections assessed as having no visibility of the proposed Development.				
Significance of effect				
The effect of the proposed Development on views experienced by cyclists on NCR7 is assessed as **Not Significant, Long-term** and **Adverse** on the NCR7 passing Doughty Hill to the north (as represented by Viewpoint 12) and **Significant** over the closest stretch of NCR7 passing Kirriereoch to the south-east of the proposed Development. Although the proposed Development will be visible intermittently in the upland backdrop experienced in views from the NCR7, it would not redefine the existing visual amenity experienced by people cycling either north or south for the majority of the route of NCR7 and only has a defining effect over a short section as it rises out of the Water of Minnoch near Kirriereoch. Large stretches of NCR7 have no visibility of the proposed Development at all, due to the screening by intervening landforms, long distances from the proposed Development or there is woodland screening alongside the route or within the forested plateaus, which limits views of the proposed Development.				

6.11 Cumulative Assessment

6.11.1 Overview of Approach

271. The cumulative assessment set out in the LVIA assesses the additional landscape and visual effects of the proposed Development, in the context of different baseline scenarios that make assumptions about other consented and proposed windfarms. The LVIA does not present an assessment of the overall or combined effect of all relevant windfarms on the landscape and visual resource. While the combined effects are of relevance to the decision maker, the Applicant does not have detailed information about each of the other projects that would allow a combined/overall effects assessment to be presented. The difficulty with combined/overall cumulative effects is acknowledged in GLVIA3 (Paragraph 7.18):

"…. assessing combined effects involving a range of different proposals at different stages in the planning process can be very complex. Furthermore, the assessor will not have assessed the other schemes and cannot therefore make a fully informed judgement. A more comprehensive overview of the cumulative effects must rest with the competent authority."

272. In considering the cumulative effects described within the LVIA, however, a broad statement relating to the overall or combined cumulative effect of multiple windfarms in the area has also been provided in the conclusions of the LVIA in **Section 6.13**.

273. The LVIA in **Section 6.9** and **Section 6.10** reports both the project alone and cumulative effects arising from the proposed Development against the existing baseline of operational and under-construction windfarms.

274. The cumulative assessment in **Section 6.11** reports on the likely significant cumulative effects of the proposed Development in relation to two potential future baseline scenarios, 'the consented scenario' and 'the application stage scenario'.

6.11.2 Consented Wind Energy Scenario

275. In addition to the operational wind energy developments, there is potential for further change to the landscape and visual baseline as a result of consented wind energy developments being built. The 'consented scenario' assesses the additional effects of the proposed Development in addition to windfarms already present in the landscape (operational/under construction windfarms) and windfarms that are likely to soon be present (consented windfarms). This scenario assumes that all consented wind energy developments have become part of a theoretical baseline situation. It does not repeat the findings of the operational scenario cumulative assessment but seeks to establish whether the addition of the proposed Development with consented windfarms results in new, different or additional effects, over and above those that were assessed in the operational scenario.

276. The effects identified are considered as having some likelihood to arise, on the assumption that consented windfarms will be built and become operational, however it is often the case that some consented windfarms are not ultimately built, which reduces the likelihood of consented scenario effects arising in full.

6.11.2.1 Consented Scenario Preliminary Assessment

277. Consented wind energy developments that are considered in the consented scenario are shown in **Figure 6.23** and considered in the preliminary assessment in **Table 6.11.1.**

278. In order to rationalise the windfarms that are included in the cumulative ZTV analysis and to focus on potential significant effects, a preliminary assessment is made of each consented windfarm's potential to combine with the proposed Development to materially influence the character of the principal landscape and visual receptors. This preliminary assessment is shown in **Table 6.11.1**

279. Table 6.11.1, which presents the separation distance from the proposed Development, number of turbines and turbine height for each consented windfarm, as well as a rationale for including or excluding them from the cumulative ZTV analysis (**Figures 6.25m-q**)**.** Windfarms included in the ZTV analysis have been grouped into

regional windfarm groupings and presented in **Figures 6.25m-q,** based on their geographic proximity/clustering, where multiple windfarms form a combined legible windfarm grouping in the landscape.

Table 6.11.1 Preliminary Assessment – Consented Windfarms (within 45 km)

Wind energy development	Group	Distance (km)	No. of Turbines	Tip Height (m)	Included in ZTV analysis
Chirmorie	10	12.3	21	146.5	Yes, due to potential interaction with principal LCTs (South Ayrshire LCT13 & LCT18c, D&G LCT17a & LCT21 and East Ayrshire LCT21); principal landscape designations (South Ayrshire SA and Galloway Hills RSA); Merrick WLA; principal visual receptors (Barr; Barrhill; A714; B734; SUW); and/or representative viewpoints (Viewpoints 1-22).
Stranoch 1	10	17.1	24	110 - 135	
Kirk Hill	11	15.1	8	110	
Chapleton Farm	11	16.0	3	67	
Gass	12	19.9	9	126.5	
Benbrack	13	23.0	18	130	
South Kyle	13	24.3	50	149.5	
Enoch Hill	13	28.7	16	130	
Windy Rig	13	30.1	12	125	
Pencloe Forest	13	30.6	19	125	
Sanquhar "Six" Community WF	13	37.6	6	130	
Overhill	14	28.5	10	149.9	
Knockshinnoch	None	25.9	2	126.5	No, due to location, scale and distance of single turbine/wind cluster
Bartlockhart Moor Extension	None	30.6	4	115	
Auchingee Farm	None	33.1	2	19.5	
Knockman Hill	None	34.4	5	81	
Taiglim Farm	None	36.9	1	34.2	
Trostie	None	44.5	1	53.71	
Polquhairn	None	28.1	9	100	No due to long distance (over 28 km) / limited visibility from principal receptors
Glenshimmeroch	None	32.5	10	149.9	No due to long distance (over 32 km) / limited visibility from principal receptors
Larbrax	None	39.4	8	100	No due to long distance (over 39 km) / limited visibility from principal receptors
Mochrum Fell	None	40.7	8	116.5 - 126.5	No due to long distance (over 40 km) / limited visibility from principal receptors
Sandy Knowe	None	41.0	24	125	
Lethans	None	43.3	22	136 - 176	
Glenmuckloch	None	44.6	8	133.5	

280. The pattern of consented windfarm development within the main influencing area within 20 km of the proposed Development, shown in **Figure 6.24**, is generally one of clustering of development near to operational windfarms, resulting in consolidation, extension and intensification of effects on the landscape and visual resource of areas that are already influenced by operational windfarms. There are no consented windfarms within 12 km of the proposed Development, as shown in **Table 6.11.1** and **Figure 6.24,** with the closest consented windfarm being Chirmorie, located 12.3 km to the south-west next to the operational Arecleoch Windfarm.

281. There are a number of other consented windfarms within 20 km, including Stranoch 1, which is located 17.1 km to the south-west, also adjacent to Arecleoch; and Gass Windfarm, which is 19.9 km to the south of the proposed Development between the operational Airies Farm and Artfield Fell Windfarms. The pattern of clustering of development near to operational windfarms is most evident in these areas of Plateau Moorland with Forestry and Windfarms, with the consented windfarms at Chirmorie, Stranoch 1 and Gass effectively perceived to create further coalescence between the operational windfarms to create an almost contiguous windfarm influenced landscape. The proposed Development will have combined visibility with Chirmorie, Stranoch 1 and Gass from receptors that are already influenced by the operational Arecleoch and Kilgallioch Windfarms, as illustrated in the Cumulative ZTVs in **Figure 6.25m** and **Figure 6.25o**.

282. Smaller scale consented windfarms at Kirk Hill and Chapleton Farm will also create a new windfarm cluster over 15 km to the north of the proposed Development, near the operational North Threave turbine, in the Maybole Foothills to the north of the dale of the Water of Girvan. The proposed Development will have combined visibility from limited areas due the screening provided by the uplands to the north of the Site, as shown in **Figure 6.25n**.

283. In the wider landscape of the study area, in the consented scenario, there will be an increase in the number of larger commercial windfarms that either overlap or coalesce and/or 'join-up' along the skyline. The effect is to create larger windfarm influenced landscapes, largely in the uplands, where the windfarm element is a prevailing or defining characteristic of the landscape. In particular this will occur within the parts of the Southern Uplands to the north-east of the study area, where the consented Benbrack, South Kyle, Enoch Hill, Pencloe Forest and Windy Rig Windfarms will combine with the operational Windy Standard, Windy Standard II and Afton Windfarms (**Figure 6.24**) to create a regional windfarm landscape in the Southern Uplands of East Ayrshire and Galloway, at distances of 23 – 31 km from the proposed Development. A similar, but less extensive effect will occur in the Southern Uplands of Nithsdale, where the consented Sanquhar Six and Sandy Knowe Windfarms will form a larger consolidated grouping with the operational Hare Hill, Hare Hill Extension, Sanquhar and Whiteside Hill Windfarms (**Figure 6.24**), at distances over 37 km from the proposed Development.

284. The proposed Development is visually separated from these Southern Uplands windfarm groupings by the elevated landforms of the Merrick and Rhins of Kells, which provide an effective visual buffer between the proposed Development and those in the Southern Uplands of East Ayrshire/Galloway. This visual screening provided by these uplands is illustrated in the Cumulative ZTV in **Figure 6.25p**, which shows very limited combined visibility of the proposed Development with Windfarm Group 13 (Benbrack, South Kyle, Enoch Hill, Windy Rig, Pencloe Forest, Sanquhar Six), which is limited to the upland ridges of the Merrick and Carrick Forest hills.

6.11.2.2 Consented Scenario Preliminary Assessment – LCTs

285. A preliminary assessment of the potential for significant additional cumulative effects on LCTs arising as a result of the changes caused by the proposed development with consented windfarms is presented in **Table 6.11.2**.

Table 6.11.2 Consented Scenario Preliminary Assessment – LCTs

LCT	Preliminary Assessment (Consented Scenario) (Refer to Cumulative ZTVs Figure 6.25b and 6.25m-q)
LCTs within which the proposed Development is located	
Plateau Moorlands with Forestry and Windfarms (18c)	Potential for significant cumulative effects that require further assessment.
Rugged Uplands with Loch and Forest (21) and East Ayrshire - Rugged Uplands - Lochs & Forest (21)	Potential for significant cumulative effects that require further assessment.
Neighbouring LCTs relatively close to the proposed Development	
South Ayrshire - Intimate Pastoral Valley (13)	Although there would be consented windfarms visible in other contextual LCTs these would be part of or more distant than the operational windfarm clusters, or visible from highly localised locations at a range of over 17 km thereby having a limited effect on the character of this LCT.

LCT	Preliminary Assessment (Consented Scenario) (Refer to Cumulative ZTVs Figure 6.25b and 6.25m-q)
	The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Dumfries and Galloway - Rugged Granite Upland (21)	ZTV for proposed Development across limited upland areas at distances of approximately 6 km. Although there would be consented windfarms visible in other contextual LCTs these would generally be part of or more distant than the operational windfarm clusters thereby having a limited effect on the character of this LCT. Where this is not the case the consented windfarms of Glenshimmeroch and Knockman Hill would be seen at a closer range than the operational Blackcraig and Wether Hill windfarms, as shown in Figure 6.25l, and would be seen to the east between these two sites at a range of approximately 18-19 km from the LCT. The Group 13 windfarms (Figure 6.25p) increases the windfarm influence that occurs as a result of the Group 8 windfarms (Figure 6.25k) to the north-east of the LCT. However, this occurs at a range of over 15 km from the LCT, influencing a relatively small part of the LCT and very limited areas that would also have visibility of the proposed Development as part of the LCT context. There would be an intensification of windfarm influence notable to the north-east, west and east of the LCT through the addition of the consented windfarms. Whilst this would be the case it is considered that this occurs at a sufficient distance from the LCT and the proposed Development and affecting largely different parts of the LCT through its visibility so that the proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
South Ayrshire LCTs	
Raised Beach Coast with Flat Fields & Headlands (1c)	Although there are consented windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 15 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Coastal Valley with Policies (5)	Although there are consented windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
South Ayrshire Lowlands (7d)	Although there are consented windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Lower Dale (11)	Although there are consented windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 13 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. This is in part due to the fact that the LCT is separated from the proposed Development by intervening Foothills with Forest and Windfarm LCT which has a more pronounced character influence. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Middle Dale (12)	Although there are consented windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 14 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. This is in part due to the fact that the LCT is separated from the proposed Development by intervening Foothills with Forest and Windfarm LCT which has a more pronounced character influence. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Upland Glens (14)	Although there are consented windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 17 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Foothills with Forest west of Doon Valley (17b)	Although there are consented windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 19 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. This is in part due to the fact that the LCT includes Dersalloch Windfarm The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment. .
Foothills with Forest and Windfarm (17c)	ZTV for proposed Development across limited upland areas at distances of approximately 5 km from areas that are characterised by windfarm development and forestry so that further windfarm development in a location outwith the LCT would be unlikely to alter its key characteristics. The consented windfarms of the Group13 cluster shown on Figure 6.25p would be visible from locations in the east of the LCT at a range of over 10 km. They would be seen in the foreground of views towards the operational Group 8 cluster as shown on Figure 6.25k so would not introduce a new windfarm component to that part of the wider context. Such visibility would generally occur within parts of the LCT where there would not be visibility of the proposed Development. As a result of these factors the proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Maybole Foothills (17d)	Although there are consented windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 15 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. This is in part due to the fact that the LCT is separated from the proposed Development by intervening Foothills with Forest and Windfarm LCT which has a more pronounced character influence. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Coastal Foothills (17e)	ZTV for proposed Development across limited upland areas at distances of approximately 8 km. Although there would be consented windfarms visible in other contextual LCTs these would be part of or more distant than the operational windfarm clusters thereby having a limited effect on the character of this LCT. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
South Ayrshire Southern Uplands (20b)	Although there are consented windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 15 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. This is in part due to intervening high ground which from some locations also includes the existing Arecleoch Windfarm. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Glenapp Coastal Farmland & the Policies (22)	Although there are consented windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 14 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. This is in part due to the fact that upland areas to the east, north-east and south have existing windfarm influence at closer proximity to the LCT. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Dumfries and Galloway LCTs	
Narrow Wooded River Valleys (4)	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Upper Dale (Valley) (9)	Although there are consented windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in

LCT	Preliminary Assessment (Consented Scenario) (Refer to Cumulative ZTVs Figure 6.25b and 6.25m-q)
	negligible cumulative interaction between these consented schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Plateau Moorland (17)	Although there are consented windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 14 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. This is in part due to the fact that areas of this LCT have been modified by existing windfarm development. Upland areas to the east, north, north-east and west have existing windfarm influence at closer proximity to the LCT. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Plateau Moorland with Forest (17a)	Although there would be consented windfarms visible in other contextual LCTs these would be part of or more distant than the operational windfarm clusters, or visible from highly localised locations at a range of over 17 km thereby having a limited effect on the character of this LCT. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment. This is in part due to the forest cover which intervenes in views of the proposed Development.
Foothills with Forest (18a)	Although there are consented windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
	Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Southern Uplands (19)	Although there are consented windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 15 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. This is in part due to intervening high ground which from some locations also includes the existing Arecleoch Windfarm. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Southern Uplands with Forest (19a)	Although there are consented windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Rugged Granite Upland with Forest (21a)	Although there would be consented windfarms visible in other contextual LCTs these would be part of or more distant than the operational windfarm clusters thereby having a limited effect on the character of this LCT. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment. This is in part due to the forest cover which intervenes in views of the proposed Development.
East Ayrshire LCTs	
Upland River Valley (10)	Although there are consented windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these consented schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Foothills with Forest west of Doon Valley (17b)	Although there are consented windfarms visible there is very limited theoretical visibility of the proposed Development due to intervening high ground which includes the existing Dersalloch Windfarm. At distances of over 18 km, as shown on Figure 6.17a, this results in very limited cumulative interaction between these consented schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.

6.11.2.3 Consented Scenario Preliminary Assessment – Landscape Designations

286. A preliminary assessment of the potential for significant additional cumulative effects on landscape designations arising as a result of the changes caused by the proposed development with consented windfarms is presented in **Table 6.11.3**.

Table 6.11.3 Consented Scenario Preliminary Assessment – Landscape Designations

Landscape Designations	Consented Windfarm Influence	Preliminary Assessment (Consented Scenario) (Refer to Cumulative ZTVs Figure 6.25b and 6.25m-q)
South Ayrshire SA (SA)	Potential for significant cumulative effects that require further assessment.	
Galloway Hills Regional Scenic Area (RSA)	Potential for significant cumulative effects that require further assessment.	
East Ayrshire Sensitive Landscape Area (SLA)	Almost no visibility from the entire East Ayrshire SLA within 20 km of the proposed Development (Loch Doon south to Mulwarchar), with just isolated patches of 1-3 turbine blade tips visible from the tops of several most elevated hills. Similarly low visibility of the consented windfarm groups to the south-west, such as Chirmorie, Stranoch 1 and Gass; with visibility of consented windfarms mainly consisting of those in the Southern Uplands to the east (Group 13 – Benbrack South Kyle, Enoch Hill and Pencloe), however there is minimal potential for cumulative interaction of this windfarm group with the proposed Development from the East Ayrshire SLA, due to the lack of visibility of the proposed Development itself. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.	

6.11.2.4 Summary of Consented Scenario Preliminary Landscape Assessment

287. The preliminary assessment has identified the LCTs and landscape designations that require to be assessed in full as a result of the potential cumulative effects of the proposed Development, these are listed as follows:

- **LCTs**: Plateau Moorlands with Forestry and Windfarms (18c); Rugged Uplands with Loch and Forest (21) (assessed further in **Section 6.11.2.5**).
- **Landscape designations**: South Ayrshire SA and Galloway Hills RSA (assessed further in **Section 6.11.2.5**).

6.11.2.5 Consented Scenario Technical Assessment - LCTs

288. A full technical assessment of the potential for significant additional cumulative effects on LCTs arising as a result of the changes caused by the proposed development with consented windfarms is presented in **Table 6.11.4**.

Table 6.11.4 Cumulative Effects on LCTs (Consented Scenario)

LCT	Cumulative Effect (Consented Scenario)
Plateau Moorlands with Forestry and Windfarms (18c)	In the consented scenario, the Plateau Moorland with Forest and Windfarm LCT (18c) is a 'with windfarm' landscape (as per the operational scenario), i.e. its baseline landscape character has been changed to such a degree by operational and consented windfarms, that windfarms (and forestry) form the prevailing characteristic of the plateau landscape, defining it as a 'with windfarm' LCT. The influence of windfarms in the baseline landscape to the south-west of the Duisk Valley will intensify with the addition of the consented Chirmorie Windfarm, partially within this LCT, and the addition of Stranoch and Gass in the adjacent Plateau Moorland with Forest (17a) of Galloway. The additional influence of these consented windfarms will be to intensify the influence and density of the Kilgallioch and Arecleoch Windfarms of the south-western part of this LCT, adding to the windfarm characterising effect on the forested plateau moorlands in this area. The slight difference in effect in the consented scenario arises from the addition of the proposed Development to this slightly increased windfarm influenced context, however there is very limited direct interaction between the proposed Development and these consented windfarms since they are subsumed within the operational windfarms. The consented windfarms would not interact with the proposed Development in any distinctly new or additional way, but primarily as part of the cumulative effect

LCT	Cumulative Effect (Consented Scenario)
	that is already experienced in the operational scenario (assessed in **Section 6.9.3.1**). The cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm (and the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with consented schemes. Although there would be consented windfarms visible in other contextual LCTs these would be part of or more distant than the operational windfarm clusters thereby having a limited additional effect on the character of this LCT in addition with the proposed Development. It is considered that the addition of the proposed Development in the consented scenario will not change the fundamental character of this 'with windfarm' landscape as it would not materially change the existing landscape character. In terms of cumulative effects in the consented scenario, it is considered that the addition of the proposed Development will result in a **Low** cumulative magnitude of change and **Not Significant** effect on the fundamental character of this 'with windfarm' landscape as it would not materially change the existing landscape character. Less extensive, but nevertheless **Significant** landscape effects may arise as a result of the addition of the proposed Development where it contrasts with the scale of the operational Mark Hill Windfarm and increases the influence of windfarms in the eastern part of the LCT.
Rugged Uplands with Loch and Forest (21) and East Ayrshire - Rugged Uplands - Lochs & Forest (21)	The proposed Development is located partly within this LCT and largely affects the character of the area around the site and the open west facing slopes of the west between Caerloch Dhu in the north, Maiden's Bed and Kirriereoch Hill in the south. Although there would be consented windfarms visible in other contextual LCTs these would generally be part of or more distant than the operational windfarm clusters thereby having a limited effect on the character of this LCT. Where this is not the case the Group 13 windfarms (Figure 6.25p) increases the windfarm influence that occurs as a result of the Group 8 windfarms (Figure 6.25k) to the east-north-east of the LCT as a result of their closer proximity (approximately 6 km) and larger scale. This occurs at relatively close range to the East Ayrshire part of the LCT but across very limited areas that would also have visibility of the proposed Development as part of the LCT context. There would be an intensification of windfarm influence notable to the east-north-east through the addition of the consented windfarms. Whilst this would be the case it is considered that this occurs at a sufficient distance from the LCT and the proposed Development and affecting largely different parts of the LCT through its visibility. The additional influence of consented windfarms will also intensify the influence and density of the Kilgallioch and Arecleoch Windfarms of the south-western in the adjacent Plateau Moorland with Forest and Windfarm LCT (18c), adding to the windfarm characterising effect on the forested plateau moorlands outwith and to the south-west of the rugged uplands. The slight difference in effect in the consented scenario arises from the addition of the proposed Development to this slightly increased windfarm influenced context, however there is very limited direct interaction between the proposed Development and these consented windfarms since they are subsumed within the operational windfarms. The proposed Development results in a **Low** cumulative magnitude of change and a **Not Significant** cumulative effect with consented windfarms

6.11.2.6 Consented Scenario Technical Assessment – Landscape Designations

289. A full technical assessment of the potential for significant additional cumulative effects on landscape designations arising as a result of the changes caused by the proposed development with consented windfarms is presented in **Table 6.11.5**.

Table 6.11.5 Cumulative Effects on Landscape Designations (Consented Scenario)

Landscape designation	Cumulative Effect (Consented Scenario)
South Ayrshire Scenic Area (SA)	In the consented scenario, the influence of windfarms in the baseline landscape of the Plateau Moorland with Forest and Windfarm LCT (18c) to the south-west of the Duisk Valley and south of the Stinchar Valley (the nearest parts of the South Ayrshire SA) will intensify with the addition of the consented Chirmorie, Stranoch 1 and Gass Windfarms, however they are largely subsumed behind and within the operational Arecleoch and Kilgallioch Windfarms. The difference in effect in the consented scenario arises from the additional change on the South Ayrshire SA arising as result of the proposed Development to this slightly increased windfarm influenced context in the plateau moorlands south of the Scenic Area, however there is limited direct interaction between the proposed Development and these consented windfarms on the character of the Scenic Area, since they are not located within the Scenic Area, but instead located at distance in the windfarm influenced landscape to the south; and there is generally very limited visibility of the consented windfarms within the Duisk and Stinchar Valleys. When these consented windfarms are visible from the more elevated ground of the Scenic Area, or from limited parts of the southern Duisk Valley, they also tend to be subsumed behind and within the operational windfarms. Areas of the southern Duisk Valley where the valley merges into the adjacent plateau are most likely to experience most additional cumulative effects with consented windfarms, where the consented Chirmorie Windfarm will effectively bridge the gap between Arecleoch and Kilgallioch, and the proposed Development will result in additional windfarm influence in the landscape outside the Scenic Area to the north-east, with an increased windfarm influence on either side of this part of the Duisk Valley/Scenic Area in the consented scenario. Ultimately this landscape outwith the Scenic Area is one in which windfarms already form a key characteristic and the cumulative effects of the proposed Development will continue to occur primarily as a result of its cumulative effect with the operational Mark Hill Windfarm, rather than as a new or additional effect with consented windfarms. In terms of cumulative effects with consented windfarms in the consented scenario, it is considered that the addition of the proposed Development will result in a **Medium-low** cumulative magnitude of change and a **Not Significant** effect on the fundamental character of the Ayrshire Scenic Area.
Galloway Hills Regional Scenic Area (RSA)	The additional influence of the consented Gass, Stranoch 1 and Chirmorie Windfarms will be to consolidate the clustering, intensify the density and visual linkage of the operational Arecleoch, Kilgallioch, Balmurrie Fell, Artfield Fell, Airies and Glenchamber Windfarms across the distant forested plateau to the west/south-west of the RSA, adding to the windfarm characterising effect in this landscape that is perceived to form an almost contiguous area of windfarm influenced landscape outwith the RSA. The slight difference in effect in the consented scenario arises from the addition of the proposed Development to this increased windfarm influenced context, however there is very limited direct interaction due to the position of the proposed Development and these consented windfarms, since they are largely subsumed within the operational windfarms. The cumulative effects of the proposed Development on the character of the Galloway Hills RSA, will continue to occur primarily as a result of its relationship with the operational Mark Hill and Hadyard Hill/Assel Valley Windfarms (and to a lesser degree, the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with consented schemes. There is also an additional influence of consented windfarms to the north of the RSA within the Carsphairn Forest, where the consented Benbrack, South Kyle, Enoch Hill, Pencloe Forest and Windy Rig Windfarms will combine with the operational Windy Standard, Windy Standard II and Afton Windfarms to increase the influence of windfarms on the character of the landscape on the northern edge of the RSA. The proposed development will compound an increase in proximity, scale and influence of windfarm development with these windfarms to the north of the RSA, with an increased influence to the west of the RSA, however the effects of the proposed Development occur on different parts of the RSA than the areas that will be influenced by the consented Southern Uplands windfarm grouping, so they do not tend to combine to influence the same areas of the RSA. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms is assessed as **Medium-low**, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.

6.11.2.7 Consented Scenario Preliminary Assessment – Viewpoints

290. A preliminary assessment of the potential for significant additional cumulative effects on viewpoints arising as a result of the changes caused by the proposed Development with consented windfarms is presented in **Table 6.11.6**.

Table 6.11.6 Consented Scenario Preliminary Assessment – Viewpoints

Ref	Viewpoint Name	Consented Windfarms Visible	Preliminary Assessment (Consented Scenario) (Refer to wirelines in Figures 6.27-6.49)
1	Chirmorie Cairn	Chirmorie (270 m) Kirk Hill (28.4 km Stranoch 1 (4.4 km)	Potential for significant cumulative effects that require further assessment.
2	Minor road to the south of Barrhill	Chirmorie (4.3 km) Stranoch 1 (9.1 km)	Potential for significant cumulative effects that require further assessment.
3	B7027 Knockycoid	Chirmorie (6 km)	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
4	SUW, Craig Airie Fell	Chirmorie (4.4 km) Gass (6 km) Kirk Hill (30.9 km) Stranoch 1 (6.6 km)	Although there will be consented windfarms visible, the viewpoint is located within Kilgallioch Windfarm and has large-scale prominent turbines in immediate foreground of the view, with no potential for the proposed Development to have further significant cumulative effects with consented windfarms - scoped out of further assessment.
5	Knockdolian	Chirmorie (10.1 km) Kirk Hill (24.5 km) Enoch Hill (49.8 km) Pencloe Forest (52.1 km) South Kyle (45.8 km)	Although there will be consented windfarms visible, the proposed Development will have minimal cumulative interaction with these consented schemes due to their long distance or position subsumed within existing operational windfarms. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
6	SUW, Hill of Ochiltree	Chirmorie (12.6 km) Gass (9.8 km) Stranoch 1 (15.7 km)	Potential for significant cumulative effects that require further assessment.
7	Auchensoul Hill	Benbrack (27.5 km) Chapleton Farm (10.6 km) Enoch Hill (32 km) Gass (26.8 km) Pencloe Forest (34.5 km) South Kyle (28.2 km) Stranoch 1 (28.2 km Kirk Hill (25.1 km)	Potential for significant cumulative effects that require further assessment.
8	The Merrick	Benbrack (18.3 km) Chapleton Farm (26.8 km) Chirmorie (23.8 km) Enoch Hill (24.8 km) Gass (25 km) Kirk Hill (25.1 km) Pencloe Forest (25.8 km) Sandy Knowe (35.5 km) Sanquhar "Six" Community (31.6 km) South Kyle (20.3 km) Stranoch 1 (28.2 km) Windy Rig (23.4 km)	Potential for significant cumulative effects that require further assessment.
9	Barr (Glenginnet Rd)	None	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
10	A714, Creeside	None	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
11	Mullwharchar	Benbrack (15.9 km) Enoch Hill (22.4 km) Gass (27.7 km) Pencloe Forest (23.3 km) South Kyle (17.9 km) Stranoch 1 (31.1 km) Windy Rig (20.6 km)	Although there will be consented windfarms visible, there is almost no visibility of the proposed Development, therefore negligible cumulative interaction between these consented schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
12	NCR7 Near Doughty Hill	Kirk Hill (8.5 km)	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
13	Shalloch on Minnoch	Benbrack (16.2 km) Chapleton Farm (21.5 km) Chirmorie (24.2 km) Enoch Hill (22.2 km) Gass (27.8 km) Kirk Hill (19.7 km) Pencloe Forest (23.8 km) Sanquhar "Six" Community (30.5 km) South Kyle (17.8 km) Stranoch 1 (28.8 km)	Potential for significant cumulative effects that require further assessment.
14	Corserine	Benbrack (13.7 km) Chapleton Farm (31.1 km) Enoch Hill (20.2 km) Gass (31.2 km) Kirk Hill (29.2 km) Pencloe Forest (20.6 km) Sanquhar "Six" Community (25.4 km) South Kyle (15.7 km) Stranoch 1 (35.3 km)	Potential for significant cumulative effects that require further assessment.
15	Colmonell	None	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
16	Byne Hill	Chapleton Farm (12 km) Chirmorie (16.2 km) Kirk Hill (12.8 km)	Although there will be consented windfarms visible, the proposed Development will have minimal cumulative interaction with these consented schemes due to their long distance or position subsumed within existing operational windfarms. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
17	Kirriereoch Picnic Site	Chirmorie (18.5 km)	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
18	B734 Stinchar Valley	Chirmorie (14.9 km)	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.

Ref	Viewpoint Name	Consented Windfarms Visible	Preliminary Assessment (Consented Scenario) (Refer to wirelines in Figures 6.27-6.49)
19	B734 Approach to Barr	None	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
20	New Barr Trail (near White Knowes)	Chirmorie (16.1 km) Stranoch 1 (21 km)	Although there will be theoretical visibility of consented windfarms, the visibility of Stranoch 1 and Chirmorie is of the extremity of blade tips, likely to be screened by coniferous forestry plantations, at long distance and subsumed within existing operational windfarms, such that there will be minimal cumulative interaction with the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
21	Barr Trail (Barr to Loch Doon Cycle Route)	None	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
22	Brown Carrick Hill	Benbrack (28.5 km) Chapleton Farm (11.5 km) Chirmorie (38.6 km) Enoch Hill (28.4 km) Kirk Hill (10.3 km) Pencloe Forest (32.3 km) Sanquhar "Six" Community (40.1 km) South Kyle (27.6 km) Stranoch 1 (43.4 km)	Although there will be consented windfarms visible, the proposed development is located at long distance, at 26.1km, behind other operational windfarms (Hadyard Hill/Assel Valley/Tralorg grouping) with limited influence and cumulative interaction between consented schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.

6.11.2.8 Consented Scenario Preliminary Assessment – Visual Receptors

291. A preliminary assessment of the potential for significant additional cumulative effects on visual receptors arising as a result of the changes caused by the proposed development with consented windfarms is presented in **Table 6.11.7**.

Table 6.11.7 Consented Scenario Preliminary Assessment – Visual Receptors

Visual Receptor	Preliminary Assessment (Consented Scenario) (Refer to Cumulative ZTVs Figure 6.25b and 6.25m-q)
Settlements	
Barr	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Colmonell	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Barrhill	No consented windfarms visible and no visibility of the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Pinmore	No consented windfarms visible and no visibility of the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Pinwherry	No consented windfarms visible and no visibility of the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Poundland	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Newton Stewart	No consented windfarms visible and no visibility of the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Transport Routes (see Figures 6.26a-b)	
A714	Potential for significant cumulative effects that require further assessment.
B734	Potential for significant cumulative effects that require further assessment.
B7027	Theoretical visibility of the proposed Development and consented windfarms is often restricted by the extent of forest cover both immediately alongside the road, and over the extensive plateau skyline to the north; with only occasional more open views of the proposed Development from northern parts of B7027 across the upper parts of the Duisk Valley. The additional influence of the consented Gass, Stranoch 1 and Chirmorie Windfarms will be to intensify the influence and density of the Kilgallioch and Arecleoch Windfarms on the plateau to the west of the road, adding to the windfarm characterising effect on the forested plateau moorlands in this direction. There is very limited direct interaction between the proposed Development and these consented windfarms in views since they are either screened by intervening forestry/landforms or when visible, are subsumed within the operational windfarms. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Glasgow South Western Line (Ayr – Stranraer)	Potential for significant cumulative effects that require further assessment.
Recreational Routes/Receptors	
NCR7	NCR7 is located at long distance and has limited visibility of consented windfarms, with limited potential interaction in views of the proposed Development. No potential for significant cumulative effects that require further assessment.
Barr to Loch Doon Cycle Path (NCR7 link)	Although there is theoretical visibility of consented windfarms, this is restricted to high ground to the north of Larg Hill/Balloch Hill, where actual visibility from the trail is largely screened by dense plantation forestry and there is limited combined visibility with the proposed Development. No visibility of consented windfarms from representative viewpoint (Viewpoint 21). The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Barr Trails	Although there will be theoretical visibility of consented windfarms, the visibility of Stranoch 1 and Chirmorie is of the extremity of blade tips, likely to be screened by coniferous forestry plantations, at long distance and subsumed within existing operational windfarms, such that there will be minimal cumulative interaction with the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
SUW Section 3 The Moors (New Luce to Bargrennan) Short Walks W7, W8)	Potential for significant cumulative effects that require further assessment.
SUW Section 4 The Galloway Hills (Bargrennan to St Johns Town of Dalry) Short Walks W9, W11)	Although there is theoretical visibility of consented windfarms from this section of the SUW, there practically no visibility of the proposed Development from this section of the SUW, with only theoretical views of 1-3 blade tips in areas where woodland/plantation forestry prevents views from the path on the ground. There is negligible cumulative interaction between the proposed Development and other consented schemes from this section of the SUW. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.

Visual Receptor	Preliminary Assessment (Consented Scenario) (Refer to Cumulative ZTVs Figure 6.25b and 6.25m-q)
Galloway Forest Dark Sky Park	There are no consented windfarms above 150m blade tip height requiring visible aviation lighting, therefore the proposed Development has no potential for further significant cumulative night-time visual effects with consented windfarms - scoped out of further assessment.

6.11.2.9 Summary of Consented Scenario Preliminary Visual Assessment

292. The preliminary assessment has identified the viewpoints and principal visual receptors that require to be assessed in full as a result of the potential cumulative effects of the proposed Development, these are listed as follows:

- **Viewpoints**: 1, 2, 6, 7, 8, 13, 14 (assessed further in **Section 6.11.2.9.1**).
- **Settlements**: None.
- **Transport routes**: A714, B734, Glasgow South Western Line (Ayr – Stranraer) (assessed further in **Section 6.11.2.9.2**).
- **Recreational routes**: SUW Section 3 The Moors (New Luce to Bargrennan) Short Walks W7, W8) assessed further in **Section 6.11.2.9.2**).

6.11.2.9.1 Consented Scenario Technical Assessment - Viewpoints

293. A full technical assessment of the potential for significant additional cumulative effects on viewpoints arising as a result of the changes caused by the proposed Development with consented windfarms is presented in **Table 6.11.8**.

Table 6.11.8 Cumulative Effects on Viewpoints (Consented Scenario)

Ref	Viewpoint	Cumulative Effect (Consented Scenario)
1	Chirmorie Cairn **Figure 6.27b-e**	The additional influence of the consented Chirmorie and Stranoch 1 windfarms will have a further characterising effect on the plateau moorlands that surround the viewpoint and would be highly visible in the view, such that windfarms form the prevailing influence of the immediate landscape setting, extending the operational Arecleoch Windfarm towards the viewpoint at close proximity and bridging the gap between Arecleoch and Kilgallioch in the view west/south-west. In the consented scenario, the changes arising from the proposed Development will occur in the wider context of an immediate landscape that is more influenced by windfarms. The difference in effect in the consented scenario is to reduce the undeveloped space between the edge of Chirmorie and the proposed Development on the upland skyline to the north-east, increasing the influence of windfarm development when viewed 'in succession' around the view. When considering the addition of the proposed Development to the view in the consented scenario, the scale of change predicted for the proposed Development compared to the operational baseline is slightly increased due to the further intensification of windfarm development within the adjacent windfarm landscape, the reduction in the undeveloped skyline and the extension of windfarm influence outwith the immediate plateau beyond Mark Hill. The proposed Development is, however, located at distance 12.9 km to the north-east, behind Mark Hill Windfarm and its cumulative effects continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm, rather than as a new or additional effect with consented schemes. When considering the proposed Development within the consented scenario the key factors of magnitude considered against the operational baseline still apply. The scale of change predicted for the proposed Development in the consented scenario is considered to increase slightly to alter the magnitude of change category assessed against the operational baseline. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms is assessed as **Medium**. The additional cumulative visual effect of the proposed Development with consented windfarms on the view experienced from this location is assessed as an in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
2	Minor road to the south of Barrhill **Figure 6.28b-e**	The additional influence of the consented Chirmorie windfarm will be to extend the influence of Kilgallioch Windfarm on the forested skyline to the south-west of the view, having a further windfarm characterising effect on the forested plateau moorlands in this direction. The difference in effect in the consented scenario arises from the addition of the proposed Development to this slightly increased windfarm influenced context to the south-west, when viewed 'in succession' around the view, however there is very limited direct interaction between the proposed Development and these consented windfarms in the view since they are subsumed within the operational windfarms. The cumulative effects of the proposed Development continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm, rather than as a new or additional effect with consented schemes. Whilst the scale of change predicted for the proposed Development in the consented scenario is considered to increase slightly, due to the intensification of windfarm development, this slight increase would not be enough to alter the magnitude of change category assessed against the operational baseline. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms is assessed as **Low**. The additional cumulative visual effect of the proposed Development with consented windfarms on the view experienced from this location is assessed as an in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
6	SUW, Hill of Ochiltree **Figure 6.32b-e**	The additional influence of the consented Gass, Stranoch 1 and Chirmorie Windfarms will be to slightly intensify the influence and density of the Kilgallioch and Arecleoch Windfarms on the plateau to the west of the view, adding slightly to the windfarm characterising effect on the forested plateau moorlands in this direction. The slight difference in effect in the consented scenario arises from the addition of the proposed Development to this slightly increased windfarm influenced context to the west, when viewed 'in succession' around the view, however there is very limited direct interaction between the proposed Development and these consented windfarms in the view since they are subsumed within the operational windfarms. The cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm (and the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with consented schemes. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms is assessed as **Negligible**. The additional cumulative visual effect of the proposed Development with consented windfarms on the view experienced from this location is assessed as an in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
7	Auchensoul Hill **Figure 6.33b-e**	The additional influence of the consented Gass, Stranoch 1 and Chirmorie Windfarms will be to slightly intensify the density and visual linkage of the Kilgallioch and Arecleoch Windfarms in the distant plateau to the south of the view, adding slightly to the windfarm characterising effect in the forested plateau moorlands in this direction. The slight difference in effect in the consented scenario arises from the addition of the proposed Development to this slightly increased windfarm influenced context when viewed 'in succession' around the view, however there is very limited direct interaction between the proposed Development and these consented windfarms in the view since they are subsumed within the operational windfarms. The cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm (and the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with consented schemes. There is also a slight additional influence of consented windfarms on the 'in succession' view to the east, where the consented Benbrack, South Kyle, Enoch Hill, Pencloe Forest and Windy Rig Windfarms will combine with the operational Windy Standard, Windy Standard II and Afton Windfarms to increase the influence of windfarms in the Southern Uplands, at long distances over 27 km from the viewpoint. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms is assessed as **Low**. The additional cumulative visual effect of the proposed Development with consented windfarms on the view experienced from this location is assessed as an in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
8	The Merrick **Figure 6.34b-e**	The additional influence of the consented Gass, Stranoch 1 and Chirmorie Windfarms will be to consolidate the clustering, intensify the density and visual linkage of the operational Arecleoch, Kilgallioch, Balmurrie Fell, Artfield Fell, Airies and Glenchamber Windfarms across the distant forested plateau to the west/south-west of the view, adding to the windfarm characterising effect in this landscape that is perceived to form an almost contiguous area of windfarm influenced landscape. The slight difference in effect in the consented scenario arises from the addition of the proposed Development to this increased windfarm influenced context when viewed 'in combination' in the view west, however there is very limited direct interaction due to the position of the proposed Development

Ref	Viewpoint	Cumulative Effect (Consented Scenario)
		and these consented windfarms in the view, since they are subsumed within the operational windfarms. The cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill and Hadyard Hill/Assel Valley Windfarms (and to a lesser degree, the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with consented schemes. There is also an additional influence of consented windfarms on the 'in succession' view to the east, where the consented Benbrack, South Kyle, Enoch Hill, Pencloe Forest and Windy Rig Windfarms will combine with the operational Windy Standard, Windy Standard II and Afton Windfarms to increase the proximity and influence of windfarms in the Southern Uplands on the view, at distances over 18 km from the viewpoint. The proposed development will compound an increase in proximity and scale of visible windfarm development in succession with these windfarms to the east. Further separate consented windfarms will also be apparent at regular intervals around the panorama, including Overhill (27.5 km to the east) and Kirk Hill (25.1 km to the north-west). The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms in the main viewing direction to the west is assessed as **Low**. The 'in-succession' magnitude of change arising as a result of the proposed development with consented windfarms in the wider view, particularly those to the east, is assessed as **Medium-low**. The additional cumulative visual effect of the proposed Development with consented windfarms on the view experienced from this location is assessed as both simultaneous and in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
13	Shalloch on Minnoch **Figure 6.39b-e**	The additional influence of the consented Gass, Stranoch 1 and Chirmorie Windfarms will be to consolidate the clustering, intensify the density and visual linkage of the operational Arecleoch, Kilgallioch, Balmurrie Fell, Artfield Fell, Airies and Glenchamber Windfarms across the distant forested plateau to the south-west of the view, adding to the windfarm characterising effect in this landscape that is perceived to form an almost contiguous area of windfarm influenced landscape. The slight difference in effect in the consented scenario arises from the addition of the proposed Development to this increased windfarm influenced context when viewed 'in combination' in the view west, however there is very limited direct interaction due to the position of the proposed Development and these consented windfarms in the view, since they are subsumed within the operational windfarms. The cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill and Hadyard Hill/Assel Valley Windfarms (and to a lesser degree, the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with consented schemes. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms in the main viewing direction to the west is assessed as **Low**. There is also an additional influence of consented windfarms on the 'in succession' view to the east, where the consented Benbrack, South Kyle, Enoch Hill, Pencloe Forest and Windy Rig Windfarms will combine with the operational Windy Standard, Windy Standard II and Afton Windfarms to increase the proximity and influence of windfarms in the Southern Uplands on the view, at distances over 16 km from the viewpoint. The proposed development will compound an increase in proximity and scale of visible windfarm development in succession with these windfarms to the east. Further separate consented windfarms will also be apparent at regular intervals around the panorama, including Overhill (23.5 km to the east) and Kirk Hill (19.7 km to the north-west). The 'in-succession' magnitude of change arising as a result of the proposed development with consented windfarms in the wider view, particularly those to the east, is assessed as **Medium-low**. The additional cumulative visual effect of the proposed Development with consented windfarms on the view experienced from this location is assessed as both simultaneous and in-succession cumulative effects, which are **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
14	Corserine **Figure 6.40b-e**	The additional influence of the consented Gass (31.2 km) and Stranoch 1 (35.3 km) Windfarms will be very limited due to their long distance from the viewpoint and their position subsumed within the operational Airies/Glenchamber Windfarm and operational Kilgallioch Windfarm. The slight difference in the effect in the consented scenario arises from the addition of the proposed Development to this very minimally increased windfarm influenced context in the main view direction to the west, however there is very limited direct interaction due to the position of the proposed Development and these consented windfarms in the view, since they are subsumed within the operational windfarms. The cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill and Kilgallioch Windfarms (and to a lesser degree, the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with consented schemes. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms in the main viewing direction to the west is assessed as **Negligible**. There is also an additional influence of consented windfarms on the 'in succession' view to the east, where the consented Benbrack, South Kyle, Enoch Hill, Pencloe Forest and Windy Rig Windfarms will combine with the operational Windy Standard, Windy Standard II and Afton Windfarms to increase the proximity and influence of a wider windfarm landscape in the Southern Uplands on the view, at distances over 13 km from the viewpoint. The proposed development will compound an increase in proximity and scale of visible windfarm development in succession with these windfarms to the east. Further separate consented windfarms will also be apparent at regular intervals around the panorama, including Overhill (24.7 km to the east) and Kirk Hill (29.2 km to the north-west). The 'in-succession' magnitude of change arising as a result of the proposed development with consented windfarms in the wider view, particularly those to the east, is assessed as **Medium-low**. The additional cumulative visual effect of the proposed Development with consented windfarms on the view experienced from this location is assessed as both simultaneous and in-succession cumulative effects, which are **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.

6.11.2.9.2 Consented Scenario Technical Assessment – Visual Receptors

294. A full technical assessment of the potential for significant additional cumulative effects on visual receptors arising as a result of the changes caused by the proposed development with consented windfarms is presented in **Table 6.11.9**.

Table 6.11.9 Cumulative Effects on Visual Receptors (Consented Scenario)

Visual Receptor	Cumulative Effect (Consented Scenario)
Transport Routes	
A714	The theoretical visibility of the proposed Development is illustrated in the Sequential Visibility Analysis ZTV in **Figure 6.22a** and a sequential analysis with other windfarms is presented in **Figure 6.26a**. Two key sections of the A714 have been identified as having potential for higher levels of change: • short section southbound near Dinvin Motte/Laigh Letterpin (hills near Pinmore); and • northbound approximately between Cairnderry, Arnimean and Eldrig (between Bargrennan and Barrhill). These sections occur over the most elevated sections of the A714 and due to their elevation, afford visibility of more operational windfarm groupings in the area (Figure 6.26 graph). There is, however, no visibility of any consented windfarms from the stretch near Pinmore. The consented Chirmorie, Stranoch 1 and Gass Windfarms will be visible from the A714 between Bargrannan and Barrhill, as it passes over elevated ground of the forested plateau moorlands. The additional influence of these consented windfarms will be to slightly intensify the density and visual linkage of the Kilgallioch and Arecleoch Windfarms in the plateau viewed to the west/south-west from this section of the A714, adding slightly to the windfarm characterising effect in the forested plateau moorlands in this direction. The slight difference in effect in the consented scenario arises from the addition of the proposed Development in fleeting views over 6-7 km to the north of the road between Cairnderry, Arnimean and Eldrig, 'in succession' around the view, however there is very limited direct interaction between the proposed Development and these consented windfarms in the view since they are subsumed within the operational windfarms already present to the west/south-west. The cumulative effects of the proposed Development from this closest section of the A714 will continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm (and the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with consented schemes. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms in views experienced from the A714 is assessed as **Low**. The additional cumulative visual effect of the proposed Development with consented windfarms on the views experienced from this section of the A714 between Bargrennan and Barrhill is assessed as an in-

Visual Receptor	Cumulative Effect (Consented Scenario)
	succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views. The combined effect of the proposed Development with consented windfarms on views from the remainder of the A714 is assessed as **Negligible** and **Not Significant**. Sequential visibility will also occur on motorists driving on the A714 that view multiple windfarms from different viewpoint positions along the road. The contribution of the proposed Development to the occurrence of sequential effects experienced on the A714 is assessed as occasional and **Not Significant**, since views of the proposed Development are largely restricted to the two main stretches of elevated ground identified, near Pinmore and Barrhill to Bargrennan, which already have views of other consented windfarms, and are separated by stretches of the A714 with no views of windfarms within Duisk Valley and the Cree Valleys.
B734	The theoretical visibility of the proposed Development is illustrated in the Sequential Visibility Analysis ZTV in **Figure 6.22b** and a sequential analysis with other windfarms is presented in **Figure 6.26b**. There is very limited visibility of consented windfarms from the B734, with the Chirmorie, Stranoch and Gass Windfarms not visible from the route, due to its containment within the Stinchar Valley and their position at distance in the plateau uplands to the south. There will be visibility of the consented Kirk Hill and Chapleton Farm Windfarm grouping from the B734 between Girvan and Old Dailly, however there is no combined visibility with the proposed Development from this section as it is not visible. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms in views experienced from the B734 is assessed as **Negligible** and the effect **Not Significant**, **Long-term** and **Neutral**. Sequential visibility will also occur on motorists driving on the B734 that view multiple windfarms from different viewpoint positions along the road. The occurrence of sequential effects experienced on the B734 with consented windfarms is assessed as occasional and **Not Significant**, since views of the consented Kirk Hill and Chapleton Farm Windfarm between Girvan and Old Dailly are quite separate from those of the proposed Development approaching Barr.
Glasgow South Western Line (Ayr – Stranraer)	Limited visibility of the proposed Development and consented windfarms from the line along the Duisk Valley, with views screened further by a combination of woodlands within the valley alongside the line, railway cuttings and coniferous plantations on the upper eastern valley sides. Between Forest Road (north of Barrhill) and Barrhill Station the proposed Development will be viewed intermittently to the east, behind Mark Hill Windfarm, with limited combined visibility of consented windfarms. The line passes directly through Chirmorie Windfarm and passes close to Stranoch 1 Windfarm, however there will be no combined views of the proposed Development from this stretch, due to the alignment of the direction of travel and the enclosure of line by landform as it passes down into the Cross Water of Luce. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms in views experienced from the Glasgow South Western Line (Ayr – Stranraer) is assessed as **Low** and the additional cumulative effect **Not Significant**, **Long-term** and **Neutral**. Sequential visibility will also occur in views experienced by rail passengers that view multiple windfarms from different positions along the line. The contribution of the proposed Development to the occurrence of sequential effects experienced on the line, in sequence with other operational and consented windfarms, is assessed as frequent and **Significant**.
Recreational Routes	
SUW Section 3 The Moors (New Luce to Bargrennan) Short Walks W7, W8)	Views of the consented Stranoch 1 and Chirmorie Windfarms are experienced from the SUW behind and through the operational Kilgallioch Windfarm that occupies the immediate foreground of the views, at close range with large-scale prominent turbines forming the prevailing foreground influence of views between Cairn na Gath, Craig Airie Fell and Derry Farm. There is very limited direct interaction between the proposed Development and these consented windfarms in the view, or potential for further significant cumulative effects, since they are subsumed behind the foreground operational windfarm, and do not have a material influence on the cumulative effects arising from the proposed Development. The cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm (and the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with consented schemes. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms in views experienced from the SUW Section 3 (New Luce to Bargrennan) is assessed as **Low** and the effect **Not Significant**, **Long-term** and **Neutral**.

6.11.3 Application wind energy scenario

295. Application stage wind energy developments that are considered in the application stage scenario are shown in **Figure 6.23** and considered in the preliminary assessment in **Table 6.11.10**. In the application stage scenario, a further hypothetical scenario is also assessed, that not only takes into account the operational, under construction and consented windfarms, but also those that have valid (but as yet underdetermined) planning applications.

296. The 'application stage scenario' assesses the additional effects of the proposed Development in addition to windfarms already present in the landscape (operational/under construction windfarms), windfarms that are likely to soon be present (consented windfarms) and application stage windfarms. This scenario assumes that all application stage wind energy developments have become part of a theoretical baseline situation. It does not repeat the findings of the operational scenario and consented scenario cumulative assessments but seeks to establish whether the addition of the proposed Development with application stage windfarms results in new, different or additional effects, over and above those that were assessed in the operational scenario.

297. The effects identified in the application stage are considered as being less likely to arise, as it is unlikely that all application stage windfarms will gain consent or become operational, which reduces the likelihood of application stage scenario effects arising in full.

6.11.3.1 Application Stage Scenario Preliminary Cumulative Assessment

298. In order to rationalise the windfarms that are included in the cumulative ZTV analysis and to focus on potential significant effects, a preliminary assessment is made of each application stage windfarm's potential to combine with the proposed Development to materially influence the character of the principal landscape and visual receptors. This preliminary assessment is shown in **Table 6.11.10**, which presents the separation distance from the proposed Development, number of turbines and turbine height for each consented windfarm, as well as a rationale for including or excluding them from the cumulative ZTV analysis (**Figures 6.25r-w**). Windfarms included in the ZTV analysis have been grouped into regional windfarm groupings, as shown in **Table 6.11.10** and presented in **Figures 6.25m-q,** based on their geographic proximity/clustering, where multiple windfarms form a combined legible windfarm grouping in the landscape.

Table 6.11.10 Preliminary Assessment – Application Stage Windfarms (within 45 km)

Wind energy development	Group	Distance (km)	No. of Turbines	Tip Height (m)	Included in ZTV analysis
Millenderdale	15	8.6	5	110	Yes, due to potential interaction with principal LCTs (South Ayrshire LCT13 & LCT18c, D&G LCT17a & LCT21 and East Ayrshire LCT21); principal landscape designations (South Ayrshire SA and Galloway Hills RSA); Merrick WLA; principal visual receptors (Barr; Barrhill; A714; B734; SUW); and/or representative viewpoints (Viewpoints 1-22).
Windy Standard III	16	25.9	20	125 - 177.5	
Benbrack Variation	16	23.0	18	132 - 149.9	
Pencloe Forest	16	30.6	19	149.9	
Sanquhar II	16	34.3	50	149 - 200	
Lorg	16	36.3	9	130 - 149.9	
Arecleoch Extension	17	9.9	13	200	
Stranoch 2	17	16.6	20	140 - 175	
Kilgallioch Extension	18	16.9	11	180	
North Kyle	19	25.1	54	149.9	
Shepherds Rig	20	28.6	19	125 - 149.9	
Troston Loch	20	34.1	14	149.9	

Wind energy development	Group	Distance (km)	No. of Turbines	Tip Height (m)	Included in ZTV analysis
Margree	20	34.9	17	120	
Lethans Resub	None	43.2	22	176 - 220	No due to long distance (over 40 km) / limited visibility from principal receptors
South Port o Spittal	None	43.8	3	66.6	No, due to location, scale and distance of wind cluster

299. The pattern of application stage windfarm development within the main influencing area within 20 km of the proposed Development, shown in **Figure 6.24**, is generally one of continuation of clustering of windfarm development near to operational windfarms, which was evident in the consented scenario, resulting in consolidation, extension and intensification of effects on the landscape and visual resource of areas that are already influenced by operational and consented windfarms. There are no application stage windfarms within 8 km of the proposed Development, as shown in **Table 6.11.10** and **Figure 6.24**, with the closest application stage windfarm being Millenderale, consisting of a linear 5 turbine arrangement of 110m blade tip height, located 8.6 km to the west of the proposed Development in the coastal foothills to the west of the Duisk Valley. Millenderdale is unusual in forming a new windfarm influence in a landscape that has yet to be influenced by wind energy development.

300. Other application stage windfarm developments within the main influencing area within 20 km of the proposed Development are located adjacent to operational or consented windfarms - Arecleoch Extension to the immediate east of Arecleoch Windfarm and north of Chirmorie; and Kilgallioch Extension on the south-eastern side of Kilgallioch Windfarm. Stranoch 2 is an application on the same site as the consented Stranoch for a windfarm development with a similar footprint, with larger turbines than consented. The LVIA assesses the Stranoch 2 application as a replacement to the consented scheme within the application stage scenario, as these developments would not both be built.

301. The pattern of clustering of development near to operational and consented windfarms is most evident in these areas of Plateau Moorland with Forestry and Windfarms, with the application stage Arecleoch Extension, Kilgallioch Extension and Stranoch 2 effectively perceived to create further coalescence between the operational and consented windfarms to create an almost contiguous windfarm influenced landscape. The proposed Development will have combined visibility with Arecleoch Extension, Kilgallioch Extension and Stranoch 2 from receptors that are already influenced by the adjacent operational and consented windfarms, as illustrated in the Cumulative ZTVs in **Figure 6.25r-w**.

302. In the wider landscape of the study area, in the application stage scenario, there will be a further increase in the number of larger commercial windfarms that either overlap or coalesce and/or 'join-up' along the skyline. The effect is to create larger windfarm influenced landscapes, largely in the uplands, where the windfarm element is a prevailing or defining characteristic of the landscape. In particular this will occur within the parts of the Southern Uplands to the north-east of the study area, where the application stage Windy Standard III, Sanquhar II, Lorg and variation applications for Benbrack and Pencloe will effectively amalgamate to form an extensive regional windfarm grouping with the consented South Kyle, Enoch Hill, Windy Rig and the operational Windy Standard, Windy Standard II and Afton Windfarms (**Figure 6.24**) in the Southern Uplands of East Ayrshire and Galloway, at distances of over 23 km from the proposed Development. Further windfarms to the north and south of this windfarm landscape would also be present at North Kyle/Overhill and Shepherds Rig.

303. The proposed Development remains visually separated from these Southern Uplands windfarm groupings by the elevated landforms of the Merrick and Rhins of Kells, which provide an effective visual buffer between the proposed Development and those in the Southern Uplands of East Ayrshire/Galloway. This visual screening provided by these uplands is illustrated in the Cumulative ZTV in Figure 6.25s and Figure 6.25w, which shows very limited combined visibility of the proposed Development with Windfarm Group 16 (Windy Standard III, Benbrack Variation, Pencloe Variation, Sanquhar II, Lorg) and Windfarm Group 20 (Shepherds Rig, Troston Loch, Margree) which is limited to the upland ridges of the Merrick and Carrick Forest hills.

304. There are also a number of scoping stage proposals in the study area (**Figure 6.24**). Scoping sites closest to the proposed Development include Arnsheen and Bargrennan, located over 10 km to the south. Scoping stage sites are mapped on **Figure 6.24** for reference but are not considered further in the assessment, due to layout and design uncertainties at the pre-application stage. They are not considered to be sufficiently close to the proposed Development to merit further assessment in the LVIA.

6.11.3.2 Application Stage Scenario Preliminary Assessment – LCTs

305. A preliminary assessment of the potential for significant additional cumulative effects on LCTs arising as a result of the changes caused by the proposed development with application stage windfarms is presented in **Table 6.11.11**.

Table 6.11.11 Application Stage Scenario Preliminary Assessment – LCTs

LCT	Preliminary Assessment (Application Stage Scenario) (Refer to Cumulative ZTVs Figure 6.25c and 6.25r-w)
LCTs within which the proposed Development is located	
Plateau Moorlands with Forestry and Windfarms (18c)	Potential for significant cumulative effects that require further assessment.
Rugged Uplands with Loch and Forest (21) and East Ayrshire - Rugged Uplands - Lochs & Forest (21)	Potential for significant cumulative effects that require further assessment.
Neighbouring LCTs relatively close to the proposed Development	
South Ayrshire - Intimate Pastoral Valley (13)	Potential for significant cumulative effects that require further assessment.
Dumfries and Galloway - Rugged Granite Upland (21)	ZTV for proposed Development across limited upland areas at distances of approximately 6km. Although there would be application windfarms visible in other contextual LCTs these would generally be part of or more distant than the operational windfarm clusters thereby having a limited effect on the character of this LCT. Where this is not the case the application windfarms of Shepherd's Rigg (Figure 6.25w), Lorg and Sanquhar II (Figure 6.25 s) would be seen to the north-east between the operational and consented windfarm clusters that are located around Windy Standard (Groups 8 (Figure 6.25k) and13 (Figure 6.25p)) and to the south the operational Wether Hill Windfarm and the consented Glenshimmeroch and Knockman Hill windfarms. However, this increase occurs over a relatively small part of the LCT and very limited areas that would also have visibility of the proposed Development as part of the LCT context. There would be an intensification of windfarm influence notable to the north-east, west and east of the LCT through the addition of the application windfarms. Whilst this would be the case it is considered that this occurs at a sufficient distance from the LCT and the proposed Development and affecting largely different parts of the LCT through its visibility so that the proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
South Ayrshire LCTs	
Raised Beach Coast with Flat Fields & Headlands (1c)	Although there are application windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 15 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Coastal Valley with Policies (5)	Although there are application windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed

LCT	Preliminary Assessment (Application Stage Scenario) (Refer to Cumulative ZTVs Figure 6.25c and 6.25r-w)
	Development. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
South Ayrshire Lowlands (7d)	Although there are application windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Lower Dale (11)	Although there are application windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 13 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. This is in part due to the fact that the LCT is separated from the proposed Development by intervening Foothills with Forest and Windfarm LCT which has a more pronounced character influence. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Middle Dale (12)	Although there are application windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 14 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. This is in part due to the fact that the LCT is separated from the proposed Development by intervening Foothills with Forest and Windfarm LCT which has a more pronounced character influence. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Upland Glens (14)	Although there are application windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 17 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Foothills with Forest west of Doon Valley (17b)	Although there are application windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 19 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. This is in part due to the fact that the LCT includes Dersalloch Windfarm. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Foothills with Forest and Windfarm (17c)	ZTV for proposed Development across limited upland areas at distances of approximately 5 km from areas that are characterised by windfarm development and forestry so that further windfarm development in a location outwith the LCT would be unlikely to alter its key characteristics. The application Millenderdale windfarm would be part of the wider context to the south-west whilst the Group 16 windfarm cluster shown on Figure 6.25s would bring windfarms closer to the LCT to the east in locations where the contextual character is influenced by the operational Dersalloch Windfarm (Figure 6.25h) and the Group 8 windfarms (Figure 6.25k) as well as the consented Group 13 cluster (Figure 6.25p) so would not introduce a new windfarm component to that part of the wider context .Such visibility would generally occur within parts of the LCT where there would not be visibility of the proposed Development. As a result of these factors the proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Maybole Foothills (17d)	Although there are application windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 15 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. This is in part due to the fact that the LCT is separated from the proposed Development by intervening Foothills with Forest and Windfarm LCT which has a more pronounced character influence. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.

LCT	Preliminary Assessment (Application Stage Scenario) (Refer to Cumulative ZTVs Figure 6.25c and 6.25r-w)
Coastal Foothills (17e)	ZTV for proposed Development across limited upland areas at distances of approximately 8 km in an upland area located beyond the intervening Pastoral Valley LCT which has a key influence on the wider character and extending the existing influence of Mark Hill Windfarm across part of this upland at a greater distance. The Millenderdale windfarm is located within this LCT and therefore visible from it as a characterising influence. There would be other application windfarms visible from this LCT as part of the wider context. These would be part of or more distant than the operational windfarm clusters thereby having a limited effect on the character of this LCT. The Arecleoch Extension Windfarm would be seen to partially close the distance between the operational Mark Hill and Arecleoch Windfarms. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
South Ayrshire Southern Uplands (20b)	Although there are application windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 15 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. This is in part due to intervening high ground which from some locations also includes the existing Arecleoch Windfarm. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Glenapp Coastal Farmland & the Policies (22)	Although there are application windfarms visible the very limited theoretical visibility or character influence of the proposed Development at distances of over 14 km, as shown on Figure 6.17a, results in low cumulative interaction between these application schemes and the proposed Development. This is in part due to the fact that upland areas to the east, north-east and south have existing windfarm influence at closer proximity to the LCT. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Dumfries and Galloway LCTs	
Narrow Wooded River Valleys (4)	Limited visibility of application windfarms. Where there is visibility this occurs where the application stage windfarms are seen in the immediate context of operational windfarms as part of the wider context of this LCT. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Upper Dale (Valley) (9)	Although there are application windfarms located within this LCT and visible from it the very limited theoretical visibility of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Plateau Moorland (17)	Although there are application windfarms located within this LCT and visible from it the very limited theoretical visibility or character influence of the proposed Development at distances of over 14 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. This is in part due to the fact that areas of this LCT have been modified by existing windfarm development. Upland areas to the east, north, north-east and west have existing windfarm influence at closer proximity to the LCT. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Plateau Moorland with Forest (17a)	Although there would be application windfarms located within and visible from this LCT in other contextual LCTs these would be part of or more distant than the operational windfarm clusters, or visible from highly localised locations thereby having a limited effect on the character of this LCT. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment. This is in part due to the forest cover which intervenes in views of the proposed Development.
Foothills with Forest (18a)	Although there are application windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in

LCT	Preliminary Assessment (Application Stage Scenario) (Refer to Cumulative ZTVs Figure 6.25c and 6.25r-w)
	negligible cumulative interaction between these application schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Southern Uplands (19)	Although there are application windfarms located within this LCT and visible from it the very limited theoretical visibility or character influence of the proposed Development at distances of over 15 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. This is in part due to intervening high ground which from some locations also includes the existing Arecleoch Windfarm. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Southern Uplands with Forest (19a)	Although there are application windfarms within and visible from this LCT the very limited theoretical visibility of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Rugged Granite Upland with Forest (21a)	The LCT unit to the east of the Merrick has very limited ZTV of the proposed Development. ZTV for proposed Development across upland areas of LCT unit to west of Merrick at distances of over 8 km from areas that are characterised by forestry. Although there would be application windfarms visible in other contextual LCTs these would be part of or more distant than the operational windfarm clusters thereby having a limited effect on the character of this LCT. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment. This is in part due to the forest cover which intervenes in views of the proposed Development.
East Ayrshire LCTs	
Upland River Valley (10)	Although there are application windfarms visible the very limited theoretical visibility of the proposed Development at distances of over 20 km, as shown on Figure 6.17a, results in negligible cumulative interaction between these application schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.
Foothills with Forest west of Doon Valley (17b)	Although there are application windfarms visible there is very limited theoretical visibility of the proposed Development due to intervening high ground which includes the existing Dersalloch Windfarm. At distances of over 18 km, as shown on Figure 6.17a, this results in very limited cumulative interaction between these application schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with application windfarms - scoped out of further assessment.

6.11.3.3 Application Stage Scenario Preliminary Assessment – Landscape Designations

306. A preliminary assessment of the potential for significant additional cumulative effects on landscape designations arising as a result of the changes caused by the proposed development with application stage windfarms is presented in **Table 6.11.12**.

Table 6.11.12 Application Stage Scenario Preliminary Assessment – Landscape Designations

Landscape Designation	Preliminary Assessment (Application Stage Scenario) (Refer to Cumulative ZTVs Figure 6.25b and 6.25r-w)
South Ayrshire SA (SA)	Potential for significant cumulative effects that require further assessment.
Galloway Hills Regional Scenic Area (RSA)	Potential for significant cumulative effects that require further assessment.
East Ayrshire Sensitive Landscape Area	Almost no visibility from the entire East Ayrshire SLA within 20 km of the proposed Development (Loch Doon south to Mulwarchar), with just isolated patches of 1-3 turbine blade tips visible from the tops of several most elevated hills. Similarly low visibility of the application stage windfarm groups to the south-west, such as Arecleoch Extension, Stranoch 2 and Kilgallioch Extension; with visibility of application stage windfarms mainly consisting of those in the Southern Uplands to the east (Group 16 – Windy Standard III, Benbrack Variation, Pencloe Variation, Sanquhar II), however there is minimal potential for cumulative interaction of this windfarm group with the proposed Development from the East Ayrshire SLA, due to the lack of visibility of the proposed Development itself. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.

6.11.3.4 Summary of Application Stage Scenario Preliminary Landscape Assessment

307. The preliminary assessment has identified the LCTs and landscape designations that require to be assessed in full as a result of the potential cumulative effects of the proposed Development, these are listed as follows:

- **LCTs**: Plateau Moorlands with Forestry and Windfarms (18c); Rugged Uplands with Loch and Forest (21); and Intimate Pastoral Valley (13) (assessed further in **Section 6.11.3.5**).
- **Landscape designations**: South Ayrshire SA and Galloway Hills RSA (assessed further in **Section 6.11.3.5**).

6.11.3.5 Application Stage Scenario Technical Assessment - LCTs

308. A full technical assessment of the potential for significant additional cumulative effects on LCTs arising as a result of the changes caused by the proposed development with application stage windfarms is presented in Table **6.11.13.**

Table 6.11.13 Cumulative Effects on LCTs (Application Stage Scenario)

LCT	Cumulative Effect (Application Stage Scenario)
Plateau Moorlands with Forestry and Windfarms (18c)	In the application stage scenario, the Plateau Moorland with Forest and Windfarm LCT (18c) is a 'with windfarm' landscape (as per the operational and consented scenarios), i.e. its baseline landscape character has been changed to such a degree by operational, consented and application stage windfarms, that windfarms (and forestry) form the prevailing characteristic of the plateau landscape, defining it as a 'with windfarm' LCT. The influence of windfarms in the baseline landscape to the south-west of the Duisk Valley will intensify with the addition of the application stage Arecleoch Extension and the addition of Stranoch and Gass in the adjacent Plateau Moorland with Forest (17a) of Galloway. The additional influence of these application stage windfarms will be to intensify the influence and density of the Kilgallioch and Arecleoch Windfarms of the south-western part of this LCT, adding to the windfarm characterising effect on the forested plateau moorlands in this area. The slight difference in effect in the application stage scenario arises from the addition of the proposed Development to this slightly increased windfarm influenced context, however there is very limited direct interaction between the proposed Development and these consented windfarms since they are largely subsumed within, or visible next to, the operational windfarms. These application windfarms would not interact with the proposed Development in any distinctly new or additional way, but primarily as part of the cumulative effect that is already experienced in the operational and consented scenario (assessed in Section 6.9.3.1). The cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm (and the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with application stage schemes. In the application stage scenario, the wider context of the LCT would be influenced by Millenderdale Windfarm to the north-west of the LCT at distances of over 3.3 km, which introduces new windfarm influence outside the previous pattern of development. The

LCT	Cumulative Effect (Application Stage Scenario)
	influence of this windfarm on the character of the LCT is reduced due to the separation by the intervening Pastoral Valley and the screening influence of the forestry within the LCT itself. Although there would also be application stage windfarms visible in other contextual LCTs in the wider landscape, these would be part of or more distant than the operational windfarm clusters thereby having a limited additional effect on the character of this LCT in addition with the proposed Development. It is considered that the addition of the proposed Development in the application stage scenario will not change the fundamental character of this 'with windfarm' landscape as it would not materially change the landscape character established by the operational and consented windfarms. In terms of cumulative effects in the application stage scenario, it is considered that the addition of the proposed Development will result in a **Low** cumulative magnitude of change and **Not Significant** effect on the fundamental character of this 'with windfarm' landscape as it would not materially change the existing landscape character. Less extensive, but nevertheless **Significant** landscape effects may arise as a result of the addition of the proposed Development where it contrasts with the scale of the operational Mark Hill Windfarm and increases the influence of windfarms in the eastern part of the LCT.
Rugged Uplands with Loch and Forest (21)	The proposed Development is located partly within this LCT and largely affects the character of the area around the site and the open, west facing slopes of the west between Caerloch Dhu in the north, Maiden's Bed and Kirriereoch Hill in the south. Although there would be application windfarms visible in other contextual LCTs these would generally be part of or more distant than the operational windfarm clusters thereby having a limited effect on the character of this LCT. Where this is not the case the Group 16 windfarms increases the windfarm influence that occurs as a result of the Group 13 windfarms (**Figure 6.25p**) further enlarging the cluster of windfarms around the Group 8 windfarms (**Figure 6.25k**) to the east-north-east of the LCT as a result of their closer proximity (approximately 6 km) and larger scale. This occurs at relatively close range to the East Ayrshire part of the LCT but across very limited areas that would also have visibility of the proposed Development as part of the LCT context. There would also be an intensification of windfarm influence notable to the north through the addition of the North Kyle application windfarm (**Figure 6.25v**) around Overhill (**Figure 6.25q**). The Shepherd's Rig windfarm to the east of the LCT would influence relatively small parts of it through its visibility. Whilst this would be the case it is considered that this occurs at a sufficient distance from the LCT and the proposed Development and affecting largely different parts of the LCT through its visibility. The proposed Development results in a **Low** cumulative magnitude of change and a **Not Significant** cumulative effect with application stage windfarms.
Intimate Pastoral Valley (13)	In the application stage scenario, the influence of windfarms in the baseline landscape of the Plateau Moorland with Forest and Windfarm LCT (18c) to the south of the Intimate Pastoral Valley LCT (13) will intensify with the addition of the application stage Arecleoch Extension, Stranoch 2 and Kilgallioch Extension Windfarms, however they are largely subsumed behind or within the operational Arecleoch and Kilgallioch Windfarms. There is limited cumulative interaction on the character of the Intimate Pastoral Valley LCT (13) between the proposed Development and these application stage windfarms, since they are not located within this LCT, but instead located at distance in the windfarm influenced landscape to the south; and there is generally very limited visibility of the application stage windfarms within the Duisk and Stinchar Valleys. Although there would be application windfarms visible in other contextual LCTs these would be part of or more distant than the operational windfarm clusters, or visible from highly localised locations at a range of over 17 km thereby having a limited effect on the character of this LCT. Where this is not the case, the Millenderdale windfarm (**Figure 6.25**), which is located in the Coastal Foothills LCT that forms part of the surrounding, containing upland to the LCT. This would be visible as part of the wider context from similar locations to where the operational Group 2 windfarms are visible (**Figure 6.25e)** increasing the windfarm influence on the north side of the valley and increasing the areas within the valley where there would currently be no windfarm influence. The further influence of the proposed Development would intensify the visibility of windfarm influence from the limited

LCT	Cumulative Effect (Application Stage Scenario)
	upper valley sides of this LCT within localised areas which are separated from the proposed Development either by the intervening valley or by close range forestry cover. Ultimately the landscape outwith the Intimate Pastoral Valley LCT (13) is one in which windfarms already form a key characteristic and the cumulative effects of the proposed Development will continue to occur primarily as a result of its cumulative effect with the operational Mark Hill Windfarm, rather than as a new or additional effect with application stage windfarms. In terms of cumulative effects with application stage windfarms in the application stage scenario, it is considered that the addition of the proposed Development will result in a **Medium-low** cumulative magnitude of change and a **Not Significant** effect on the fundamental character of the Intimate Pastoral Valley LCT.

6.11.3.6 Application Stage Scenario Technical Assessment – Landscape Designations

309. A full technical assessment of the potential for significant additional cumulative effects on landscape designations arising as a result of the changes caused by the proposed development with application stage windfarms is presented in **Table 6.11.14**.

Table 6.11.14 Cumulative Effects on Landscape Designations (Application Stage Scenario)

Landscape designation	Cumulative Effect (Application Stage Scenario)
South Ayrshire SA (SA)	In the application stage scenario, the influence of windfarms in the baseline landscape of the Plateau Moorland with Forest and Windfarm LCT (18c) to the south-west of the Duisk Valley and south of the Stinchar Valley (the nearest parts of the South Ayrshire SA) will intensify with the addition of the application stage Arecleoch Extension, Stranoch 2 and Kilgallioch Extension Windfarms, however they are largely subsumed behind or within the operational Arecleoch and Kilgallioch Windfarms. The difference in effect in the application stage scenario arises from the additional change on the South Ayrshire SA arising as result of the proposed Development to this slightly increased windfarm influenced context in the plateau moorlands south of the Scenic Area, however there is limited direct interaction between the proposed Development and these application stage windfarms on the character of the Scenic Area, since they are not located within the Scenic Area, but instead located at distance in the windfarm influenced landscape to the south; and there is generally very limited visibility of the application stage windfarms within the Duisk and Stinchar Valleys. When these application stage windfarms are visible from the more elevated ground of the Scenic Area, or from limited parts of the southern Duisk Valley, they also tend to be subsumed behind and within the operational windfarms. Areas of the southern Duisk Valley where the valley merges into the adjacent plateau are most likely to experience most additional cumulative effects with application stage windfarms, where the application stage Arecleoch Extension Windfarm will form a more prominent windfarm influence on the east side of the existing windfarm, and the proposed Development will result in additional windfarm influence in the landscape outside the Scenic Area to the north-east, with an increased windfarm influence on either side of this part of the Duisk Valley/Scenic Area in the application stage scenario. Ultimately this landscape outwith the Scenic Area is one in which windfarms already form a key characteristic and the cumulative effects of the proposed Development will continue to occur primarily as a result of its cumulative effect with the operational Mark Hill Windfarm, rather than as a new or additional effect with application stage windfarms. In terms of cumulative effects with application stage windfarms in the application stage scenario, it is considered that the addition of the proposed Development will result in a **Medium-low** cumulative magnitude of change and a **Not Significant** effect on the fundamental character of the Ayrshire Scenic Area.
Galloway Hills Regional Scenic Area (RSA)	The additional influence of the application stage Arecleoch Extension, Stranoch 2 and Kilgallioch Extension Windfarms will be to consolidate the clustering, intensify the density and visual linkage of the operational Arecleoch, Kilgallioch, Balmurrie Fell, Artfield Fell, Airies and Glenchamber Windfarms, and the consented Chirmorie and Gass Windfarms, across the distant forested plateau to the west/south-west of the RSA, adding to the windfarm characterising effect in this landscape that is perceived to form an almost contiguous area of windfarm influenced landscape outwith the RSA. The slight difference in effect in the application stage scenario arises from the addition of the proposed Development to this increased windfarm influenced context, however there is very limited direct interaction due to the position of the proposed Development and these application

Landscape designation	Cumulative Effect (Application Stage Scenario)
	stage windfarms, since they are largely subsumed within the operational and consented windfarm groupings. The cumulative effects of the proposed Development on the character of the Galloway Hills RSA, will continue to occur primarily as a result of its relationship with the operational Mark Hill and Hadyard Hill/Assel Valley Windfarms (and to a lesser degree, the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with application stage schemes. There is also an additional influence of application stage windfarms to the north of the RSA within the Carsphairn Forest, where the application stage Benbrack variation, Windy Standard III, Pencloe Variation and Sanquhar II Windfarms will combine with the operational Windy Standard, Windy Standard II and Afton Windfarms; and the South Kyle, Enoch Hill, Pencloe Forest and Windy Rig Windfarms, to increase the influence of this regional Southern Uplands windfarm grouping on the character of the landscape on the northern edge of the RSA. The proposed development will compound an increase in proximity, scale and influence of windfarm development with these windfarms to the north of the RSA, with an increased influence to the west of the RSA, however the effects of the proposed Development occur on different parts of the RSA than the areas that will be influenced by the application stage Southern Uplands windfarm grouping, so they do not tend to combine to influence the same areas of the RSA. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms is assessed as **Medium-low**, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.

6.11.3.7 Application Stage Scenario Preliminary Assessment – Viewpoints

310. A preliminary assessment of the potential for significant additional cumulative effects on viewpoints arising as a result of the changes caused by the proposed development with application stage windfarms is presented in **Table 6.11.15**.

Table 6.11.15 Application Stage Scenario Preliminary Assessment – Viewpoints

Ref	Viewpoint Name	Application Stage Windfarms Visible	Preliminary Assessment (Application Stage Scenario) (Refer to wirelines in Figures 6.27-6.49)
1	Chirmorie Cairn	Arecleoch Extension (2.5 km) Kilgallioch Extension (6.4 km) Stranoch 2 (4 km) Millenderdale (14.4 km)	Potential for significant cumulative effects that require further assessment.
2	Minor road to the south of Barrhill	Arecleoch Extension (2.7 km) Kilgallioch Extension (10.4 km) Stranoch 2 (8.6 km) Millenderdale (10.4 km)	Potential for significant cumulative effects that require further assessment.
3	B7027 Knockycoid	Millenderdale (13.8 km) Arecleoch Extension (6 km)	No application stage windfarms visible due to forestry screening. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
4	SUW, Craig Airie Fell	Millenderdale (17.9 km) Arecleoch Extension (6.4 km) Pencloe Forest Resub (47.7 km) Sanquhar II (50.9 km)	Although there will be application stage windfarms visible, the viewpoint is located within Kilgallioch Windfarm and has large-scale prominent turbines in immediate foreground of the view, with no potential for the proposed Development to have further significant cumulative effects with application stage windfarms - scoped out of further assessment.
5	Knockdolian	Millenderdale (8.9 km) Arecleoch Extension (7.1 km) Pencloe Forest Resub (52.1 km) Sanquhar II (56 km)	Potential for significant cumulative effects that require further assessment.
6	SUW, Hill of Ochiltree	Millenderdale (21.8 km) Arecleoch Extension (13.5 km) Kilgallioch Extension (8.7 km) Stranoch 2 (15.3 km)	Potential for significant cumulative effects that require further assessment.
7	Auchensoul Hill	Millenderdale (8.3 km) Windy Standard III (30.9 km) Arecleoch Extension (14.7 km) Benbrack Variation (27.5 km) Kilgallioch Extension (23.8 km) North Kyle (26.8 km) Over Hill (30.1 km) Pencloe Forest Resub (34.5 km) Sanquhar II (38.6 km) Shepherds Rig (35 km) Stranoch 2 (22.1 km) Troston Loch (41.2 km)	Potential for significant cumulative effects that require further assessment.
8	The Merrick	Millenderdale (24.4 km) Windy Standard III (20.1 km) Arecleoch Extension (23.4 km) Benbrack Variation (18.3 km) Kilgallioch Extension (23.4 km) North Kyle (24.3 km) Over Hill (27.5 km) Pencloe Forest Resub (25.8 km) Sanquhar II (28.6 km) Shepherds Rig (20.1 km) Stranoch 2 (27.7 km) Troston Loch (24.5 km)	Potential for significant cumulative effects that require further assessment.
9	Barr (Glenginnet Rd)	None	No application stage windfarms visible. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
10	A714, Creeside	None	No application stage windfarms visible. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
11	Mullwharchar	Millenderdale (26.8 km) Windy Standard III (17.5 km) Benbrack Variation (15.9 km) Kilgallioch Extension (26.1 km) North Kyle (22.8 km) Overhill (25.8 km) Pencloe Forest Resub (23.3 km) Sanquhar II (25.9 km) Shepherds Rig (17.2 km) Stranoch 2 (30.6 km) Troston Loch (21.8 km)	Although there will be application stage windfarms visible, there is almost no visibility of the proposed Development, therefore negligible cumulative interaction between these application stage schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.

Ref	Viewpoint Name	Application Stage Windfarms Visible	Preliminary Assessment (Application Stage Scenario) (Refer to wirelines in Figures 6.27-6.49)
12	NCR7 Near Doughty Hill	None	No application stage windfarms visible. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
13	Shalloch on Minnoch	Millenderdale (21.5 km) Windy Standard III (18.7 km) Benbrack Variation (16.2 km) Arecleoch Extension (22.8 km) Kilgallioch Extension (25.5 km) North Kyle (20.2 km) Overhill (23.5 km) Pencloe Forest Resub (23.8 km) Sanquhar II (27.3 km) Shepherds Rig (21.1 km) Stranoch 2 (28.4 km) Troston Loch (26.8 km)	Potential for significant cumulative effects that require further assessment.
14	Corserine	Millenderdale (31.1 km) Windy Standard III (14.6 km) Benbrack Variation (13.7 km) Kilgallioch Extension (30 km) Lorg (21.8 km) North Kyle (22.1 km) Overhilll (24.7 km) Pencloe Forest Resub (20.6 km) Sanquhar II (22.6 km) Shepherds Rig (13.1 km) Stranoch 2 (34.8 km)	Potential for significant cumulative effects that require further assessment.
15	Colmonell	None	No application stage windfarms visible. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
16	Byne Hill	Millenderdale (3.3 km) Arecleoch Extension (12.4 km) Kilgallioch Extension (24.3 km) Stranoch 2 (19.9 km)	Although there will be theoretical visibility of the application stage Arecleoch Extension, it will be largely subsumed within the operational Arecleoch Windfarm, partially screened by coniferous forestry plantations and located at long distance. Three turbines of Millenderdale Windfarm will be visible at 3.3km from the viewpoint. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
17	Kirriereoch Picnic Site	None	No application stage windfarms visible. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
18	B734 Stinchar Valley	None	No application stage windfarms visible. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
19	B734 Approach to Barr	None	No application stage windfarms visible. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
20	New Barr Trail (near White Knowes)	Millenderdale (8.6 km) Stranoch 2 (20.5 km)	Although there will be theoretical visibility of the application stage Arecleoch Extension, it will be largely subsumed within the operational Arecleoch Windfarm, partially screened by coniferous forestry plantations and located at long distance, such that there will be minimal cumulative interaction with the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
21	Barr Trail (Barr to Loch Doon Cycle Route)	Millenderdale (11 km)	Limited visibility of two turbines of Millenderdale Windfarm at 11km from the viewpoint, partially screened by coniferous plantations. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
22	Brown Carrick Hill	Millenderdale (26.7 km) Arecleoch Extension (35.3 km) Windy Standard III (31.9 km) Benbrack Variation (28.5 km) North Kyle (20.7 km) Overhill (23.1 km) Pencloe Forest Resub (32.3 km) Sanquhar II (36.6 km) Shepherds Rig (39.2 km) Stranoch 2 (42.9 km) Troston Loch (47.5 km)	Although there will be consented windfarms visible, the proposed development is located at long distance, at 26.1km, behind other operational windfarms (Hadyard Hill/Assel Valley/Tralorg grouping) with limited influence and cumulative interaction between application stage schemes and the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.

6.11.3.8 Application Stage Scenario Preliminary Assessment – Visual Receptors

311. A preliminary assessment of the potential for significant additional cumulative effects on visual receptors arising as a result of the changes caused by the proposed development with application stage windfarms is presented in **Table 6.11.16**.

Table 6.11.16 Application Stage Scenario Preliminary Assessment – Visual Receptors

Visual Receptor	Preliminary Assessment (Application Stage Scenario) (Refer to Cumulative ZTVs Figure 6.25c and 6.25r-w)
Settlements	
Barr	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Colmonell	No consented windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Barrhill	Although the application stage Arecleoch Extension Windfarm will be visible from parts of Barrhill, there is no visibility of the proposed Development and therefore negligible cumulative interaction between these application stage schemes and the proposed Development from

Visual Receptor	Preliminary Assessment (Application Stage Scenario) (Refer to Cumulative ZTVs Figure 6.25c and 6.25r-w)
	Barrhill. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
Pinmore	Although the application stage Arecleoch Extension Windfarm will be visible from parts of Pinmore, there is no visibility of the proposed Development and therefore negligible cumulative interaction between these application stage schemes and the proposed Development from Barrhill. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
Pinwherry	Although the application stage Arecleoch Extension Windfarm will be visible from Pinmore, there is no visibility of the proposed Development. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
Poundland	No application stage windfarms visible. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Newton Stewart	No application stage windfarms visible and no visibility of the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Transport Routes (see Figures 6.26a-b)	
A714	Potential for significant cumulative effects that require further assessment.
B734	Millenderdale Windfarm will be visible from the B734 between Barr and Pinmore, however there is limited visibility of the proposed Development from this section of the B734. The proposed Development has no potential for further significant cumulative effects with application stage windfarms - scoped out of further assessment.
B7027	Theoretical visibility of the proposed Development and application stage windfarms is often restricted by the extent of forest cover both immediately alongside the road, and over the extensive plateau skyline to the north; with only occasional more open views of the proposed Development from northern parts of B7027 across the upper parts of the Duisk Valley. The additional influence of the application stage Kilgallioch Extension, Stranoch 2 and Arecleoch Extension Windfarms will be to intensify the influence and density of the operational Kilgallioch and Arecleoch Windfarms and the consented Chirmorie and Gass Windfarms on the plateau to the west of the road, adding to the windfarm characterising effect on the forested plateau moorlands in this direction. There is very limited direct interaction between the proposed Development and these application stage windfarms in views since they are either screened by intervening forestry/landforms or when visible, are subsumed within the operational windfarms. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Glasgow South Western Line (Ayr – Stranraer)	Potential for significant cumulative effects that require further assessment.
Recreational Routes/Receptors	
NCR7	NCR7 is located at long distance and has limited visibility of application stage windfarms, with limited potential interaction in views of the proposed Development. No potential for significant cumulative effects that require further assessment.
Barr to Loch Doon Cycle Path (NCR7 link)	Although there is theoretical visibility of application stage windfarms, this is restricted to high ground to the north of Larg Hill/Balloch Hill, where actual visibility from the trail is largely screened by dense plantation forestry and there is limited combined visibility with the proposed Development. Limited visibility of Millenderdale windfarms from representative viewpoint (Viewpoint 21). The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Barr Trails	Although there will be theoretical visibility of the application stage Arecleoch Extension is at long distance, partially screened by coniferous forestry plantations, and subsumed within existing operational windfarms, such that there will be minimal cumulative interaction with the proposed Development. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
SUW Section 3 The Moors (New Luce to Bargrennan) Short Walks W7, W8)	Potential for significant cumulative effects that require further assessment.
SUW Section 4 The Galloway Hills (Bargrennan to St Johns Town of Dalry) Short Walks W9, W11)	Although there is theoretical visibility of application stage windfarms from this section of the SUW, there practically no visibility of the proposed Development from this section of the SUW, with only theoretical views of 1-3 blade tips in areas where woodland/plantation forestry prevents views from the path on the ground. There is negligible cumulative interaction between the proposed Development and other consented schemes from this section of the SUW. The proposed Development has no potential for further significant cumulative effects with consented windfarms - scoped out of further assessment.
Galloway Forest Dark Sky Park	There are several visible application windfarms above 150m blade tip height requiring visible aviation lighting, therefore the proposed Development has potential for further significant cumulative night-time visual effects with application stage windfarms on the Dark Sky Park requiring further assessment.

6.11.3.9 Summary of Application Stage Scenario Preliminary Visual Assessment

312. The preliminary assessment has identified the LCTs and landscape designations that require to be assessed in full as a result of the potential cumulative effects of the proposed Development, these are listed as follows:

- **Viewpoints**: 1, 2, 5, 6, 7, 8, 13 and 14 (assessed further in **Section 6.11.3.9.1**).
- **Settlements**: None.
- **Transport routes**: A714 and Glasgow South Western Line (Ayr – Stranraer) (assessed further in **Section 6.11.3.9.2**).
- **Recreational routes/receptors**: SUW Section 3 The Moors (New Luce to Bargrennan) Short Walks W7, W8) assessed further in **Section 6.11.3.9.2**) and Galloway Forest Dark Sky Park (assessed further in **TA:6.2**).

6.11.3.9.1 Application Stage Scenario Cumulative Assessment - Viewpoints

313. A full technical assessment of the potential for significant additional cumulative effects on viewpoints arising as a result of the changes caused by the proposed development with application stage windfarms is presented in **Table 6.11.17**.

Table 6.11.17 Cumulative Effects on Viewpoints (Application Scenario)

Ref	Viewpoint	Cumulative Effect (Application Stage Scenario)
1	Chirmorie Cairn **Figure 6.27b-e**	The additional influence of the application stage Arecleoch Extension and Stranoch 2 windfarms will be to intensify the influence, density and southward spread of the operational Arecleoch and consented Chirmorie Windfarms on the plateau to the west/south-west of the view, adding to the windfarm characterising effect on the forested plateau moorlands but located and subsumed behind the consented Chirmorie Windfarm. The slight difference in effect in the application stage scenario arises from the addition of the proposed Development to this increased windfarm influenced context in the view north, where Arecleoch Extension creates a denser windfarm foreground behind Chirmorie, but there is no reduction in the undeveloped space between this grouping and the proposed Development on the upland skyline to the north-east. The proposed Development is viewed 'in succession' around the view, with limited direct interaction between the proposed Development and these application stage windfarms in the view since they are subsumed behind the operational and consented windfarms. On balance, the cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm (and the operational Arecleoch and Kilgallioch Windfarms and consented Chirmorie), rather than as a new or additional effect with application stage schemes. The additional cumulative magnitude of change arising as a result of the proposed development with application stage windfarms is assessed as **Low**. The additional cumulative visual effect of the

Ref	Viewpoint	Cumulative Effect (Application Stage Scenario)
		proposed Development with application stage windfarms on the view experienced from this location is assessed as an in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
2	Minor road to the south of Barrhill **Figure 6.28b-e**	The additional influence of the application stage Arecleoch Extension windfarm will be to extend the influence of the operational Arecleoch and consented Chirmorie Windfarm on the forested skyline to the west of the view, having a further windfarm characterising effect on the forested plateau moorlands in this direction. The difference in effect in the application stage scenario arises from the addition of the proposed Development to this slightly increased windfarm influenced context to the west, when viewed 'in succession' around the view, however there is very limited direct interaction between the proposed Development and these application stage windfarms in the view since they are part of a separate large scale windfarm grouping in the opposite direction of view. On balance, the cumulative effects of the proposed Development continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm, rather than as a new or additional effect with application stage schemes. Whilst the scale of change predicted for the proposed Development in the application stage scenario is considered to increase slightly, due to the intensification of windfarm development, this slight increase would not be enough to alter the magnitude of change category assessed against the operational and consented baseline. The additional cumulative magnitude of change arising as a result of the proposed development with application stage windfarms is assessed as **Low**. The additional cumulative visual effect of the proposed Development with application stage windfarms on the view experienced from this location is assessed as an in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
5	Knockdolian **Figure 6.31b-e**	The additional influence of the application stage Arecleoch Extension windfarm will be to extend the lateral spread of the operational Arecleoch Windfarm on the forested skyline to the south-east of the view, having a further windfarm characterising effect on the forested plateau moorlands in this direction. The difference in effect in the application stage scenario arises from the addition of the proposed Development with Arecleoch Extension, viewed 'in combination' towards the Galloway Hills/Merrick WLA, with both windfarms interrupting part of the view of the upland backdrop, such that the combination of the proposed Development, Mark Hill and Arecleoch Extension occupy much of the mid-ground plateau in front of the upland backdrop, with wind turbines becoming the more prominent elements in the view than the distinctively rugged uplands beyond. There is a more direct association between the proposed Development and the application stage Arecleoch Extension since they are viewed 'in combination' in the main viewing direction and effect parts of the same feature in the view. The other key difference in the application stage scenario, is that the proposed Development will be viewed in the context of other windfarms with turbines of similar height - Arecleoch Extension (200m tip), with precedents of visible height differences in the view between earlier operational windfarms and their extensions. The additional cumulative magnitude of change arising as a result of the proposed development with application stage windfarms is assessed as **Medium-low**. The additional cumulative visual effect of the proposed Development with application stage windfarms on the view experienced from this location is assessed as an additional cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to the valued upland backdrop and other windfarms within this in combination view. The existing, consented and application stage windfarm influence give rise to turbines in much closer proximity than the proposed development.
6	SUW, Hill of Ochiltree **Figure 6.32b-e**	The additional influence of the application stage Arecleoch Extension, Kilgallioch Extension and Stranoch 2 windfarms will be to intensify the influence, density and northward spread of the windfarm landscape on the plateau to the west/north-west of the view, adding to the windfarm characterising effect on the forested plateau moorlands but largely located within and subsumed by the operational and consented windfarms. The slight difference in effect in the application stage scenario is to slightly reduce the undeveloped space between the edge of Arecleoch/Arecleoch Extension with Mark Hill Windfarm and the proposed Development on the upland skyline to the north, increasing the influence of windfarm development when viewed 'in succession' around the northern part of the view. The proposed Development is viewed 'in succession' around the view, with limited direct interaction between the proposed Development and the application stage windfarms in the view since they are generally subsumed within the operational and consented windfarm groupings, and Arecleoch Extension only results in a small increase in lateral spread of development on the northern skyline. The other key difference in the application stage scenario, is that the proposed Development will be viewed in the context of other windfarms with turbines of similar height - Arecleoch Extension (200m tip), with precedents of visible height differences in the view between earlier operational windfarms and their extensions. On balance, the cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm (and the operational Arecleoch and Kilgallioch Windfarms and consented Chirmorie grouping), rather than as a new or additional effect with application stage schemes. The additional cumulative magnitude of change arising as a result of the proposed development with application stage windfarms is assessed as **Low**. The additional cumulative visual effect of the proposed Development with application stage windfarms on the view experienced from this location is assessed as an in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
7	Auchensoul Hill **Figure 6.33b-e**	The additional influence of the application stage Arecleoch Extension, Kilgallioch Extension and Stranoch 2 Windfarms will be to slightly intensify the influence, density and visual linkage of the operational Kilgallioch and Arecleoch, and consented Chirmorie Windfarms in the plateau to the south of the view, adding slightly to the windfarm characterising effect in the forested plateau moorlands in this direction. The slight difference in effect in the consented scenario arises from the addition of the proposed Development to this slightly increased windfarm influenced context when viewed 'in succession' around the view, however there is very limited direct interaction between the proposed Development and these application stage windfarms in the view since they are subsumed within the operational and consented windfarm grouping. The other key difference in the application stage scenario, is that the proposed Development will be viewed in the context of other windfarms with turbines of similar height - Arecleoch Extension (200m tip), with precedents of visible height differences in the view between earlier operational windfarms and their extensions. On balance, the cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill and Hadyard Hill Windfarms (and the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with application stage schemes. There is also a slight additional influence of application stage windfarms on the 'in succession' view to the east, where the application stage Windy Standard III, Sanquhar II and variation applications for Benbrack and Pencloe will effectively amalgamate to form an extensive regional windfarm grouping with the consented South Kyle, Enoch Hill, Windy Rig and the operational Windy Standard, Windy Standard II and Afton Windfarms (**Figure 6.24**) in the Southern Uplands of East Ayrshire and Galloway, at distances of 27-38 km from the proposed Development. The additional cumulative magnitude of change arising as a result of the proposed development with application stage windfarms is assessed as **Low**. The additional cumulative visual effect of the proposed Development with application stage windfarms on the view experienced from this location is assessed as an in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
8	The Merrick **Figure 6.34b-e**	The additional influence of the application stage Arecleoch Extension, Kilgallioch Extension and Stranoch 2 Windfarms will be to consolidate the clustering, intensify the density and visual linkage of the operational Arecleoch, Kilgallioch, Balmurrie Fell, Artfield Fell, Airies and Glenchamber Windfarms, and the consented Chirmorie and Gass Windfarms, across the distant forested plateau to the west/south-west of the view, adding to the windfarm characterising effect in this landscape that is perceived to form an almost contiguous area of windfarm influenced landscape. The slight difference in effect in the application stage scenario arises from the addition of the proposed Development to this increased windfarm influenced context when viewed 'in combination' in the view west, however there is very limited direct interaction due to the position of the proposed Development and these application stage windfarms in the view, since they are largely subsumed within the operational/consented windfarm grouping. Arecleoch Extension slightly reduce the undeveloped space between the edge of Arecleoch/Arecleoch Extension with Mark Hill Windfarm and the proposed Development. The other key difference in the application stage scenario, is that the proposed Development will be viewed in the context of other windfarms with turbines of similar height – Kilgallioch Extension (180m tip) and Arecleoch Extension (200m tip), with precedents of visible height differences in the view between earlier operational windfarms and their extensions. On balance, the cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill and Hadyard Hill/Assel Valley Windfarms (and to a lesser degree, the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with application stage schemes. There is also a slight additional influence of application stage windfarms on the 'in succession' view to the east, where the application stage Windy Standard III, Sanquhar II and variation applications for

Ref	Viewpoint	Cumulative Effect (Application Stage Scenario)
		Benbrack and Pencloe will effectively amalgamate to form an extensive regional windfarm grouping with the consented South Kyle, Enoch Hill, Windy Rig, Sanquhar Six and the operational Windy Standard, Windy Standard II and Afton Windfarms (**Figure 6.24**) in the Southern Uplands of East Ayrshire and Galloway, at distances of 18-32 km from the proposed Development. The North Kyle/Overhill Windfarm grouping will also be visible in this eastern direction (24.3 km). The proposed development will compound an increase in proximity and scale of visible windfarm development in succession with these windfarms to the east. The additional cumulative magnitude of change arising as a result of the proposed development with application stage windfarms in the main viewing direction to the west is assessed as **Low**. The 'in-succession' magnitude of change arising as a result of the proposed development with application stage windfarms in the wider view, particularly those to the east, is assessed as **Medium-low**. The additional cumulative visual effect of the proposed Development with application stage windfarms on the view experienced from this location is assessed as both and simultaneous and in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
13	Shalloch on Minnoch **Figure 6.39b-e**	The additional influence of the application stage Arecleoch Extension, Kilgallioch Extension and Stranoch 2 Windfarms will be to consolidate the clustering, intensify the density and visual linkage of the operational Arecleoch, Kilgallioch, Balmurrie Fell, Artfield Fell, Airies and Glenchamber Windfarms, and the consented Chirmorie and Gass Windfarms, across the distant forested plateau to the west/south-west of the view, adding to the windfarm characterising effect in this landscape that is perceived to form an almost contiguous area of windfarm influenced landscape. The slight difference in effect in the application stage scenario arises from the addition of the proposed Development to this increased windfarm influenced context when viewed 'in combination' in the view west, however there is very limited direct interaction due to the position of the proposed Development and these application stage windfarms in the view, since they are largely subsumed within the operational/consented windfarm grouping. Arecleoch Extension slightly reduce the undeveloped space between the edge of Arecleoch/Arecleoch Extension with Mark Hill Windfarm and the proposed Development. The other key difference in the application stage scenario, is that the proposed Development will be viewed in the context of other windfarms with turbines of similar height - Arecleoch Extension (200m tip), with precedents of visible height differences in the view between earlier operational windfarms and their extensions. On balance, the cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill and Hadyard Hill/Assel Valley Windfarms (and to a lesser degree, the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with application stage schemes. There is also a slight additional influence of application stage windfarms on the 'in succession' view to the east, where the application stage Windy Standard III, Sanquhar II and variation applications for Benbrack and Pencloe will effectively amalgamate to form an extensive regional windfarm grouping with the consented South Kyle, Enoch Hill, Windy Rig, Sanquhar Six and the operational Windy Standard, Windy Standard II and Afton Windfarms (**Figure 6.24**) in the Southern Uplands of East Ayrshire and Galloway, at distances of 16-28 km from the proposed Development. The North Kyle/Overhill Windfarm grouping will also be visible in this eastern direction (20.2 km). The proposed development will compound an increase in proximity and scale of visible windfarm development in succession with these windfarms to the east. The additional cumulative magnitude of change arising as a result of the proposed development with application stage windfarms in the main viewing direction to the west is assessed as **Low**. The 'in-succession' magnitude of change arising as a result of the proposed development with application stage windfarms in the wider view, particularly those to the east, is assessed as **Medium-low**. The additional cumulative visual effect of the proposed Development with application stage windfarms on the view experienced from this location is assessed as both and simultaneous and in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.
14	Corserine **Figure 6.40b-e**	The additional influence of the application stage Kilgallioch Extension (30 km) and Stranoch 2 (34.8 km) Windfarms will be very limited due to their long distance from the viewpoint and their position subsumed within the operational Kilgallioch Windfarm. The slight difference in the effect in the consented scenario arises from the addition of the proposed Development to this very minimally increased windfarm influenced context in the main view direction to the west, however there is very limited direct interaction due to the position of the proposed Development and these application windfarms in the view, since they are subsumed within the operational windfarms. The cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill and Kilgallioch Windfarms (and to a lesser degree, the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with application stage schemes. The additional cumulative magnitude of change arising as a result of the proposed development with application stage windfarms in the main viewing direction to the west is assessed as **Negligible**. There is also an additional influence of application stage windfarms on the 'in succession' view to the east, where the application stage Windy Standard III, Sanquhar II and variation applications for Benbrack and Pencloe will effectively amalgamate to form an extensive regional windfarm grouping with the consented South Kyle, Enoch Hill, Windy Rig, Sanquhar Six and the operational Windy Standard, Windy Standard II and Afton Windfarms in the Southern Uplands of East Ayrshire and Galloway, at distances of 13-35 km from the proposed Development. The North Kyle/Overhill Windfarm grouping will also be visible in this eastern direction (22.1 km). The proposed development will compound an increase in proximity and scale of visible windfarm development in succession with these windfarms to the east. The 'in-succession' magnitude of change arising as a result of the proposed development with application stage windfarms in the wider view, particularly those to the east, is assessed as **Medium-low**. The additional cumulative visual effect of the proposed Development with application stage windfarms on the view experienced from this location is assessed as both simultaneous and in-succession cumulative effects, which are **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views.

6.11.3.9.2 Application Stage Scenario Cumulative Assessment – Visual Receptors

314. A full technical assessment of the potential for significant additional cumulative effects on visual receptors arising as a result of the changes caused by the proposed development with application stage windfarms is presented in **Table 6.11.18**.

Table 6.11.18 Cumulative Effects on Viewpoints (Application Stage Scenario)

Visual Receptor	Cumulative Effect (Application Stage Scenario)
Transport Routes	
A714	The theoretical visibility of the proposed Development is illustrated in the Sequential Visibility Analysis ZTV in **Figure 6.22a** and a sequential analysis with other windfarms is presented in **Figure 6.26a**. Two key sections of the A714 have been identified as having potential for higher levels of change: • short section southbound near Dinvin Motte/Laigh Letterpin (hills near Pinmore); and • northbound approximately between Cairnderry, Arnimean and Eldrig (between Bargrennan and Barrhill). These sections occur over the most elevated sections of the A714 and due to their elevation, afford visibility of more operational windfarm groupings in the area (**Figure 6.26** graph). There is visibility of both Millenderdale and Arecleoch Extension from the stretch near Pinmore, in addition to the proposed Development, with Millenderdale visible at close range to the west of the road and Arecleoch Extension in the view aligned to the south. The additional cumulative magnitude of change arising as a result of the proposed development with application stage windfarms in views experienced from this section of the A714 near Dinvin Motte/Laigh Letterpin (hills near Pinmore is assessed as **Medium** and the effect **Not Significant, Long-term** and **Adverse**. The application stage Arecleoch Extension, Kilgallioch Extension and Stranoch 2 Windfarms will be visible from the A714 between Bargrannan and Barrhill, as it passes over elevated ground of the forested plateau moorlands. The additional influence of these application stage windfarms will be to intensify the density and visual linkage of the Kilgallioch and Arecleoch Windfarms in the plateau viewed to the west/south-west from this section of the A714, adding to the windfarm characterising effect in the forested plateau moorlands in this direction. The difference in effect in the application stage scenario arises from the addition of the proposed Development in fleeting views over 6-7 km to the north of the road between Cairnderry, Arnimean and Eldrig, 'in succession' around the view, however there is very limited direct interaction between the proposed Development and these application stage windfarms in the views from the A714, since they are largely subsumed within the operational windfarms already present to the west/south-west or are visible from different section of the road. The cumulative effects of the proposed Development from this closest section of the A714 will continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm (and the operational Arecleoch

Visual Receptor	Cumulative Effect (Application Stage Scenario)
	and Kilgallioch windfarms), rather than as a new or additional effect with application stage schemes. The additional cumulative magnitude of change arising as a result of the proposed development with consented windfarms in views experienced from this section of the A714 between Bargrennan and Barrhill is assessed as **Low**. The additional cumulative visual effect of the proposed Development with consented windfarms on the views experienced from this section of the A714 between Bargrennan and Barrhill is assessed as an in-succession cumulative effect, which is **Not Significant**, **Long-term** and **Adverse**, given its position relative to other windfarms and the windfarm influenced landscape context in successive views. The combined effect of the proposed Development with consented windfarms on views from the remainder of the A714 is assessed as **Negligible** and **Not Significant**. Sequential visibility will also occur on motorists driving on the A714 that view multiple windfarms from different viewpoint positions along the road. The contribution of the proposed Development to the occurrence of sequential effects experienced on the A714 is assessed as occasional and **Not Significant**, since views of the proposed Development are largely restricted to the two main stretches of elevated ground identified, near Pinmore and Barrhill to Bargrennan, which already have views of other operational, consented and application stage windfarms, and are separated by stretches of the A714 with no views of windfarms within Duisk Valley and the Cree Valleys.
Glasgow South Western Line (Ayr – Stranraer)	Limited visibility of the proposed Development and application stage windfarms from the line along the Duisk Valley, with views screened further by a combination of woodlands within the valley alongside the line, railway cuttings and coniferous plantations on the upper eastern valley sides. Between Forest Road (north of Barrhill) and Barrhill Station the proposed Development will be viewed intermittently to the east, behind Mark Hill Windfarm, with limited combined visibility of application stage windfarms. The line passes directly through Arecleoch East and Chirmorie Windfarm and passes close to Stranoch 2 Windfarm, however there will be limited combined views of the proposed Development from this stretch, due to the alignment of the direction of travel and the enclosure of line by landform as it passes down into the Cross Water of Luce. The additional cumulative magnitude of change arising as a result of the proposed development with application stage windfarms in views experienced from the Glasgow South Western Line (Ayr – Stranraer) is assessed as **Low** and the additional cumulative effect **Not Significant**, **Long-term** and **Neutral**. Sequential visibility will also occur in views experienced by rail passengers that view multiple windfarms from different positions along the line. The contribution of the proposed Development to the occurrence of sequential effects experienced on the line, in sequence with other operational, consented and application stage windfarms, is assessed as frequent and **Significant**.
Recreational Routes	
SUW Section 3 The Moors (New Luce to Bargrennan) Short Walks W7, W8)	Views of the application stage Kilgallioch Extension, Arecleoch Extension and Stranoch 2 Windfarms are experienced from the SUW behind and through the operational Kilgallioch Windfarm and consented Chirmorie Windfarm that occupies the immediate foreground of the views, at close range with large-scale prominent turbines forming the prevailing foreground influence of views between Cairn na Gath, Craig Airie Fell and Derry Farm. There is very limited direct interaction between the proposed Development and these application stage windfarms in the view, or potential for further significant cumulative effects, since they are subsumed behind the foreground operational/consented windfarm groupings, and do not have a material influence on the cumulative effects arising from the proposed Development. The cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm (and the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with consented schemes. The additional cumulative magnitude of change arising as a result of the proposed development with application stage windfarms in views experienced from the SUW Section 3 (New Luce to Bargrennan) is assessed as **Low** and the effect **Not Significant**, **Long-term** and **Neutral**.

6.12 Summary

315. The likely significant effects resulting from the proposed Development are summarised in **Table 6.12.1** to **Table 6.12.4** and in the narrative summary conclusions in **Section 6.13**. Full assessments of the effects of the lighting of the proposed Development are contained in **TA:6.2**; effects on Wild Land are assessed in **TA6:3** and effects on residential visual amenity in **TA6:4**.

Table 6.12.1 Summary of Effects of Landscape Character Types (LCTs)

Receptor	Distance (nearest turbine) (km)	Sensitivity to Change	Magnitude of Change	Significance of Effect (Baseline / Operational Scenario)	Significance of Effect (Consented Scenario)	Significance of Effect (Application Stage Scenario)
LCTs within which the proposed Development is located						
South Ayrshire - Plateau Moorlands with Forestry and Windfarms (18c)	Proposed Development largely within LCT	Medium	Medium-high locally within the Site Medium to 3 km Medium-low elsewhere in LCT beyond 3 km	**Significant** locally within 3 km Not significant elsewhere Not significant cumulative effect on fundamental character of 'with windfarm' landscape.	Low additional cumulative magnitude of change and Not significant.	Low additional cumulative magnitude of change and Not significant.
South Ayrshire - Rugged Uplands with Loch and Forest (21) and East Ayrshire - Rugged Uplands - Lochs & Forest (21)	Proposed Development partially within LCT (2 turbines)	Medium-high	High locally within 2.5 km Medium to 4.5-9.5 km to the east Low elsewhere within LCT	**Significant** locally within 2.5 km and 4.5-9.5 km to the east Not significant elsewhere within LCT Not significant cumulative effect on fundamental character of LCT.	Low additional cumulative magnitude of change and Not significant.	Low additional cumulative magnitude of change and Not significant.
Neighbouring LCTs relatively close to the proposed Development						
South Ayrshire - Intimate Pastoral Valley (13)	1.7 km	Medium-high	Medium from northern upper sides of Stinchar Valley Low from lower lying intimate valley areas	**Significant** from northern upper sides of Stinchar Valley Not significant from lower lying intimate valley areas	Low additional cumulative magnitude of change and Not significant.	Low additional cumulative magnitude of change and Not significant.
Dumfries and Galloway - Plateau Moorland with Forest (17a)	2.7 km	Medium	Medium-low	Not significant	Low additional cumulative magnitude of change and Not significant.	Low additional cumulative magnitude of change and Not significant.
Dumfries and Galloway - Rugged Granite Upland (21)	6.1 km	Medium-high	Medium across west facing slopes of Merrick foothills at 6-8 km Medium-low from Merrick ridgeline at 8-9 km Low or negligible elsewhere within LCT	**Significant** across west facing slopes of Merrick foothills at 6-8km Not significant from Merrick ridgeline at 8-9 km Not significant elsewhere within LCT	Low additional cumulative magnitude of change and Not significant.	Low additional cumulative magnitude of change and Not significant.
The effect of the proposed Development on the landscape character of all other LCTs within 45 km LVIA study area is assessed as not significant.						

Table 6.12.2 Summary of Effects of Landscape Designations

Receptor	Distance (nearest turbine) (km)	Sensitivity to Change	Magnitude of Change	Significance of Effect (Baseline / Operational Scenario)	Significance of Effect (Consented Scenario)	Significance of Effect (Application Stage Scenario)
South Ayrshire Scenic Area (SA)	Proposed Development located partially within the South Ayrshire SA (2 turbines)	Varies with LCT within the Scenic Area, from Medium to Medium-high	High within localised areas of the South Ayrshire SA immediately to the north of the proposed Development. Medium to 4.5-9.5 km to the east across Rugged Uplands with Loch and Forest LCT. Medium from northern upper sides of Stinchar Valley	**Significant** within localised areas of the South Ayrshire SA immediately to the north of the proposed Development; extending to 4.5-9.5 km to the east across Rugged Uplands with Loch and Forest LCT; and from northern upper sides of Stinchar Valley. Not significant elsewhere within South Ayrshire SA.	Medium-low additional cumulative magnitude of change and Not significant.	Medium-low additional cumulative magnitude of change and Not significant.
Galloway Hills Regional Scenic Area	3.6 km	Varies with LCT within the Scenic Area, from Medium to Medium-high	Medium across west facing slopes of Merrick foothills at 6-8 km Medium-low from Merrick ridgeline at 8-9 km Low or negligible elsewhere within RSA	**Significant** across west facing slopes of Merrick foothills at 6-8 km Not significant from Merrick ridgeline at 8-9 km Not significant elsewhere within RSA	Medium-low additional cumulative magnitude of change and Not significant.	Medium-low additional cumulative magnitude of change and Not significant.
The effect of the proposed Development on the landscape character of all other landscape designations within 45 km LVIA study area is assessed as not significant.						

Table 6.12.3 Summary of Effects on Viewpoints

ID	Receptor	Distance (nearest turbine) (km)	Turbines theoretically visible	Horizontal Angle / Lateral Spread (°)	Sensitivity to Change	Magnitude of Change (Baseline / Operational Scenario)	Significance of Effect (Baseline / Operational Scenario)	Significance of Effect (Consented Scenario)	Significance of Effect (Application Stage Scenario)
Representative Viewpoints									
1	Chirmorie Cairn	12.9	18	16°	Motorists (C72 Minor Road): Medium-low Walkers (Chirmorie Cairn): Medium-low	Medium	Additional cumulative, not significant, long-term, adverse	Medium additional cumulative magnitude of change and Not significant.	Low additional cumulative magnitude of change and Not significant.
2	Minor road to the south of Barrhill	8.0	18	21°	Motorists (C72 Minor Road)/Rail Passengers: Medium-low	Low	Additional cumulative, not significant, long-term, adverse	Low additional cumulative magnitude of change and Not significant.	Low additional cumulative magnitude of change and Not significant.
2	Night-time Minor road to the south of Barrhill	8.0	18	21°	Motorists (C72 Minor Road)/Rail Passengers: Medium-low	2000cd Medium	Not significant, long-term, adverse	Not significant	Not significant
						200cd Medium-low	Not significant, long-term, adverse	Not significant	Not significant
3	B7027 Knockycoid	8.5	18	28°	Motorists (B7027): Medium-low Residents (Knockycoid to Altercannoch): Medium-high	Medium-low	Additional cumulative, not significant, long-term, adverse	Not significant	Not significant
4	SUW, Craig Airie Fell	14.4	18	18°	Walkers (SUW): Medium	Low	Additional cumulative, not significant, long-term, adverse	Not significant	Not significant
5	Knockdolian	16.2	18	7°	Walkers (Knockdolian): Medium-high	Medium-low	Additional cumulative, not significant, long-term, adverse	Not significant	Not significant
6	SUW, Hill of Ochiltree	14.0	18	23°	Walkers (SUW): Medium	Medium	Additional cumulative, not significant, long-term, adverse	Negligible additional cumulative magnitude of change and Not significant.	Low additional cumulative magnitude of change and Not significant.
7	Auchensoul Hill	5.5	15	42°	Walkers: Medium	Medium-high	Additional cumulative, **significant**, long-term, adverse	Low additional cumulative magnitude of change and Not significant.	Low additional cumulative magnitude of change and Not significant.
8	Merrick	10.5	18	16°	Walkers: High	Medium	Additional cumulative, **significant**, long-term, adverse	Low additional cumulative magnitude of change, Not significant. Medium-low additional in-succession cumulative magnitude of change, Not significant.	Low additional cumulative magnitude of change, Not significant. Medium-low additional in-succession cumulative magnitude of change, Not significant.
9	Barr (Glenginnet Rd)	4.7	4	19°	Residents (Barr): High	Low	Project alone (non-cumulative), not significant, long-term, adverse	Not significant	Not significant
10	A714, Creeside	7.3	18	40°	Motorists (A714): Medium-low	Medium-high	Additional cumulative, **significant**, long-term, adverse	Not significant	Not significant
10	Night-time A714, Creeside	7.3	18	40°	Motorists (A714): Medium-low	2000cd Medium	Not significant, long-term, adverse	Not significant (no cumulative aviation lights visible)	Not significant (no cumulative aviation lights visible)
						200cd Medium-low	Not significant, long-term, adverse	Not significant (no cumulative aviation lights visible)	Not significant (no cumulative aviation lights visible)
11	Mullwharchar	12.8	2	0°	Walkers: High	Negligible	In-succession cumulative, not significant, long-term, adverse	Not significant	Not significant
12	NCR7 Near Doughty Hill	9.7	12	16°	Motorists/Cyclists (NCR7): Medium	Medium	Project alone (non-cumulative), not significant, long-term, adverse	Not significant	Not significant
13	Shalloch on Minnoch	7.5	18	11°	Walkers: Medium-high	Medium-high	Additional cumulative, **significant**, long-term, adverse	Low additional cumulative magnitude of change, Not significant. Medium-low additional in-succession cumulative magnitude of change, Not significant.	Low additional cumulative magnitude of change, Not significant. Medium-low additional in-succession cumulative magnitude of change, Not significant.
14	Corserine	17.0	15	6°	Walkers: High	Medium-low	Additional cumulative, **significant**, long-term, adverse	Negligible additional cumulative magnitude of change, Not significant. Medium-low additional in-succession cumulative magnitude of change, Not significant.	Negligible additional cumulative magnitude of change, Not significant. Medium-low additional in-succession cumulative magnitude of change, Not significant.
15	Colmonell	12.2	18	9°	Motorists (B734): Medium-low Residents (Colmonell): Medium-high	Medium-high	Project alone (non-cumulative), not significant, long-term, adverse	Not significant	Not significant
16	Byne Hill	11.1	16	17°	Walkers: Medium	Medium	Additional cumulative, not significant, long-term, adverse	Not significant	Not significant

ID	Receptor	Distance (nearest turbine) (km)	Turbines theoretically visible	Horizontal Angle / Lateral Spread (°)	Sensitivity to Change	Magnitude of Change (Baseline / Operational Scenario)	Significance of Effect (Baseline / Operational Scenario)	Significance of Effect (Consented Scenario)	Significance of Effect (Application Stage Scenario)
17	Kirriereoch Picnic Site	4.1	18	38°	Visitors/Cyclists (NCR7): Medium-high	Medium-high	Project alone (non-cumulative), **significant**, long-term, adverse	Not significant	Not significant
17	Night-time Kirriereoch Picnic Site	4.1	18	38°	Visitors/Cyclists (NCR7): Medium-high	2000cd Medium-high	**Significant**, long-term, adverse	Not significant (no cumulative aviation lights visible)	Not significant (no cumulative aviation lights visible)
						200cd Medium	**Significant**, long-term, adverse	Not significant	Not significant
18	B734 Stinchar Valley	4.2	11	43°	Motorists (B734): Medium Residents (nearby areas of Stinchar Valley): High	Medium-low	Project alone (non-cumulative), not significant, long-term, adverse	Not significant	Not significant
19	B734 Approach to Barr	5.2	13	38°	Motorists/Cyclists (B734): Medium	Medium-high	Project alone (non-cumulative), **significant**, long-term, adverse	Not significant	Not significant
19	Night-time B734 Approach to Barr	5.2	13	38°	Motorists/Cyclists (B734): Medium	2000cd Medium	Not significant, long-term, adverse	Not significant	Not significant
						200cd Medium-low	Not significant, long-term, adverse	Not significant	Not significant
20	New Barr Trail (near White Knowes)	3.0	12	60°	Walkers: Medium-high Residents (White Knowes): High	High	In-succession cumulative, **significant**, long-term, adverse	Not significant	Not significant
21	Barr Trail (Barr to Loch Doon Cycle Route)	3.9	11	56°	Walkers: Medium-high	High	In-succession cumulative, **significant**, long-term, adverse	Not significant	Not significant
22	Brown Carrick Hill	26.2	16	10°	Walkers: Medium	Low	Additional cumulative, not significant, long-term, adverse	Not significant	Not significant
Illustrative Viewpoints									
23	Arran, Kildonan (on southern tip of Arran)	40.2	16	8°	Not assessed. Illustrative viewpoint only.				
24	Benyellary	10.0	18	19°	Not assessed. Illustrative viewpoint only.				
24	Night-time Benyellary	10.0	18	19°	Walkers: High	2000cd Medium	**Significant**, long-term, adverse	Significant	Significant
						200cd Medium-low	**Significant**, long-term, adverse	Significant	Significant

Table 6.12.4 Summary of Effects on Transport/Long Distance Recreational Routes

Receptor	Distance (nearest turbine) (km)	Sensitivity to Change	Magnitude of Change (Baseline / Operational Scenario)	Significance of Effect (Baseline / Operational Scenario)	Significance of Effect (Consented Scenario)	Significance of Effect (Application Stage Scenario)
A714	6.6km	Medium	Medium-high over two closest sections with visibility, consisting short section to the north of Pinmore and section between Carinderry and Eldrig (as represented by Viewpoint 10). Low or negligible from the remaining sections of the A714. None over many sections assessed as having no visibility.	Additional cumulative, **significant**, long-term and adverse over two closest sections with visibility, to the north of Pinmore and section between Carinderry and Eldrig. Not significant from remaining sections of the A714. Occasional and not significant sequential effect with operational windfarms.	Low additional cumulative magnitude of change and Not significant on views experienced from A714 between Bargrennan and Barrhill Negligible additional cumulative magnitude of change and Not significant on views experienced from remaining sections of the A714. Occasional and Not significant sequential effect.	Medium additional cumulative magnitude of change and Not significant on views experienced from A714 near Dinvin Motte/Laigh Letterpin (north of Pinmore). Low additional cumulative magnitude of change and Not significant on views experienced from A714 between Bargrennan and Barrhill Negligible additional cumulative magnitude of change and Not significant on views experienced from remaining sections of the A714. Occasional and Not significant sequential effect.
B734	4.1km	Medium	Medium-high between Penwhapple and Barr, on the approach to Barr (as represented by Viewpoint 19). Glimpsed changes of Low magnitude between Barr and Pinmore along the Stinchar Valley (as represented by Viewpoint 18). Medium-low travelling between Colmonell and Poundland (as represented by Viewpoint 16). None from all remaining sections of the route with no visibility of the proposed Development.	Project alone (non-cumulative), **significant**, long-term and adverse between Penwhapple and Barr, on the approach to Barr (as represented by Viewpoint 19). Project alone (non-cumulative), **significant**, long-term and adverse in views between Barr and Pinmore along the Stinchar Valley (as represented by Viewpoint 18) and travelling between Colmonell and Poundland (as represented by Viewpoint 16). Not significant from all remaining sections of the route with no visibility of the proposed Development.	Negligible additional cumulative magnitude of change and Not Significant. Occasional and Not significant sequential effect.	Negligible additional cumulative magnitude of change and Not Significant. Occasional and Not significant sequential effect.
Southern Upland Way (SUW) Section 3 – The Moors (New Luce to Bargrennan)	12.6km	Medium	Medium-low from 2km stretch over Craig Airie Fell, where the route of the SUW is located within Kilgallioch Windfarm (as represented by Viewpoint 4). Medium from the SUW over approximately 5km stretch over Hill of Ochiltree/Glenvernoch Fell and approaching Bargrennan (as represented by Viewpoint 6). Low or negligible over from large parts of the route where it passes through extensive coniferous forestry plantations.	Additional cumulative, not significant, long-term and adverse.	Low additional cumulative magnitude of change and the Not Significant.	Low additional cumulative magnitude of change and the Not Significant.
National Cycle Route 7 (NCR7)	2.3km	Medium	Medium from NCR7 near Doughty Hill and Medium-high over the closest section of the NCR7 near Kirriereoch. Low or Negligible from the remaining sections of the route with visibility and None over the many sections assessed as having no visibility of the proposed Development.	Project alone (non-cumulative), not significant, long-term and adverse from NCR7 near Doughty Hill. Project alone (non-cumulative), **significant**, long-term and adverse over the closest section of the NCR7 near Kirriereoch. Not significant from the remaining sections of the route with visibility and None over the many sections assessed as having no visibility of the proposed Development.	Not significant	Not significant
The effect of the proposed Development on the views experienced from all other transport and long distance recreational routes within 45km LVIA study area is assessed as not significant.						

6.13 Conclusions

316. The LVIA identifies and assesses the significance of changes resulting from the construction and operation of the proposed Development. This is carried out in relation to both the landscape character as an environmental resource in its own right, and on people's views and visual amenity. It also assesses the cumulative effects of the proposed Development in conjunction with other developments.

317. Consultation with regards to LVIA has been undertaken via consultation meetings with relevant stakeholders in 2019 and through a series of public information days. Publication of the Clauchrie Windfarm Scoping Report (SPR, 2018) also provided opportunities for feedback, which has been considered in preparing the ES. The key issues for the LVIA included the number and height of the 200m tip height turbines, their location within the Dark Sky Park Buffer Area, with turbines located between approximately 6-20km from the Merrick WLA, and the potential for significant cumulative effects arising in combination with existing, adjacent windfarm developments.

318. Given these recognised sensitivities, the proposed Development has incorporated a number of embedded mitigation measures, in order to reduce the effects on landscape and visual receptors. The siting and design of the proposed Development seeks to consolidate the generally successful association of larger turbines within an established windfarm landscape. The proposed turbines have been sited to allow for some separation from the operational Mark Hill Windfarm and limit direct coalescence with Mark Hill, ensuring that the windfarms have distinct identities, while still being located in the same vicinity and thereby consolidating the existing windfarm influence. The scale effects of different sized turbines of the proposed Development when compared to the operational Mark Hill Windfarm are mitigated by perspective in some views, where there is limited scale contrast due to the larger proposed turbines being located behind and at longer distance. Contrasts of scale are more notable when the proposed turbines are viewed at closer proximity to the viewpoint, or when they are viewed adjacent to Mark Hill on the skyline, where the scale effect is amplified slightly by the siting of the proposed turbines on higher ground.

319. The proposed Development does however, avoid the siting of turbines within the more elevated smoother, rolling hills within the northern part of the Site, which would be more visible, and instead turbines are located with the western and southern parts of the Site, on lower southern slopes, set well back into the upland interior to minimise intrusion on containing skylines formed by the uplands. This generally avoids having prominent turbines seen at full height on the skyline of the hills of the South Ayrshire SA and the setting of the Stinchar Valley. The large majority of the proposed turbines are sited outside the South Ayrshire SA (16 of the 18 turbines) in order to reduce the effects of the proposed Development on the South Ayrshire SA and the setting of communities/skylines within the Stinchar Valley.

320. The proposed turbines are sited as far as possible to the west and south of the site in order to increase the distance of the proposed Development from the Merrick WLA, affording a separation of 5.8 km between the closest turbine of the proposed Development to the closest edge of the WLA boundary and 10.5 km from the Merrick summit. The distance of the proposed Development outside the WLA reduces its effects on the wildness qualities of the Merrick WLA. In views from the Merrick WLA, the proposed turbine layout of the proposed Development has been optimised so that the configuration of proposed turbines has a balanced and consistently spaced appearance, avoiding the spur of higher hills to the north of the Site. The proposed Development has also been designed to have minimal effect on the wildness qualities of the 'core' lower-lying interior area of the Merrick WLA. The proposed Development has also been designed to mitigate effects on views towards the Merrick WLA backdrop, by curtailing the lateral spread of the proposed Development so that proposed turbines do not extend past the Nick of the Balloch in front of the Merrick WLA/Galloway Hills RSA.

321. The residual effects of the proposed Development on landscape and visual amenity are summarised as follows.

6.13.1.1 Landscape Character Effects

322. The proposed Development is located within the Plateau Moorlands with Forestry and Windfarms LCT (18) of South Ayrshire. This is a landscape with an expansive scale, simple plateau landform and absence of settlement, with extensive areas of forestry and windfarm development, fundamentally suited to accommodating wind energy development and having the lowest sensitivity recorded in the SAWLCS.

323. The proposed Development would intensify the windfarm element of these characteristics and extend windfarm development across a further area to the east of the existing Mark Hill Windfarm, resulting in a Significant effect on landscape character within the turbine area and immediate area within 2-3 km of the nearest turbine, where changes in the pattern of elements resulting from the addition of the proposed turbines and associated infrastructure will be most notable. This area is extensively covered in widespread commercial plantation forestry, which limits the likely perception of these change to occasional openings and visual receptors where the turbines would be visible at relatively close proximity. Elsewhere within this LCT the effect on landscape character would be Not Significant. The screening effect of the coniferous commercial forestry across this landscape is substantial, as evident in the forest screening ZTV (**Figure 6.14b**).

324. In cumulative terms, the Plateau Moorland with Forest and Windfarm LCT (18c) is a 'with windfarm' landscape, i.e. its baseline landscape character has been changed to such a degree by operational windfarms, that windfarms (and forestry) form the prevailing characteristic of the plateau landscape, defining it as a 'with windfarm' LCT. Much of the interior landscape to the south and west of the Duisk Valley is already occupied and influenced by the Arecleoch and Kilgallioch windfarms. The plateau to the east of the Duisk Valley is influenced by the operational Mark Hill Windfarm, on a lesser scale, such that are areas of interior plateau landscape to the north-east and east of it that have not been subject to the same level of windfarm influence as the south-western areas of the LCT. The proposed Development will result in an easterly extension of the 'with windfarm' characteristic of the landscape into this plateau landscape to the north-east and east of Mark Hill Windfarm, with larger scale 200 m tip height turbines over a broader footprint, increasing the influence of windfarm development as a key characteristic and extending larger scale windfarm influence towards the more elevated uplands that form the backdrop to the east. In terms of cumulative effects with operational and under construction windfarms, it is considered that the addition of the proposed Development will result in a Not Significant effect on the fundamental character of this 'with windfarm' landscape as it would not materially change the existing landscape character.

325. The landscape within which the proposed Development is located is not subject to landscape designation and is not generally recognised for its scenic value. Areas of landscape are designated in the surrounding area, including the South Ayrshire SA to the north and the Dumfries and Galloway RSA to the east, the perceived characteristics of which could be effected by the proposed Development.

326. Within the South Ayrshire SA it has been assessed that Significant effects on landscape character would occur in Rugged Uplands with Loch and Forest (South Ayrshire 21 and East Ayrshire 21) - within approximately 2.5 km of the proposed Development; and at ranges of between 4.5 km and 9.5 km to the east of the turbines there would also be the potential for significant effects across the open, west facing slopes of the rugged upland area; and Intimate Pastoral Valley (13) – within the area located across the upper, south facing Stinchar Valley side slopes between a point just west of (but not including) Kilpatrick in the west and Daljedburgh Hill in the east.

327. Notably these areas are relatively limited due to the influence of intervening landform and extensive commercial forestry, as well as the existing influence of operational windfarms. Elsewhere, within the South Ayrshire SA the effects on the landscape character would be Not significant.

328. The 'special qualities' of landscapes within the South Ayrshire SA are further defined for the candidate LLAs in the South Ayrshire Local Landscape Designations Review (SAC, 2018). Although these are indicative of the Council's intention for protecting important landscapes in South Ayrshire and carry less weight as a material consideration in planning application decision making than the South Ayrshire SA, the 'statements of importance' for each LLA help to inform the underlying matters which may be being protected by the coincident areas of the South Ayrshire SA. Those that are coincident with the closest parts of the South Ayrshire SA, which may experience significant effects as a result of the proposed Development, are the Stinchar Valley LLA and the High Carrick Hills LLA.

329. While some significant effects are identified on the upper valley sides in transitional areas of the Stinchar Valley, the proposed Development will avoid having significant effects on the reasons for the designation of the Stinchar Valley area of the South Ayrshire Scenic Area, including its hidden, secretive quality derived from being narrow, incised and undisturbed by major communications and its scenic composition enhanced by cultural heritage features; while also not affecting the lush valley floor pastures, complex wooded slopes and well defined hills on the northern edge of the valley.

330. The proposed Development has been designed to reduce and avoid significant effects on the High Carrick Hills area of the South Ayrshire SA. The proposed Development avoids the highest and most rugged hills in South Ayrshire, being sited at the western end and lower slopes of the band of noticeably more rounded open hills, which contrast with the appearance of the granitic ridge to the east. While the hills that are located within the site boundary, extending between Fell Hill, Cairn Hill, Pinbreck Hill and Craignreoch are form part of the wider area of Carrick Forest Hills, the proposed Development is located away from the more dramatic, rugged, rocky summits of the Carrick Hills upland area and the hills that define the Nick of the Balloch, which lie to the east of the proposed Development. As such, the proposed Development will avoid significant effects on the highland character, craggy landforms, peaty lochs and qualities of wildness that can be experienced from the wider High Carrick Hills to the east, which form the principal reasons for designation of the this part of the South Ayrshire SA.

331. It is considered that the proposed Development accords with the Landscape Strategy set out in the South Ayrshire Wind Energy SG (SAC, 2015). The proposed development respects the main existing features of the character of the windfarm influenced landscape in which it is located, consolidating development in this upland landscape that has already accommodated wind energy development and will not fundamentally change the overall existing character from its current 'with windfarm' character.

332. The proposed Development consolidates the successful association of larger turbines with the established Plateau Moorland with Forest and Windfarm LCT (18c) of South Ayrshire, to the east/north east of the existing Mark Hill Windfarm. The proposed turbines are set well back into the upland interior, thereby avoiding the more visible hill tops that form the backdrop and skyline to the Stinchar valley. The proposed Development minimises significant effects on the Duisk and Stinchar Valleys, with very few of the proposed turbines being visible from the settled lower parts of the valleys, including just occasional turbines viewed from Barr and isolated parts of the valley, thus contributing to the clear distinction between the wind-farmed landscapes and the settled valleys, and maintaining the integrity of local valley landscapes and community settings/skylines.

333. The proposed Development has been designed to reduce and avoids having significant effects on views of landmark hills (Figure 6.3) defined in the SAWLCS. The hills that are located within the site boundary, extending between Fell Hill, Cairn Hill, Pinbreck Hill and Craignreoch are not individually identified as 'landmark hills' in the SALWCS, however the 'smoother hills to the west of the Carrick Forest Hills', are referred to as being part of the wider area of Carrick Forest Hills. The proposed Development avoids the more dramatic hills which form the deeply incised pass of the Nick of the Balloch, the eastern Pinbreck Hill (499m) and Rowantree Hill/Glengap Hill (559m), which are located outside the Site. The proposed turbines are sited in set-back locations on the southern downslopes of Fell Hill and Cairn Hill, and the adjacent plateau, thereby avoiding the more visible hill tops that form the backdrop and skyline to the Stinchar valley. The proposed Development is located away from the more dramatic, rugged, rocky summits of the Carrick upland area and the hills that define the Nick of the Balloch, which lie to the east of the proposed Development.

334. The proposed Development is also located at long distance from more valued landscapes identified in the SG at Loch Doon and the adjacent Carrick Hills, avoiding significant impact on the setting and experiential qualities of this valued landscape.

6.13.1.2 Visual Effects

335. Views of the construction and operation of the proposed Development will primarily be experienced from along the smooth, rounded elevated hills rising immediately to the north of the Site and across the forested plateau moorlands of South Ayrshire and Galloway to the south and south-west of the proposed Development. In general, these are relatively remote, heavily forested areas with limited access and relatively few visual receptors, with access on unclassified roads and forest access tracks. Settlement in these elevated plateau landscapes is limited to scattered rural dwellings and farmsteads. Higher levels of visibility also extend to the western side of the Merrick uplands (WLA), to the east of the Site, where the higher landforms of these rugged uplands provide elevated views over the proposed Development and the surrounding landscape. There will also be views of the proposed Development from the foothills of South Ayrshire to the north, on either side of the Stinchar Valley, however this tends to be of a reduced number of turbines due to the screening provided by the intervening upland ridgeline of the turbines that are set back further to the south of the Site. The lower lying valleys and glens that penetrate into the plateau moorland, such as the Duisk Valley and Stinchar Valley, will generally experience limited visibility.

336. Widespread areas of coniferous plantation forestry in the landscape provide extensive screening from areas within and immediately adjacent to these forests, such that the areas of remaining visibility of the proposed Development are very limited, particularly to areas of higher ground within 15 km (**Figure 6.14b**), from the Merrick uplands to the east; the east facing slopes of the Duisk Valley; south facing slopes of the Stinchar Valley; foothills of South Ayrshire to the north and open plateau moorland areas to the south-east.

337. The effect of the proposed development on visual receptors, such as settlements, route corridors and visitor attractions was assessed using a combination of ZTV analysis and viewpoint analysis, where viewpoints are used to represent and assess the effect and geographic extent of effects from specific visual receptors such as settlements, transport and recreational routes. 22 representative viewpoints have been agreed with stakeholders and assessed in the LVIA from these main areas of visibility, to represent the experience of different types of visual receptor and to cover points of specific importance such as recognised viewpoints, designated landscapes, settlements, important routes and attractions, and to inform the definition of the likely extent of significant visual effects arising from the proposed Development.

338. The proposed Development is assessed as resulting in significant and long-term effects on views experienced by hill walkers in the Merrick uplands to the east of the Site, including from Merrick (Viewpoint 8) and Shalloch on Minnoch (Viewpoint 13); hill walkers at Corserine (Viewpoint 14) which has a view across the Merrick WLA to the proposed Development in its backdrop; walkers on the local path networks around the Stinchar Valley/Barr area to the north, including from Auchensoil Hill (Viewpoint 7) and the Barr trails (Viewpoint 20 and 21); cyclists/visitors to Kirriereoch Picnic site which is on NCR7 to the east of the Site; and motorists travelling northbound on the A714 near Creeside (Viewpoint 10) and southbound on the B734 approach Barr (Viewpoint 19). No significant visual effects have been identified on residents of the main settlements in the study area, including the nearest villages of Barr and Barrhill, where there is limited visibility of the proposed Development due to the set-back position of the proposed turbines and the intervening screening by the steep valley sides and coniferous plantation forestry.

339. A Residential Visual Amenity Survey (RVAS) has been undertaken as part of the LVIA (**TA:6.4**). The RVAS has identified that there are very few residential properties in the locality of the proposed Development, with just three residences located within the 2 km radius study area around the proposed Development. These properties are situated to the south of the proposed Development, at Ferter (1.15 km), Shallochwell (1.47 km) and White Clauchrie (1.49km). The visual effect of the proposed Development on residents within these dwellings is assessed in full in **TA:6.4**.

6.13.1.2.1 Cumulative Effects

340. The LVIA reports both the project alone and additional cumulative effects arising from the proposed Development against the existing baseline. Due to the location of the proposed Development, relatively close to Mark Hill Windfarm (and other operational windfarms in the surrounding landscape) there will be potential for cumulative impacts to arise with the existing baseline of operational and under-construction windfarms. The main LVIA in **Sections 6.9 - 6.10** therefore assesses both the project alone impact of the proposed Development, as well as its impact cumulatively with the existing baseline of operational and under-construction windfarms. In accordance with guidance (SNH, 2012), the LVIA for each receptor considered assesses the effect arising from the addition of the proposed Development to the cumulative situation, and not the overall effect of multiple windfarms.

341. The cumulative assessment in **Section 6.11** reports on the likely significant cumulative effects of the proposed Development in relation to two potential future baseline scenarios, 'the consented scenario' and 'the application stage scenario'. In the consented scenario and application stage scenarios, the cumulative LVIA assesses the additional cumulative magnitude of change/additional effect arising as a result of the proposed Development specifically in addition to new consented and application stage windfarms coming into the assessment (albeit in the context of the baseline established by operational windfarms). It does not aggregate the effect assessed as a continuum from previous scenarios, but instead seeks to identify how the proposed Development adds new, different or additional effects, over and above those that were assessed in the previous scenario. This allows the cumulative LVIA to determine in which scenario the significant cumulative effects arise, whether that be with operational, consented or application stage windfarms and avoids the double counting of significance aggregated through the scenarios, when these may have already occurred principally in respect of an earlier assessment scenario.

342. In these consented and application stage scenarios, the Plateau Moorland with Forest and Windfarm LCT (18c) is a ‘with windfarm’ landscape, i.e. its baseline landscape character has been changed to such a degree by operational, consented and application stage windfarms, that windfarms (and forestry) form the prevailing characteristic of the plateau landscape, defining it as a 'with windfarm’ LCT. The influence of windfarms in the baseline landscape to the south-west of the Duisk Valley will intensify with the addition of consented and application stage windfarms, adding to the windfarm characterising effect on the forested plateau moorlands in this area. The slight difference in effect in these consented and application stage scenarios arises from the addition of the proposed Development to this increased windfarm influenced context, however there is very limited direct interaction between the proposed Development and these consented and application stage windfarms, since they are largely subsumed within, or form extensions of, the operational windfarms present in the baseline.

343. Taking the Merrick viewpoint as an example, the proposed Development is assessed as having significant additional cumulative effects (in **Table 6.10.13**) in respect of its addition to the operational windfarms, given particularly its increased proximity, scale and position in the view relative to the operational Mark Hill Windfarm, and other windfarms in the view west/north-west such as Hadyard Hill, Arecleoch and Kilgallioch. The cumulative effect of the proposed Development, is however, assessed as a not significant additional effect in the subsequent consented and application stage scenarios, since it essentially having a similar effect to that in the operational scenario, albeit in the context of a wider windfarm influenced context. There is limited direct interaction of the proposed Development and these consented windfarms in the view, since they are generally subsumed within, or extend the operational windfarms, such that the proposed Development results in additional effects of relatively low magnitude (over and above those assessed for operational windfarms).

344. The consented and application stage windfarms would not interact with the proposed Development in any distinctly new or additional way, but primarily as part of the cumulative effect that is already experienced in the operational scenario. The cumulative effects of the proposed Development will continue to occur primarily as a result of its relationship with the operational Mark Hill Windfarm (and the operational Arecleoch and Kilgallioch windfarms), rather than as a new or additional effect with consented and application stage schemes. The addition of the proposed Development in the consented and application stage scenarios will not change the fundamental character of the ‘with windfarm’ landscape and is assessed as having Not Significant effects on the landscape character, when considered as an additional cumulative effects to those already identified against operational windfarms.

345. The cumulative effect assessment has determined that the additional significant cumulative effects of the proposed Development arise primarily in respect of its addition to operational windfarms, and are not as marked when considered as additional effects in the consented and application stage scenarios, despite the overall increase and intensification of wind energy development in the landscape. In considering the detailed cumulative effects described within the LVIA, the focus has been on these additional effects, however a broad statement relating to the combined cumulative effect of multiple windfarms in the area is provided, as follows.

346. The plateau areas on either side of the Duisk around Kilgallioch, Arecleoch and Mark Hill are considered to be some of the most suitable landscapes in Scotland to accommodate large-scale windfarm development. There are several key issues in this area which are most pertinent to managing the landscape change caused by multiple windfarms successfully, without unacceptable landscape and visual impacts. Firstly, to consolidate development in areas that are already influenced by wind energy development, i.e. extensions of the existing wind farms, or sited near to them, are more preferable than separate smaller developments that dilute the design rationale of the existing windfarms; secondly minimising effects on the settled valley landscapes (the Duisk and Stinchar) where people live, so that the large scale windfarm influence in the plateau areas is not experienced on a day to day basis from people’s homes and routes within these valleys; and thirdly, avoiding or minimising effects on the most valued upland landscapes, particularly the Merrick WLA, which provides both undeveloped/remote areas without direct development influence and provide undeveloped backdrops to wider views from the lowland/plateau areas.

347. The proposed Development has been designed with these key issues in mind, with embedded mitigation that aims to consolidate development within an existing windfarm landscape, near the existing Mark Hill Windfarm; avoiding the higher ground of the Pinbreck Hills area to the north of the site to avoid and reduce effects on the settled Stinchar and Duisk Valley; avoiding the higher upland areas of the site to keep development in the forested plateau landscape and reduce effects on the Merrick uplands; and by curtailing the lateral spread of the proposed Development so that proposed turbines do not extend in front of the Merrick WLA backdrop.

348. While this LVIA has found capacity for the proposed Development, it is recognised that there are several operational large-scale windfarms both in the immediate vicinity of the Site and in the wider plateau moorlands of South Ayrshire and nearby areas of Galloway, and that this area of South West Scotland has been through notable landscape change as a result of wind energy development. There are also several consented and application stage windfarm proposals in the wider area, which have the potential to increase the complexity of cumulative landscape and visual effects, however these are located at relative distance from the proposed Development, at 12.3km to the nearest consented windfarm (Chirmorrie) and 8.6km to the nearest application stage windfarm (Millenderdale). The assessment has identified that the main cumulative effects of the proposed Development arise with respect to operational windfarms, rather than the more distant consented and application stage schemes that are often subsumed within the pattern of operational windfarms.

349. There is a likelihood that multiple windfarms in this area will occupy many parts of the Plateau Moorland/Plateau Moorland with Forest and Windfarm landscapes to become the key characteristic that changes the overriding character to a windfarm landscape over a wide area. This landscape change to a large-scale renewable energy landscape has partially taken place as part of the baseline landscape of the plateau to the south and west of the Duisk Valley (including Arecleoch, Kilgallioch, Airies Farm, Artfield Fell, Balmurrie Fell), but will be consolidated further with consented and application stage schemes (including Chirmorrie, Stranoch, Arecleoch Extension, Kilgallioch Extension and Gass), which intensify, extend and/or bridge gaps between existing windfarms, and introduce larger wind turbines (generally up to 150m consented and up to 200m at application stage). The pattern of small-medium sized, dispersed wind farms in the south (Artfield, Glenchamber, Carscreugh) will effectively be perceived to join with the pattern of larger scale wind farms in the north (Kilgallioch, Arecleoch) to create a relatively contiguous ribbon of wind energy development and windfarm influenced landscape, stretching from Carscreugh, Glenchamber, Artfield/Balmurrie Fell and Kilgallioch to Arecleoch in the north. A variety of turbine sizes would be present, ranging between 70m – 200m blade tip height.

350. While much of the interior landscape to the south and west of the Duisk Valley is already occupied, and will become more influenced by windfarms, the plateau to the east of the Duisk Valley is influenced by the operational Mark Hill Windfarm, on a lesser scale, such that are areas of interior plateau landscape to the north-east and east of Mark Hill have not been subject to the same level of windfarm influence as the south-western areas. The cumulative effect of the proposed Development is to result in an easterly extension of the ‘with windfarm’ characteristic of the landscape into this plateau landscape to the north-east and east of Mark Hill Windfarm, with larger scale 200 m tip height turbines over a broader footprint, increasing the influence of windfarm development as a key characteristic of this part of the landscape and extending larger scale windfarm influence towards the more elevated Merrick uplands that form the backdrop to the east.

351. Although there is a significant level of existing, consented and application stage windfarm development in the plateau moorland landscapes of this part of South-West Scotland, it is considered that there is capacity to accommodate the proposed Development in this location. The proposed Development fits with the strategy of concentrating/intensifying development within, or near existing/consented windfarm landscapes, which is preferable than a more dispersed pattern of development into new areas without an existing (or consented) windfarm influence since it encourages clustering of windfarm development within a landscape and/or views that are already influenced by windfarm development.

6.13.1.3 Effects of Aviation Lighting

352. Civil Aviation Authority (CAA) guidance requires that the proposed turbines, which are above 150 m in height, are lit with visible lighting to assist their detection by aircraft. As such, there is potential that parts of the proposed Development may be visible at night. The visual effect of the proposed Development at night would result from visible medium intensity (2,000 cd) red coloured light fittings located on the nacelles and low-intensity (32 cd) lights on the turbine towers, of all proposed turbines.

353. As part of the aviation assessment, light minimisation strategies are being considered, including an aviation detection lighting system, whereby aviation warning lights are only activated when aircraft are detected in the vicinity of the proposed Development by a surveillance system. This would result in the aviation lights having short duration visual effects, for approximately 2-4 minutes while an aircraft passes over the proposed Development, and these are likely to be of limited frequency due the lights being turned on rarely in this quiet airspace.

354. Consideration is also being given to use of lights with specific directional intensity, in order to reduce or eliminate vertical downwards light impact at elevations below the horizontal plane. This focusses the 2,000 cd lighting in the horizontal plane (+ or – a few degrees) and reduces the intensity of the light from above and from below the horizontal plane. Most current aviation light models on the market will incorporate this as standard. Further mitigation will be provided by reducing the intensity of the lights from 2,000 cd to 200 cd in periods of clear visibility (when visibility is >5 km from all turbines). Visibility conditions will be measured using a visibility sensor, which can then be dim the lights automatically to respond to prevailing meteorological conditions.

355. The visual effect of the turbine aviation lighting is assessed in **TA:6.2**, which considers both visual effects on people within the Galloway Forest DSP and other areas outside the buffer area of the DSP with low levels of lighting. With respect to the Galloway Forest DSP, visible aviation lighting of the proposed turbines would not be seen from any of the 10 dark skies viewing locations, which afford no visibility of the proposed turbines, their aviation lights and tower lights to people viewing the night sky from these locations. The three scenic drives – the Queen's Way, Carrick Forest Drive and Raider's Road; as well as the Glentrool and Clatteringshaws visitor centres will also afford no visibility of the aviation lights.

356. While the 10 dark skies viewing locations and the main accessible 'favourite' routes and visitor centres of the DSP are identified as the most likely night sky viewing sites, people could feasibly be viewing the night sky from any part of the Galloway Forest DSP. Parts of the Core Zone of the DSP around the western flank and summits of the Merrick uplands (the 'Range of the Awful Hand') that offer visibility of the proposed Development are remote upland areas which are not, in all likelihood, somewhere that people often go at night to view the night sky (in general, people would tend to use the more accessible viewing locations or key routes through the DSP).

357. The parts of the core area of the DSP which demonstrate the highest overall darkness are within the lower-lying 'interior', where the assessment has found that the aviation lighting will not be visible and will have no effects on the darkness experienced from within this 'interior' of the core area of the DSP. The potential visual effects of aviation lighting arising from the proposed Development are contained, in the main, to the western flank of the core area of the DSP, formed by the range of the Awful Hand, consisting the Benyellary, Merrick, Kirriereoch Hill, Tarfessock to Shalloch on Minnoch ridgeline. Due to the relatively high sensitivity of these viewpoints, within the Galloway Forest DSP, the moderate levels of change resulting from the aviation lights results in significant and adverse visual effects, occurring primarily due to the introduction of an array of new and unfamiliar visible lights in an otherwise primarily dark landscape.

358. The effect of the aviation lighting on views from the core area of the DSP, is however, likely to be mitigated by the operation of the lights in accordance with Air Navigation Order 2016 (CAP393) Article 223 (8). The western flank and summits of the Merrick uplands will experience the aviation lights at 200cd during periods of 'clear' visibility; and only at 2,000cd in periods of poor visibility (when the influence of the lights would be reduced in poor visibility conditions).

359. One of the key findings of the visual assessment of the aviation lights is that they are considered unlikely to result in 'obtrusive' light, nor impede the expanse of night sky to the point of being obtrusive. Generally this is because the aviation lights will be viewed relatively near the horizon, or even below the skyline from elevated parts of the core area of the DSP, so while they may have significant effects by breaking into the darkness as point features of light, appearing unusual and surprising in an otherwise dark landscape, they are not expected to result in obtrusive light that would harm the enjoyment of the night-skies or change the fundamental perception of the site and its surrounds as a rural and essentially dark landscape .

6.13.1.4 Effects on Merrick Wild Land Area

360. No physical attributes that contribute to the special qualities of the Merrick WLA (01) will be changed as a result of the construction and operation of the proposed Development. The proposed Development, due to its location at some distance outside the Merrick WLA (5.8km at its closest point) can only result in indirect effects on the perception of certain wildness qualities but will not physically or directly affect the physical attributes of the Merrick WLA (01). The effect resulting from the proposed Development is assessed as significant (but of medium, rather than high magnitude) on the perception of a particular wildness quality (WQ3) that derives from changes to views west from the Merrick WLA (01) from geographically focused areas along the tops of the 'Awful Hand' and its western flanks.

361. The particular wildness quality that is effected by the proposed Development, WQ3, refers to human elements as widely visible from the tops and outermost slopes, but it is the stronger sense of remoteness of the lower-lying interior areas of the WLA that are the particular focus of WQ3. Although the proposed Development will increase the intensity of visible human influences to the human influence landscape viewed from the 'tops and outermost slopes', it has no impact on the remoteness experienced from the lower-lying interior areas - which is the wild land quality referred to in WQ3.

362. The significant effects arising from the proposed Development on this wildness quality (WQ3) are contained, in the main, to the western flank of the Merrick WLA (01) that form the range of the Awful Hand, consisting Benyellary, Merrick, Kirriereoch Hill, Tarfessock to Shalloch ridgeline. The proposed Development will form a closer range and larger scale windfarm development, increasing the influence and scale of human artefacts perceived, however it will not redefine the character of the landscape in this direction which already features a number of operational windfarms. These areas which will be influenced by the proposed Development, are not devoid of other visible human influences in the landscape to the west of the WLA (01), including extensive commercial coniferous plantations and numerous operational windfarms. The wildness context - in which the change from the proposed Development would be experienced - is already subject to a considerable degree of diminution from other human influences.

363. The extent of this effect on the perception of this particular wildness quality, WQ3, would be entirely contained within Sub-area (i) of the Merrick WLA. The effects on Sub-areas (ii) and (iii) of the Merrick WLA (01) would not be significant and the wildness qualities, that become progressively stronger in the lower-lying 'interior' of the WLA (01) to the south-east (**Figure TA6.3- 1f**), would remain intact. The 'interior' locations of the Merrick WLA (01) are highly susceptible to a development of this size and form, due to the high strength of wildness that results in the range of qualities described being well expressed.

364. Whilst the assessment undertaken considers the effects of the proposed Development on the Merrick WLA (01) by 'sub-area', the effect upon the Merrick WLA (01) as a whole, and the wildness qualities it possesses, are also taken into account. The assessment finds that although significant effects occur on a particular wildness quality (WQ3) due to increased influence of human elements visible from the range of the 'Awful Hand' and the western flanks of the Merrick WLA (01), these do not undermine the overall integrity of the Merrick WLA (01).

365. The construction and operation of the proposed Development will result in a relatively low change to the strong overall character of the Merrick WLA, with its varied and distinctive landscapes continuing to define its overall character. It is not the overall experience of wildness of the Merrick WLA (01) that will be changed, but a specific perceptual aspect of wildness where there are interactions between external human artefacts and the Merrick WLA (01). These effects arise as a result of change on a particular wildness quality, not a change to all of the wildness qualities, since the majority of perceptual responses to wildness will continue to contribute to the wildness quality of the Merrick WLA (01) and will not be changed or affected in the same way. The perception of most of the other wildness qualities will not be significantly affected by the construction and operation of the proposed Development. The assessment does not find that the proposed Development would have an effect so severe or widespread as to undermine the integrity of the Merrick WLA (01) as a whole.

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