

Chapter 7 Landscape and visual



Table of contents

7.1	Introduction	2
7.2	Approach to assessment and methods	2
7.2.1	The proposed Development	2
7.2.2	Study area	2
7.2.3	Desk study	2
7.2.4	Field survey	3
7.2.5	Assessment methods	3
7.2.6	Mitigation	4
7.2.7	Assessment of significance	5
7.2.8	Assumptions, limitations and confidence	5
7.3	Consultation	5
7.4	Baseline conditions	12
7.4.1	Introduction	12
7.4.2	Landscape and visual baseline overview	12
7.4.3	Visual baseline overview	13
7.4.4	Wind energy development baseline	15
7.5	Assessment of physical landscape effects	17
7.5.1	Introduction	17
7.5.2	Coniferous forestry	17
7.6	Assessment of landscape character effects	18
7.6.1	Introduction	18
7.6.2	Preliminary assessment landscape character	18
7.6.3	Preliminary assessment landscape designations	19
7.6.4	Wild land area preliminary assessment	19
7.6.5	Summary of preliminary landscape character assessment	20
7.6.6	Detailed Assessment of Landscape Character Effects	20
7.7	Assessment of effects on views	26
7.7.1	Introduction	26
7.7.2	Preliminary assessment of effect on views	26
7.7.3	Summary of preliminary assessment on views	28
7.7.4	Detailed assessment of effects on views	29

7.8	Summary and statement of significance			
7.8.1	Summary of effects			
7.8.2	Statement of significance			
7.9	References			
List of Figur	<u>es</u>			
Volume 3a: Plan Figures to support this Chapter				
Volume 3b: Visualisations – viewpoints 1 – 11				
Volume 3c: Visualisations – viewpoints 12 – 22				
Volume 3d: Visualisations – night time visualisations				
Note – Figure names and numbers listed in contents pages				
-				
List of Toch	aical Annondicos			

List of Technical Appendices Technical Appendix 7.1: Landscape and Visual Assessment Methodology Technical Appendix 7.2: Residential Visual Amenity Assessment (RVAA) Technical Appendix 7.3: Visual Assessment of Turbine Lighting

41
41
42
45

of each of the Volumes 3a – 3d



Chapter 7 Landscape and visual

7.1 Introduction

- This landscape and visual impact assessment (LVIA), which has been undertaken by Optimised Environments Limited (OPEN), evaluates the effects of the Arecleoch Windfarm Extension (the proposed Development) on the landscape and visual resource.
- The assessment considers effects on the landscape resource both direct effects and effects on how the landscape is 2. perceived - and the effect on visual amenity (views) within the study area (Figure 7.1). Cumulative effects arising from the addition of the proposed Development to other windfarms are also considered.
- Technical appendices to this LVIA should be read in conjunction with the Chapter as follows: 3.

Technical Appendix 7.1 (TA: 7.1) – Landscape and Visual Assessment Methodology;

Technical Appendix 7.2 (TA: 7.2) - Residential Visual Amenity Assessment (RVAA); and

Technical Appendix 7.3 (TA: 7.3) - Visual Assessment of Turbine Lighting.

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

Volume 3a: Plan Figures to support this Chapter;

Volume 3b: Visualisations – viewpoints 1 - 11;

Volume 3c: Visualisations - viewpoints 12 - 22; and

Volume 3d: Visualisations – night time visualisations.

The landscape and visual aspects of the Site selection and design are described in full in the separate Design and Access Statement and summarised in Chapter 2: Site Description and Design Evolution. For legislation and Policy relevant to this Chapter, please refer to Chapter 4 – Renewable Energy and Planning Policy.

7.2 Approach to assessment and methods

7.2.1 The proposed Development

7.2.1.1 Site layout

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 3.5 and described in Chapter 3: Description of the Development. The assessment of other elements of infrastructure of the proposed Development is as described in Chapter 3. In the event that the blade length varies by +/- 5m within the blade tip height of up to 200 m, OPEN is confident that the findings of this LVIA would not be changed.

The Site area and Site layout is also shown on Figure 7.3. The Site area of the proposed Development is almost entirely located within South Ayrshire although it should be noted that the Site access lies within Dumfries and Galloway at the border with South Ayrshire on the A714.

7.2.1.2 Turbine lighting

- 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.
- 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 3: Description of the Development and Chapter 15: 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 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 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

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.

See also Technical Appendix 7.3: Visual Assessment of Turbine Lighting, which describes the lighting parameters and 10. approach to assessing night time effects in more detail in relation to the proposed Development.

7.2.2 Study area

- The initial step in the LVIA is the establishment of the study area for the assessment. Guidance developed by SNH (Visual 11. Representation of Windfarms Version 2.2, February 2017) (SNH, 2017b) indicates that an area with a radius of 45 km from the nearest turbine is appropriate for the turbines of the size proposed in the proposed Development. This was also agreed through consultation with Scottish Natural Heritage (SNH) and South Ayrshire Council (SAC). The process for establishing the cumulative study area was agreed during the consultation process with SNH and SAC and has been agreed to be 45 km from the outermost turbines of the proposed Development.
- This study area is shown on Figure 7.1. Zone of Theoretical Visibility (ZTV) analysis of the proposed Development has been 12. carried out for this study area (including cumulative ZTVs, CZTVs), as has mapping of landscape character, landscape related designations, wild land areas and principal visual receptors. The study area is not intended to provide a boundary beyond which the proposed Development would not be seen, but rather to define the area within which it may have a significant landscape or visual effect. A significant effect is, in reality, very unlikely to occur towards the edges of the study area.

7.2.3 Desk study

- The assessment is initiated through a desk study of the Site and 45 km radius study area. This study identifies aspects of the 13. 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.
- 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.

7.2.4 Field survey

- To inform the baseline and layout design process, field survey was undertaken between August 2018 and February 2019. 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 September 2018 and May 2019. Further assessment field survey visits were undertaken in April 2019 following design freeze.
- These visits have allowed the landscape character and the visual amenity of the study area to be experienced in a range of 16 different conditions and seasonal variation. Field surveys were carried out throughout the 45 km radius study area, although the focus has been on the areas shown on the ZTV to gain theoretical visibility of the proposed Development. The field survey allows the assessors to judge the likely scale, distance, extent and prominence of the proposed Development directly.
- 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 gualities 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. he 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.
- 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
- 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.

7.2.5 Assessment methods

- The detailed methodology for the assessment is described in detail in TA 7.1: Landscape and Visual Assessment Methodology. The broad principles used in the assessment of the significance of effects are also described here.
- The objective of the assessment of the proposed Development is to predict the likely significant effects on the landscape and 21. 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.
- The significance of effects is assessed through a combination of two considerations; the sensitivity of the landscape receptor 22. or view and the magnitude of change that would result from the addition of the proposed Development.

7.2.5.1 Sensitivity of receptor

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 7.1. 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.

7.2.5.2 Magnitude of change

24. 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 7.1. 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.

7.2.5.3 Categories of Effects

- 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 Site boundary and are the direct effects on the existing fabric of the Site. 26 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 27. 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 28 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.
- It is important to remember that the objective of the cumulative assessment is different from the assessment of effects of the 30. proposed Development itself. In the cumulative assessment the intention is to establish whether or not the addition of the proposed Development, in combination with other relevant existing and proposed windfarms, may lead to a landscape character or view that is characterised primarily by windfarms so that other patterns and components are no longer definitive. The assessment of the effects of the proposed Development itself focusses on the effect that the proposed Development would have on the viewpoints, principal visual receptors and landscape character receptors, taking baseline windfarms into consideration. Baseline (operational and under construction) cumulative windfarms are taken into consideration in both the assessment of the proposed Development itself and the cumulative assessment, while consented and application stage windfarms are considered only in the cumulative assessment.
- In accordance with guidance (SNH, 2012), the LVIA for each receptor considered assesses the effect arising from the addition 31 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.

7.2.5.4 Potential effects

32 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.

Potential effects are those which could result from the construction and operation of the proposed Development. Table 7.1

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 substations	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 pit, control buildings and substations, and 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	Turbines, Turbine lighting on > 150m tip turbines	Long term effects on views	Visual receptors

Table 7.1: Potential effects

- The effects of the construction, operation and decommissioning of the proposed Development on the landscape and visual 33. resource would arise principally from the construction, operation and decommissioning of the turbines 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 18 month construction period.
- There is currently no proposal to limit the lifetime of the proposed Development. The Scoping Report stated the following in 34. relation to the temporal scope of the proposed Development: "There is no proposal to limit the lifetime of the proposed Development. Therefore, the assessment of all technical areas 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 deal with the requirement to remove turbines if they become non-operational for a defined period of time. "
- Operational, construction and decommissioning effects are assessed and reported together in this Chapter. Due to the large 35. scale of the windfarm proposed, it is considered that there would be no instances where construction or decommissioning effects trigger a significant effect for receptors where operational effects are found to be not significant. 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.

7.2.5.5 Nature of effects

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.

7.2.5.6 Duration and reversibility of effects

- 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, Site access tracks control building and substation compounds would be apparent during this time, and these effects are considered to be longterm.
- Other infrastructure and operations such as the construction processes and plant (including tall cranes for turbine erection) 38. 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 and decommissioning periods are also temporary and reversible.
- In order to avoid repetition, the duration and reversibility of effects are not reiterated throughout the assessment. 39.

7.2.5.7 Residual effects

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

7.2.6 Mitigation

7.2.6.1 Embedded mitigation

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. As described in Section 7.2, 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.

7.2.6.2 Landscape and visual design strategy

- The landscape and visual design strategy for the proposed Development is described in the separate Design and Access 42. Statement and summarised in Chapter 2: Site Description and Design Evolution.
- The proposed turbine layout has been designed to minimise the effect on the surrounding landscape and visual resource. 43. Therefore, the turbine layout design has evolved with the intention of presenting a simple, well balanced image of the proposed Development in the majority of views.
- Ground disturbance onsite would be restricted as far as practicable and any soil materials excavated would be retained on the 44 Site for re-use on areas to be re-vegetated following the construction phase. The proposed borrow pits, substations, construction compounds and tracks are positioned to minimise visual impact. The access route from the A714 has previously been used during the construction of Arecleoch and Kilgallioch Windfarms and would minimise the amount of new and upgraded track required as part of the proposed Development, also minimising any further landscape and visual effects that might have otherwise resulted from an alternative route.

7.2.7 Assessment of significance

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 7.2 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.

Magnitude Sensitivity	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

Table 7.2: Illustrative significance matrix

- Effects within the dark grey boxes of **Table 7.2** 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.
- A significant effect occurs where the proposed Development would provide a defining influence on a landscape element, 51. 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.

7.2.8 Assumptions, limitations and confidence

7.2.8.1 Zone of Theoretical Visibility analysis

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;

theTZTVs 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.

These limitations mean that while the ZTVs are used as a starting point in the assessment, providing an indication of where 53. the proposed Development theoretically would be visible, the information drawn from the ZTVs should not be completely relied upon to accurately represent visibility of the proposed Development.

7.2.8.2 Visualisations

Photographs and other graphic material such as wirelines and photomontages used in the assessment are for illustrative 54. 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' (SNH, 2017b):

"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."

7.3 Consultation

- A request for a Scoping Opinion was submitted to the Scottish Government Energy Consents Unit (ECU) in October 2018. 55. 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 6: Scoping and Consultation. Key information provided by consultees relevant to this LVIA assessment is provided in Table 7.3.
- 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, and the consented Chirmorie and Stranoch Windfarms in the LVIA. Full details of the consultation undertaken throughout the project are presented in the Gatecheck Report provided in Chapter 6.

Consultee name	Consultees comments	SLR / Consultant comments / action
SAC Scoping Response 20 th November 2018	The Development is proposed as an extension to the existing Arecleoch Windfarm with no limits to the lifetime. The proposed Development would consist of 15 wind turbines with a maximum blade tip height of 200m and to be situated 2km SW of Barrhill. The submitted EIA Scoping Report considers also the impact of the associated infrastructure, cumulative effects and mitigation measures to reduce or offset the effects of the proposed Development on the environment. As advised the proposed Landscape and Visual Impact Assessment will be carried out in accordance with current guidance. The level of information proposed should provide us with an adequate basis for the assessment of the impacts on the surrounding landscape.	Noted
SAC Meeting 29 th January 2019	SAC are in agreement with a study area of 45km from the windfarm being set for the Landscape and Visual Impact Assessment (LVIA). We welcome the focus of the LVIA on detailed assessment of potentially significant effects with non-significant effects being scoped out. We have however commented in the following text on the proposed scope of the LVIA as set out in the Scoping Report. The 2013 South Ayrshire Landscape Wind Capacity Study (SALWCS) has been updated with a revised report issued in August 2018 (this replacing the earlier 2013 report). The 2018 SALWCS considers larger wind turbines and a changed cumulative baseline. Landscape and visual issues requiring to be addressed (in addition to and supplementing the issues listed on page 19 of the Scoping Report):	Noted The August 2018 SALWCS will be referenced in the LVIA.
	Views from settlements – Principally effects on Barrhill, Ballantrae, Colmonell and Pinwherry	Settlements and property clusters are considered in the assessment of views, Section 7.7 of the LVIA.
	Recreational routes/areas – Ayrshire Coast Path and popular hill walks including Beneraird, Knockdolian, the coastal hills west of Glen App and the Galloway/High Carrick Hills.	These routes and hill walks are considered in the assessment of views, section 7.7 of the LVIA. Beneraird is included as LVIA VP 9. Knockdolian is included as LVIA VP 14. LVIA VP 20 is on the summit of the Merrick within the Galloway and High Carrick Hills
	Cumulative effects – We would recommend that, in addition to the operational windfarms noted in the 1st bullet point of page 19 of the Scoping Report, the design of the Proposal should also be considered in relation to the nearby consented windfarms of Stranoch and Chirmorie and the proposed Stranoch 2 Windfarm which could replace the consented Stranoch Windfarm.	The consented windfarms at Stranoch and Chirmorie are included in the cumulative assessment. The Stranoch 2 proposal is considered as a replacement to the consented Stranoch Windfarm within the application scenario.

Forest felling and restocking -Forest restructuring should accord with be design practice set out in UK Forest Stand LVIA should expressly consider the lands effects of felling and restocking with the for proposals clearly shown on visualisations

Merrick Wild Land Area (WLA) -

The assessment of effects on this WLA sl undertaken in accordance with SNH Guid Assessing Impacts on Wild Land consulta The potential effects of proposed night tim be specifically addressed.

Local landscape area -

The South Ayrshire Scenic Area local land designation identified on page 19 (4th bul Table 6.2 of the Scoping Report has now Local Landscape Areas (LLA) following a review of local landscape designations un Potential effects on the reasons for design qualities of the Glen App Coast and Hills, Valley, Girvan to Ballantrae Coast and Hill Hills and Ailsa Craig Local Landscape Are considered in the LVIA. The background is these LLAs can be obtained from the Cou

Table 6.1 proposes to scope out the Rais Landscape Character type from detailed a LVIA but provides no clear justification for would wish to see this sensitive LCT (whit close to the proposed Development) includetailed assessment.

It would be useful for a detailed Zone of T Visibility (ZTV) map based on a 1:50km C be produced in the LVIA which showed an visibility within approximately 15km of the addition to existing visibility of the operation wind).

We require copies of wireline visualisation viewpoints within South Ayrshire listed in forming a view on whether these viewpoin scoped out of the detailed LVIA.

While the viewpoints listed in Tables 6.3 appear appropriate, we would request an

	SLR / Consultant comments / action
best landscape ndards and the lscape and visual forest restructuring is where relevant.	The felling and restocking of the forested parts of the Site is considered in the Forestry Technical Appendix 3.2 . The felling proposed for construction of the proposed Development is assessed as part of the construction stage direct effects on landscape fabric.
should be idance on tative draft 2017. ime lighting should	The Merrick will be illustrated by photomontage, but not for night time lighting. No night-time lighting assessment on Merrick summit due to the lack of receptors at the top of the Merrick at night (given lack of appropriate facilities /altitude /roughness of terrain) as well as H&S grounds for photographer. (See LVIA VP 21)
ndscape ullet point) and w been replaced by a comprehensive undertaken in 2018. gnation and special s, The Stinchar tills, High Carrick reas should be t information on puncil.	SAC Local Development Plan 2 (LDP2) Main Issues Report (MIR) states the preferred option in relation to SAC Scenic Areas which is 'to review the Scenic Areas, following guidance of SNH and incorporate the findings within LDP2 and its spatial strategy'. This review however was not publicly available at the time of assessment and LDP2 has not yet been adopted. The LVIA has therefore assessed the SAC scenic areas as identified in the current LDP.
sed Beach Coast l assessment in the or doing so. We nich lies relatively luded in the	In line with the Scoping Report and Table 6.1, Raised Beach Coast LCT has been scoped out of detailed assessment on the basis of the very limited predicted visibility as shown on the blade tip ZTV.
Theoretical OS map base to any new areas of e Proposal (in tional Arecleoch	50k OS mapping shown on A1 ZTVs.
ons from the n Table 6.4 prior to ints should be	Wirelines for all viewpoints were issued as post consultation response in order to agree viewpoint locations.
and 6.4 generally nadditional	We have carefully examined locating a viewpoint on the B734 where the road

Consultee name	Consultees comments	SLR / Consultant comments / action
	viewpoint from the B734 as the road rises above the Stinchar Valley (the resolution of the ZTV is insufficiently high to give a precise grid reference). In addition, we would prefer to see Viewpoint 10 changed from Ballimore-on-tig (which should be considered in the residential assessment with accompanying wireline visualisation) to a viewpoint on the more commonly accessed public road on the south- west side of Glen Tig where open views across the wooded glen are a feature. The operational Arecleoch windfarm backdrops the glen in views from this road and it would be useful to consider the relationship between this development and the proposed extension in the LVIA.	rises above the Stinchar Valley, and note that there is one short section of this road to the west of Pinmore Mains with predicted visibility of up to 3 turbines on the blade tip ZTV. However, having checked this onsite, at this location the road is flanked by dense beech hedges and although there is a gate opening where a view may be obtained towards the Site, this would not be representative of views from this road or any nearby properties (see LVIA VP 15)
	Turbine lighting – We note that section 3 of the Scoping Report does not mention turbine lighting and that there is also little detail of this on page 32 of the report which deals with landscape and visual matters. We require information on the nature of lighting proposed (and particularly whether radar activated proximity lighting or reduced intensity lighting may be used). We would also comment that as the four viewpoints identified on page 32 of the Scoping Report to illustrate night time lighting are not located either in the core or buffer zones of the Dark Sky Park, additional viewpoints should be selected which do lie within the Park. We would additionally recommend that night time lighting is illustrated from Viewpoint 5 to represent the full range of potential effects on views from this nearby area which currently has low levels of lighting.	 Night time visual assessment is within Technical Appendix 7.3 in accordance with the latest available guidance from SNH. Agreed night time viewpoints as follows: Viewpoint A: Wallace Terrace, Barrhill (LVIA VP 04); Viewpoint B: Minor road south o(LVIA VP 07); Viewpoint C: A714 road near Corwar House (LVIA VP 13); and Viewpoint D: Minor road between Colmonell and Lendalfoot. Wireframes are also provided in Volume 3d of the 10 Dark Sky Park viewpoints identified by D&GC.
John Muir Trust	No response	N/A
SNH Scoping Response 29 th November 2018	This proposal is for 15 turbines up to 200m which is substantially taller than any existing turbines in this area. An important focus of the LVIA should be to assess the cumulative landscape and visual effects of the proposal in combination with existing, consented and relevant scoped schemes. Importantly the LVIA should take account of the recently updated Landscape Wind Capacity Study for South Ayrshire (August 2018) 1 which concluded that Plateau Moorland with Forestry and Windfarms character type (18c) had some 'very limited scope to accommodate very large turbines (>130m)'. 1 https://www.south- ayrshire.gov.uk/planning/documents/south%20ayrshire%20 landscape%20wind%20capacity%20study%20- %20final%20august%202018.pdf	Noted – the design iteration process has taken account of existing nearby windfarms including the operational Arecleoch Windfarm and the list of windfarms to be included in the detailed cumulative assessment will be agreed with SNH and SAC. The August 2018 SAC Landscape Wind Capacity Study referenced in the LVIA.
	Our siting and design guidance states (4.4) that where cumulative impacts are likely to occur within an area it is important to establish design objectives that can be consistently applied to all proposed Developments. This should result in a similarity of design and windfarm image	As discussed at consultation meeting held at SPR offices on 15th January 2019, there is an inherent challenge in deployment of taller turbines in the context of existing operational

within an area that limits visual confusion the appropriateness of each developmen

The requirement for lighting should be cla turbines of greater than 150m in height re candela aviation lights to comply with safe set out by the Civil Aviation Authority (CA have the potential to introduce significant visual effects. 2000 candela lights are vis over 30km. The effects of light pollution a documented and in other sectors such as transport efforts are being made to reduc where possible. In many parts of Scotlan qualities are highly valued by residents a range of receptors could be affected by a which are switched on at dusk and after reasons, we recommend that the effects are assessed through the Landscape and Assessment process. A proportionate an approach is required, focussing on key vi considering all mitigation options availabl Scoping Report Questions - SNH Repon Q3. Is the focussed 45km study area for assessment considered to be appropriate

Q4. Confirmation on the approach to the a likely effects on wild land is requested. Ye with the approach to assessment of likely land.

Q5. Are the proposed viewpoint locations suitable for the LVIA. These appear to co of receptors, but the final selection of view responsibility of the applicant's landscape

Q6. Do consultees agree with the approacumulative assessment? Yes.

Q7. Do consultees agree with the approa visualisation production? *Photography ar should be produced as set out in our Visu of windfarms – Good Practice Guidance,* (2017) available from the following link:

https://www.nature.scot/professional-adv development/renewable-energy-developm representation-guidance

We advise that photography is included f within 20km. The proposed list of viewpoinclude any beyond 7.4km. Significant im

	SLR / Consultant comments / action
n, and reinforces nt for its location.	windfarms with smaller turbines. However, the design iteration process was carried out taking account of all nearby operational and consented development with the aim of avoiding visual confusion wherever possible.
larified. Wind require 2000 (fety requirements AA). Aviation lights at landscape and sible at distances are well is housing and ce light pollution ad dark sky and visitors. A wide aviation lights, dawn. For these of aviation lights ad Visual Impact and pragmatic viewpoints and ole.	 Night time visual assessment is within Technical Appendix 7.3 in accordance with the latest available guidance from SNH. Agreed night time viewpoints as follows: Viewpoint A: Wallace Terrace, Barrhill (LVIA VP 04); Viewpoint B: Minor road south of Pinwherry (LVIA VP 07); Viewpoint C: A714 road near Corwar House (LVIA VP 13); and Viewpoint D: Minor road between Colmonell and Lendalfoot. Wireframes are also provided in Volume 3d of the 10 Dark Sky Park viewpoints identified by D&GC.
nses	
the landscape te? Yes.	Noted
e assessment of Yes we are satisfied ly effects on wild	Noted
s considered to be over a good range ewpoints is the be consultant.	LVIA viewpoint locations have been adjusted to take account of SNH suggestions.
ach to the	Noted
ach to graphic and and Visualisations sual representation y Version 2.2 vice/planning-and-	LVIA viewpoint locations have been adjusted to take account of SNH suggestions.
oment/visual-	
for all viewpoints oints does not npacts could	All LVIA VPs have baseline photography except for VP 21 (>23km) & VP 22 (>32km), both of which have

Consultee name	Consultees comments	SLR / Consultant comments / action
	stretch beyond this given the size of the proposed turbines and we advise that photography is provided for all viewpoints within 20km. We also advise that a viewpoint is included from within the Merrick Wild Land Area. We agree with the approach to night time photography and the 4 night time visualisations should be able to illustrate the impacts well. We advise that a night time visualisation is included from the Galloway Dark Sky Park within which the Merrick Wild Land Area is located.	been included as wireline only visualisations to illustrate the cumulative situation from distant elevated locations.
	 Q8. Do consultees agree with the landscape and visual methodology and assessment evaluation criteria presented? Assessment of the landscape and visual effects of turbine lighting is a relatively new practice. The extent of the lighting assessment study area for LVIA should be informed by the Zone of Theoretical Visibility (ZTV) map and an understanding of the nature of the likely effects. As a starting point, we highlight advice in our existing landscape guidance[1], however our advice is evolving and we advise that the LVIA-related lighting assessment should include: Clear information on the positions and intensity of lighting proposed and, if only certain turbines are to be lit (e.g. due to a mix of turbine heights), 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. A table which lists how many lit turbines will be visible from each viewpoint[2]. Written assessment based on fieldwork for all relevant viewpoints (i.e. with potential visibility of lighting, and where effects may be significant). In a worst case scenario this may involve all viewpoints, but judgement should be applied to ensure the assessment remains focused on likely significant effects. The assessment should take into account the baseline darkness / artificial lighting characteristics and people's likely use of different areas during darkness and low light (dusk / dawn) conditions. In some cases, there may be the need to select some of the LVIA assessment viewpoints on the basis of the turbine lighting impacts, as opposed to day-time visual effects. Edge of settlement locations are likely to be better lighting assessment viewpoints, compared with locations within towns / villages (i.e. given the influence of existing street lighting, etc.). Night-t	 A ZTV of the nacelle and tower lights is provided within Technical Appendix 7.3. Points noted on SNH approach to night time assessment, the approach and method used in the night time assessment is based on SNH guidance and is described in full in Technical Appendix 7.3. As all of the turbines will be lit in the same way (on the nacelle and at half tower height), it is not considered necessary to provide separate wireframes showing positions of lights on turbines. The positions of lights can be seen on the visualisations produced for the agreed night time viewpoints as follows: Viewpoint A: Wallace Terrace, Barrhill (LVIA VP 04); Viewpoint B: Minor road south of Pinwherry (LVIA VP 07); Viewpoint D: Minor road between Colmonell and Lendalfoot.

	 [1] Please note that some brief advice on this contained within our recently updated landso. See at paras 2.11-2.13 of our Siting and Des and at paras 174-177 of our Visual Represerguidance – which can both be found at https://www.snh.scot/professional-advice/pladevelopment/renewable-energy-developmer renewable-technologies/onshore-wind-energy impacts. [2] See example table in the annex 2 to this of Q9. Are there any other relevant consultees contacted with respect to the LVIA? Not that of
Scottish Wild Land No response	of. No response
D&GC Scoping Response 3rd December 2018	There is currently significant pressure on lan resources and the focus of time will be on pla application casework. Any landscape scopin can be made will primarily be based on a dea and any existing familiarity with the area. The necessarily be the opportunity to undertake s at the scoping stage. The landscape advice provided is without pre- future advice and opinion, or any decision will Council as planning authority may choose to respect of any future planning application. For should not be assumed that every issue whice impact on any such application has been added report; other issues may come to light as a re- consultation with other relevant bodies, or in future planning application. As the proposed Arecleoch Extension lies ou Dumfries and Galloway, with the exception of access, any potential impacts will be indirect visual and cumulative effects. As such the Ly assess any such effects considered likely to on sensitive D&GC receptors, and relevant p
	sensitive landscape and visual receptors bey of the land, and the visual relationship with o intervening constructed and consented wind lie between the proposals and D&GC, mean effects are likely to be limited. However, the the turbines may extend visibility in to D&GC the overall development pattern and cumulat addition to the committed scheme, may pres- incoherent or confusing windfarm image.

	SLR / Consultant comments / action
this aspect is ndscape guidance. Design guidance esentation	
/planning-and- ment/types- nergy/wind-farm-	
his document.	
ees who should be that we are aware	Noted
	N/A
landscape n planning oping input that desk exercise, There will not ke site verification	All noted
t prejudice to n which the e to make in n. Furthermore, it which might addressed in this a result of or in relation to any	
s out with on of the site rect landscape, e LVIA should y to be significant ant policy.	
order, and from beyond it, the lie th other vindfarms, which ean that any the 200m height of &GC, from where nulative effects, in oresent an	Noted – the design iteration process was carried out taking account of all nearby operational and consented development with the aim of avoiding visual confusion wherever possible.

Consultee name	Consultees comments	SLR / Consultant comments / action
	From the elevated views from the Galloway Hills Regional Scenic Area, particularly the Merrick Wild Land Area, and the Galloway Dark Sky Park, both the extension to the Wigtownshire Moorlands cluster of development, and the lighting that would be associated with 200m turbines may give rise to indirect landscape and visual effects. These must be tested against D&GC policy.	The Merrick is illustrated by photomontage, but not for night time lighting. (See LVIA VP 20) No night-time lighting assessment on Merrick summit due to the lack of receptors at the top of the Merrick at night (given lack of appropriate facilities /altitude /roughness of terrain) as well as H&S grounds for photographer. Wireframes are also provided in Volume 3d of the 10 Dark Sky Park viewpoints identified by D&GC.
	 DGC Local Development Plan and Supplementary Guidance: The proposals will be assessed in landscape terms against policies in the LDP (2014). Policies OP1c and OP 2 are overarching policies with special relevance for landscape issues, including Wild Land. Policy IN2 is the main policy for wind energy development (WED). The Examination Report recommendations resulted in LDP policy wording that split Policy IN2 in to 2 parts. Part 1 of Policy IN2 deals with Development Management considerations that apply to the assessment of all wind energy proposals, and Part 2 deals with the Spatial Framework. Following the Examination Report and revisions to SPP, the Spatial Framework maps in policy IN2 in the LDP have an interim status only, and will be revised as part of the next LDP. Supplementary Guidance, Part 1 WED: Development Management Considerations (2017) supports IN2. The DGWLCS (2017) forms Appendix C of the 2017 WED Supplementary Guidance and is embedded in the wording of the LDP policy IN2. Reference should be made to the DGWLCS in the LVIA in terms of any indirect landscape, visual or cumulative sensitivities; and with any specific references to the Landscape context and Visual sensitivity criteria in the Detailed assessments for the surrounding LCTs. These might potentially be Plateau Moorland LCT 17 Balker unit, Plateau Moorland LCT 17a Glentrool unit, and Rugged Granite Uplands LCT 21 Merrick unit. Other policies may apply on a case by case basis, of most relevance potentially NE2. With respect to RSAs, DGC's Technical Paper on Regional Scenic Areas is a key reference, and the DGWLCS provides updated information on landscape character in relation to WED, and should be 	Noted

Consultee name Consultees comments There is Supplementary Guidance of • and the Galloway Dark Sky Park. • An LVIA should be undertaken in acc GLVIA3 (2013) and with particular re Siting and Designing Windfarms in th their updated Visual Representation Check Scottish Government and oth • publications: ETSU report, The Cum Wind Turbines (2000), current SPP, Cumulative Effects of Windfarms (SI Assessing the cumulative impact of development (SNH, 2012) Landscape Character Assessment, • England and Scotland (Countryside 2002), and including Topic Paper 6: Criteria for Judging Capacity and Se SNH Policy Statements: No. 02/02: • Onshore Renewable Energy (2009), Wildness in Scotland's Countryside SNH's most recent work, Assessing • Land Areas (2017 technical guidance consulted on) (SNH, 2017c). Photography and photomontage in la • visual impact assessment (Landscap An assessment of landscape effects deal of change and development on landscap The concern ... is with how the proposal elements that make up the landscape, th perceptual aspects of the landscape and character. The area of the landscape covered in assessing landscape effects s site itself and the full extent of the wider I it which the proposed Development may significant manner. GLVIA3, 5.1 & 5.2 (20 Summary, with details set out below: Direct effects of the site entrance on • Plateau Moorland with Forest (LCT • Any indirect effects of the turbines or LCTs / LCUs within 15km, as covere DGWLCS (2017): Balker Plateau Mc

Arecleoch Windfarm Extension EIA Report

Со	nsultees comments	SLR / Consultant comments / action
•	There is Supplementary Guidance on lighting issues and the Galloway Dark Sky Park.	
•	An LVIA should be undertaken in accordance with GLVIA3 (2013) and with particular reference to, SHN's Siting and Designing Windfarms in the Landscape and their updated Visual Representation of Windfarms.	This is as set out in the Scoping Report. Note PAN 45 has been superseded by the online guidance and the SNH cumulative guidance of 2005 has been
•	Check Scottish Government and other national publications: ETSU report, The Cumulative Effects of Wind Turbines (2000), current SPP, PAN 45, Cumulative Effects of Windfarms (SNH, 2005), and Assessing the cumulative impact of onshore development (SNH, 2012)	superseded by the 2012 publication.
•	Landscape Character Assessment, Guidance for England and Scotland (Countryside Agency & SNH, 2002), and including Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity	
•	SNH Policy Statements: No. 02/02: Guidance on Onshore Renewable Energy (2009), and No. 02/03: Wildness in Scotland's Countryside (2002), and	
•	SNH's most recent work, Assessing impacts on Wild Land Areas (2017 technical guidance currently being consulted on) (SNH, 2017c).	
•	Photography and photomontage in landscape and visual impact assessment (Landscape Institute, 2011).	
of c The eler per cha cov site it w	assessment of landscape effects deals with the effects thange and development on landscape as a resource. e concern is with how the proposal will affect the ments that make up the landscape, the aesthetic and ceptual aspects of the landscape and its distinctive racter The area of the landscape that should be ered in assessing landscape effects should include the itself and the full extent of the wider landscape around hich the proposed Development may influence in a hificant manner. GLVIA3, 5.1 & 5.2 (2013)	Noted
Sur	nmary, with details set out below:	Direct offects (charging) has descent
•	Direct effects of the site entrance on the Glentrool Plateau Moorland with Forest (LCT 17a). Any indirect effects of the turbines on surrounding LCTs / LCUs within 15km, as covered by the	Direct effects (physical landscape effects) and indirect effects (effects on landscape character or views) are assessed in the LVIA.
	DGWLCS (2017): Balker Plateau Moorland (LCT 17) and Glentrool Plateau Moorland with Forest (LCT 17a).	Landscape designations and Wild land Areas are considered in the LVIA. The WLA is scoped out of the detailed
•	The setting, value and experience of designated landscapes within 15km, notably the Galloway Hills Regional Scenic Areas (RSAs) and any designed landscapes (IDLs and NIDLs).	assessment in the LVIA.
•	The setting, value and experience of recognised landscape value within 15km, notably: The Galloway Hills Forest Park.	
	 The Galloway Dark Sky Park. 	

Consultee name	Consultees comments	SLR / Consultant comments / action	Cons
	• The Merrick Wild Land Area.		
	The host Landscape Character Type for the Arecleoch site entrance is the Glentrool Plateau Moorland with Forest (LCT 17a). Direct landscape and visual effects are anticipated for a very localized area of this unit and should be assessed, based on the WED Supplementary Guidance covering infrastructural elements.	Direct effects (physical landscape effects) are assessed in the LVIA.	
	The distance of turbines from the DGC border, and from sensitive landscape receptors beyond it, the lie of the land, and intervening constructed and consented windfarms, mean that any indirect landscape effects on landscape character are likely to be limited.	Noted.	
	 The 200m height of the turbines, and anticipated requirement for aviation lighting may extend inappropriate visibility in to some highly sensitive valued landscape areas in D&GC, even where they lie at some distance. These should be assessed with respect to the areas' designable quality or other landscape value through the LVIA; and any significant adverse effects will be assessed against DGC policies and guidance. These areas are: The Galloway Hills RSA The Galloway Forest Park The Galloway Dark Sky Park The Merrick Wild Land Area 	Effects of night time lighting are assessed in accordance with current SNH guidance in Technical Appendix 7.3. Wireframes are also provided in Volume 3d of the 10 Dark Sky Park viewpoints identified by D&GC. The Merrick is illustrated by photomontage, but not for night time lighting. (See LVIA VP 20). No night-time lighting assessment on Merrick summit due to the lack of receptors at the top of the Merrick at night (given lack of appropriate facilities / altitude / roughness of terrain) as well as H&S grounds for photographer.	
	An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity. The concern is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views Scoping should identify the area that needs to be covered in assessing visual effects, the range of people who may be affected by these effects and the related viewpoints in the study area that will need to be examined. GLVIA, 6.1 & 6.2 (2013)	See Scoping Report – this has been done. Revised viewpoint locations taking account of responses to Scoping Report.	
	Not thought to be any likely to be affected, but check ZTV when available.	Noted	
	 SUW walkers between Craig Airie Fell and Glen Trool. Hill walkers: Galloway Hills, including the Merrick and other summits and slopes with western outlook, particularly around Glen Trool. 	SUW is included as sequential receptor. LVIA VPs 12 & 17 are located on the SUW. LVIA VP 20 is located on the Merrick.	

nsultee name	Consultees	comments		SLR / Consultant comments / action		
		eraird, and co afater Lodge.	re path / historic route from	Beneraird included in detailed assessment with photomontage (See LVIA VP 9)		
		4 between Ba or road crossir	rgrennan and Barrhill. ng Braid Fell.	LVIA VPs 4, 5 and 13 are located on the A714 and a sequential route assessment has been carried out from the A714. Braid Fell included as baseline photo and wireline (See LVIA VP 19)		
		hort range and veen Barrhill a	d sequentially the railway nd Stranraer.	LVIA VP 3 is on the minor road between Barrhill and New Luce, close to the railway line as it leaves Barrhill and LVIA VP 1 is on Chirmorie Cairn close to the minor road and overlooking the railway line.		
	Gall rout	oway Forest F es around the	Dark Sky Park, viewpoints west. Park, particularly way marked Glentrool Visitor Centre, and Glen Trool and Loch Trool.	Night time assessment viewpoint within the Dark Sky Park is located on minor road between Glen Trool and Straiton. (See LVIA VP 20)		
				No visibility is predicted from minor road through Glen Trool or Loch Trool see blade tip ZTV.		
	• Mei	rrick Wild Land	d Area, viewpoints west.	LVIA VP 20 is located on the Merrick. The WLA is scoped out of the detailed assessment in the LVIA		
	DGC representative viewpoints / sequential visual assessments					
	DGC Rep. Viewpoint	Receptors				
	Scoping View	vpoints				
	3	Merrick	Y – full photomontage – and with aviation lighting	The Merrick is illustrated by photomontage, but not for night time lighting. (See LVIA VP 20) No night-time lighting assessment on Merrick summit due to the lack of receptors at the top of the Merrick at night (given lack of appropriate facilities /altitude /roughness of terrain) as well as H&S grounds for photographer. Wireframes are also provided in Volume 3d of the 10 Dark Sky Park viewpoints identified by D&GC.		
	17	SUW, Hill of Ochiltree	Y – wireline only	Included in detailed assessment with photomontage (See LVIA VP 17)		

Consultee name	Consultees	comments		SLR / Consultant comments / action
	19	Cairnsmor e of Fleet	Y – wireline only	Noted, included as wireline only (See LVIA VP 22)
	20	Braid Fell	Y – wireline only – check if any cumulative issues – consider full photomontage	Noted, included as baseline photo and wireline (See LVIA VP 19)
	Additional			
	Glentrool are	a	Check ZTV for any visibility – if so consider full photomontages & / or wireline – and with aviation lighting	No visibility within Glentrool Village and very limited in Glen Trool.
	Beneraird		Potential cumulative issues – full photomontage & / or wirelines	Beneraird included in detailed assessment with photomontage (See LVIA VP 9)
	A714 from ne entrance	ear the site	Photomontage of proposals	It is not proposed to include a photomontage at the Site entrance as there is no visibility predicted from this point on the A714. LVIA VPs 4, 5 and 13 are located on the A714 and a sequential route assessment has been carried out from the A714.
	Galloway Forest Park / Dark Sky Park and buffer area		Any other representative VPs – if so with aviation lighting	See comments above in additional VP for night time lighting in Galloway Forest Park/Dark Sky Park.
	Cumulative /	sequential vis	ual assessments	
	Stranraer to Kilmarnock Railway Line			LVIA VP 3 is on the minor road between Barrhill and New Luce, close
	Minor road fr to New Luce			to the railway line as it leaves Barrhill and LVIA VP 1 is on Chirmorie Cairn close to the minor road and overlooking the railway line.
	SUW from Glentrool to Craig Airie Fell		Potential – check ZTV when available	LVIA VP 12 is on SUW at Craig Airie Fell and LVIA VP 17 is on SUW at Hill of Ochiltree.
	 and LI (2011) guidance: Cumulative wirelin consented, in-plan labelled / number Photomontage / c existing and cons labelled / number Site work for DGC landsca 		umulative photomontage, with ented windfarms / wind turbines	All noted Proposed turbines have been numbered. Wind turbines have not been labelled or numbered on photomontages in order to remain compliant with SNH guidance, but wirelines show numbered turbines.

interpretation of a variety of data bases, a interpretation of the ZTV and OS maps. T of viewpoints recommended varies from s scheme and reflects sensitive receptors, t complexity of the landscape and associat relationships, and anticipated cumulative Recommended types of visualisations ref likely stakeholder interest. The balance of across distance ranges is determined by t an area and anticipated significant effects representation for highly sensitive receptor recommended, even where effects are no be significant, for demonstration purposes

Please note the following general points proportionality of approach with respect t selection:

- The viewpoint list provided by DGC r range of anticipated receptors for a s anticipated that the Developer would given the more in depth Site knowled entails.
- Where two viewpoints are close toge that one of these is a worst case sce chosen to represent both. Alternative a role for different functions; as represpecific, or illustrative, or sequential.
- Inclusion of private residential proper recommended by DGC within 2km of possibly more where specific cumula anticipated. This is considered appro of the rural area is characterized by a settlement pattern, which at times ca Limiting representative viewpoints to settlements would not always provide local people the opportunity to unders likely effects.
- The visual effects assessments are s out as part of a residential amenity a which case this will supplement the r project.
- Residential properties can also provi for the minor road and core path netwider public amenity. More distant re receptors can be included as a focus representation of such other interests

•

It is recommended that the Developed identified viewpoints and decide on the appropriate to do full assessments and for. In order to do this all the viewpoint checked to help determine the most and worst case scenarios. This initian could form an Appendix in the ES, and

	SLR / Consultant comments / action
as well as The total number scheme to , the topographic ated visual inter- e issues. efflect their use and of representation / the sensitivities of ts. Inclusion of tors may be not anticipated to es.	
regarding to viewpoint represents the scheme and it is	All noted and some specific comments provided – as below. None of the proposed turbines are within 2 km of Dumfries and Galloway. An RVAA has been carried out for
d refine this list, edge their own work	properties within 2 km of the nearest proposed turbine.
ether, it may be enario (wcs), and is rely both may have resentative, l viewpoints.	
erties is of schemes, and ative issues are opriate given much a dispersed an be quite dense. o designated de the Authority or erstand potential /	
sometimes carried assessment, in normal LVIA for a	
vide representation tworks, and the residential is for ts.	
er review all the the most and visualisations vints should be site t representative al assessment and baseline	

Consultee name	Consultees comments	SLR / Consultant comments / action
	 photographs usefully provided to illustrate the key points. Visual receptors, and views that have been identified as unlikely to experience significant visual effects either at scoping or in establishing the baseline should not be included in the detail reporting but should be noted, with reasons given for their exclusion. GLVIA 3, 6.24 (2013) 	
	 The Wigtownshire Moors is an area with a dynamic baseline in terms of windfarm development, and the ES will need to address the range of existing, consented, inplanning, and where absolutely necessary scoping schemes (as per GLVIA3, paras. 7.14). There are not thought to be any relevant scoping schemes at the moment. The LVIA should fully assess all scenarios of potential cumulative effects under policy IN2, and with reference to the DGC SG WED (2017), and SNH cumulative (2012) and siting and design (2017) guidance. In the current situation, the main concerns are anticipated to be: Cumulative landscape effects: when the Wigtownshire Moor cluster of development impinges on more sensitive valley landscapes (in SAC), as appreciated from and forming the wider setting of the Galloway Hills RSA / Galloway Forest Park / Merrick Wild Land Area. Cumulative visual effects: when Arecleoch Extension is seen in combination with Arecleoch, Chirmorie, and Kilgallioch, where differences in turbine size, such as the differential with the existing 118m Arecleoch turbines, may appear incongruous, or to create visual confusion. The closest viewpoint of concern is Beneraird. Cumulative sequential effects: from the railway between Barrhill and Stranraer, and the minor road between Barrhill and New Luce. 	All noted. A comprehensive cumulative landscape and visual effects assessment has been carried out within the LVIA. LVIA VP 9 is located on Beneraird. LVIA VP 3 is on the minor road between Barrhill and New Luce, close to the railway line as it leaves Barrhill and LVIA VP 1 is on Chirmorie Cairn close to the minor road and overlooking the railway line. Cumulative effects have been reported at these viewpoint locations.
	To ensure that mitigation by design is optimized through the design process it is recommended that the alternative iterations of turbine design, windfarm layout, and set back from key sensitive receptors, as well as from other windfarms, are tested through the LVIA process.	Noted. A design iteration and optimisation process has been undertaken. See separate Design and Access Statement and Chapter 2: Site Description and Design Evolution .
Visit Scotland Scoping Response 2 nd November 2018	Scenery and the natural environment have become the two most important factors for visitors in recent years when choosing a holiday location. The importance of this element to tourism in Scotland cannot be underestimated. The character and visual amenity value of Scotland's landscapes is a key driver of our tourism product: a large majority of visitors to Scotland come because of the landscape, scenery and the wider environment, which supports important visitor activities	The LVIA assess the effects of anticipated change to landscape character as a result of the proposed Development for affected parts of the study area. See also Chapter 14 – Socio- economics, Recreation and Land Use.

Consultee name	Consultees comments	SLR / Consultant comments / action
	such as walking, cycling wildlife watching and visiting historic sites. The VisitScotland Visitor Experience Survey (2015/16) confirms the basis of this argument with its ranking of the key factors influencing visitors when choosing Scotland as a holiday location. In this study, over half of visitors rated scenery and the natural environment as the main reason for visiting Scotland. Full details of the Visitor Experience Survey can be found on the organisation's corporate website, here: <u>http://www.visitscotland.org/pdf/Revised%20Oct%2012%2</u> 0%20Insights%20Wind%20Farm%20Topic%20Paper.pdf	

Table 7.3: Consultation - summary of key consultation Relating to LVIA

7.4 Baseline conditions

7.4.1 Introduction

- The landscape and visual baseline identifies aspects of the landscape and visual resource that may be significantly affected 57. 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.
- The baseline description of the landscape that may be affected is primarily determined by the physical footprint of the 58. proposed Development components and their ZTV (Figures 7.8 – 7.11). 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.
- A preliminary assessment has identified those landscape and visual receptors that may have the potential to experience 59. 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.

7.4.2 Landscape and visual baseline overview

7.4.2.1 Site context

- The proposed Development turbines would be situated approximately 3.5 km to the west of the settlement of Barrhill. The 60. majority of the Site is located within the SAC administrative boundary; however, the main Site entrance would be located within the DGC area on the A714, as shown in Figure 7.1. The Site is located on the National Forest Estate and is covered mainly by commercial forest at various stages of production in the forest cycle. The Site area includes the easternmost row of turbines of the existing Arecleoch Windfarm and extends eastward from this operational Windfarm to Shiel Hill (230 m AOD) on the western edge of the proposed turbines. The operational Arecleoch Windfarm is located the immediately to the west of the proposed Site, consisting of 60 turbines at 118 m to blade tip height (whilst the turbines built are 118 m to blade tip, they were consented at 135 m).
- 61. - 230 m AOD forming a series of gently rounded hills summits on the plateau which are difficult to perceive due to both the simplicity of the landform and the uniformity of forest cover. A number of small river tributaries run through the Site and feed the Water of Tig, Cross Water and White Loan. Cross Water and White Loan feed into the Duisk River to the east of the Site and the Duisk River and Water of Tig feed into the River Stinchar to the north of the Site. The majority of the Site is used for commercial forestry at various stages in the forest cycle (some of which has been clear felled) (See Technical Appendix 3.2:

Topography rises from the Duisk River valley situated to the north east with high points within the Site ranging between 202 m

Forestry). Beyond the Site, the Stinchar valley lies to the north; the Duisk valley to the east and the narrow valley of Glen Tig to the west. Settlement in the vicinity of the Site is sparse, with isolated individual properties to the north and east. The village of Barrhill is approximately 3.5 km to the east of the proposed Development turbines, Colmonell is approximately 4.7 km to the north west, Pinwherry is approximately 5 km to the north east and Ballantrae is approximately 9 km to the west.

7.4.2.2 Landscape Character

- The landscape assessment considers the effect of the Development on the Landscape Character Types / units (LCTs) within 62. the Site and the surrounding area. The LCTs found in the study area are shown on Figure 7.3 (Figures 7.13 and 7.16 show LCTs with the ZTV of the Development).
- The study area is covered by the following SNH landscape character reviews: Dumfries and Galloway Landscape 63. Assessment, SNH Review No 94, 1998 (SNH, 1998a) and Ayrshire Landscape Assessment, SNH Review No 111, 1998 (SNH, 1998b). 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.'1
- The recent 'topic specific' characterisation studies have been produced for each local authority in the study area as part of 64. 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).
- These capacity studies therefore form the most up to date characterisation studies in the area which update and refine the 65 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.
- The proposed Development would be located entirely within the western part of the Plateau Moorlands with Forestry and 66. Windfarms (18C) as identified in the SALWCS.

7.4.2.3 Landscape designations

- 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.
- There are three ways in which such designations are relevant to the LVIA: 68.

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.

In relation to the proposed Development, key landscape designations within the study area include: the South Ayrshire Scenic 69. Area and the Galloway Hills Regional Scenic Area (RSA).

National Scenic Areas (NSA) - Fleet Valley found to the south at the edges of the study area;

¹ <u>https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/landscape-character-assessment-scotland</u>

South Ayrshire Scenic Area (SA) - the SAs are not named, the closest part of the SA lies immediately to the north of the Site.

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 Glenapp, Lochryan, Castle Kennedy and Bargany within 20 km.

- 70. of the proposed Development overlaid). Whilst the access route crosses the SA, the area of the Site in which the proposed Development turbine layout is located is not subject to any form of landscape designation that is intended to protect it for its scenic qualities.
- Whilst not specifically recognised as landscape designations the Galloway Forest Park and Dark Sky Park are highly valued 71 recreational destinations as recognised within the D&GC LDP. The nationally important Merrick SNH Wild Land Area (WLA) also lies to the east within the centre of Galloway Forest Park area. These areas have been included on Figure 7.4 for reference to illustrate where the WLA, the park and its boundaries intersect with other landscape designations and landscape character types / units.

7.4.3 Visual baseline overview

7.4.3.1 Zone of Theoretical Visibility (ZTV)

- The blade tip ZTV is shown on Figures 7.8 (A3 size) and 7.9 (A1 size) and the hub height ZTV is shown on Figures 7.10 (A3 72 size) and 7.11 (A1 size).
- The ZTVs indicate that potential theoretical visibility of the proposed Development is largely contained within the surrounding plateau landscape within a broad area of approximately 23-24 km. Theoretical visibility is restricted to the east by the large hill forms of the Merrick range and limited to the north and south where the elevated edges of the plateau transitions to the lower coastal landscapes of Ayr to the north and the Machars to the south. The patches of theoretical visibility beyond this area are limited to the tops of the highest Galloway Hill summits to the south east and further patches across the spine of the Rhins peninsula and on elevated parts of the Machars.
- Within the more immediate landscape surrounding the Site the ZTV shows that theoretical visibility spreads relatively evenly 74 across the forested plateau as far east as the Galloway Hills (approximately 15 km) with a break in theoretical visibility across the Glentrool Village to Straiton minor road (NCN7) until the west facing slopes of the Merrick range.
- 75. far fewer than blades. It shows that there are large areas of the study area to the south that have around half the number of hubs visible than blade tips. A difference in theoretical visibility extent can also be seen when the hub and blade ZTVs are compared with much less extent for hub visibility than for blade. This typically happens at the edges of ZTV areas, which often less elevated are prone to blade only visibility on lower slopes or as found within the more distant landscapes to the south or north.
- is theoretically occupied by the proposed Development. It is calculated from a grid of receptors in the study area and measures the maximum spread from the furthest left to the furthest right theoretically visible turbine of the proposed Development. The information is stored as a horizontal angle in degrees. The HZTV provides further information about 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 HZTV is displayed using coloured bands showing incremental degrees of horizontal angle, in order to highlight areas of higher effect.

Landscape designations found in the study area are shown on Figures 7.4 and 7.14 (which shows designations with the ZTV

The hub height ZTV is different than the blade tip ZTV in that the number of hubs visible within areas of theoretical visibility is

The Horizontal Angle ZTV (HZTV) is illustrated on Figure 7.12. The HZTV measures how much of the horizontal field of view

- The HZTV shows that the widest, theoretical, horizontal field of view is occupied in close proximity to the proposed Development, particularly within the Site itself, where the turbines could occupy more than 180 degrees (50 %) of the field of view. In the areas immediately surrounding the proposed Development Site, particularly within 1-2 km the degree of HZTV ranges between 20-60 degrees (5-16 %) from the north west and south east to between 60-180 degrees (16-50 %) from the north east and south west. The HZTV reduces to less than 40 degrees (11 %) of the field of view beyond approximately 4 km. The HZTV drops to around 10-20 degrees (2-5 %) in areas beyond around 5-6 km to the north west, south west and south east and also in areas beyond around 10km to the north east. Beyond 10 km the majority of the HZTV is below 20 degrees (5 %) with many areas dropping to below 10 degrees (2 %) in the area beyond 20 km.
- The HZTV shows the proposed Development would have a wider horizontal extent in views from the east, where the layout of 78 the proposed Development would be viewed at its widest extents in views from the surrounding landscape. To the west where intervening topography restricts potential visibility of the wider angle view. Correspondingly, the HZTV would have a reduced horizontal extent in views from the north and south, where the proposed Development turbines would appear more clustered within a smaller part of the skyline (albeit within the context of the existing Arecleoch turbines).
- In relation to magnitude of change, the HZTV confirms that as a result of reduced horizontal angle of view potentially occupied by the proposed Development, the visual effect will diminish with distance. Generally, this will result in a higher magnitude of change from locations at closer proximity, where the proposed Development might occupy a wider horizontal extent, 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 very small.
- Given that the proposed Development is an extension windfarm development to the existing Arecleoch Windfarm, the horizontal angle of view of the proposed Development and the amount of additional horizontal angle of view the proposed Development would result in when compared to the existing Arecleoch Windfarm has been calculated as part of the visual assessment at viewpoints. These horizontal angles are expressed in Table 7.14 and highlighted in the viewpoint assessment text where required. The Arecleoch CZTV on Figure 7.19a, shows that theoretical visibility is very similar for Arecleoch and the proposed Development with only small patches of 'Arecleoch only' theoretical visibility shown in western parts of the study area and small patches of 'proposed Development only' theoretical visibility shown in eastern parts of the study area. The combined operational, under construction and consented CZTV on Figure 7.18, shows that the proposed Development theoretical visibility occurs almost entirely within the existing and consented scenario for the study area.

7.4.3.2 Overview of principal visual receptors

Principal visual receptors are shown on Figures 7.6 and 7.7 (Figures 7.15 and 7.16b also show principal visual receptors with the ZTV of the proposed Development). Principal visual receptors within the study area include settlements, residential properties, roads, rail, long distance walking routes and cycling routes. The majority of principal visual receptors between 20 km and 45 km are outwith the coverage of the ZTV, where theoretical visibility is shown on the ZTV potentially significant effects are limited by distance, intervening woodland / forestry or screening related to the settlements themselves including surrounding woodland. Taking this into account and in order to focus the assessment on potential for significant effects, the LVIA has focussed its assessment of principal visual receptors within a 20 km study area (See Figure 7.16b). The key principal visual receptors in relation to the proposed Development are described below and the preliminary assessment provides an initial assessment of principal visual receptors within 20 km of the proposed Development.

7.4.3.3 Settlements

The key settlements in relation to the proposed Development include Barrhill, Colmonell and Ballantrae along with the property cluster at Pinwherry. Larger settlements that fringe the 20 km study area include Newton Stewart, Stranraer and Girvan.

7.4.3.4 Residential properties

The upland landscape of the Site and immediately surrounding landscape context is sparsely populated, with extensive areas of either remote moorland or commercial coniferous woodland with few individual properties. The following properties have been identified within 2 km - Kilrenzie Farm, Wheeb Farm, Glenour and Farden Farm (Figure TA7.2-1) and are considered further in the Residential Visual Amenity Assessment (RVAA) in Technical Appendix 7.2.

7.4.3.5 Roads

There are a number of A and B class roads within the 20 km study area. Key routes include the A714, A77, B734, B7044 and B7027.

7.4.3.6 Rail

of Kilgallioch and Arecleoch before heading north along the Duisk valley.

7.4.3.7 Ferry routes

Passengers on the Cairnryan to Larne and Cairnryan to Belfast ferry routes.

7.4.3.8 Recreational routes

Long distance recreational walking routes in the 20 km study area include the Southern Upland Way and Ayrshire Coastal 87 Path. The Burns Heritage Trail and Robert Bruce Trail are also within the 20 km study area. The national cycle route NCN7 is within Glentrool Forest to the east of the proposed Development.

7.4.3.9 Core paths

There are no Core Paths within the proposed Development application boundary and the routes of core paths will not be altered in any way as a result of the proposed Development. The core paths to the north of the proposed Development (SA59, SA60, SA61, SA62 and SA63) are within 5 km to the north of the proposed Development (Figure 7.7). SA61 on Craigneil Road is within 2.5 km of the proposed Development and has been considered for recreational receptors in the selection of LVIA viewpoints.

7.4.3.10 Recreational destinations and visitor attractions

- The Galloway Forest Park lies approximately 8 km to the east of the nearest proposed Development turbine covering the Galloway Hills including The Merrick, Mulwharcher and the Rhins of Kells hill ranges and the recreational trails found across and leading up to these hills.
- The Galloway Forest Dark Sky Park is located approximately 17.5 km to the east of the nearest proposed Development 90 turbine with the Dark Sky Park Buffer Zone boundary lying approximately 8 km to the east of the nearest proposed Development turbine. The park attracts people wishing to appreciate the night time sky with an absence of night time light pollution. There are no views of turbines from the 10 identified Dark Sky Park viewpoints, either because there would be no visibility or the potential visibility is obscured by intervening forest (see wirelines in Volume 3d - Dark Sky Park viewpoints Figures TA7.3-7 to 7.3-11). Although the Dark Sky Park within the study area is traversed by two minor roads, one of which is followed by NCR7, there are very limited sections of these roads with theoretical visibility of the proposed Development (less than 1.5 km in total and all occurring over short sections of the routes). A viewpoint accessible at night from close to a public highway in this area was proposed as part of the viewpoint discussions with consultees. However, areas of potential visibility within the Dark Sky Park have been closely scrutinised during field work and it is considered that all of the areas of potential visibility that occur within reach of a public highway do not have any actual visibility of proposed Development turbines due to the large amount of forestry within Glentrool Forest that intervenes. This viewpoint is therefore not included in the LVIA but for reference is also included as a wireline in Volume 3d.

7.4.3.11 Overview of viewpoints

- The viewpoints used in the assessment have been selected to cover points of specific importance such as recognised 91. 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.
- 22 viewpoints have been selected in consultation with SAC and SNH. Table 7.4 below lists the viewpoints and provides information on their location, the receptors which may experience views at these locations, viewpoint elevation and distance and direction from the proposed Development. Viewpoint locations are shown in conjunction with the blade tip ZTV on Figures 7.8 (A3 size) and 7.9 (A1 size) and are shown at detailed scale in the visualisations in Figures 7.22 – 7.43.
- Visualisations have been prepared to meet the requirements of SNH (Visual Representation of Windfarms Version 2.2 (SNH 93 2017b). Photomontages are provided for those viewpoints requiring a detailed assessment (see preliminary assessment of viewpoints in section 7.7).

The Stranraer to Ayr railway line passes through the centre of the 20 km study area, passing between the existing Windfarms

Ref	Viewpoint Recepto name		ptor Landscape Character Type (LCT) / Landscape designation		Grid ref		Elevation (AOD m) / nearest proposed turbine (km) / direction		
01	Chirmorie Cairn	Walker	Plateau Moorlands with Forestry and Windfarms (18c)	220568	576615	256.8	2.47	Ν	
02	SA61 Core Path / Craigneil Road	Walker	Plateau Moorlands with Forestry and Windfarms (18c) / SA Scenic Area	217494	584666	161.9	2.51	S	
03	Minor road to the south of Barrhill	Road user	Intimate Pastoral Valley (13) / 22265 SA Scenic Area		581291	140.3	2.83	W	
04	Wallace Terrace, Barrhill	Settlement / road user	Intimate Pastoral Valley (13) / SA Scenic Area	223612	582035	78.4	3.95	W	
05	A714 road near Blairhall Farm	Road user	Intimate Pastoral Valley (13) / SA Scenic Area	224303	581653	82.5	4.51	W	
06	Knockytinnal	Road user	Intimate Pastoral Valley (13) / SA Scenic Area	222903	584552	168.4	4.57	SW	
07	Minor road south of Pinwherry	Road user	Intimate Pastoral Valley (13) / SA Scenic Area	Intimate Pastoral Valley (13) / 220496 586277		59.0	4.66	SW	
08	Minor road Glen Tig	Road user	Glenapp Coastal Farmland & 212670 582484 the Policies (22) / SA Scenic Area		582484	115.2	5.31	E	
09	Beneraird	Walker	South Ayrshire Southern Uplands (20b) & Southern Uplands (19), Beneraird unit / SA Scenic Area	213545	578519	436.6	5.44	NE	
10	Minor road north east of Colmonell	Road user	Intimate Pastoral Valley (13) / SA Scenic Area	215344	587329	78.0	5.76	S	
11	B7027 Knockycoid	Road user	Intimate Pastoral Valley (13) / SA Scenic Area	226141	579143	110.5	6.01	NW	
12	SUW, Craig Airie Fell	Walker	Plateau Moorland with Forest (17a), Glentrool unit	223610	573665	317.4	6.41	N	
13	A714 road near Corwar House	Road user	Intimate Pastoral Valley (13) / SA Scenic Area	226801	580695	148.6	6.82	W	
14	Knockdolian	Walker	Intimate Pastoral Valley (13) / SA Scenic Area	211333	584803	264.0	7.13	SE	
15	B734 road near Pinmore	Road user	Intimate Pastoral Valley (13) / SA Scenic Area	220652	590016	91.7	8.26	S	
16	B7044 Ballantrae	Road user / settlement	Intimate Pastoral Valley (13) / SA Scenic Area			15.0	9.07	E	
17	SUW, Hill of Ochiltree	Walker	Plateau Moorland with Forest (17a), Glentrool unit	t 232706 574102		183.0	13.51	NW	
18	Auchensoul Hill	Walker	Foothills with Forest & Windfarm (17c)	226387	594545	313.9	14.66	SW	
19	Braid Fell	Walker	Plateau Moorland (17), Balker Moor unit	211201	566473	234.7	14.89	NE	

Ref	Viewpoint name	Receptor	Landscape Character Type (LCT) / Landscape designation	Grid ref		Elevation (nearest pr (km) / dire	oposed	
20	The Merrick	Walker	Rugged Granite Upland (21), Merrick unit / Galloway Hills RSA	242750	585555	837.5	23.35	W
21	Ailsa Craig	Visitor	South Ayrshire Lowlands (7d)	201922	599780	326.3	23.80	SE
22	Cairnsmore of Fleet	Walker	Coastal Granite Uplands (20) / Galloway Hills RSA	250156	567082	710.4	32.32	NE

Table 7.4: LVIA viewpoints

7.4.4 Wind energy development baseline

7.4.4.1 Introduction

The cumulative assessment set out in the LVIA assesses only the additional landscape and visual effects of the proposed Development, in the context of different baseline scenarios that make assumptions about existing and proposed windfarms. It does not present an assessment of the combined effects of all of the relevant windfarms on the landscape. 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. 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 effects assessment to be presented. The difficulty with combined effects is acknowledged by the Landscape Institute in the Guidelines for Landscape and Visual Impact Assessment (GLVIA) at paragraph 7.18:

"Agreement should also be reached about whether the cumulative effects assessment is to focus primarily on the additional effects of the main project under consideration, or upon the combined effects of all of the past, present and future proposals together with the new project. Some of those involved may tend to favour a limited view focused on the additional effects of the project being assessed, on top of the cumulative baseline. Some stakeholders may however be more interested in the combined effects of all the past, current and future proposals, including the proposed scheme. Again, discussion will be needed at the scoping stage with the competent authority and the consultation bodies about what can reasonably be expected, especially as 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."

7.4.4.2 Scope of cumulative assessment

7.4.4.3 Existing wind energy developments

- Operational wind energy developments are a long-established feature of the immediate and wider upland landscape context 95 within the study area. The wider area does however include some under construction windfarms. Operational and underconstruction windfarms are assumed to be part of the baseline conditions.
- The existing Arecleoch Windfarm lies immediately to the west of the proposed Development. There are two other operational 96. windfarms within the immediate area - Kilgallioch Windfarm, located 3.52 km to the south and Mark Hill Windfarm located 5.73 km to the east. The existing windfarms of Hadyard Hill, Penwhapple and Assel Valley are between 13 and 20 km to the north with the under construction Tralorg located next to Assel Valley. To the south the existing windfarms of Balmurrie Fell Artfield fell, Airies Farm, Glenchamber and Carscreugh are located at around 10 km and 20 km from the proposed Development. Glen App Windfarm is located 11.72 km to the west of the proposed Development.

7.4.4.4 Consented wind energy scenario

97. as a result of consented wind energy developments being built. The 'consented scenario' assumes that all consented stage wind energy developments have become operational and are part of a theoretical baseline situation that also includes the existing and under construction stage windfarms. There are a number of consented windfarms in the wider study area, the

In addition to the existing wind energy developments, there is potential for further change to the landscape and visual baseline

closest of these include Chirmorie located at 0.51 km to the south of the proposed Development and Stranoch located 5.4 km to the south of the proposed Development.

7.4.4.5 Application wind energy scenario

- Similar to the consented scenario, the 'application scenario' assumes that all application stage wind energy developments have become operational and are part of a theoretical baseline situation that also includes existing, under construction and consented stage windfarms. There is greater uncertainty in the prediction of potential changes resulting from windfarm planning applications, as they may or may not ultimately become built features in the landscape.
- The study area includes several undetermined windfarm applications at the edges of the wider 45 km study area but only 99. includes Stranoch 2 within the more detailed 20 km study area. 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 this scenario as these developments would not both be built.
- There are also a large number of scoping stage proposals in the area. Scoping sites closest to the proposed Development 100 include Kilgallioch Extension, Clauchrie, Arnsheen and Bargrennan which would extend the influence of the existing windfarms in the immediate area. Scoping stage sites are mapped on Figure 7.17 for reference but are not considered further in the assessment, due to layout and design uncertainties at the pre-application stages.

7.4.4.6 Preliminary assessment of cumulative windfarms

- 101. An initial map of cumulative sites was produced to provide a broad understanding of the pattern of wind energy development in the surrounding landscape within the 45 km study area (Figure 7.17a). This cumulative map includes operational, consented and application stage wind energy developments as of the 18/04/19 cumulative cut-off date for this LVIA.
- ¹⁰² Based on surrounding topography and the locations of groups of windfarm developments within the wider study area it is considered that there is no likelihood of significant cumulative effects between the proposed Development and any of the cumulative sites that lie beyond 20 km of the proposed Development. Sites beyond 20 km are found to not have any substantive influence on the cumulative situation and there is limited visibility of these sites from the Arecleoch Extension LVIA viewpoints or key sequential routes.
- For this reason, the detailed assessment within the LVIA has focussed on the cumulative sites within 20 km of the proposed 103. Development and these are listed below in Table 7.5. Cumulative windfarms are shown on Figure 7.17b and diagrams showing Cumulative Zone of Theoretical Visibility (CZTV) for those developments within 20 km of the Development are shown on Figures 7.19a-r.

Wind energy development	No. of turbines	Blade Tip Height (m)	Distance from the proposed Development turbines (km)	Local Authority	Status
Airies Farm	14	136.5	12.33	Dumfries & Galloway	Operational
Arecleoch	60	118	0.55	South Ayrshire	Operational
Artfield Fell	15	74	11.73	Dumfries & Galloway	Operational
Artfield Fell Extension	7	74	11.61	Dumfries & Galloway	Operational
Assel Valley	10	110	12.91	South Ayrshire	Operational
Carscreugh	18	70	17.57	Dumfries & Galloway	Operational
Glen App	11	126.5	11.72	South Ayrshire	Operational
Glenchamber	11	126.5	14.25	Dumfries & Galloway	Operational
Hadyard Hill	52	110	13.92	South Ayrshire	Operational
Kilgallioch	96	2 x 125 94 x 146.5	3.52	Dumfries & Galloway	Operational
Mark Hill	28	110	5.73	South Ayrshire	Operational
Penwhapple	1	67	16.43	South Ayrshire	Operational
Tralorg	8	100	15.05	South Ayrshire	Under Construction
Chirmorie	21	146.5	0.51	South Ayrshire	Consented
Gass	9	126.5	12.17	Dumfries & Galloway	Consented
Stranoch 1	24	16 x 110 8 x 135	5.40	Dumfries & Galloway	Consented
Stranoch 2	20	2 x 140 8 x 149.9 10 x 175	4.95	Dumfries & Galloway	Application
Arnsheen	12	Unknown	5.58	Dumfries & Galloway	Scoping
Bargrennan	15	137	12.07	Dumfries & Galloway	Scoping
Clauchrie	16	200	8.04	Dumfries & Galloway	Scoping
Garvilland	6	150	14.76	Dumfries & Galloway	Scoping
Kilgallioch Extension	11	180	8.45	Dumfries & Galloway	Scoping

Table 7.5: Cumulative windfarms within 0-20 km of the proposed Development

support the approach to cumulative assessment. For reference these cumulative windfarms beyond 20 km (and within 45 km) are also listed in Table 7.6.

Whilst not assessed in detail in the LVIA cumulative developments beyond 20 km are included in wireframe diagrams to

Wind energy development	No. of turbines	Blade Tip Height (m)	Distance from the proposed Development turbines (km)	Local Authority	Status
Barlockhart Moor	4	115	21.79	Dumfries & Galloway	Operational
Dersalloch	23	1 x 110 5 x 115 17 x 125	30.28	South Ayrshire	Operational
Dowhill Farm	1	77	20.83	South Ayrshire	Operational
Knocknain Farm	1	53.7	26.75	Dumfries & Galloway	Operational
Meikle Float Farm	1	54	33.27	Dumfries & Galloway	Operational
North Rhins	11	0	26.70	Dumfries & Galloway	Operational
Windy Standard	36	53.5	45.46	Dumfries & Galloway	Operational
Windy Standard Extension	30	5 x 80 25 x 120	44.00	Dumfries & Galloway	Operational
Torrs Hill	2	100	33.64	Dumfries & Galloway	Under Construction
Bartlockhart Moor Extension	4	115	21.96	Dumfries & Galloway	Consented
Benbrack	18	130	38.76	Dumfries & Galloway	Consented
Chapleton Farm	3	67	23.46	South Ayrshire	Consented
Craigoch Park Moor	1	66.6	31.67	Dumfries & Galloway	Consented
Kirk Hill	8	110	23.65	South Ayrshire	Consented
Knockshinnoch	2	126.5	39.67	East Ayrshire	Consented
Larbrax	8	100	27.75	Dumfries & Galloway	Consented
North Threave	1	53.71	22.55	South Ayrshire	Consented
Polquhairn	9	100	42.54	East Ayrshire	Consented
South Kyle	50	149.5	40.05	Dumfries & Galloway	Consented
Enoch Hill	16	130	44.39	East Ayrshire	Appeal
Windy Standard III	20	8 x 125 12 x177.5	41.51	Dumfries & Galloway	Appeal
Benbrack Variation	18	1 x 132 1 x 135 16 x 149.9	38.76	Dumfries & Galloway	Application
Over Hill	10	149.9	43.71	East Ayrshire	Application
Shepherds Rig	19	2 x 125 17 x 149.9	43.31	Dumfries & Galloway	Application
South Port o Spittal	3	66.6	32.19	Dumfries & Galloway	Application
Airriequhillart	18	136.5	29.23	Dumfries & Galloway	Scoping
Barskeoch	1	130	20.68	Dumfries & Galloway	Scoping

Wind energy development	No. of turbines	Blade Tip Height (m)	Distance from the proposed Development turbines (km)	Local Authority	Status	
Blackmyre Moor	10	Unknown	37.25	Dumfries & Galloway	Scoping	
Cailiness Farm	5	Unknown	43.16	Dumfries & Galloway	Scoping	
Knocknalling	14	150	36.84	Dumfries & Galloway	Scoping	
Knockower	16	Unknown	33.00	Dumfries & Galloway	Scoping	
Mark Farm	11	110	35.79	Dumfries & Galloway	Scoping	
Mindork	21	Unknown	22.47	Dumfries & Galloway	Scoping	
North Kyle	69	149	40.11	East Ayrshire	Scoping	
Pinminnoch	1	102	27.65	Dumfries & Galloway	Scoping	

Table 7.6: Cumulative windfarms within 20-45 km of the Development

7.5 Assessment of physical landscape effects

7.5.1 Introduction

- The first category of effects covered in the assessment is physical effects, which are direct effects on the fabric of the Site, 105. 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 7.1. It should be noted that landscape elements are assessed with reference to their contribution to the landscape rather than in ecological terms.
- The areas of the Site in which the turbines and the majority of infrastructure would be located almost entirely within areas of 106. commercial forestry of variable age and small patches of moorland. As the majority of the access route would be the same as that utilised for the existing Arecleoch Windfarm and Kilgallioch Windfarm, existing landscape elements are unaltered by the access route from the A714. The physical landscape effect of the proposed Development on the coniferous forestry and moorland landscape elements has therefore been assessed in detail below.

7.5.2 Coniferous forestry

^{107.} A large amount of the forestry has been felled within the context of the Site in recent years leading to a mosaic of coniferous forest with contrasting open areas of recently felled / replanted areas. This is evident from viewpoint 01 Chirmorie Cairn. The total study area extends to 5,155.5 hectares (ha) and comprises of commercial woodland on the National Forest Estate. All of the 13 proposed turbines are located within areas of coniferous plantation forestry.

7.5.2.1 Sensitivity

108 rare or specifically recognised for its value. Commercial forestry is a key characteristic of the Plateau Moorlands with Forestry & Windfarms (18c) LCT. The 'with forest' characteristic is also common to neighbouring LCTs e.g. (South Ayrshire 17c Foothills with Forest & Windfarm) and (Dumfries and Galloway 17a Plateau Moorland with Forest Glentrool unit). Commercial forestry is a common feature between these and the mosaic of forestry and areas of clear fell are constantly changing as areas of forestry are felled and replanted. 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 removed. Susceptibility of the forestry to the further changes that the proposed Development would bring is therefore considered to be medium-low. The

The value of this landscape element is medium-low; it is a widespread and commercially-grown landscape element that is not

combination of the medium-low susceptibility to change with medium-low value results in a medium-low sensitivity for coniferous forestry.

7.5.2.2 Magnitude of change

Technical Appendix 3.2 of the EIA Report which 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. Approximately 135 ha of coniferous forestry would be removed as a direct result of the proposed Development, requiring felling on the routes of access tracks, crane hardstanding's and compounds as well as the keyholed areas within which the proposed turbines would be located (See Figure 3.2.6 - Windfarm Felling Plan). The magnitude of change for this landscape element is considered to be low.

7.5.2.3 Significance of the effect

The removal and replanting of areas of coniferous woodland will contribute to a change in the landscape character of parts of the proposed Development Site, but the essential function of this landscape element as a commercial forest will not be redefined. The effect of the proposed Development on coniferous forestry would not be significant due to the factors that contribute to the medium-low sensitivity of the forestry and the low magnitude of change upon it.

7.5.2.4 Restocking

Technical Appendix 3.2 provides guidance in the form of a restocking methodology for commercial conifer areas and the windfarm restocking plan is shown on Figure 3.2.7. Whilst the project will fell 135ha, around 75ha would be replanted resulting in a net loss of 60ha.

7.6 Assessment of landscape character effects

7.6.1 Introduction

- 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.
- 113. 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 types 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 found to often 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.

7.6.2 Preliminary assessment landscape character

of the LCTs are likely to be influenced by the proposed Development. Using this analysis, Table 7.7 identifies the LCTs that have the potential to undergo significant effects and require to be assessed in detail.

Status – Potential for significant effects and included in detailed assessment . Landscape Character Type (LCT) Comment South Ayrshire: LCT. Plateau Moorlands with Forestry & • Windfarms (18c) South Ayrshire: Intimate Pastoral Valley (13); • Upland Glens (14), Glen Tig South Ayrshire: Coastal Foothills (17e)

Status - Considered further in preliminary assessment but found to have no potential for significant effects and not included in detailed assessment.

Landscape Character Type (LCT)	Comment
 Dumfries and Galloway Plateau Moorland with Forest (17a), Glentrool unit 	The ZTV shows large parts of the found within lar Development. No Development is existing Arecler (which appears areas within the
 South Ayrshire: Glenapp Coastal Farmland & the Policies (22) South Ayrshire Southern Uplands (20b) 	Eastern edges Arecleoch Wind windfarm back Development n proposed Deve and it is consid LCTs to be sign
South Ayrshire: • Foothills with Forest and Windfarm (17c)	Underlying win significant char
Dumfries and Galloway:Southern Uplands (19), Beneraird unit	Existing windfa Development to from this LCT r proposed Deve is considered to significantly aff
Dumfries and Galloway: Plateau Moorland (17), Balker Moor unit 	Existing windfa (Kilgallioch) an proposed Deve the proposed D is considered the LCT to be sign
South Ayrshire: • Rugged Uplands with Loch & Forest (21) Dumfries and Galloway:	Within these LC elevated west f the north and v windfarms with

Landscape Character Types / units (LCTs) in the study area are assessed using ZTV analysis (Figure 7.13), to identify which

All of the turbines and associated infrastructure would be located within this

Neighbouring LCTs that fringe the LCT within which the proposed Development is located. Potential for significant effects due to close relationship with upland setting of host LCTs.

LCT with a less immediate relationship with host LCT, however, is susceptible to changes due to the elevated aspect within the context of sensitive landscapes including Stinchar valley in the direction of the proposed Development.

> vs that theoretical visibility is relatively widespread across this area. However, the majority of theoretical visibility is arge areas of forest which intervenes in views of the proposed Where more open views are available, the proposed is experienced as a distant element within the context of eoch turbines and in the backdrop to the Kilgallioch Windfarm rs closer than the proposed Development Site from open ne LCT). See also viewpoint 17 Hill of Ochiltree.

of these LCTs have a close relationship with the existing ndfarm which lies in the neighbouring LCT. This existing drop experienced in the foreground of the proposed moderates the potential additional influence that the elopment would have on the characteristics of these LCTs dered that there is no potential for the character of these phificantly affected.

ndfarm characteristics of this LCT moderates the potential for aracter effects as a result of the proposed Development.

arm backdrop experienced in the foreground of the proposed to the east (Arecleoch) and nearby to the south (Kilgallioch) moderates the potential additional influence that the elopment would have on the characteristics of this area and it that there is no potential for the character of this LCT to be ffected. See also viewpoint 9 Beneraird.

arms experienced within and to the east of this LCT nd to the north (Arecleoch) occur in the foreground of the elopment, moderating the potential additional influence that Development would have on the characteristics of this LCT. It therefore that there is no potential for the character of this nificantly affected.

CTs, the ZTV shows that theoretical visibility is found on facing slopes of the Merrick and its surrounding foothills to west of the summit. The strong baseline of existing hin the context of the proposed Development, particularly

unit St D cc	including Arecleoch, Mark Hill and Kilgallioch (which total 184 turbines), substantially moderates the potential additional influence that the proposed Development would have on the characteristics of these LCTs. It is considered therefore that there is no potential for the character of these LCTs to be significantly affected. See also viewpoint 20 Merrick.					
Rugged Granite Upland with Forest (21a). Merrick unit is	he majority of theoretical visibility within this LCT is found within large reas of forest which intervenes in views of the proposed Development. It considered therefore that there is no potential for the character of this CT to be significantly affected.					
Status – Limited level of influence to the defini the proposed Development, such that there is	ng characteristics, due to limited / restricted or distant visibility of no potential for significant effects.					
 South Ayrshire: Upland Glens (14), Glen App Raised Beach Coast with Flat Fields & Headla (1c) Raised Beach Coast with Rocky Shore (1d) Dumfries and Galloway: Peninsula (i) Machars unit (1) Peninsula (ii) Rhins unit (1) Peninsula with Gorsey Knolls Monreith unit (1 Coastal Flats (i) Stranraer Basin unit (2) Coastal Flats (ii) Wigtown & Cree/Fleet Fringe (2) Shallow Flat Bottomed Valley Water of Luce of Narrow Wooded River Valleys (iv) Moneypool Narrow Wooded River Valleys (v) Palnure unit Moss and Forest Lowland (i) Glenling unit (11 Moss and Forest Lowland (ii) Machars unit (1) 	 Maybole Foothills (17d) Drumlin Pastures (ii) Machars unit (13) Upland Fringe (i) Balker Moor Fringe unit (16) Upland Fringe (ii) Cairnharrow Fringe unit (16) Upland Fringe (iii) Camrie Fringe unit (16) Upland Fringe (iv) Glentrool Fringe unit (16) Flateau Moorland with Lochs Mochrum Lochs unit (17b) Foothills (i) Cairnharrow unit (18) Foothills with Forest (i) Cairnsmore unit (18a) Foothills with Forest (iv) Rhins of Kells unit (18a) Coastal Granite Uplands Cairnsmore Coastal Granite unit (20) Rugged Granite Upland (ii) Rhins of Kells unit (21) Rugged Granite Upland with Forest (i) Cairn Edward unit 					
unit (12) East Ayrshire: • Foothills with Forest & Opencast Mining (17a) • Southern Uplands & Forestry (20c)	 North Ayrshire: Arran Coastal Fringe with Agriculture (3a) Arran Rugged Moorland Hills & Valleys with Forestry (19g) 					
Status – No theoretical visibility of the propose in detailed assessment.	ed Development. No potential for significant effects and not included					
South Ayrshire: South Ayrshire Lowlands (7d) Lowland River Valley (9)	 Lower Dale (11) Foothills with Forest west of Doon Valley (17b) urban 					
 Dumfries and Galloway Narrow Wooded River Valleys (ii) Fleet unit (4 Narrow Wooded River Valleys (iii) Ken unit (4 Flooded Valley Ken Valley unit (8) Upper Dale (Valley) Upper Glenkens unit (9) Drumlin Pastures (i) Deeside unit (13) Southern Uplands with Forest (ii) Ken unit (19a)Ea Ayrshire: East Ayrshire Lowlands (7c) Lowland River Valley (9) Upland River Valley (10) 	 Foothills with Forest (iii) Lauriston unit (18a) Foothills with Forest (v) Stroan unit (18a) Southern Uplands (ii) Carsphairn unit (19) Southern Uplands with Forest (i) Carsphairn unit (19a) 					

Table 7.7: Preliminary assessment LCTs

7.6.3 Preliminary assessment landscape designations

^{115.} Landscape Designations in the study area are assessed using ZTV analysis (**Figure 7.14**), to identify which are likely to be influenced by the proposed Development. Using this analysis, **Table 7.8** identifies the landscape designations that have the potential to undergo significant effects and require to be assessed in detail.

Status – Potential for significant effects and included in de					
Landscape designation	Comment				
South Ayrshire Scenic Area	The southern Stinchar and I Development Development. effects that red				
Status – Considered further in preliminary a not included in detailed assessment.	issessment bu				
Landscape Designation	Comment				
Galloway Hills Regional Scenic Area (RSA) And Galloway Forest Park	Within these of found on eleva foothills to the visibility to the intervenes in v From more op of existing win particularly ind turbines), subs proposed Dev designated and these designa Merrick.				
Status – Limited level of influence to the de the proposed Development, such that there					
National Scenic Areas (NSA) - Fleet Valley;					

Dumfries and Galloway Regional Scenic Areas (RSAs) - Rhins Coast, Mochrum Lochs and Machars Coast;

East Ayrshire Sensitive Landscape Area (EA-SLA);

Gardens and Designed Landscapes (GDLs) – Bargany; Glenapp; Castle Kennedy; Ardwell House; Galloway House; Logan House (Balzieland); and Logan Botanic Garden;

Status – No theoretical visibility of the proposed Development. No potential for significant effects and not included in detailed assessment.

Gardens and Designed Landscapes (GDLs) – Craigengillan; Skeldon House; Rozelle (La Rochelle); Blairquhan; Kilkerran; Lochryan; Monreith; and Culzean Castle.

Table 7.8: Preliminary assessment landscape designations

7.6.4 Wild land area preliminary assessment

^{116.} In 'Descriptions of Wild Land Areas' (SNH 2017c) 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;

etailed assessment.

n parts of this designated landscape (broadly following the Duisk valleys) have a contextual relationship to the proposed t and are susceptible to changes as a result of the proposed t. It is considered therefore that there is potential for significant equire more detailed assessment.

It found to have no potential for significant effects and

designated areas, the ZTV shows that theoretical visibility is vated west facing slopes of the Merrick and its surrounding e north, west and south of the summit. The areas of potential e south of Merrick are within large areas of forest which views of the proposed Development.

pen areas, closer to the summit of Merrick, the strong baseline indfarms within the context of the proposed Development, including Arecleoch, Mark Hill and Kilgallioch (which total 184 bistantially moderates the potential additional influence that the evelopment would have on the characteristics of these ireas. It is considered therefore that there is no potential for ated areas to be significantly affected. See also viewpoint 20

eristics, due to limited / restricted or distant visibility of all for significant effects.

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"

- The WLA is located approximately 19.5 km from the nearest turbine of the proposed Development and theoretical visibility is limited to the west facing slopes of the Merrick. The influence of the proposed Development on this WLA would be limited due to distance and as a result of the strong baseline of existing windfarms that are already a characteristic of views from the WLA to the west. The existing Mark Hill and Kilgallioch Windfarms are located closer to the WLA than the proposed Development. The position of the proposed Development within the context of the existing windfarm developments in view also ensures that it would not contribute to a significant cumulative effect on the WLA.
- Taking all of this into account, it is concluded that the wildness qualities of the WLA could not be significantly affected by the proposed Development and no further assessment is required in the LVIA.

7.6.5 Summary of preliminary landscape character assessment

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.

7.6.5.1 Landscape Character Types (LCTs)

Plateau Moorlands with Forestry & Windfarms (18c);

Intimate Pastoral Valley (13):

Upland Glens (14), Glen Tig; and

Coastal Foothills (17e).

7.6.5.2 Landscape designations

South Ayrshire Scenic Area

7.6.6 Detailed assessment of landscape character effects

7.6.6.1 Plateau Moorlands with Forestry & Windfarms (18c)

Baseline conditions

Baseline description

The proposed Development is located within this LCT. The LCT is a large area of moorland and forestry part intersected by the Duisk valley. The key characteristics within the 2018 SALWCS is 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

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 within 'Plateau Moorland' except for a small area of 'Southern Upland with Forest'. The Southern Upland with Forest description of key characteristics are not specific to the unit within the study area and more akin to the larger area of this type near Dalmellington, it is not therefore cited here as not relevant to this assessment. 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.
- . 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:

	sillention very Large typology (>
Landscape Context:	High-Medium
Scale:	Medium-Low
Landform:	Medium-Low
Landscape pattern:	Medium-Low
Built environment:	Medium-Low
Perceptual qualities:	Medium
Visual amenity:	High-Medium
Cumulative effects:	High-Medium

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 lving 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 (70-130m) turbines and Very Large (>130m) 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.

The operational Arecleoch, Mark Hill, Glen App and northern part of Kilgallioch lie within this LCT. In addition, the operational windfarms of Hadvard 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. Viewpoints within this LCT include Viewpoint 01 - Chirmorie Cairn and Viewpoint 02 - SA61 Core Path / Craigneil Road.

Value	Susceptibility	Sensitivity
This LCT is not subject to any national	Windfarm development is an existing and acknowledged	The combination
landscape designations. The Galloway	characteristic experienced within this LCT and also within	of the value of the
Forest Park and Dark Sky park buffer	neighbouring LCTs to the north and south. The LCT is	landscape and its
area sit across the eastern part of the	susceptible to further windfarm development but would	susceptibility to
LCT. The northern edges of the LCT are	not be uncharacteristic in the area as a whole. The	the proposed
designated locally as SA Scenic Area,	underlying expansive landscape scale, simple pattern of	Development
where the LCT borders the Stinchar and	forestry and gently undulating landform moderate	leads to an overall

This landscape is visible from the A714, B7027 and from the relatively little-used minor public road between New Luce

Open, exposed and rather remote landscape, wild in character, although this is lessened in places by the presence of

Duisk valleys, with a small section of the South Ayrshire Scenic Area extending southwards to the DGC border. The presence of windfarm development and extensive forestry denote an established level of human intervention. The value of this LCT is considered to be Medium.

susceptibility. SALWCS has also highlighted, that visibility sensitivity of of the interior of the LCT is limited, it is considered that is Medium. 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.

Assessment (including operational and under construction cumulative sites)

Magnitude of change

The ZTV shows that theoretical visibility is extensive across this LCT. The actual visibility of the proposed Development is however moderated by the substantial amount of forestry within the LCT which restricts the potential for landscape effects to areas of moorland which are far smaller in extent than the areas of forestry and not always with an unrestricted view towards the proposed Development.

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 • 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 existing Arecleoch Windfarm; and
- The level of proposed Development construction activity experienced within this LCT.
- Factors that decrease the magnitude of change are:
- the change to key characteristics would be restricted from large areas of the LCT which are forested, this is particularly • the case for more remote eastern areas:
- when visible, the proposed Development would be experienced within a context of existing wind turbine development. particularly those existing windfarms within this unit of the LCT that have a more immediate relationship with Arecleoch Extension (Arecleoch, Mark Hill and Kilgallioch);
- The proposed turbines would therefore introduce elements that are not uncharacteristic, albeit as an intensification of wind turbines in this part of the view; and
- when the proposed Development is viewed from the LCT, the proposed turbines would appear set back from the upland ridgeline to the west of the Duisk valley landscape that cuts through this LCT. Whilst the proposed Development would bring wind turbines closer to the edges of the upland plateau, the landscape still carries the characteristics of the broad interior plateau and visibility is still limited from surrounding landscapes as a result:

It is considered that the location of the proposed Development fits with the intended guidance for this LCT contained with the SALWCS, since it is sited in an area of forest which is part of the broader forest covered plateau, and is set back from upland glens and valleys resulting in less overall visibility from roads and settlement. These locational aspects and strong existing windfarm backdrop of the existing turbines are considered to moderate the overall magnitude of change experienced within this LCT. The effect on the underlying key characteristics would however be intensified by the extension of Arecleoch resulting in a locally higher magnitude of change (approximately including the area to the west of the Duisk valley that lies to the north of the existing Kilgallioch Windfarm) than experienced elsewhere in the LCT.

Taking these factors into account the magnitude of change for this LCT is considered to be Medium-High locally reducing to Medium in the wider area.

Significance of effect

The effect of the proposed Development on the landscape character of the north western part of this LCT would be significant (approximately including the area to the west of the Duisk valley and north of the existing Kilgallioch Windfarm). Significant effects would extend to around 3 km to the north and west as far as Pinwherry and Ford Hills which contain the effect from the Stinchar Valley; 5 km to the south, across the minor road to Luce from Barrhill and as far as the existing Kilgallioch Windfarm: 2-3 km to the north east as far the Duisk Valley and 5 km to the east defined by the west slopes of the upper Duisk Valley. Construction and decommissioning effects would also be significant but experienced for a short duration. The effect of the proposed Development on the landscape character of all other parts of this LCT are assessed as not significant. The addition of the proposed Development would increase the extent of a 'landscape with windfarms' characteristic for the immediately surrounding landscape context.

Cumulative assessment (See CZTVs on Figures 6.19a-r)

Cumulative assessment (consented sites)

Key cumulative schemes in the consented scenario for this LCT are the consented Chirmorie and Stranoch 1 Windfarms. Chirmorie will be located within the LCT and Stranoch 1 will be located on a neighbouring part of a similarly characterised plateau moorland landscape within Dumfries and Galloway. These two schemes will bridge the gap between Arecleoch and Kilgallioch.

The proposed Development whilst intensifying the overall influence of wind turbines within close proximity to the existing Arecleoch would not contribute to the general coalescence of windfarm development that will be experienced in the area as a result of the consented scenario.

When considering the addition of the proposed Development to this situation, the scale of change predicted for the proposed Development against the existing baseline is slightly increased and the cumulative magnitude is predicted to be High locally reducing to Medium in the wider area resulting in a locally Significant cumulative effect and Not Significant cumulative effect in other areas.

Whilst the localised significant effect would still occur within similar extents the further intensification of windfarm developed plateau experienced immediately to the south would result in majority of this LCT to the west of the Duisk valley containing windfarm development which would result in an increased cumulative magnitude of change local to the Site and immediate surroundinas.

Cumulative assessment (application sites)

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar influence as Stranoch 1 on the LCT. The scale of change predicted for the proposed Development against the consented scenario would therefore still broadly apply and the cumulative magnitude of change is therefore predicted to be High locally reducing to Medium in the wider area resulting in a locally Significant cumulative effect and Not Significant cumulative effect in other areas.

Table 7.9: Detailed assessment of Plateau Moorlands with Forestry & Windfarms (18c) LCT

7.6.6.2 Intimate Pastoral Valley (13);

Baseline conditions

Baseline description

The Intimate Pastoral Valley character type within the study area includes the Stinchar and Duisk valleys which connect at Pinwherry. 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 -

- with Forest and Windfarms (18c) generally forms more simple even skylines seen from these valleys;
- the transition with the very gently sloping Plateau Moorland with Forest and Windfarms (18c);
- in some areas although open views are possible where roads are more elevated or the floodplain more open; and
- Valley' and describes key characteristics as follows -
- moorlands of the Ayrshire uplands;
- Strongly contained by adjacent uplands with occasional higher and more pronounced summits;
- 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;

These valleys are relatively narrow and strongly contained by adjacent upland character types. The Plateau Moorland

A small to medium scale landscape. Scale increases on more open and less settled upper valley sides, particularly at

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

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

Narrow, intimate medium to small scale valleys with steep slopes and relatively flat bottoms cut into the foothills and

Diverse land cover dominated by broadleaf woodland including shelterbelts, riparian woodland and policy woodlands

- 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)'.

Viewpoints within this LCT include Viewpoints 03 - Minor road to the south of Barrhill; 04 - Wallace Terrace, Barrhill; 05 -A714 road near Blairhall Farm; 06 – Knockytinnal; 07 - Minor road south of Pinwherry; 11 – Knockycoid; 13 - A714 road near Corwar House; 14 - Knockdolian; 15 - B734 road near Pinmore; and 16 - B7044 Ballantrae. 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 10 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 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 to occur across the southernmost parts of the Duisk valley (see viewpoints 3, 11 and 13).

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.

Value	Susceptibility	Sensitivity
This LCT is not subject to any national landscape designations it is however within the Ayrshire Scenic Area. 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 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. 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 ZTV shows that theoretical visibility varies across this LCT. Within the northern parts of this LCT that extend along the Stinchar valley, theoretical visibility is patchy and tends to be limited to the upper valley slopes at the transition with the neighbouring plateau and foothills LCT's. Theoretical visibility within the Duisk valley is more extensive although the valley floor has long strips of no visibility. The majority of theoretical visibility on the eastern valley slopes is for all of the proposed Development turbines whilst on the western valley slopes it is largely indicated as 1-3 turbine blades other than the area to the south of Barrhill Station which is more plateau moorland in character and larger in scale than other smaller scale parts of the LCT that follow the valley floor. The actual visibility of the proposed Development is also moderated by the substantial amount of forestry at the edges of the LCT and smaller woodlands and tree groups which combine in some areas of this LCT to restrict open views across the LCT.

Factors that increase the magnitude of change are:

- change to the experience of the landscape character of the LCT resulting from addition of large scale wind turbines to the south of the Stinchar valley and west of the Duisk valley;
- the proposed Development would appear to increase the influence of wind energy development already experienced from several parts of this LCT; and
- the scale of the proposed Development turbines would contrast with the scale of the existing Arecleoch turbines in views from the southern part of the Duisk valley, where they can be appreciated in combination.

Factors that decrease the magnitude of change are:

the change to key characteristics would be minimal from large areas of the LCT that have little or no visibility. This is particularly true of much of the Stinchar valley;

- of the neighbouring Plateau Moorland and Forestry with Windfarms LCT;
- the valley sides. This is particularly evident within the Stinchar valley;
- When visible, the proposed Development is often seen within a context of existing wind turbine development that occurs at the edges of this LCT. The turbines of Mark Hill, Hadyard Hill, Arecleoch, Penwhapple, Glen App and uncharacteristic, albeit as an intensification of wind turbines; and
- when the proposed Development is viewed from the LCT, the proposed turbines would appear set back from the the overlapping SLA designation.

Taking all of this into account, the experience of the key characteristics of the LCT would be affected differently depending on the area of LCT considered. The Stinchar valley has restricted visibility and the magnitude of change on the LCT in this area is predicted to be negligible. Within the Duisk valley some parts are restricted in terms of potential visibility and further restrictions are also found due to intervening trees and forestry on the western valley sides. Magnitude of change within the Duisk valley is predicted to be Medium-High.

Significance of effect

The effect of the proposed Development on the landscape character of this LCT would be significant within the Duisk valley but Not Significant in the Stinchar valley. As described in the baseline, 10 of the 22 viewpoints considered in the LVIA are within this LCT. Of these 10 viewpoints, 7 are located within the Duisk valley with 4 of these considered to experience significant visual effects. Of the 3 viewpoints within the Stinchar valley part of this LCT the Knockdolian viewpoint is considered to experience significant effects and whilst this viewpoint overlooks the Stinchar valley it sits above the valley floor and is not representative of effects within the smaller scale of the valley itself. Notwithstanding the differences between visual and landscape effects, the results of the viewpoint assessment does tend to support the findings of the landscape assessment of this LCT.

Cumulative assessment (See CZTVs on Figures 6.19a-r)

Cumulative assessment (consented sites)

The CZTV for the Gass Windfarm shows that combined visibility is limited in extent within this LCT. Whilst the CZTV for Stranoch 1 Windfarm is similar to the proposed Development on elevated slopes above the Intimate Pastoral Valley, theoretical visibility from within the valleys themselves is far less extensive. Where visibility does occur within the LCT Stranoch 1 will be experienced in the backdrop to existing closer windfarm development at Arecleoch and Kilgallioch and will not result in a notable addition from the LCT. When considered alongside the proposed Development, the cumulative influence of Stranoch 1 on this LCT is minimal.

The CZTV for Chirmorie is quite similar to the proposed Development with slightly less visibility in northern valleys of this LCT than the proposed Development. From parts of the Duisk valley the addition of Chirmorie would contribute to the appearance of a continuous span of windfarm development experienced above the western slopes of the Duisk valley. Both the proposed Development and Chirmorie would not always be visible from the Duisk valley although would often be viewed together from elevated eastern slopes.

The proposed Development would tend to stay within the existing / consented windfarm extent when experienced from the LCT, albeit as a closer and larger development which would bring its own added intensification of the developed horizon. Taking all of this into account it is considered that the magnitude of change predicted for the proposed Development against the existing baseline would reduce as a consequence of the greater backdrop of windfarm development in the view. The cumulative magnitude of change in this scenario is therefore considered to be Medium within the Duisk valley remaining negligible in the Stinchar valley resulting in a Not Significant effect.

Cumulative assessment (application sites)

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar influence as Stranoch 1 on the LCT. The scale of change predicted for the proposed Development against the consented scenario would therefore still broadly apply and the cumulative magnitude of change is therefore predicted to be Medium within the Duisk valley remaining negligible in the Stinchar valley resulting in a Not Significant effect.

Table 7.10: Detailed assessment of Intimate Pastoral Valley (13) LCT

Where visibility occurs the proposed Development would largely be experienced within the large scale upland context

Within these valleys, potential visibility is further restricted by intervening vegetation on the valley floor and woods on

Kilgallioch are strong features in the landscape. The proposed turbines would therefore introduce elements that are not

undulating landforms to the south and west of the Site that form an intervening set of hills and ridgelines. Careful layout design has sought to avoid positioning turbines out with these leading ridgelines to minimise the effect on this existing containment of windfarm development and to the existing spread of horizontal development in views from this LCT and

7.6.6.3 Upland Glens (14), Glen Tig unit

Baseline conditions

Baseline description

This Upland Glens character type includes the landscape of Glen Tig along the Water of Tig between the more upland character of the glen to the east near Wheeb and the more settled part of the glen to the west near Heronsford. A public road skirts the southern slopes of the glen leading to Balkissock. The key characteristics within the 2018 SALWCS are summarised as follows -

- These are narrow, high sided valleys with flat floors. The steep valley sides create a high degree of enclosure.
- Although Glen Tig is less settled, it lies close to the well-settled Stinchar Valley.
- Narrow glen floors are often more open with smooth pastures providing a scenic contrast with more rugged and coarsely vegetated hill slopes. Glen Tig feature extensive native woodlands.
- Settlement is generally located as point features along the edge of the valley floor and is frequently associated with side valleys.
- Glen Tig feels the most secluded and least modified of these Upland Glens due to its sparsely settled nature, absence of roads and extensive semi-natural woodlands although the Arecleoch Windfarm is visible in close proximity in places, diminishing the sense of wildness.
- Glen Tig is less visible from roads and settlement although a number of footpaths provide access into this more secluded glen

For reference, the SNH 2019 character assessment identifies this area (albeit with subtly different borders) as 'Upland Glen' and describes key characteristics as follows -

- Distinctive profile comprising steep, often craggy valley slopes, and a rounded valley floor, containing a comparatively small 'misfit' river:
- Complex and prominent ridgelines along tops of steep valley sides;
- Pasture on the valley floors and lower valley slopes giving way rapidly to rough grassland and heather moorland on higher ground;
- Broadleaf woodland is scarce but small to medium scale coniferous forests are found on the valley slopes:
- Small scale landscape with some areas of remote and wild character; and
- Views contained by the steep valley sides.

Viewpoint 08 - Minor road Glen Tig, is found on the edge of the LCT. The operational Arecleoch Windfarm is a feature of the neighbouring plateau landscape which contains the glen to the south.

Value	Susceptibility	Sensitivity
This LCT is not subject to any national landscape designations it is however within the Ayrshire Scenic Area and locally valued for the sense of remoteness in the underlying landscape of the glen. 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 is moderated by the close visual presence of the existing Arecleoch Windfarm development from most parts of the glen. However, the proposed Development could further influence the seclusion described in the key characteristics, which increases susceptibility. On balance, 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 ZTV shows that theoretical visibility is largely found on south facing valley side slopes and the floor of Glen Tig. Some further patches of theoretical visibility is found on the elevated top slope of the southern glen side where the minor road connects a series of isolated properties and skirts the edges of the LCT. Viewpoint 08 is located on this minor road.

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 to the east intensifying the effect of the existing Arecleoch Windfarm;

- This LCT is within relatively close proximity to the proposed Development which would sit above the skyline to the east from lower Glen Tig and to the south from higher Glen Tig;
- The effect of the proposed Development on the secluded characteristic of the underlying landscape; and
- Whilst the glen has an upland character and is clearly seen to transition with the forested plateau landscape that frames the glen landscape, the large scale of the turbines would contrast with smaller features in the glen where they intervene in views towards the proposed Development.

Factors that decrease the magnitude of change are:

- Parts of the Glen Tig valley are wooded (south east) and views towards the proposed Development are restricted from these areas as a result;
- From some parts of the LCT, the proposed Development would be experienced within the context of the existing Arecleoch Windfarm. From these areas therefore the proposed Development turbines would not be experienced as uncharacteristic elements in the landscape; and
- When the proposed Development is viewed from the LCT, the proposed Development turbines would appear set back into a larger area of upland which lies beyond the 'more rugged and coarsely vegetated hill slopes' of the glen landscape described in SALWCS. This transitional glen slope and characteristically upland ridge to the glen reinforces the position of the proposed Development within a separate larger scale upland setting to the south east.

proposed Development would only result in a relatively moderate additional influence to this existing awareness and influence of windfarm development as a backdrop to the glen landscape, slightly intensifying the effect experienced. Taking all this into account the magnitude of effect on the character of this LCT is considered to be Medium.

Significance of effect

This small scale glen has a High-Medium sensitivity to the proposed Development. The moderate magnitude of change experienced within much of the glen is not at a level considered to trigger a significant effect, however, the area which lies closest to the proposed Development is considered to experience a Significant effect. The Significant effect is found at the eastern end of the glen and can be defined as the area that is surrounded by the Foothills and Forest with Windfarm LCT (17c). Other areas within this LCT are considered to be Not Significant.

Cumulative assessment (See CZTVs on Figures 6.19a-r)

Cumulative assessment (consented sites)

The CZTVs show that the consented Chirmorie and Stranoch 1 Windfarms would have a limited influence on this LCT. No other consented windfarms are within an influencing context of the proposed Development. A negligible cumulative change is predicted resulting in a Not Significant cumulative effect.

Cumulative assessment (application sites)

influence as Stranoch 1 on this LCT. No other application windfarms are within an influencing context of the proposed Development. For this reason, a negligible cumulative change is predicted resulting in a Not Significant cumulative effect.

Table 7.11: Detailed assessment of Upland Glens (14) LCT

7.6.6.4 Coastal Foothills (17e)

Baseline conditions

Baseline description

The Coastal Foothills character type includes the elevated section of foothills between the lower Stinchar valley and the coast of raised beaches and cliffs to the south of Girvan. This area includes the Aldons, Knockdaw and Knockormal hills along its spine. The key characteristics within the 2018 SALWCS are summarised as follows -

- The narrow band of hills immediately backing the coast between Pinbain and Byne Hills form key landmark features. The rugged steep slopes and often craggy summits of these coastal hills make them appear higher than they are; The landform to the south-west comprises a more gently undulating platform punctuated by isolated conical hills, with
- Knockdolian being the most prominent of these. Bargain Hill also forms a landmark feature seen at a pivotal point at the junction between the Duisk and Stinchar valleys;

- The key characteristics of the LCT would be experienced within the context of the existing Arecleoch Windfarm and the
- The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar

- The upper hill slopes have a simple pattern of unimproved grassland and moor. Wetter basins and areas of semiimproved pasture occur between hills and on lower hill slopes and these are broken by occasional small mixed woodlands. More extensive coniferous forestry occurs in the lower-lying gently undulating Breaker Hill area;
- The irregular landform creates a degree of enclosure, with interior settled glens and broader basins surrounded by higher ridges and tops;
- These hills are sparsely settled with farms sited in narrow valleys and on the lower coastal platform to the south-west. A number of minor public roads cut through valleys within these hills; and
- The Coastal Foothills are important in limiting the visual influence of windfarm development on the coast and sea and in minimising cumulative effects on the Stinchar Valley.

For reference, the SNH 2019 character assessment identifies this area (albeit with subtly different borders) as 'Foothills' and describes key characteristics as follows -

- 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; and
- Simple, largely undeveloped landscape, with foothills often providing scenic backdrops to the settled valleys which surround them.'

Viewpoint 14 Knockdolian and viewpoint 10 minor road north east of Colmonell are located close to the southern edges of this LCT within the Intimate pastoral valley LCT in the Stinchar valley, although these viewpoint have a similar outlook as other parts of the Coastal Foothills LCT as they are similarly elevated and within similar areas of theoretical visibility on south facing slopes. Viewpoint D which is a night time viewpoint is within this LCT located on the same minor road as viewpoint 10 between Colmonell and Lendalfoot. The operational Arecleoch, Mark Hill, Assel valley Penwhapple, Hadvard Hill and Glen App are all experienced within a similar influencing context for this LCT as the proposed Development.

Value	Susceptibility	Sensitivity
This LCT is not subject to any national landscape designations it is however within the Ayrshire Scenic Area. The value of this LCT is considered to be Medium.	This elevated LCT is already influenced by existing windfarm development which moderates the potential for significant effects. However, it is susceptible to additional windfarm development and the potential for cumulative landscape character effects. On balance, susceptibility 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.

Assessment (including operational and under construction cumulative sites)

Magnitude of change

The ZTV shows that theoretical visibility is found on south facing slopes around the Aldons, Knockdaw and Knockormal hills. The extent of theoretical visibility is limited across these slopes plateau ridge outside theoretical visibility with the minor road from Colmonell to Lendalfoot crossing one of the few areas where potential visibility occurs to the east of Moak Hill near the reservoir.

Factors that increase the magnitude of change are:

- Change to the experience of the landscape character of the LCT resulting from addition of further large scale wind turbines to the south:
- This LCT has open and elevated views to the south within relatively close proximity to the proposed Development; and
- The proposed Development would increase the influence of wind energy development, appearing to extend windfarm development to the east from the existing Arecleoch turbines and at a larger scale than currently exists.

Factors that decrease the magnitude of change are:

- The change to key characteristics would be restricted from large areas of the LCT that have no theoretical visibility;
- The characteristic backdrop that these foothills provide to adjacent lower lying settled valley landscapes would not be diminished by the proposed Development as visibility is restricted within the lower valley landscapes and is opposite in direction to the location of the proposed Development from the Stinchar valley;

- The existing Arecleoch turbines appear within the vast majority of theoretically visible areas as the proposed Development;

In addition, the proposed Development would be experienced within a wider context of existing wind turbine development with Mark Hill appearing further to the east in the backdrop to a view east along the Stinchar valley from the south facing slopes and Assel Valley, Penwhapple and Hadyard Hill to the north east. Taking all of this into account the magnitude of change is assessed as Medium.

Significance of effect

The effect of the proposed Development for this LCT is considered to be Not Significant. Whilst the experience of key characteristics would be affected to an extent, the characteristic upland backdrop that these foothills provide to the Stinchar valley is maintained and not diminished through the introduction of the proposed Development. The experience of the characteristically large scale extensive plateau character within the receiving landscape to the south of the Stinchar valley is also not diminished by introducing the proposed Development. The existing windfarms within this receiving landscape are intensified by the presence of further larger turbines although the underlying larger scale of the landscape is not dominated by them.

Cumulative assessment (See CZTVs on Figures 6.19a-r)

Cumulative assessment (consented sites)

The CZTV for the Gass Windfarm shows that combined visibility is limited in extent within this LCT. The CZTV for the Chirmorie Windfarm shows similar theoretical visibility across this LCT. The CZTV for the Stranoch 1 Windfarm shows similar theoretical visibility extents across the eastern parts of this LCT but there is limited Stranoch 1 theoretical visibility on western areas.

For both of these consented windfarms, where visibility does occur within the LCT, the experience will be an intensification within the backdrop of other foreground windfarms such as Arecleoch, Hadyard Hill or Mark Hill. This additional presence of turbines will result in a slight intensification of the existing windfarm presence. When the proposed Development is added to this situation, the increased backdrop of turbines would be further intensified by the proposed Development although the proposed Development would be seen to fit within the pattern of existing development rarely increasing the spread of development along the horizon and clearly located within the same upland moorland and forestry as the existing and consented scenario.

On balance and when considering the addition of the proposed Development to the consented situation, the scale of change predicted for the proposed Development against the existing baseline would reduce slightly although this slight reduction would not be enough to reduce the magnitude of change category. The cumulative magnitude of change is therefore considered to be Medium resulting in a Not Significant cumulative effect.

Cumulative assessment (application sites)

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar influence as Stranoch 1 on the LCT. The scale of change predicted for the proposed Development against the consented scenario would therefore still broadly apply and the cumulative magnitude of change is therefore predicted to be Medium resulting in a Not Significant cumulative effect.

Table 7.12: Detailed assessment of Coastal Foothills (17a) LCT

7.6.6.5 South Ayrshire Scenic Area

Baseline conditions

Baseline description

The South Ayrshire Scenic Area (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 underlying character areas within this contextual relationship are considered to include - Intimate Pastoral Valley (13); Upland Glens (14), Glen Tig; and Coastal Foothills (17a). The baseline descriptions for these areas are found in the previous detailed assessments of LCTs and not repeated here. The preliminary assessment identified that the southern parts of this designated landscape (broadly following the Stinchar and Duisk valleys) have a contextual relationship to the proposed Development and are susceptible to changes as a result of the proposed Development.

The South Ayrshire LDP recognises the importance of providing protection through the SA designation in 'LDP policy: protecting the landscape' which states -

'We will consider proposals within or next to 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.

c. Whether they can be justified in a rural location.'

It is considered that the 1998 character assessment is not relevant in this instance as the 'LDP policy: wind energy' advocates the use of the SALWCS to 'decide the effect of proposals on the landscape'. Whilst the scenic area designation is not specifically referred to in SALWCS, scenic attributes are recognised within the Intimate Pastoral Valley (13); Upland Glens (14), Glen Tig; and Coastal Foothills (17a) LCTs.

The SLA covers an extensive part of the study area and the viewpoints within the SLA include 03 - Minor road to the south of Barrhill; 04 - Wallace Terrace, Barrhill; 05 - A714 road near Blairhall Farm; 06 - Knockytinnal; 07 - Minor road south of Pinwherry; 08 - Minor road Glen Tig; 09 Beneraird; 10 minor road north east of Colmonell; 11 - Knockycoid; 13 - A714 road near Corwar House; 14 – Knockdolian; 15 – B734 road near Pinmore; 16 – B7044 Ballantrae; and 18 Auchensoul Hill.

The operational windfarms of Assell Valley, Hadyard Hill and Dersalloch lie entirely within the SA and the operational Mark Hill is partly within the SA. The operational Arecleoch and Glen App Windfarms are located close to the southern edges of the SA.

Value	Susceptibility	Sensitivity
There is no citation for the SA and no description of the reasons for designation and special qualities of this designated landscape. It is considered that the value of the SA to be Medium-High which principally relates to the Medium-High value associated with the Intimate Pastoral Valley and Upland Glens LCT around which the SA area is focussed.	Although the proposed Development is not located within the SA, the SA is susceptible to the proposed Development. The intimate, small to medium scale nature of the valley landscapes increases susceptibility to windfarm development within the SA although it should be noted that the scenic aspects of the larger scale upland areas of the SA are less susceptible to changes potentially resulting from the proposed Development. Susceptibility is moderated by the visual presence of existing windfarm development from parts of this SA, by the sense of enclosure provided by forestry or woodland that occurs in parts of the SA and for valley landscapes the steep and wooded valley sides, that create a separation from the neighbouring plateau landscapes. On balance, 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 ZTVs show that theoretical visibility is found across the Intimate Pastoral Valley and Coastal Foothills LCTs both of which are considered separately above. Whilst there are patches of theoretical visibility further north on other areas of the SLA the underlying character types in these areas have been assessed as not having the potential for significant effects. The assessment of effects within the SLA is therefore focussed on the Intimate Pastoral Valley and Coastal Foothills LCTs. See Figures 7.14 and 7.16a.

Factors that increase the magnitude of change are:

- change to the experience of the landscape character of the SLA resulting from addition of large scale wind turbines to the south of the Stinchar valley and west of the Duisk valley;
- parts of the SLA within the Coastal Foothills are open and elevated with views to the south within relatively close proximity to the proposed Development;
- the proposed Development would appear to increase the influence of wind energy development already experienced from several parts of this SLA:
- The amount of potential visibility and therefore potential for change within the SLA designation; and
- The proposed Development would increase the influence of wind energy development, appearing to extend windfarm development to the east from the existing Arecleoch turbines and at a larger scale than currently exists.

Factors that decrease the magnitude of change are:

- the change to key characteristics would be minimal from large areas of the SLA that have little or no visibility. This is particularly true of much of the Stinchar valley and the coastal landscapes to the north;
- Where visibility occurs within the SLA the proposed Development would largely be experienced within the large scale upland context of the neighbouring Plateau Moorland and Forestry with Windfarms LCT;
- Within the Stinchar and Duisk valleys, potential visibility is partly restricted by intervening vegetation on the valley floor and woods on the valley sides. This is particularly evident within the Stinchar valley;
- The existing Arecleoch turbines appear within the vast majority of theoretically visible areas as the proposed Development;
- The topography of the Coastal Foothills LCT limits the amount of theoretical visibility in northern parts of the study area and the characteristic backdrop that these foothills provide to adjacent lower lying settled valley landscapes would not be diminished by the proposed Development as visibility is restricted within the lower valley landcapes and is opposite in direction to the location of the proposed Development from the Stinchar valley;
- when the proposed Development is viewed from the Stinchar and Duisk valleys, the proposed turbines would appear set back from the undulating landforms to the north and east of the Site that form an intervening set of hills and ridgelines. Careful layout design has sought to avoid positioning turbines outwith these leading ridgelines to minimise the effect on this existing containment of windfarm development and to the existing spread of horizontal development in views from the SLA designation; and
- When visible, the proposed Development is often seen within a context of existing wind turbine development that occurs at the edges of this LCT. The turbines of Mark Hill, Hadyard Hill, Arecleoch, Penwhapple, Glen App and Kilgallioch are strong features in the landscape. The proposed turbines would therefore introduce elements that are not uncharacteristic, albeit as an intensification of wind turbines. In addition, the proposed Development would be experienced within a wider context of existing wind turbine development including Assel Valley, Penwhapple and Hadyard Hill which are located within the SLA.

Taking all of this into account, it is clear that the experience of the key characteristics of this extensive area of SLA designation would be affected differently depending on the area considered and the distance to the proposed Development. This can be summarised as follows: the Stinchar valley has restricted visibility and the magnitude of change on the SLA in this area is predicted to be negligible; magnitude of change within the Coastal Foothills is considered to be Medium reducing in magnitude in the foothills to the east within the context of the existing Hadyard Hill group of windfarms and then further reducing in magnitude in coastal landscapes to the north due to distance and cumulative presence within closer context; and within the Duisk valley some parts are restricted in terms of potential visibility and further restrictions are also found due to intervening trees and forestry on the western valley sides. Magnitude of change within the Duisk valley and easternmost end of Glen Tig is predicted to be Medium-High largely due to the closer proximity of the proposed Development.

Significance of effect

The effect of the proposed Development on the SLA is considered to be significant within the Duisk valley and within the the lower level of magnitude of change experienced as detailed above.

Cumulative assessment (See CZTVs on Figures 6.19a-r)

Cumulative assessment (consented sites)

The CZTV for the Gass Windfarm shows that combined visibility is limited in extent within the SLA. The CZTV for Stranoch 1 Windfarm is similar to the proposed Development on elevated slopes above the Intimate Pastoral Valley LCT and on eastern parts of the Coastal Foothills LCT within the SLA. The CZTV for Chirmorie is quite similar to the proposed Development with slightly less theoretical visibility in the valleys of the SLA than the proposed Development. From parts of the Duisk valley the addition of Chirmorie would contribute to the appearance of a continuous span of windfarm development experienced above the western slopes of the Duisk valley. Both the proposed Development and Chirmorie would not always be visible from the Duisk valley although would often be viewed together from elevated eastern slopes. More generally, where visibility does occur these consented schemes will be experienced either in the backdrop to existing closer windfarm development or the experience will be an intensification within the backdrop of other foreground windfarms such as Arecleoch, Hadyard Hill or Mark Hill. The proposed Development would tend to stay within the existing / consented windfarm extent when experienced from the SLA, albeit as a closer and larger development which would bring its own added intensification of the developed horizon.

the existing baseline would reduce, particularly in the Duisk valley, as a consequence of the greater backdrop of windfarm development in the view. The cumulative magnitude of change in this scenario is therefore considered to be Medium resulting in a Not Significant effect.

- east end of Glen Tig part of the SLA designated area, all other areas of the SLA are considered to be Not Significant due to
- Taking all of this into account it is considered that the magnitude of change predicted for the proposed Development against

Cumulative assessment (application sites)

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar influence as Stranoch 1 on the SLA. The scale of change predicted for the proposed Development against the consented scenario would therefore still broadly apply and the cumulative magnitude of change is therefore predicted to be Medium resulting in a Not Significant cumulative effect.

Table 7.13: Detailed assessment of South Ayrshire Scenic Area

7.7 Assessment of effects on views

7.7.1 Introduction

112. 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). The following preliminary assessment identifies which of these views 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.

7.7.2 Preliminary assessment of effect on views

7.7.2.1 Viewpoints

^{113.} Viewpoint locations are shown in conjunction with the blade tip ZTV on Figures 7.8 (A3 size) and 7.9 (A1 size) and at a detailed scale in the visualisations in Figures 7.22 – 7.43. Table 7.14 provides a summary of the theoretical visibility analysis carried out for each viewpoint, Table 7.15 identifies which viewpoints require more detailed assessment in the LVIA because they have the potential to undergo significant effects (including cumulative effects), and which viewpoints do not require further detailed assessment (highlighted grey).

Ref	Viewpoint Name	Nearest proposed turbine (km)	Theoretically visible turbines (No's)		Horizontal angle of theoretically visible turbines (degrees) A – Arecleoch Windfarm B – proposed Development C – Arecleoch Windfarm + proposed Development D – additional horizontal angle ²		d	
				œ	Α	В	С	D
01	Chirmorie Cairn	2.47	13	13	69	21	93	24
02	SA61 Core Path / Craigneil Road	2.51	13	13	39	22	62	23
03	Minor road to the south of Barrhill	2.83	12	13	48	53	56	8
04	Wallace Terrace, Barrhill	3.95	4	10	0	30	30	30
05	A714 road near Blairhall Farm	4.51	13	13	20	37	37	17
06	Knockytinnal	4.57	13	13	32	34	34	2
07	Minor road south of Pinwherry	4.66	2	11	0	29	29	29
08	Minor road Glen Tig	5.31	4	5	19	17	29	10

² The additional horizontal angle calculation (D) can include a degree of overlap between the existing Arecleoch and the proposed Development extents and less often can also include a degree of separation between the 2 schemes. For this reason, the additional horizontal angle can appear as more or less than the proposed Development horizontal angle on its own.

Ref	Viewpoint Name	Nearest proposed turbine (km)			visible turbines (degrees) urbines (No's) A – Arecleoch Windfarm B – proposed Development C – Arecleoch Windfarm + propos Development D – additional horizontal angle ²			d
		1		ß	Α	В	С	D
09	Beneraird	5.44	11	13	91	37	91	0
10	Minor road north east of Colmonell	5.76	5	13	18	11	35	17
11	B7027 Knockycoid	6.01	11	13	25	23	31	6
12	SUW, Craig Airie Fell	6.41	13	13	35	12	47	12
13	A714 road near Corwar House	6.82	13	13	32	24	37	5
14	Knockdolian	7.13	13	13	26	15	35	9
15	B734 road near Pinmore	8.26	2	3	14	6	17	3
16	B7044 Ballantrae	9.07	0	4	9	4	14	5
17	SUW, Hill of Ochiltree	13.51	13	13	20	10	24	4
18	Auchensoul Hill	14.66	13	13	13	12	17	4
19	Braid Fell	14.89	12	13	13	12	15	2
20	The Merrick	23.35	13	13	12	8	13	1
21	Ailsa Craig	23.80	13	13	8	4	12	4
22	Cairnsmore of Fleet	32.32	13	13	9	4	11	2

Table 7.14: Viewpoint Theoretical Visibility summary

Ref	Viewpoint name	Status / comment	Visualisation provided
01	Chirmorie Cairn	Included in the detailed assessment due to proximity	Photomontage
02	SA61 Core Path / Craigneil Road	and level of visibility of the proposed Development.	Photomontage
03	Minor road to the south of Barrhill		Photomontage
04	Wallace Terrace, Barrhill	Restricted visibility, however, included in the detailed assessment due to the sensitivity of the Barrhill settlement.	Photomontage Night time photomontage
05	A714 road near Blairhall Farm	Sequential viewpoint. Included in the detailed assessment due to the level of visibility of the proposed Development.	Photomontage
06	Knockytinnal	Included in the detailed assessment due to proximity and level of visibility of the proposed Development.	Photomontage
07	Minor road south of Pinwherry		Photomontage
08	Minor road Glen Tig		Photomontage
09	Beneraird	Included in the detailed assessment due to the level of visibility of the cumulative context of the proposed Development.	Photomontage

Ref	Viewpoint name	Status / comment	Visualisation provided	
10	Minor road north east of Colmonell	Not representative of Colmonell settlement. Excluded from the detailed assessment during viewpoint agreement.	Baseline photo and wireline	
11	B7027 Knockycoid	Not included in the detailed assessment. Whilst it is acknowledged that potentially significant effects could occur in the future view once the intervening forestry is felled, the existing baseline of forestry currently 		
12	SUW, Craig Airie Fell	Not included in the detailed assessment. Cumulative baseline limits potential for significant effects due to the closely intervening Killgallioch turbines. Photomontage provided to support this preliminary assessment and the sequential effects assessment of the SUW.Photomontage		
13	A714 road near Corwar House	Sequential viewpoint. Included in the detailed Photomontal assessment due to the level of visibility of the proposed Development.		
14	Knockdolian	Included in the detailed assessment due to the level of visibility of the cumulative context of the proposed Development.	Photomontage	
15	B734 road near Pinmore	Excluded from the detailed assessment during viewpoint agreement. Potential visibility limited with potentially visible turbines entirely obscured behind forestry and trees that intervene.		
16	B7044 Ballantrae	Not included in the detailed assessment. No potential for significant effects due to very limited turbine visibility from this location.		
17	SUW, Hill of Ochiltree	The level of visibility of the proposed Development from this viewpoint is limited by distance, however, the SUW is a key route through the area and this viewpoint is representative of potential sequential effects.		
18	Auchensoul Hill	Cumulative baseline limits potential for significant effects. Excluded from the detailed assessment during viewpoint agreement.		
19	Braid Fell	Intervening cumulative baseline and distance limits Baseline photo potential for significant effects. Excluded from the and wireline detailed assessment during viewpoint agreement. and wireline		
20	The Merrick	The level of visibility of the proposed Development from this viewpoint is limited by distance. However, the Merrick is a key visitor location and representative of views from within the WLA, detailed assessment included in agreement with consultees. Photomontage		

Ref	Viewpoint name	Status / comment	Visualisation provided
21	Ailsa Craig	Cumulative baseline and distance limits potential for significant effects. Excluded from the detailed assessment during viewpoint agreement.	Wireline
22	Cairnsmore of Fleet	Intervening cumulative baseline and distance limits potential for significant effects. Excluded from the detailed assessment during viewpoint agreement.	Wireline

Table 7.15: Preliminary assessment of viewpoints

7.7.2.2 Principal visual receptors

The principal visual receptors in the study area are shown on Figures 7.6 and 7.7 and with the proposed Development blade tip ZTV on Figures 7.15 and 7.16b. Tables 7.16 - 18 identify which of the identified principal visual receptors have the potential to undergo significant effects (including cumulative effects), and which of them do not require further detailed assessment. As described in the baseline overview, in order to focus the assessment on assessing potential significant effects, the LVIA has focussed its assessment of principal visual receptors within a 20 km study area.

Status – Potential for significant effects and included in d of the proposed Development.		
Comment		
Barrhill is a ribbon settlement, arrange bridge. The ZTV shows the northern h the proposed Development due to inter hillsides to the west further restricts vis sloping hillsides (beyond which the pro southern parts of the settlement. Barrh represented by Viewpoint 4 which is lo		
further in preliminary assessment be led assessment.		
Comment		
The ZTV shows no theoretical visibility visibility does occur (1-3 blades) it is o which intervenes.		
Whilst the ZTV shows a patch of theor settlement, the intervening forest cove visibility.		
Whilst the ZTV shows ribbons of theor and 1-3 hubs), the wooded valley floor clusters restrict views and as such the		
d in detailed assessment: no theoret		
ew Luce; Cairnryan; Glentrool Village; a		
sessment of settlements / property clusters		
r significant effects and included in c elopment.		
Comment		

detailed assessment due to level of influence and visibility

ed along a short section of the A714 to the north of the Duisk half of the settlement has no or very little theoretical visibility of tervening hill. The small blocks of woodland on intervening risibility from within the Barrhill settlement although views of the roposed Development would be located) are possible from rhill is therefore included in the detailed assessment and is located on Wallace Terrace within an area of visibility.

out found to have no potential for significant effects and

ty for the vast majority of this settlement. Where theoretical obscured by the tree lined ridge to the east of the settlement

pretical visibility (1-3 blades) in the northern part of this rered ridgeline to the south west obscures any potential

pretical visibility within these property clusters (1-9 blade tips or / sides and riparian trees found around these property ere is no potential for significant effects.

tical visibility of the proposed Development.

and Kirkcolm

detailed assessment due to level of influence and visibility

Stranraer to Ayr Railway LineThe Z railwa existi from visibili includ Barrh experivisibili to experivisibili to experivisibili theory section and New LuceThe Z railwa existi from visibili theory signifi includ Barrh elevaMinor Road between Barrhill and New LuceThe Z section visibili theory signifi includ Barrh elevaStatus - No potential for si visibility of the proposed D RouteComp C C A77RouteComp (1-3 tr intervB734The Z	
Railway Linerailway existi from visibili includ Barrh experi Viewp railwayMinor RoadThe Z section visibili theory signifi include Barrhill and New LuceThe Z section visibili theory signifi include Barrh elevationMinor RoadThe Z section visibili theory signifi include Barrh elevationMinor RoadThe Z section visibili theory signifi include Barrh elevationStatus – No potential for signifi include Barrh elevationComm a theory signifi include Barrh elevationRouteComm a (1-3 triangle)A77The Z intervionB734The Z a	ay line crosses the forested plateau between Drumahastie and Barrhill Station, between the ing Arecleoch and Kilgallioch Windfarms. The Arecleoch forest has the potential to restrict views the railway line and as a result only the closest proposed Development turbines would be a when passing through the Arecleoch Forest. The Girvan to Stranraer railway line is therefore led in the detailed assessment and is represented by Viewpoint 3 Minor Road to the south of ill which is located close to the railway line and provides a representative view of the effects ienced from this section of railway line. booint 1 Chirmorie Cairn overlooks a nearby section of railway and whilst more elevated than the ay provides a good reference for the contextual view of the railway line. TV shows that theoretical visibility of proposed Development turbines is extensive between the on of this minor road to the south of Barrhill station and Miltonise with a break in theoretical ity where the landform of Chirmorie restricts views to the north. To the south of Miltonise etical visibility is patchy and intermittent due to intervening landform and not likely to result in icant effects. The section of minor road between Barrhill station and Miltonise is therefore ded in the detailed assessment as represented by Viewpoint 3 Minor Road to the south of ill. Viewpoint 1 Chirmorie Cairn overlooks a nearby section of this minor road and whilst more ted provides a good reference for the contextual view of the minor road. gnificant effects and not included in detailed assessment due to limited and/or distant evelopment.
Minor Road between Barrhill and New LuceThe Z section visibili theory signifi include Barrhill elevaStatus – No potential for signifi visibility of the proposed DRouteComm A77A77The Z (1-3 k intervB734The Z	TV shows that theoretical visibility of proposed Development turbines is extensive between the on of this minor road to the south of Barrhill station and Miltonise with a break in theoretical ity where the landform of Chirmorie restricts views to the north. To the south of Miltonise etical visibility is patchy and intermittent due to intervening landform and not likely to result in iccant effects. The section of minor road between Barrhill station and Miltonise is therefore ded in the detailed assessment as represented by Viewpoint 3 Minor Road to the south of ill. Viewpoint 1 Chirmorie Cairn overlooks a nearby section of this minor road and whilst more ted provides a good reference for the contextual view of the minor road.
visibility of the proposed DRouteCommonA77The Z (1-3 k intervB734The Z	evelopment.
A77 The Z (1-3 k interv B734 The Z	nent
B734 (1-3 t interv	
	TV shows a very small section of the route south of Ballantrae has limited theoretical visibility olades). Actual visibility of these blades from this location is considered to be very limited due to ening landscape elements in a view which is perpendicular to the direction of travel.
	TV shows very little theoretical visibility along this route. Viewpoint 13 is located on an ted section of this route, close to the junction with the A714.
locati propo	t the ZTV shows multiple patches of theoretical visibility along this route there are very few ons within these areas where roadside forestry allows open views in the direction of the used Development. Where views to the wider forestry landscape do occur, at viewpoint 11 kycoid for instance, the view is then obscured by more distant forestry on the horizon.
	TV shows patches of limited theoretical visibility (1-3 blades) along this route. Roadside trees een from viewpoint 16) intervene to obscure any potential view of the proposed Development.
ferry route the ne	TV shows no theoretical visibility from with Loch Ryan. Once the ferries have turned around orthern head of the Rhins Penninsula at approximately 5 km offshore, 1-3 blades of the used Development would be visible within the context of other existing windfarms.
Status – Not included in de	etailed assessment: no visibility of the proposed Development.
A751; A718; B738; B741; B7	

Table 7.17: Preliminary assessment of transportation routes

Status – Potential for significant effects and included in detailed assessment due to level of influence and visibility of the proposed Development.		
Receptor	Comment	

Southern Upland Way	Included in the detailed ass route and the potential for s
Status - No potential for signific visibility of the proposed Devel	
Receptor	Comment
Ayrshire Coastal path	The ZTV shows a very sma theoretical visibility (1-3 blac considered to be very limite orientated away from the co
Burns Heritage Trail Robert Bruce Trail	The areas of theoretical visi follow the sections of route Trool.
NCN7	The ZTV shows very little th on an elevated section of th

Table 7.18: Preliminary assessment of recreational routes

7.7.3 Summary of preliminary assessment on views

115. result of the potential effects of the proposed Development, these are listed as follows:

Viewpoint 01	Chirmorie Cairn			
Viewpoint 02	SA61 Core Path / Craigneil Road			
Viewpoint 03	Minor road to the south of Barrhill			
Viewpoint 04	Wallace Terrace, Barrhill			
Viewpoint 05	A714 road near Blairhall Farm			
Viewpoint 06	Knockytinnal			
Viewpoint 07	Minor road south of Pinwherry			
Viewpoint 08	Minor road Glen Tig			
Viewpoint 09	Beneraird			
Viewpoint 13	A714 road near Corwar House			
Viewpoint 14	Knockdolian			
Viewpoint 17	SUW, Hill of Ochiltree			
Viewpoint 20	The Merrick			
Barrhill settlemer	nt as assessed at viewpoint 04;			
Stranraer to Ayr railway line as assessed at viewpoint 03;				
Minor Road between Barrhill and New Luce as assessed at view				
A714 assessed a	at viewpoints 06 & 14 and within the A714 seque			
SUW assessed a	at viewpoints 12 & 17 and within the SUW seque			

sessment as a sequential route due to the sensitivity of the significant cumulative effects.

ed in detailed assessment due to limited and/or distant

all section of the route south of Ballantrae has limited ades). Actual visibility of these blades from this location is ted due to intervening landscape elements to view east and is coastal views to the west.

sibility on these routes are screened by forestry and trees that within the south eastern part of the study area around Glen

theoretical visibility along this route. Viewpoint 13 is located this route, close to the junction with the A714.

The preliminary assessment has identified the viewpoints and principal visual receptors that require to be assessed in full as a

wpoint 03;

uential route assessment; and

uential route assessment.

7.7.4 Detailed assessment of effects on views

7.7.4.1 Viewpoint 01 Chirmorie Cairn

Baseline conditions

Viewpoint description

This viewpoint is located to the north of Chirmorie on a rounded hill form within the forested plateau. Situated to either side of Chirmorie Cairn is the minor from Barrhill to Luce (to the south) and the Stranrear to Ayr railway line (to the north), both of which are visible in the moorland below.

The views from this rounded hill are largely of the undulated plateau that surround and typifies this area. The exception to this is the view of the Merrick range to the east between the northernmost turbines of the Kilgallioch Windfarm and the southernmost turbines of the Mark Hill Windfarm. This 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 hold particularly notable positions in the panorama due to their closer proximity. The wider cumulative context of this view is extensive and includes: Mark Hill to the east; 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.

Receptor type	Value	Susceptibility	Sensitivity
Walker	This viewpoint is not located within any national, regional or local scenic designations. Value is considered to be Medium.	Walkers at this viewpoint have elevated and panoramic views. Existing wind turbine developments visible from this location moderate susceptibility as windfarm development is a familiar characteristic that intervenes in the view towards the proposed Development. Susceptibility is considered to be Low.	Medium - Low

Assessment (including operational and under construction cumulative sites)

Description of change:

- The proposed Development turbines would be visible at approximately 2.47 km to the nearest turbine north east of the viewpoint;
- All 13 turbines would be visible with the bases of turbine towers sitting within the coniferous plantation of Arecleoch Forest
- Several of the turbines are closely stacked in this view due to the position of the viewpoint which is looking along the arrangement of proposed Development turbines which are positioned against the eastern face of the existing curved array of the Arecleoch Windfarm; and
- The proposed turbines would theoretically occupy 21 degrees of the view and would appear to extend the existing Arecleoch Windfarm (which occupies 69 degrees of the view) by 24 degrees.

Magnitude of change

Factors that increase the magnitude of change are:

- Large scale change in the view resulting from addition of large scale wind turbines within relatively close proximity from • the viewpoint;
- The proposed Development would increase the horizontal spread and intensify the existing view of wind energy development to the north east;
- The proposed Development would strongly contrast in scale with the existing Arecleoch Windfarm in this view;
- The keyholing of forestry would be visible for several proposed Development turbines in this view; and
- Whilst Kilgallioch Windfarm turbines are closer to the viewpoint than the proposed Development they appear similar in • scale, further exaggerating the large scale of the proposed Development turbines when considered alongside the existing turbines in the view.

Factors that decrease the magnitude of change are:

The viewpoint, surrounding landscape in the immediate view and location of the proposed Development is clearly situated within an upland landscape character context that is large in scale and largely composed of large areas of forestry, existing windfarm development and gentle moorland slopes and plateau; and

viewpoint, the lower towers/bases, substations and access tracks would be largely screened behind the skyline / forestry.

The magnitude of change for the proposed Development is considered to be High

Significance of effect

The effect of the proposed Development at this viewpoint is considered to be Significant. Whilst the viewpoint location is not particularly sensitive, the relatively close proximity and large turbine scale (including contrasts with existing turbines) results in a high magnitude of change, which in this instance is considered to be sufficient to cause a significant effect. It should be noted that the more sensitive views east towards the Merrick range are not interrupted as a result of the

proposed Development.

Cumulative assessment

Cumulative assessment (consented sites)

Key cumulative schemes in the consented scenario are the consented Chirmorie and Stranoch 1 Windfarms. From this viewpoint Chirmorie Windfarm will occupy the immediate landscape context to the north east, dominating the foreground view. Stranoch 1 will occupy a section of the skyline to the south west of Arecleoch extending windfarm development in this part of the panorama. The proposed Development whilst intensifying the overall influence of wind turbines in the middle ground of the view north east, would sit within the spread of Chirmorie turbines consolidating some of the outlier turbines of Chirmorie whilst not increasing the overall spread.

When considering the addition of the proposed Development to this situation therefore, the closer location of Chirmorie would moderate the magnitude of change experienced and the scale of change predicted for the proposed Development against the existing baseline would reduce in this scenario as a result. The cumulative magnitude of change is therefore considered to be Medium in this scenario resulting in a Not Significant effect.

Cumulative assessment (application sites)

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar influence as Stranoch 1 on the view. As for the consented scenario, the Chirmorie Windfarm will dominate the future view in this scenario. The scale of change predicted for the proposed Development against the consented scenario would therefore still broadly apply and the cumulative magnitude of change is therefore considered to be Medium resulting in a Not Significant cumulative effect in the application scenario.

Table 7.19: Viewpoint 01 assessment

7.7.4.2 Viewpoint 02 SA61 Core Path / Craigneil Road

Baseline conditions

Viewpoint description

This viewpoint is located on the isolated Craigneil Road. The SA61 Core Path connects Colmonell and the Stinchar Valley to the A714 at Sixpence and the Duisk Valley. The section of this road between the Reuchillgate Wood and Farden is more of a track than a road, particularly to the east of Reuchal (where the viewpoint is located) which is a section of grassy track. Even where the track is metalled it has an uneven pitted surface. Occasional smaller tracks branch off to access the scattered properties including Wheeb, Kilrenzie and Farden which are the subject of separate assessment in the RVAA in Technical Appendix 7.2.

The immediate character context of the viewpoint is upland with some forestry blocks. Landcover is predominantly grazing which is rough in texture with patches of moorland grasses and gorse covered knolls common in the immediate context of the viewpoint. The forestry blocks within the immediate context of the view appear to repeat across the folds in the undulated north facing slope of the adjacent upland plateau to the south. Larger areas of forestry are also evident across the horizon to the south.

There are distant views to the surrounding landscape from this location due to its elevated position. The Stinchar and Duisk valleys are not immediately apparent from this location due to the foreground upland ridgelines but the undulations that form these valleys do offer an indication of the valleys below. Overall, the predominant character of the view is of an expansive upland moorland with occasional forest blocks, isolated properties and wind turbines.

Whilst some of the turbines in southern parts of the proposed Development layout would sit on slopes that face the

Surrounding windfarm development in the area is a key feature of the surrounding landscape with the nearby Arecleoch turbines occupying the forest covered skyline to the south. The wider cumulative context of this view includes: Mark Hill to the east; and Hadyard Hill, Penwhapple and Assel Valley to the north.

Receptor type	Value	Susceptibility	Sensitivity
Walkers	This viewpoint is not located within any national, regional or local scenic designations, however, the viewpoint is located on the SA61 Core Path which has local value. Value is considered to be Medium.	Walkers at this viewpoint have relatively close proximity elevated views south towards the Site. The existing Arecleoch wind turbines visible to the south moderate susceptibility as windfarm development is not an unfamiliar characteristic of the view. On balance susceptibility is considered to be Medium.	Medium

Assessment (including operational and under construction cumulative sites)

Description of change:

- The proposed Development turbines would be visible at approximately 2.51 km to the nearest turbine south of the viewpoint;
- All 13 turbines would be visible. Turbine visibility ranges in the amount of tower visibility with the 5 most distant turbines appearing as hubs close to the horizon and the 4 closest turbines appearing as almost full towers visible above the horizon:
- Arecleoch Forest intervenes in views of 6 of the proposed Development turbines slightly reducing the level of visibility;
- The proposed Development turbines would be seen in rows from this viewpoint creating overlapping turbine blades across the spread of turbines. Turbines 4&5 would be closely stacked and seen at similar height, turbines 3,8&13 are also closely stacked creating a clustering of turbines;
- From this location an electricity line and poles intersect with the proposed Development turbines in the view; and
- The proposed turbines would theoretically occupy 22 degrees of the view and would appear to extend the existing Arecleoch Windfarm (which occupies 39 degrees of the view) by 23 degrees.

Magnitude of change

Factors that increase the magnitude of change are:

- Large scale change in the view resulting from addition of large scale wind turbines within relatively close proximity from the viewpoint;
- The proposed Development would increase the horizontal spread and intensify the existing view of wind energy development to the south: and
- The proposed Development would strongly contrast in scale with the existing Arecleoch Windfarm in this view. Factors that decrease the magnitude of change are:
- The viewpoint, surrounding landscape in the immediate view and location of the proposed Development is clearly situated within an upland landscape character context that is large in scale and largely composed of large areas of forestry, existing windfarm development and gentle moorland slopes and plateau; and
- The lower towers/bases, substations and access tracks would be largely screened behind the skyline / forestry; and
- Whilst multiple stacking and overlapping blades would be seen from this location, the consistency of proposed Development turbines in rows with larger turbines appearing in the foreground of smaller turbines creates a unified and balanced arrangement of turbines.

Although the proposed Development would appear located within the context of large scale upland plateau and existing windfarm development. The relatively close proximity and large scale of the proposed Development results in Medium -High magnitude of change

Significance of effect

The effect of the proposed Development at this viewpoint is considered to be Significant. Whilst the viewpoint location is not particularly sensitive, the relatively close proximity and large turbine scale (including contrasts with existing turbines) results in a degree of change, which would cause a significant effect.

Cumulative assessment

Cumulative assessment (aonsented sites)

Theoretically visible Chirmorie screened behind forestry on skyline resulting in only the very smallest blade tips visible above the forest covered horizon seen in the same direction as the proposed Development. When considering the addition of the proposed Development to the consented situation, the cumulative interaction with the proposed Development is minimal and the cumulative magnitude of change is therefore Negligible resulting in a Not Significant cumulative effect.

Cumulative assessment (application sites)

There are no application cumulative schemes visible from this location resulting in no cumulative change and no cumulative effect.

Table 7.20: Viewpoint 02 assessment

7.7.4.3 Viewpoint 03 Minor road to the south of Barrhill

Baseline conditions

Viewpoint description

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 Stranrear 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 and feature the Merrick range in the distant backdrop to 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 existing Arecleoch Windfarm is screened by intervening forestry to the north west. The Mark Hill Windfarm is clearly visible on the opposite side of the Duisk valley and the northern turbines of Kilgallioch Windfarm are seen in the foreground view to the south.

Receptor type	Value	Susceptibility	Sensitivity
Road user / rail passenger	This viewpoint is not located within or close to any national, regional or local scenic designations or recognised scenic views and the value is considered to be Medium-Low.	This viewpoint is located on a minor road with oblique views towards the proposed Development turbines, which would be located at close proximity. Existing turbines are a familiar feature from this location moderating susceptibility as windfarm development is not an unfamiliar characteristic of the view. On balance, susceptibility is considered to be Medium-High.	Medium

Assessment (including operational and under construction cumulative sites)

Description of change:

- viewpoint, theoretically occupying 53 degrees of the view;
- Of the 13 theoretically visible turbines 5 would be screened by intervening Arecleoch Forest;
- Of the remaining 8 visible turbines, Arecleoch forest restricts visibility such that 2 turbines would only be visible as • tower, hub and blades; and

From this location a communications tower is in front of 1 of the visible turbines.

Magnitude of change

Factors that increase the magnitude of change are:

the viewpoint; and

The proposed Development turbines would be visible at approximately 2.83 km to the nearest turbine north west of the

small blade tips, 4 would be visible as hubs close to the forestry horizon and 2 turbines would be visible as top half of

Large scale change in the view resulting from addition of large scale wind turbines within relatively close proximity from

The proposed Development would introduce windfarm development to the north west part of the panorama and intensify the existing view of wind energy development already experienced in other directions with Kilgallioch and Mark Hill.

Factors that decrease the magnitude of change are:

- The viewpoint, surrounding landscape in the immediate view and location of the proposed Development is clearly situated within an upland landscape character context that is large in scale and largely composed of large areas of forestry, existing windfarm development and gentle moorland slopes and plateau;
- The distant view towards the Merrick range to the east would be unaffected by the proposed development;
- The Arecleoch forest intervenes in the view of Arecleoch Windfarm avoiding contrasts in scale between the existing and proposed Development;
- The intervening Arecleoch forest restrict visibility of the proposed Development turbines such that only half of the proposed development turbines would be visible above the treeline and of these only two would have towers clearly visible above the treeline;
- The proposed Development would be introduced into a large scale landscape which has a strong existing windfarm baseline and the proposed Development turbines would not be unfamiliar features; and
- The lower towers/bases, substations and access tracks would be largely screened behind the skyline / forestry.

The magnitude of change for the proposed Development is considered to be Medium-High.

Significance of effect

The effect of the proposed Development at this viewpoint is considered to be Significant. Whilst wind energy development is not unfamiliar within the views from this location and visibility of the proposed Development is partially restricted by intervening forestry the change is large in scale and viewed at relatively close proximity.

Cumulative assessment

Cumulative assessment (consented sites)

Key cumulative schemes in the consented scenario are the consented Chirmorie and Stranoch 1 Windfarms. From this viewpoint Chirmorie Windfarm will occupy the horizon to the west, with Stranoch 1 sitting immediately behind Chirmorie. These consented schemes extend the horizontal spread of wind turbine development from the existing Kilgallioch Windfarm north along the horizon as far as the edges of the Arecleoch forest. The proposed Development would further extend this horizontal spread across the Arecleoch forest however due to the increased presence of close proximity wind energy development to the west. When considering the addition of the proposed Development to this situation, the scale of change predicted for the proposed Development against the existing baseline would decrease to a Medium magnitude of change in this scenario. When considered against the Medium sensitivity of the viewpoint the cumulative effect is considered to be Not Significant.

Cumulative assessment (application sites)

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar influence as Stranoch 1 on this viewpoint. For this reason, a Medium cumulative change is predicted resulting in a Not Significant cumulative effect.

Table 7.21: Viewpoint 03 assessment

7.7.4.4 Viewpoint 04 Wallace Terrace, Barrhill

Baseline conditions

Viewpoint description

This viewpoint is located in the Barrhill settlement and represents nearby residents and the A714 as it passes through Barrhill. Barrhill is a ribbon settlement, arranged along a short section of the A714 to the north of the Duisk bridge. The ZTV shows the northern half of the settlement has no or very little theoretical visibility of the proposed Development due to intervening hill. The small blocks of woodland on intervening hillsides to the west further restricts visibility from within the Barrhill settlement although views of the sloping hillsides (beyond which the proposed Development would be located) are possible from southern parts of the settlement, including from the viewpoint location on Wallace Terrace. There is currently no existing windfarm development visible from this viewpoint location due to a vegetated ridge on the southern edge of the settlement.

Receptor type	Value	Susceptibility
Residential / settlement	This viewpoint is not located within any national landscape designations it is however within the Duisk valley part of the Ayrshire Scenic Area, which is locally valued. The value of this LCT is considered to be Medium-High.	Viewpoint represent residents of properties of properties of properties of the second
Road user		This viewpoint is with oblique view users. When pas attention of road on the road. Sus viewpoint is Med

Assessment (including operational and under construction

Description of change:

- The proposed Development turbines would be visible at a viewpoint;
- Theoretical visibility consists of 5 small blade tips and 4 tu
- Of the 5 small blade tips 2 are entirely screened behind fo screened by forestry. Of the 4 turbines with hubs close to trees; and
- The resulting actual visibility of the proposed Developmen close to the horizon, some of which is forest covered.

Magnitude of change

Factors that increase the magnitude of change are:

- The proposed Development would introduce wind energy Barrhill settlement which this viewpoint represents;
- The location of the visible turbines of the proposed Develo
- The introduction of wind turbines in the visual backdrop to

Factors that decrease the magnitude of change are:

- The limited amount of proposed Development visible as a woodland;
- The rough texture of the intervening landcover and steeply successive topographical layers that have an upland chara receiving LCT which lies beyond. The landcover also beco character with greater distance;
- The proposed Development turbines would relate to the si horizon seen to the west of the settlement edge;
- The scale of the visible turbines in this view are diminutive
- The lower towers/bases, substations and access tracks w

The magnitude of change for the proposed Development is co

Significance of effect

The effect of the proposed Development on road user and resi Significant. Should the forestry on the intervening horizon to th Development increases to the magnitude of change would resi significant effects.

Cumulative assessment

Cumulative assessment

There are no consented or application cumulative schemes vis no cumulative effect.

Table 7.22: Viewpoint 04 ssessment

	Sensitivity
esents view experienced by perties in south Barrhill. considered to be High.	High
s located on a section of the A714 ws to the west for northbound road assing through the settlement the d users is likely to remain focussed sceptibility for road users at this dium-Low.	Medium
n cumulative sites)	
approximately 3.95 km to the nearest urbines with hubs close to the horizor prestry and intervening trees and and the horizon 3 are substantially scree	n; other is almost entirely
nt is of 3 very small blade tips and 2 t	turbines with hubs sitting
development to the view west from	
opment on the skyline at relatively cloop nearby residential properties.	ose proximity; and
result of intervening topography and	d screening forestry and
y sloping valley sides that intervene acter that emphasises the underlying omes rougher in texture and pattern	g larger scale of the
imple upland landcover of open moc	orland and forestry on the
e to the vertical scale of the interveni rould not be visible. nsidered to be Medium-Low	ng valley slopes; and
idential receptors at this viewpoint is ne west be felled within the lifespan of ult but not to a level that would give	of the proposed
sible from this location resulting in no	o cumulative change and

7.7.4.5 Viewpoint 05 A714 road near Blairhall Farm

Baseline conditions

Viewpoint description

This viewpoint is located on the A714 to the south east of Barrhill. The viewpoint only represents road users travelling northbound as southbound travellers would be facing away from the proposed Development. The sides of the Duisk valley are steeply sloping at this section of the A714 and views across the Duisk valley are elevated providing clear views of the valley landscape.

A large field compartment used for grazing follows the east side of the Duisk river and occupies much of the foreground view. Beyond this large field small riparian trees follow the Duisk river corridor accentuating the position of the valley floor relative to the sloping valley sides, particularly on the western side towards the proposed Development Site.

The grazing land can be seen to continue on the western slopes of the valley in this view but is more punctuated by other landscape elements such as small woods and trees associated with properties and the B7027, electricity and telegraph poles, forestry following the skyline. A pattern of fields is also visible on the western slopes in contrast to the valley floor and field boundary trees rise out of the valley and beyond the immediately apparent ridge such that rows of trees appear to follow sections of the skyline.

The existing Arecleoch Windfarm is visible as blade tips above the forest covered skyline that can be seen in the gaps between the trees and woods found on the closer intervening horizon created by the western upper slopes of the Duisk valley.

Receptor type	Value	Susceptibility	Sensitivity
Road user	This viewpoint is not located within any national landscape designations it is however within the Duisk valley part of the Ayrshire Scenic Area, which is locally valued. The value of this LCT is considered to be Medium-High.	This viewpoint is located on a section of the A714 which has elevated views across the Duisk valley towards the existing Arecleoch Windfarm and the proposed Development when travelling northbound. The national speed limit applies although this section of the road is winding and road speeds are likely to be between 40-50 mph. As the road winds, some sections are directly facing the proposed Development in views across the Duisk valley increasing road users susceptibility. On balance, susceptibility for road users at this viewpoint is Medium-High.	Medium - High

Assessment (including operational and under construction cumulative sites)

Description of change:

- The proposed Development turbines would be visible at approximately 4.51 km to the nearest turbine west of the viewpoint
- Of the 13 theoretically visible turbines 2 would be almost entirely screened behind intervening trees on the horizon and would not be apparent other than the very smallest of blade tips;
- Of the remaining 11 visible turbines 5 further turbines would be substantially screened by the same trees on the horizon resulting in only blade tips visible with the other 6 turbines visible above these intervening trees to varying degree ranging from top half of tower and hub visible to only the hub visible above the treeline; and
- Three of the turbines are closely stacked in this view.

Magnitude of change

Factors that increase the magnitude of change are:

- The viewpoint is located in an upland valley and valley sides to the west (in the view towards the Site) are created by gently undulating, partially wooded rough grazing land that rises out of the Duisk valley. The proposed Development would appear above the wooded skyline created by these landscape elements;
- The potential for large scale turbines to appear contrasting in scale with the smaller scale landscape elements within Duisk valley:
- The contrasting scale with the existing Arecleoch turbines;
- The proposed Development would appear above the properties of southern Barrhill that are found along the B7027; and

- Development would introduce a scale of windfarm development not currently seen in this part of the Duisk valley.
- Factors that decrease the magnitude of change are:
- location of the proposed Development:
- The wooded horizon limits the amount of the proposed Development visible from this location;
- The slopes of Duisk valley, whilst not appearing to be entirely characteristic of the extensive wide plateau moorland floor:
- Development which would clearly lie beyond;
- The vertical scale of the western slopes of the Duisk valley would not be diminished by the scale of the proposed Development turbines which would be approximately one third of the vertical scale of the valley slopes in the view;
- Bands of forestry on the plateau beyond the valley landscape are only visible immediately in front of the proposed larger underlying scale of the receiving landscape of the proposed Development; and
- The lower towers/bases, substations and access tracks would be screened behind the skyline.

The magnitude of change for the proposed Development is considered to be Medium-High.

Significance of effect

The effect of the proposed Development on road users at this viewpoint is considered to be Significant. The proposed Development would introduce further windfarm development that is considered would not diminish the scale of the valley landscape in the view, however, the relatively close proximity and the large scale of the proposed Development turbines is considered to cause a significant effect at this location.

Cumulative assessment

Cumulative assessment (consented sites)

Whilst the blade tips of Chirmorie are theoretically visible from this location, intervening woods on the skyline obscures them from view resulting in no cumulative change and no cumulative effect.

Cumulative assessment (application sites)

There are no application cumulative schemes visible from this location resulting in no cumulative change and no cumulative effect

Table 7.23: Viewpoint 05 assessment

7.7.4.6 Viewpoint 06 Knockytinnal

Baseline conditions

Viewpoint description

The viewpoint is located on a minor road to the north of Barrhill on the eastern slopes of the Duisk valley. The road is accessed via the bridge across the Duisk near Balluskie, with part of the track shared with the Mark Hill Windfarm access road. The immediate landscape context is of rough grazing land separated by occasional (often broken) stone walling, post and wire fencing, coniferous plantations, mixed species woodland strips and mature broadleaved field boundary trees appearing in groups.

The Knockytinnal farmstead is a derelict property that sits immediately to the north east, there are no properties on this minor road. The viewpoint represents users of the minor road although there is no evidence to suggest that this would include regular recreational uses such as walking or cycling and the viewpoint location has a feeling of being disconnected from the wider road network. As a result, the viewpoint is largely representative of local farm workers or workers (or visitors) at the nearby Mark Hill Windfarm substation which is accessed via this road.

Whilst the Arecleoch turbines appear in the same part of the view, the closer proximity and larger scale of the proposed

Whilst more visible than the existing Arecleoch turbines the proposed Development would still appear set back into the landscape perceived to be beyond the Duisk valley. This is by virtue of the topography of the valley side and trees and forestry on the intervening horizon which implies a distance between the upper slopes of the valley landscape and the

and forestry that lies beyond, has upland characteristics that are transitional with patches of moorland and forestry on the horizon combining with rough grazing landcover to provide a larger sense of scale than experienced on the valley

The transitional upland character of the valley sides (as described above) supports the upland setting to the proposed

Development turbines reinforcing the contrast between the smaller scale of the valley in the landscape below and the

The panorama to the west is largely composed of the wide swathes of forestry that occupy the plateau moorland to the west and south of the Duisk valley. The west slopes of the Duisk can be seen from this location by virtue of its contrasting pattern of green patches amongst the rougher textured grazing land of the upper slopes, however, the valley floor is not apparent due to the topography of the valley slope that intervenes.

Surrounding windfarm development in the area is a key feature of the panorama to the west (Kilgallioch, Arecleoch and Airies Farm) and is visible at close proximity to the east with some of the Mark Hill turbine blades sweeping out from behind the top of slope. There are also electricity and telegraph poles crossing the landscape of the Duisk glen to the west, some of which break the skyline.

Receptor type	Value	Susceptibility	Sensitivity
Road user	This viewpoint is not located within any national landscape designations. It is at the edges of the Duisk valley part of the Ayrshire Scenic Area but not considered to represent a particularly valued or scenic view. The value of this viewpoint is considered to be Medium.	This viewpoint is located on an unclassified road which has elevated views across the Duisk valley towards the existing Arecleoch Windfarm and the proposed Development. Receptors on this road will likely be at or on the way to their place of work and so less susceptible to change. Susceptibility at this viewpoint is considered to be Low.	Medium - Low

Assessment (including operational and under construction cumulative sites)

Description of change:

- The proposed Development turbines would be visible at approximately 4.57 km to the nearest turbine south of the viewpoint;
- All 13 turbines would be visible with all 13 hubs above the skyline;
- Turbines 8&1, 6&2, and 5&3 are closely stacked in this view and the blades of turbines 9, 10 & 11 are overlapping; and
- The proposed turbines would occupy 34 degrees of the view and would appear to extend the existing Arecleoch Windfarm (which occupies 32 degrees) by 2 degrees.

Magnitude of change

Factors that increase the magnitude of change are:

- The potential for large scale turbines to appear contrasting in scale with the smaller scale landscape elements of the Duisk valley;
- The contrasting scale with the existing Arecleoch turbines which overall would appear approximately double the height of the existing turbines in view; and
- Whilst the Arecleoch turbines appear in the same part of the view, the closer proximity and larger scale of the proposed Development would introduce a scale of windfarm development not currently seen in the context of the Duisk valley.

Factors that decrease the magnitude of change are:

- The proposed Development would still appear set back into the landscape perceived to be beyond the Duisk valley. This is by virtue of the topography of the valley side and forestry on the intervening horizon which implies a distance between the upper slopes of the valley landscape and the location of the proposed Development;
- The west slopes of Duisk valley, whilst not appearing to be entirely characteristic of the extensive wide plateau moorland and forestry that lies beyond, has upland characteristics that are transitional and rough in landscape texture providing a larger sense of scale than experienced on the valley floor (which is not as clearly visible from this location);
- The transitional upland character of the valley sides (as described above) supports the upland setting to the proposed Development which would clearly lie beyond;
- The larger turbines of the proposed Development whilst noticeably taller than the existing turbines would not cause scale disruptions as they would appear in the foreground of the existing turbines and the natural perspective of further/smaller closer/larger would not be disrupted;
- Whilst it may be difficult to discern how much further the existing turbines are to the proposed Development the underlying landscape would not be disrupted by this difficulty;
- Bands of forestry on the plateau horizon (and immediately in front of the proposed Development turbines) reinforce the contrast between the smaller scale of the valley in the landscape below and the larger underlying scale of the receiving landscape of the proposed Development; and
- The lower towers/bases, substations and access tracks would be screened behind the skyline of forestry.

The magnitude of change for the proposed Development is considered to be Medium-High.

Significance of effect

This is not a particularly sensitive viewpoint location and whilst the larger scale and height of the proposed Development turbines when compared to the existing is a notable contributor to a Medium – High magnitude of change, the effect is considered to be Not Significant.

Cumulative assessment

Cumulative assessment (Consented sites)

Key cumulative schemes in the consented scenario are the consented Chirmorie and Stranoch 1 Windfarms. From this viewpoint the Chirmorie and Stranoch 1 Windfarms will fill the current gap between the Arecleoch and Kilgallioch Windfarms creating a continuous spread of development across the skyline to the west which will span approximately 83 degree of the view. The Chirmorie turbines are closer and will appear larger than the existing Kilgallioch or Arecleoch turbines, reducing the scale difference when compared to the proposed Development. The consented Gass Windfarm is theoretically visible but is screened behind the forestry on the skyline within the context of Kilgallioch Windfarm.

The proposed Development would sit in front of all of this and whilst the consented scenario creates a continuous span of windfarm development in itself, the proposed Development would not contribute to this but rather would stay within it, albeit as a closer and larger development which would bring its own added intensification of the developed horizon. Taking all of this into account it is considered that the magnitude of change predicted for the proposed Development against the existing baseline would reduce slightly as a consequence of the greater backdrop of windfarm development in the view. The cumulative magnitude of change in this scenario is therefore considered to be Medium resulting in a Not Significant effect.

Cumulative assessment (Application sites)

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar influence as Stranoch 1 on this viewpoint. For this reason, a Medium cumulative change is predicted resulting in a Not Significant cumulative effect.

Table 7.24: Viewpoint 06 assessment

7.7.4.7 Viewpoint 07 Minor road south of Pinwherry

Baseline conditions

Viewpoint description

This viewpoint is located on an elevated section of road near Fardenreoch Farm. The properties at Pinwherry do not share the view experienced from this location and is lower elevated and surrounded by trees and vegetation to the south of these properties.

From this location, the view across the northern part of the Duisk valley is of an undulated pastoral landscape made up of a patchwork of small to medium sized irregular fields separated by field boundary trees and small woodland groups. The route of the Duisk river can be seen winding across the valley floor accentuated by the riparian trees that follow its path. Isolated properties and farmsteads can be seen scattered through the valley landscape most of which follow the route of the A714 on the opposite side of the valley. The A714 is not in itself visible but is conspicuous due to the roadside vegetation that follows its route.

The horizon to the west is populated by scattered trees and woods which along with electricity pylons and overhead lines break the skyline. The creases in the layers of undulated pasture in the view south along the valley offers a scenic focus for views from this minor road particularly for road users travelling southbound.

Whilst the turbines blade tips of Kilgallioch Windfarm are theoretically visible to the south the majority are entirely screened by the intervening forestry on the distant skyline such that only 2-3 tops of blades are visible.

Receptor type	Value	Susceptibility	Sensitivity
Road user	This viewpoint is not located within any national landscape designations it is however within the Duisk valley part of the Ayrshire Scenic Area, which is locally valued. The value of this LCT is considered to be Medium- High.	This viewpoint is located on a section of the minor road which has elevated views across the northern part of the Duisk valley to the south of Pinwherry. The national speed limit applies although this is a minor road and the road is winding with likely road speeds likely to be between 40-50 mph. Susceptibility for road users at this viewpoint is Medium-High.	Medium - High

Assessment (including operational and under construction cumulative sites)

Description of change

- The proposed Development turbines would be visible at approximately 4.66 km to the nearest turbine south of the viewpoint;
- 10 of the 11 theoretically visible turbines would appear above the horizon to the south west with 1 blade tip obscured by the property at Ballaird that appears to sit on the horizon from this location;
- 8 of the 10 visible turbines would appear as blades amongst the trees that are scattered across the skyline with 3 of these barely visible small blade tips through the intervening treeline; and
- The other 2 turbines have top of towers and hubs visible above the horizon with turbine 2 appearing to sit higher than the other proposed Development turbines.

Magnitude of change

Factors that increase the magnitude of change are:

- The proposed Development would introduce wind energy development to the view south west;
- Change in the view resulting from the addition of large scale wind turbines at closer proximity to the viewpoint than the existing Kilgallioch Windfarm, which is barely visible to the south; and
- The turbines would appear spread across the horizon leading to a wide angle of view occupied (approximately 26 degrees).

Factors that decrease the magnitude of change are:

- Views north and south along the Duisk valley would not be interrupted by the proposed Development;
- The screening from intervening landform moderates the level of visibility and potential change in views towards the proposed Development; and
- The lower towers/bases, substations and access tracks would be screened behind the skyline / forestry.

The magnitude of change for the proposed Development is considered to be Medium

Significance of effect

The combination of a Medium – High sensitivity and Medium magnitude of change would result in a Significant effect. The significant effect would be experienced on similarly elevated sections of this minor road but does not extend past the bend in the road to the south.

Cumulative assessment

Cumulative assessment

There are no consented or application cumulative schemes visible from this location resulting in no cumulative change and no cumulative effect.

Table 7.25: Viewpoint 07 assessment

7.7.4.8 Viewpoint 08 Minor road Glen Tig

Baseline conditions

Viewpoint description

This viewpoint is located on the southern side of Glen Tig on the public road that forms the main access into the glen. The glen can be accessed from Colmonell via Haronsford and the Stinchar valley or from Ballantrae on the coast. The location of the viewpoint has been selected to represent as unobstructed a view as possible from the glen from a publicly accessible location. The section of road between Auchflower and Ballkissock has an open aspect towards the head of the glen to the east.

From this viewpoint the large field in the foreground view gives way to a middle ground pastoral landscape of the glen with the contrasting rougher texture of upper glen sides seen to the north. The view to north along the lower part of the glen includes a view back into the Stinchar valley and towards Knockdolian (although this is partly obscured by the trees that surround Auchenflower).

Windfarm development in the area is a feature of the glen with several of the Arecleoch Windfarm turbines can be seen beyond the ridge to the east that forms part of the head of the glen and also beyond the field of pasture that rises up to t south of the road.

Receptor type	Value	Suscep
Road user	This viewpoint is not located within any national landscape designations it is however within the Ayrshire Scenic Area, which is locally valued. The value of this LCT is considered to be Medium- High.	This vie road wh Tig. The minor ro speeds for road

Assessment (including operational and under construction

Description of change

- The proposed Development turbines would be visible at a viewpoint;
- Only 4 of the proposed Development turbines would be v
- Of these 4 turbines, 2 blade tips, 1 blade would be visible

Magnitude of change

Factors that increase the magnitude of change are:

- Change to the view resulting from the addition of large sca Arecleoch is visible;
- The potential for large scale turbines to appear contrastin Glen Tig;
- The increased windfarm development of the proposed De users facing the towards the proposed Development when
- The contrasting scale with the existing Arecleoch turbines
- The effect of the proposed Development on the secluded Factors that decrease the magnitude of change are:

Factors that decrease the magnitude of change at

- Limited level of turbine visibility of the proposed Developm
 The visible turbines would be located beyond a landscape
- This characteristically upland ridge to the glen reinforces
- larger scale upland setting to the south east; andThe proposed Development would be experienced within
- this location has more turbine visibility across a wider hor Taking all this into account the magnitude of change is consid

Significance of effect

The effect of the proposed Development at this viewpoint is constrained in the proposed Development at the proposed Developed horizon already experienced as a result of the exist

Cumulative assessment

There are no consented or application cumulative schemes vi no cumulative effect.

Table 7.26: Viewpoint 08 assessment

7.7.4.9 Viewpoint 09 Beneraird

Baseline conditions

glen and also beyond the field of pasture that rise	es up to the
eptibility	Sensitivity
iewpoint is located on a section of the minor which has elevated views across parts of Glen he national speed limit applies although this is a road and the road is winding with likely road s likely to be between 40-50 mph. Susceptibility ad users at this viewpoint is Medium-High.	Medium - High
on cumulative sites)	
approximately 5.31 km to the nearest turbine sout	h of the
isible from this location; and above the horizon to the east.	
ele wied turbings to the gest interstition the star	tuborc
ale wind turbines to the east intensifying the effec	t where
ng in scale with the smaller scale landscape eleme	ents within
evelopment appearing closer to the head of the gloon eastbound;	en with road
s; and characteristic of the underlying landscape.	
ment;	
e that is clearly more upland in character; the position of the proposed Development within a	a separate
	a separate
the context of the existing Arecleoch Windfarm w izontal than the proposed Development.	hich from
lered to be Medium-Low.	
considered to be Not Significant. Wind energy development would substantially increase the amou ting Arecleoch Windfarm.	
sible from this location resulting in no cumulative	change and

Viewpoint description

This viewpoint is located at the trig point on the summit of Beneraird which at 424m is the highest Southern Uplands hill close to the Ayrshire coastline. The South Ayrshire core path network from Ballantrae and the Stinchar valley crosses the summit plateau where it connects with the Dumfries and Galloway footpath network that passes through the Water of Luce valley. The view from the summit is panoramic. The underlying extensive areas of undulating moorland and forestry are seen extending to the east and south framed by the more distant Merrick range and Galloway Hills to the east. The existing Arecleoch and Kilgallioch Windfarms are strong features in views to the east and south respectively.

The view to the north and west across the Stinchar valley and the South Ayrshire coastline has scenic qualities, conspicuous due to the brighter colours of the improved pastoral landcover on the lower lying land found between forested moorlands. Key features in this view include Ailsa Craig and Knockdolian which appear distinct against the lower lying coastal landscape. Glen Tig, visible to the north, shares elements of pastoral landcover but there is a less settled appearance to the glen than the Stinchar valley below.

The existing Arecleoch Windfarm is visible immediately to the east in this view within the Arecleoch Forest. Kilgallioch Windfarm occupies a large area of the moorland and forestry to the south east and from this view is seen through the southernmost turbines of Arecleoch. Mark Hill can be seen in the middle distance through the centre of the Arecleoch turbines above the eastern slopes of the Duisk valley and Barrhill settlement. Windfarm development visible in the wider area includes: Mark Hill to the east; Hadyard Hill, Penwhapple and Assel Valley to the north east; Kilgallioch, Airies Farm, Balmurie Fell, Artfield Fell, Glenchamber, Barlockart Moor and Carscreugh to the south east; and Glen App, North Rhins and Knocknain Farm to the south west.

Receptor type	Value	Susceptibility	Sensitivity
Walkers	This viewpoint is not located within any national, regional or local scenic designations, however, the viewpoint also represents views from the local footpath network in the area with views across the South Ayrshire Scenic Area to the north. Taking all of this into account, value is considered to be Medium.	Walkers at this viewpoint have relatively close proximity elevated views south towards the Site. The existing Arecleoch wind turbines immediately visible to the east along with the other baseline cumulative windfarms moderate susceptibility as windfarm development is a familiar characteristic of the view. This existing development and the proposed Development Site is located away from the direction of the principal view from this location across the coastal and valley landscapes to the north east. On balance susceptibility is considered to be Medium-Low.	Medium

Assessment (including operational and under construction cumulative sites)

Description of change:

- The proposed Development turbines would be visible at approximately 5.44 km to the nearest turbine east of the viewpoint;
- All 13 turbines would be visible from this viewpoint;
- Turbines 11,12&13 would be partly obscured by the Kilmoray landform which intervenes immediately to the east of Beneraird. This results in only the blades of turbines 12 & 13 visible and the bottom half of turbine 13 tower screened from view:
- The theoretically visible bases of turbine towers would sit within the coniferous plantation of Arecleoch Forest and would not be visible;
- Turbines 5&3 would be closely stacked and the blades of turbines 8&7 would overlap; and
- The proposed Development turbines would occupy 37 degrees of the view all of which the 91 degrees currently occupied by the existing Arecleoch Windfarm.

Magnitude of change

Factors that increase the magnitude of change are:

- Large scale change in the view resulting from addition of large scale wind turbines within relatively close proximity from the viewpoint:
- The proposed Development would intensify the existing view of wind energy development to the east; and
- The proposed Development would contrast in scale with the existing Arecleoch Windfarm in this view.

Factors that decrease the magnitude of change are:

- The viewpoint, surrounding landscape in the immediate view and location of the proposed Development is clearly situated within an upland landscape character context that is large in scale and largely composed of large areas of forestry, existing windfarm development and gentle moorland slopes and plateau;
- Whilst a contrast in scale with the existing Arecleoch turbines would occur, the degree of contrasting scale is minimal appear to sit on a similar plane, avoiding dramatic scale distortions within the view; and
- Whilst some of the turbines in southern parts of the proposed Development layout would sit on slopes that face the viewpoint, the lower towers/bases, substations and access tracks would be largely screened behind the skyline / forestry.

The magnitude of change for the proposed Development is considered to be Medium.

Significance of effect

The effect of the proposed Development at this viewpoint is considered to be Not Significant. The viewpoint location is not particularly sensitive, and whilst the relatively close proximity and large turbine scale is evident in this view, the contrasts in scale observed at other locations would not occur to the same degree from this location and the proposed Development would not extend the existing horizontal spread of turbine development already apparent in the view to the east.

Cumulative assessment

Cumulative assessment (consented sites)

Key cumulative schemes in the consented scenario are the consented Chirmorie and Stranoch 1 Windfarms. From this viewpoint Chirmorie Windfarm will appear between the southern part of the Arecleoch turbines and the northernmost Kilgallioch turbines and will not in themselves form a notable additional influence to the developed view to the south east. Stranoch 1 will occupy a section of the skyline to the south extending windfarm development further west across the moorland plateau than previously experienced.

When considering the addition of the proposed Development to the consented situation, the scale of change predicted for the proposed Development against the existing baseline would still broadly apply to this scenario. The cumulative magnitude of change is therefore considered to be Medium resulting in a Not Significant cumulative effect.

Cumulative assessment (application sites)

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar influence as Stranoch 1 on the view. The scale of change predicted for the proposed Development against the consented scenario would therefore still broadly apply and the cumulative magnitude of change is therefore considered to be Medium resulting in a Not Significant cumulative effect in the application scenario.

Table 7.27: Viewpoint 09 assessment

7.7.4.10 Viewpoint 13 A714 road near Corwar House

Baseline conditions

Viewpoint description

This viewpoint is located on a section of the A714 road on a section of the A714 that is elevated with unobstructed views to the west and north west. The specific location is at the access road to Killantringan Plantation which is 150m from the Corwar House access gate and lodge.

From this location the view west across the Duisk valley is restricted to the upper slopes of the valley and the valley floor is not visible due to the intervening top of valley slope which occupies the foreground view. Landcover across the top of valley slopes is largely moorland which is rough in texture with occasional greener patches of grazing land. The tops of trees within the Knockcroon Plantation can be seen beyond the foreground top of slope. To the south west Craig Airie Fell and Benbrake Hill create a distinctive shape on the horizon when compared to the otherwise gentle undulations of the forest covered plateau moorland landscape that dominates in this view. Kilgallioch and Arecleoch Windfarms are notable features in the view west with Kilgallioch largely skylined and Arecleoch appearing to wrap around Beneraird.

Receptor type	Value	Susceptibility
---------------	-------	----------------

due to the greater distance of the proposed Development turbines in relation to existing Arecleoch turbines. Due to the gentle topography of the undulated plateau landscape the distance between the proposed Development turbines and existing Arecleoch is not apparent in the view and so both the proposed Development and existing Arecleoch turbines

Sensitivity

			1	1
Road user	This viewpoint is not located within any national landscape designations it is however overlooking the Duisk valley part of the	This viewpoint is located on a section of the A714 which has elevated views across the Duisk valley towards the existing Arecleoch Windfarm and the proposed Development when travelling northbound and Kilgallioch whilst travelling southbound. Existing windfarm development to the west reduces susceptibility to change. The national speed limit	Medium	Key cumulat viewpoint Ch horizontal sp turbines will layout a sma turbines to th
	Ayrshire Scenic Area, which is locally valued. The value of this LCT is considered to be Medium.	applies although this section of the road is winding and road speeds are likely to be between 40-50 mph. As the road winds, some sections are directly facing the proposed Development in views across the Duisk valley increasing road users susceptibility. On balance, susceptibility for road users at this viewpoint is Medium.		The propose north and we reduces the between Are a more comp balance, who

Assessment (including operational and under construction cumulative sites)

Description of change:

- The proposed Development turbines would be visible at approximately 6.82 km to the nearest turbine west of the viewpoint;
- All 13 turbines would be visible above the forest covered horizon. For the most distant 4 turbines of the proposed Development in the north of the layout only the top half of tower and hub visible. The other 9 turbines are almost visible to base, other than the base of towers which are screened by forestry; and
- The proposed turbines would occupy 24 degrees of the view and would appear to extend 32 degrees currently occupied by the existing Arecleoch Windfarm by 5 degrees.

Magnitude of change

Factors that increase the magnitude of change are:

- The introduction of large scale turbines at a closer range than previously experienced from this location;
- The degree to which the proposed Development contrasts in scale with the existing Arecleoch turbines in this view;
- The proposed Development turbines would appear higher above the horizon than existing turbines in the view on account of their closer proximity and larger size;
- The proposed Development is located in a direct facing view when travelling northbound; and
- Whilst the Arecleoch turbines appear in the same part of the view, the closer proximity and larger scale of the proposed Development would introduce a scale of windfarm development not currently seen in this part of the Duisk valley.

Factors that decrease the magnitude of change are:

- The viewpoint is located in an upland setting overlooking the southern part of the Duisk valley which also has upland characteristics;
- The broad horizontal upland plateau that dominates the view provides an appropriate receiving landscape typology for the proposed Development to be accommodated;
- Whilst the proposed Development is closer and larger than the existing Arcleoch Windfarm, the proposed Development would still appear set back into the large scale upland landscape beyond the Duisk valley;
- Bands of forestry on the plateau beyond the moorland of the top of valley slopes create a simple landcover pattern within which to accommodate the turbines; and
- The lower towers/bases, substations and access tracks would be screened behind the skyline.

The magnitude of change for the proposed Development is considered to be Medium. This is largely due to the closer proximity and larger scale of the proposed Development which would introduce a scale of windfarm development not currently seen from the A714 which would be seen in direct facing views at this location.

Significance of effect

The effect of the proposed Development at this viewpoint is considered to be Significant. The viewpoint location is not particularly sensitive, although the relatively close proximity and large turbine scale is evident in this view introducing a scale of windfarm development not currently seen from the A714 as well as extending the horizontal spread of windfarm development to the east.

Cumulative assessment

Cumulative assessment (consented sites)

Key cumulative schemes in the consented scenario are the consented Chirmorie and Stranoch 1 Windfarms. From this viewpoint Chirmorie will appear to sit across and in front of the southern half of the Arecleoch Windfarm extending the horizontal spread of development to the south of Arecleoch and around the context of Chirmorie Hill. The Chirmorie turbines will contrast in scale with the Arecleoch turbines. Although the Chirmorie turbines will encroach on the Kilgallioch layout a small gap will be retained between these developments in this view. The visible Stranoch 1 turbines will add further turbines to the southern part of the Chirmorie spread of turbines, as they appear in this view.

The proposed Development would further increase the spread of turbines in this part of the view extending Arecleoch to the north and would strongly contrast with the smaller scale Arecleoch turbines. The addition of Chirmorie in this scenario reduces the level of scale contrast with the existing windfarm view as Chirmorie serves to bridge the scale difference seen between Arecleoch and the proposed Development. The increased level of windfarm development overall however creates a more complex scene with multiple turbine heights and scales, an effect which the proposed Development intensifies. On balance, when considering the addition of the proposed Development to the consented situation, the scale of change predicted for the proposed Development against the existing baseline would still broadly apply to this scenario. The cumulative magnitude of change is therefore considered to be Medium resulting in a Significant cumulative effect.

Cumulative assessment (application sites)

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar influence as Stranoch 1 on the view. The scale of change predicted for the proposed Development against the consented scenario would therefore still broadly apply and the cumulative magnitude of change is therefore considered to be Medium resulting in a Significant cumulative effect in the application scenario.

Table 7.28: Viewpoint 13 assessment

7.7.4.11 Viewpoint 14 Knockdolian

Baseline conditions

Viewpoint description

This viewpoint is located on the summit of Knockdolian 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 and the underlying geomorphological connection between these volcanic plugs is clearly appreciated from this vantage point.

The view to the south has a large scale upland backdrop with Beneraird, Milljoan Hill, Carlock Hill and Penderry Hill creating the southern horizon. The existing Glen App Windfarm sits within this horizon. 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 green field compartments 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. Whilst the wider area of plateau landscape is in itself not visible from this location, the transition to upland is clear and the plateau edge hills create a large scale upland ridgeline which dominates the southern view.

Receptor type	Value	Susceptibility	Sensitivity
Walkers	This viewpoint is not located within any national landscape designations it is however within the Stinchar valley part of the Ayrshire Scenic Area, which forms part of much of the panorama and is locally valued.	Walkers at this viewpoint have elevated views towards the Site whose attention is likely to be focussed on the surrounding landscape. Existing wind turbine developments visible from this location moderate susceptibility as windfarm development is not an unfamiliar characteristic of the view (within the upland areas seen to the south, south	Medium- High

The value of this LCT is considered to be Medium-High. east, east and north east). Susceptibility is considered to be High-Medium.

Assessment (including operational and under construction cumulative sites)

Description of change

- The proposed Development turbines would be visible at approximately 7.1 km to the nearest turbine west of the viewpoint:
- All 13 turbines would be visible above the forest covered horizon;
- 2 of the visible turbines would be seen as hubs close to the horizon and 3 would be seen as half towers and hubs above the horizon. Almost all of the towers of the other 8 turbines would be visible other than the turbine bases which would be screened by forestry; and
- The proposed Development turbines would occupy 15 degrees of the view. When considered together, the existing Arecleoch Windfarm and the proposed Development would occupy 35 degrees, an increase of 9 degrees from the 26 degrees currently occupied by just the existing Arecleoch Windfarm due to the gap between them.

Magnitude of change

Factors that increase the magnitude of change are:

- Large scale change in the view resulting from addition of large scale wind turbines to the east intensifying the existing spread of turbines on the same part of the eastern horizon;
- The degree to which the proposed Development would contrast with the existing Arecleoch turbines; and
- The proposed Development would appear to extend the Arecleoch Windfarm to the north in this view, with proposed • Development turbines appearing in front of the backdrop of Galloway Hills.

Factors that decrease the magnitude of change are:

- The landscape context of the proposed Development is clearly upland in character and the edge hills of the plateau combine to create a simple (part forested and part moorland) ridgeline which is large in scale, which would not be diminished by the proposed Development;
- Whilst the existing Arecleoch Windfarm turbines are smaller than the proposed Development, the closer Arecleoch turbines visible from this location have the appearance of an equivalent size due to perspective and greater distance of the proposed Development. Several of the Arecleoch turbines that the proposed Development would overlap with would appear similar in height even although the differences in rotor size would be appreciated on close inspection of the view:
- As a result of these similarities in apparent scale between the proposed Development and existing Arecleoch turbines, the contrasting scale seen from other viewpoint locations would not be as apparent from this location;
- Furthermore, both the proposed Development and existing Arecleoch turbines appear to sit on a similar plane, avoiding dramatic scale distortions within the view of the recieving landscape; and
- Whilst some of the turbines in southern parts of the proposed Development layout would sit on slopes that face the viewpoint, the lower towers/bases, substations and access tracks would be largely screened behind the skyline / forestry

The magnitude of change for the proposed Development is considered to be Medium. This largely due to the increased horizontal extent created by the introduction of the turbines.

Significance of effect

The effect of the proposed Development at this viewpoint is considered to be Significant. The viewpoint location is sensitive and whilst the contrasts in scale would be minimal and the large scale of the landscape would not be diminished, the introduction of the proposed Development would appear to extend the existing spread along the horizon in front of the Galloway Hills backdrop.

Cumulative assessment

Cumulative assessment (Consented sites)

Kirk Hill will appear in the distant view to the north, Larbrax will appear in the distant view to the south. Several of the Chirmorie turbines will appear within the central part of the visible Arecleoch Windfarm but will be difficult to discern amongst these existing turbines. When considering the addition of the proposed Development to the consented situation, the cumulative interaction with the proposed Development is minimal and the cumulative magnitude of change is therefore Negligible resulting in a Not Significant cumulative effect

Cumulative assessment (Application sites)

There are no application cumulative schemes visible from this location resulting in no cumulative change and no cumulative effect.

Table 7.29: Viewpoint 14 assessment

7.7.4.12 Viewpoint 17 SUW, Hill of Ochiltree

Baseline conditions

Viewpoint description

This viewpoint is located on the summit of Hill of Ochiltree on the SUW. The summit is a short walk from the minor road that passes Ochiltree to the west, the SUW continues south to Glenruther Lodge along this minor road. 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.

To the west Artfield Fell, Craig Airie Fell and Benbrake Hill form more distinctive hills on the plateau. The existing windfarms of Atrfield Fell, Balmurie Fell and Airies Farm populate these hills. To the north and north west the existing windfarms of Kilgallioch, Arecleoch and Mark Hill are also seen within this broad plateau of moorland and forestry. 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). Other man made elements in the view include scattered farmsteads and property clusters and signs of the local road network, although these elements are inconsiderable within the broader landscape context of underlying moorland and the man-modified commercial forest which now dominates land use in the area.

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.

Receptor type	Value	Susceptibility	Sensitivity	
Walkers	This viewpoint is not located within any national, regional or local scenic designations, however, the viewpoint represents views from the Southern Upland Way. Value is considered to be Medium.	Walkers at this viewpoint have elevated views towards the Site whose attention is likely to be focussed on the surrounding landscape. Existing wind turbine developments visible from this location moderate susceptibility as windfarm development is not an unfamiliar characteristic of the view. On balance susceptibility is considered to be Medium.	Medium	
Assessment (including operational and under construction cumulative sites)				

Description of change

- The proposed Development turbines would be visible at approximately 13.5 km to the nearest turbine north of the viewpoint:
- several of the turbines would have overlapping blades due to angle of view along the rows of turbines, the overall appearance of the layout is of an evenly spread cohesive group;
- Visibility of other infrastructure would be restricted by Arecleoch forest; and
- currently occupied by the existing Arecleoch Windfarm.

Magnitude of change

Factors that increase the magnitude of change are:

introducing further windfarm development into the plateau moorland and forestry with windfarm landscape;

Visibility of all 13 of the proposed Development turbines with the bottom of towers sitting within Arecleoch forest, whilst

The proposed Development turbines would occupy 10 degrees of the view adding 4 degrees to the 20 degrees

The proposed Development would appear to intensify the influence of wind energy development in the view north,

- The degree to which proposed Development turbines appear larger in scale than the existing Arecleoch turbines; and
- The proposed Development turbines would extend the horizontal spread of the existing Arecleoch Windfarm to the east.

Factors that decrease the magnitude of change are:

- The large scale of the underlying upland plateau moorland and forestry landscape in views towards the proposed Development and within the surrounding landscape provides a large scale surrounding landscape context to the proposed Development with a subtly undulating upland landscape accentuating its expansive scale from this elevated viewpoint;
- The simple moorland and forestry landcover is extensive to the north with forest cover dominating the area in which the proposed Development turbines would appear in this view;
- The proposed Development would have a clear association with the windfarm influenced landscape in the upland part of this view:
- The proposed Development (larger in scale) would appear in front of Arecleoch (smaller in scale) and the natural perspective of closer objects appearing larger in scale reduces the contrasting scale that would occur if viewed side by side for instance:
- The proposed Development turbines appear similar in scale to the easternmost turbines of Kilgallioch which also appear in front of Arecleoch Windfarm in this view;
- The interlinking swathes of forestry is an underlying large scale landscape element that visually connects these windfarm sites and provides a unity of landcover familiar to the existing windfarm developments in this area: and
- The arrangement of the proposed Development turbines appears as an evenly spaced layout from this location that appears to sit neatly against the existing Arecleoch turbines which the proposed Development is designed to extend.

The magnitude of change for the proposed Development is considered to be Medium-Low.

Significance of effect

The effect of the proposed Development at this viewpoint is considered to be Not Significant. The proposed Development would appear to increase the influence of windfarm development through the introduction of further windfarm turbines in front of the existing Arecleoch Windfarm, slightly extending the spread of development. However, wind energy development is familiar within the panoramic views from this location and the proposed Development would be viewed in the backdrop of closer and much more widespread windfarm development.

Cumulative assessment

Cumulative assessment (consented sites)

From this viewpoint the Chirmorie Windfarm will appear within the context of Kilgallioch and Arecleoch Windfarms, at a turbine scale between these two existing developments and in doing will coalesce the existing developments into a more consistent spread which reduces in scale with distance. Only small blade tips of Stranoch 1 will be visible in the backdrop to the Kilgallioch Windfarm.

As described for the assessment against the existing baseline, the proposed Development would intensify the overall influence of wind turbines in the distant view and would extend the overall spread of turbines to the east. The addition of Chirmorie in this scenario reduces the level of scale contrast with the existing windfarm view as Chirmorie serves to bridge the scale difference seen between Kilgallioch and Arecleoch. When considering the addition of the proposed Development to the consented situation, the scale of change predicted for the proposed Development against the existing baseline would still broadly apply to this scenario. The cumulative magnitude of change is therefore considered to be Medium-Low resulting in a Not Significant cumulative effect.

Cumulative assessment (application sites)

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would be slightly more visible than Stranoch 1 with one of its turbines appearing between Craig Airie Fell and Benbrake Hill. The scale of change predicted for the proposed Development against the consented scenario, however, would still broadly apply and the cumulative magnitude of change is therefore considered to be Medium-Low resulting in a Not Significant cumulative effect in the application scenario.

Table 7.30: Viewpoint 17 assessment

7.7.4.13 Viewpoint 20 Merrick

Baseline conditions

Viewpoint description

The viewpoint is located at the summit of Merrick which lies central to the Galloway Forest Park and is a key focal point in the area. At 843m, the summit is the highest hill in the Southern Uplands and is a popular destination for hillwalkers with easy access via the Glen Trool visitor car park and well established paths that follow Buchan Burn to Culsharg Bothy before climbing steeply up to the summit of Benyellary and then onto the Merrick summit after crossing the Neive of the Spit. The existing view is panoramic, long distance and takes in a 360 degree 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 including Ailsa Craig. 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.

The skyline to the west, in the direction of the proposed Development has a broadly plateau appearance with the undulations combining in this view to result in few identifiable topographical features in the view. Beneraird which lies behind the proposed Development Site, 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 landuse 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.

Surrounding windfarm development in the area is a key feature of the distant surrounding landscape. The key cumulative developments within this context are extensive and includes: Arecleoch, Kilgallioch, Knocknain Farm, Mark Hill, Glen App and Balmurrie Fell are visible across the forested moorland to the west; Assel Valley and hadyard Hill to the north west; and Dersalloch and Windy Standard to the north.

Receptor type	Value	Susceptibility	Sensitivity		
Walkers	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. Value is considered to be 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. Whilst the existing wind turbines are a recognisable feature in the view, the influence of this existing cumulative baseline on susceptibility is limited due to its distance from the summit. However, a key factor is that the proposed Development is within the same context as the existing development and so not an unfamiliar feature in the distant view. Susceptibility is considered to be High-Medium.	High		
		der construction cumulative sites)			
Description of ch	ange				
The propose viewpoint;	ed Development turbines wou	uld be visible at approximately 23.3 km to the nearest turbine west	of the		
• Visibility of a	all 13 of the proposed Develo	pment turbines with the bottom of towers sitting within Arecleoch f	orest;		
Visibility of c	other infrastructure would be	restricted by Arecleoch forest; and			
	 The proposed Development turbines theoretically occupy 8 degrees of the view only adding 1 degree to the 12 degrees currently occupied by the existing Arecleoch Windfarm. 				
Magnitude of cl	nange				
Factors that incre	ease the magnitude of chang	e are:			
 The proposed Development would appear to intensify the influence of wind energy development in the view west, introducing further windfarm development into the plateau moorland and forestry with windfarm landscape; 					
• The propose	The proposed Development turbines appear closer to the viewpoint than existing windfarms; and				

The proposed Development is larger in scale than existing wind turbines in the view and this larger scale is evident in contrast to the closer Mark Hill Windfarm and the Arecleoch wind turbines that the proposed Development would appear to sit in front of from this view ...

Factors that decrease the magnitude of change are:

- The large scale of the underlying upland plateau moorland and forestry landscape in views towards the proposed Development and within the surrounding landscape provides a large scale surrounding landscape context to the proposed Development:
- The simple moorland and forestry landcover is extensive to the west appearing draped across a subtly undulating upland landscape accentuating its expansive scale from this elevated viewpoint;
- The proposed Development would have a clear association with the windfarm influenced landscape in the upland part of this view;
- The remoteness experienced within the immediate context of the viewpoint and within the Merrick range (which this • location represents a worst case view) would be relatively unaffected by the proposed Development, given that it would be located within the immediate context of other windfarm development that forms an existing collection of man made features at similar distance to the west; and
- The proposed Development (larger in scale) would appear in front of Arecleoch (smaller in scale) and the natural perspective of closer objects appearing larger in scale reduces the contrasting scale that would occur if viewed side by side for instance;
- The arrangement of the proposed Development turbines appears as an evenly spaced layout from this location that appears to sit neatly against the existing Arecleoch turbines which the proposed Development is designed to extend.

The magnitude of change for the proposed Development is considered to be Low.

Significance of effect

The effect of the proposed Development at this viewpoint is considered to be Not Significant. Wind energy development is not unfamiliar within the panoramic views from this location, the proposed Development would appear to slightly increase the influence of windfarm development through the introduction of further windfarm turbines in front of the existing Arecleoch Windfarm, however this additional influence is contained to one part of this panorama, and the effect is reduced by distance resulting in the low magnitude of change that the proposed Development would cause.

Cumulative assessment

Cumulative assessment (consented sites)

Key cumulative schemes in the consented scenario are the consented Chirmorie and Stranoch 1 Windfarms. From this viewpoint these windfarms will bridge the gap between Arecleoch and Kilgallioch creating a more coalesced spread of turbine development across the plateau moorland and forestry with windfarms landscape. The proposed Development whilst intensifying the overall influence of wind turbines in the distant view, would not in itself contribute to this coalescing effect. The other consented schemes theoretically visible are distant to this location with little cumulative interaction and no potential for significant cumulative effect as a result of the proposed Development.

When considering the addition of the proposed Development to this situation, the cumulative magnitude of change is therefore considered to be Low resulting in a Not Significant effect.

Cumulative assessment (application sites)

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar influence as Stranoch 1 on the view. As for the consented scenario, the other application schemes theoretically visible are distant to this location with little cumulative interaction and no potential for significant cumulative effect as a result of the proposed Development. The scale of change predicted for the proposed Development against the consented scenario would still broadly apply and the cumulative magnitude of change is therefore considered to be Low resulting in a Not Significant cumulative effect.

Table 7.31: Viewpoint 20 assessment

7.7.5 A714 sequential route assessment

7.7.5.1 Baseline

The A714 is a key route connecting Newton Stewart and southern parts of Dumfries and Galloway with Girvan and ultimately to Avr via the A77. It crosses the plateau of largely forested upland landscapes to the west of the Galloway Forest Park and provides access to the remote core of the Galloway Forest and the Merrick hill range via the Glen Trool visitor centre. The A714 sequential route analysis (Figure 7.20a) shows the blade tip ZTV and theoretical visibility of this route.

Whilst the character of the landscape experienced by road users can be summarised as having a broadly upland forestry feel, the changes in character and visual experience along this route can be defined by the following sections:

Newton Stewart to Penninghame - immediate landscape context of rolling farmland within an open drumlin landscape with occasional broadleaved trees / woods and the well wooded riparian landscape of the Cree valley. Forestry on the horizon to the north screens existing windfarms on the forested moorland plateau from view;

Penninghame to Bargrennan - the vast majority of this section of the road is tree lined, apart from the section near Clachaneasy, trees along this section restrict views of existing windfarms. The River Cree can be seen when the road passes close to its banks;

Bargrennan to Corwar House - a forest lined section of road which has long straight sections. Existing Arecleoch Windfarm screened from view:

valley;

Barrhill to Pinwherry – low lying section of road that runs along the floor of the Duisk valley;

Pinwherry to Pinmore - section of road on steeply sloping valley sides crossing parts of the Stinchar valley; and

Pinmore to Girvan - elevated section of road with good views to the surrounding landscape of foothills and steep slopes of intersecting valleys. Focus of views from this section are to the north and the Atrshire coast.

Figure 7.20b, cumulative sequential analysis of this route, shows the theoretical visibility of cumulative windfarms considered 118. in this assessment along the A714. The graph illustrates the section of route considered (vertical axis) and the cumulative windfarms considered in the assessment (horizontal axis). Theoretical visibility is indicated as a series of vertical bands that correspond to parts of the route for each cumulative site (coloured according to status). The Figure shows that the operational Airies Farm, Arecleoch, Artfield Fell, Assel Valley, Balmurie Fell, Carscreugh, Glen App, Glenchamber, Hadyard Hill, Kilgallioch, Mark Hill, Penwhapple Windfarms are all theoretically visible to varying degree. In reality, Penwhapple Windfarm theoretical visibility near penninghame is screened from view by intervening vegetation and the theoretically visible sections of Artfield Fell, Assel Valley, Balmurie Fell, Carscreugh, Glen App, Glenchamber Windfarms north of Bargrennan are barely visible. The key windfarms visible from this road are Arecleoch, Kilgallioch, Mark Hill which can be clearly viewed from the section between Corwar House and Barrhill.

7.7.5.2 Sensitivity

This route is not nationally designated for its scenic importance and does not form part of the network of National Tourist Routes across Scotland. The route does however follow the edges of the Galloway Hills RSA to the north of Newton Stewart and passes through the South Ayrshire Scenic Area between the Duisk valley and Girvan. The value attached to views from this sequential route are considered to be Medium-High. The national speed limit applies to the majority of the A714 with some speed restrictions occurring through settled parts such as through Barrhill. The road has some long straight sections broken by sweeping curves and for the majority of road users, views of the surrounding landscapes are experienced whilst travelling at speeds of between 40 and 60 mph. The presence of existing windfarms reduces susceptibility as does the combination of speed and movement which influences the ability to focus on details of the surrounding landscape. Potential views towards the proposed Development would most often be experienced as an impression rather than a focused observation, albeit that there is already an awareness of the existing spread of development to the west of this road as a result of the Kilgallioch and Arecleoch Windfarms. Regular road users would be more susceptible to change as they would experience the same view more often and therefore become more familiar with it. The overall susceptibility of this route is considered to be Medium-Low. The combination of Medium-Low susceptibility to change and Medium-High value results in a Medium sensitivity for this route.

7.7.5.3 Magnitude of change

The magnitude of change would vary depending on the direction of travel and the level of roadside screening that limits the potential for effects to occur. Figures 7.20a&b show that proposed Development theoretical visibility is found on more sections of the route than existing windfarms. The baseline assessment describes the level of screening and intervening landscape elements that restrict views, which limits visibility of operational windfarms. This same screening limits visibility of the proposed Development from parts of the A714.

- Corwar House to Barrhill winding stretches of road with occasional views through trees and woods across the upper Duisk

- Southbound: Between Girvan and Pinmore there would be a glimpsed view of the proposed Development turbines at the elevated section of road near Laigh Letterpin. Whilst other parts of this section of road show some theoretical visibility the proposed Development would be screened by intervening trees and vegetation. Visibility of the proposed Development continues to be restricted by intervening topography and / or vegetation throughout the sections that cross the Stinchar valley up to Barrhill. Southbound road users would not experience change in the view beyond Barrhill (including within Barrhill itself) as the proposed Development would be to the rear of road users and therefore would no longer be readily apparent. The magnitude of change for this southbound road users is assessed as Negligible.
- Northbound: Visibility of the proposed Development would vary when travelling northbound depending on the level of 122 intervening localised landforms, small groups of roadside / riparian trees or forest covered horizons that intervene. Whilst theoretical visibility of the proposed Development is shown on the ZTV between Newton Stewart and Corwar House, intervening forestry or roadside trees and vegetation would obscure the proposed development from view. For these sections of route therefore no change is predicted to the view. Viewpoint 13 is located close to the entrance gate to Corwar House which has elevated and unobstructed views to the west. The visual assessment of viewpoint 13 predicts a Significant effect on road users. The viewpoint location is not particularly sensitive, although the relatively close proximity and large turbine scale is evident in this view introducing a scale of windfarm development not currently seen from the A714 as well as extending the horizontal spread of windfarm development to the east. Taking this into account the magnitude of change assessed for viewpoint 13 (Medium-High) is also considered to apply to a short section of road that includes approximately 2500m of A714 between Corwar House and Blairhall Farm. Viewpoint 5 is located on a section of the road near Blairhall Farm which has unobstructed views across the Duisk valley towards the southern edges of Barrhill. The visual assessment of viewpoint 5 predicts a Significant effect on road users. From this section of road the proposed Development would introduce further windfarm development that whilst would not diminish the scale of the valley landscape in the view, the relatively close proximity and the large scale of the proposed Development turbines is considered to cause the significant effect predicted for viewpoint 5. Taking this into account the magnitude of change assessed for viewpoint 5 (Medium-High) is also considered to apply to a section of road that includes approximately 300m of A714 north of Blairhall Farm. Viewpoint 4 is located on a section of the A714 that passes through the Barrhill settlement. Views of the proposed Development are limited from Barrhill and from viewpoint 4 by the localised topography and trees within the immediate context of the settlement. The visual assessment of viewpoint predicted a Medium - Low magnitude of change and Not Significant effect. When travelling northbound beyond the Barrhill settlement, the proposed Development would be to the rear of road users and therefore would no longer be readily apparent.
- 123. In summary, for the majority of the 47 km of A714 considered in this sequential assessment the magnitude of change is of a relatively low level. The scenic views to the east towards the Merrick range of hills, would be unaffected by the proposed Development when travelling north or southbound. Whilst theoretical visibility is shown to extend across much of this route, in reality, actual visibility is limited to several short sections where visibility of the proposed Development is often restricted by intervening localised topography, roadside trees or forestry blocks. The longest and stretch of unobstructed visibility is between Corwar House and Barrhill when travelling northbound although this unobstructed visibility is not continuous and varies in levels of visibility depending on road elevation and the screening potential of intervening forest screening on the horizon relative to the road elevation. Approximately 3 km of this section would experience a Medium - High magnitude of change in views to the north west when travelling northbound. When considered across the whole route, this level of effect is isolated to a relatively short section of road, it is therefore of short duration, the effect is experienced within the context and similar extent of route as the existing windfarms in the area and is only affected when travelling northbound. Taking all of this into account, the sequential magnitude of change is considered to be Medium.

7.7.5.4 Significance of effect

Whilst the visual effect of the proposed Development on the A714 is considered to be significant for the short section of route between Corwar House and Barrhill, the sequential magnitude of change is not considered to be of a level that would result in a significant sequential effect for this route. This is due to the limited amount of extent of actual visibility beyond or through the substantial level of roadside trees and forestry that intervene in views, the short duration of the significantly affected and close proximity section of route and the level of additional influence that the proposed Development would introduce to the sequential experience of the route within the context of the existing windfarm developments.

7.7.5.5 Cumulative assessment

7.7.5.5.1 Consented scenario

- schemes share a similar pattern of theoretical visibility from parts of the A714 as the existing windfarms and proposed development. Following on from the baseline and assessment described previously for this route, cumulative effects will be limited to the section of A714 between Corwar House and Barrhill, where the consented schemes will be viewed in combination with the existing windfarms and the proposed Development. From much of this section of A714. Chirmorie will appear to sit across and in front of the southern half of the Arecleoch Windfarm extending the horizontal spread of development to the south of Arecleoch and around the context of Chirmorie Hill. The Chirmorie turbines will contrast in scale with the Arecleoch turbines. Although the Chirmorie turbines will encroach on the Kilgallioch layout a small gap will be retained between these developments in this view. The visible Stranoch 1 turbines will add further turbines to the southern part of the Chirmorie spread of turbines, as they appear in this view.
- The proposed Development would further increase the spread of turbines in views west extending Arecleoch to the north and would strongly contrast with the smaller scale Arecleoch turbines. The addition of Chirmorie in this scenario reduces the level of scale contrast with the existing windfarm view as Chirmorie serves to bridge the scale difference seen between Arecleoch and the proposed Development. The increased level of windfarm development overall however creates a more complex scene with multiple turbine heights and scales, an effect which the proposed Development intensifies. On balance, when considering the addition of the proposed Development to the consented situation, the scale of change predicted for the proposed Development against the existing baseline would still broadly apply to this scenario resulting in a localised Medium-High cumulative magnitude of change for the same 3 km section described above. For other sections of the 47 km of A714 considered in this sequential assessment the magnitude of change is of a relatively low level.
- As for the assessment against the baseline windfarm context, this level of change is isolated to a relatively short section of road, it is therefore of short duration, the effect is experienced within the context and similar extent of route as the existing windfarms in the area and is only affected when travelling northbound. The cumulative sequential magnitude of change is therefore considered to be Medium resulting in a Not Significant cumulative sequential effect.

7.7.5.5.2 Application scenario

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar 128 influence as Stranoch 1 on the view. The scale of change predicted for the proposed Development against the consented scenario would therefore still broadly apply and the cumulative sequential magnitude of change is therefore considered to be Medium resulting in a Not Significant cumulative sequential effect.

7.7.6 Southern Upland Way (SUW) sequential route assessment

7.7.6.1 Baseline

- The SUW is a long distance recreational route that runs between Portpatrick on the Rhins peninsula on the south west coast of Scotland to Cockburnspath on the east coast of Scotland. The track is well known for walking and cycling and is approximately 344 km in length.
- The section of this long route that crosses the study area lies approximately between Portpatrick on the Rhins peninsula and Culmark Hill to the east (See Figure 7.6). The ZTV on Figures 7.15 and 7.21a shows patches of theoretical visibility along the section of this route between Glen Trool and New Luce and again on the Rhins Penninsula. It is considered that on the Rhins Penninsula there is no potential for significant effects due to distance and cumulative baseline context and the sequential assessment of this route is therefore focussed on the section between Glen Trool and New Luce.
- The view from the SUW varies due to differing landscape context and surrounding characteristics. The part of the SUW 131. considered in this assessment can be split into clearly defined sections as follows:

Glen Trool to Bargrennan - this section of the route is well wooded and the vast majority of views are inward looking and intimate in nature with a focus on Glen Trool and the Water of Trool including the wooded banks of the scenic Loch Trool;

Bargrennan to Knowe on the B7027 - this section of the route has an open character which at times is elevated where it crosses the Hill of Ochiltree offering views across the broad plateau of moorland and forestry, to the Galloway Hills and Merrick range to the east and towards the existing windfarms in the area;

Key cumulative schemes in the consented scenario are the consented Chirmorie and Stranoch 1 Windfarms. Both of these

Knowe to Craig Airie Fell – this section of the SUW is predominantly forest covered with breaks in the forestry cover or felled areas offering a view out across the extensive plateau of moorland and forestry in which this section of SUW is located within;

Craig Airie Fell to Purgatory Burn - the section between Craig Airie Fell and the crossing with Purgatory Burn are a continuation of the same forest dominated character as the previous sections, varying in terms of the availability of views, dependant on the level of forest cover; and

Purgatory Burn to New Luce - this section crosses undulating moorland terrain and is generally open in character.

- Whilst these sections are described as travelling east to west along the route, it is acknowledged that walkers would experience views in multiple directions and would not be limited to their direction of travel.
- Figure 7.21b, cumulative sequential analysis of this route, shows the theoretical visibility of cumulative windfarms considered in this assessment along the SUW. The graph illustrates the section of route considered (vertical axis) and the cumulative windfarms considered in the assessment (horizontal axis). Theoretical visibility is indicated as a series of vertical bands that correspond to parts of the route for each cumulative site (coloured according to status). The Figure shows that the operational Airies Farm, Arecleoch, Artfield Fell, Assel Valley, Balmurie Fell, Carscreugh, Glen App, Glenchamber, Hadyard Hill, Kilgallioch, Mark Hill, Penwhapple Windfarms are all theoretically visible to varying degree. Kilgallioch, Arecleoch, and Mark Hill are the key visible windfarms in the observer's view towards the proposed Development Site to the north and Artfield Fell, Airies Farm, Balmurie Fell, Glenchamber and Carscreugh are the key windfarms that appear in the successive view to the south.

7.7.6.2 Sensitivity

- The SUW is not located within any national scenic designations. The eastern part of this route within the study area crosses the Galloway Hills RSA and the western end of the route is within the Rhins peninsula RSA. The SUW is also considered to have high value due to its local importance as a key connecting recreational route across the Galloway Hills more generally and its connection with other upland landscapes across southern Scotland.
- Recreational walkers are likely to be focussed on their surroundings thereby increasing susceptibility, however, existing wind 135 turbine developments visible from this route (particularly Kilgallioch, Airies, Balmurrie Fell, Glenchamber and Artfield Fell Windfarms) moderate susceptibility as windfarm development is not an unfamiliar characteristic of the view. On balance, the susceptibility of this route is considered to be Medium. The combination of Medium susceptibility to change and High value results in a Medium - High sensitivity for this route.

7.7.6.3 Magnitude of change

- For the section of the route between Glen Trool and Bargrennan visibility of the proposed Development is limited and where visible is restricted by intervening forestry in the local area. From the section of route between Bargrennan and Knowe, viewpoint 17 is located on the Hill of Ochiltree which due to its elevation is considered to be a worst case view for this section of SUW. The visual assessment of viewpoint 17 predicts a Not Significant effect on walkers. The proposed Development would appear to increase the influence of windfarm development through the introduction of further windfarm turbines in front of the existing Arecleoch Windfarm, slightly extending the spread of development. However, wind energy development is familiar within the panoramic views from this location and the proposed Development would be viewed in the backdrop of closer and much more widespread windfarm development.
- Between Knowe and New Luce, there are lapses in time between appearances of the distant windfarms in this view because 137. walkers move slowly and there are large distances between the locations with views of each distant windfarm. However, Kilgallioch due to its closer proximity is a more constant part of the view from this section of route, particularly where the SUW passes in close proximity to the Kilgallioch turbines. Sequentially this means that windfarms are common features both in the foreground and in distant views to the north and in the mid to distant backdrop to the south. When considering the proposed Development from this section of SUW, the existing view of windfarms would be intensified in the distant backdrop to the north but the degree of visual change would be limited by the existing level of existing development in this distant backdrop (Arecleoch and Mark Hill) and in the foreground and intervening plateau (Kilgallioch). Taking all of this into account, the sequential magnitude of change is considered to be Low.

7.7.6.4 Significance of effect

The effect of the proposed Development at this viewpoint is considered to be Not Significant. Wind energy development is not unfamiliar within the available views of the surrounding landscape from this route and whilst the proposed Development would

7.7.6.5 Cumulative assessment

7.7.6.5.1 Consented scenario

Cumulative schemes in the consented scenario that will add to the backdrop of windfarms from this section of SUW are the consented Chirmorie, Stranoch 1 and Gass Windfarms. The greater intensity of windfarm development from the SUW will increase the intensity of the effect experienced in forestry gaps or open areas where views of the surrounding windfarm context is available. When considering the proposed Development in this scenario, the increased level of windfarm development creates a more complex scene with further multiple turbine heights and scales, an effect which the proposed Development intensifies. On balance however, when considering the addition of the proposed Development to the consented situation, the degree of change predicted for the proposed Development against the existing baseline would still broadly apply to this scenario. The cumulative sequential magnitude of change is therefore considered to be Low resulting in a Not Significant sequential cumulative effect.

7.7.6.5.2 Application scenario

The Stranoch 2 application is a replacement to the consented Stranoch 1 Windfarm and if consented would have a similar influence as Stranoch 1 on the view. The scale of change predicted for the proposed Development against the consented scenario would therefore still broadly apply and the cumulative sequential magnitude of change is therefore considered to be Low resulting in a Not Significant cumulative sequential effect

7.8 Summary and statement of significance

7.8.1 Summary of effects

The LVIA has assessed the potential for significant landscape and visual effects over a 45 km study area focussing the detailed assessment within a 20 km area. The proposed Development is located on an upland landscape and the scale and characteristics of the upland landscape are considered suitable for windfarm development. The areas of forestry required to be removed in the construction and operation of the proposed Development would be very limited in relation to the total area of these landscape elements on the Site and elsewhere within the Plateau Moorlands with Forestry and Windfarms (18c) LCT. The extent of removal would not therefore constitute a redefinition of forestry as a component element of the Site or the wider landscape and the physical landscape effects of the proposed Development on these landscape elements are considered to be not significant.

7.8.1.1 Landscape effects

The LVIA has identified significant effects for localised parts of the landscape character areas that cover the Site and its immediate surroundings. Significant effects within the Plateau Moorlands with Forestry and Windfarms (18c) LCT would extend to around 3 km to the north and west as far as Pinwherry and Ford Hills which contain the effect from the Stinchar Valley; 5 km to the south, across the minor road to Luce from Barrhill and as far as the existing Kilgallioch Windfarm; 2-3 km to the north east as far the Duisk Valley and 5 km to the east defined by the west slopes of the upper Duisk Valley. Significant effects within the Intimate Pastoral Valley (13) LCT would be restricted to the Duisk Valley, effects within the Stinchar Valley assessed as negligible and Not Significant. There are a large number of agreed viewpoints within the Intimate pastoral Valley LCT (10 of the 22 viewpoints considered in the LVIA). Of these 10 viewpoints, 7 are located within the Duisk valley with 4 of these considered to experience significant visual effects. Of the 3 viewpoints within the Stinchar valley part of this LCT the Knockdolian viewpoint is considered to experience significant effects and whilst this viewpoint overlooks the Stinchar valley it sits above the valley floor and is not representative of effects within the smaller scale of the valley itself. Notwithstanding the differences between visual and landscape effects, the results of the viewpoint assessment does tend to support the findings of the landscape assessment of this LCT. Significant effects within the Glen Tig (14) LCT would be restricted to the eastern end of the glen (limited to the area immediately surrounded by the Plateau Moorlands with Forestry and Windfarms (18c) LCT. Such significant effects would arise largely due to the close proximity of the proposed Development but also take account of

the interaction with the visibility and potential cumulative effects with other existing windfarms within this area, in particular Arecleoch, Mark Hill and Kilgallioch Windfarms. Significant effects are also found for Plateau Moorlands with Forestry and Windfarms (18c) LCT when the proposed Development is introduced into the consented and application cumulative scenarios.

At greater distances, the effect on landscape character would not be significant due to the level of screening from intervening landform such as upland ridgelines and interconnecting hills that contain views of the Site from the surrounding landscape, the large scale Galloway Hills and Merrick range to the east and screening by other landscape elements such as the large degree of commercial forest in the immediate and wider surrounding landscape context as well as shelterbelt and woodland planting within surrounding valleys and on valley sides. Significant effects within the South Ayrshire SLA are limited to the area within the Duisk Valley of the Intimate Pastoral Valley (13) LCT and the eastern area of Glen Tig (14) LCT. It is considered that other designations in the study area have no potential for significant effects including areas of RSA, SLA, NSA and GDL. It is also considered that the Galloway Forest Park, Merrick Wild Land Area or Dark Sky Park have no potential for significant effects.

7.8.1.2 Visual effects

The assessment of effects on views is informed by a series of 22 viewpoints that were selected, in agreement with SNH and SAC, to represent visibility from a range of receptors and distances throughout the study area. The visual assessment has found significant effects at seven locations, as follows:

For the operational scenario, there was found to be a significant effect for the following viewpoints; Viewpoint 01 - Chirmorie Cairn; Viewpoint 02 - SA61 Core Path / Craigneil Road; Viewpoint 03 - Minor road to the south of Barrhill; Viewpoint 05 - A714 road near Blairhall Farm; Viewpoint 07 - Minor road south of Pinwherry; Viewpoint 13 - A714 road near Corwar House; and Viewpoint 14 - Knockdolian.

For the cumulative scenarios, significant cumulative effects are limited to Viewpoint 13 - A714 road near Corwar House, which would be experienced in both the consented and application scenarios.

- ^{145.} In addition to the viewpoints, potential effects for a large number of settlements and routes through the area were assessed. Of the settlements assessed, none were assessed as having significant visual effects. Of the routes assessed in detail, the A714 would have significant effects on a localised section of the route although significant sequential effects were not predicted. The Southern Upland Way would not experience significant sequential effects.
- The RVAA (Technical Appendix 7.2) identifies no residential properties within 1 km. Of the 4 residential properties within the study area 1 of these (Farden Farm) is shown to have no visibility of the proposed Development on Figure TA 7.2-1. The assessment of the other 3 properties within the study area (Kilrenzie Farm, Wheeb Farm and Glenour) is summarised as follows. A High magnitude of change has been predicted for the Kilrenzie Farm and Wheeb Farm properties in the detailed assessment sheets as part of the stage 3 RVAA and both are therefore also considered for step 4 Residential Visual Amenity Threshold. The conclusions for these assessments, although predicting a High level of change and significant visual effect for both properties, determines that the visual impact at neither property is at a sufficiently high enough level of change for an overwhelming or overbearing effect on visual amenity to occur. A Medium - Low magnitude of change has been predicted for the Glenour property resulting in a Not Significant effect.
- Significant visual effects (including viewpoints and visual receptors) as a result of the proposed Development, but also including cumulative scenarios for consented and application schemes, are largely found to occur to the north and east of the proposed Development. The majority of significant visual effects would occur within approximately 5 km but do extend to around 7 km along the A714 and from the elevated landform of Knockdolian.

7.8.1.3 Lighting effects

The visual effects of turbine lighting were considered from 4 agreed viewpoints. Of these 4 locations, significant effects were identified at all 4 locations for the 2000cd intensity scenario and not significant at all 4 locations for the 200cd intensity scenario. Road users at Viewpoint A are also predicted to experience not significant effects for the 2000cd scenario.

7.8.1.4 Relationship of the proposed Development to cumulative context

As described in section 7.6 of Technical Appendix 7.1 the cumulative assessment set out in the LVIA assesses only the additional landscape and visual effects of the proposed Development in the context of different baseline scenarios that make assumptions about existing and proposed windfarms. It does not present an assessment of the combined effects of all of the relevant windfarms on the landscape and/ or visual receptors.

- ^{150.} Arecleoch, Killgallioch and Mark Hill are the key Windfarms within close context of the proposed Development with Arecleoch and Kilgallioch with the larger of the footprints in the area. Airies Farm, Balmurrie Fell, Artfield Fell and Glenchamber to the south of these larger windfarms increases the spread of windfarm development south across the large scale upland plateau. There is currently separation between these windfarms and whilst windfarms are considered to be a key feature of the landscape it is considered that the landscape is currently a 'landscape with windfarms'. Windfarms are a recognised characteristic in SALWCS which defines the plateau LCT as 'Plateau Moorlands with Forestry and Windfarms' (18c). The full extent of the upland plateau landscape context on which these large windfarms are located can be appreciated from elevated locations within the wider landscape such as the Galloway Hills to the east or plateau edge hills such as Benneraird or Braid Fell.
- The separation between the windfarms on the large scale upland plateau will be reduced following the introduction of the 151. consented Chirmorie and Stranoch Windfarms. It is considered that the level of coalescing between these consented and existing windfarm developments will create a landscape where windfarms become a prevailing characteristic of the landscape. This will result in the redefining of the central area of the upland plateau (within the overall footprint of Kilgallioch, Stranoch, Chirmorie and existing Arecleoch) as a 'windfarm landscape character type'. The introduction of the proposed Development within close context to the existing Arecleoch Windfarm would avoid any potential for encroachment into the most clearly defined 'spaces', particularly between Kildallioch and Arecleoch. The 'space' between Arecleoch and Mark Hill would be reduced but the Duisk Valley would maintain a spatial and visual separation between these windfarms which would not often be seen together from the valley landscapes in the area. Whilst the proposed Development would extend the overall footprint of windfarm development in this area it would not in itself contribute to the coalescence of the existing windfarm developments in the area, which will occur with or without the proposed Development. Notwithstanding the outcome of the consented scenario, it is OPEN's professional opinion that the proposed Development in itself would not alter the current perception of a 'landscape with windfarms' characteristic within the immediate landscape and visual context of the Site.
- Differences in scale between the proposed Development and the existing Arecleoch and Kilgallioch turbines would often be 152 apparent in views from the surrounding landscape, with the proposed Development appearing in the foreground of these views for the vast majority of cases. The contrast in scale would be notable although the foreground position of the proposed Development in views from the east would aid the viewers perception of turbine scale difference through the natural perspective of closer turbines appearing larger in size and so avoiding distortions of scale. This same natural perspective of larger turbines in the foreground also occurs (to a greater extent) within the existing windfarms in the area due to their large layout footprints and distances between foreground / background turbines (Kilgallioch and Arecleoch in particular) and the contrast in turbine scale in views of windfarms in the area is therefore a familiar feature of the windfarm characteristic of this Plateau landscape.

7.8.2 Statement of significance

- The assessment has identified that the significant landscape and visual effects of the proposed Development would be contained within a relatively localised area around the Site when compared with other windfarm developments of this scale. Significant landscape character effects are assessed to occur within a maximum of 3 km from the nearest turbine to the north and north west, increasing to 5 km to the north and east. Significant visual effects have been identified as occurring out to 7 km.
- In landscape and visual terms, it is considered that there is scope for windfarm development within the large scale upland landscape of the Plateau Moorlands with Forestry and Windfarms (18c) LCT. Whilst significant effects extend to the nearby Duisk Valley and parts of Glen Tig, the proposed Development would appear set back from the edges of this upland area when viewed from the surrounding valleys and glens and would add to an existing pattern of development (namely the Arecleoch, Kilgallioch and Mark Hill Windfarms) experienced from the immediately surrounding landscape and visual resource. Whilst the proposed Development would extend the overall footprint of windfarm development in this area it would not in itself contribute to the coalescence of the existing or consented windfarms in the area. It is considered that the landscape is capable of accommodating the proposed Development, and that significant effects on the existing landscape character or visual amenity are relatively contained.

		One set i se al l'an des second				
Receptor	Receptor sensitivity	Operational / under cons		Consented scenario Cumulative magnitude Significance of		
		Magnitude of change	Significance of effect	of change	cumulative effect	
Physical landscape effects						
Commercial Forestry	Medium - Low	Low	Not Significant	No Change	No Effect	
Landscape character effects						
Plateau Moorlands with Forestry & Windfarms (18c)	Medium	Medium – High (localised)	Significant	Medium – High (localised)	Significant	
		Medium (wider area)	Not Significant	Medium (wider area)	Not Significant	
Intimate Pastoral Valley (13)	Medium – High	Medium – High (Duisk Valley)	Significant	Medium (Duisk Valley)	- Not Significant	
		Negligible (Stinchar Valley)	Not Significant	Negligible (Stinchar Valley)		
Upland Glens (14), Glen Tig	Medium – High	Medium (localised)	Significant	Negligible	Not Significant	
		Medium (wider area)	Not Significant			
Coastal Foothills (17a)	Medium	Medium	Not Significant	Medium	Not Significant	
Landscape designations						
South Ayrshire Scenic Area	Medium – High	Medium – High (localised)	Significant	Medium	Not Significant	
		Negligible – Medium (wider area)	Not Significant			
Visual effects						
Viewpoint 01 Chirmorie Cairn	Medium – Low	High	Significant	Medium	Not Significant	
Viewpoint 02 SA61 Core Path / Craigneil Road	Medium	Medium – High	Significant	Negligible	Not Significant	
Viewpoint 03 Minor road to the south of Barrhill	Medium	Medium – High	Significant	Medium	Not Significant	
Viewpoint 04 Wallace Terrace, Barrhill	High (settlement)		Net Circlificant	No Change	No Effect	
Viewpoint 04 Wallace Terrace, Barrhill	Medium (road user)	- Medium - Low	Not Significant			
Viewpoint 05 A714 road near Blairhall Farm	Medium – High	Medium – High	Significant	No Change	No Effect	
Viewpoint 06 Knockytinnal	Medium – Low	Medium – High	Not Significant	Medium	Not Significant	
Viewpoint 07 Minor road south of Pinwherry	Medium – High	Medium	Significant	No Change	No Effect	
Viewpoint 08 Minor road Glen Tig	Medium – High	Medium – Low	Not Significant	No Change	No Effect	
Viewpoint 09 Beneraird	Medium	Medium	Not Significant	Medium	Not Significant	
· · · · · · · · · · · · · · · · · · ·						

Application scenario Cumulative magnitude of change	Significance of cumulative effect		
No Change	No Effect		
Medium – High (localised)	Significant		
Medium (wider area)	Not Significant		
Medium (Duisk Valley)	Not Significant		
Negligible (Stinchar Valley)	Not Significant		
Negligible	Not Significant		
Medium	Not Significant		
Medium	Not Significant		
Medium	Not Significant		
No Change	No Effect		
Medium	Not Significant		
No Change	No Effect		
No Change	No Effect		
Medium	Not Significant		
No Change	No Effect		
No Change	No Effect		
Medium	Not Significant		

Viewpoint 13	A714 road near Corwar House	Medium	Medium	Significant	Medium	Significant	Medium	Significant
Viewpoint 14	Knockdolian	Medium – High	Medium	Significant	Negligible	Not Significant	No Change	No Effect
Viewpoint 17	SUW, Hill of Ochiltree	Medium	Medium – Low	Not Significant	Medium – Low	Not Significant	Medium – Low	Not Significant
Viewpoint 20	The Merrick	High	Low	Not Significant	Low	Not Significant	Low	Not Significant
Sequential assessment								
A714 sequential	I route assessment	Medium	Medium	Not Significant	Medium	Not Significant	Medium	Not Significant
SUW sequential	I route assessment	Medium - High	Low	Not Significant	Low	Not Significant	Low	Not Significant

Table 7.32: Summary of effects

7.9 References

Carys Swanwick Department of Landscape University of Sheffield and Land Use Consultants for The Countryside Agency and Scottish Natural Heritage (2002). Landscape Character Assessment Guidance for England and Scotland.

Civil Aviation Authority (2017). Safety & Airspace Regulation Group Policy Statement: Lighting of Onshore Wind Turbine Generators in the United Kingdom with a maximum blade tip height at or in excess of 150m Above Ground Level.

Countryside Agency and Scottish Natural Heritage (2004). Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity.

Dumfries and Galloway Council (2018). LDP Draft Supplementary Guidance: Wind Energy Proposed Development: Proposed Development Management Consideration.

Dumfries and Galloway Council (June 2017). LDP SPG Wind Energy Development Landscape Capacity Study.

Dumfries and Galloway Council (2015). LDP Supplementary Guidance: *Part 1 Wind Energy Proposed Development: Proposed Development Management Consideration*, Adopted 6th March 2015.

Dumfries and Galloway Council (2014a). LDP Technical Paper: Settlement Hierarchy.

Dumfries and Galloway Council (2014b). Dumfries & Galloway Local Proposed Development Plan (LDP).

Dumfries and Galloway Council (2014c). LDP Technical Paper: Wind Energy Interim Spatial Framework Maps.

Landscape Institute with the Institute of Environmental Management and Assessment (2013). *Guidelines for Landscape and Visual Impact Assessment*, Third Edition (GLVIA3): Routledge.

Landscape Institute (2011). Advice Note 01/11, Photography and Photomontage in Landscape and Visual Impact Assessment.

North Ayrshire Council (June 2013). Supplementary Landscape Wind Capacity Study.

Scottish Government (June 2014). *National Planning Framework* (NPF3), Scottish Government: https://www.gov.scot/publications/national-planning-framework-3/

Scottish Government (2014). Scottish Planning Policy (SPP): https://www.gov.scot/publications/scottish-planning-policy/

Scottish Natural Heritage (2019). National Landscape Character Assessment.

Scottish Natural Heritage (2017a). Siting and Designing Windfarms in the Landscape, Version 3.

Scottish Natural Heritage (2017b). Visual Representation of Windfarms, Version 2.2.

Scottish Natural Heritage (2017c). Assessing the Impacts on Wild Land Areas - Technical Guidance, Consultation Draft.

Scottish Natural Heritage (June 2014). Map of Wild Land Areas.

Scottish Natural Heritage (March 2012). Assessing the Cumulative Impact of Onshore Wind Energy Proposed Developments.

Scottish Natural Heritage (1998a). Dumfries and Galloway Landscape Assessment, SNH Review No 94.

Scottish Natural Heritage (1998b). Ayrshire Landscape Assessment, SNH Review No 111.

South Ayrshire Council (August 2018). Landscape Wind Capacity Study.

South Ayrshire Council (2016). LDP Supplementary Guidance: Dark Sky Lighting.

South Ayrshire Council (2015). LDP Supplementary Guidance: Wind Energy.

South Ayrshire Council (2014). South Ayrshire Local Development Plan (LDP).

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

The Air Navigation Order 2016 (SI 2016 No.765).